

## ***FRACP recall paper 2002***

This paper has been compiled by candidates who sat the 2002 exam, from the Austin & Repatriation Medical Centre, Concorde, Fremantle, and Canberra Hospitals. It has been supplied to DeltaMed by the authors and it is their request that it be distributed to all candidates for the 2003 exam.

The paper was dominated by a disproportionate number of questions in the following areas:

psychiatry	epidemiol – especially phases of trials
geriatrics	
genetics	CT brains
applied pharmacology	Pituitary endocrinology

There were no questions in the following areas:

cerebrovascular disease	obesity
GN	malaria
MS	immunodeficiency
CRC / screening	

### ***Part A - 70 questions, 2 hours***

#### **Question 1**

24 year old male with past history of transposition of the great vessels as a child his ECG is show. Pick the most appropriate option

the ECG was a RBBB and appeared to have very large voltages and signs of strain in the RV leads (more than would be expected from just RBBB). The axis was very hard to work out because of the quality of the ECG and multiple leads had to be employed (aVR, I, II, III, aVF) to calculate it

	<b>RBBB</b>	<b>RVH</b>	<b>Axis</b>
A	Y	Y	+140
B	Y	Y	+240
C	N	N	-140
D	N	Y	-240
E	Y	N	+140

#### **Question 2**

*Repeat question* – which of the following is most likely to lead to abnormal protein synthesis?

- A. missense
- B. nonsense
- C. translocations
- D. splicing defect
- E. single nucleotide substitution

**Question 3**

Which of the following is the most common acute complication of PEG insertion?

- A. acute bleeding at the insertion site
- B. infection at the insertion site
- C. peritonitis
- D. gastric perforation
- E. colonic perforation

**Question 4**

What is the purpose of a phase I trial for a chemotherapeutic agent?

- A. so that the patient does not lose hope
- B. to establish the maximum tolerated dose
- C. to measure tumour response
- D. to establish tumour free survival
- E. to determine the optimal dosage schedule

**Question 5**

What is the mechanism of resistance of Vancomycin in enterococcus?

- A. alteration in the cell wall structure of the bacteria leading to ↓ binding
- B. alteration of PBPs
- C. production of  $\beta$  lactamase
- D. alteration of ribosomal proteins
- E. active efflux

**Question 6**

Which of the following has the slowest clearance?

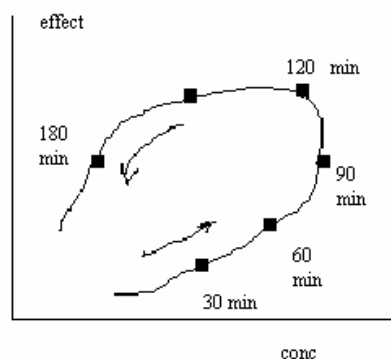
<u>Drug</u>	<u>Volume of Distribution (L)</u>	<u>Half life (min)</u>
(a) Amiloride	4000	300
(b) Amiodarone	600	40
(c) Tolbutamide	7	6
(d) Digoxin	300	15

**Question 7**

Hysteresis curve showing plot of drug concentration vs response?

the graph demonstrates

- A. delayed oral absorption
- B. down regulation of receptors
- C. redistribution of drug to target site
- D. irreversible binding of drug to receptor
- E. reduced bioavailability



**Question 8**

Warfarin is metabolized via the cytochrome P450 system. It characteristically has a low 1<sup>st</sup> pass hepatic clearance and slow clearance when given orally. Which of the following options best describes the effect that a cytochrome P450 inhibitor such as erythromycin would have?

	<b>bioavailability</b>	<b>clearance</b>
A	?	?
B	?	?
C	?	?
D	?	?
E	?	?

Legend:        ?        no significant change  
                  ?        significant decrease  
                  ?        significant increase

**Question 9**

The plasma levels of lignocaine following an IV bolus seems to fall faster than would be expected by its plasma clearance. The main reason for this is because

- A. it is rapidly protein bound
- B. it is rapidly distributed into fat
- C. it induces its own metabolism
- D. it undergoes rapid 1<sup>st</sup> pass metabolism
- E. ???

**Question 10**

Which of the following best describes the reasons for obtaining informed consent in patients entering clinical trials?

- A. beneficence
- B. non malfeasance
- C. Justice
- D. Risk management
- E. Autonomy

**Question 11**

Which of the following provides the best assessment of the long term risk of morbidity/mortality and institutionalization of an elderly patient?

- A. max gait speed of habitual walk
- B. 6 min walk test
- C. recurrent chair rise times
- D. heel-toe tandem gait
- E. average speed of habitual gait

**Question 12**

An indigenous man in a remote area of Australia is being screen for renal disease in a community with a 30% incidence of renal disease. His blood pressure is 140/90 and he has +1 protein in his urine (sens 85%, spec 80%). Which of the following is the next best investigation?

- A. repeat early morning urine for dipstix
- B. renal biopsy
- C. MSU
- D. 24 hour urine
- E. urinary Cr/Alb ratio

### Question 13

A middle aged man has chronic stable angina and is on metoprol and isosorbide mononitrate 60 mg daily. He has had only 2 episodes of chest pain in the last 6 months and has not required to use his GTN tablets. He present to ED with a history of 30 minutes of chest pain which has occurred following an unusual amount of heavy exertion. The pain is unrelieved by 3 of his GTN tablets. On arrival at the hospital the pain resolves with oxygen. Which of the following is the most likely diagnosis /cause of pain?

- A. unstable angina
- B. nitrate tolerance
- C. reduced efficiency of medications
- D. ?? AMI
- E. non cardiac pain

### Question 14

A patient present for assessment one week following the resection of a pituitary macroadenoma with post op XRT. She is on budesonide 400 mcg per day.

The following results are obtained

Early morning cortisol	120 (200- ?)
30 min following synacthen	550 (>500)

which of the following provides the best explanation for these results?

- A. intact hypo-pituitary-adrenal axis
- B. normal baseline function but inadequate stress response
- C. prior budesonide exposure
- D. primary hypoadrenalism
- E. secondary hypoadrenalism

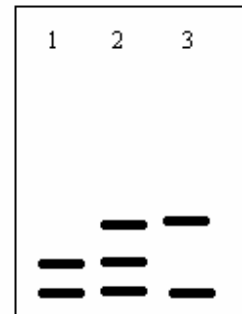
### Question 15

A patient is presenting to a neurosurgical unit for the resection of an acoustic neuroma. He has a family history involving a mutation in the NF2 gene. The gel electrophoresis with NF2 probe for his tumour, peripheral blood, and a normal control are shown below. Which of the following offers the best explanation for the electrophoresis results?

- A. loss of normal NF2 gene from patients blood
- B. loss of normal NF2 gene from patients tumour
- C. splitting of NF2 gene in

\*\* 1 = control  
 \*\* 2 = patients blood  
 \*\* 3 = patients tumour

- D. blood  
loss of abnormal NF2 in  
tumour
- E. gain of extra abnormal  
NF2 in blood



### Question 16

Which of the following conditions is most strongly associated with *H.pylori* infection?

- A. gastric carcinoma
- B. MALTOMA
- C. Barrets esophagitis
- D. Pernicious anemia
- E. Non ulcerative dyspepsia

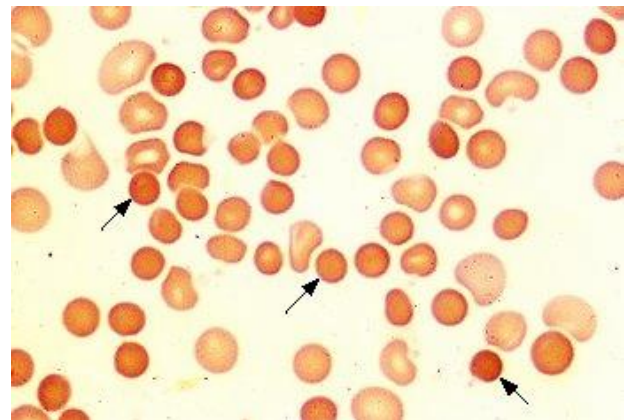
### Question 17

A 26 year old female presents with lethargy, pallor and dark urine. She is on no medications other than the OCP. o/e she is mildly icteric. Blood tests reveal

- a. Hb 8.2, WCC and plt normal
- b. mild  $\uparrow$  MCV (102)
- c. increased reticulocytes
- d.  $\uparrow$  LDH

which of the following is the next best investigation?

- A. G6PD isoenzyme testing
- B. Heinz body preparation
- C. Unconjugated BR
- D. Urinary haemosiderin
- E. Coombs testing (DAT)



### Question 18

What is the most likely explanation for the improvement in lung function which follows lung volume reduction surgery?

- A. increased CO
- B. increased VR
- C. improved matching of V/Q
- D. increased pulmonary recoil
- E. reduced central ventilatory drive

### Question 19

A young asthmatic presents with severe SOB. ABGs show

pH 7.30  
PO<sub>2</sub> = 65  
PCO<sub>2</sub> = 33

Following the administration of IV salbutamol the PO<sub>2</sub> worsens but the PCO<sub>2</sub> remains the same. Which of the following provides the best explanation?

- A. bronchodilation to areas of low V/Q
- B. pulmonary vasodilation to areas of low V/Q
- C. peripheral vasodilation
- D. increased muscle usage of O<sub>2</sub>
- E. decreased CO

#### Question 20

Maximal O<sub>2</sub> consumption is a measure of general cardiovascular fitness. What is the most likely explanation for the reduction in maximal O<sub>2</sub> which occurs with normal ageing?

- A. reduction in maximal HR
- B. reduction in SV
- C. reduction in FEV1
- D. reduction in total lung capacity
- E. ?? generalized respiratory muscle fatigue

#### Question 21

A middle aged present following surgery and XRT for a pituitary adenoma. She is on the following drugs

Hydrocortisone (20 mg per day in divided doses = the equivalent of 25 mg cortisone per day)

Thyroxine 150 µg

Fluoxetine 20 mg daily

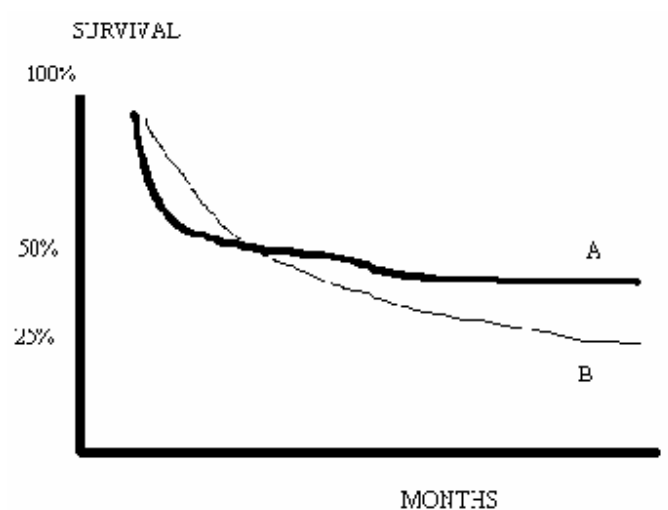
She now present with obesity and abdo striae and lethargy

Which of the following is the most likely cause?

- A. inadequate T4 replacement
- B. XS cortisol replacement
- C. Growth hormone deficiency
- D. Fluoxetine therapy
- E. ??

#### Question 22

The following survival curves are shown for a particular malignancy with treatments A and B. Which of the following is most true with respect to therapy A?



- A. reduced median survival but better long term survival
- B. better median survival and long term survival
- C. reduced median survival and long term survival
- D. identical median but improved long term survival
- E. improved median and long term survival

#### Question 23

Repeat question – where is the highest concentration of Cox 2?

- A. gastric mucosa
- B. platelets
- C. OA synovium
- D. RA synovium
- E. Scar tissue

#### Question 24

A middle aged man has moderate-severe OSA. What is the main mechanism underlying his daytime sleepiness?

- A. increased PCO<sub>2</sub>
- B. reduced quantity of  $\delta$  wave sleep
- C. increased sleep fragmentation
- D. respiratory muscle fatigue
- E. hypoxic induced brain injury

#### Question 25

A patient with mitral stenosis is being offered for surgery because of SOB. Assuming that her LV function is normal and that her MVA is < 1 cm<sup>2</sup>, which of the following portends to the worst long term prognosis?

CO varied from 2.0 – 4.0

I cant recall all of the permutations

CO	RA pressure	RV pressure	PCWP	PVR (woods units)
3				4

2.5		66/		2
2.5		55/	15	10
2.5				2
2.5		70/10		4

### Question 26

In patients with oliguria which is due to sepsis, which of the following therapies other than antibiotics, is most likely to preserve renal function?

- A. Lasix – IV continuous infusion
- B. Lasix – IV intermittent boluses
- C. Prostacyclin
- D. Renal dose DA
- E. Adr

### Question 27

A diabetic lady undergoes cath for CAD. She is found to have 2VD which will need plasties. She is on enalapril, celebrex, and a  $\beta$ blocker. Post 1<sup>st</sup> angiogram her Cr increases from 0.10 to 0.18. which of the following intervention is least likely to preserve her renal function?

- A. Delaying the procedure for at least 48 hours
- B. withholding the celebrex
- C. withholding the enalapril
- D. giving IV fluid
- E. giving IV lasix

### Question 28

Which of the following investigation is the most sensitive for the diagnosis of gall stones?

- A. ultrasound
- B. MRI
- C. Plain XR
- D. HIDA scan
- E. CT

### Question 29

A new anti-HT agent is being trialed. It is being tested in 1000 patients in 50 centers for a 3 month period and is being compared to the standard anti-HT agent. Which of the following best describes the nature of the trial?

- A. it is a pre-marketing assessment
- B. it is a phase IV trial
- C. it is a phase III trial
- D. it is a phase II trial
- E. it is a phase I trial

### Question 30

Which of the following cells of the immune system relies most heavily on the release of substances into the extra-cellular fluid for killing of organisms?



- A. neutrophils
- B. eosinophils
- C. NK cells
- D. Cytotoxic T cells
- E. Macrophages

### Question 31

Which of the following cell surface markers is the least important for the function of the NK cell?

- A. IgG Fc receptor
- B. MHC I
- C. MHC II
- D. NK cell activating receptor
- E. NK cell inhibitory receptor

### Question 32

Repeat question on  $\beta$ -lactam antibiotics. Which of the following is the most important pharmacokinetic parameter in prescribing ?

- A. area below curve
- B. plasma conc/MIC
- C. Time spent above MIC
- D. Ratio AUC/MIC
- E. Both D and B

### Question 33

**Poorly worded genetics question.** A young man presents with a history of an X-linked condition with mutation at position 27. The responsible gene has ? exons and ? introns. The following genetic sequence was taken out of ?? exon 1. which of the following is the most appropriate genetic interpretation of the mutation.

(I am unsure of the exact sequence – I think that this was in exon one and the sequence may be impt as it could be a start codon which has been converted into a stop codon ? can anybody recall) there was a single nucleotide inserted in the abnormal gene such that there was a frame shift

gtcacttgaca  
gtca**a**cttgac

the options were worded as follows

- A. “the patient has a pathological mutation”
- B. “the interpretation is in the flanking sequence of DNA”
- C. “the interpretation is in the reading frame”
- D. “the interpretation is due to polymorphisms”

### Question 34

A trial was performed to determine benefits of smoking cessation, within a group of patients with COAD who attend a particular hospital outpatient clinic. 'Intention to treat' analysis is most likely to result in

- (a) Overestimation of efficacy of the trial
- (b) Underestimation of efficacy of the trial
- (c) Selection Bias
- (d) Inaccuracy of the measures of outcome

**Question 35**

Patient with hyponatremia –?? (presented with confusion, headache and increased thirst)

Na 117  
K 3.5  
Cl 85  
HCO<sub>3</sub> = 30  
BSL 10

Urinary Na 100  
Urinary K 20  
Urinary osmolality 580

Which of the following is the most likely cause?

- A. SIADH
- B. Diuretics
- C. Hypothyroidism
- D. DM induced glycosuria
- E. RTA

**Question 36**

A 17 year old Philipino girl presents with BSL of 28. She is obese and has acanthosis nigricans and skin folds in her axillae. Her BSL is 28 and there is +1 ketones in her urine. She has a family history of DM in her grandfather, mother and sister. What is the most likely cause of her DM?

- A. IDDM – idiopathic
- B. IDDM – autoimmune
- C. NIDDM – idiopathic
- D. NIDDM – glucokinase deficiency
- E. NIDDM – HNF – 1

**Question 37**

In patients with OA of the knee which of the following is the strongest RF?

- A. increasing age
- B. obesity
- C. osteoporosis
- D. "LL injury in youth" – i.e. no mention of intra-articular #
- E. steroid use
- F. Paget's

**Question 38**

A young man is having a transfusion for H and M. He has never been transfused before. During his 3<sup>rd</sup> unit he has a reaction with hypotension and sweating. In the absence of ABO, Rh, and minor blood Ag incompatibility what is the most likely cause of this reaction?

- A. bacterial contamination of the blood
- B. XS citrate
- C. change in U and E
- D. allergic reaction to plastics
- E. GVHD

**Question 39**

Which of the following is most likely to be prevented with leuko-depletion of blood for transfusion?

- A. HCV
- B. CMV
- C. XS citrate
- D. malaria
- E. anaphylaxis
- F. HIV

**Question 40**

*Repeat question* – which of the following is most likely to result in the transmission of HCV?

- A. IVDU
- B. Unprotected sex with infected person
- C. Sharing utensils with infected person
- D. Normal vaginal delivery of baby
- E. ?? blood transfusion

**Question 41**

Which of the following is least likely to occur following successful immunotherapy with bee sting venom?

- A. reduction of TH2 cytokines (?? Which ones)
- B. increase in TH1 cytokines (?? Which ones)
- C. production of blocking IgG
- D. loss of specific B cell clone
- E. increase in IL10

**Question 42**

Question regarding anemia

75 year man on PDN for PMR presents with shoulder and hip stiffness, ↑ ESR and anemia and some recent dyspepsia. He is on low dose PDN

Hb 10 ish  
mildly microcytic

transferrin ↓ (lower end normal)  
Fe (↓)  
Ferretin 200  
Transferring receptor approx midrange  
Plt 500, ESR 45

? aetiology of anemia

- A. anemia of chronic disease
- B. iron deficient anemia
- C. sideroblastic anemia
- D. thalassemia

**Question 43**

What is the commonest cause of impotence in elderly men?

- A. vascular
- B. psychogenic
- C. neurogenic
- D. Diabetes
- E. Medications

**Question 44**

A patient with Ca is on a morphine infusion at 4mg per hour. You wish to change them to slow release morphine. Which of the following is the most appropriate dose?

- A. 50 mg bd
- B. 100mg bd
- C. 200 mg bd
- D. 250 mg bd
- E. 75 mg bd

**Question 45**

A women with metastatic Ca and lower back mets. Previously well controlled on morphine and now presents with increasing hip pain. Which is most appropriate while awaiting investigations?

- A. change to tramadol
- B. change to fentanyl
- C. change to oxycodone
- D. increase morphine
- E. give morphine more frequently

**Question 46 (concorde 65)**

Which of the following events is the least important with respect to Langerhans cells

This was quite similar to the NK cell question - ?? details correct

- A. activation following binding to bacterial carbohydrate
- B. interaction with MHC II
- C. interaction with MHC I
- D. migration to LN after Ag encountered
- E. up-regulation of co-stimulatory molecules following Ag encounter

**Question 47**

a 26 year old female with schizophrenia is on olanzepine. She now presents with weight gain and amenorrhoea. Which of the following is likely to be the cause of her amenorrhoea?

- A. olanzepine
- B. eating disorder
- C. premature ovarian failure
- D. weight gain
- E. amphetamine abuse

**Question 48**

Which of the following is least likely in CJD?

- A. areflexia
- B. myotonia
- C. visual field defect
- D. cerebellar signs / abnormal gait
- E. dementia

**Question 49**

Which of the following best describes the best indicator of success of a phase III trial with a novel melanoma vaccine?

- A. serological response to the vaccine
- B. melanoma associated mortality and QOL
- C. disease free remission from tumour
- D. response rate of tumour

**Question 50**

Repeat question – in which of the following tissues are you likely to find T cells with both CD4 and CD8 in an adult?

- A. BM
- B. Thymus
- C. Liver
- D. Spleen
- E. Blood

**Question 51**

Patient with recent onset of lower back pain. Has now developed weakness in foot dorsiflexion and loss of sensation over the medial aspect of dorsum of the foot. Ankle and knee reflexes are normal? what is the most likely mechanism?

- A. lumbar disc prolapse L4/L5
- B. lateral nerve root entrapment L5/S1
- C. spondylololsthesis L4/L5
- D. L4/L5 zygo-appophyseal joint hypertrophy
- E. S1/S2 spinal canal stenosis

**Question 52**

A 25 yo man presents 2 days after laying tiles on the floor (has been squatting), with a unilateral foot drop. What is the most likely cause?

- A. L5 radiculopathy
- B. acute inflammatory demyelinating polyneuropathy

- C. peroneal neuropathy
- D. sciatic neuropathy
- E. tile layer's knee

**Question 53**

A 50 year old man is treated for his 1<sup>st</sup> episode of major depression. What is the likelihood of recurrence?

- A. < 1%
- B. 10%
- C. 25%
- D. 50%
- E. 90%

**Question 54**

Which of the following is least likely to protect a patient from hip # with falls in 82 year old female in nursing home?

- A. Ca supplements (no mention of Vit D)
- B. Estrogen
- C. Aledronate
- D. Proximal muscle strengthening
- E. Hip protectors

**Question 55**

Which of the following most likely represents maternal uniparental disomy?

Mother	Father	Child
1	1	2
2	1	3
2	0	2
1	1	3
2	1	2

**Question 56**

Which of the following is the most potent inhibitor of aldosterone release?

- A. increased ang II
- B. increased K
- C. increased ANP
- D. dietary Na restriction
- E. ↑ACTH

**Question 57**

A drug has a half life of 30 hours. An IV loading dose is given and then a daily oral dose. How long before the drug levels reach steady-state.?

- A. 6 days
- B. 4 days
- C. 30 days
- D. 2 days
- E. 10 days

**Question 58**

52 yo male presenting with headache, lethargy for 1x. Smoker 20 cigs per day.

Examination SOB and plethoric

Ix: Normal CU and E ; Hb 216, WCC ↑ with neutrophilia, plt 450

What would be the most useful investigation to determine if he has PCrV?

- (a) Increased red cell mass
- (b) Increased uric acid level
- (c) Low EPO levels
- (d) Serum B12 levels
- (e) ?

**Question 59**

Which of the following immune mechanisms is responsible for the response seen in tuberculoid leprosy?

- A. Complement
- B. Specific cell mediated immunity
- C. Immune complexes
- D. Humeral response
- E. hypersensitivity

**Question 60**

*Repeat question:* What is the mechanism of toxicity of gentamicin?

- A. proximal tubular dysfunction
- B. precipitation of casts in tubules
- C. afferent arteriolar vasospasm
- D. increased SVR
- E. ischemic medulla

**Question 61**

Which of the following is least likely to be a feature of Cyclosporin A renal toxicity?

- (a) Interstitial fibrosis
- (b) Hyperkalaemia
- (c) Hyperuricaemia/ Decreased uric acid excretion
- (d) Glomerulopathy
- (e) Vascular damage/Spasm

**Question 62**

which of the following is the most likely mechanism underlying the pathogenesis of preeclampsia?

- A. uterine and placental ischemia
- B. hypovolemia
- C. ??hypo Mg or pre-existing HT
- D. renal impairment / reduced renal blood flow
- E. complement activation

**Question 63**

a young female presents with dizziness which is relieved by eating. She is on no medications. Which of the following combinations is most likely to represent an insulinoma ?

BSL	Insulin	c-peptide	Sulphon screen
2	↑	↓	-
2	↑	↑	-
2	↑	↓	+
3.5	↓	↑	-
3.5	↑	↓	+

#### Question 64

PCR is increasingly being applied to various aspects of medicine. This most crucial element of the test involves the use of a DNA polymerase. Which of the following best describes the actions of DNA pol in the PCR reaction

- A. denatures the DNA
- B. helps form bond between primer and target strand of DNA
- C. extends primer once it is in place
- D. synthesis of cDNA from mRNA
- E.

#### Question 65

The following outlines the steps involved in a southern blot (or southern hybridization) in random order. Which of the following options below describes the correct order

1. transfer of DNA to semisynthetic membrane
2. digestion of DNA using endonucleases (they used another name)
3. separation of DNA using electrophoresis (I don't think the words "digested DNA" appeared in this part)
4. probing of DNA with labeled DNA (again I don't think the words "separated DNA" appeared in this part)

- A. 1 2 3 4
- B. 4 3 2 1
- C. 2 3 1 4
- D. 1 3 2 4
- E. 4 2 1 3

#### Question 66

In cirrhosis, which is the strongest predictor of variceal bleeding?

- (a) PT
- (b) Platelets
- (c) Portal venous pressure
- (d) Systemic pressure
- (e) Child-Pugh score

#### Question 67

The greatest risk of aspiration after stroke would occur with:

- a) facial droop
- b) absent bilateral gag reflex
- c) dysarthria
- d) moist cough and weak vocal chords



- e) lip smacking

**Question 68**

Husband and wife both with thalassaemia. Seek genetic counselling prior to having a child. Which of the following combinations would be the least to worry about?

	<u>Mother</u>	<u>Father</u>
(a)	$\alpha$	$\alpha^{\circ}$
(b)	$\beta$	$\beta$
(c)	HbE	$\beta$
(d)	$\alpha^{+}$	$\alpha^{\circ}$
(e)	$\alpha^{\circ}$	$\beta^{+}$

**Question 69**

Digoxin has a  $T_{1/2}$  of 33 hours. How long before it reaches steady state?

**Question 70**

45 man with DM (no comment on whether recently diagnosed ) present with hand arthritis. A left hand XR with shows a number of sclerotic erosions on the radial side of the bases of the prox. Phalanges and ? chondrocalcinosis (highly suggestive of HCT) what is the most likely cause?

- A. RA
- B. HCT
- C. Gout
- D. OA

## ***Part B - 100 questions, 3 hours***

### **Question 1**

To assess the efficacy of an intervention the analysis of number needed to treat is increasingly being applied. An intervention for optimal control of asthma results in a 50% reduction in hospital admissions such that the rates of admissions are 10% and 5% for the control and intervention groups respectively. On the basis of this the number needed to treat is

- A. 1
- B. 50
- C. 2
- D. 20
- E. 10

### **Question 2**

which of the following arteries is the commonest to be involved in Takayasu vasculitis?

- A. abdominal aorta
- B. subclavian
- C. coronaries
- D. renals
- E. Coeliac plexus

### **Question 3**

Patient presents with head injury. In ICU on ventilator, suffers Seizure. Given IV bolus of phenytoin (1000mg) and then daily dose down NGT(300mg). On NGT feeds. At day 8 he has a very subtherapeutic phenytoin dose. What is the most likely cause?

- A. omeprazole
- B. feeds
- C. hyperventilation
- D. metronidazole
- E. erythromycin

### **Question 4**

what is the commonest cause of death at more than 6 months post cardiac transplant?

- A. rejection
- B. opportunistic infection
- C. coronary artery disease
- D. malignancy
- E. GVHD

### **Question 5**

patient with PMR which has relapsed on reduction of steroids. Now presents with worsening of symptoms. She has known osteoporosis with previous thoracic crush #, and has had a hysterectomy. BMD in hips and back is reduced (t -scores = -2.5 and -3,

respectively). ??Biopsy confirms arteritis. Which of the following combinations is most appropriate?

- A. PDN (10mg) and azothiaprime (100mg)
- B. PDN (40mg) and aledronate 10mg
- C. PDN (40mg) and calcitriol (0.25mcg bd)
- D. PDN and MTX
- E. PDN (40mg) and HRT

#### Question 6

Repeat question. Middle aged man with renal impairment (?? CR 0.16 – might be impt for allopurinol dose) on warfarin (??for AF). Has had gout arthritis in past. Now presents with gout while gently trying to increase allopurinol which is now at 200 mg. what is best course of management?

- A. increase allopurinol to 300 mg and start colchicine
- B. start PDN (??20 mg) and continue allopurinol at 200mg
- C. keep allopurinol the same and start NSAID
- D. start pred and increase allopurinol
- E. ???

#### Question 7

a 22 y.o. female has had epilepsy for 3 years. She complains of reduced visual acuity at night. Formal visual field testing reveals a scotoma. Which of the following drugs is the most likely cause?

- A. carbamazepine
- B. valproate
- C. vigabatrin
- D. pheytoin
- E. ethosuximide

#### Question 8

a young prima-gravida presents at 32 weeks with RUQ pain and BP 150/90. she has +1 protein in her urine and no swelling of ankles.

LFTS AST 670

ALT 590

BR 76

γGT 40

ALP 56

What is the most likely cause of her presentation?

- A. fatty liver of pregnancy
- B. preeclampsia
- C. gallstones
- D. hepatitis
- E.

#### Question 9

Repeat question regarding diabetic with 3<sup>rd</sup> nerve palsy which shows that papillary reflex is relatively intact. What is the most likely cause?

- A. DM
- B. PICA aneurysm

- C. Vasculitis

**Question 10**

Which of the following best describes the utility of CEA in the management of colorectal cancer?

- A. selecting patients which require adjunctive chemotherapy
- B. monitoring the response to adjunctive therapy
- C. staging
- D. screening relatives
- E. monitoring for the development of recurrent respectable disease post Rx

**Question 11**

a hospital staff member is exposed the measles. There is no prior history of immunization or infection. Which of the following is the most appropriate course of management?

- A. measles Ig
- B. Vaccinate with live attenuated measles vaccine
- C. observation
- D. urgent serology

**Question 12**

A 36/40 pregnant female is exposed to chicken pox in the prior 24 hours. She has no history of infection or immunisation in past. Which of the following is the most appropriate management?

- A. acyclovir
- B. ZIG
- C. vaccination
- D. urgent serology
- E. observation

**Question 12**

Which of the following best describes the mechanism of action of naltrexone?

- A. reduces symptoms of withdrawal
- B. reduced euphoria associated with opioids
- C. unpleasant sensation when taking with opioids
- D. increased tolerance to effects of opioids
- E. reduced cravings for opioids

**Question 13**

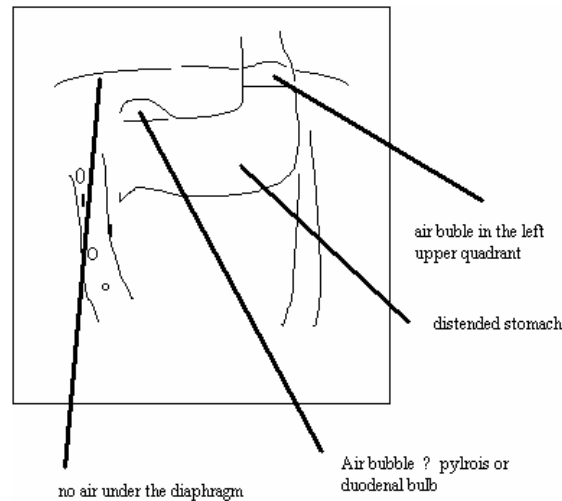
A patient is at day 50 post op renal transplant. The serum Cr has risen from 0.10 to 0.18. the BP is 150/90 with no postural drop. JVP is 2cm. the last 24 hours UO = 800 ml. which of the following is the most appropriate next investigation

- A. ultrasound
- B. biopsy
- C. nuclear med renal perfusion scan
- D. CT abdo
- E.

**Question 14**

A large Samoan man with 4 year history of NIDDM on oral hypo-glycemics present with haematemesis. He is scope and found to have an ulcer in the pyloric channel. He is found to be H.pylori positive and has successful eradication. 4 weeks later he presents with vomiting. o/e he is relatively well

AXR shown



what is he most likely aetiology of presentation?

- A. gastric outlet obstruction
- B. gastro-paresis secondary to DM
- C. SBO
- D. Gastric perforation
- E. Gastric volvulus

### Question 15

A middle aged man presents with 6 hours of palpitations and had chest pain. The ECG shows broad complex irregularly irregular rhythm with rate 250 – 300. BP 90/50. what is the best management

- A. digoxin
- B. DCR
- C. Amioderone
- D. Sotolol
- E. Adenosine
- F. lignocaine

### Question 16

A 15 year old girl presents with a 2 years history of dizzy spells 1<sup>st</sup> thing in the morning. They have occurred on an irregular basis (i.e. not frequent). A poor quality rhythm strip with a wandering baseline is shown which contains a small run (< 30 beats) of self terminating broad complex tachycardia. This is regular – most likely VT. The strip before the VT shows 2 VEs – there was no obvious R on T or capture wave. You are told that this strip was taken when the patient was presyncopal. The 12 lead ECG when the patient is not symptomatic shows a sinus bradycardia (35 – 40 bpm). The PR interval is normal and there is no  $\delta$  wave. ??? what was the QTc

You're asked "what's the most likely intervention to prevent recurrence of the event"?

- A. atrial pacing
- B. implantable defibrillation
- C. amioderone
- D. metoprolol
- E. sotalol

### Question 17

question on CF genetics – 75% of cases of cystic fibrosis is due to a the  $\Delta F508$  mutation in the CFTR gene. A young girl is the index case of CF in a particular family. Genetic analysis reveals that she has a single copy of the  $\Delta F508$  mutation. Analysis of her brothers DNA does not reveal the  $\Delta F508$  mutation. What is the risk that he is a carrier for CF??

- A.  $\frac{1}{2}$
- B.  $\frac{1}{4}$
- C.  $\frac{1}{3}$
- D.  $\frac{1}{6}$
- E.  $\frac{2}{3}$

### Question 18

a middle aged female presents with *one hour* history of chest pain and STAMI inferiorly. She is thrombolysed with SK. 2 hours later there is still ST elevation and she still has pain. ?? BP is low and she is oliguric. What is the most likely intervention to prolong life expectancy?

- A. PTCA RCA
- B. giving further thrombolysis with tPA
- C. inotropes
- D. IABP
- E. IV crystalloid

This would appear to be a cleaned up version of last years question involving RV infarct and bradycardia

### Question 19

Which of the following agents has its effect via a direct toxic effect rather than via one its metabolites?

- A. Metathione
- B. Methanol
- C. Ethylene glycol
- D. Amitriptyline
- E. Li
- F. TCA

### Question 20

A middle aged man on amioderone presents with low grade fevers and SOB. He has a drug cough. o/e bibasal creps, JVP +2. CXR shows bibasal infiltrate extending up to midzones, no evidence of cardiomegaly, no hilar LN, no effusions. (??Restrictive RFTs

with reduced DLCO). ESR 53 and “mild leucocytosis” of FBE. He is on amioderone for AF. What is the most likely cause?

- A. CCF
- B. sarcoid
- C. IPF
- D. Amioderone lung
- E. atypical pneumonia

**Question 21**

A young female is 2 hours post urgent Caesarian under GA. She is now SOB with SaO<sub>2</sub> on room air of 86% and bibasal creps. There is no pHx of lung disease.

O/E RR 35, HR 110, BP 125/75,

What is the best form of management to improve outcome?

- A. heparin
- B. antibiotics
- C. positive pressure ventilation
- D. steroids
- E. bronchodilators

**Question 22**

An elderly woman is in hospital and has problems with confusion. She is commence on haloperidol 2mg nocte with good result. 2 weeks later she present with restlessness claiming that she cant stand still. What is the most likely cause of the problem?

- A. akathesia
- B. dystonic reaction
- C. extrapyramidal side effects
- D. restless leg syndrome

**Question 23**

in patients with advanced stage cancer which of the following is he biggest risk factor for expressed suicidal ideation?

- A. current major depressive episode
- B. severe pain
- C. past psychiatric history
- D. poor family supports
- E.

**Question 24**

a patient with HIV is admitted to hospital with PCP. He is initially well but 2 days into the admission he is becoming increasingly agitated and aggressive. O/E he is confused and disorientated. Which of the following is the most likely cause?

- A. Delirium
- B. AIDS related dementia
- C. acute schizophrenia
- D. major depression
- E. mania

**Question 25**

A patient with advance HIV. Has a low CD4 count (approx 40) and high viral load (about 18,000). He now present with flank pain. Meds include acyclovir, indinavir, dapsone and sulfadiazine. He has not had an episode like this before

What is the most likely cause of his presentation.?

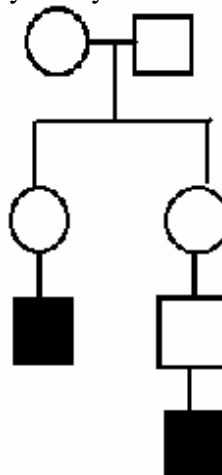
- A. opportunistic infection
- B. adverse drug reaction
- C. malignancy
- D. HIV per se
- E. Not related to HIV

**Question 26**

Family tree is shown for patient with myotonic dystrophy. 2 of the boys have the condition but “there is no evidence of myopathy in any of the other family member”

What is the most likely reason for this?

- A. incomplete penetrance
- B. imprinting
- C. non paternity
- D. mitochondrial inheritance
- E. consanguinity

**Question 27**

Which of the following is the best way to distinguish polymyositis from inclusion body myositis clinically?

- A. involvement of finger flexors
- B. involvement of eyelids
- C. involvement of quads
- D. truncal weakness
- E. shoulder girdle weakness

**Question 28**

Which of the following is a relative contraindication for the use of raloxifene (a SERM)?

- A. severe hot flashes
- B. HT
- C. Family history of breast CA
- D. ?? endometrial hyperplasia
- E. osteoporosis

**Question 29**

Which of the following is most likely to cause failure of the OCP?

- A. doxycycline
- B. rifampicin



- C. erythromycin

**Question 30**

Which of the following is the most important factor dictating response to  $\alpha$  IFN and ribavirin in patients with HCV?

- A. genotype
- B. patients age
- C. histology of liver Bx
- D. LFTs
- E. Viral RNA load

**Question 31**

A man with Parkinsons is on selegiline and qid madopar for Parkinsons disease. Which of the following is least likely to be effective in reducing the on/off effects he is experiencing?

- A. increasing the frequency of dosage
- B. taking oral slow release medication
- C. adding COMPT
- D. adding DA agonist
- E. increasing the dose but keeping qid

**Question 32**

Which of the following is the biggest risk factor for variceal bleeding in patients with CLD and varices?

- A. INR
- B. Plt count
- C. Portal HT
- D. Systemic BP
- E. Childs – Pugh stage

**Question 33**

Patient with AML now day 28 post induction therapy for AML. She is on GCSF and is no longer neutropenic. She has been persistently febrile but is otherwise reasonably well. She has been on ampho. 1mg/kg/day since day 20. Has had Candida albicans grown from blood cultures draw from both Hickmans and peripheral stab. What is the next best management?

- A. remove Hickmans
- B. increase AmB
- C. do CT abdo to look for liver and spleen candida
- D. change to fluconazole

**Question 34**

78 year old man presents with visual impairment and epistaxis. On examination of fundi he has engorged veins and venous infarcts. He also has echymoses. Bloods show IgM paraproteinemia of 60 mg/mL with depression of other Ig's.

What is the next best management?

- A. plasmaphoresis
- B. melphalan and PDN
- C. cyclophosphamide

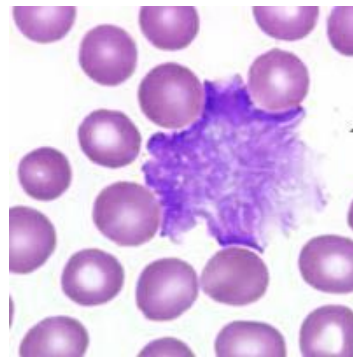
- D. platelet transfusion
- E. IVIG

**Question 35**

An elderly lady is presenting for hernia repair. She is found to have an increased WCC  
Hb and plt normal. Borderline cervical LN, no organomegaly

Hb 125, WCC 16.7

Her peripheral film shows some lymphocytes with 2 very clear smudge cells. What is the next best investigation?



- A. peripheral immunophenotyping
- B. cytogenetics of peripheral blood
- C. BM
- D. EBV serology

**Question 36**

Which of the following is the best indicator of the success of a cancer screening program?

- A. early detection of cases
- B. increased case detection
- C. cancer specific mortality
- D. overall mortality

**Question 37**

In patients with Alzheimers disease treated with Aricept, which of the following is least likely to improve?

- A. increased visual-spatial ability
- B. memory
- C. performance in ADLs
- D. social engagement/interaction
- E. cognition beyond 3 months
- F. incontinence

**Question 38**

Which of the following is least likely to be effective in a delirium management program in inpatients following surgery

- A. early IV therapy
- B.
- C. use of benzodiazepines

**Question 39**

Which of the following is associated with the highest risk of a delirium?

- A. CABGS
- B. AMI
- C. Post op THR
- D. TURP under epidural
- E. Post op-TURP done under GA

**Question 40**

A diabetic patient (??IDDM or NIDDM) presents for review and is found to have background diabetic nephropathy. HbA1C = ?? 7.6 or 8.5%% (upper limit normal quoted as 6%). ?? BP quoted

Which of the following is most likely to improve retinopathy / or which is most appropriate Mx?

- A. ACEi
- B. Tighter sugar control
- C. Laser therapy
- D. BP control

**Question 41**

Which of the following is most likely to result in a chronic HBV carrier status?

- A. being bitten by person with HBV
- B. having unprotected sex with HBV positive patient
- C. mother passing HBV onto child in utero

**Question 42**

Patient with metastatic Ca lung now post op from procedure on PCA pethidine. Has Cr 0.15. developing jerking movements over past day and new develops seizure. What is the most likely cause?

- A. brain mets
- B. peth metabolites
- C. hypercalcemia

**Question 43**

Which of the following is least likely to be consistent with a diagnosis of trigeminal neuralgia?

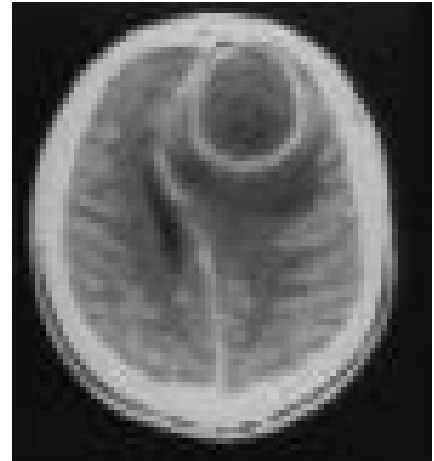
- A. onset of facial pain > 60 years old
- B. "lack of absence corneal reflexes"
- C. spontaneous resolution of pain
- D. response of pain to carbamazepine
- E. normal MRI

**Question 43**

A previously well patient presents with febrile illness, headache and "focal neurological signs". A CT brain is shown

what is the most appropriate therapy?

- A. penicillin, metronidazole, rifampicin
- B. penicillin, metronidazole, gentamicin
- C. vancomycin, metronidazole, penicillin
- D. ceftriaxone, metronidazole, acyclovir



#### Question 44

An elderly woman is on warfarin for AF presents with a headache and confusion and is found to have an intracranial bleed. She requires urgent neurosurgery and her INR is 6. what is the most appropriate way to reverse her anticoagulation?

- A. FFP
- B. Cryoprecipitate
- C. Vit K
- D. Platelets
- E. PRBC

#### Question 45

A 25 year old male with history of ETOH of 140 gm / weeks and heavy smoker presents with nausea **and then a single vomit stained with blood.**

O/E stable, BP ok with no postural drop, soft brown faeces PR. Mild epigastric tenderness. No signs CLD

What is the most likely cause?

- A. DU
- B. GU
- C. Acute H.pylori gastritis
- D. M-W tear
- E. ??? varices or esophagitis

#### Question 46

An elderly man presents with fatigue and ? bruising

Found to be pancytopenic with macrocytosis

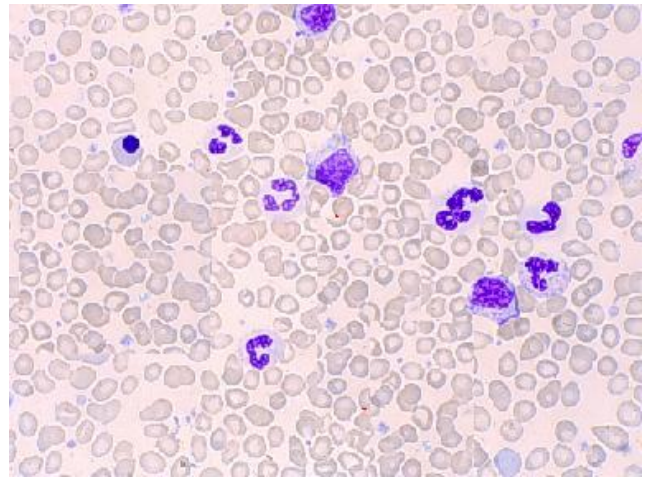
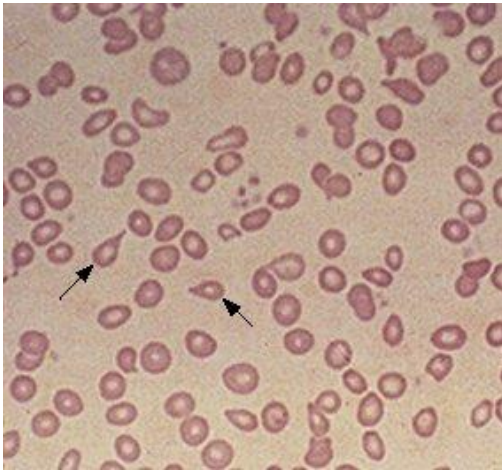
On examination is found to have palpable spleen 12cm below costal margin

Peripheral film shows pancytopenia with no blasts and ? erythroblastic picture

Which of the following is most likely?

- A. macrocytosis
- B. essential myelofibrosis
- C. CML

- D. Cirrhosis
- E. Tumour infiltration



#### Question 47

Question about AML

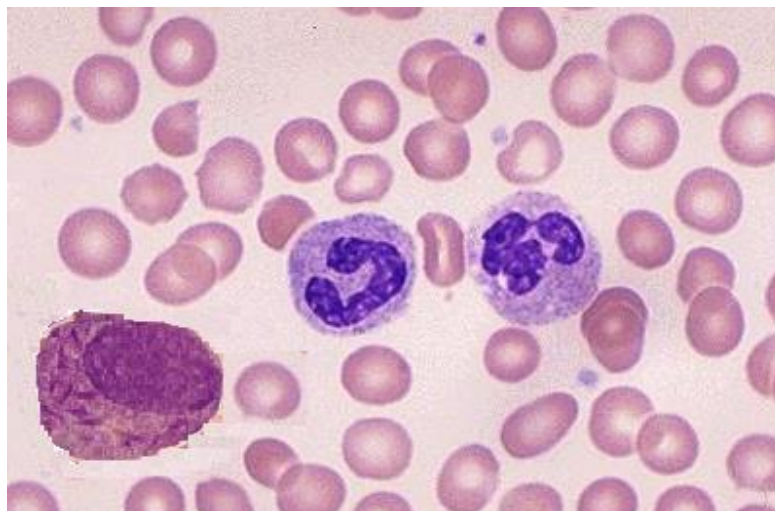
Young female presents with fatigue and bleeding of gums with bruising

Pale on examination

Pancytopenic

Prolonged INR and APTT, elevated d-dimer, low fibrinogen

Excellent peripheral film showing blast cells, one of which contains a faggot/bundle of Aur rods



Which of the following is the most appropriate 1<sup>st</sup> line therapy?

- A. cyclophosphamide
- B. CHOP
- C. ATRA
- D. Prednisolone
- E. chlorambucil

**Question 48**

A young man develops tonsillitis with temp 38 and is commenced on erythromycin. The following day he is still febrile and mildly icteric.

Blood tests show        increased WCC with neutrophilia of 18  
                                 Increased BR (70) with normal LFTs  
                                 Normal Hb

What is the most likely cause of the increased BR?

- A.     erythromycin
- B.     EBV
- C.     Gilberts syndrome
- D.     Haemolysis

**Question 49**

Patient with small cell ca lung

Isolated mass in right lung with negative studies for mets

Which of the following is most likely to provide longest survival?

- A.     chemo then surgery
- B.     chemo then XRT
- C.     XRT
- D.     Surgery
- E.     Chemo and XRT then surgery

**Question 50**

Patient with NSCLC staged at IIIa with mediastinal involvement

?? the primary lesion is 3 cm from the carina

what is the most appropriate management?

- A.     surgery
- B.     XRT
- C.     XRT and surgery
- D.     Neo-adjuvant chemo and surgery
- E.

**Question 51**

Which of the following is the commonest manifestation of Bechets disease?

- A.     recurrent mouth ulcers
- B.     genital ulcers
- C.     lung disease
- D.     meningitis
- E.     arthritis

**Question 52**

HIV positive man presents with headaches

CD4 count 10

Viral load high (RNA 280,000)

?? Antivirals and prophylaxis

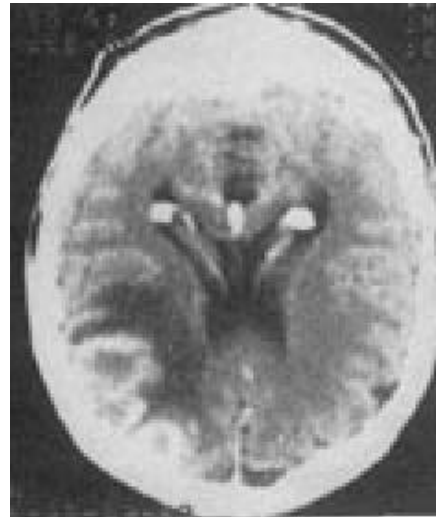
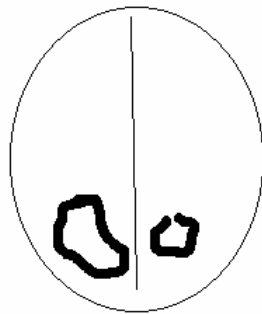
Toxo serology IgG and IgM both negative

EBV and CMV IgG +, but IgM negative

Lumbar puncture        -    20 lymphocytes, no RBC, protein normal-slightly ↑

- cryptococcal Ag negative
- EBV PCR positive

CT brain shows 2 ring enhancing structures, both in the parietal lobes



what is the most likely aetiol of presentation

- A. cyptococcus
- B. cerebral lymphoma
- C. EBV
- D. HIV perse
- E. Toxoplasmosis

### Question 53

40 year old man presents with generalized seizure

gives history of hallucinations over past 6 months

EEG is shown which is of poor quality but seems to show have discharges in both temporal lobes (right > left) with minimal in the frontal lobes

What is the most likely cause?

- A. TLE secondary to temporal cavernoma
- B. delayed onset of primary GTCC
- C. frontal lobe gliosis
- D. TLE secondary to cerebral abscess
- E. Non-epilepsy

### Question 54

28y.o male previously diagnosed with syphilis and Treated with 10/7 course penicillin, now presents with a macular rash on his trunk. Picture shown: faint macular rash in pts trunk. RPR – 1/256; FTA- +ve.

What is the best Treatment?

- (a) Benzyl Penicillin 1.8gm QID intramuscular for 10 days.
- (b) Benzethine Penicillin 1.8gm intramuscular single dose.
- (c) Procaine Penicillin 1.8gm daily for 10/7.
- (d) Ceftriaxone 250mg imi for 5/7.
- (e) Doxycycline 100mg bd for 14/7.

**Question 55**

Elderly female presents with interscapular pain whilst lifting.

Lateral thoracic spine xray (shown) – crush #'s T3 and T9

Investigations:

Normal serum protein.

Serum EPG – no paraprotein; hypogammaglobulinaemic.

BMD: Lumbar spine T-3, Z-4; Femoral neck T-1.8, Z -2.1

UA +protein

Next best investigation?

- A. Bone biopsy
- B. FSH
- C. Urinary EPG
- D. Bone scan
- E. Bone turnover markers

**Question 56**

Repeat question – middle aged man with recurrent urinary calculi requiring lithotripsies.

He has normal Ca/P/PTH and high urinary urate and Ca

Which is least likely to prevent recurrent stones?

- A. high fluid intake
- B. allopurinol
- C. alkalisation of urine
- D. low Ca diet
- E. thiazide

**Question 57**

Bone scan is shown – which of the following is most likely?

- A. Ca breast
- B. Ca prostate
- C. Pagets
- D. OA
- E. Myeloma

scan shows hot spots symmetrically in the spine, sacrum, prox femurs, and scapulae

**Question 58**

Patient presents with right sided neck swelling (no details if febrile or tender)

cold thyroid scan and normal TFTs

Aspirate shows “follicular cells”

What is next best step?

- A. repeat aspirate
- B. total thyroidectomy
- C. right hemithyroidectomy
- D. core Bx (drill Bx)
- E. observe



**Question 59**

Which of the following is most likely to interact with St. John's Wort (Hypericum Perforatum)?

- A. CyA
- B. Digoxin
- C. Cimetidine
- D. Metformin
- E. amitriptyline

**Question 60**

Young female with RA presents for review. She has had the condition for 5 years and her original XR show a small erosion at the base of the 2nd metacarpal. She is on MTX 7.5 mg weekly and PDN 7.5 mg daily. She claims that she felt better than 2 years ago. ESR 45, CRP 60, mild anemia.

Palpable thickening of MCPs and end of ulna.

XR shows ?? 2-3 small erosions at the bases of metacarpals of left hand.

What is the best management?

- A. reduce PDN to 5 mg
- B. increase PDN to 20 mg
- C. add leflunamide
- D. increase MTX
- E. change MTX to CyA

**Question 61**

What Ab is most specific for SLE?

- a. sm
- b. dsDNA
- c. ANA
- d. Ro
- e. U1-RNP

**Question 62**

Lady with advanced ovarian cancer presents with ataxia. CTB shows cerebellar atrophy.

What is the next best Ix. ??LP is negative for cytology ??biochem provided

- A. meningeal Bx
- B. PET scan of brain
- C. Anti Hu Ab
- D. Anti-perkinje cell Ab
- E. MRI

**Question 63**

22 year old man with lethargy, SOB, easy bruising. WCC 3.9, Hb 6.9, plt 20 a cellular and fatty BMA. Which of the following is likely to give best long term outcome?

- A. BMT with HLA matches sib

- B. Cyclophosphamide
- C. ATG
- D. GCSF and Epo
- E. Autologous bmt
- F. PDN

**Question 65**

Peri-menopausal female present with LN negative and ER+ breast Ca. She has a lumpectomy. What are the effects of XRT to breast?

- A. reduced local recurrence
- B. prolonged survival
- C. reduced mets

**Question 66**

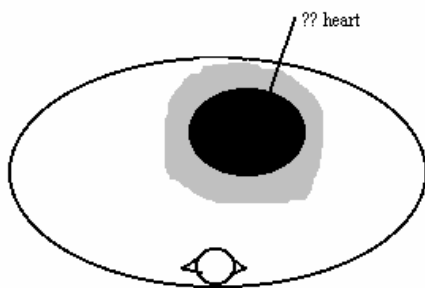
Female with Ca breast now presents with back pain and subtle long tract signs. What is the next best management?

- A. surgical decompression
- B. dexamethasone
- C. chemo and XRT
- D. pamidronate
- E.

**Question 67**

Patient with metastatic Ca lung now presents with abdo discomfort and shortness of breath. On examination JVP elevated

CT chest is shown – (?? massive pericardial effusions)



what is the next best Mx

- A. pericardial tap / drainage
- B. pleural tap / drainage
- C. XRT to chest wall
- D. diuretics
- E. ???

**Question 68**

Middle aged builder drops a load (question actually said “hod”) of bricks onto foot 2 months ago. Initial XR shows no #

Subsequently develops increased pain and ?dysthaesia/hyperesthesia of foot

Foot is cold and sweaty and ankle is painful to move and has reduced ROM  
Which of the following is the next best investigation?

- A. XR foot
- B. Bone scan
- C. Aspiration of joint
- D. Local anaesthetic injection in between tarsal heads
- E. Doppler ultrasound of the lower limb
- F. Nerve conduction studies

**Question 69**

Elderly female with CLL. She has had 2 chest infections over last year  
Now has normal Hb and other cells numbers  
?? no splenomegaly or sig lymphadenopathy

Ig show mild pan hypogammaglobulinemia in IgA, G and M

What is the best Mx?

- A. prophylactic antibiotics
- B. GCSF
- C. Regular IVIG
- D. ??melphalan and PDN

**Question 70**

A female present with history of sister who has had a child born with congenital heart block. She is 12/40 pregnant and wants to know if next child is at risk. What is the most appropriate investigation?

- A. dsDNA
- B. ANA
- C. Anticardiolipin Abs
- D. antiphospholipid Abs
- E. option which said "extractable nuclear Ag" or Anti – Ro or Anti - La

**Question 71**

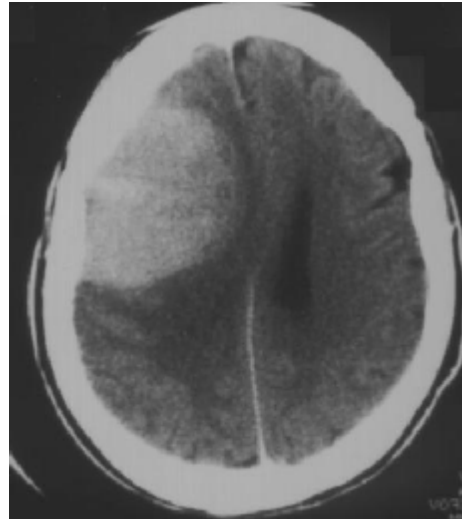
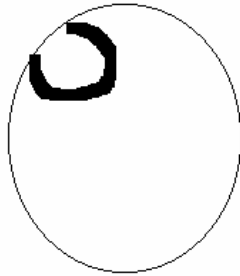
Middle aged man with long history of erosive RA. Now presents with peripheral sensory neuropathy and foot drop. He is on MTX and PDN  
What is the most likely cause of presentation?

- A. vasculitis
- B. MTX
- C. AIDP
- D. Multifocal motor neuropathy with conduction block
- E. MND

**Question 72**

Man in 40s (?43) presents with 6 months history of headache and now has unilateral weakness.

CT is show with massive tumour in right frontal lobe. This appears to have ring enhancement/hyperdense periphery but it wasn't a scan with contrast



- Diagnosis
- A. GBM
  - B. oligodendroma
  - C. astrocytopma
  - D. meningioma
  - E. DNET tumour

### Question 73

Youngish man on PD is having problems with SOB and ? fluid retention

What is the best way to asses the efficacy of PD?

- A. serum glc
- B. serum K
- C. serum Cr
- D. peritoneal exchange study
- E. peritoneal fluid Na

### Question 74

Which of the following requires FFP rather than Alb for plasma exchange?

- A. MG
- B. AIDP/GBS
- C. TTP
- D. CIDP
- E. waldenstroms

### Question 75

Young man presents with mediastinal mass. Which of the following serum tumour markers would suggest to a good prognosis?

- A.  $\beta$  HCG
- B. Ca-125
- C. Ca 15.3
- D. CEA
- E. Ca19.9

**Question 76**

A middle aged man is 10 days post op from BMT (allogeneic / autologous) for AML  
Now presents with abdo discomfort and SOA  
LFTs elevated Bili 80, ALP 180, GGT 800, AST 1500, ALT 1500.

No comment on the presence of skin rash

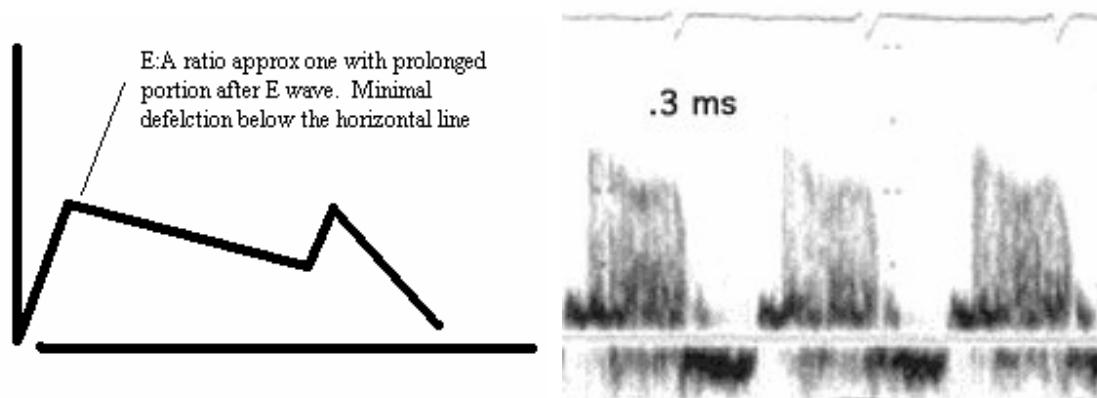
No splenomegaly on CT abdo

What is the cause of the presentation?

- A. venoocclusive disease
- B. portal vein thrombosis
- C. GVHD
- D. opportunistic infection
- E. liver candidiasis

**Question 77**

Young female presents with short history of SOB/OE. CXR shows mild cardiomegaly at most. TTE trace is shown which has transmitral flow study



what is the diagnosis?

- A. MS
- B. AS
- C. MS and AS
- D. MR and MR

**Question 78**

What is the complication of OSA which has the highest RR compared to the general population?

- A. stroke
- B. AMI
- C. MCA
- D. HT
- E. PHT

**Question 79**

Which of the following diets is most likely to result in a reduction in BP?

- A. Na intake < 400 meq / day

- B. K intake > 60 mg / day
- C. Low fat and high fibre

**Question 80**

A middle aged man with inoperable IHD is on metoprolol, GTN, amlodipine and digoxin and warfarin. He is also on Li for manic depression. Which of the following would be most appropriate to reduce the dose of when you start him on fluoxetine?

- A. Warfarin
- B. metoprolol
- C. Li
- D. Digoxin
- E. amlodipine

**Question 81**

Female presents with increased weight and depression

? FSH / LH  
prolactin 1900  
↓ TSH and T4

what is the most likely cause?

- A. nonfunctioning macroactinoma
- B. primary hypo T4
- C. prolactinoma

**Question 82**

A 35 year old woman presents concerned about her family history of Ca breast in mother (onset 32) and aunt (48). She wants to know what the risk of her 15 year old daughter is at with respect to Ca breast. The mothers serology is negative but the aunts BRCA 1 and 2 are positive. What can be said about the daughters risk from these studies?

- A. unable to ascertain risk
- B. she is at an increased risk
- C. she is a reduced risk
- D. need to test the fathers BRCA gene status
- E. need full family pedigree to determine risk

**Question 83**

Elderly man with prior XRT for Ca prostate now presents with widespread bony mets. What is the best course of management?

- A. androgen deprivation
- B. XRT
- C. Systemic chemo
- D. Best supportive care

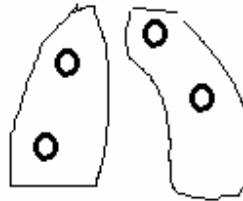


#### Question 84

Middle aged man presents with chest symptoms following recent insertion of grommets  
CXR is shown with multiple largish cavitating lesions

What is the test which will help most with the diagnosis?

- A. cANCA
- B. CT chest
- C. Sputum cytology
- D. Aspergillus skin prick
- E. FNA



#### Question 85

Woman in 30s presents with history of depression. She has a family history of HD and her brother (??older or younger) has recently been diagnosed as having a tremor of his hand. Her neurological examination is normal

What is the most appropriate thing to do with her with respect to HD screening?

- A. should do it to differentiate from psych symptoms which are associated with HD
- B. should do it to determine the most appropriate Rx
- C. should do it only if the brothers HD genotype is known
- D. screening / genetic analysis is not indicated

#### Question 86

55 y.o female patient presents with sudden onset of SOB. She has history of MVR with tilting disc St. Judes valve 2 years prior. Echo shows the one of the discs is stuck and that there is moderate MR

The INR is 1.9

What is the most appropriate Mx?

- A. ABic
- B. Heparin IV
- C. Add aspirin
- D. Thrombolysis

- E. Urgent MVR

**Question 87**

An elderly man presents with parietal lobe bleed. What is the most likely aetiol?

- A. HT
- B. Amyloid
- C. AVM
- D. Mycotic aneurysm
- E. Lacunar stroke

**Question 88**

38 year old female presents with proximal muscle weakness, SOB over 6 weeks  
Hands show hyperkeratotic changes on the “palmer surface and the lateral aspect of fingers” ??also mentioned that it was cracking

- ? CK (890)
- ? ANA with speckled pattern
- ? Jo-1

what is the most likely cause?

- A. dermatomyositis
- B. Polymyositis (antisynthetase syndrome)
- C. SLE
- D. Sjogrens
- E. Scleroderma
- F. RA

**Question 89**

Where is the initial place of ankylosis in patient with ank spond?

- A. Cx
- B. Lx
- C. Tx – Lx junction
- D. Sx
- E. Cx-Tx junction

**Question 90**

45 year old man presents with malaise  
O/E he has gynaecomastia and spiders  
Mild increase  $\gamma$  GT with relatively normal other LFTs  
Ferreitin is 2000 – ?? other aspects of Fe studies not show  
Transferrin sat was definitely not

What is the most best next Ix?

- A. Autoimmune screen
- B. HFE gene analysis
- C. Hepatitis serology
- D.

**Question 91**



Female presents with mild hypercalcemia. Her mother also had hypercalcemia and had parathyroidectomy without improvement. She has mildly increased Ca, normal phosphate with PTH at the upper limit of normal. What is the next best step?

- A. neck exploration
- B. 24 hour urinary Ca
- C. Sestamibi scan

### Question 92

Diabetic lady with multiple other coronary risk factors is now day 5 post op from cholecystectomy. She presents with ? chest pain / ?? SOB and is tachycardic. ECG shows widespread precordial ECG changes in ST-T segment highly suggestive of ischemia but with no indication for thrombolysis and not > 1mm ST horizontal depression. She is on aspirin and

i.e. the changes are biphasic T waves / down sloping ST depression in multiple leads. It also shows sinus tachy

You are asked what is the most appropriate Mx prior to waiting for ??investigation /blood tests to return

- A. thrombolysis with SK
- B.  $\beta$  blocker,
- C. heparin alone
- D. heparin and  $\beta$ blocker
- E. heparin and  $\beta$ blocker and tirofiban

one of the options may have had aspirin in it but the stem definitely stated that she was on aspirin

### Question 93

Repeat question regarding young male just successfully treated with steroids for CD. What is the most appropriate prophylaxis to reduce chance of remission?

- A. Azothioprine
- B. Salazopyrine
- C. PDN
- D. CyA

### Question 94

45 yo male. BP 180/100. Na 144, K 2.6, U and Cr normal. Aldo 800 $\uparrow$  Renin 200 $\downarrow$ (N>250). Next Ix?

- (a) Adrenal vein aldo sampling
- (b) Urinary aldo
- (c) Dexamethasone for 5 days then repeat aldo
- (d) Normal saline for 4 hours then repeat aldo
- (e) Give ACTH then repeat aldo

**Question 95**

37 yo male presenting for investigation of thrombocytopaenia. Has been well previously.

FBC normal except for platelets 78

EUC/LFT normal

On further questioning, recalls being assaulted at age 17, requiring hospitalization and NG tube for 'pancreatic injury'

2 non consecutive slices of CT abdo (shown) – non contrast

? some pancreatic calcification ?dilated splenic vein

What is the most likely diagnosis?

- (a) Portal vein thrombosis
- (b) Splenic vein thrombosis
- (c) Pancreatic pseudocyst
- (d) Budd Chiari

**Question 96**

The severity of tricuspid regurgitation is used to estimate RV pressures using the equation

$\Delta P = 4V^2$ . In a patient with TR with mean vel 3.5, peak vel 4, RA pressures 5 cm, what is the RV pressure (correct to +/- 2mmHg)

- (a) 55
- (b) 60
- (c) 65
- (d) 70

**Question 97**

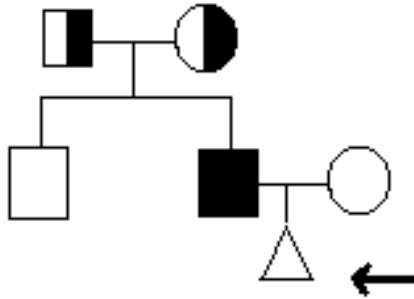
A man with non small cell lung cancer- right sided lesion 3cm from the carina , R hilar mass, mediastinum mentioned. Told stage IIIa

Best management to prolong survival?

- a) chemotherapy alone
- b) chemotherapy and surgery
- c) chemotherapy and radiotherapy and surgery
- d) radiotherapy alone
- e) surgery alone

**Question 98**

In the following family, what is the chance of the person with the arrow having the disease?  
(Carrier frequency 10%)



### Question 99

Best predictor of suicide in a terminal cancer patient?

- A. major depression
- B. end stage disease
- C. severe pain
- D. poor family support
- E. poor prognosis

### Question 100

Middle aged man. Presents to multiple doctors with a number of physical complaints. No cause is found after investigation. Admits to being stressed and having financial difficulties. Most likely dx?

- A. somatisation
- B. panic attack
- C. anxiety
- D. hypochondria
- E. malignering