

Random MCQs 10

- Regarding bronchiolitis, which of the following are true?
 - Corticosteroids are contraindicated
 - The use of bronchodilators is controversial
 - A chest x-ray rarely shows hyperexpansion
 - A normal white cell count is the usual finding
 - Nebulised adrenaline reduces length of emergency department time
- With regards to arrhythmias
 - Sotalol reverts AF in >90% of cases
 - Chemical cardioversion of AF has less risk of systemic embolisation than electrical reversion
 - Group 1B antiarrhythmics have an increased risk of causing torsades
 - VT is the arrhythmia that is most sensitive to cardioversion
 - The Valsalva manoeuvre treats SVT most effectively when the patient is seated
- Suicide risk is highest in which of the following groups
 - Depression, schizophrenia, alcoholism
 - Depression, personality disorder, alcoholism
 - Panic disorder, schizophrenia, depression
 - Panic disorder, depression, alcoholism
 - Agoraphobia, substance abuse, male sex
- With regard to Hepatitis C infection
 - 30-50% of patients develop chronic hepatitis
 - It is transmitted the same way as Hepatitis B
 - It causes 60% of all cases of transfusion hepatitis
 - The incubation period averages 21 days
 - IgM anti HCV appear in the serum 1-4 weeks after symptom onset
- With regard to psychiatric disorders
 - Children cannot be diagnosed with a personality disorder
 - Patients with somatoform disorders should have an early psychiatric review
 - Conversion disorder can only be diagnosed if early functional loss does not conform to a neurological pattern
 - Somatoform disorders respond readily to psychiatric treatment
 - substance abuse is a rare complication of PTSD
- An overtly aggressive patient is brought into your department. How would you approach them?
 - Interview the patient in a closed room
 - Initially act as an ally
 - Keep police and security out of sight
 - Use direct and honest eye contact at all times
 - Immediately use physical and chemical restraint
- A 36 year old female at 40 weeks gestation is in cardiac arrest with asystole. Which of the following is true?
 - Defibrillation will compromise a live foetus
 - Amniotic fluid embolus is an unlikely cause
 - The mother should be placed in the right lateral position
 - Emergency caesarean section is indicated if there has only been a brief period of arrest
 - Adrenaline should not be used as it will decrease uterine artery blood flow
- The cause of syncope is only definitely established in the Emergency Department in
 - 5% of cases
 - 10% of cases
 - 25% of cases
 - 50% of cases
 - 75% of cases

9. Regarding defibrillation
 - a. All shocks produce some myocardial damage
 - b. The recommended paddle size for children is 8cm
 - c. Paddle pressure should be $2.5\text{kg}/\text{cm}^2$
 - d. It is more effective in inspiration than expiration
 - e. Successive shocks deliver more energy than the energy level shown

10. In HIV positive patients with diarrhoea
 - a. It is most commonly due to enteropathogenic E Coli
 - b. It is most commonly due to cryptosporidium
 - c. Blood culture is not useful
 - d. Mycobacterium tuberculosis is not a cause
 - e. Antimotility agents cannot safely be administered

11. Regarding trauma in pregnancy
 - a. All patients should be admitted
 - b. All patients over 20 weeks should be admitted
 - c. The cardiotocograph is more sensitive than ultrasound at predicting placental abruption
 - d. A cardiotocograph with 4 uterine contractions per hour in four hours indicates poor prognosis
 - e. A positive Kleihauer-Betke test is a predictor of poor foetal outcome

12. Which of the following is not an indication for tocolytics for preterm labour at 32 weeks gestation?
 - a. Cervical dilatation $< 4\text{cm}$
 - b. Healthy baby
 - c. Chorioamnionitis
 - d. Regular uterine contraction
 - e. Maternal hypoglycaemia

13. With regard to the management of a post partum haemorrhage which has caused significant haemodynamic effects
 - a. Manual stimulation of the uterus is not useful
 - b. Retained placenta is a cause of coagulopathy
 - c. Haemorrhage is usually due to uterine atony
 - d. Uterine rupture is more common in primipara than multipara
 - e. Intramyometrial injection of prostaglandins is the oxytocic of choice

14. With regard to CPR
 - a. Compression is more effective when performed during inspiration
 - b. The thoracic pump theory is thought to be responsible for forward blood flow during cough CPR
 - c. The valves in veins offer no resistance to forward blood flow
 - d. Active compression-decompression CPR is more effective than single person cardiac compression
 - e. The cardiac pump theory has been discredited as a mechanism of blood flow

15. Osgood-Schlatter's disease
 - a. Is not associated with any clinical signs
 - b. Is common in boys >12 years of age
 - c. Is associated with forced use of the quadriceps muscle
 - d. Is associated with an accessory ossicle in the quadriceps tendon
 - e. Causes damage to the calcaneal apophysis

16. Which of the following is not useful in the diagnosis of schizophrenia
 - a. Anhedonia
 - b. Diagnostic criteria of mood disorder exclude the diagnosis
 - c. Auditory hallucinations and delusions
 - d. Rapid onset of symptoms with good premorbid functioning
 - e. Disorganisation of thinking and behaviour

17. With regard to infective endocarditis which of the following is not true?
- Streptococcus is the most common organism
 - Staphylococcus is the most common organism in left heart infections
 - Can be caused by fungi and rickettsia
 - May present with embolic phenomena
 - Organism responsible can usually be isolated from appropriately collected blood cultures
18. Which of the following is more likely to be caused by peptic ulceration than nonulcer dyspepsia
- Night pain
 - Postprandial pain
 - Food intolerance
 - Nausea
 - Belching
19. The following arterial blood gases were taken on room air: pH 7.30, PCO₂ 60mmHg, PO₂ 60mmHg, HCO₃⁻ 27 mmol/L, These results are consistent with
- Acute pulmonary oedema
 - Barbiturate overdose
 - Chronic obstructive airways disease
 - Carbon monoxide poisoning
 - Salicylate overdose
20. Cardiac arrest can be caused by all of the following except
- Hypovolaemia
 - Endotracheal intubation
 - Carotid sinus massage
 - Hypothermia
 - Hyperventilation
21. Suxamethonium
- Causes tachycardia
 - Causes hypocalcaemia
 - Is a non depolarising neuromuscular blocking agent
 - Is contraindicated in patients with demyelinating conditions
 - Causes hypotension
22. Hyperventilation is associated with all of the following except
- Agoraphobia
 - Chest pain
 - An increased tendency to convulsions
 - ST and T wave changes on ECG
 - Increased intracranial pressure
23. Regarding Torsades de Pointes which of the following is true?
- Procainamide is the treatment of choice
 - Is usually associated with hyperkalaemia
 - Can be treated with magnesium sulfate
 - Can be treated with quinidine
 - Is a complication of lithium overdose
24. Regarding Streptokinase which of the following is true
- Hypofibrinogenemia is unlikely to occur
 - Can be readministered after 2 years
 - Acts by inhibiting thrombin synthetase
 - Bleeding can be controlled with protamine
 - Produces hypotension due to bradykinin release

25. Guillain Barre syndrome is usually associated with all of the following except
- Acute onset
 - Foot drop or wrist drop
 - The need for mechanical ventilation
 - Increased CSF proteins
 - Loss of deep tendon reflexes
26. A Salter Harris Type III fracture involves
- Crushing to all or part of the epiphyseal plate
 - Separation of part of the epiphysis
 - Separation of part of the epiphysis with a metaphyseal fragment
 - Displacement of the epiphysis carrying a small triangular metaphyseal fragment
 - Fracture of the epiphyseal plate only
27. Childhood injuries
- Most commonly occur in the playground
 - Most commonly occur on public roads
 - Maximum incidence of poisoning is at 6 years of age
 - Incidence increases when levels of stress in the household increase
 - Are rarely seen in child abuse cases in children less than 12 months of age
28. Regarding abdominal x-rays which of the following is false?
- They are contraindicated in pregnancy
 - Barium should be avoided in cases of suspected intestinal perforation because it is irritant to the peritoneum
 - Gastrograffin causes diarrhoea
 - Inhaled water soluble contrast media is less irritant to the lungs than barium
 - Can be used to exclude a suspected ruptured abdominal aortic aneurysm
29. Regarding X-rays which of the following is true?
- The maximal risk to the foetus is in the first 10 days post conception
 - A plain abdominal X-ray exposes the foetus to five times the radiation dose of a CXR
 - Supine abdominal x-rays can usually detect a pneumoperitoneum
 - Gastrograffin causes diarrhoea
 - Chest x-rays are usually normal with pulmonary embolus
30. Upper abdominal peritoneal signs
- Are not a feature of cardiac disease
 - Are commonly seen in pre-eclampsia
 - Are not a feature of ectopic pregnancy
 - Are not a feature of methanol overdose
 - Are commonly seen in renal calculi
31. Ten days following a routine appendicectomy a 20 year old female presents with swinging temperatures. Which of the following is true?
- A subphrenic abscess is the most likely diagnosis
 - A right sided pleural effusion is most likely due to pneumonia
 - A deep venous thrombosis is the most likely diagnosis
 - A tubo-ovarian abscess is the most likely diagnosis
 - A pelvic abscess is the most likely diagnosis
32. Which one of the following statements concerning a foreign body impacted in the oesophagus is false?
- CXR and AXR are suitable initial investigations
 - Must be urgently removed because of the danger of perforation and aspiration pneumonia
 - Perforation can be reliably excluded with an erect CXR
 - Mediastinitis is a complication of perforation
 - Can result in a tracheo-oesophageal fistula

33. Regarding oesophageal motility disorders which of the following is true?
- Are most commonly seen in young people in their 30s
 - Symptoms are most pronounced when swallowing solids
 - Are associated with the inability to relax the lower oesophageal sphincter
 - Symptoms are most pronounced when swallowing liquids
 - Are commonly associated with gastro-oesophageal reflux
34. With regard to urinary tract infections which of the following is true?
- The presence of nitrites is highly specific for UTI
 - Frequency and dysuria always indicate the presence of a UTI
 - Can be reliably excluded with a normal urinalysis
 - Can be reliably diagnosed from bag specimens in young children
 - The presence of proteinuria is highly specific for UTI
35. Metabolic acidosis results in all of the following except
- Shift of the oxygen Hb dissociation curve to the right
 - Increases oxygen availability from haemoglobin in peripheral tissues
 - Decreases intracellular potassium concentration
 - Increases glomerular filtration rate
 - Can result in increased muscular contractility
36. A diver presents complaining of hoarseness which began soon after surfacing from a dive. Which of the following statements is false?
- You should arrange for an urgent intubation
 - Administer 100% oxygen
 - Prophylactic steroids are not recommended
 - You should arrange for an urgent CXR
 - The patient should be placed in the supine position
37. Concerning spirometry, which of the following statements is true?
- It is dependent on the height, weight and sex of the patient
 - The ratio of FEV1/VC is reduced in restrictive lung disease
 - The FEV1 is a better measure of respiratory function than the maximal mid expiratory flow rate
 - Patients' symptoms correlate well with changes in spirometry
 - The ratio of FEV1/VC is increased in obstructive lung diseases
38. Regarding the presence of gallstones visible on a plain abdominal X-ray in an asymptomatic patient
- Indicate a high chance of developing carcinoma of the gallbladder
 - Will produce pancreatitis at some time in 15-20% of cases
 - Oral cholangiogram is likely to show a non functioning gallbladder
 - Operative mortality of elective cholecystectomy is 5%
 - Indicate the need for cholecystectomy
39. In the presentation of primary spontaneous pneumothorax
- Pain is due to torn visceral pleura
 - 5% of patients develop a spontaneous tension pneumothorax
 - multiple blebs on the surface of the lung are usually present
 - pleural drainage with an intercostal tube is indicated
 - pleural aspiration and hospital admission is indicated
40. An elderly lady presents with chest pain which you conclude is non-ischaemic in origin. Her urinalysis is positive for nitrites
- She should be admitted to a geriatric unit
 - She should be treated with antibiotics
 - An MSU should be taken and action taken pending culture results
 - She should have an IVP
 - Involve the LMO in management only if her renal function is impaired

41. In methanol ingestion which of the following is incorrect?
- Ethanol infusion can be life saving
 - It is a cause of increased anion gap acidosis
 - Toxicity is due to conversion to formaldehyde
 - Haemodialysis may be used in treatment
 - Steroids are useful in treatment
42. Haemacel differs from normal serum albumin in all of the following except:
- Haemacel contains a higher concentration of Ca^{2+}
 - Haemacel does not need to be refrigerated
 - Haemacel contains higher molecular weight proteins
 - Haemacel is mainly renally excreted
 - Haemacel has a shorter plasma half life
43. Intussusception
- Is usually ileocolic in origin
 - Causes vomiting early
 - Is suggested by the presence of fluid filled loops over the right upper quadrant on abdominal x-ray
 - Surgical reduction is commonly required in children aged less than one
 - Is most common after two years of age
44. Pyloric stenosis
- Is best diagnosed with a plain abdominal x-ray
 - Presents with projectile bile stained vomiting
 - Results in a hypochloraemic metabolic acidosis
 - Is often familial
 - In adults can be due to chronic pyloric ulceration
45. With regard to depression
- The treatment of choice in the elderly and frail is ECT
 - Antidepressants are less effective in the elderly
 - Larger doses of antidepressants are needed in the elderly
 - Suicide risk varies with age
 - Psychotic phenomenon are not a feature
46. With regards to Stevens Johnson syndrome
- Characteristically steroids are highly effective
 - Sulphonamides are implicated in the aetiology
 - Attacks are seasonal
 - More common in females than males
 - Outpatient management is indicated in most cases
47. In Acute Tubular Necrosis
- Steroids may be useful in cases secondary to overwhelming sepsis
 - Red blood cell casts are not characteristic
 - $[\text{Na}^+]$ in urine $> 20\text{meq/L}$
 - an IVP is useful to exclude urinary obstruction
 - recovery is usually incomplete
48. In major primary post partum obstetric haemorrhage
- Prostaglandins endometrially are the oxytocic of first choice
 - Ergometrine can be safely given to everyone
 - Retention of the products of conception is rarely the cause
 - Manual stimulation of the uterus is of little use
 - DIC can be an associated feature

49. In the treatment of possible snake bite in a three year old child who has negative Venom Detection Kit testing at the bite site and in urine, which of the following is true?
- LFTs are likely to be useful
 - Urinalysis is likely to be useful
 - If the child is asymptomatic and all is ready for treatment then the compression bandage can be removed
 - Antivenom doses will depend on the child's weight if envenomation has occurred
 - Premedication with iv adrenaline to prevent anaphylaxis
50. Which of the following is true regarding Iron overdose
- Haematemesis and malaena are a late complication
 - Neuropsychiatric sequelae are a late complication
 - Bowel strictures are a late complication
 - Charcoal is useful in the initial management of the patient
 - Plain abdominal x-rays can be used to exclude ferrous sulphate ingestions
51. Regarding the use of repeat dose charcoal in the process of "gastrointestinal dialysis" for poisoning, which of the following characteristics of the drug are essential for success of the technique:
- Large volume of distribution
 - Small molecular weight
 - High protein binding
 - Rapid endogenous elimination
 - Adrenergic side effects
52. Regarding alkalinisation of urine to enhance the excretion of drugs which of the following is true:
- The drugs must be reabsorbed across the collecting tubule in ionised form
 - The drug must have a high pKa
 - The drug must be distributed mainly in the intracellular compartment
 - The drug must be highly protein bound
 - The drug must be predominately filtered at the glomerulus in the unchanged form
53. With regard to SCUBA divers
- Rupture of the round window is associated with ascent
 - Pneumothorax is associated with ascent
 - Mask squeeze is associated with ascent
 - Nitrogen narcosis is associated with ascent
 - Nitrogen narcosis is associated with the rate of ascent
54. Rapid ascent from sea level to 3500m is acutely associated with all of the following except:
- A fall in urine output due to increased insensible losses
 - Confusion
 - cerebral oedema
 - headache
 - respiratory alkalosis
55. With regard to near drowning, all of the following are field predictors of good outcome except
- Submersion time less than 5 minutes
 - CPR commenced within 10 minutes of retrieval from water
 - First spontaneous breath within 30 minutes of retrieval from water
 - Return of spontaneous circulation prior to arrival at hospital
 - Male sex
56. With regard to massive blood transfusion
- Coagulation factors V and VII are most likely to fail as they are the most labile
 - Cryoprecipitate contains adequate amounts of fibrinogen
 - Transmission of HIV and CMV can occur with blood products as well as blood
 - Cross matching is necessary for using FFP
 - Calcium may be useful in treatment

57. All of the following are characteristic of the anticholinergic toxidrome except:
- Agitated delirium
 - Tachycardia
 - Hyperthermia
 - Hypertension
 - Urinary retention
58. Regarding ingestion of corrosive substances which of the following is true?
- The absence of visible burns to the lips, mouth or throat implies an absence of significant burns to the oesophagus or stomach
 - Hypertension is a systemic effect of large acid ingestions
 - Oesophageal strictures develop in areas of superficial mucosal ulceration as the major late complication
 - Urgent neutralisation, aspiration and administration of activated charcoal are indicated for decontamination
 - Upper gastrointestinal endoscopy is the best guide to prognosis
59. The ECG characteristics of Left Anterior Hemiblock (Left Anterior superior fascicle) include all of the following except
- Normal QRS duration
 - Frontal plane mean QRS axis greater than 110 degrees
 - R wave in lead I greater than R waves in II or III
 - A qR complex in lead aVL
 - Deep S waves in leads II, III and aVF
60. With regard to thrombolysis for coronary artery occlusion which one of the following is FALSE
- Beta blockers and IIb/IIIa inhibitors improve mortality when used as adjunctive therapy after thrombolysis
 - Thrombolytic agents are not contraindicated even after five minutes of CPR
 - Tissue plasminogen activators cause higher rates of bleeding than streptokinase
 - A new right bundle branch block with greater than 30 minutes of severe chest pain is not an indication for thrombolysis
 - Patients with ST elevation but without a history of pain are not candidates for thrombolysis

Answers

Tintinalli, Fifth Edition, Oh ICU Manual 4th Edition, Cameron et al 1st Edition

1. A
2. D
3. B
4. E ref Cameron p334
5. A Tintinalli p1912
6. B
7. D Tintinalli p74 verbatim
8. D Tintinalli p356 verbatim
9. B Tintinalli p 190, Cameron p 9, Oh p119
10. D Tintinalli p958
11. C Tintinalli p1630 verbatim
12. C Tintinalli p698, internet search
13. C Tintinalli p700, Cameron p474
14. D 1: N Engl J Med. 1999 Aug 19;341(8):569-75. Plaisance P, Lurie KG, Vicaut E, Adnet F, Petit JL, Epain D, Ecollan P, Gruat R, Cavagna P, Biens J, Payen D. A comparison of standard cardiopulmonary resuscitation and active compression-decompression resuscitation for out-of-hospital cardiac arrest. French Active Compression-Decompression Cardiopulmonary Resuscitation Study Group.
15. C B is controversial - Apley says "common", multiple ref. incl McRae
16. D Tintinalli p 1910
17. B Harrisons 13th Edition, Tintinalli p385
18. A Cameron
19. B is most likely, acute respiratory acidosis secondary to hypoventilation, Cameron p393
20. E although it can cause severe arrhythmias in an intubated pt. Tintinalli p 1676
21. D
22. E Tintinalli, multiple
23. C Tintinalli p180
24. E Cameron p 143, Tintinalli p 1403. B is not strictly incorrect (ab's persist 6/12)
25. B Tintinalli p 1474
26. B McRae p16
27. B Tintinalli p1614 supported by google search of Australian reference articles
28. From a Radiologist: A - except in extremus, this is considered true
B - true. Gastrograffin is not irritant
C - can be true, as it is hyperosmolar. Never heard of it actually happening though
D - True for non-ionic contrast like ultravist but definitely NOT true for gastrograffin, as it causes a pneumonitis
E - You'd be lucky if it did.
29. From the same radiologist: A - yes, that's the conventional teaching
B - False, actually it's much higher
C - False, though the "wrigglers" sign can be used to try and do this
D - back again
E - Most often, unfortunately yes
30. B, Tintinalli, multiple pages
31. E
32. C Tintinalli page 530
33. D Tintinalli page 537, especially at extremes of temperature
34. A Urine nitrites are >90 specific, about 50% sensitive
35. D - acidosis decreases renal perfusion Tintinalli p136, proven to decrease GFR in dogs (google)
36. A – Tintinalli p 1274.
37. A – Dunn et al 3rd Edition p618, Australian Spirometry Handbook online
38. B – Tintinalli p578
39. C – Tintinalli p 472
40. C - Urine nitrites are >90 specific, about 50% sensitive

41. E – Tintinalli p 1106
42. C - Haemaccel averages 35000, NSA 66000. MIMS
43. A – Tintinalli p 849
44. D – Tintinalli p848
45. D – Cameron p509
46. B – Oxford Handbook Of Medicine p708
47. C – Tintinalli table 88-8 p614
48. E - Dunn p480
49. C – Cameron p650
50. C – Tintinalli p 1162, although A is possible although more intermediate than late
51. B – Cameron p 663
52. E – Cameron p 663
53. B – Dunn p229
54. A – Cameron p 644
55. E – Cameron p 631
56. C – Cameron p 410, although B has some truth to it.
57. D – Cameron p 660
58. E – Cameron p 710
59. B – Tintinalli p 185, should be less than -45 degrees
60. A – sample question from ACEM