

REMEMBERED FRACP EXAM QUESTIONS 2003

Use these questions at your own peril. They have been retrieved from the recesses of my mind and could be entirely imaginary in part or whole

1. A woman's aunt had breast cancer and was BRCA positive. Her mother is BRCA negative. What is the risk of this woman developing breast cancer?

- (a) Increased
- (b) Decreased
- (c) Inadequate information to calculate the risk
- (d) Need to know this woman's BRCA status to estimate
- (e) Need to know her father's BRCA status to calculate the risk

2. Elderly lady with recurrent severe RUQ abdominal pain radiating to the back. Previous cholecystectomy. Completely well in between the episodes which have occurred 3 weekly. Most likely cause?

- (a) Biliary dyskinesia
- (b) Pancreatitis
- (c) Cholelithiasis

3. A pregnant woman presents with pulmonary edema and is found to have mitral stenosis. The pulmonary edema resolves with diuretics. What is the best management?

- (a) Mitral valvotomy
- (b) Balloon dilation
- (c) Surgical repair of the valve (or ? mitral valve replacement)

4. What is the most likely cause of renal transplant failure at 5 years post transplant

- (a) chronic allograft nephropathy
- (b) cyclosporin induced
- (c) acute rejection
- (d) recurrence of the original disease

5. COPD patient with restrictive lung function tests. BMI 32. DLCO normal. Most likely cause?

- (a) Bilateral diaphragm paralysis
- (b) Obesity
- (c) Pulmonary fibrosis

6. Which of the following is the best indicator of delirium?

- (a) The patient is not focussing on the questions being asked
- (b) There symptoms are worse at night

7. Which of the following is least likely to be caused by asbestosis?

- (a) Bronchial carcinoma
- (b) Mesothelioma
- (c) Lung plaques
- (d) ?SCLC
- (e) ?NSCLC

8. Which of the following has the highest mortality for the mother if it is of moderate to severe severity?

- (a) Peripartum cardiomyopathy
- (b) Coarctation of the aorta
- (c) Pulmonary hypertension
- (d) Aortic regurgitation
- (e) HOCM
- (f) Mitral valve prolapse

9. A person with coeliac's disease presents with diarrhoea. The duodenal appearance at gastroscopy is normal. What is the most likely cause?
- (a) Poor compliance
 - (b) ?
10. In a patient with legionaire's disease which of the following antibiotics is least useful?
- (a) Gentamicin
 - (b) Ciprofloxacin
 - (c) Azithromycin
 - (d) Rifampicin
11. Which of the following is most useful for increasing Lithium excretion?
- Sodium bicarbonate
- (a) Amiloride
 - (b) Bendrofluazide
12. A patient is found to have a 3cm adrenal mass incidentally while being investigated for some unrelated problem. A raft of tests are given all of which are normal including U&E, renin level, urinary catecholamines and 24 hour urinary cortisol. ACTH level is < 1 (normal 1 – 15). What is the most likely cause?
- (a) cortisol secreting adenoma
 - (b) adrenal carcinoma
 - (c) adrenal metastasis
 - (d) Benign adrenal mass
13. A young women has noticed visual blurring whenever she plays tennis or has a hot shower. What is the next best investigation to confirm the diagnosis?
- (a) Evoked visual potential's
14. A 50-year-old alcoholic presents with auditory and visual hallucinations. He continues to drink 7300g/ day. What is the most likely cause?
- (b) Alcohol related
 - (c) Hepatic encephalopathy
 - (d) Schizophrenia
 - (e) Korsakov's psychosis
15. An elderly woman fell on her buttocks 2 weeks ago. At the time she was seen in ED and xrays of her pelvis were reported as normal. She was discharged home. She continues to have severe L pelvic pain. What is the best management?
- (a) MRI
 - (b) Discharge home with analgesia
16. A man is one month post operative for AAA repair. He is now having an ST elevation MI. He has had a previous peptic ulcer but is still on aspirin. What is the strongest contraindication to thrombolysis in this man?
- (a) Peptic ulcer disease
 - (b) Recent AAA repair
17. What is most likely to cause a pathological mutation in a protooncogene?
- (a) Nonsense mutation
 - (b) Missense mutation
 - (c) Gene deletion
18. A man has an anaphylaxis after eating peanuts. What is the best management?
- (a) Desensitisation
 - (b) Skin prick testing to confirm the allergy was due to peanuts
 - (c) Lifelong avoidance of peanuts
19. A person presents with deafness, ?vertigo and some other symptoms. MRI shown which shows a hyperintense lesion on T1 imaging of an acoustic neuroma. What is the diagnosis?

- (a) Cerebellar lesion
 - (b) Pontine bleed
 - (c) Neurofibromatosis 2
20. What is the most common reason for a person with OSA not to comply with CPAP use?
- (a) Lack of reduction in monitored episodes of apnoea
 - (b) Lack of reduction in daytime sleepiness
 - (c) Lack of knowledge about the complications of OSA
21. Which of the following is the most likely cause of sudden death in a young athlete?
- (a) HOCM
22. Which of the following is the least likely cause of this scan. A thyroid scan is shown with no uptake
- (b) Factitious thyrotoxicosis
 - (c) subacute thyroiditis
 - (d) Graves disease
23. What is the most appropriate use of testing CEA in colorectal cancer?
- A. Monitoring for recurrence post surgical resection
 - B. Evaluation for metastatic disease prior to surgery
 - C. Discriminating between high-grade dysplasia and carcinoma
 - D. Screening an asymptomatic population
24. What clinical feature best differentiates polymyositis from inclusion body myositis?
- A. Deltoid muscle weakness
 - B. Weakness of long finger flexors
 - C. Quadriceps weakness
 - D. Weakness of torso
 - E. Weakness of periorbital muscles
25. What is the mechanism of gentamicin renal toxicity?
- A. Glomerulopathy
 - B. Proximal collecting tubular cell toxicity
 - C. Post renal obstruction by tubular epithelial cell swelling
 - D. Papillary necrosis
 - E. Interstitial nephritis
26. Question on a man with hepatitis. Recently started on a statin and beta blocker. Most likely cause
- (a) statin
 - (b) atenolol
27. Which of the following is least likely to be raised in women with anorexia nervosa?
- (a) Cortisol
 - (b) ? Growth hormone
28. Young man with a seizure involving one arm doing semi purposeful movements and the other arm being rigid. MRI shown which shows hippocampal atrophy. What is the most likely diagnosis?
- (a) Temporal lobe tumour
 - (b) Mesial temporal sclerosis
29. Person who is known to be hepatitis B positive. Also known to be Hep B e antigen negative. Now has increased HBV DNA levels by PCR, increased LFT's and remains Hep B e antigen negative. What is the most likely cause?
- (a) Additional infection with hepatitis D
 - (b) Precore mutant
30. A patient with HIV develops a peripheral sensory neuropathy. Also has reduced proprioception in the legs. What is the most likely cause?
- (a) HIV neuropathy
 - (b) Drug side effect

31. A 56 year old man presents with fatigue, muscle weakness, Raynaud's phenomenon and shortness of breath. Also small joint arthritis of the hands. He has a rash on the palms of his hands and over the lateral edges of his fingers. He is found to have moderate interstitial lung disease. Anti Jo-1 antibodies are strongly positive. ANA positive (speckled) What is the diagnosis?

- A. Dermatomyositis
- B. Systemic lupus erythematosus
- C. Polymyositis (antisynthetase syndrome)
- D. Scleroderma
- E. Mixed connective tissue disease

32. Hand xray showing osteoarthritis of the first metatarsophalangeal joint. What is the most likely cause?

- (a) Trauma
- (b) haemochromatosis
- (c) Primary osteoarthritis
- (d) Gout

33. What is the best treatment for the chronic fatigue syndrome?

- (a) Prednisone
- (b) Prolonged rest
- (c) Psychiatric support or? Counselling – something along the lines of supportive counselling

34. Elderly person who has pain on abducting the arm. Most likely cause?

- (a) Rotator cuff injury

35. Person present with raynaud's, purpura on the legs and other feature's (?lymphadenopathy, splenomegaly). Next best test

- (b) Hepatitis C

36. Which of the following is the best indicator for the need for aggressive treatment in SLE?

- (c) Interstitial fibrosis on renal biopsy
- (d) Crescents on renal biopsy

37. Which of the following is the most common side effect of donepezil?

- (a) Urinary frequency

38. A man is getting bilateral leg pain after walking 150m. He has had MI's and ?CVA's. No comment is made about the nature of the pain. Good peripheral pulses. Absent ankle jerks. Most likely cause? Next best investigation?

- (b) ? Angiography of the lower limbs
- (c) ? Doppler lower limbs
- (d) CT lumbar spine

39. A young man develops cerebral thrombosis after vigorous exercise (or was it chest pain and shortness of breath) Blood film shown with sickle cells. What is the most likely diagnosis?

- (a) Sickle cell disease

40. What is the best antiemetic for nausea in a patient with Parkinson's disease on madopar?

- (b) Maxalon
- (c) Ondansetron
- (d) Domperidone
- (e) ?cyclizine

41. Sedentary old man about to start on exercise program consisting of a 30min walk per day. He usually manages all of his own ADL's. Which of the following is most likely to improve?

- (a) ADL's
- (b) 6 minute walk

42. A man with an MI and hypotension. Which of the following is most likely to improve long-term prognosis?

- (a) Intravenous fluids
- (b) PTCA

43. A man has a verbal fight with his wife. He becomes uncharacteristically aggressive and memory loss from the time of the disagreement onward. He recovers fully several hours later. What is the most likely cause?

- (a) Transient global amnesia

44. Why is the action of lispro more rapid than conventional insulin's?

- (b) It doesn't form hexamers in the subcutaneous tissues

45. After contracting hepatitis C what is the risk of developing liver cirrhosis?

- (c) 5%
- (d) 10%
- (e) 20%
- (f) 50%
- (g) 80%

46. Which of the following is the least common side effect of tacrolimus?

- (a) Hypomagnesaemia
- (b) Hypercholesterolaemia
- (c) Tremor
- (d) Seizures
- (e) Diabetes

47. Which of the following is the least likely side effect of troglitazone?

- (a) Hypoglycaemia
- (b) Elevated HDL
- (c) Oedema
- (d) Weight gain

48. A person has bilateral reduced vision. Picture shown of L fundus, which looks like central retinal vein thrombosis with, engorged blood vessels and haemorrhage. But it only involves part of the retina – more central with peripheral sparing. Most likely cause?

- (a) Venous stasis retinopathy
- (b) ? Other options

49. Biopsy of a cranial artery showing temporal arteritis. What is the most likely presentation?

- (a) Ischaemic optic neuropathy

50. Young male presents with fevers, abdominal mass... Blood film or bone marrow biopsy showing Burkitt's lymphoma cells. Which of the following is most likely to be found on cytogenetic analysis?

- (b) t(9,22)
- (c) t(8,14)
- (d) ?deletion
- (e) t(14,18)

51. When using adenosine, reduction of the dose is advised when using which of the following:

- (a) Theophylline
- (b) Salbutamol
- (c) Warfarin
- (d) Dipyridamole
- (e) Clopidogrel

52. Which of the following are most likely to cause an abnormal protein synthesis?

- (a) Missense mutation
- (b) Nonsense mu
- (c) Translocation

- (d) Splicing
- (e) Substitution

53. A boy has a rare autosomal dominant disorder. DNA analysis is performed and an abnormal sequence is found that has never been documented before. Which of the following would provide the best evidence that this abnormality was the pathogenic mutation in this boy?

- (a) 2 siblings with the same mutation
- (b) Biochemical changes in mice with the same mutation
- (c) Mutation in an area of DNA that is conserved across species
- (d) 30% expression of allele

53. A woman is treated for a UTI or Pylonephritis with oral cephalexin. After 5 days of treatment an MSU continues to culture an enterococcus. Why?

- a. Antibiotic resistance
- b. Noncompliance
- c. Oral rather than IV treatment
- d. Inadequate duration of therapy

54. Which of the following is the best test to diagnosis CMV infection in an immunocompromised person?

- a) Detection of antigens in peripheral blood leucocytes
- b) Detection of antigens in peripheral blood leucocytes after culture for 48 hours
- c) Detection of CMV DNA in blood

55. Which of the following is the commonest cause of elevated LFT's in the western world?

- (a) NASH

57. The risk of developing dementia in the next 5 years in a 70-year-old in a population is 5%. 10% of the population has one or two allele's for ApoE4. Those with one or two allele's for ApoE4 have a threefold higher risk of developing dementia than the remaining 90% of the population. What proportion of those who will develop dementia is made up of those without one or two allele's for ApoE4.

- a) 10%
- b) 30%
- c) 70%
- d) 90%
- e) 95%

58. The sensitivity of a test is 100%. The specificity is 95%. The prevalence of the condition is 0.1%. What is the positive predictive value of the test

- a) <1%
- b) 2%
- c) 5%
- d) 10%
- e) 25%

59. Man whose faeces culture positive for entamoeba histolytica. 7.5cm liver abscess on scan. Best treatment?

- (a) Metronidazole

60. Young man with sacroiliitis. IVDA, sexually active, elevated CRP and ESR. Many more details I cannot recollect. Most likely cause?

- (b) Septic sacroiliitis
- (c) Ankylosing spondylitis

61. Man who has previously had an abdominal VIPoma tumour resected. Nuclear medicine scan shows increased uptake in the abdomen. Best treatment?
 (a) Octreotide
62. Patient with target cells. Most likely cause?
 (b) Alcoholic liver disease
63. Which of the following is most responsible in the pathogenesis of sarcoidosis?
 (a) Macrophages
 (b) TH1
 (c) TH2
 (d) CD4 cells
64. CT scan shown with polycystic kidneys and liver. Which of the following is least likely to occur in this patient?
 (a) Aortic dissection
 (b) Periportal fibrosis
 (c) SAH
 (d) ? Diverticula
 (e) ? Mitral valve prolapse
65. CT scan of a patient with lung cancer. Tumour abuts mediastinum but ?does not invade. Liver metastasis. What is the stage?
 (a) T4N1M1
 (b) T2-----
 (c) T2-----
 (d) T1-----
66. CT scan showing a pericardial and pleural effusion. Murmur heard on exam ?diastolic
 Diagnosis?
 (a) Pericardial effusion
67. Person with ESRF on erythropoietin. Has increased MCV, decreased Hb, and decreased reticulocytes. Cause?
 (a) Red cell aplasia
 (b) Myelofibrosis
68. Person with AML3 started on chemotherapy,. Develops respiratory distress. Most likely cause?
 (a) ATRA
69. Person with elevated Hb. Which of the following is the best test to confirm the diagnosis of polycythaemia vera?
 (a) Red cell mass
 (b) Erythropoietin
70. Which of the following does a superantigen mediate?
 (a) Endotoxin sepsis
 (b) Staphylococcal toxic shock syndrome
71. Person with progressive cerebellar degeneration with background metastatic ovarian cancer. MRI head normal. LP CSF cytology normal although 10 lymphocytes present. Most likely cause?
 (a) Metastatic cancer
 (b) Anti perkinje cell antibodies
72. Women with sudden onset deafness on a background of scleritis and ?arthritis of the small joints of the hands. Most likely cause?
 (a) SLE
73. Person post CVA. Coughing with eating, not finishing meals. Next best investigation?
 (a) Barium swallow

(b) Video fluoroscopy

74. Person with depression is started on a MAO inhibitor. Which of the following is most likely to have an adverse interaction?

- (a) Addition of another MAO inhibitor
- (b) Pseudoephedrine

75. Person with acute ischaemic stroke. Which of the following is the best treatment?

- (a) Streptokinase
- (b) Aspirin
- (c) Heparin
- (d) Clexane

76. Large paracetamol overdose. Patient last seen prior to OD 6 hours prior to presentation. Paracetamol level at 6 hours is above the treatment line. Previous urticarial reaction to N – acetyl cysteine. What is the best treatment?

- (a) Give N acetyl cysteine
- (b) Cimetidine
- (c) Retest paracetamol level in 4 hours

77. A disease occurs in a population at an incidence of 15/100000/year. The average survival is 5 years. What is the prevalence of the disease?

- (a) 15/100000
- (b) 30/100000
- (c) 45/100000
- (d) 60/100000
- (e) 75/100000
- (f) 47/100000

78. What is a type II error?

79. What is the best test for the staging of oesophageal cancer in the absence of metastases?

CT

- (a) Gastroscopy
- (b) Endoscopic ultrasound

80. What is the best treatment for anal cancer?

- (a) Surgery followed by radiation
- (b) Chemoradiation

81. Photo showing hands – foot syndrome rash after a patient was started on chemotherapy. What is the most likely causative drug?

- (a) Capecitabine
- (b) Gemcitabine

82. Male with severe haemophilia due to a factor VIII inhibitor. He needs surgery. Which of the following is the best to give him?

- (a) FVII
- (b) FVIII
- (c) Cryoprecipitate
- (d) FFP

83. A person is given vancomycin and develops a red rash. What is the most likely cause?

- (a) Impurities in the vancomycin
- (b) Hypersensitivity
- (c) Vancomycin was given too fast

84. Which of the following polyps has the highest risk of malignancy?

- (a) Villus
- (b) Tubular

(c) Peutz-jegher

85. Person with suspected herpes simplex encephalitis. Which of the following is the next best investigation to confirm the diagnosis?

- (a) EEG
- (b) MRI
- (c) PCR

86. Women with severe rheumatoid arthritis. Cervical xray shown with obvious atlanto – axial subluxation. What is the most likely physical finding?

- (a) LMN lesions in the upper limbs
- (b) UMN lesions in the lower limbs (?said spasticity of the legs)
- (c) Paraesthesia in C2 distribution

87. Severe COPD patient with severe SOB on exertion. Huge residual volumes. Best treatment?

- (a) Lung volume reduction surgery
- (b) Medical management
- (c) Steroids

88. Overdose on tricyclic antidepressant. Wide QRS on ECG. Best treatment?

- (a) Bicarbonate
- (b) Haemodialysis
- (c) Amiodarone
- (d) ? Peritoneal dialysis

89. Person with severe pain from a mouth cancer. Incurable. Has expressed suicidal ideation. Most likely reason for this?

- (a) Major depression
- (b) Severe pain

90. Recent death of a family member. Which of the following is most likely to cause a complicated grief reaction?

- (a) Little contact with the deceased after an argument

91. Farmer with meningitis. LP shows 40 WBC's mainly lymphocytes. Given 1 dose ceftriaxone and feels better. What is the best ongoing treatment?

- (b) Doxycycline
- (c) Ceftriaxone

92. Which of the following results in a patient with aortic regurgitation most indicates the need for aortic valve replacement. Given table with 3 columns. 1st is LV diameter. 2nd is fractional shortening, they give you the equation $(EDV - ESV)/EDV$. 3rd column.

93. Man with triple vessel disease who has an MI. Which of the following is the best management. 3 columns given. 1st has choice of clopidigrel or tirafiban, 2nd, 3rd has options of CABG, angiography and then CABG, ?other options.

94. Elderly woman with abdominal pain. Worse with dehydration and food. CT shown ?what did it show. ? Mass on R kidney. Next investigation

- (a) Repeat CT in 6 months
- (b) Biopsy
- (c) Urine cytology

95. Which of the following best describes the adverse interaction between digoxin and verapamil?

- (a) Decreased liver blood flow
- (b) Decreased renal blood flow
- (c) Delayed gastric emptying
- (d) CP450 effect

96. Which of the following is the best indicator of obesity?

- (a) BMI
- (b) Waist – hip ration
- (c) Skin fold thickness

97. Rugby player who cannot abduct or internally rotate it. He has paraesthesia over his lateral forearm. What is the cause?

- (a) C5 root lesion
- (b) ?Intrascapular nerve lesion
- (c) Brachial plexus injury

98. A middle aged man has chronic stable angina and is on metoprolol and isosorbide mononitrate 60 mg daily. He has had only 2 episodes of chest pain in the last 6 months and has not required using his GTN tablets. He presents 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

F. non cardiac pain

99. Maximal O₂ consumption is a measure of general cardiovascular fitness. What is the most likely explanation for the reduction in maximal O₂ 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. ?? generalised respiratory muscle fatigue

100. 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 abdomen 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. ??

101. 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. Adrenalin

102. 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

103. 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

104. Question on CF genetics – 75% of cases of cystic fibrosis is due to a $\Delta F508$ 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 brother's 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. $\frac{2}{3}$

105. In-patients with advanced stage cancer, which of the following is the biggest risk factor for expressed suicidal ideation?

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

106. A patient with advanced HIV. Has a low CD4 count (approx 40) and high viral load (about 18,000). He now presents with flank pain. Medications 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

107. 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

108. A middle aged man is 10 days post op from BMT (allogeneic / autologous) for AML. Now presents with abdominal 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 abdomen

What is the cause of the presentation?

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

109. 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