

## 2004 RAH Reconstruct

– the following is dedicated to the Mexicans, without whose existence, our lives would be so much more difficult

### Cardiovascular:

- 1) 80 year old woman has chronic AF and hypertension: on warfarin and a betablocker. HR 60 AF. What is the management strategy of choice : ( \*= after successful cardioversion)

	DC cardioversion	Anticoagulation strat	
A	Yes	Aspirin *	B blocker
B	Yes	Aspirin *	Amiodarone
C	Yes	Warfarin	Amiodarone
D	No	Warfarin	B Blocker
E	No	Warfarin	Amiodarone

- 2) With the availability of defibrillators in public areas ( airports , sports stadiums etc ), if someone collapses and is found to be in VF and is successfully cardioverted, which of the following best describes their prognosis?

	Survival to hospital	Survival at 1 year
A	<10%	<10%
B	10-25%	<10%
C	10-25%	10-25%
D	>25%	10-25%
E	>25%	>25%

- 3) A man with aortic regurgitation has the following values on cardiac catheterisation: LVEDV 200ml, LVESV 50ml, Cardiac output 7.5L/minute, HR 75 bpm. What is the regurgitant fraction ?

- a) 25%
- b) 33%
- c) 90%
- d) 20%
- e) 50%

- 4) Elderly patient with heart failure – currently on frusemide 40mg daily and Enalapril 20mg daily. Has dyspnoea on moderate exertion. HR 80 regular, BP 130/80, JVP +1cm, no evidence of fluid overload, ECG normal. What is the most appropriate change /addition in medication:

- a) Increase frusemide
- b) Add spironolactone
- c) Add a beta-blocker
- d) Add a angiotensin receptor blocker
- e) Add digoxin

- 5) In a patient with pregnancy , worst prognosis is predicted in someone with moderate to severe

- a) Pulmonary hypertension
- b) Peripartum cardiomyopathy
- c) Aortic regurgitation
- d) Coarctation of the aorta
- e) HOCM

- 6) In which of the following patients with aortic regurgitation is valve replacement most indicated:

	LV ESD	LA size	fractional shortening
A	65mm	35mm	0.4
B	70mm	50mm	0.25
C	70mm	55mm	0.35
D	55mm	55mm	0.3

E	60mm	60mm	0.35
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- 7) What is the mechanism for decreased VO<sub>2</sub> in normal aging
  - a) Decreased stroke volume
  - b) Decreased FEV1
  - c) Decreased maximal heart rate
  - d) Decreased lung compliance
  - e) Decreased FVC
- 8) Which variable is least likely to change from rest to maximal exercise in a young male athlete.
  - a) lactate
  - b) V<sub>O2</sub>:V<sub>CO2</sub> (i.e. the ratio of O<sub>2</sub> consumption to CO<sub>2</sub> consumption) – yes it was worded like this
  - c) Coronary sinus oxygen sats
  - d) Mixed venous oxygen sats
  - e) BP
- 9) Walking has been shown to of greater benefit than weight lifting in which of the following conditions?
  - a) Falls
  - b) Vascular claudication
  - c) Insulin resistance
  - d) Osteoarthritis
  - e) Stable angina
- 10) A diabetic, hypertensive male, 70 yo with no cardiac history and a normal ECG, is being assessed pre-operatively before hemicolectomy for colon cancer. Which of the following perioperative measures has been proven to reduce adverse cardiac events?
  - a) Metoprolol
  - b) Aspirin
  - c) Nitrates
  - d) Diuretics
  - e) Yoga.
- 11) A woman in her thirties presents with severe headaches, obtundation and BP 240/140 : on examination she has bilateral papilloedema. What is the drug of choice?
  - a) IV nitroprusside
  - b) IM hydralazine
  - c) nifedipine
  - d) Frusemide
  - e) Captopril
- 12) Which of the following medications is most likely to reduce preload?
  - a) Verapamil
  - b) Nifedipine
  - c) Propanolol
  - d) Losartan
  - e) Nitroglycerin
- 13) Which of the following clinical manifestations is most characteristic of familial hypercholesterolaemia?
  - a) Tendon xanthomata
  - b) Eruptive xanthoma
  - c) Lipaemia retinalis
  - d) Pancreatitis
  - e) Corneal arcus.
- 14) What is the mechanism of action of the fibrates?
  - a) Up-regulation of lipoprotein lipase
  - b) Peroxidation of LDL molecules
  - c) Upregulation of LDL receptors
  - d) Enterohepatic circulation of
  - e) Decreased hepatic cholesterol synthesis

- 15) What is the main mechanism responsible for initiation of myocyte contraction?
- Membrane Ca Channel activation
  - Ca release from cisterns of sarcoplasmic reticulum
  - Sarcolemmal Ca channel pump
  - ??
  - ??
- 16) A patient is admitted to hospital with decompensation of her severe congestive cardiac failure. Which of the following has the best evidence to support its use in the prevention of DVT in such a patient?
- Aspirin
  - Compression stockings
  - enoxaparin
  - None

**Endocrine :**

- 17) What is the most common association with Type I DM?
- Pernicious anaemia
  - Addison's
  - Hashimotos thyroiditis
  - Primary ovarian failure
  - SLE
- 18) A 42 year old woman has had TSS for a pituitary adenoma 5 years ago. She subsequently underwent radiotherapy. Her current replacement regime includes : Thyroxine 150ug daily, hydrocortisone 20mg daily ( equivalent to cortisone acetate 25mg ). She is also on fluoxetine for depression. She now presents with lassitude fatigue and weight gain. On examination, BP is 140/85 and there is truncal obesity. What is the most likely cause for her weight gain ?
- Fluoxetine
  - Excessive glucocorticoid replacement
  - Insufficient thyroxine
  - GH deficiency.
  - Acquired Kluver Bucy syndrome.
- 19) A 50 year old man with acromegaly underwent TSS . During follow up, his IGF1 is again elevated. Repeat scanning shows an isolated recurrence in is R sphenoid sinus. He is currently asymptomatic. What is the next step in management ?
- Bromocriptine
  - Cabergoline
  - Octreotide
  - Open surgery
  - Radiotherapy
- 20) When investigating a 4cm thyroid nodule (found on examination) what is the next investigation?
- TSH
  - FNA biopsy
  - Thyroid scan
  - ultrasound
  - CT neck , chest.
- 21) A 32 year old woman presents with thyrotoxicosis clinically and biochemically. Thyroid scan is shown featuring a single hot nodule. What is the most likely abnormality?
- TSH activating receptor mutation
  - GSA mutation
  - Thyroid stimulating Ig
  - Mutation in ret proto-oncogene
  - thyroiditis factitia
- 22) Long term hormone replacement therapy continued for > 5years most increases the absolute risk of which of the following ? ( nb this is the exact wording of the question )
- Lung cancer

- b) Colon cancer
  - c) Dementia
  - d) Breast cancer
  - e) Uterine cancer
- 23) An 88 year old woman resides in a nursing home. She is ambulant but doesn't get out much. Her past history includes severe reflux oesophagitis, a previous DVT, Stage II breast cancer treated many years ago. She undergoes BMD testing which shows a t score of -2.2 in her lumbar spine and -3 in her femoral neck. She is commenced on calcium – addition of what other medication is appropriate?
- a) Alendronate
  - b) Raloxifene
  - c) HRT
  - d) Vitamin D
  - e) None, her life expectancy is exceeded by the time to significant benefit with each of the above agents
- 24) A 35 year old Indian woman presents to you with leg pain, slight bilateral hip flexor weakness, difficulty walking due to pain. Selected electrolytes shown: Ca 2.13, Phosphate 0.6 PTH 16 ( high) , ALP 450. What should be done next ?
- a) 24 hour urinary calcium
  - b) Parathyroid scintigraphy
  - c) DEXA
  - d) Vitamin D level
  - e) Start alendronate 40mg daily
- 25) A woman in her 30s is found to be hypertensive on routine examination. She is otherwise asymptomatic. Physical examination reveals BP 180/105 with no peripheral oedema. Electrolytes given: K+2.5 Na+ 146 Cl 108, HCO<sub>3</sub> 34. What is the most appropriate investigation?
- a) Upright renin : aldosterone ratio
  - b) 24 urine electrolytes
  - c) 24 hour urine aldosterone
  - d) renal angiogram
  - e) CT abdomen.
- 26) A 32 year old man is on spironolactone for hypertension. He also binge drinks once in a while. Presents with bilateral gynaecomastia and nothing else. Hormonal profile given: oestrogen 350 (high), LH <1 , Testosterone + DHEA normal, 20ml testes on examination. What is the next appropriate step in management?
- a) Cease alcohol
  - b) Testicular ultrasound
  - c) Karyotype
  - d) MRI pituitary
  - e) Cease spironolactone.
- 27) In a young woman who has lost weight, which of the following is most suggestive of anorexia nervosa?
- a) BMI <15
  - b) Body image disturbance
  - c) Family history of eating disorder
  - d) Amenorrhea
  - e) Loss of secondary sex characteristics
- 28) In a patient with long standing type II diabetes, which of the following is the best reason for the ultimate deterioration in glycaemic control?
- a) Decreased insulin secretion
  - b) Increasing insulin resistance
  - c) Weight gain.
  - d) poor compliance
  - e) ??

### Gastroenterology :

- 29) A 44 year old woman has a history of ileocolonic Crohn's for which she has had a terminal ileal resection 8 years ago. She has had quiescent disease with no flares and is on no medication. She now presents with several

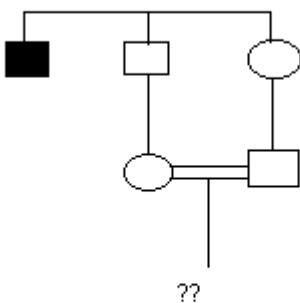
episodes of cramping and abdominal pain which have been relieved after several hours. There is no fever, no change in bowel habit. CT abdo is shown ( ? string sign of 8cm ) What is the most likely explanation for her symptoms ?

- a) Irritable bowel syndrome
  - b) Carcinoma of bowel
  - c) Recurrence of Crohn's
  - d) Adhesions
  - e) Psoas abscess.
- 30) Man in his 30s with colonic Crohn's – what is the treatment of choice for maintaining remission
- a) Mesalazine
  - b) Budesonide
  - c) Oral corticosteroids
  - d) Sulphasalazine
  - e) Azathioprine.
- 31) 55 year old woman has a history of IBS ( constipation predominant ) and has had a colonoscopy 15 years ago when the diagnosis was made. She now presents with several episodes of bloating, and abdominal discomfort – all of which have resolved with the use of enemas. AXR shown with prominent gas in splenic flexure ? What is the most appropriate next step in management ?
- a) Repeat colonoscopy
  - b) Increased dietary fibre
  - c) Prescribe regular laxatives
  - d) Abdominal CT
  - e) Pelvic US ?
- 32) A 45 year old alcoholic male who usually consumes 200g alcohol daily has recently separated from his wife. He reports feeling down. He has recently had episodes of shaking and sweating, and also complains of difficulty sleeping. Subsequently he has increased his alcohol consumption to 250g daily. What is the next best step in management?
- a) Sign him up for cognitive behavioural therapy
  - b) Alcohol detoxification
  - c) Long acting benzodiazepine
  - d) SSRI
  - e) naltrexone
- 33) A 45 year old man who drinks 100g alcohol daily with week-end binges presents with nausea, vomiting, RUQ pain and fevers. Has a past history of IVUDU when he was 20. On examination – jaundiced , RUQ tenderness and palpable liver with no other stigmata of chronic liver disease .LFTs : AST 900 ALT 700 ALP 412 GGT 2213 BR 125 albumin 32 , INR 1.2, Hb, plt normal, WCC 13 ( neutrophilia ) What is the most likely diagnosis?
- a) Advanced cirrhosis
  - b) Hepatoma
  - c) Acute viral hepatitis
  - d) Alcoholic hepatitis
  - e) Cholecystitis
- 34) Elderly man presents with progressive dysphagia. Endoscopy + Bx shows oesophageal cancer. Staging CT shows liver mets ( proven on biopsy) What is the treatment of choice to relieve this patient's dysphagia acutely and in longer term (more than 6 months)?
- a) Radiotherapy
  - b) Chemotherapy
  - c) PEG insertion
  - d) Self expanding metal stent
  - e) Dilatation
- 35) What is the most common deficiency post distal gastrectomy?
- a) B12
  - b) Folate
  - c) Iron
  - d) Calcium

- e) Magnesium
- 36) Which of the following is least likely to cause megaloblastic anaemia?
- Pernicious anaemia
  - Strict Vegan diet
  - Coeliac disease
  - Bacterial overgrowth
  - Transcobalamin I deficiency
- 37) Patient has bleeding varices. Which of the following is least beneficial in preventing bleeds?
- IV vasopressin
  - IV omeprazole
  - Propranolol
  - Endoscopic banding
  - Injection sclerotherapy.
- 38) In alpha 1 antitrypsin deficiency, what is the predominant mechanism of liver disease?
- Concurrent Hepatitis C infection
  - Liver fibrosis due to alcohol use
  - Accumulation of alpha-1 antitrypsin in liver
  - Increased serum elastase
- 39) What is the most accurate test for T staging in oesophageal cancer
- Endoscopic Ultrasound
  - Endoscopy
  - Laproscopy
  - PET
  - CT chest and abdo.

### Genetics

- 40) The following pedigree is shown: transmission is autosomal recessive. What is the chance of the current consanguineous couple having an affected child?



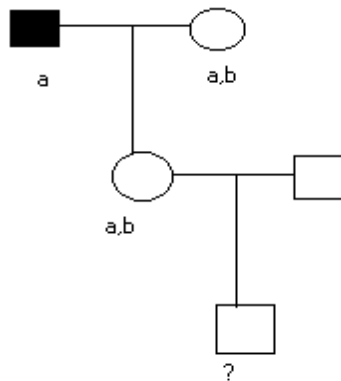
- 1/16
  - 1/36
  - 1/64
  - 1/96
  - 1/128
- 41) There have recently been several restriction fragment length polymorphisms found to be homologous on X and Y chromosomes . Given the RFLPs shown in the table below , what is the likely sex of the children?

Mother	127,140
Father	127,162
Daughter	127,140

Child1	140,162
Child2	127
Child3	140

	Child1	Child2	Child3
A	Female	Female	Female
B	Female	Male	Female
C	Female	Male	Male
D	Male	Female	Female
E	Male	Male	Male

- 42) In a condition where the mutation lies in NDF4 , a mitochondrially encoded protein involved in the respiratory chain, what is the likely mode of inheritance ?
- Mitochondrial , homoplasmy
  - Mitochondrial, heteroplasmy
  - Autosomal recessive, homoplasmy
  - Autosomal recessive, heteroplasmy
  - Autosomal dominant.
- 43) What is the process by which viral mRNA is produced from viral DNA
- Reverse transcription
  - Translation
  - Transition
  - Transversion
  - Transcription
- 44) What is the role of transcription factors?
- Spliceosome binding enabled
  - Facilitation of reverse transcription
  - Facilitation of RNA polymerase
  - Facilitation of DNA polymerase
  - Production of an antisense DNA strand.
- 45) In an X linked condition , markers a and b have a 10% chance of recombination with the affected allele – what is the chance that the male indicated will be affected ? ( affected male is also ‘a’ )



- 100%
- 90%
- 81%
- 50%
- 25%

- 46) In DMD there have been polymorphisms linked with the mutant gene. Below is a family with an affected man and his sister's family (with four sons) genotype for the polymorphisms. Mother has mildly raised CK. Which of the sons is least likely to be affected?

Father	AD
Mother	AB,CD
Son1	A,D
Son2	B,C
Son3	A,C
Son4	D,C

- a) Son 1  
 b) Son 1 and 3  
 c) Son 4  
 d) Son 2  
 e) None of the above
- 47) In haemophilia A with a frame shift mutation, how many copies of the mutant gene are there in a cell at the conclusion of S phase?
- a) 0  
 b) 1  
 c) 2  
 d) 3  
 e) 4

## Geriatrics

- 48) What intervention is most likely to prevent falls in the elderly?
- a) Strength and balance training  
 b) Reduction in antihypertensive medications  
 c) Home hazard modification  
 d) Falls education program  
 e) Walking
- 49) An 85 year old woman with dementia lives at home with her son. In recent times she has been more confused and claiming that there are people in the ceiling and wandering around the house despite reassurances to the contrary. Her son would like to know what the best option for management is.
- a) Send her mother to day care for respite  
 b) Isolate and rest her in her own room  
 c) Remove home factors exacerbating the delusions  
 d) Prescribe benzodiazepines  
 e) placement
- 50) What is the life expectancy of a 65 year old Caucasian Australian man
- a) 5 years  
 b) 7 years  
 c) 10 years  
 d) 15 years  
 e) 25 years
- 51) Which clinical feature is most suggestive of a delirium
- a) Inability to concentrate long enough to answer questions  
 b) Worsening of agitation at night  
 c) Being argumentative and combative with nurses  
 d) ? Hallucinations  
 e) MMSE 8/30
- 52) An 82 year old woman was recently discharged home with oral analgaesics following an acute crush # . What is the most likely reason for her to bounce in 1 month?
- a) She lives alone  
 b) Depressed mood

- c) Incontinent
  - d) Poor functional capacity
  - e) Recently failed part 1 of the geriatrics FRACP MCQ.
- 53) An old man with a history of hypertension and a remote history of MI years ago presents with bilateral leg pain after walking 100-150m. When he sits, the pain is relieved. On examination, he has bilateral carotid and femoral bruits but peripheral pulses are intact. He has bilateral absent ankle jerks and decreased proprioception in his toes bilaterally. All other examination findings are normal. What investigation is most likely to yield a diagnosis?
- a) CT lumbar spine
  - b) Doppler arterial studies
  - c) Bilateral leg angiograms
  - d) Nerve conduction studies
  - e) Whole body bone scan.

### Haematology

- 54) What is the best way to prevent a febrile non-haemolytic transfusion reaction?
- a) blood irradiation
  - b) donor white cell depletion
- 55) A middle-aged male is found on routine CBE to have a WCC 35, Hb 110, plt 140. A blood film is shown featuring 6 mature-looking cells of myeloid lineage. What is the most likely associated genetic abnormality?
- a) t(8,21)
  - b) trisomy 8
  - c) del 5
  - d) t(9,22)
- 56) A middle-aged female, who is otherwise well, is found on CBE to have WCC 50, Hb 115, plt 130. Blood film reveals several mature-looking lymphocytes & 2 smudge cells. Immunocytochemistry is most likely to feature which of the following:
- a) CD10
  - b) CD20
  - c) CD5
  - d) CD4
  - e) CD8
- 57) A young male presents with a 3 day febrile illness and sore throat. CBE reveals Hb 64, WCC 9, plt 460. Blood film reveals 3 bite and/or blister cells. What is the most likely cause of his anaemia
- a) thalassaemia
  - b) sickle cell anaemia
  - c) G-6-PD deficiency
  - d) aplastic anaemia
  - e) pyruvate kinase deficiency
- 58) In chronic phase CML, which of the following is most likely to achieve a complete cytogenetic response?
- a) imatinib
  - b) IFN- $\alpha$
  - c) hydroxyurea
  - d) radio-active  $^{32}\text{P}$
  - e) cytarabine
- 59) Before hernia repair, a routine pre-op CBE identifies low MCV. Further investigation reveals high HbA<sub>2</sub>, normal HbF, and normal Hb electrophoresis. What is the most likely cause?
- a) chronic blood loss
  - b) congenital sideroblastic anaemia
  - c) lead poisoning
  - d) beta-thalassaemia trait

- 60) A middle-age woman suffers iron deficiency anaemia. There is no history of PV blood loss. She has had repeated endoscopies & colonoscopies which were normal. She has required blood transfusions to the total of 4 units every 3 months. Which of the following is the investigation of choice?
- labelled red cell scan
  - repeat colonoscopy
  - enteroscopy
  - Ba meal & follow-through
- 61) Inhibitor repeat question
- 62) A young woman is in hospital with # femur. Pre op, she is noted to have APTT 56. The INR 1.2, plt normal. After mixing her plasma with normal plasma in 1 : 1 ratio, the APTT is 48. The most likely cause of this abnormality is:
- lupus anticoagulant
  - acquired factor VIII inhibitor
  - carrier of haemophilia A gene
- 63) In the treatment of a patient with haemophilia A, who has high titre factor VIII inhibitor, the treatment of choice is:
- factor VIII
  - FFP
  - cryoprecipitate
  - recombinant activated factor
- 64) What is the best indication for the use of cryoprecipitate?
- factor IX deficiency
  - IgA deficiency
  - fibrinogen deficiency
  - protein C deficiency
  - anti-thrombin III deficiency
- 65) In a woman with anti-phospholipid syndrome, with recurrent pregnancy loss, the best prophylactic strategy in pregnancy is
- aspirin alone
  - aspirin and low-dose low-molecular weight heparin
  - warfarin
  - low-dose low-molecular weight heparin
  - corticosteroids
- 66) A 35 year-old man who has end-stage renal failure is on EPO. His Hb is found to be 65, MCV 109, absolute reticulocyte count 15. What is the likely cause of his anaemia?
- myelodysplastic syndrome
  - non-neutralising EPO Ab's
  - pure red cell aplasia
  - Fe deficiency
- 67) A man presents with exacerbation COPD. He has Hb 199, elevated total red cell mass, EPO 34 (high), Plasma volume normal, Plt normal, WCC 13 (neutrophils). What is the most likely cause of his polycythaemia
- polycythaemia rubra vera
  - relative polycythaemia
  - spurious polycythaemia
  - chronic hypoxia

### Immunology

- 68) Which cell drives the pathogenesis of sarcoidosis ?
- Macrophages
  - Mast cells
  - TH1 cells
  - TH2 cells
  - NK cells
- 69) Which of the following best implicates a particular Ab as being pathogenic in an autoimmune disease:

- a) Elution of complement from tissue
  - b) Demonstration of immune complexes in tissue biopsy
  - c) Demonstration of immunoglobulin in tissue biopsy
  - d) Demonstration of the disease by passive transfer of the immunoglobulin into an unaffected subject
  - e) Improvement with plasmapheresis.
- 70) A patient has a sister with SLE. Which of the following is most likely to predispose to her developing SLE?
- a) Homozygous C1q deficiency
  - b) HLA DR3
  - c) Monozygosity and normal C1q
  - d) ANA positive
  - e) Joint pains
- 71) Which of the following differentiates between antigen dependent and antigen independent B cell development ?
- a) Expression of mu chains
  - b) Expression of kappa light chains
  - c) Expression of CD79a
  - d) Immunoglobulin gene rearrangement
  - e) Somatic hypermutation
- 72) Which of the following gives rise to IgE mediated anaphylaxis?
- a) Vancomycin
  - b) Radiocontrast media
  - c) NAC
  - d) Captopril
  - e) Penicillin
- 73) From your understanding of immunologic concepts, monoclonal antibodies against Alpha-4-integrin are most likely to be useful in -
- a) Multiple sclerosis
  - b) Acute stroke
  - c) Dementia
  - d) Naming the next generation of Honda sports cars
  - e) Creutzfeldt Jakob disease

### **Infectious Diseases**

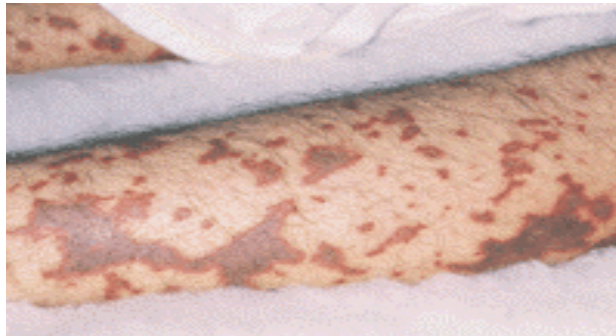
- 74) No stem is given – picture shown ( strawberry tongue + palmar lesions in a young girl ) which of the following organisms is responsible for this presentation
- a) Staphylococcus
  - b) Legionella
  - c) EBV
  - d) Listeria
  - e) Coxsackie
- 75) A 28 year old diver has just returned from a diving trip in the Solomon Islands ? 1 week ago. He commenced doxycycline several days before departure and continued this for 1 week after return. He presents with several days of mild to moderate headache, myalgias and a rash – see picture below. Which of the following is responsible for the presentation?



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- a) Dengue fever
- b) Malaria
- c) Doxycycline side effects.
- d) ??
- e) ??

76) A 35 year old man has severe penicillin allergy. Picture is shown of his skin below. What is the antibiotic treatment of choice?



- a) Penicillin
- b) Ceftriaxone
- c) Erythromycin
- d) Ciprofloxacin
- e) Vancomycin.

77) Which antibiotic commonly causes oesophagitis ?

- a) Amoxycillin
- b) Erythromycin
- c) Doxycycline
- d) Clavulanic acid
- e) Ciprofloxacin.

78) Which of the following antibiotics requires the greatest dose reduction in renal failure?

- a) Ticarcillin
  - b) Meropenem
  - c) Norfloxacin
  - d) Aciclovir
  - e) Penicillin
- 79) Which of the following antibiotics is suitable for treating VRE ?
- a) Amikacin
  - b) Tobramycin
  - c) Linezolid
  - d) Augmentin
  - e) Ciprofloxacin
- 80) A 36 year old married Aboriginal woman presents with several days of headache fevers and joint pains. She had a sore throat several days ago. On examination, she has a temp 39, bilateral wrist knee and ankle effusions which are boggy, no skin rash, ? normal pelvic examination. Which of the following organisms is the most likely cause?
- a) Neisseria gonorrhoeae
  - b) Streptococcus
  - c) Staphylococcus
  - d) Chlamydia
  - e) ...?
- 81) *Angiostrongylus cantonensis* AKA “rat lung worm” is most likely to cause which of the following?
- a) Painless rectal bleeding
  - b) Visceral larva migrans
  - c) Ascending cholangitis
  - d) Eosinophilic meningitis
  - e) Liver abscess
  - f) wailing and gnashing of teeth during Physicians’ exams
- 82) What is the most appropriate outpatient antibiotic treatment for an infected skin ulcer which has grown *Pseudomonas* and *E coli* on swabs ?
- a) Gatifloxacin
  - b) Moxifloxacin
  - c) Ciprofloxacin
  - d) Amoxicillin
- 83) 19 year old man has had numerous episodes of boils and skin ulcers. On each occasion, staphylococcus has been grown on swab + cultures. What is the next investigation?
- a) Nasal swab
  - b) Immunoglobulin
  - c) Check antibody response to vaccination
  - d) Blood film examination
- 84) What is the most common cause of traveller’s diarrhoea?
- a) *Campylobacter*
  - b) *Shigella*
  - c) *Salmonella*
  - d) *Giardia*
  - e) Enterotoxigenic *E. Coli*
- 85) A 22 year old man has meningococcal meningitis. What is the prophylactic agent of choice for his pregnant wife ?
- a) Ciprofloxacin
  - b) Rifampicin
  - c) Ceftriaxone
  - d) Doxycycline
  - e) Penicillin

- 86) A health care worker has sustained a needle stick injury from a patient who is a known IVDU , and has multiple tattoos. The index case is positive for HBsAg, negative for anti-HCV and HIV serology. The health care worker has previously been vaccinated with Hep B with an adequate Ab response documented at that time. On repeated testing, he has no detectable anti-HBsAg. What should be done ?
- Booster vaccination
  - HBIg
  - HBIg + vaccination
  - HAART
  - Do nothing.
- 87) A patient with known Hepatitis C infection develops palpable purpura and generalised arthralgias. Cryocrit is 8%. ALT 70 and AST 60 (marginally elevated ). Cr normal. ? dipstick result. What is the most appropriate treatment?
- Corticosteroids + Interferon
  - Interferon and ribavirin
  - Cyclophosphamide and ribavirin
  - Plasma exchange
  - Intragam..
- 88) All of the following represent mitochondrial toxicities of HAART except :
- Pancreatitis
  - Neuropathy
  - Stevens Johnson syndrome
  - Lactic Acidosis
  - Myopathy
- 89) In a patient with HIV in pregnancy, which of the following is least likely to reduce risk of vertical transmission ?
- HIV RNA < 1000
  - CD4 >500
  - Avoiding breast feeding
  - LSCS
  - Maternal HAART
- 90) A man in his 40s is dialysis dependent. He has had multiple access difficulties in the past including line infections and line thromboses in at least 3 different sites. 3 days ago, he had a L subclavian line inserted and is now febrile with rigors : T 39.5, looks well, BP 175/100. Picture shown : access site red. How should he be managed?
- dialyse
  - Removal of line + vancomycin IV
  - IV vancomycin and observe
  - IV cephalexin and observe
  - Replace line over a guide wire.
- 91) 32 year old man has had a splenectomy. Which organism is most likely to cause overwhelming sepsis ?
- Haemophilus influenzae
  - Streptococcus Pneumoniae
  - Meningococcus
  - Staphylococcus
  - Candida.
- 92) A young woman presents with a laced erythematous rash on her face consistent with erythema infectiosum due to Parvovirus B19. What infection control measures should be taken?
- Standard
  - Contact
  - Respiratory
  - Single room
  - Negative pressure ventilation
- 93) What is the risk of progression to cirrhosis in chronic Hep C infection?
- 5%

- b) 40%
- c) 20%
- d) 70%
- e) 50%

**Neurology :**

94) You are to see a woman in her 60s who is 3 days post-R THR – post operatively has a R footdrop and neurological examination shows weakness in R dorsiflexion (4/5) and R toe extension ( 4/5). All other muscle groups preserved. There is sensory loss over sole and dorsum & loss of R ankle jerk. Where is the likely site of lesion ?

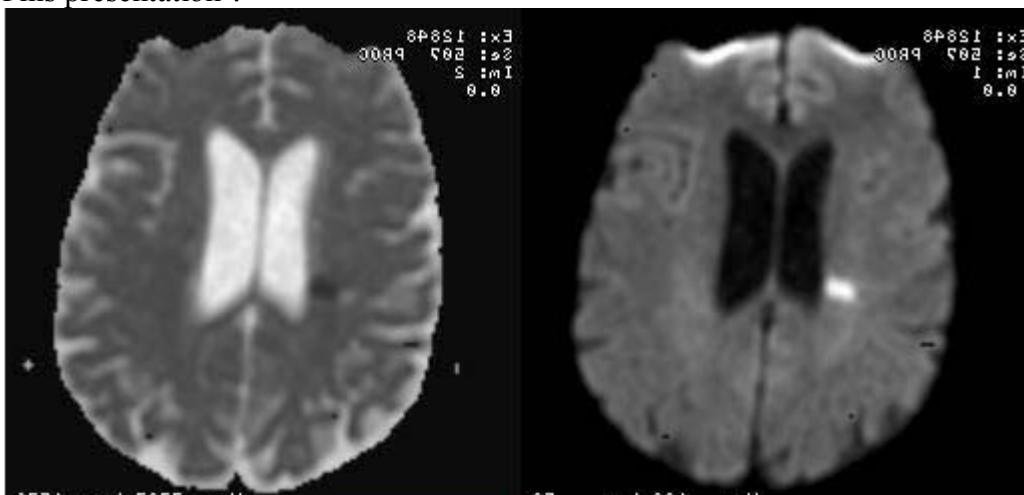
- a) Prolapsed lumbar disc
- b) Peroneal nerve
- c) Tibial nerve
- d) Sciatic nerve
- e) L5 nerve root

95) A 30 year old man with severe asthma is intubated and ventilated in ICU. Treated with IV methylprednisolone, antibiotics. ICU course is complicated by multiorgan failure. He has failed numerous attempts at ventilator weaning : Nerve conduction studies as below EMG : fibrillations + small amplitude polyphasic spikes ? What is the cause of this presentation

Nerve	distal motor latencies	conduction velocity	Amplitude
R median	low-normal	low-normal-low	Low
R ulnar	low-normal	low-normal	Low
R sural	Normal		

- a) Critical illness neuropathy
- b) Critical illness myopathy
- c) Acute inflammatory demyelinating polyneuropathy
- d) Steroid myopathy
- e) Rhabdomyolysis

96) An elderly man presents with R hemisensory loss – MRIs are shown : T2 weighted and DWI – what is the most likely cause of his presentation ?



- a) L MCA thrombosis
- b) L MCA penetrating branch occlusion
- c) Acute demyelination
- d) Haemorrhage
- e) Tumour

97) An 80 year old man presents with acute left sided weakness. No history of hypertension. His current CT head shows a R subcortical frontal lobe haemorrhage. He has a remote history of PMR which was treated years ago. One year ago, he developed temporary weakness of his L arm which recovered. On further collateral history, his

daughter states that he has become more forgetful and less dependent with his ADLs in the last year. What is the most likely cause of his presentation?

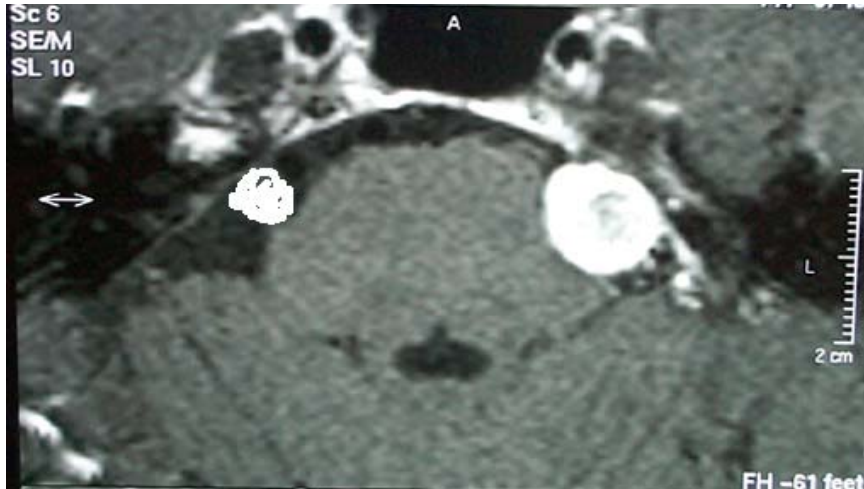
- a) hypertension
  - b) AVM
  - c) Cerebral amyloid
  - d) ADEM
  - e) Mutation in the “notch3” gene.
- 98) A 38 year old man presents with severe headache, fatigue and postural dizziness. Examination shows a BP of 90/60. Cranial nerve findings and the rest of physical examination is unremarkable. MRI is shown below (Pituitary bleed). What’s the next step in management?
- a) Check serum ACE
  - b) Glucocorticoid
  - c) radiotherapy
  - d) Bromocriptine
  - e) Immediate trans-sphenoidal surgery
- 99) 42 yo woman presents with 3 days of back pain. Neurological examination shows bilateral lower limb hyperreflexia L>R with upgoing L plantar and pyramidal weakness in L leg. There is also pin prick and temperature loss in the R leg. MRI is shown ( T2 sagittal and axial showing 2 lesions in lower thoracic spine with L cord compression )
- a) Cord compression
  - b) Transverse myelitis
  - c) syringomyelia
  - d) Anterior spinal artery occlusion
  - e) AVM
- 100) What is the predominant cell type affected in multiple sclerosis ?
- a) Oligodendrocyte
  - b) Schwann cell
  - c) neuron
  - d) Purkinje cell
  - e) Betz cell
- 101) A 45 year old woman presents with progressive bilateral leg weakness. On examination, she has bilateral UMNL signs, bilateral LL spinothalamic loss to mid thoracic level. Upper limb examination is normal. What is the most likely pathology ?
- a) Central cord syndrome
  - b) Brown Sequard Syndrome
  - c) Syringomyelia
  - d) An anterior spinal artery syndrome
  - e) Claude’s syndrome.
- 102) In familial prion diseases, what is the most likely type of gene mutation ?
- a) Nonsense ( as in , this question is “non-sense” )
  - b) Missense
  - c) Splice site
  - d) Translocation
  - e) Promoter
- 103) In SUDEP (sudden unexpected death in epilepsy) – what is the proposed mechanism of death ?
- a) neurogenic pulmonary oedema
  - b) laryngospasm
  - c) central hypoventilation
  - d) VF
  - e) None of the above – SUDEP was a conspired delusion, invented as a flawed coping mechanism for exam stress during paper 1.
- 104) Lamotrigine is most likely to have a significant interaction with which of the following?
- a) Vigabatrim
  - b) Topiramate

- c) Gabapentin
  - d) carbamazepine
  - e) Valproate
- 105) A 22 year old woman who wishes to become pregnant. She had a previous seizure at age 16 in the context of alcohol use and sleep deprivation. She was started on phenytoin but had 2 further seizures in similar circumstances. She was then commenced on valproate monotherapy and has been seizure free for 4 years. Apart from commencing her on folate, what is the best management for her planned pregnancy
- a) Stop valproate
  - b) Replace valproate with carbamazepine
  - c) Replace valproate with topiramate
  - d) Replace valproate with clonazepam
  - e) Continue valproate
- 106) An elderly man has been in the wars for the last 3 days. He has had episodes of ataxia, which have resolved, sensations of vertigo which have lasted hours and diplopia. He now presents with a collapse. Examination findings show normal pupil and pupillary responses, various lower cranial nerve and cerebellar findings. What is the most likely cause ?
- a) Pontine haemorrhage
  - b) Cardioembolic
  - c) ADEM
  - d) Basilar artery thrombosis
  - e) Dandy walker malformation.
- 107) A 32 year old man in 30s presents with thunderclap headache – CT head with contrast normal: what is the next appropriate investigation?
- a) MRA/MRI
  - b) 4 vessel angiography
  - c) LP with bilirubin spectroscopy
  - d) LP with crenated RBC examination
  - e) Take a sexual history.

## Oncology

- 108) An elderly woman with metastatic ovarian cancer presents with nausea, vomiting and abdominal bloating. Her AXR is show, demonstrating dilated loops of small bowel with several air-fluid levels. Which of the following medications would best relieve her symptoms ?
- a) Ondansetron
  - b) Hyoscine
  - c) Octreotide
  - d) Prochlorperazine
  - e) Metoclopramide
- 109) A postmenopausal woman has metastatic breast cancer patient with liver metastases. Which of the following would most influence management?
- a) Nodal status
  - b) Oestrogen receptor status
  - c) HER2-neu status
  - d) Previous radiotherapy
  - e) ???
- 110) A 35 year old woman with breast cancer consults you because she is concerned about her daughter's risk of breast cancer. Her auntie also had breast cancer at the age of 48. The woman undergoes mutation analysis and is found to be BRCA1+2 negative. The auntie has not been tested. Which of the following is true with regard to her daughter's risk of developing breast cancer?
- a) The mutational analysis shows that the daughter is not at increased risk
  - b) The mutational analysis shows that the daughter is at increased risk
  - c) No conclusion can be made
  - d) The daughter's risk can only be determined if her father is tested
  - e) The daughter's risk can only be determined if the auntie is tested

- 111) Karnofsky performance scores in cancer are most strongly associated with :
- Mortality
  - Need for rehabilitation
  - Tumour grade
  - Chemo dose
  - Side effects of Chemotherapy
- 112) A 60 year old man presents with R shoulder pain. The CXR is shown, revealing RUL opacity. FOB and Bx confirms the presence of NSCLC. Which neurological structure is most likely to be directly affected?
- Parasympathetic chain
  - Stellate ganglion
  - RLN
  - Axillary nerve
  - Phrenic nerve
- 113) Polyps of which type are most likely to undergo malignant transformation ?
- Tubular adenomas
  - Villous adenomas
  - Hamartomas
  - Peutz Jegher associated
  - Hyperplastic
- 114) A man in his 40s presents with episodes of vertigo, headache, tinnitus and facial numbness. His T1 weighted MRI is shown. What is the cause ?



- Pontine haemorrhages
  - Meningiomas
  - Neurofibromatosis type 2
  - Hamangioblastomas
  - Oligodendrogliomas.
- 115) A young man has just had resection of a stage I non seminomatous germ cell testicular tumour. Biopsy margins are clear with no evidence of vascular invasion. What is the best management option?
- Observation
  - Para-aortic radiotherapy
  - Carboplatin-based chemotherapy
  - hormonal therapy
  - testicular radiotherapy
- 116) A woman with end stage metastatic cancer presents with a corrected calcium of Ca 3.8. What is the initial step in management ?
- Rehydration
  - Frusemide
  - Bisphosphonates
  - Steroids
  - Calcitonin.

117) Delayed emesis most commonly occurs with

- a) Cisplatin
- b) Vincristine
- c) 5FU
- d) Irinotecan
- e) Gemcitabine

**Pharmacology :**

118)) "punchdrunk" is a new medication with  $V = 9$  in adults;  $13L/kg$  in elderly. It has 5 metabolites which are metabolically active, which are renally cleared. 1% is excreted unchanged renally. F is 2-10%. Extensively hepatically metabolised. Protein binding 65%. Peak plasma concentration is most increased in

- a) portal vein thrombosis
- b) nephrotic syndrome
- c) acute viral hepatitis
- d) haemodialysis

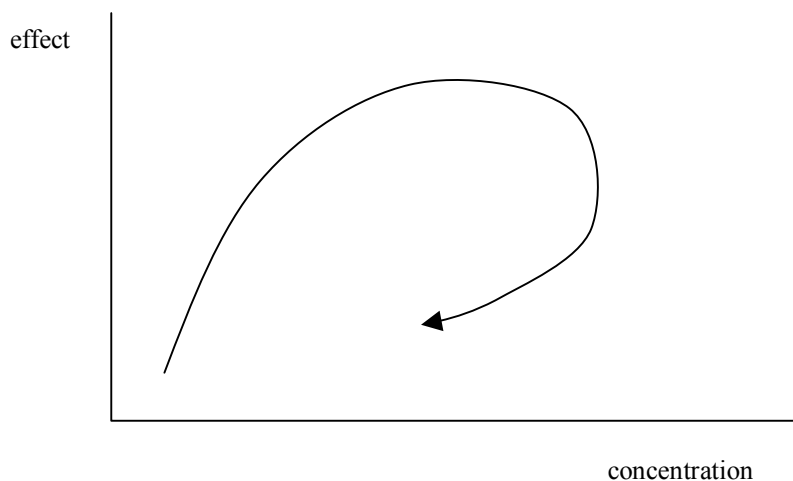
119) Which of the following variables best determines steady state concentration

- a) Volume of distribution
- b) Clearance
- c) Half life
- d) Protein binding
- e) ???

120) A young woman on an orthopaedic ward has a history of depression and has been on sertraline long term. She has just undergone ORIF for a # tib + fib under GA. She is now on paracetamol, naproxen, and tramadol SR 200mg daily. When you come to review her, she is confused, has myoclonic jerks, marked hyperreflexia, is febrile and has a variable BP and pulse. What is going on? –

- a) Neuroleptic malignant syndrome
- b) Malignant hyperpyrexia
- c) Sepsis from tibial OM
- d) Serotonin syndrome
- e) Fat embolus

121) The following reflects the relationship between drug concentration & its effect. What mechanism best explains this?



- a) Delayed onset of action due to slow distribution phase
- b) Tachyphylaxis
- c) Protein binding

- d) Active metabolites  
e) ??
- 122) Which one of the following drugs is most likely to increase the INR in someone on a previously stable dose of warfarin?
- Cholestyramine
  - St Johns Wort
  - Omeprazole
  - High vegetable diet
  - Amiodarone
- 123) Which of the following mechanisms best explains the delayed onset of action for warfarin?
- Delayed absorption
  - Loading dose of warfarin
  - Clotting factor catabolism
  - Protein C+S activity
  - Up-regulation of Gnas .
- 124) A woman recently commenced on Lithium develops severe polyuria. On urine and plasma biochem etc, she is shown to have nephrogenic DI. Which of the following drugs will remedy the situation (Thank John and Guru, the latter of whom is certainly appropriately named)
- Amiloride
  - vasopressin
  - Frusemide
  - Bumetanide
  - Acetazolamide
- 125) A woman with BPAD is on long term Lithium therapy 750mg daily. She was recently started on Frusemide 40mg daily for peripheral oedema. She now presents with ataxia and confusion with a Cr 0.35 (previously 0.14 ) Which of the following should be done ?
- Cease frusemide : check Li levels in 24 hours
  - Cease frusemide and Li , check Li levels in one week
  - Cease frusemide and Li, check Li levels in 24 hours
  - Cease frusemide, check Li levels in one week
  - Ask Dr Nick (Buckley, preferably)
- 126) What is imipramine's mechanism of action (as an antidepressant) ?
- Anticholinergic
  - Inhibitor of noradrenaline reuptake
  - Antihistamine
  - MAO inhibition
  - ???
- 127) Which of the following medications is most likely to cause urinary retention in a 75yo man?
- Amitriptyline
  - Inhaled ipratropium
  - Propranolol
  - Donepezil
  - Riluzole
- 128) A woman presents having taken an overdose of amitriptyline (unknown amount) – her ECG shows QT prolongation with brief runs of broad complex tachycardia . What is the most appropriate management
- Lignocaine
  - Amiodarone
  - Bicarbonate
  - dialysis
  - DC cardioversion.

## Renal

- 129) In a hypertensive patient, what is the predominant mechanism of renal dysfunction when starting an antihypertensive

- a) altered heart rate
  - b) constriction of the efferent arteriole
  - c) reduced cardiac output
  - d) autoregulatory shift
  - e) increased glomerular pressure
- 130) In autosomal dominant polycystic kidney disease, the main role of Polcystin is
- a) abnormal non-clonal proliferation of tubular epithelium
  - b)
  - c) impaired apoptosis of tubular cells
- 131) 60 days after renal transplant a patient presents with fever, abdo pain, diarrhoea, and deranged LFT. What is the most likely cause?
- a) GVHD
  - b) acute rejection
  - c) CMV
  - d) graft failure
  - e) drug reaction
- 132) In a 29 y.o. dialysis patient, which of the following is the strongest risk factor for CV mortality
- a) elevated serum Ca
  - b) elevated serum phosphate
  - c) Anaemia
  - d) Uraemia
- 133) A thiazide is least likely to cause which of the following
- a) hypokalaemia
  - b) hyponatraemia
  - c) hypercalciuria
  - d) hyperuricaemia
  - e) hypomagnesaemia
- 134) A middle-aged man with hypertension undergoes renal angiography (shown). It features a small R kidney with R renal artery stenosis RAS. What is the most likely result of invasive intervention?
- a) improved renal function
  - b) reduced BP
  - c) reduction in number of antihypertensives needed
  - d) reduction in flash pulmonary oedema
- 135) Which of the following is associated with pathology primarily affecting glomerular endothelium?
- a) HUS
  - b) pre-eclampsia
  - c) SLE
  - d) Goodpasture's syndrome
  - e) IgA nephropathy

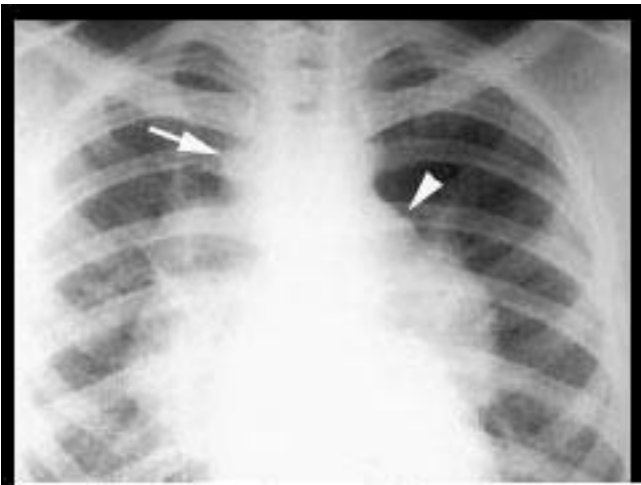
## **Respiratory**

- 136) An elderly woman presents with dry cough and SOB in the last few months – 2 cuts of her CT chest are shown below. What is the likely cause of her presentation.



- a) Emphysema
- b) Chronic bronchitis
- c) Heart failure
- d) Pulmonary fibrosis
- e) Bronchiectasis

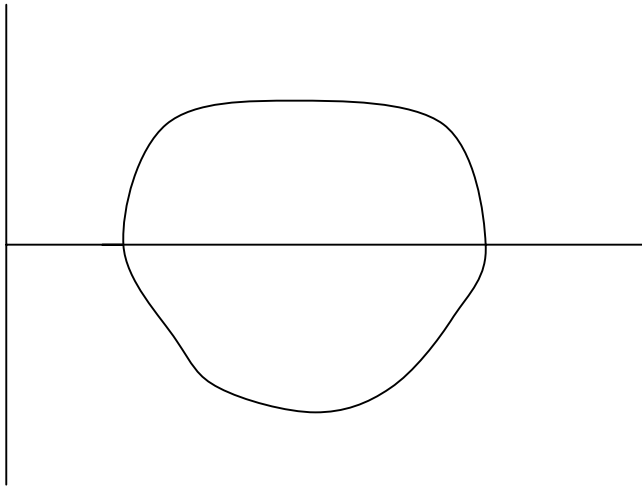
137) An asymptomatic 35 year old woman from the UK presents routine immigration assessment with the following CXR



what is the most likely diagnosis

- a) Tuberculosis
- b) Small cell lung cancer
- c) Pneumonia
- d) Sarcoidosis
- e) lymphoma

- 138) A 30 year old man presents with progressive cough and SOB – his CXR is shown ( generalised mediastinal widening and R pleural effusion). What is the most likely cause of this presentation ?
- Small cell lung cancer
  - Thymoma
  - Lymphoma
  - Thyroid malignancy
  - Sarcoidosis
- 139) A young Indian woman has recently migrated to Australia and presents with fevers, sweats and SOB. CXR is shown featuring a R pleural effusion. What is the investigation of choice.
- Pleural fluid MC+S
  - Sputum MC+S
  - FOB and lavage
  - Pleural biopsy
  - mantoux
- 140) A flow volume loop is shown: flattish expiratory peak at 4l/minute and inspiratory loop not exceeding 4L/minute – no PFTs were given.



What is the most likely diagnosis

- COAD
  - Tracheal tumour
  - Supraglottic stenosis
  - Bilateral vocal cord paralysis
  - Pulmonary fibrosis
- 141) A male with BMI 31 undergoes PFTS. FEV1 70%, FVC 70% FEV1/FVC 80%, Residual volume 70%, TLC 70%, DLCO 65% , Kco ( corrected for alveolar volume) 110%. What is the most likely cause?
- Asthma
  - Obesity
  - Previous lobectomy
  - Kyphoscoliosis
  - Interstitial lung disease
- 142) A man with severe COAD has an FEV1 0.6, FVC 1.7 – what is the reason for his FVC being reduced?
- Gas trapping due to ...
  - Gas trapping due to airway closure
  - ??
  - ??
  - ??
- 143) What test best confirms bilateral diaphragmatic paralysis
- Maximal inspiratory pressures

- b) Supine and erect TLCs
  - c) Diaphragmatic fluoroscopy with “sniff” testing
  - d) Maximal expiratory pressures
  - e) FEF 25-75
- 144) A 70 year old woman with severe COAD is on maximal bronchodilators. She has an FEV1 18% predicted, RV 247% + other markers of severe obstruction. PO<sub>2</sub> on room air 61, PCO<sub>2</sub> 52, pH 7.4. What is the best way to improve her dyspnoea?
- a) Lung volume reduction surgery
  - b) Pulmonary rehabilitation
  - c) Lung transplantation
  - d) Inhaled corticosteroids
  - e) Changing her inhaled bronchodilators to regular nebulisers
- 145) A 65 year old man with COAD is still smoking. He has an FEV1 25% predicted, FEV1/FVC of 30%. ABG shows pO<sub>2</sub> 65, pCO<sub>2</sub> 55, pH normal. Which intervention has been best shown to improve survival?
- a) Stop smoking
  - b) Home oxygen
  - c) Inhaled corticosteroids
  - d) pulmonary rehabilitation
  - e) lung transplant
- 146) A 25 year old man presents with 3 episodes of pancreatitis. On genetic testing of the CFTR gene, he is a compound heterozygote with 1 mutation  $\Delta$ F508 and the other mutation unrecognised. What complication is he most likely to develop?
- a) Osteoporosis
  - b) Bronchiectasis
  - c) Infertility
  - d) Diabetes
  - e) hyponatraemia
- 147) In which clinical scenario is NIPPV least indicated
- a) A young male with hypoxic resp failure due to pneumonia post stem cell transplant
  - b) Duchenne’s muscular dystrophy with chronic hypercapnoea
  - c) COAD exacerbation with hypercapnoeic respiratory failure
  - d) Hypercapnoea with obesity hypoventilation
  - e) community-acquired pneumonia with hypercapnoeic respiratory failure
- 148) What is the main mechanism by which beta-agonists reduce dyspnoea in asthma?
- a) Improved V/Q matching
  - b) Decreased dynamic hyperinflation
  - c) Increased cardiac output
  - d) Pulmonary arterial dilation
  - e) Increased FEV1
- 149) Day 3 post-op lap chole 55yo woman complains of (R) sided pleuritic chest pain. Chest x-ray is normal. Duplex calves is normal. V/Q low probability. What should be done next?
- a) No further investigation
  - b) CTPA
  - c) Repeat V/Q
  - d) D-dimer
  - e) ABG

### Rheumatology / Orthopaedics

- 150) 60yo Polynesian man presents with 1 year of pain in his left third PIP: X ray shown – narrowed joint space, increased radiolucency of bone around joint: what is the cause?
- a) Tuberculosis
  - b) Psoriasis
  - c) Chronic septic arthritis

- d) Rheumatoid Arthritis
  - e) Hyperparathyroidism
- 151) Picture shown of nail fold capillary dropout – what is the most likely disease association?
- a) SLE
  - b) Rheumatoid arthritis
  - c) Infective endocarditis
  - d) Systemic sclerosis
  - e) Polymyositis
- 152) A woman has a long standing history of SLE. On follow up, has shortness of breath. On examination – single prominent second heart sound. Serology shows high titre ANA, negative dsDNA, positive ENA with U1RNP. Urinalysis, + protein only, Cr 0.11. PFTs show FEV1 80% predicted, FVC 80% predicted, FEV1/FVC normal, DLCO 50% predicted. Her most likely cause of death will be
- a) Renal failure
  - b) Renovascular disease
  - c) Pulmonary HT
  - d) Myocarditis
  - e) Cerebral vasculitis.
- 153) A 50 year old woman presents with a sicca syndrome and xerostomia. She is strongly positive for ANA with SS-A and SS-B positive. Other investigations show bicarb 15 and polyclonal hypergammaglobulinaemia. Which of the following conditions is she least likely to suffer from in the future?
- a) Glomerulonephritis
  - b) Renal calculi
  - c) Lymphoma
  - d) Arthritis
  - e) Dental caries.
- 154) A 60 year old woman with long standing active rheumatoid arthritis is currently on: methotrexate 10mg weekly with folate (stable dose for 10 years), diclofenac 25mg bd. She also has hypertension for which she is on amlodipine. She is diabetic – controlled with metformin 500mg bd and diet, BMI = 28. She has multiple active joints and nodules. ESR = 55, RF positive (very high titre), ANA positive (1 : 3000), Smooth muscle Ab positive ( low titre ), AST 70, ALT 70, other LFTs normal, creatinine 0.11. A liver biopsy has been scheduled. This will most likely show:
- a) Methotrexate toxicity
  - b) Chronic active hepatitis
  - c) NAFLD
  - d) Amyloidosis
  - e) cirrhosis
- 155) In a patient who is on methotrexate who develops worsening renal function. If the dose of methotrexate is not reduced, the most likely complication will be :
- a) Myelosuppression
  - b) Pneumonitis
  - c) Hepatotoxicity
  - d) neuropathy
  - e) mucositis
- 156) A 65 year old man with knee OA is having difficulty walking for > 100-150m. On examination, he has a warm effusion in his R knee and a slight varus deformity. You commence him on NSAIDs but his renal function goes off – Cr 0.14 at baseline, 0.35 now. The effusion and limitation of pain are still present. In addition to ceasing NSAID, what is the next step in treatment?
- a) Rofecoxib
  - b) Intra-articular hyaluronan
  - c) Intra-articular steroids
  - d) TKR.
  - e) sulindac
- 157) An 88 year old man presents with extensive vesicular lesions over his trunk and arms. Systemically well. Skin biopsy immunofluorescence reveals linear IgG at dermo-epidermal junction. What is the treatment of choice ?

- a) Topical steroids
- b) Oral steroids 2mg/kg
- c) Azathioprine 1mg/kg
- d) Cyclophosphamide
- e) Plasmapheresis

158) Although nothing has been shown to alter the clinical course, which of the following has had the strongest experimental evidence of chondroprotection in OA ?

- a) Intra-articular steroids
- b) Intra-articular hyaluronan
- c) Oral glucosamine
- d) NSAIDs
- e) ??

159) An 18yo female netballer presents with pain post knee injury. Bizarre Xray shown ( looked something like this but not exactly; there may have been broken cortex & more soft tissue mass in actual film). What is the cause ?



- a) Aneurysmal bone cyst
- b) Ewings sarcoma
- c) Osteosarcoma
- d) plasmacytoma
- e) ??

160) An 80 year-old woman presents to the Department of Casual Medicine after a fall onto her bottom. XR of hip & pelvis reveal no #. One week later she re-presents still in pain & unable to weight-bear. There is pain over her buttock with normal range of hip motion. What is the most likely diagnosis?

- a) ischial bursitis
- b) sciatica
- c) pelvic #
- d) OA hip

161) Old woman with lumbar acute onset of lower back pain radiating into her right buttock.– Examination reveals non specific tenderness over her bum and lower back – neurological exam normal. She has a remote history of colon cancer resected 10 years ago. On the day of admission she has a WBBS (shown ->normal ?) What is the most likely cause ?

- a) Stress fracture in sacrum/pelvis.
- b) Bony metastases
- c) Pelvic recurrence with referred pain
- d) Prolapsed lumbar disc
- e) Musculoligamentous injury.

162) A patient complains of pain when walking down stairs. Which joint compartment in the knee is most likely to be affected?

- a) medial compartment
- b) lateral compartment
- c) retropatellar space

- d) lateral meniscus.
  - e) Suprapatellar bursa.
- 163) Patient suffers from Raynaud's. Which of the following findings most strongly indicates presence of a secondary cause?
- a) High ESR
  - b) High CRP
  - c) ANA positive
  - d) Anaemia
  - e) Anticentromere Ab

**Statistics:**

- 164) Our D dimer assays have a sensitivity of 95%, specificity 50% for detection of pulmonary embolus. If the pre-test probability on the whole is 1%, what is the post test probability of someone having a PE in someone with a positive D dimer?
- a) 2%
  - b) 5%
  - c) 10%
  - d) 50%
  - e) 95%

if you know the answer, could you please inform the Department of Casual Medicine

- 165) A new screening test for colon cancer has been developed. When compared to the "gold standard" colonoscopy in a tertiary referral centre, the results are as shown below. If this test is then applied to the general community, which of the following will increase?

	Colonoscopy +	Colonoscopy -
New test +	40	5
New Test -	10	20

- a) Positive predictive value
  - b) Negative likelihood ratio
  - c) Sensitivity
  - d) Negative predictive value
  - e) Specificity
- 166) Which of the following is most likely to decrease type II error
- a) Randomisation
  - b) Larger sample size
  - c) Intention to treat analysis
  - d) Predefined disease outcomes
  - e) Analysis with a 2 way ANOVA
- 167) What property of an HIV screening test would be most desirable to prevent HIV transmission through blood transfusion?
- a) High sensitivity
  - b) High specificity
  - c) High yield
  - d) High negative predictive value
  - e) Accuracy
- 168) Which of the following is most strongly associated with an enhanced likelihood of passing the FRACP exam?
- a) Mexicans
  - b) Jemmy
  - c) posting in Whyalla pre-exam