

Random MCQs 2

1. A 43 year old man is receiving positive pressure ventilation on a respirator following a road traffic crash. His ABG shows a pH 7.54, PCO₂ 28mmHg, PO₂ 87mmHg, Bic 16 mmol/L.

This blood gas shows:

- a) pure respiratory alkalosis
- b) respiratory alkalosis and hypoxaemia
- c) respiratory alkalosis and metabolic acidosis
- d) mixed respiratory and metabolic alkalosis
- e) metabolic alkalosis with partial respiratory compensation

2. All of the following can be used in the management of stable VT **EXCEPT**:

- a) Lignocaine
- b) Isoprenaline
- c) Adenosine
- d) Sotalol
- e) Amiodarone

3. Formation of acetone occurs in poisoning with:

- a) ethanol
- b) methanol
- c) Ethyleneglycol
- d) isopranolol
- e) acetaminophen

4. In statistics an alpha level of 0.001 means:

- a) the study is overpowered
- b) the study is underpowered
- c) that it is very likely that a type 1 error has occurred
- d) the probability of incorrectly accepting the null hypothesis is 1 in 1,000
- e) the probability of incorrectly rejecting the null hypothesis is 1 in 1,000

5. In clinical trials the method of CPR with the best clinical outcome is:

- a) conventional CPR
- b) simultaneous compression ventilation CPR
- c) active compression decompression CPR
- d) interposed abdominal compression CPR
- e) none of the above is better than the others

6. Uncuffed endotracheal tubes should be used for:

- a) tube sizes less than 6mm
- b) acute epiglottitis
- c) blind nasotracheal intubation
- d) intubations with a Macintosh blade
- e) known fractured base of skull

7. Cricoid pressure was first described by:
- a) Mendelson
 - b) Danzi
 - c) Sellick
 - d) Tintinalli
 - e) Meller
8. Homozygous pseudocholinesterase deficiency occurs in:
- a) 1 in 150
 - b) 1 in 500
 - c) 1 in 1,000
 - d) 1 in 3,000
 - e) only those of Anglo Saxon descent
9. All of the following drugs can be used in rapid sequence induction **EXCEPT**:
- a) atropine
 - b) fentanyl
 - c) isoflurane
 - d) atracurium
 - e) ketamine
10. The likely intact survival rate in paediatric cardiac arrest is:
- a) less than 1 %
 - b) less than 10%
 - c) less than 25%
 - d) greater than 50%
 - e) worse if there is associated respiratory arrest
11. In paediatric resuscitation:
- a) endotracheal is the preferred route of drug administration
 - b) the dose of adrenaline is up to . 1 mg/kg
 - c) sodium bicarbonate is used at a dose of 5meq/kg
 - d) the airway will be improved by neck flexion
 - e) defibrillation is at a dose of 0.5 joules/kg
12. The following blood gases pH 7.17, PCO₂ 59, Bic 21, P_{O₂} 130 are most likely to be consistent with:
- a) diabetic ketoacidosis
 - b) diuretic overdose
 - c) premature twin baby
 - d) camphor ingestion with seizures
 - e) oliguria and renal failure
13. Normal saline contains sodium at:
- a) 162 mEq/L
 - b) 154 mEq/L
 - c) 145 mEq/L
 - d) 130 mEq/L
 - e) 110 mEq/L

14. All of the following are reactions to blood transfusion **EXCEPT**:
- a) hypercalcaemia
 - b) hyperkalaemia
 - c) increased haemoglobin oxygen affinity
 - d) haemolysis
 - e) hypothermia
15. One of the differences between morphine and pethidine relates to:
- a) analgesic efficacy
 - b) route of metabolism
 - c) ability to suppress cough
 - d) histamine release effects
 - e) abuse potential
16. Nitrous oxide can be safely used in a patient with:
- a) joint pain after diving
 - b) severe COAD
 - c) paralytic ileus
 - d) penetrating chest trauma
 - e) traumatic retinal detachment
17. A one year old child would be expected to have a pulse of:
- a) 150
 - b) 140
 - c) 130
 - d) 120
 - e) 110
18. For blood pressure determination in a 6 year old child the cuff width should be:
- a) 3cms
 - b) 4cms
 - c) 5cms
 - d) 6cms
 - e) 7cms
19. During pregnancy:
- a) CVP gradually decreases
 - b) oxygen reserve increases by about 20%
 - c) diastolic blood pressure rises in the first trimester
 - d) gastrointestinal motility increases
 - e) blood volume increases by about 20% by term
20. The strongest wound suture is:
- a) silk
 - b) prolene
 - c) chromic cat gut
 - d) nylon
 - e) mersilene

21. Tetanus:
- a) typically has an incubation period of 23 days
 - b) immunization status is particularly poor in elderly women
 - c) toxoid is more effective by S.C. injection
 - d) IgG will provide passive protection for about a week
 - e) immunisation is not safe in pregnancy
22. Oesophageal foreign bodies can be treated with all of the following EXCEPT:
- a) foley catheter
 - b) sodium bicarbonate
 - c) papain
 - d) glucagon
 - e) tartaric acid
23. The Glasgow Coma Scale:
- a) is a poor predictor of survival in head injury
 - b) allocates a score of 3 to pain withdrawal response
 - c) is the major component of the Revised Trauma Score
 - d) is not suitable for use by trained first aiders
 - e) was developed in the New England regional trauma system
24. The commonest site of mandibular fracture is:
- a) coronoid process
 - b) symphysis
 - c) condyle
 - d) ramus
 - e) body
25. With regard to spinal injuries:
- a) the Jefferson fracture is a vertical compression injury
 - b) the Jefferson fracture is usually stable
 - c) the Clay Shovelers fracture is unstable
 - d) the Hangmans fracture is an extension tear drop injury
 - e) the Chance fracture typically occurs at the cervicothoracic junction
26. In spinal injuries the central cord syndrome:
- a) is a result of forced hyperflexion
 - b) occurs typically in those with degenerative arthritis
 - c) will be more clinically apparent in the lower limbs
 - d) will produce ipsi lateral motor paralysis
 - e) will have position and vibration sense preserved
27. In attempted self hanging:
- a) cervical fractures are common
 - b) death usually occurs from arterial obstruction
 - c) steroids will prevent delayed cerebral oedema
 - d) ARDS may often be seen in survivors
 - e) longterm injury is rarely seen in survivors

28. Sternal fractures:

- a) are more likely in the over 65 age group
- b) have a 25% associated mortality
- c) mandate 24 hours of cardiac monitoring
- d) do not develop flail segments
- e) are prevented by seat belt use

29. Pericardial tamponade:

- a) will lower CVP below 5cm of water
- b) is common with severe blunt chest trauma
- c) may produce pulsus paradoxus
- d) usually presents as Becks triad
- e) produces RBBB on the ECG

30. Major pancreatic injury:

- a) will be excluded by a normal serum amylase
- b) presents with minimal abdominal signs initially
- c) will nearly always be detected by peritoneal lavage
- d) is the second most common organ injury in penetrating trauma
- e) is the third most common organ injury in penetrating trauma

31. Peritoneal lavage:

- a) is absolutely contraindicated in pregnancy
- b) requires a RBC count of $>100,000$ per mm^3 to be considered positive
- c) has a complication rate of 5-10%
- d) has a high sensitivity for renal injuries
- e) has a false positive rate of 2-5%

32. With regard to orthopaedic injuries:

- a) the Salter-Harris system classifies metaphyseal injuries
- b) the Lis-Franc injury is a tarso-metatarsal fracture-dislocation
- c) the Chance fracture is usually unstable
- d) the Chauffeur's fracture involves the ulna styloid
- e) the Barton fracture involves the distal articular surface of the ulna

33. Colles fracture:

- a) results from forced flexion of the wrist
- b) will often involve the articular surface of the radius
- c) is the reverse of a Smith's fracture
- d) is more common in men
- e) is associated with fractured ulna styloid in about 20% of cases

34. A posterior elbow dislocation:

- a) is reduced by traction and extension
- b) will frequently cause neurovascular compromise
- c) is mobilised at 3-5 days post injury
- d) rarely reduces spontaneously
- e) is caused by a fall on a supinated hand

35. Paediatric septic arthritis:

- a) is usually due to haemophilus influenzae
- b) is empirically treated with ceftriaxone or cefotaxime alone
- c) will show a joint aspirate cell count of $> 10,000 \text{ mm}^3$
- d) will show a joint aspirate with increased viscosity
- e) can often be diagnosed on plain radiography

36. Toxic shock syndrome:

- a) will often manifest without fever
- b) is a misnomer because BP is often maintained
- c) is caused by pseudomonas species
- d) often produces elevated creatinine kinase
- e) produces a discrete papular rash

37. Positive predictive value is:

- a) true positives divided by true positives plus false positives
- b) true negatives divided by false negatives plus true negatives
- c) false positives divided by false positives plus true negatives
- d) true positives divided by true positives plus false negatives
- e) test positives divided by true positives

38. Erysipelas

- a) responds to erythromycin
- b) is caused strep pneumoniae
- c) results from microorganism exotoxin production
- d) typically occurs on the neck
- e) shares a similar aetiology to toxic epidermal necrolysis

39. Appropriate first aid management of brown snake envenomation includes:

- a) arterial tourniquet
- b) suction drainage of the wound
- c) wound incision
- d) aspirin 300mg orally
- e) splinting of the joint above the injury

40. Box jellyfish envenomation:

- a) can be treated prehospital with IV antivenom
- b) involves tetrodotoxin like blue ringed octopus
- c) is minimised by washing of nematocysts with fresh water
- d) can occur as far south as Sydney in mid summer
- e) causes death by fulminant hepatic failure

41. Using the Parkland formula in burns management:

- a) metabolic acidosis is allowed to persist
- b) SSD cream is applied at the rate $2\text{gm} / \% \text{ area burnt}$
- c) skin grafting can be predicted for burns $>10\%$ surface area
- d) $4\text{ml} / \text{kg} / \% \text{ body surface burn}$ is per day burns replacement
- e) half the total requirement is given in the first 4 hours

42. In hypothermia:
- a) J waves are best seen in leads III and AVF
 - b) atrial fibrillation is the commonest rhythm below 32°C
 - c) insulin at reduced dose is the treatment of choice for hyperglycaemia
 - d) alcohol is to a degree thermoprotective
 - e) rewarming with bypass carries the highest risk of core after drop
43. The most effective method of cooling in heatstroke is:
- a) IV dantrolene
 - b) cold IV fluids
 - c) cooling blankets
 - d) ice packs in the groin and axillae
 - e) fan and sponge with tepid water
44. The following drugs can be used in the treatment of true heat stroke:
- a) chlorpromazine
 - b) phenobarbitone
 - c) mannitol
 - d) NaHCO₃
 - e) all of the above
45. In lightning injury:
- a) in a mass casualty situation the apparently dead nearly always die
 - b) in an arrested patient cardiac massage is the highest priority
 - c) tympanic membrane rupture is common
 - d) the classic skin burn resembles an inverted pine tree pattern
 - e) myoglobinuric renal failure is a common sequelae
46. In near drowning:
- a) fresh water immersion is treated with hypertonic saline 10%
 - b) altered mental status on ED arrival is a grave prognostic sign
 - c) those who die usually aspirate less than 20ml / kg
 - d) sudden death on immersion is due to **vocal cord spasm**
 - e) prophylactic antibiotics (e.g. ceftriaxone) are used routinely
47. In asthma:
- a) the white blood cell count will often be elevated
 - b) the ECG may show signs of acute left heart strain
 - c) a CXR should be routine in all patients admitted
 - d) blood gas results correlate well with pulmonary function testing
 - e) theophylline dosing needs to be increased if erythromycin is given
48. In a patient with COAD and cor pulmonale, a rapid irregular tachycardia:
- a) could be empirically treated with digoxin
 - b) is well managed with titrated IV beta blocker
 - c) will be improved by inducing alkalosis
 - d) nifedipine may provide useful rate control
 - e) ipratropium is unlikely to increase the heart rate

49. Regarding pleural effusion all of the following are true EXCEPT:
- a) can be tapped to make a diagnosis of pancreatitis
 - b) can be detected radiographically when 10 ml of fluid is present
 - c) is most commonly caused by congestive cardiac failure
 - d) can result from rheumatoid arthritis
 - e) will not produce mediastinal shift
50. Sore throat is caused by all of the following
- a) neisseria gonorrhoeae
 - b) mycoplasma pneumoniae
 - c) bacteroides fragilis
 - d) cytomegalovirus
 - e) corynebacterium diphtheriae
51. Regarding empiric antibiotic therapy in pneumonia:
- a) cefazidime is used for atypical pneumonia
 - b) clindamycin is used for aspiration pneumonia
 - c) acyclovir is used for post influenza pneumonia
 - d) erythromycin is used for PCP pneumonia
 - e) amoxicillin alone is used for neonates with pneumonia
52. Use of amiodarone:
- a) causes long term corneal deposits commonly
 - b) causes hypertension when used acutely
 - c) is contraindicated in WPW syndrome
 - d) is likely to decrease digoxin levels
 - e) has efficacy similar to esmolol in PSVT
53. With regard to pulmonary embolism:
- a) pleuritic chest pain is the most common symptom
 - b) cigarette smokers are at increased risk
 - c) fever is infrequent
 - d) thrombolysis is achieved with SK 100,000 units stat
 - e) the commonest ECG change is right axis deviation
54. ST segment elevation in V6 on a 12 lead ECG could be due to all of the following EXCEPT:
- a) a pericardiocentesis needle
 - b) LBBB
 - c) hyperkalaemia
 - d) hypothermia
 - e) subarachnoid haemorrhage
55. The strongest indication for pacing a patient with AMI is:
- a) new RBBB with 1st degree AV block
 - b) new LBBB with 1st degree AV block
 - c) preexisting bifascicular block with 1st degree AV block
 - d) new bifascicular block
 - e) preexisting LBBB

56. The clinical trial that showed that patients with acute myocardial infarction manifesting as ST depression on ECG do worse with thrombolysis was:

- a) TIMI 1
- b) ISIS1
- c) ISIS I
- d) GISSI
- e) GUSTO

57. In a patient presenting with possible thoracic aortic dissection the investigation with the best sensitivity and specificity is:

- a) transthoracic echocardiography
- b) transoesophageal echocardiography
- c) CT scan
- d) aortography
- e) MRI

58. Henoch Schonlein purpura:

- a) represents a vasculitis of large arteries
- b) is most common in spring
- c) is usually most obvious on the head and neck
- d) will not involve abdominal organs
- e) typically occurs in adolescents

59. Axillary vein thrombosis:

- a) causes pulmonary embolism in 1-2% of patients
- b) is best diagnosed by colour flow doppler study
- c) has no associated genetic predisposition
- d) does not respond to thrombolytic therapy
- e) is associated with IV drug abuse

60. The major Jones criteria for rheumatic fever include:

- a) chorea
- b) erythema marginatum
- c) subcutaneous nodules
- d) St Vitus dance
- e) all of the above

61. A footballer has suffered an injury to one of his upper incisor teeth. On examination there is severe pain and a pinkish tinge visible when fractured tooth is wiped clean. This represents an:

- a) Ellis class I injury
- b) Ellis class II injury
- c) Ellis class III injury
- d) Ellis class IV injury
- e) Ellis class V injury

62. Cytomegalovirus causes:

- a) infantile bronchiolitis
- b) retinitis
- c) chronic
- d) neonatal encephalitis
- e) Kaposi's sarcoma

63. To reduce a temporomandibular joint dislocation:

- a) the jaw is gently rocked from side to side
- b) the predominate movement required is protraction
- c) typically sedation with midazolam or diazepam is required
- d) the joint capsule is infiltrated with local anaesthetic
- e) the jaw is pushed down and back

64. Toxic epidermal necrolysis:

- a) is caused by aspirin
- b) is treated with high dose steroids
- c) is caused by staph aureus
- d) produces a positive Niklosky's sign
- e) all of the above

65. The most common cause of erythema multiforme is:

- a) rheumatoid arthritis
- b) sarcoidosis
- c) tuberculosis
- d) herpes simplex
- e) pediculosis

66. Traumatic hyphaema:

- a) is treated with the patient lying flat
- b) may require treatment with IV mannitol
- c) rebleed in less than 5% of cases
- d) usually leads to glaucoma later in life
- e) all of the above

67. A sudden painless loss of vision in a 62 year old male could be treated with:

- a) a number 11 scalpel blade
- b) nitrous oxide inhalation
- c) aminocaproic acid
- d) high dose steroids
- e) all of the above

68. All of the following substances bind well to activated charcoal EXCEPT:

- a) thioridazine
- b) atenolol
- c) cyanide
- d) benztropine
- e) tetrahydrocannabinol (THC)

69. In paracetamol poisoning:

- a) there are theoretical advantages to giving the antidote at 2 hours post ingestion
- b) toxicity is less likely in children than adults
- c) the initial dose of Nacetylcysteine is given over 5 minutes
- d) Nacetylcysteine is not indicated more than 20 hours post ingestion
- e) activated charcoal is not used more than 1 hour after ingestion

70. A patient who presents psychotically disturbed, hot, sweating, and tachycardic is most likely to be poisoned with:

- a) promethazine
- b) chlorpheniramine
- c) dexamphetamine
- d) trumpet lillies
- e) all of the above

71. Digoxin specific antibodies:

- a) can be used to treat oleander poisoning
- b) should be used if serum digoxin is $>4\text{meq/L}$
- c) are indicated if profound first degree heart block is present
- d) should be used if serum potassium is $>4.5\text{mmol/L}$
- e) all of the above

72. The best predictor of serious toxicity in TCA poisoning is:

- a) drug plasma levels
- b) GCS less than 8
- c) estimates of ingested drug dose
- d) rightward deviation of the QRS vector
- e) QRS duration of $>100\text{msec}$

73. Lithium poisoning:

- a) is treatable with multidose activated charcoal
- b) presents usually as cardiac arrhythmias
- c) is treated in part with frusemide
- d) is more dangerous if due to chronic poisoning
- e) produces ECG changes similar to hyperkalaemia

74. The safest and most efficacious therapy for cyanide poisoning is:

- a) sodium thiosulphate
- b) amyl nitrite
- c) sodium nitrite
- d) cobalt EDTA
- e) hydroxycobalamin

75. All of the following are major criteria for Kawasaki syndrome EXCEPT:

- a) fever $> 38.5^{\circ}\text{C}$ for at least 5 days
- b) bilateral conjunctivitis
- c) erythematous palms and soles
- d) marked cervical lymphadenopathy
- e) congestive heart failure

76. A newly born who is limp and non responsive, pale and in which pulses and breathing cannot be easily detected has an APGAR of:

- a) 0
- b) 1
- c) 2 or 3
- d) 3 or 4
- e) 4

77. The most common cause of death in infants aged 6 to 12 months is:

- a) road traffic crashes
- b) SIDS
- c) Homicide
- d) congenital tumours
- e) infectious diseases

78. The most common neurologic manifestation of child abuse is:

- a) retinal haemorrhage
- b) brainstem infarction
- c) subdural haematoma
- d) brain stem haemorrhage
- e) extradural haematoma

79. Epiglottitis:

- a) is most common in the third year of life
- b) shares a similar aetiology to bacterial tracheitis
- c) is more common in males
- d) is first manifest by signs of airway narrowing
- e) produces a cough in 30% of cases

80. Nebulised adrenaline when used for croup:

- a) mandates overnight admission
- b) is more efficacious if the racemic mixture is used
- c) is reserved for life threatening obstruction
- d) is given in 50 times the usual IM dose
- e) produces VT in 5% of cases

81. Mycoplasma pneumoniae is the most common causes of pneumonia in:

- a) 1 4 month olds
- b) 4 12 month olds
- c) 1 5 year olds
- d) 5 10 year olds
- e) all of the above

82. Jervell Lange Nielsen syndrome links:

- a) deafness and sudden death
- b) VSD and right ventricular hypertrophy
- c) PSVT and accessory pathways
- d) severe rigors and Lyme disease
- e) aganglionosis and colonic dilatation

83. The sensory innervation of the heel can be blocked by local anaesthetic injected:

- a) behind the medial malleolus
- b) in front of the medial malleolus
- c) behind the lateral malleolus
- d) in front of the lateral malleolus
- e) just lateral to the flexor hallucis longus tendon

84. The daily IV fluid replacement of a 25kg child is:

- a) 1200 mls
- b) 1400 mls
- c) 1600 mls
- d) 2100 mls
- e) 2600 mls

85. The patient with these electrolytes:

Na⁺ 144 mmol/L

K⁺ 4 mmol/L

HCO₃⁻ 26mmol/L

Cl⁻ 100 mmol/L

could be suffering from all of the following EXCEPT:

- a) acute renal failure
- b) methanol poisoning
- c) lower limb crush injury
- d) salicylate poisoning
- e) severe diarrhoea

86. The patient with normal lungs and pulmonary gas exchange breathing 40% oxygen at sea level and breathing normally could be expected to achieve an arterial oxygen tension of about:

- a) 180 mm Hg
- b) 210 mm Hg
- c) 235 mm Hg
- d) 260 mm Hg
- e) 290 mm Hg

87. Hypercalcaemia can be treated with all of the following therapies EXCEPT:

- a) IV N saline
- b) frusemide
- c) chlorothiazide
- d) hydrocortisone
- e) calcitonin

88. The use of adenosine is contraindicated in a patient:

- a) in apparent ventricular tachycardia
- b) already treated with beta blockers
- c) with sick sinus syndrome in PSVT
- d) taking regular theophylline
- e) in a patient with a PB of 70/R

89. A patient with an acute AMI, basal crepitations and a third heart sound:

- a) fails into Class II in the Killip Kimball classification
- b) has a 5-8% expected in hospital mortality
- c) is likely to have a cardiac index of $<2\text{L}/\text{min}/\text{M}^2$
- d) falls into the Class IV in the ForresterDiamondSwan classification
- e) all of the above

90. Ascent barotrauma in a SCUBA diver might be expected to produce:

- a) external ear squeeze
- b) rupture of the round window
- c) blood in the face mask
- d) bruising and petechiae on the face
- e) alveolar haemorrhage

PART 2 MCQ EXAM ANSWERS:

1. C
2. B (?C)
3. D
4. E
5. E
6. A
7. C
8. D
9. C
10. B
11. B
12. D
13. B
14. C
15. C
16. E
17. D
18. E
19. A
20. B
21. B
22. C
23. C
24. C (?E)
25. A
26. B
27. D (?B)
28. A
29. C
30. B
31. E
32. B
33. C
34. C
35. C
36. D
37. A
38. A
39. E
40. A
41. D
42. B
43. E
44. E
45. C
46. C
47. A
48. E
49. E (?B)
50. C
51. B
52. A
53. B
54. B

- 55. D (?C)
- 56. D
- 57. E
- 58. B
- 59. E
- 60. E
- 61. C
- 62. B
- 63. E
- 64. E
- 65. D
- 66. B
- 67. A (?D)
- 68. C
- 69. B
- 70. C
- 71. A
- 72. B
- 73. D
- 74. E
- 75. E
- 76. A
- 77. C (?B)
- 78. A
- 79. C
- 80. D
- 81. D
- 82. A
- 83. A
- 84. C
- 85. E
- 86. C
- 87. C
- 88. C
- 89. A (?C)
- 90. E