

### **2005 FRACP Remembered MCQ Exam**

**Q1.** A new oral formulation is compared to the intravenous formulation for a medication. The following pharmacokinetic parameters were recorded:

| Parameter | Oral (100mg) | IV (50mg) |
|-----------|--------------|-----------|
| Cmax      | 5            | 12        |
| Tmax      | 2            | 0.25      |
| AUC       | 45           | 25        |
| Half-life | 4            | 3.8       |

The oral bioavailability of the medication is:

- A. 12.5%
- B. 40%
- C. 50%
- D. 90%
- E. 96%

**Q2.** The dominant stimulus for gastric acid secretion in humans is:

- A. Acetylcholine
- B. Gastrin
- C. Histamine
- D. Calcium
- E. Somatostatin

**Q3.** Which virus is most commonly associated with cervical carcinoma?

- A. Epstein-Barr virus
- B. Cytomegalovirus
- C. Human Papilloma Virus
- D. HIV
- E. Herpes Simplex Virus

**Q4.** Which joint is most commonly involved in diabetic arthropathy?

- A. Knee
- B. Ankle
- C. 1st Metatarsophalangeal joint
- D. Midfoot joint
- E. Elbow

**Q5.** In a patient with IgA nephropathy with a Creatinine in the normal range, what is the best predictor of end stage renal disease?

- A. Urine red cell count
- B. Serum IgA level
- C. Creatinine Clearance
- D. Hypertension
- E. Degree of proteinuria

**Q6.** A new diagnostic test for certain disease has been evaluated. Test has the sensitivity of 90% and specificity of 95%. Total population is 100000. what is the best estimate of positive predictive value of the new test?

- A. 0.01%
- B. 0.1%
- C. 1%
- D. 0.5%
- E. 5%

**Q7.** What is the mechanism by which prednisolone cause osteoporosis?

- A. inhibition of osteoblast formation
- B. increasing osteoclastic activity
- C. increases osteoblast formation
- D. Decreases osteoclast formation
- E. Decreases vit D production

**Q8.** What is the mechanism of action of Zanamivir?

- A. Neuraminidase inhibition
- B. Inhibition of protein synthesis
- C. Inhibition of cell wall synthesis
- D. mRNA binder
- E. Reverse transcriptase inhibition

**Q9.** Patient presented with aortic regurgitation. His cardiac index was 7.5 L and heart rate was 75. End diastolic volume 200ml. End systolic volume 50ml. What is the regurgitant fraction?

- A. 10%
- B. 25%
- C. 33%
- D. 50%
- E. 66%

**Q10.** Question about haemolytic anaemia( Blood picture was given showing spherocytosis)

**Q11. REPEAT QUESTION.**

Research into alpha4 integrins is being done. Based on current evidence which of the following disease processes is likely to benefit most from use of alpha 4 integrins antagonists.

- A. migraine
- B. MS
- C. Alzheimer's dementia
- D. Osteoarthritis
- E. Rheumatoid arthritis.

**Q12.**

GERIATRICS.AGING.

What is the most common change with aging in regards to muscle

- A. type1 muscle atrophy
- B. type2 muscle atrophy
- C. accumulation of lipofuscin in muscle cells
- D. atrophy of all muscle types
- E. sorry cant remember last option. Not correct option

**Q13.**

Endocrine / diabetes

A middle aged man with type 2 diabetes presents for review. Urinalysis shows +1 protein. Ur and Cr were within normal range. Background was unremarkable. BP 140/70

What is the best way to test for renal disease in this man.?

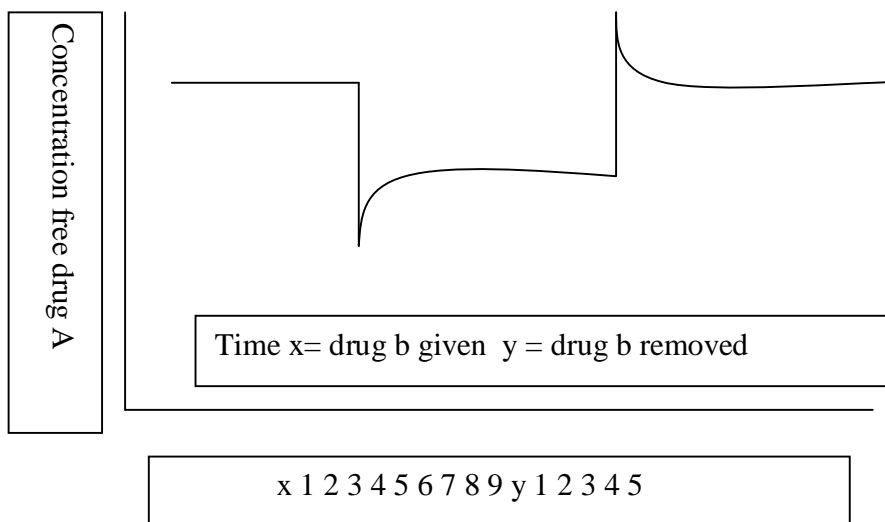
- A. spot urine albumin/creatinine ratio
- B. 24 hr urinary protein
- C. urine microscopy
- D. renal biopsy
- E. renal ultrasound

**Q14.** pharmacology question.

Graph (see below)

Drug A has a half-life of 30minutes. It is both renally excreted and metabolised in the liver. It 80% is bound to protein.

Drug B is also renally excreted and metabolised by the liver. It is also highly protein bound.



The observed interaction is most likely due to the following

- A. hepatic induction of cyp450 enzymes.
- B. Hepatic inhibition of cyp 450 enzymes
- C. Interaction secondary to protein binding displacement by drug B of drugA
- D. Increase renal clearance 2 to drug B
- E. Decrease renal clearance 2 to drug B

**Q15.** not 100% sure if this question was no 25

Which of the following is most likely to cause periportal fibrosis?

- A. PBC
- B. Autoimmune hepatitis
- C. Hep c
- D. Alcoholic hepatitis
- E. PBS

**Q16.** Man on EPO. Hb low (?) 90g/L, MCV 99, low reticulocyte count 15.

Most likely cause of anaemia:

- A. red cell aplasia
- B. non-necrotising antibodies

**Q17.** Chronic smoker, plethoric. Hb 207, MCV 70. ABG PaO<sub>2</sub> 65mmHg, PCO<sub>2</sub> 52mmHg. EPO low normal (4.9)

Most likely diagnosis is:

- A. Chronic lung disease
- B. Polycythaemia

**Q18.** Pt with abdo pain, diarrhea.

Antigliadin IgG elevated slightly

Antigliadin IgA elevated slightly

Next best investigation to confirm the diagnosis:

- A. IgA level
- B. Tissue transglutamic transferase
- C. Jejunal biopsy
- D. Improvement with gluten free diet

**Q19.** (repeat) The most likely chemo agent to cause acute respiratory distress:

- A. ATRA

**Q20A.** Most effective agent in addition to 5HT antagonist in cisplatin (delayed) emesis is:

- A. droperidol
- B. dexamethasone

**Q20B.** Oyster farmer. Cut hands. Right hand has 3<sup>rd</sup> & 4<sup>th</sup> MCP swelling with fluid drained from synovium. FBC normal, temperature normal.

Best test:

- A. rheumatoid factor
- B.
- C.
- E. PCR for viral particles
- F. Bacterial gram stain & culture

**Q20C.** In animals, the best evidence in experimental animals to prolong lifespan is:

- A. restrict caloric intake
- B. antioxidants

**Q21** What is the mechanism of action of Carbimazole?

- A. inhibits thyroid peroxidase
- B. inhibits the deiodinase enzyme
- C. inhibits thyroglobulin synthesis
- D. ?
- E. ?

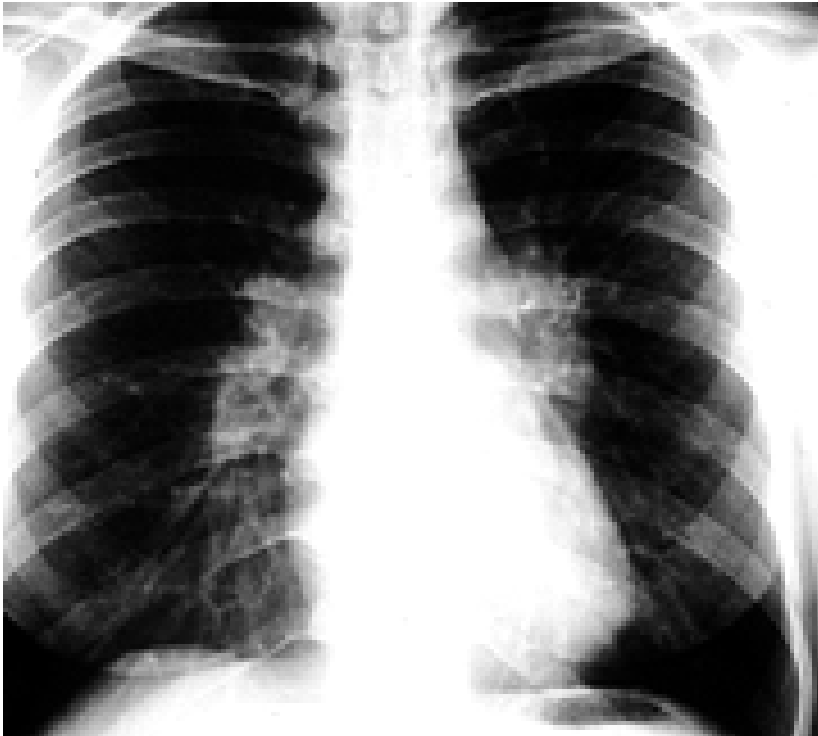
**Q22** A young man with tanned skin presents with hypercalcemia (corrected calcium – 3.1), low PTH and the following blood results:

K – 5.6

Creat – 300

PO<sub>4</sub> – 1.6

CXR shows:



What is the cause of his presentation?

- A. reduced calcium excretion by the kidney
- B. increased vitamin D production
- C. adrenal dysfunction
- D. ?
- E. ?

**Q23** Which of the following options represents the change in body fat distribution with normal aging?

|    | <u>Appendicular</u> | <u>Subcutaneous</u> | <u>Truncal</u> | <u>Visceral</u> |
|----|---------------------|---------------------|----------------|-----------------|
| A. | ↓                   | ↑                   | ↓              | ↑               |
| B. | ↑                   | ↑                   | ↓              | ↓               |
| C. | ↓                   | ↓                   | ↑              | ↑               |
| D. | ↑                   | ↓                   | ↑              | ↓               |
| E. | ↑                   | ↓                   | ↓              | ↑               |

**Q24.** The most likely reason/explanation for trigeminal neuralgia is:

- A. demyelination of nerves from a microvessel obstruction

**Q25.** Sequence from gene:

ATC/CGA?.....C/CGC  
1 23 45 6

Which of the following changes is LEAST likely to cause a stopped sequence?

- A. Change in sequence 4
- B. Change in sequence 5
- C. Change in sequence 6
- D. Change in sequence 4,5,6
- E. Change in sequence 6,7,8

**Q26.** Best predictor of mortality in a haemodialysis patient is:

- A. pre dialysis urea
- B. urea extraction ratio
- C. Elevated phosphate
- D. Elevated calcium
- E. Low Haemoglobin
- F. Hypoalbuminaemia
- G. Hypertension

**Q27.** 20 year old male with (? second episode) of pancreatitis. He has 2 1<sup>st</sup> degree relatives (brothers) with past episodes of pancreatitis. CT shown – calcified pancreas. The reason for this patient’s pancreatitis is:

- A. cystic fibrosis
- B. alcoholism
- C. haemochromatosis
- D. Hereditary pancreatitis
- E. Hyperparathyroidism

**Q28.** 20 year old male student with BMI 31. Sleep study with polysomnography. The diagnosis is:

- A. obesity hypoventilation
- B. cataplexy
- C.
- D. restless legs
- E. narcolepsy

**Q29.** Which one of the following conditions represents a contraindication to the use of Zyban?

- A. Anxiety
- B. Ischaemic heart disease
- C. Epilepsy
- D. Depression
- E. Peptic ulcer disease

**Q30.** Transfusion of which one of the following products is most likely to be cause sepsis?

- A. Whole blood
- B. Packed red blood cells
- C. Cryoprecipitate
- D. Fresh frozen plasma
- E. Platelets

**Q31.** Which of the following is the most common cause of incontinence in the elderly?

- A. urge incontinence
- B. overflow incontinence
- C. stress incontinence

**Q32.** Which of the following conditions is associated with impaired function of R proteins in the absorption of vitamin B12?

- A. Coeliac disease
- B. Gastritis
- C. Ileal resection
- D. Peptic ulcer disease
- E. Pancreatitis

**Q33.** Abnormalities in which one of the following drug-genotype combinations is most important in predicting adverse effects?

- A. Azathioprine – TMPT
- B. Cyclosporin – CYP 3A4
- C. Prednisone
- D. Cyclophosphamide – CYP 3A4
- E. Methotrexate - MTHFR

**Q34.** A 65yo man presents with progressive shortness of breath, he is a smoker. His pulmonary function tests are shown below:

FEV1 1.1L 50% predicted  
FVC 1.6L 85% predicted  
Reduced FEV1/FVC ratio  
DLCO 30% predicted

Most likely diagnosis is:

- A. Idiopathic pulmonary fibrosis
- B. Chronic bronchitis
- C. Bronchiectasis
- D. Pneumonia
- E. Emphysema

**Q35.** Aortic collagen breakdown as one ages would produce which one of the following combinations?

- A. ↓compliance, ↓aortic diameter, ↓speed of blood
- B. ↓compliance, ↑aortic diameter, ↓speed of blood
- C. ↑compliance, ↑aortic diameter, ↓speed of blood
- D. ↑compliance, ↑aortic diameter, ↑speed of blood
- E. ↓compliance, ↑aortic diameter, ↑speed of blood

**Q36.** The most important prognostic factor for the response to treatment of Hepatitis C is:

- A. Viral load
- B. Genotype
- C. Cirrhosis
- D. Male Sex

**Q37.** The characteristic findings in tumour lysis syndrome are:

|    | K | PO4 | Ca |
|----|---|-----|----|
| A. | . | .   | .  |
| B. | . | .   | .  |
| C. | . | .   | .  |
| D. |   |     |    |
| E. | . | .   | .  |

**Q38.** The best molecular description for a chimeric protein (eg: bcr-abl) is:

- A. Fusion of two separate proteins as a dimer
- B. Deletion of a gene
- C. Attachment of the 5` end of one gene to the 3` end of another

**Q39.** Efalizumab acts in psoriasis by inhibiting the adhesion molecule CD11a.

What is the best description of its mechanism of action?

- A. Prevention of leucocytes migrating into the tissue
- B. Secretion of chemokines from endothelial cells
- C. Secretion of cytokines from phagocytes
- D. Decrease in number of circulating lymphocytes

**Q40.** A 30 y.o man presented with fever, palpable purpura and general malaise. He was found to have microscopic haematuria, raised ESR and a mixed cryoglobulinaemia. He has a background history of hepatitis C. Which of the following would be the most appropriate treatment?

- A. prednisolone
- B. interferon and ribavirin
- C. hydrochloroquine
- D. lamivudin
- E. IVIG

**Q41.** Efalizumab is a monoclonal antibody against CD11a, which of the following best describes its mechanism of action?

- A. Inhibits chemokine release from the skin
- B. Prevent adhesion of lymphocytes on endothelial surface
- C. Inhibits phagocytosis by macrophages
- D. Inhibit release of cytotoxic agents from phagocytes
- E. Downregulates expression of adhesive molecules on endothelial cells

**Q42.** Which of the following combinations of features are frequently seen in tumour lysis syndrome?

|    | K   | HCO <sub>3</sub> | PO <sub>4</sub> | LDH |
|----|-----|------------------|-----------------|-----|
| A. | up  | low              | low             | up  |
| B. | up  | low              | up              | up  |
| C. | low | up               | up              | up  |
| D. | up  | low              | up              | low |
| E. | low | up               | low             | low |

**Q43.** A young man presents with microscopic hematuria (dysmorphic RBCs on microscopy) and proteinuria (approx 0.1g/24 hrs). BP 150/90. Which of the following would be the best indication for a renal biopsy in this man?

- A. haematuria
- B. proteinuria
- C. BP
- D. ?
- E. ?

**Q44.** Chimeric fusion proteins are becoming more important in researches for disease management eg bcr-abl, which of the following is its most characteristic feature? --- (sorry the answers are a bit dodgy, but the principle is there)

- A. genetic rearrangement with resultant tyrosine kinase activation
- B. disulfide bond formation
- C. prevention of activation of GTP
- D. upregulation of matrix metalloproteinase-9

**Q45.** A 67 y.o man presented with R hemiparesis. He was found to have R facial droop, and difficulty in speaking, but the content and comprehension of his speech was normal. He has 2/5 in power of R upper and lower limbs, L side was normal. There was no sensory abnormalities. Which of the following vessels is likely to be involved if it is a thromboembolic event?

- A. L middle cerebral artery
- B. L penetrating arteries
- C. L common carotid artery
- D. basilar artery
- E. L posterior communicating artery

**Q46.** Which of the following features is suggestive of a peripheral cause of a facial nerve defect?

- A. weak frontalis
- B. loss of corneal reflex
- C. loss of taste
- D. loss of sensation on the cheek
- E. weak medial rectus muscle

**Q47.** Which of the following is the most common risk factor for gout?

- A. smoking
- B. alcohol
- C. haematological malignancy
- D. high purine diet
- E. trauma

**Q48.** What is the commonest cause of traveler's diarrhoea in developing countries?

- A. Salmonella
- B. Giardia
- C. Amoebia
- D. Enterotoxigenic E. coli
- E. Campylobacter jejuni
- F. Clostridium difficile

**Q49.** Bosentan has become used frequently in the treatment of pulmonary hypertension. What is its mechanism of action?

- A. inhibit thromboxane production
- B. phosphodiesterase inhibition
- C. endothelin receptor antagonist
- D. enhance prostacyclin synthesis
- E. augments endogenous NO production

**Q50.** A patient with a past history of hypertension and dyslipidaemia - managed with Simvastatin 80mg and Hydrochlorothiazide 12.5mg. He presents to hospital with generalized myalgia and atypical chest pain. He undergoes an exercise stress test and coronary angiography, both of which are normal. Diltiazem is added for improved blood pressure control and he is discharged.

Four weeks after discharge the patient re-presents with worsening muscle aches and pains, mild weakness and dark coloured urine. The following blood tests results are obtained (Note these are approximate only - apart from the K and CK):

|             |            |
|-------------|------------|
| Sodium      | 135 mmol/L |
| Potassium   | 2.7mmol/L  |
| Chloride    | 100mmol/L  |
| Bicarbonate | 27mmol/L   |
| Urea        | 8.2mmol/L  |
| Creatinine  | 95mcmol/L  |

LFTs            mildly abnormal (mixed picture)

CK                33,480mmol/L

What is the likely explanation for the patients symptoms?

- A. Hypokalaemic myopathy
- B. Hypothyroid myopathy
- C. Statin induced myopathy
- D. Diltiazem myopathy
- E. Polymyositis

**Q51.** A 65 year old woman has a syncopal episode and sustains a scalp laceration. This is the second syncopal episode she has encountered in the last three months. She has a past history of hypertension and depression. Her current medications include: Metoprolol, a thiazide diuretic, and Amitriptyline. Her cardiovascular examination and non-invasive cardiology testing remains normal. Which of the following results on EPS testing is least likely to alter the management of this patient?

- A. Polymorphic ventricular ectopics
- B. Atrial Fibrillation at a rate of > 100bpm
- C. Significant QTc prolongation
- D. Second degree heart block while asleep
- E. Sinus bradycardia

**Q52.** Which of the following diabetic complications is likely to improve with time?

- A. Diabetic amyotrophy
- B. Gustatory sweating
- C. Postural hypotension
- D. Peripheral neuropathy
- E. ?

**Q53.** An 84 year old nursing home resident, who remains mobile but rarely goes outside, has a past history of deep venous thrombosis gastro-oesophageal reflux and a mastectomy for breast cancer. She undergoes bone mineral density testing which confirms a T score of -2.5 at vertebral bodies and -3.0 at the hip. In addition to calcium supplementation, which of the following is the most important initial treatment?

- A. Alendronate
- B. Calcitriol
- C. Vitamin D
- D. Raloxifene
- E. Oestrogen

**Q54.** Which of the following is an absolute contraindication to influenza vaccine?

- A. Anaphylaxis to eggs
- B. An injection site reaction to Pneumovax
- C. immunocompromise
- D. pregnancy
- E. ?

**Q55.** 50-year-old patient ESRD decided to under go haemodialysis. His HbsAg negative. He was immunized with 3 doses of hep B vaccine. But his serology negative for hep B antibodies.

What will be the most appropriate action you will under take?

- A. Immunize hep b vaccine with Frauds adjuvant
- B. Reimmunize him with 3 doses of normal hep B vaccine
- C. Give 1 booster (more) dose of Hep B vaccine
- D. No further intervention
- E. Remeasure antibody in 6 months

**Q56.** 35 year old man diagnosed as stage 3 Hodgkin's lymphoma. He is also positive for HBs Ag positive. His liver function tests are normal. You want to treat him with CHOP regimen. What further action you will take regarding the management of Hep B?

- A. Close monitoring of his LFT
- B. Treat hep B with lamivudine
- C. Treat him as any other patient with Hodgkin's disease
- D. No chemotherapy
- E. Treat with prednisolone alone

**Q57.** 80 year old lady presented with pain in medial aspect of Rt knee after her knee gave way. It radiates to medial aspect of leg. Examination reveals minimal knee joint effusion and tenderness in medial aspect of knee joint. Joint movement normal.

X- ray knee joint normal.

What is most useful next investigation?

- A. Gallium scan
- B. Bone scan
- C. MRI
- D. CT
- E. Arthroscopy

**Q58.** 30-year-old female admitted with GI bleed due to peptic ulcer. She was transfused with 3 units of packed cell. 3 days later she developed jaundice. What is the cause?

- A. Delayed transfusion reaction
- B. Autoimmune haemolytic anaemia
- C. Hepatitis B infection
- D. Sepsis
- E. GVH disease

**Q59.** 50-year-old lady was treated with splenectomy for ITP. Patient came for follow up. She feels well except minor bruising of her skin.

Investigations-

Hb 136, platelets 40

How will you manage?

- A. Prednisolone
- B. Danazol
- C. Immunoglobulin
- D. Plasmapheresis
- E. Observation

**Q60.** 34-year-old man admitted to ICU with MVA. He developed pneumonia and septic shock. Patient treated with antibiotics and noradrenalin infusion. Patient recovered from pneumonia. His CXR and FBC are normal. But patient still on nor adrenaline for hypotension. Synacthn test performed. Baseline cortisol was 200 and 30 minutes after cortisol rose to 350.

What is the diagnosis?

- A. Continued sepsis
- B. Heart failure
- C. Acute care setting hypoadrenalism
- D. Hypovolemia
- E. Autonomic dysfunction

**Q61.** Genetic testing can be done in community for few conditions. Which of the following condition is best candidate for genetic testing

| Condition      | Dx possible | Rx possible |
|----------------|-------------|-------------|
| A. FAP         | yes         | yes         |
| B. APKD        | yes         | no          |
| C. Huntington  | yes         | no          |
| D. lung cancer | no          | yes         |

**Q62.** 70-year-old man with CRF presented with 2 days history of pain and swelling of 1<sup>st</sup> MTP joint. His temperature was 37.3. How will you treat?

- A. Colchicine
- B. Flu cloxacillin
- C. Prednisolone
- D. Indomethacin
- E. Allopurinol

**Q63.** Which one of the following drug has best prognostic benefit in COPD?

- A. Ipratropium
- B. Tiotropium
- C. Salmeterol
- D. Salbutamol
- E. Theophylline

**Q64.**neurology.

Ct picture of a large intracerebral hemispheric haemorrhage.

Patient is a middle aged male who is relatively stable clinically and neurologically.

What would be the most appropriate immediate management of this patient.

Fig 1

- A. surgery with evacuation of blood.
- B. Observation
- C. Iv mannitol
- D. Lumbar puncture
- E. Angiography

**Q65.**

Haematology/ ITP /management/ splenectomy.

25 yr old man diagnosed with ITP refractory to steroids had undergone a splenectomy 6 months previously. He has been well since the operation. No spontaneous bleeding, occasional bruising with trauma. His repeat FBC reveals a plt count of 45, Hb 135, normocytic .

What is the most appropriate management of this patient

- A. danazol
- B. prednisone
- C. plt infusion
- D. observation
- E. plasmapheresis

**Q66.** gastro/ immunology/vasculitis treatment

25 yr old man with purpuric rash on buttocks and legs ( picture given ) presents with renal impairment. He has pain and discomfort accompanying the rash. He also complains pains in small joints. Both C3 and C4 are reduced and there is low level RF positivity Ur is 15 and the Cr is 150. There is protein ++ and red cell casts are present. He has a background history of IVDU.

Fig1 similar pic of leukocytoclastic purpuric rash not exactly like that in the xm

What is the most appropriate next step in management?

- A. prednisone
- B. ribavirin and interferon
- C. ribavirin
- D. plasmapheresis
- E. cyclophosphamide

**Q67.** oncology/breast cancer/treatment

A 40 yr old woman with metastatic breast cancer presents for evaluation. A tissue biopsy was taken and staining done for her-2 rec FIG 1 and for oestrogen and progesterone FIG 2.

The staining for her-2 was bright and suggested it was positive. The picture staining for hormone receptors seemed very poor and there was very little take up of stain.

What is the most appropriate form of treatment for this lady?

- A. trastuzumab alone
- B. anastrozole
- C. tamoxifen
- D. ovarian ablation
- E. chemotherapy plus trastuzumab

fig 1

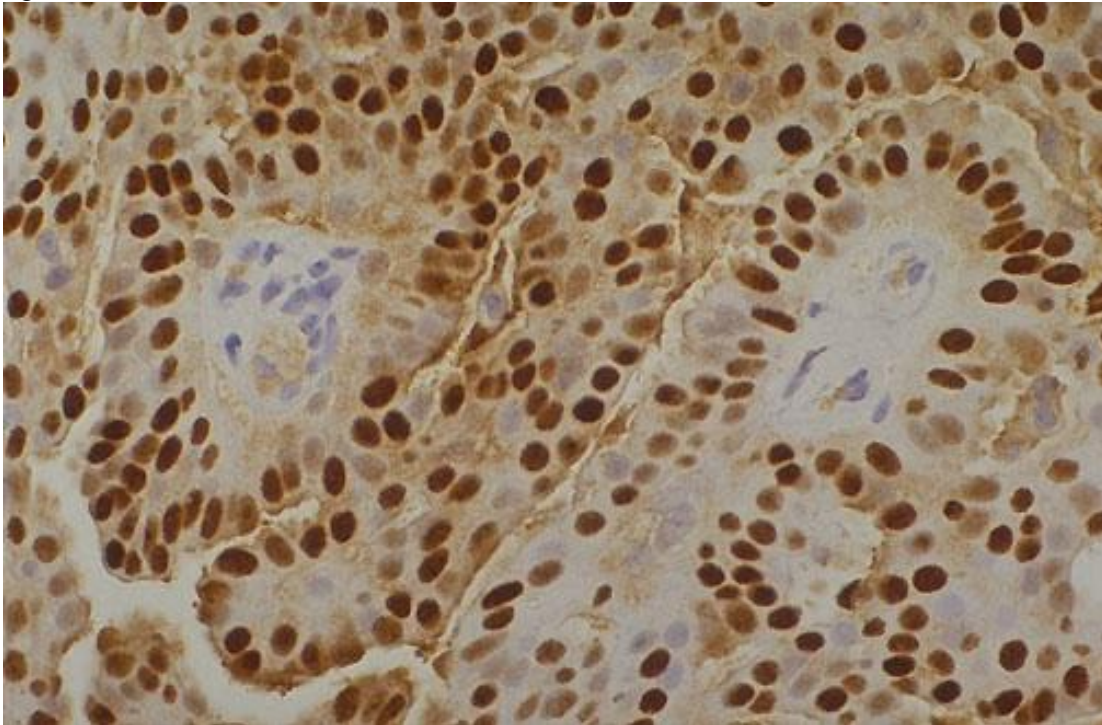
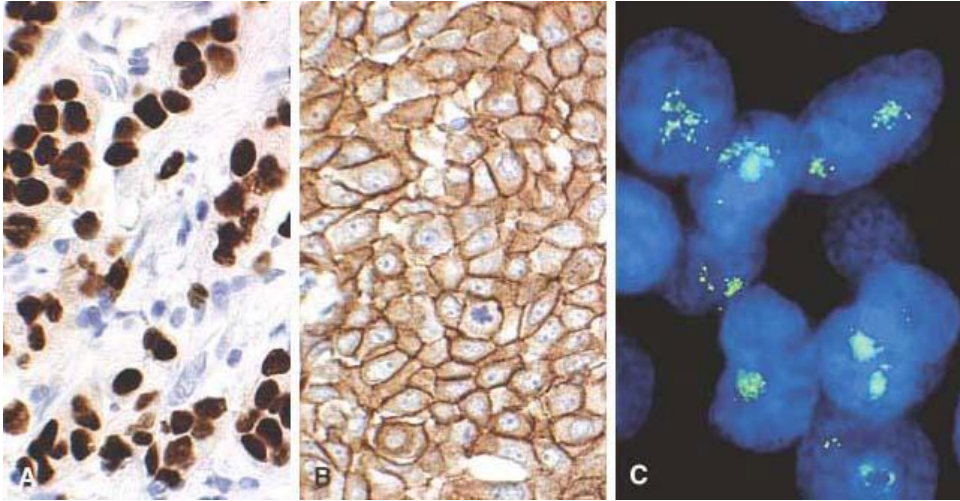


fig 2 was very similar but very blurred and no uptake.

Diff looking picture but the same staining for her-2 and hormones



**Q68.**cardiology

75 yr old man presents with acute chest pain. His ecg shows an acute anterior infarct with st elevations. He was given oxygen, morphine, maxalon. There were no contraindications for thrombolysis and the patient was thrombolysed with alteplase,.

An iv bolus of heparin was given and an infusion also started. The chest pain resolved. Within 30 min of starting heparin the patient starts to vomit violently and he becomes drowsy but rousable. There were however no focal neurological signs detected besides the drowsiness. His BP 160/70 pulse 80 regular with resolution of st segments SaO2 96%.

What is the most likely cause of what has happened?

- A. acute intracerebral bleed
- B. side effect of morphine
- C. GI bleed
- D. Ongoing ischemia
- E. Sorry cant remember last option--- not the answer to this question.

**Q69.**gastro/

25 yr old man presents with diarrhoea and malabsorption – lowish ferritin, wt loss.

Serology for coeliac disease is done and it shows low level of tissue transglutimase. Anti-gliadin antibodies for IgG was positive but for IgA was negative.

What is the next best investigation?

- A. small bowel biopsy
- B. total serum IgA
- C. endomysial antibodies
- D. gluten free diet
- E. repeat tissue transglutimase .

**Q70.** a 65 yr old woman present with left sided weakness of the upper and lower limbs. There is minimal sensory loss and I think there was no dysphasia or facial weakness. There was no cognitive deficit .

Which of the following vessels is most likely the cause of her cva

- A. MCA
- B. Perforating branches of the MCA
- C. Anterior cerebral artery
- D. Ant choroidal
- E. Posterior cerebral

The question is testing whether you know the diff clin syndromes associated with each of the diff arts. And branches. Seems like there is usually a question every yr. suggest know it --- not necessary the question but all the diff clin with which art.

**Q71.** similar question to all the previous yrs on the peripheral nerves of the lower limb but elaborated on and made confusing by results of NCS of the diff nerves. Clinical history is that the ankle and knee reflexes were present . there was a foot drop with poor dorsiflexion. There was poor foot eversion but good inversion. Nerve conduction velocities showed that common peroneal nerve was only slightly above normal range whereas that for the sciatic nerve was greatly above normal .

The question is whether or not you know the diff clin presentation of the diff peripheral lesions and the crucial differences. Choices were

- A. common peroneal palsy
- B. sciatic nerve palsy
- C. L5 disc herniation
- D. Post tibial
- E. Peripheral neuropathy

**Q72.** resp.

CXR showing hilar lymphadenopathy

22 yr old girl asymptomatic. EUC done showing raised calcium , FBC normal.

What is the mechanism for the raised calcium?

- A. increased production of 1,25(OH)<sub>2</sub> vitamin D
- B. increased parathyroid hormone production
- C. PTHr peptide
- D. Bony metastasis
- E. Decreased renal excretion.

**Q73.** endocrine

Bone scan showing bowing of long bones and uptake suggestive of pagets disease

Patient presents with pain.

What is the best form of therapy?

- A. etidronate
- B. palmidronate
- C. calcitonin
- D. prednisone
- E.

**Q74.** A young girl presents after a paracetamol overdose. What is the best predictor of immediate suicide risk?

- A. the number of tablets
- B. poor social support
- C. overwhelming hopelessness
- D. family history of suicide
- E. ?

**Q75.** A man presents with slurred speech and right sided facial numbness and sensory loss. No weakness. Has a long history of hypertension. T2 MRI – normal. Small lesion near posterior horn of left lateral ventricle on DWI (note – images were displayed). What is the most likely cause?

- A. Left MCA thrombosis
- B. Left penetrating artery thrombosis
- C. Left ICA occlusion
- D. Hemorrhage
- E. ?

**Q76.** A long term smoker with a history of epilepsy presents for advice regarding smoking cessation. What is most likely to be successful in resulting in smoking cessation?

- A. nicotine replacement
- B. group therapy
- C. brief targeted advice
- D. individual counselling
- E. acupuncture

**Q77.** A middle aged plethoric looking man with a history of hypertension and long term smoking presents with the following blood test results:

Hb – 205 (MCV – 78)

WCC – 11.0

Plts – 560

Hct – increased

Red cell mass – increased

Plasma volume (calculated) – normal

EPO levels – lower limit of normal range

What is the most likely diagnosis?

- A. polycythemia rubra vera
- B. CAL
- C. High affinity hemoglobin
- D. Dehydration
- E. ?

**Q78.** A young girl presents after having been at a party. Her friends suspect that she may have taken an illicit drug. She is febrile with a temperature of 38.5, agitated and both her pupils are dilated. The most likely drug is

- A. gamma hydroxy butyrate (GHB)
- B. Ecstasy (MDMA)
- C. Magic Mushroom
- D. ?
- E. ?

**Q79.** A young female has history of a microprolactinoma which has been successfully treated with bromocriptine for the last 12 months. She is now 6 weeks pregnant. What would be the most appropriate next step?

- A. Cease bromocriptine and observe
- B. Continue bromocriptine and observe
- C. Change to cabergoline
- D. Terminate pregnancy
- E. Increase dose of bromocriptine

**Q80.** What is the best treatment for alcohol withdrawal?

- A. Diazepam
- B. Midazolam
- C. Phenytoin
- D. Acamprosate
- E. Naltrexone
- F. Tramadol
- G. Clonazepam

**Q81.** A 45 year old man with known chronic hepatitis B has a history of multiple previous self-limiting flares. He now presents with lethargy and mild jaundice. He has the following blood test results:

Bilirubin – 55

ALT – 85

AST – 79

ALP – 250

GGT – 60

Hepatitis B serology – sAg positive  
eAg negative

The most likely cause of this presentation is

- A. Hepatoma
- B. Hepatitis D superinfection
- C. Pre-core mutant
- D. YMDD mutant
- E. Choledocholithiasis

**Q82.** A middle aged man has been admitted to ICU for the treatment of sepsis. Multiple attempts to wean him off the ventilator have been unsuccessful. Neurological examination reveals diffuse weakness and downgoing plantars bilaterally. Nerve conduction studies are consistent with an axonal type injury.

The most likely cause is

- A. critical illness myopathy
- B. critical illness polyneuropathy
- C. polymyositis
- D. ?
- E. ?

**Q83.** 45 year old man with previous MI currently on metoprolol / atorvastatin  
cholestyrimine

Chol 4.5

Trig 9.5

HDL 0.5

Next best step :

- A. increase the atorvastatin
- B. increase cholestyrimine
- C. add fibrate
- D. diet control

**Q84.** 70 year old man amiax furgurane on the right (picture of angiogram 70% stenosis )

Most likely to decrease recurrence in the next year

- A. aspirin
- B. aspirin / diprymidole
- C. clopidogril
- D. CEA>6 weeks
- E. CEA <6 weeks

**Q85.** Elderly lady with back pain most likely to be spinal stenosis if

- A. weight bearing pain
- B. weight bearing parasthesia
- C. decreased ankle jerks
- D. parasthesia in feet

**Q86.** 70 year old male collapsed with 17 minute down time . In tubated temp 34 degrees ECG showed some inferior changes but nil ST elevation  
next step

- A. angiogram
- B. thrombolysis
- C. brain stem functioning

**Q87.** Bangladesh man WCC down Hb normal fevers up to 40 degree . malaria films negative

Likely diagnosis

- A. dengue
- B. typhoid
- C. leptospirosis
- D. scrub typhus

**Q88.** 34 year old male bitten by tic. Unwell fever malaise Red petchial rash  
treatment:

- A. watch
- B. doxycycline
- C. penicillin

**Q89.**CT with right hilar mass most likely secondary to

- A. lung cancer
- B. thyoma
- C. lymphoma

**Q90.** Decreased folate decreased iron wasting disease

Ig gliden positive

Ig A gliden low

IgA endomesial negative

Next best test

A. Ig serology

**Q91.** 42 year old male nil previous risk factors . Exercise stress test 7 mm ST depression (graft given showing linear relationship between pre and post probability of cardiac disease )

likelihood of coronary artery disease

A. 1-10%

B. 10-20%

C. 40-50%

D. 50-70%

**Q92.** Repeat Apo E question about % with out dementia

**Q93.** Thai lady rash temp 39 headache eye pain . Normal platelets etc

A dengue

B typhoid

C Leptospirosis

**Q94.** 78 year old man with a history of congestive heart failure on Enalapril 20 mgs daily, Frusemide 40 mgs daily has come for regular review. He had moderate shortness of breadth on exertion. On examination no pedal oedema, 1 cm elevation of JVP. His cardiovascular system is normal and chest examination is normal. What is the next best treatment.

A. Increase Frusemide

B. Digoxin

C. Betablocker

D. Angiotensin 2 receptor blocker

E. Aldactone

**Q95.** 25 year old obese female with a history of depression has come for a check-up. On examination she has easy bruising, abdominal straiie, trunkal obesity, proximal muscle weakness, buffalo hump and has low normal cortisol and low ACTH ( value is not given) What is the most likely cause?

A. Cushing's syndrome

B. Pseudocushing

C. Fictitious cushing

D. Ectopic ACTH

E. Cortisol producing adenoma

**Q96.** 65 year old male with a ischaemic heart disease and hypertension due to undergo laproscopic cholecystectomy. Which of the following medication reduces perioperative cardiac event.

- A. Aspirin
- B. Metoprolol
- C. Statin
- D. Diltiazem
- E. Heparin

**Q97.** An elderly Indian female with a history of back pain. Her blood test shows low Calcium, low Phosphate increased ALP, increased PTH. What is the next best test?

- A. Vitamin D level
- B. Bone scan
- C. Renal ultrasound
- D. 24-hr urinary calcium

**Q98.** 57 year old male with facial swelling, increased neck veins suggestive of SVC obstruction . CT chest (film shown) suggestive of mediastinal mass. What is the most likely cause.

- A. Lymphoma
- B. Thymoma
- C. Lung Cancer
- D. Germ Cell tumour
- E. Sarcoidosis

**Q99.** Traveler returning from Bangladesh after 10 days develops fever, abdominal pain, maculopapular rash on trunk and abdomen. On examination, he has a temperature of 39.3° C, abdominal tenderness with guarding. His haemoglobin is 13 g/L, white cell count 2.4 nL, platelet 250 nL. What is the most likely cause.

- A. Acute Schistosomiasis
- B. Leptospirosis
- C. Typhoid
- D. Dengue fever
- E. Malaria

**Q100.** 68 year old male brought to the Emergency department following collapse while running to catch a bus. His heart rate is 70 per minute. His blood pressure is 110/70 mmHg. His JVP is normal, heart sounds is normal with soft systolic murmur and his chest is clear. His CPK 205. Rest of the investigation pending. ECG (shown) interpretation shows sinus rhythm, QRS 0.08 secs. T-inversion I, AVL, V4 and V5 with voltage criteria for LVH. What is the next best treatment.

- A. Observation
- B. Heparin
- C. Thrombolysis
- D. Tirofiban
- E. Angiogram

**Q101.** A 45 year old obese female with rheumatoid arthritis has been taking methotrexate 10mg weekly for 10 years. She also takes metformin 500 mg three times daily for Type II diabetes mellitus and amlodipine for hypertension. Her liver function tests six months ago were normal AST 90, ALT 65, ALP 45, GGT 45, Bilirubin 11, Albumin 34, Hb 125 g/L, CR 0.10 mmol/L, AMA weakly positive and RA factor 120. On liver biopsy the most likely finding would be

- A. Methotrexate toxicity
- B. NASH
- C. Cirrhosis
- D. Amyloidosis
- E. Chronic alcoholic hepatitis

**Q102.** A 67 year old man is brought to the emergency department by ambulance after a witnessed collapse. His rhythm strip showed ventricular tachycardia. He was resuscitated by the paramedics and regained spontaneous output after 17 minutes. In emergency he is intubated, his GCS is reduced (cannot remember the number). His BP is 120/70 and temperature 34 degrees. An ECG is shown in sinus rhythm with ? <1mm ST elevation in inferolateral leads.

What is the best option for his care? (funny wording... wording was similar)

- A. Reduce temperature to 33 degrees
- B. Angiogram and revascularization
- C. Thrombolysis
- D. CT head
- E. Brainstem death tests

**Q103.** The activity of anti-cancer drugs is best assessed by:

- A. In vitro testing
- B. Phase I trial
- C. Phase II trial
- D. Phase III trial
- E. Phase IV trial

**Q104.** Haemodialysis patient. K 5.5, creat 1020. Previous cholecystectomy & appendicectomy. The most appropriate management is:

- a) urgent peritoneal dialysis
- b) elective peritoneal dialysis
- c) urgent haemodialysis
- d) elective haemodialysis
- e) urgent CVVHD

**Q105.** The most important indicator for dialysis in CRF is:

- a) K 6.1
- b) Peripheral oedema

**Q106.** Most likely biochemical abnormality when taking SSRIs is:

- a) hyponatraemia
- b) hypernatraemia
- c) hyperglycaemia

**Q107.** von Willebrandt factor attachment to platelets is via:

- b) glycoprotein Ib V IX
- a) glycoprotein Ia III V

**Q108.** The best treatment for dyspnea in COPD is:

- a) steroids
- b) LVRS
- c) pulmonary rehab
- d) tiotropium bromide
- e) home O2 therapy

**Q109.** 50 yo lady presents with weakness in her legs, bilateral upgoing plantars and a sensory level at T9. Most likely diagnosis is:

- a) spinal cord compression
- b) metastases
- c) transverse myelitis
- d) anterior spinal artery territory ischaemia
- e) subacute combined degeneration of the cord.

**Q110.** 55 yo patient was on cyclophosphamide for 9 months for Wegener's GN, now using steroids. They present with haematuria. The urinalysis reveals no protein, RBC positive. Vitals stable, other bloods normal. What is the next best step in investigation:

- a) angiogram
- b) ultrasound
- c) cystoscope
- d) CT scan
- e) MRI

**Q111.** 63 yo female presents with a pain in the neck and difficulty with neck movements. MRI shown. Most probable diagnosis:

- a) zygomatic epiphysial fusion
- b) posterior ligament calcification
- c) anterior ligament calcification
- d) DISH

**Q112.** Knee x-ray shown. Most likely diagnosis is:

- a) osteoarthritis
- b) RA
- c) ?

**Q113.** Woman having elective surgery. Found to have coag results: fibrinogen normal

D-dimer

FBC normal – Hb 120 g/L, WCC 6.2, PLt 250

PT 12

APTT 58 (or 70)

Mixing studies-APTT 42 (or 62)

Fibrinogen normal

Thrombin time elevated

Reptilase time normal

The most likely cause is:

- a) Anticardiolipin antibodies
- b) DIC
- c) heparin contamination
- d) haemophilia
- e) factor viii deficiency

**Q114.** Patient with first episode of DVT. Which of the following is an indications for more than 6 months of anticoagulation:

- a) extensive DVT
- b) PE
- c) DVT in malignancy
  - d) protein C deficiency
  - e) Heterozygous Factor V Lieden
  - f) Homozygous prothrombin gene mutation
  - g) Unprovoked first episode
  - h) Lupus anticoagulant positive

**Q115.** Middle aged female has out of hospital cardiac arrest attended by ambulance 17 mins following the event. In emergency department, patient's GCS is 3 with temperature of 34<sup>o</sup> C. Haemodynamically stable, ventilated.

Next best step is:

- a. immediate brain death examination
- b. Adrenaline infusion
- c. Cool to 33<sup>o</sup>C

**Q116.** Highly suggestive of Lewy body dementia:

- a. Visiospatial hallucination
- b. Delusional belief
- c. Urinary incontinence
- d. Frequent falls

**Q117.** Elderly nursing home patient for overflow incontinence started on Oxybutinin (anticholinergic). What is the most common adverse effect?

- a. Dry mouth
- b. Urinary retention
- c. Postural hypotension
- d. Tachycardia
- e. Sweating

**Q118.** Nursing home elderly patient bed bound developed erythematous rash over heel and sacral area. What is the best intervention?

- a. Elevate the foot of the bed
- b. 45<sup>o</sup> bed position
- c. Change posture every 4 hours
- d. Occlusive gauze

**Q119.** Plasmapheresis not indicated in:

- a. Myasthenia gravis
- b. Multiple sclerosis
- c. CIDP
- d. TTP
- e. Waldrenstrome macroglobulinaemia

**Q120.** ICU patient with a staph aureus infection started on vancomycin. On first dose infusion develops rash on the face and trunk and blood pressure drops to 100/70 mmHg. What is the next best action?

- a. Stop Vancomycin and start Linezolid
- b. Stop Vancomycin and start Teicoplanin
- c. Slow the rate of infusion of vancomycin
- d. Continue vancomycin
- e. Continue vancomycin with hydrocortisone premedication

**Q121.** A middle-aged lady with 6 months history of lethargy and pruritis is sent by a GP with the following blood test. Na 146, K 5, CO 21, urea 29, creatinine 1010. Mild pedal oedema cardiovascular system normal, chest clear. She has a past history of diverticular disease with a perforation needing extensive abdominal surgery. What is the best management plan?

- a. Immediate haemodialysis
- b. Elective haemodialysis < 6 weeks
- c. Elective haemodialysis > 6 weeks
- d. Peritoneal dialysis
- e. Observation

**Q122.** 69 year old man had Q wave inferior wall MI 5 years back now presents with acute ST elevation anterior wall MI. He was thrombolysed with metalyse with normalisation of ECG changes. However within 1 hour develops deep Q waves in septal leads. What is the next best management?

- a. Immediate angiogram
- b. Viability study
- c. Tirofiban
- d. Medical management
- e. Stress Echo

**Q123.** Middle aged female with a chest X-ray shown (suggestive of bilateral hilar adenopathy). Most likely cause is:

- a. Lymphoma
- b. Thymoma
- c. Lung Cancer
- d. Histiocytosis
- e. Sarcoidosis

**Q124.** What is the most common second solid tumour in a woman with a past history of Hodgkin's lymphoma treated with Mantle field radiotherapy?

- a. Carcinoma of the lung
- b. Carcinoma of the breast
- c. Carcinoma of the ovary
- d. Carcinoma of the liver
- e. Carcinoma of the endometrium

**Q125.** What is the commonest cause of weight gain in an epilepsy patient?

- a. Lamotrigine
- b. Sodium valproate
- c. Topiramate
- d. Phenytoin
- e. Carbamazepine

**Q126.** Middle aged man with X-ray of the neck. Most likely cause?

- a. ankylosing spondylitis
- b. Calcified posterior ligament
- c. Rheumatoid arthritis
- d. Degenerative cervical spondylosis
- e. DISH

**Q127.** Lady on heparin treatment develops DVT of the femoral vein on day 8. You suspect heparin induced thrombocytopenia. What is the next best treatment?

- a. Continue heparin
- b. Deltaparin
- c. Danoparoid
- d. Warfarin
- e. IVC filter

**Q128.** Patient with chemotherapy induced delayed vomiting not responding to ondansetron. What is the next best treatment?

- a. Phenothiazine
- b. Dexamethasone
- c. Diazepam
- d. Metoclopramide

**Q129.** An 85-year-old woman who fell in her home one week ago presents for follow-up examination. At the time of her fall she experienced immediate pain in her buttocks and hips and was brought to the emergency department, where all X-rays of the hips and pelvis were negative for fracture and she was sent home. A week later she continues to complain of severe pain and is unable to weight bear. On examination, she has tenderness in the buttock area but a good range of motion in the hip joints. What is the most likely cause of her pain?

- A. Sciatica.
- B. Lumbar stenosis.
- C. Ischial bursitis.
- D. Osteoarthritis of the hip.
- E. Pelvic fracture.

**Q130.** A 47-year-old man with severe haemophilia A and a high titre factor VIII inhibitor is scheduled for hip replacement surgery. The peri-operative replacement coagulation product of choice is:

- A. recombinant activated factor VII.
- B. recombinant factor VIII.
- C. recombinant factor IX.
- D. fresh frozen plasma.
- E. cryoprecipitate.

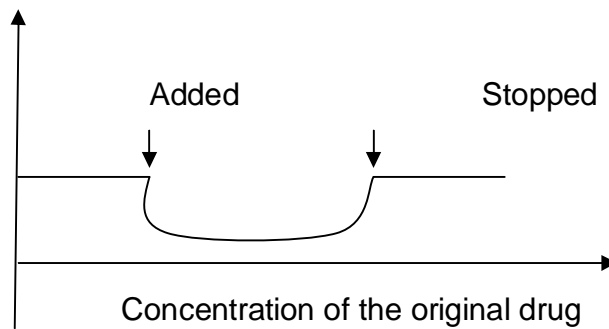
**Q131.** The major cause of death in patients more than six months following cardiac transplantation is:

- A. graft-versus-host reaction.
- B. opportunistic infection.
- C. rejection.
- D. malignancy.
- E. coronary artery disease.

**Q132.** Lady presented to ED with anuric acute renal failure with potassium of 7.0. Her ECG (given) shows tall T waves with low heart rate with no P waves. What is the immediate next treatment ?

- A. Calcium gluconate
- B. Bicarbonate
- C. Insulin and Dextrose
- D. Dialysis
- E. Pacemaker insertion

**Q133.** A patient is on regular medication. A new medication was recently added and then stopped because of side effects. His drug response curve shows following pattern.



What is the pharmacokinetic function of the new drug?

- a. Inducer
- b. Inhibitor
- c. Agonist
- d. Antagonist
- e. Protein displacement

**Q134.** A lady with sacral lesion (photograph given) suggestive of dermatitis herpetiformis. She has a history of on and off diarrhoea. What is the best confirmatory test?

- a. Anti tTG antibodies
- b. Intralesional IgA deposition
- c. Response to gluten free diet
- d. Villous atrophy
- e. Serum IgA level