

## Random MCQs 4

### PLEASE SELECT ONE CORRECT ANSWER FOR EACH QUESTION

1. A 29yo female presents with acute onset of dyspnoea and pleuritic chest pain. Which ONE of the following statements is CORRECT
- A. 80% of patients with pulmonary embolism will present with symptoms or signs of lower limb deep venous thrombosis.
  - B. Pleuritic chest pain is the most common presenting symptom of pulmonary embolus.
  - C. In pulmonary embolus, the Westermark sign seen on chest xray refers to a pleural-based density with a rounded border pointing toward the hilum.
  - D. A smoking history is not a risk factor for thromboembolic disease.
  - E. In pulmonary embolism a ventilation-perfusion scan will show an area of abnormal ventilation in an area of normal perfusion.
2. A 4 week old baby presents with a two day history of dyspnoea and sweating whilst feeding. Which ONE of the following is INCORRECT
- A. Clinical differentiation of heart failure from non-cardiac causes in this age group is difficult.
  - B. Cardiomegaly on chest xray is usually present in congestive heart failure.
  - C. Patent ductus arteriosus is the most common cause of congestive heart failure at this age.
  - D. The incidence of congenital heart disease is 8 per 1000 live births.
  - E. Raised jugular venous pressure, peripheral oedema, and lung crepitations are late signs in infants with congestive heart failure.
3. With respect to anorectal abscesses, which ONE of the following statements is INCORRECT
- A. The majority of infections begin in an anal crypt and its gland.
  - B. Carcinoma of adjacent organs should be considered with fistulous abscesses.
  - C. Perianal abscesses are the most common form of anorectal abscess.
  - D. Ischiorectal abscesses are usually confined superficially.
  - E. Incision and drainage under general anaesthetic of anorectal abscesses is the most appropriate definitive treatment.
4. In cerebrovascular accidents involving the middle cerebral artery, which ONE of the following is FALSE
- A. Contralateral hemiplegia and hemianaesthesia will occur if the entire middle cerebral artery is occluded.
  - B. Middle cerebral artery occlusion is usually embolic in aetiology.
  - C. Homonymous hemianopia is a feature of middle cerebral artery occlusion.
  - D. A lateral medullary syndrome may be present.

E. If the dominant lobe is involved aphasia will be present.

5. In peripheral nerve injuries of the upper limb, which ONE of the following is FALSE

A. Lower brachial plexus injuries are associated with distal upper limb weakness and atrophy.

B. Axillary nerve injuries produce paraesthesia in the lateral aspect of the forearm.

C. The radial nerve may be injured in humeral shaft injuries.

D. Wasting of the thenar eminence can occur in carpal tunnel syndrome.

E. The claw-hand deformity of an ulnar nerve lesion is often more pronounced in the ring and little finger.

6. Which ONE of the following is TRUE of a L2 spinal cord lesion?

A. A sensory level at the inguinal crease.

B. Quadriceps activity is maintained.

C. Extensive autonomic dysfunction is common.

D. Hip flexion is maintained.

E. Urinary retention is rare.

7. Which ONE of the following is NOT an indication to X-ray according to the "Ottawa ankle and foot rules"?

A. Inability to weight bear in the Emergency Department.

B. Bony tenderness over the medial malleolus

C. Bony tenderness at the tip of the medial malleolus.

D. Bony tenderness at the tip of the lateral malleolus.

E. Bony tenderness at the base of fifth metatarsal.

8. With regard to shoulder dislocations which ONE of the following is FALSE

A. The usual mechanism of an anterior dislocation is abduction and internal rotation.

B. Seizures are a common cause of posterior dislocations.

C. Paralysis of the deltoid is the most common muscle injury associated with anterior dislocations.

D. There is about a 50% incidence of recurrence in the younger patient.

E. The Hippocratic method of reduction involves traction and adduction.

9. With regard to an irritable hip (transient synovitis) in children, which ONE of the following is TRUE

A. The white cell count and erythrocyte sedimentation rate (ESR) are raised

B. The temperature is often elevated to greater than 38.0 degrees Celsius

- C. X-ray of the hip is usually abnormal
- D. An ultrasound of the hip is usually normal
- E. None of the above

**10.** A 4 year old child presents with a facial laceration that you deem will require primary closure. With respect to providing analgesia and sedation to perform the procedure, which ONE of the following is CORRECT

- A. Fentanyl is less likely than morphine to cause cardiovascular depression.
- B. The dose of midazolam is 0.1-0.15mg/kg orally.
- C. Ketamine has only sedative properties.
- D. Nitrous oxide has a rapid onset of action and a long duration of action.
- E. In the event of opiate toxicity, the dose of naloxone is 1mcg/kg intravenously.

**11.** With respect to acute scrotal pain, which ONE of the following statements is INCORRECT

- A. Peak incidence of testicular torsion occurs in adolescence.
- B. The “blue dot sign” is pathognomonic of torsion of the appendix testis or epididymis.
- C. The presence of pyuria is diagnostic of epididymitis or epididymo-orchitis.
- D. Acute scrotal pain may be the presenting symptom for testicular malignancy.
- E. Operative scrotal exploration is the definitive diagnostic test for testicular torsion.

**12.** A 5year old child presents to your Emergency Department in status epilepticus. Which ONE of the following statements is CORRECT

- A. Approximately 40% of children with epilepsy will experience an episode of status epilepticus.
- B. Blood gas analysis of a patient in status epilepticus will reveal a metabolic alkalosis.
- C. Diazepam is effective in 80% of cases within 5 minutes.
- D. Absence or petit mal seizures never progress to status.
- E. The oral dose of paraldehyde is 0.3ml/kg.

**13.** Following a paracetamol overdose which ONE of the following is CORRECT

- A. The initial dose of N-acetylcysteine is 120mg/kg given over one hour.
- B. The Rumack-Matthew nomogram is useful between 4 and 24 hours post-ingestion.
- C. Toxicity is more likely when associated with acute alcohol ingestion.
- D. In a patient on long-term carbamazepine and a serum paracetamol level of 90mg/l at 8 hours, N-acetylcysteine should be considered.

E. Elevation of AST, ALT, and LDH are usually apparent within the first 8 hours following ingestion.

**14.** With regards to encephalitis, which ONE of the following is CORRECT

- A. It may be associated with influenza, measles and rubella
- B. A cerebral CT scan will not assist in the diagnosis.
- C. Meningism is always a feature.
- D. Acyclovir should be given at a dose of 100mg/kg every 8 hours.
- E. Neurological signs are not a feature.

**15.** When differentiating between an organic brain syndrome and psychosis which ONE of the following is CORRECT

- A. Patients with an organic brain syndrome are more agitated.
- B. Disorientation is not a feature of psychosis.
- C. Abnormal vital signs suggest psychosis.
- D. Fixed delusions suggest psychosis.
- E. First presentation of a mental disorder in an older patient suggests psychosis.

**16.** With regards to assessing patients with renal failure, which ONE of the following is CORRECT

- A. A plasma urea to creatinine ratio of less than 20:1 suggests pre-renal failure.
- B. Red blood cell casts may suggest underlying vasculitis.
- C. A 50% reduction in renal function is always associated with a rise in serum creatinine.
- D. Encephalopathy and pericarditis are not indications for haemodialysis in acute renal failure.
- E. Hypomagnesaemia is more likely in chronic renal failure.

**17.** When managing patients following a selective serotonin reuptake inhibitor (SSRI) overdose, which ONE of the following is CORRECT

- A. The serotonin syndrome is dose-dependant.
- B. Cardiotoxicity is common.
- C. Movement disorders do not occur in acute overdose.
- D. Haemodialysis is useful in severe overdose.
- E. Seizures are uncommon.

**18.** With respect to childhood infectious diseases, which ONE of the following is CORRECT

- A. The infectious period for chicken pox is from the onset of the rash to 5 days after the first crop of vesicles appear.
- B. A child with whooping cough (*B.pertussis*) infection should be excluded from childcare for the first 2 days of a 7 day course of antibiotics.
- C. Mumps infection is a notifiable infectious disease.
- D. Congenital rubella syndrome occurs in up to 30% of infants born to women with rubella in the first trimester of pregnancy.
- E. Measles (rubeola) is a notifiable disease.

**19.** All of the following can be a precipitant of hepatic encephalopathy in a patient with end stage liver disease EXCEPT

- A. Constipation
- B. Acute Bacterial Peritonitis
- C. Temazepam
- D. Hyperkalaemia
- E. Urinary tract infection

**20.** Which ONE of the following statements concerning the unconscious patient is INCORRECT

- A. Patients with the 'locked in syndrome' have a lesion in their ventral pontine motor tracts
- B. In patients with the "locked in syndrome", the only movement possible is vertical eye movement
- C. Anticoagulation is an important part of the treatment of patients with non-ketotic, hyperosmolar coma.
- D. An adult with no spontaneous eye opening, inappropriate verbal response and extensor motor response has a Glasgow Coma Score of 5
- E. The modified Glasgow Coma Score for paediatrics has a top score of 9 for infants under 6 months of age

**21.** Which ONE of the following drugs is NOT associated with hyponatraemia?

- A. Mannitol
- B. Phenytoin
- C. Frusemide
- D. Carbamazepine
- E. Octreotide

**22.** The following statements about hypothyroidism are all correct EXCEPT

- A. In the elderly patient the signs can be confused with Alzheimer's disease or Parkinson's disease.
- B. Hypothyroidism can cause menorrhagia and carpal tunnel syndrome

- C. Hypothyroidism can cause localised pretibial myxoedema
- D. The dose of intravenous thyroxine is 400-500 micrograms given slowly for the treatment of myxoedema coma
- E. The dose of intravenous triiodothyronine is 25-50 micrograms given slowly for the treatment of myxoedema coma

**23.** Which ONE of the following statements relating to electrical cardioversion is CORRECT

- A. Electrical cardioversion of atrial fibrillation is more likely to be associated with an embolic complication than pharmacological cardioversion.
- B. The defibrillation threshold is lower using biphasic waveform defibrillators.
- C. The energy requirement for successful defibrillation decreases with the duration VF.
- D. Defibrillation is dependent on sufficient energy being delivered to depolarise the myocardium.
- E. Transthoracic impedance increases with larger defibrillator pads or paddles.

**24.** With regards to injuries to the eye, all of the following statements are TRUE EXCEPT

- A. Acid burns are potentially more serious than alkali burns
- B. Corneal ulcers caused by welding heal quickly over 24-36 hours
- C. A "tear-drop" shaped pupil is a sign of a full thickness corneal laceration
- D. Subconjunctival haemorrhage from trivial trauma resolves spontaneously over 10-14 days
- E. The initial injury resulting in an intraocular foreign body is usually painless

**25.** A well 2 year old girl is brought to the ED by her non-custodial parent. The parent states they are concerned the partner of the other parent has been abusing their daughter. Which ONE of the following is most CORRECT

- A. It is unlikely that there is a legal battle over child custody
- B. An absence of physical findings precludes any abuse
- C. A CT brain scan should be performed
- D. Multiple bruising on the shins is most likely caused by non accidental injury
- E. An old fracture of the ribs is more suspicious than an old fracture of the tibia

**26.** With respect to cervical spine xrays in children, which ONE of the following is CORRECT

- A. Air in the prevertebral space is always abnormal
- B. A normal predental space may be twice as wide as that seen in an adult
- C. The odontoid peg does not fuse to the vertebral body until after the age of 4

- D. Subluxation at C2/C3 is normal
- E. The normal retropharyngeal space at C2 should be less than 7mm

**27.** With respect to asthma, which ONE of the following is TRUE

- A. An elevated white cell count is more likely to be due to infection in children
- B. Respiratory function testing is unreliable in most primary school aged children
- C. A chest xray should be performed
- D. The indication for steroids is the same in adults and children
- E. Intubation should be performed if the pCO<sub>2</sub> is elevated

**28.** Which ONE of the following statements about malignant hypertension is FALSE

- A. BP should be rapidly lowered by 30% over 30-60 mins
- B. Diastolic BP greater than 120 mmHg is diagnostic
- C. Nitroprusside causes an increase in myocardial oxygen demand
- D. GTN is the drug of choice in patient with pulmonary oedema
- E. If associated with renal impairment, red cell casts are seen in the urine

**29.** In bronchiectasis, which ONE of the following is FALSE

- A. Haemoptysis is common
- B. Clubbing may be present
- C. Wheezing may be evident
- D. Chest xray is always abnormal
- E. Adenovirus is a common cause

**30.** In right ventricular infarction, which ONE of the following is TRUE

- A. Kussmaul's sign may be present
- B. ST segment elevation is seen in V4 and V5
- C. Pulmonary oedema is a common feature
- D. Low dose GTN infusions will improve right ventricular contractility
- E. It usually occurs without any associated left ventricular infarction

**31.** All of the following are TRUE concerning anaphylaxis EXCEPT

- A. Adrenaline inhibits further mast cell mediator release.
- B. Aspirin is a frequent cause of IgE antibody formation.
- C. Biphasic reactions may be expected in up to 5% of acute presentations.
- D. Hypoxia is a more common cause of death than circulatory failure with hypotension.
- E. Perioperative anaphylaxis may be caused by latex allergy.

**32.** The following are TRUE concerning malaria EXCEPT

- A. Primaquine is contraindicated in pregnancy and patients with G-6-PD deficiency.
- B. Hepatosplenomegaly is common
- C. Plasmodium falciparum may infect red cells of all ages
- D. A normal initial blood film rules out falciparum malaria.
- E. It is the most common parasitic disease in the world.

**33.** Concerning Emergency Department triage and departmental staffing, the following are TRUE EXCEPT

- A. The Australian Triage Scale is derived from an adaptation of the Ipswich Triage Scale.
- B. The Australian Council on Health Care Standards (ACHS) has adopted the Australasian Triage Scale as the basis of clinical indicators and performance measurement.
- C. There is a linear relationship between increasing Emergency Department medical staffing levels and a corresponding reduction in Emergency Department waiting times.
- D. Waiting-time by triage category may be used to reflect optimum staffing levels required in a given Emergency Department.
- E. Labour related expenditure is the largest component of the annual Emergency Department budget.

**34.** Concerning the pregnant patient, which ONE of the following is FALSE

- A. Tilting the patient or manually displacing the uterus to the left in late pregnancy prevents aortic compression with resultant supine hypotension syndrome.
- B. The rate of combined intrauterine and ectopic pregnancies occurring together is approximately 1:5000 in patients not receiving fertility treatment.
- C. Selected patients with an ectopic pregnancy may be managed with medical therapy such as methotrexate.
- D. Hyperemesis is characteristic of trophoblastic disease of the uterus such as "molar pregnancy".
- E. Rhesus-negative mothers may require anti-D immunoglobulin following trauma in pregnancy, spontaneous abortion, and ruptured ectopic pregnancy.

**35.** With respect to decontamination in poisoning, which ONE of the following is FALSE

- A. The use of activated charcoal alone may reduce adsorption by as much as 50 per cent
- B. There is no evidence to suggest that the addition of a cathartic such as sorbitol to activated charcoal improves clinical outcome.
- C. Ethanol does not bind well to activated charcoal.
- D. In whole bowel irrigation, polyethylene glycol should be administered via naso-gastric tube at a rate of 200ml/hr.
- E. Close monitoring of serum electrolytes is unnecessary during the procedure of whole bowel irrigation in paediatric patients.

**36.** With respect to snake envenomation, which ONE of the following is CORRECT

- A. The dose of polyvalent antivenom for an envenomated three year old would be one quarter of an ampoule.
- B. Anaphylaxis from antivenom is more likely to occur in paediatric patients
- C. A child should receive a 5 day course of prednisolone after administration of brown snake antivenom to prevent serum sickness.
- D. The most frequent presentation of death adder bite is with a consumption coagulopathy.
- E. Positive Venom Detection Kit from blood implies envenomation and is an indication for antivenom in the asymptomatic patient.

**37.** Concerning intravenous cannulation, which ONE of the following is CORRECT

- A. Ultrasound is of no proven benefit for central venous cannulation.
- B. Intraosseous cannulation is best used in children under the age of 6 years.
- C. Using cannulae greater than 16gauge increases the risk of thrombophlebitis
- D. Intravenous cannulation should never be performed through burnt skin
- E. The correct size of a central venous line in a child less than 1 year is 6.0 FG

**38.** Regarding prehospital care of patients, which ONE of the following is CORRECT

- A. Prehospital endotracheal intubation is of no proven benefit in the management of head injured patients.
- B. Minimum volume resuscitation is only useful in controlled haemorrhage
- C. Hartmann's solution is superior to normal saline for fluid resuscitation
- D. Laryngeal masks prevent aspiration
- E. Time to defibrillation is the most significant factor to survival in out of hospital cardiac arrests.

**39.** Concerning nasal foreign bodies in children, which ONE of the following is FALSE

- A. Removal of nasal foreign bodies nearly always requires sedation.
- B. Beads, paper and toy parts are the commonest nasal foreign bodies in children 2-3 years of age.
- C. Nasal or facial cellulitis can indicate a chronic nasal foreign body.
- D. Nasal polyps can mimic symptoms of foreign bodies.
- E. Organic material is best imaged by CT

**40.** In patients presenting with hyperventilation, which ONE of the following is CORRECT

- A. In anxiety induced hyperventilation, the pH on arterial blood gases is normal.
- B. Hyperventilation is found in up to 43% of patients presenting with dizziness
- C. An abnormal A-a gradient is found in all cases
- D. Tachypnoea and anxiety are the predominant presenting symptoms
- E. Anxiety induced hyperventilation is the least common cause of hyperventilation.

**41.** With respect to diabetic ketoacidosis in an 8 year old, which ONE of the following is FALSE

- A. Total body potassium is generally high due to dehydration
- B. The recommended dose of insulin is 0.1 unit/kg per hour
- C. Initial fluid replacement should be 20ml/kg fluid bolus over one hour.
- D. The complication of cerebral oedema, once clinically evident, has a mortality rate of over 90%
- E. Phosphate and calcium levels should be measured in diabetic ketoacidosis but are seldom of concern to the emergency physician.

**42.** With respect to diarrhoea, which ONE of the following is FALSE

- A. Tachycardia and decreased skin turgor suggest dehydration of approximately 3-5%.
- B. Loperamide poisoning may result in toxic dilatation and paralytic ileus in young infants
- C. As many as 50% of infants and young children infected with *Giardia lamblia* may be asymptomatic.
- D. The osmololality of commercial rehydration solutions is generally between 250 –350 mosm/L
- E. In patients with AIDS, cryptosporidiosis may cause a chronic diarrhoeal syndrome with significant morbidity and mortality

**43.** Pertaining to burn and inhalation injuries, which ONE of the following statements are FALSE?

- A. Five percent of patients with burns to the face have an inhalation injury.
- B. Respiratory obstruction often develops as result of soft tissue swelling at the time of maximal wound oedema between 12 and 36 hours.
- C. Especially in children, a burn to the neck skin may aggravate respiratory obstruction produced by inhalation of hot gases.

- D. The two most important intoxications occurring in association with burns are caused by carbon monoxide and cyanide.
- E. Carbon monoxide levels measured on arrival in hospital correlate well with the severity of the central nervous system symptoms of carbon monoxide intoxication.

**44.** Concerning renal colic, which ONE of the following is CORRECT

- A. Uric acid based stones account for approximately 70% of all renal stones.
- B. 50% of stones are radio-opaque.
- C. There is a 90% lifetime recurrence rate for patients with renal colic.
- D. 90% of stones are passed spontaneously.
- E. The incidence of urolithiasis shows no distinct geographical and climatic variability.

**45.** With regard to chest trauma, which ONE of the following statement is FALSE

- A. Up to 50% of fractured ribs are not apparent on initial chest X-ray.
- B. Admission and monitoring is not required for all patients with sternal fractures following blunt trauma.
- C. In patients with ruptured hemidiaphragm, radiographic findings of viscera in the thoracic cavity, nasogastric tube coiled in the thoracic cavity, or marked hemidiaphragm elevation are present only 50% of the time.
- D. Drainage of more than 1,500 ml following initial intercostal catheter insertion for haemothorax, or sustained blood loss of more than 200 ml per hour, are indications for thoracotomy
- E. The majority of pulmonary contusions will not be visible on chest x-ray within 6 hours post injury.

**46.** In isolated anterior penetrating abdominal trauma, which ONE of the following is FALSE

- A. Mandatory laparotomy following penetrating abdominal trauma has largely been abandoned.
- B. Local wound exploration is adequately performed by digitally probing the wound plus radiographic tractograms with contrast material.
- C. If local wound exploration demonstrates no violation of the anterior fascia, the patient can be discharged home safely.
- D. Laparotomy is indicated in the presence of hypotension.
- E. Non operative management of splenic injury is less successful in adults than in children with failure rates as high as 20-30%

**47.** Concerning subarachnoid haemorrhage, which ONE of the following statement is INCORRECT

- A. Hypertension following subarachnoid haemorrhage cannot be controlled by analgesia and sedation alone.
- B. Four percent of patients rebleed within the first 24 hours after the initial haemorrhage and overall 20% of patients rebleed within the first 2 weeks.

- C. In the first 24 hours following haemorrhage, CT can demonstrate the presence of subarachnoid blood in 90-95%, but this decreases to 80% at 3 days and 50% at 1 week.
- D. Xanthrochromia is usually present within 6 hours and is detected in all patients between 12 hours and 2 weeks following the haemorrhage.
- E. Up to 50% of patients experience a sentinel haemorrhage in the hours to days prior to the major bleed.

**48.** Concerning hernias which ONE of the following is INCORRECT?

- A. A strangulated hernia is one in which the blood supply to the herniated structures is compromised.
- B. Umbilical hernias in infants occur in 10 – 20% of the population and most are spontaneously closed by the age of one
- C. Femoral hernias occur below the inguinal ligament.
- D. A Richters hernia is one in which incarceration of a single wall of hollow viscus occurs.
- E. Direct inguinal hernias rarely incarcerate while incarceration is common in femoral hernias and indirect inguinal hernias.

**49.** Parents present their 18 month old male child with a fever of 39 degrees. History and examination reveal no evidence of focal infection. The child is otherwise well. Regarding investigation and management, which ONE of the following is CORRECT

- A. Full blood count, blood cultures, urine microscopy and culture, chest xray and admission for observation is warranted
- B. Full blood count, blood cultures, urine microscopy and culture and discharge with a planned review in 24 hours or sooner if indicated.
- C. Full blood count FBE, blood cultures, urine microscopy and culture, chest xray, lumbar puncture and discharge with a planned review in 24 hours or sooner if indicated.
- D. Full blood count, blood cultures, chest xray, chest xray, lumbar puncture and admission for observation
- E. Full blood count, blood cultures, chest xray and empiric 50mg ceftriaxone intramuscularly and admission for observation.

**50** Which ONE of the following statements regarding analgesia in the emergency department is CORRECT.

- A. Parental narcotics are significantly more effective than NSAIDs in relieving renal colic pain.
- B. Splintage does not reduce pain in fractures
- C. The use of analgesia interferes with the assessment of abdominal pain.
- D. 10% of the population do not have the metabolic pathways to convert codeine to its active metabolite.
- E. Local swelling and itch at the site of intravenous morphine use indicates an allergy and precludes further use.

**51.** Concerning abdominal aortic aneurysm, which ONE of the following is INCORRECT

- A. Mortality for patients presenting with abdominal aortic aneurysm is 2 – 7% if asymptomatic and greater than 50% if symptomatic.

- B. An abdominal aortic aneurism is defined as a greater than 50% increase in aortic diameter.
- C. The classic triad of back pain, hypotension and pulsatile abdominal mass is present in approximately 50% of cases.
- D. Ultrasound has an almost 100% sensitivity in diagnosing a ruptured abdominal aortic aneurysm.
- E. Obesity is not a risk factor

**52.** Concerning pancreatitis, which ONE of the following is INCORRECT

- A. Alcoholism and cholelithiasis account for 80 – 90% of cases of pancreatitis.
- B. Prognostic indicators for severe pancreatitis include Ranson Criteria, Apache scores and the Balthazar CT scanning system.
- C. Severe pancreatitis causes multiorgan dysfunction (MOD) by activating systemic inflammatory response syndrome (SIRS).
- D. A lipase level of greater than three times the upper limit of normal is highly specific for pancreatitis.
- E. Ranson criteria include increased white cell count, increased liver enzymes, increased urea and creatinine, increased calcium and haematocrit together with hypoxia and acidosis.

**53.** Regarding compartment syndrome in a limb, which ONE of the following is CORRECT

- A. It is not commonly associated with long bone fractures
- B. The presence of a palpable arterial pulse excludes compartment syndrome.
- C. Pain is made worse by passively stretching the muscles
- D. Tissue pressure greater than 20mmHg impairs local circulation
- E. Chronic compartment syndromes are more common in the upper limb.

**54.** In a child with a “pulled elbow”, which ONE of the following is INCORRECT

- A. It usually occurs between 1 and 3 years of age.
- B. The arm is held in pronation and slightly flexed.
- C. Reduction is achieved by supination, traction and flexing the elbow.
- D. Radiological examination is required to confirm the diagnosis.
- E. Supination of the elbow will cause pain.

**55.** In differentiating VT from SVT with aberrancy, which ONE of the following is CORRECT

- A. A widened QRS only occurs in SVT with aberrancy.
- B. In SVT with aberrancy there are capture beats.

- C. An irregular rhythm suggests SVT with aberrancy.
- D. In SVT with aberrancy there are fusion beats
- E. VT can never be bi-directional

**56.** In valvular heart disease, which ONE of the following is INCORRECT

- A. Mitral stenosis has a characteristic opening snap and a diastolic murmur.
- B. Mitral valve prolapse has an ejection click preceded by a systolic murmur.
- C. Aortic stenotic murmurs radiate to the neck with a soft second sound.
- D. Tricuspid stenosis is best heard at the left sternal edge.
- E. Graham Steell's murmur is heard in pulmonary hypertension.

**57** In patients with aspiration pneumonia, which ONE of the following is CORRECT

- A. Aspiration is more likely in the elderly or obtunded.
- B. Endotracheal intubation will prevent aspiration
- C. Antibiotics are always indicated in aspiration pneumonia.
- D. Drug overdoses are the least common cause in young adults.
- E. Gastric acid is relatively non toxic to alveoli.

**58.** Concerning indications for CT scanning, which ONE of the following is CORRECT

- A. An adult with a minor head injury and GCS 15 requires a CT because of the risk of axonal brain injury.
- B. Children with minor head injuries require a CT if they remain symptomatic after a period of observation.
- C. Focal neurological deficit in head injury is not an indication for CT scan if the GCS is 15.
- D. In suspected subarachnoid haemorrhage, CT is indicated only if the CSF is positive for xanthochromia.
- E. Children with signs of raised intracranial pressure should have an LP before a CT is performed.

**59.** With respect to hand injuries. Which ONE of the following is INCORRECT

- A. Local and regional nerve blocks should be considered early for pain relief
- B. Assessment for nerve injury should ideally occur prior to the use of nerve blocks
- C. Any amputated digits should be placed directly in an ice slurry to preserve for possible reimplantation
- D. Antibiotics should cover both Gram +ve and Gram -ve organisms if there has been extensive wound soiling and devitalisation of tissue
- E. Assessment of flexor digitorum profundus tendon function involves flexing the distal interphalangeal joint whilst immobilising the proximal interphalangeal joint of the affected finger

60. Concerning acute myocardial infarction. Which ONE of the following statements is CORRECT

- A. Thrombolysis is the intervention of choice in a patient with an acute myocardial infarction complicated by cardiogenic shock
- B. A history of cerebrovascular disease is an absolute contraindication to thrombolysis
- C. Reperfusion arrhythmias usually require treatment
- D. The dose of rPA is two 10mg boluses 60 minutes apart
- E. Right ventricular involvement in an inferior myocardial infarction increases the mortality rate

Answers are asterixed \*

1. A 29yo female presents with acute onset of dyspnoea and pleuritic chest pain. Which ONE of the following statements is CORRECT?

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- B. Pleuritic chest pain is the most common presenting symptom of pulmonary embolus.
- C. In pulmonary embolus, the Westermark sign seen on chest xray refers to a pleural-based density with a rounded border pointing toward the hilum.
- D. A smoking history is not a risk factor for thromboembolic disease.\*
- E. In pulmonary embolism a ventilation-perfusion scan will show an area of abnormal ventilation in an area of normal perfusion.

Answer: D

Reference: Tintinalli 4th Edition. P371-372; Harrisons 13<sup>th</sup> Ed P.1216.

2. A 4 week old baby presents with a 2 day history of dyspnoea and sweating whilst feeding. Which ONE of the following is INCORRECT?

- A. Clinical differentiation of heart failure from non-cardiac causes in this age group is difficult.
- B. Cardiomegaly on chest xray is usually present in congestive heart failure.
- C. Patent ductus arteriosus is the most common cause of congestive heart failure at this age.\*
- D. The incidence of congenital heart disease is 8 per 1000 live births.
- E. Raised jugular venous pressure, peripheral oedema, and lung crepitations are late signs in infants with congestive heart failure.

Answer: C

Reference: Tintinalli 4<sup>th</sup> Edition. P.601-602.

3. With respect to anorectal abscesses, which ONE of the following statements is INCORRECT?
- A. The majority of infections begin in an anal crypt and its gland.
  - B. Carcinoma of adjacent organs should be considered with fistulous abscesses.
  - C. Perianal abscesses are the most common form of anorectal abscess.
  - D. Ischiorectal abscesses are usually confined superficially.\*
  - E. Incision and drainage under general anaesthetic of anorectal abscesses is the most appropriate definitive treatment.

Answer: D.

Reference: Tintinalli 4<sup>th</sup> Edition. P.480-481.

4. In cerebrovascular accidents involving the middle cerebral artery, which ONE of the following is FALSE
- A. Contralateral hemiplegia and hemianaesthesia will occur if the entire middle cerebral artery is occluded.
  - B. Middle cerebral artery occlusion is usually embolic in aetiology.
  - C. Homonymous hemianopia is a feature of middle cerebral artery occlusion.
  - D. A lateral medullary syndrome may be present.\*
  - E. If the dominant lobe is involved aphasia will be present.

Answer D

References

Tintinalli 3<sup>rd</sup> edition pages 793-798; Harrisons 13<sup>th</sup> Ed p.2244

5. In peripheral nerve injuries of the upper limb, which ONE of the following is FALSE
- A. Lower brachial plexus injuries are associated with distal upper limb weakness and atrophy.
  - B. Axillary nerve injuries produce paraesthesia in the lateral aspect of the forearm.\*
  - C. The radial nerve may be injured in humeral shaft injuries.
  - D. Wasting of the thenar eminence can occur in carpal tunnel syndrome.
  - E. The claw-hand deformity of an ulnar nerve lesion is often more pronounced in the ring and little finger.

Answer B

## References

Harrison's 2<sup>nd</sup> edition pages 2368-2378

Tintinalli 3<sup>rd</sup> edition pages 811-816

6. Which ONE of the following is TRUE of a L2 spinal cord lesion?

- A. A sensory level at the inguinal crease.
- B. Quadriceps activity is maintained.
- C. Extensive autonomic dysfunction is common.
- D. Hip flexion is maintained.\*
- E. Urinary retention is rare.

Answer D

## References

Cameron pages 52-62

Tintinalli 3<sup>rd</sup> edition pages 922-927

7. Which ONE of the following is NOT an indication to X-ray according to the "Ottawa ankle and foot rules"

- A. Inability to weight bear in the Emergency Department.
- B. Bony tenderness over the medial cuneiform\*.
- C. Bony tenderness at the tip of the medial malleolus.
- D. Bony tenderness at the tip of the lateral malleolus.
- E. Bony tenderness at the base of fifth metatarsal.

Answer B

## References

Implementation of the Ottawa Ankle Rules. JAMA 1994 vol 271, No. 11 pages 827-832

8. With regard to shoulder dislocations which ONE of the following is FALSE?

- A. The usual mechanism of an anterior dislocation is abduction and internal rotation.\*

- B. Seizures are a common cause of posterior dislocations.
- C. Paralysis of the deltoid is the most common muscle injury associated with anterior dislocations.
- D. There is about a 50% incidence of recurrence in the younger patient.
- E. The Hippocratic method of reduction involves traction and adduction.

Answer A

References

McRae 2<sup>nd</sup> edition pages 87-92

9. With regard to an irritable hip (transient synovitis) in children, which ONE of the following is TRUE?
- A. The white cell count and erythrocyte sedimentation rate (ESR) are raised
  - B. The temperature is often elevated to greater than 38.0 degrees Celsius
  - C. X-ray of the hip is usually abnormal
  - D. An ultrasound of the hip is usually normal
  - E. None of the above\*

Answer E

References

Paediatric Handbook 5<sup>th</sup> edition

10. A 4 year old child presents with a facial laceration that you deem will require primary closure. With respect to providing analgesia and sedation to perform the procedure, which ONE of the following is CORRECT?

- A. Fentanyl is less likely than morphine to cause cardiovascular depression.\*
- B. The dose of midazolam is 0.1-0.15mg/kg orally.
- C. Ketamine has only sedative properties.
- D. Nitrous oxide has a rapid onset of action and a long duration of action.
- E. In the event of opiate toxicity, the dose of naloxone is 1mcg/kg intravenously.

Answer: A

Reference: Tintinalli 4th Edition. P.253-255.

11. With respect to acute scrotal pain, which ONE of the following statements is INCORRECT?

- A. Peak incidence of testicular torsion occurs in adolescence.
- B. The “blue dot sign” is pathognomonic of torsion of the appendix testis or epididymis.
- C. The presence of pyuria is diagnostic of epididymitis or epididymo-orchitis.\*
- D. Acute scrotal pain may be the presenting symptom for testicular malignancy.
- E. Operative scrotal exploration is the definitive diagnostic test for testicular torsion.

Answer: C

Reference: Tintinalli 4th Edition. P 536-537.

12. A 5year old child presents to your Emergency Department in status epilepticus. Which ONE of the following statements is CORRECT?

- A. Approximately 40% of children with epilepsy will experience an episode of status epilepticus.
- B. Blood gas analysis of a patient in status epilepticus will reveal a metabolic alkalosis.
- C. Diazepam is effective in 80% of cases within 5 minutes.\*
- D. Absence or petit mal seizures never progress to status.
- E. The oral dose of paraldehyde is 0.3ml/kg.

Answer: C

Reference: Tintinalli 4th Edition. P.650-651.

13. Following a paracetamol overdose which ONE of the following is CORRECT?

- A. The initial dose of N-acetylcysteine is 120mg/kg given over one hour.
- B. The Rumack-Matthew nomogram is useful between 4 and 24 hours post-ingestion.
- C. Toxicity is more likely when associated with acute alcohol ingestion.
- D. In a patient on long-term carbamazepine and a serum paracetamol level of 90mg/l at 8 hours, N-acetylcysteine should be considered.\*
- E. Elevation of AST, ALT, and LDH are usually apparent within the first 8 hours following ingestion.

Answer: D.

14. With regards to encephalitis, which ONE of the following is CORRECT

- A. It may be associated with influenza, measles and rubella\*.
- B. A cerebral CT scan will not assist in the diagnosis.
- C. Meningism is always a feature.
- D. Acyclovir should be given at a dose of 100mg/kg every 8 hours.
- E. Neurological signs are not a feature.

Answer: A

**15.** When differentiating between an organic brain syndrome and psychosis which ONE of the following is CORRECT

- A. Patients with an organic brain syndrome are more agitated.
- B. Disorientation is not a feature of psychosis.
- C. Abnormal vital signs suggest psychosis.
- D. Fixed delusions suggest psychosis.\*
- E. First presentation of a mental disorder in an older patient suggests psychosis.

Answer: D

**16.** With regards to assessing patients with renal failure, which ONE of the following is CORRECT

- A. A plasma urea to creatinine ratio of less than 20:1 suggests pre-renal failure.
- B. Red blood cell casts may suggest underlying vasculitis.\*
- C. A 50% reduction in renal function is always associated with a rise in serum creatinine.
- D. Encephalopathy and pericarditis are not indications for haemodialysis in acute renal failure.
- E. Hypomagnesaemia is more likely in chronic renal failure.

Answer: B

**17.** When managing patients following a selective serotonin reuptake inhibitor (SSRI) overdose, which ONE of the following is CORRECT?

- A. The serotonin syndrome is dose-dependant.
- B. Cardiotoxicity is common.
- C. Movement disorders do not occur in acute overdose.
- D. Haemodialysis is useful in severe overdose.
- E. Seizures are uncommon.\*

Answer: E

18. With respect to childhood infectious diseases, which ONE of the following is CORRECT?

- A. The infectious period for chicken pox is from the onset of the rash to 5 days after the first crop of vesicles appear.
- B. A child with whooping cough (*B.pertussis*) infection should be excluded from childcare for the first 2 days of a 7 day course of antibiotics.
- C. Mumps infection is a notifiable infectious disease.
- D. Congenital rubella syndrome occurs in up to 30% of infants born to women with rubella in the first trimester of pregnancy.
- E. Measles (rubeola) is a notifiable disease.\*

Answer: E.

19. All of the following can be a precipitant of hepatic encephalopathy in a patient with end stage liver disease EXCEPT

- A. Constipation
- B. Acute Bacterial Peritonitis
- C. Temazepam
- D. Hyperkalaemia\*
- E. Urinary tract infection

(Answer D - Harrisons 10<sup>th</sup> Ed; P1493 Tintinalli Ed 4 p 965)

20. Which ONE of the following statements concerning the unconscious patient is INCORRECT?

- A. Patients with the 'locked in syndrome' have a lesion in their ventral pontine motor tracts
- B. In patients with the "locked in syndrome", the only movement possible is vertical eye movement
- C. Anticoagulation is an important part of the treatment of patients with non-ketotic, hyperosmolar coma.
- D. An adult with no spontaneous eye opening, inappropriate verbal response and extensor motor response has a Glasgow Coma Score of 5\*
- E. The modified Glasgow Coma Score for paediatrics has a top score of 9 for infants under 6 months of age

(Answer D - Harrisons 10<sup>th</sup> Ed; P1493 Tintinalli Ed 4 p 150-158, 746 T.E. Oh Ed 4 pp933-4; Lancet August 21 1982, p450)

21. Which ONE of the following drugs is NOT associated with hyponatraemia?

- A. Mannitol
- B. Phenytoin\*
- C. Frusemide
- D. Carbamazepine
- E. Octreotide

(Answer B - Harrison's 13<sup>th</sup> Ed p.407)

**22.** The following statements about hypothyroidism are all correct EXCEPT

- A. In the elderly patient the signs can be confused with Alzheimer's disease or Parkinson's disease.
- B. Hypothyroidism can cause menorrhagia and carpal tunnel syndrome
- C. Hypothyroidism can cause localized pretibial myxedema\*
- D. The dose of intravenous thyroxine is 400-500 micrograms given slowly for the treatment of myxoedema coma
- E. The dose of intravenous triiodothyronine is 25-50 micrograms given slowly for the treatment of myxoedema coma

(Answer C - Harrision's Ed 13 pp1940-1944; Tintinalli Ed 4 p 965)

**23.** Which ONE of the following statements relating to external cardioversion and defibrillation is CORRECT

- A. Electrical cardioversion of atrial fibrillation is more likely to be associated with an embolic complication than pharmacological cardioversion.
- B. The defibrillation threshold is lower using biphasic waveform defibrillators.\*
- C. The energy requirement for successful defibrillation decreases with the duration of VF.
- D. Defibrillation is dependent on sufficient energy being delivered to depolarise the myocardium.
- E. Transthoracic impedance increases with larger defibrillator pads or paddles.

**24.** With regards to injuries to the eye, all of the following statements are TRUE EXCEPT

- A. Acid burns are potentially more serious than alkali burns\*
- B. Corneal ulcers caused by welding heal quickly over 24-36 hours
- C. A "tear-drop" shaped pupil is a sign of a full thickness corneal laceration
- D. Subconjunctival haemorrhage from trivial trauma resolves spontaneously over 10-14 days
- E. The initial injury resulting in an intraocular foreign body is usually painless

(Answer A – Tintinalli Ed 4 p834; Brown Ed 2000 pp 280-96)

Update Tintinalli for latest edition

**25.** A well 2 year old girl is brought to the ED by her non custodial parent. The parent states they are concerned the partner of the other parent has been abusing their daughter. Which ONE of the following is most CORRECT

- A. It is unlikely that there is a legal battle over child custody
- B. An absence of physical findings precludes any abuse
- C. A CT brain scan should be performed
- D. Multiple bruising on the shins is most likely caused by non accidental injury
- E. An old fracture of the ribs is more suspicious than an old fracture of the tibia\*

Answer E  
Ref Tintinalli 4<sup>th</sup> Ed p 1367- 1370, Rosen 4<sup>th</sup> Ed

**26.** With respect to cervical spine xrays in children, which ONE of the following is CORRECT

- A. Air in the prevertebral space is always abnormal\*
- B. A normal predental space may be twice as wide as that seen in an adult
- C. The odontoid peg does not fuse to the vertebral body until after the age of 4
- D. Subluxation at C2/C3 is normal
- E. The normal retropharyngeal space at C2 should be less than 7mm

Answer A  
Ref Tintinalli, Rosen 4<sup>th</sup> Ed 483-486

**27.** With respect to asthma which ONE of the following is TRUE

- A. An elevated white cell count is more likely to be due to infection in children
- B. Respiratory function testing is unreliable in most primary school aged children
- C. A chest xray should be performed
- D. The indication for steroids is the same in adults and children\*
- E. Intubation should be performed if the pCO<sub>2</sub> is elevated

Answer D  
Ref Tintinalli 4<sup>th</sup> ED, Rosen 4<sup>th</sup> ed 1470 - 1485

**28.** Which ONE of the following statements about malignant hypertension is FALSE

- A. BP should be rapidly lowered by 30% over 30-60 mins
- B. Diastolic BP greater than 120 mm Hg is diagnostic.
- C. Nitroprusside causes an increase in myocardial oxygen demand.\*

- D. GTN is the drug of choice in patient with pulmonary oedema
- E. If associated with renal impairment, red cell casts are seen in the urine

Answer C  
REF Tintinalli 4<sup>th</sup> ed p374-379. Harrison's On line

**29.** In bronchiectasis, which ONE of the following is FALSE

- A. Haemoptysis is common
- B. Clubbing may be present
- C. Wheezing may be evident.
- D. Chest xray is always abnormal \*
- E. Adenovirus is a common cause

Answer D  
Ref Harrison's On line, Oxford text of Medicine

**30.** In right ventricular infarction, which ONE of the following is TRUE

- A. Kussmaul's sign may be present\*
- B. ST segment elevation is seen in V4 and V5
- C. Pulmonary oedema is a common feature
- D. Low dose GTN infusions will improve right ventricular contractility
- E. It usually occurs without any associated left ventricular infarction

Answer A  
Ref Tintinalli 4<sup>th</sup> ED p332-5 Rosen 4<sup>th</sup> ed p1674, 1698

**31.** All of the following are TRUE concerning anaphylaxis EXCEPT

- A. Adrenaline inhibits further mast cell mediator release.
- B. Aspirin is a frequent cause of IgE antibody formation.\*
- C. Biphasic reactions may be expected in up to 5% of acute presentations.
- D. Hypoxia is a more common cause of death than circulatory failure with hypotension.
- E. Perioperative anaphylaxis may be caused by latex allergy.

**32.** The following are TRUE concerning malaria EXCEPT

- A. Primaquine is contraindicated in pregnancy and patients with G-6-PD deficiency.
- B. Hepatosplenomegaly is common
- C. Plasmodium falciparum may infect red cells of all ages
- D. A normal initial blood film rules out falciparum malaria.\*
- E. It is the most common parasitic disease in the world.

**33.** Concerning Emergency Department triage and departmental staffing, the following are TRUE EXCEPT

- A. The Australian Triage Scale is derived from an adaptation of the Ipswich Triage Scale.
- B. The Australian Council on Health Care Standards (ACHS) has adopted the Australasian Triage Scale as the basis of clinical indicators and performance measurement.
- C. There is a linear relationship between increasing Emergency Department medical staffing levels and a corresponding reduction in Emergency Department waiting times.\*
- D. Waiting-time by triage category may be used to reflect optimum staffing levels required in a given Emergency Department.
- E. Labour related expenditure is the largest component of the annual Emergency Department budget.

**34.** Concerning the pregnant patient, which ONE of the following is FALSE

- A. Tilting the patient or manually displacing the uterus to the left in late pregnancy prevents aortic compression with resultant supine hypotension syndrome.\*
- B. The rate of combined intrauterine and ectopic pregnancies occurring together is approximately 1:5000 in patients not receiving fertility treatment.
- C. Selected patients with an ectopic pregnancy may be managed with medical therapy such as methotrexate.
- D. Hyperemesis is characteristic of trophoblastic disease of the uterus such as “molar pregnancy”.
- E. Rhesus-negative mothers may require anti-D immunoglobulin following trauma in pregnancy, spontaneous abortion, and ruptured ectopic pregnancy.

**35.** With respect to decontamination in poisoning, which ONE of the following is FALSE

- A. The use of activated charcoal alone may reduce adsorption by as much as 50 per cent
- B. There is no evidence to suggest that the addition of a cathartic such as sorbitol to activated charcoal improves clinical outcome.

- C. Ethanol does not bind well to activated charcoal.
- D. In whole bowel irrigation, polyethylene glycol should be administered via naso-gastric tube at a rate of 200ml/hr.\*
- E. Close monitoring of serum electrolytes is unnecessary during the procedure of whole bowel irrigation in paediatric patients.

**36.** With respect to snake envenomation, which ONE of the following is CORRECT

- A. The dose of polyvalent antivenom for an envenomated three year old would be one quarter of an ampoule.
- B. Anaphylaxis from antivenom is more likely to occur in paediatric patients
- C. A child should receive a 5 day course of prednisolone after administration of brown snake antivenom to prevent serum sickness.\*
- D. The most frequent presentation of death adder bite is with a consumption coagulopathy.
- E. Positive Venom Detection Kit from blood implies envenomation and is an indication for antivenom in the asymptomatic patient.

**37.** Concerning intravenous cannulation, which ONE of the following is CORRECT

- A. Ultrasound is of no proven benefit for central venous cannulation.
- B. Intraosseous cannulation is best used in children under the age of 6 years.\*
- C. Using cannulae greater than 16 gauge increases the risk of thrombophlebitis
- D. Intravenous cannulation should never be performed through burnt skin
- E. The correct size of a central venous line in a child less than 1 year is 6.0 FG

**38.** Regarding prehospital care of patients, which ONE of the following is CORRECT

- A. Prehospital endotracheal intubation is of no proven benefit in the management of head injured patients.
- B. Minimum volume resuscitation is only useful in controlled haemorrhage
- C. Hartmann's solution is superior to normal saline for fluid resuscitation
- D. Laryngeal masks prevent aspiration
- E. Time to defibrillation is the most significant factor to survival in out of hospital cardiac arrests.\*

**39.** Concerning nasal foreign bodies in children, which ONE of the following is FALSE

- A. Removal of nasal foreign bodies nearly always requires sedation.\*

- B. Beads, paper and toy parts are the commonest nasal foreign bodies in children 2-3 years of age.
- C. Nasal or facial cellulitis can indicate a chronic nasal foreign body.
- D. Nasal polyps can mimic symptoms of foreign bodies.
- E. Organic material is best imaged by CT

40. In patients presenting with hyperventilation, which ONE of the following is CORRECT

- A. In anxiety induced hyperventilation, the pH on arterial blood gases is normal.
- B. Hyperventilation is found in up 43% of patients presenting with dizziness
- C. An abnormal A-a gradient is found in all cases
- D. Tachypnoea and anxiety are the predominant presenting symptoms\*
- E. Anxiety induced hyperventilation is the least common cause of hyperventilation.

41. With respect to diabetic ketoacidosis in an 8 year old, which ONE of the following is FALSE

- A. Total body potassium is generally high due to dehydration\*
- B. The recommended dose of insulin is 0.1 unit/kg per hour
- C. Initial fluid replacement should be 20ml/kg fluid bolus over one hour.
- D. The complication of cerebral oedema, once clinically evident, has a mortality rate of over 90%
- E. Phosphate and calcium levels should be measured in diabetic ketoacidosis but are seldom of concern to the emergency physician.

42. With respect to diarrhoea, which ONE of the following is FALSE

- A. Tachycardia and decreased skin turgor suggest dehydration of approximately 3-5%.\*
- B. Loperamide poisoning may result in toxic dilatation and paralytic ileus in young infants
- C. As many as 50% of infants and young children infected with Giardia Lamblia may be asymptomatic.
- D. The osmololality of commercial rehydration solutions is generally between 250 –350 mosm/L
- E. In patients with AIDS, cryptosporidiosis may cause a chronic diarrhoeal syndrome with significant morbidity and mortality

43. Pertaining to burn and inhalation injuries, which ONE of the following statements is FALSE?

- A. Five percent of patients with burns to the face have an inhalation injury.

- B. Respiratory obstruction often develops as result of soft tissue swelling at the time of maximal wound oedema between 12 and 36 hours.
- C. Especially in children, a burn to the neck skin may aggravate respiratory obstruction produced by inhalation of hot gases.
- D. The two most important intoxications occurring in association with burns are caused by carbon monoxide and cyanide.
- E. Carbon monoxide levels measured on arrival in hospital correlate well with the severity of the central nervous system symptoms of carbon monoxide intoxication.\*

**44.** Concerning renal colic, which ONE of the following is CORRECT

- A. Uric acid based stones account for approximately 70% of all renal stones.
- B. 50% of stones are radio-opaque.
- C. There is a 90% lifetime recurrence rate for patients with renal colic.
- D. 90% of stones are passed spontaneously.\*
- E. The incidence of urolithiasis shows no geographical and climatic variability.

**45.** With regard to chest trauma, which ONE of the following statement is FALSE

- A. Up to 50% of fractured ribs are not apparent on initial chest X-ray.
- B. Admission and monitoring is not required for all patients with sternal fractures following blunt trauma.
- C. In patients with ruptured hemidiaphragm, radiographic findings of viscera in the thoracic cavity, nasogastric tube coiled in the thoracic cavity, or marked hemidiaphragm elevation are present only 50% of the time.
- D. Drainage of more than 1,500 ml following initial intercostal catheter insertion for haemothorax, or sustained blood loss of more than 200 ml per hour, are indications for thoracotomy
- E. The majority of pulmonary contusions will not be visible on chest x-ray within 6 hours post injury.\*

**46.** In isolated anterior penetrating abdominal trauma, which ONE of the following is FALSE

- A. Mandatory laparotomy following penetrating abdominal trauma has largely been abandoned.
- B. Local wound exploration is adequately performed by digitally probing the wound plus radiographic trajectograms with contrast material.\*

- C. If local wound exploration demonstrates no violation of the anterior fascia, the patient can be discharged home safely.
- D. Laparotomy is indicated in the presence of hypotension.
- E. Non operative management of splenic injury is less successful in adults than in children with failure rates as high as 20-30%

**47.** Concerning subarachnoid haemorrhage, which ONE of the following statement is INCORRECT

- A. Hypertension following subarachnoid haemorrhage cannot be controlled by analgesia and sedation alone.\*
- B. Four percent of patients rebleed within the first 24 hours after the initial haemorrhage and overall 20% of patients rebleed within the first 2 weeks.
- C. In the first 24 hours following haemorrhage, CT can demonstrate the presence of subarachnoid blood in 90-95%, but this decreases to 80% at 3 days and 50% at 1 week.
- D. Xanthrochromia is usually present within 6 hours and is detected in all patients between 12 hours and 2 weeks following the haemorrhage.
- E. Up to 50% of patients experience a sentinel haemorrhage in the hours to days prior to the major bleed.

**48.** Concerning hernias which ONE of the following is INCORRECT?

- A. A strangulated hernia is one in which the blood supply to the herniated structures is compromised.
- B. Umbilical hernias in infants occur in 10 – 20% of the population and most are spontaneously closed by the age of one.\*
- C. Femoral hernias occur below the inguinal ligament.
- D. A Richters hernia is one in which incarceration of a single wall of a hollow viscus occurs.
- E. Direct inguinal hernias rarely incarcerate while incarceration is common in femoral hernias and indirect inguinal hernias.

**49.** Parents present their 18 month old male child with a fever of 39 degrees. History and examination reveal no evidence of focal infection. The child is otherwise well. Regarding investigation and management, which ONE of the following is CORRECT?

- A. Full blood count, blood cultures, urine microscopy and culture, chest xray and admission for observation is warranted
- B. Full blood count, blood cultures, urine microscopy and culture and discharge with a planned review in 24 hours or sooner if indicated.\*
- C. Full blood count FBE, blood cultures, urine microscopy and culture, chest xray, lumbar puncture and discharge with a planned review in 24 hours or sooner if indicated.
- D. Full blood count, blood cultures, chest xray, chest xray, lumbar puncture and admission for observation
- E. Full blood count, blood cultures, chest xray and empiric 50mg ceftriaxone intramuscularly and admission for observation.

- 50** Which ONE of the following statements regarding analgesia in the emergency department is CORRECT.
- A. Parental narcotics are significantly more effective than NSAIDs in relieving renal colic pain.
  - B. Splintage does not reduce pain in fractures
  - C. The use of analgesia interferes with the assessment of abdominal pain.
  - D. 10% of the population do not have the metabolic pathways to convert codeine to its active metabolite.\*
  - E. Local swelling and itch at the site of intravenous morphine use indicates an allergy and precludes further use.
- 51.** Concerning abdominal aortic aneurysm, which ONE of the following is INCORRECT
- A. Mortality for patients presenting with abdominal aortic aneurysm is 2 – 7% if asymptomatic and greater than 50% if symptomatic.
  - B. An abdominal aortic aneurism is defined as a greater than 50% increase in aortic diameter.
  - C. The classic triad of back pain, hypotension and pulsatile abdominal mass is present in approximately 50% of cases.
  - D. Ultrasound has an almost 100% sensitivity in diagnosing a ruptured abdominal aortic aneurysm.\*
  - E. Obesity is not a risk factor
- 52.** Concerning pancreatitis, which ONE of the following is INCORRECT?
- A. Alcoholism and cholelithiasis account for 80 – 90% of cases of pancreatitis.
  - B. Prognostic indicators for severe pancreatitis include Ranson Criteria, Apache scores and the Balthazar CT scanning system.
  - C. Severe pancreatitis causes multiorgan dysfunction (MOD) by activating systemic inflammatory response syndrome (SIRS).
  - D. A lipase level of greater than three times the upper limit of normal is highly specific for pancreatitis.
  - E. Ranson criteria include increased white cell count, increased liver enzymes, increased urea and creatinine, increased calcium and haematocrit together with hypoxia and acidosis.\*
- 53.** Regarding compartment syndrome in a limb, which ONE of the following is CORRECT
- A. It is not commonly associated with long bone fractures
  - B. The presence of a palpable arterial pulse excludes compartment syndrome.
  - C. Pain is made worse by passively stretching the muscles\*

- D. A tissue pressure greater than 20mmHg impairs local circulation.
- E. Chronic compartment syndromes are more common in the upper limb.

**54.** In a child with a “pulled elbow”, which ONE of the following is INCORRECT?

- A. It usually occurs between 1 and 3 years of age.
- B. The arm is held in pronation and slightly flexed.
- C. Reduction is achieved by supination, traction and flexing the elbow.
- D. Radiological examination is required to confirm the diagnosis\*
- E. Supination of the elbow will cause pain.

**55.** In differentiating VT from SVT with aberrancy, which ONE of the following is CORRECT

- A. A widened QRS only occurs in SVT with aberrancy.
- B. In SVT with aberrancy there are capture beats
- C. An irregular rhythm suggests SVT with aberrancy.\*
- D. In SVT with aberrancy there are fusion beats
- E. VT can never be bi-directional

**56.** In valvular heart disease, which ONE of the following is INCORRECT

- A. Mitral stenosis has a characteristic opening snap and a diastolic murmur.
- B. Mitral valve prolapse has an ejection click preceded by a systolic murmur.\*
- C. Aortic stenotic murmurs radiate to the neck with a soft second sound.
- D. Tricuspid stenosis is best heard at the left sternal edge.
- E. Graham Steell’s murmur is heard in pulmonary hypertension.

**57** In patients with aspiration pneumonia, which ONE of the following is CORRECT?

- A. Aspiration is more likely in the elderly or obtunded.\*
- B. Endotracheal intubation will prevent aspiration
- C. Antibiotics are always indicated in aspiration pneumonia.
- D. Drug overdoses are the least common cause in young adults.
- E. Gastric acid is relatively non toxic to alveoli.

**58.** Concerning indications for CT scanning, which ONE of the following is CORRECT?

- A. An adult with a minor head injury and GCS 15 requires a CT because of the risk of axonal brain injury.
- B. Children with mild head injuries require a CT if they remain symptomatic after a period of observation.\*
- C. Focal neurological deficit in head injury is not an indication for CT scan if the GCS is 15.
- D. In suspected subarachnoid haemorrhage, CT is indicated only if the CSF is positive for xanthochromia.
- E. Children with signs of raised intracranial pressure should have an LP before a CT is performed.