

1. The most common hernia in male children is:

- A. Direct inguinal hernia
- B. Femoral hernia
- C. Obturator hernia
- D. Indirect inguinal hernia
- E. Umbilical hernia

2. A newborn full-term baby boy with diagnosis of anorectal malformation have a:

- A. Dextrocardia
- B. Rib cage anomaly
- C. Tracheoesophageal fistula
- D. Ulnar skeletal deformity
- E. Proximal limb malformation

3. Charcot's triad consists of

- A. Fever, nausea and vomiting
- B. Pain, nausea and jaundice
- C. Pain, nausea and vomiting
- D. Pain, jaundice and fever
- E. Jaundice, fever and nausea

4. Falsely high non-invasive blood pressure measurements are associated following except:-

- A. Relatively smaller cuffs
- B. Loosely applied cuff
- C. Extremity below the heart
- D. Even compression applied on arm
- E. Larger cuffs

5. In infants with duodenal atresia, all the following statements are true except

- A. There is an increased incidence of Down syndrome.
- B. Duodenal atresia can be detected by prenatal ultrasound examination.
- C. It may occur in infants with situs inversus, malrotation, annular pancreatic portal vein.
- D. It is best treated by gastroenterostomy.
- E. There is a high incidence of associated cardiac defects

6. Breast cancer

- A. Commences most frequently in the nipple
- B. Peaud'orange is a sign of early disease
- C. Pain is an early sign
- D. All patients should have a tissue diagnosis prior to definitive surgery
- E. Treatment does not depend on axillary node status

7. Tom is a 7-week-old infant who presents to the A&E department with a 1-week history of non-bilious vomiting. His mother describes the vomit as 'shooting out'. He has a good appetite but has lost 300 g since he was last weighed a week earlier. He has mild constipation. On examination, Tom is afebrile and mildly dehydrated. His pulse is 170 beats/min, blood pressure 82/43 mmHg, and peripheral capillary refill 2 s. There is no organomegaly, mass or tenderness on abdominal examination. There are no signs in the other systems. What is the most likely diagnosis?

- A. Gastro-oesophageal reflux
- B. Gastritis
- C. Pyloric stenosis
- D. Urinary tract infection
- E. Duodenal atresia

8. The following are true regarding testicular torsion; except

- A. The highest incidence is in the neonatal and peripubertal periods
- B. May present with abdominal pain and vomiting and few testicular symptoms
- C. Radiological investigation with doppler ultrasound or isotope scanning is invariably indicated
- D. Testicular viability is reduced if surgery is delayed more than 6 hours
- E. Contralateral orchidopexy should also be performed if a torsion is confirmed

9. Which of the following statements is true?

- A. Cutting needles are used for skin closure.
- B. Hand needles are ideal for skin closure.
- C. Round-bodied needles are used for closure of laparotomy wounds.
- D. Needles with a loop-suture should not be used for mass closure of abdomen.
- E. In subcuticular suturing, double-ended needle sutures are used.

10. All of the following statements about hydrocephalus are true EXCEPT?

- A. It is not found in adults.
- B. It may present with a 6th nerve palsy.
- C. It may present with sunsetting eyes and a bulging fontanelle in infants.
- D. It can cause head enlargement in infants.
- E. It can cause papilloedema

11. Which of the following statements regarding clinical features of gastric cancer are true?

- A. They may be non-specific in the late stages.
- B. Anaemia can be a presenting symptom.
- C. Troiser's sign refers to a palpable 'Virchow's node' in the right supraclavicular area.
- D. This is a rare cause of GOO.
- E. Trousseau's sign is diagnostic

12. With uncomplicated para pneumonic pleural effusions, the pleural fluid usually has

- A. pH lower than 7.20
- B. low glucose level
- C. lactate dehydrogenase (LDH) level more than 3 times the upper limit of normal
- D. negative gram stain for bacteria
- E. high white cell count

13. Adequate minimum urine output during resuscitation is

- A. 0.5-1 ml/kg/hr
- B. 20 ml/kg/hr
- C. 50 ml/kg/hr
- D. 45 ml/hr
- E. 60 ml/hr

14. A 78-year-old diabetic male resident of an old peoples' home is brought to A&E with two weeks history of episodes of somnolence and confusion. He is reported to have fallen in the bathroom and hit his head two months ago. The most likely diagnosis is

- A. Alzheimer's disease
- B. Acute subdural haematoma
- C. Chronic subdural haematoma
- D. Viral encephalitis
- E. Epidural haematoma

15. Surgical treatment for peptic ulcers is not indicated in:

- A. Intractable ulcers
- B. Bleeding that is not controlled by medical therapy or endoscopy
- C. Perforation
- D. Gastric outlet obstruction
- E. For prophylaxis against developing malignancy

16. Regarding myelomeningocele the following are true except;

- A. It is part of a complex of diseases known as spinal dysraphism
- B. It is a disorder of secondary neurulation
- C. Myelomeningocele surgery aims at preventing further neurological damage and infection
- D. It is commonly associated with Chiari II Malformation
- E. Caesarian delivery is preferred where an intrauterine diagnosis of a myelomeningocele has been made

17. You are the Paediatrics intern on call. You are called to casualty to review a 3-month-old baby brought by the mother with a history of progressive head enlargement, poor feeding, persistent crying and vomiting after feeds. Which of the following is true regarding the condition the baby is presenting with?

- A. An occipito-frontal circumference is not needed in this baby
- B. An examination of the back is not needed
- C. A cranial ultrasound is indicated if the anterior fontanelle is open
- D. MRI brain is the imaging modality of choice

18. A 57-year-old male patient presents to casualty with a history of persistently severe headache over 3 months, vomiting, blurring of vision and gait ataxia. He reports that his headache is now not relieved by paracetamol. Which of the following statements regarding his condition is false?

- A. A thorough history and examination are the most important part of his management
- B. A CT scan brain pre and post contrast are the imaging modality of choice
- C. An MRI brain is the imaging modality of choice
- D. Urgent neurosurgical review is needed
- E. A fundoscopy is an important part of the management of this patient

19. The following is true of brain tumours except;
- They are the second most common malignant tumours in Paediatrics
 - The most common brain tumour in adults is metastasis
 - Posterior fossa tumours may cause vomiting by compression of the chemoreceptor trigger zone (CTZ)
 - ~~The most common posterior fossa tumour in children is metastasis~~
 - Glial tumours are the most common primary brain tumours
20. Regarding congenital malformations of the spine in children, the following is true;
- ~~The cranial 1/3 of the neural tube forms the brain~~ ~13
 - ~~The central nervous system is an endodermal structure~~
 - ~~The neural tube forms after closure of the cranial and caudal neuropores by day 28~~
 - Secondary neurulation is responsible for formation of the spine from L1 to the coccyx
 - ~~Folic acid supplementation is not needed in all women of child bearing age~~
21. Regarding congenital malformations of the brain the following are true except;
- Anencephaly is not compatible with life
 - The telencephalon gives rise to the cerebral hemispheres
 - Hydrocephalus could result from congenital aqueducatal stenosis or failure of formation of arachnoid villi
 - ~~Microcephalic children have normal intelligence~~
 - Holoprosencephaly represents varying degrees of failure of separation of the cerebral hemispheres
22. The following statements are true except;
- ~~Hydrocephalus is defined as an enlargement of the ventricles~~
 - CSF is produced by the choroid plexus in the lateral ventricles, third ventricle and fourth ventricle
 - CSF production is dependent on carbonic anhydrase as it is an active process
 - CSF can be diverted to the peritoneum, atrium or pleural cavities during shunting for hydrocephalus
23. Which of the following represents the correct flow of CSF from production to reabsorption?
- Choroid plexus-Foramen of Monro-Lateral ventricle-Aqueduct of Sylvius-Third ventricle-Foramina of Luschka and Magendie-Fourth ventricle-Arachnoid villi
 - Lateral ventricle-Choroid plexus- Foramen of Monro-Third ventricle-Aqueduct of Sylvius-Fourth Ventricle- Foramina of Luschka and Magendie-Arachnoid villi
 - ~~Choroid plexus- Lateral ventricle-Foramen of Monro-Third ventricle-Aqueduct of Sylvius-Fourth Ventricle- Foramina of Luschka and Magendie- Archnoid villi~~
 - Arachnoid villi-Lateral ventricles- Foramen of Monro- Third ventricle-Aqueduct of Sylvius-Fourth ventricle- Formaina of Luschka and Magendie-Choroid plexus
 - Choroid plexus-Foramina of Luschka and Magendie-Lateral ventricle-Aqueduct of Sylvius-Third ventricle- Foramen of Monro-Fourth ventricle-Arachnoid villi

24. Regarding brain tumours the following statements are all true except;
- A. A long history of symptoms may suggest a benign tumour
 - B. Audiometry is needed in patients with a history of hearing loss
 - C. Visual deterioration may be due to the tumour location or raised intracranial pressure
 - D. Dexamethasone is given in all patients with a brain tumour
 - E. Pituitary tumours may cause endocrine disturbances as the primary presenting complaints
25. You are called to the new born unit to review a baby. On arriving there you find a newborn boy with a midline swelling in the lumbosacral region. Clear fluid is seen coming from the swelling. The head circumference is normal with no lower limb movement noted. What would be your initial management of this baby?
- A. Proceed to aspirate fluid from the swelling and send it to the laboratory
 - B. First get an ultrasound of the swelling
 - C. Dress the area with wet sterile gauze and nurse the baby prone
 - D. Suture the leak point of the swelling
26. The following statements regarding suppurative otitis media are true except;
- A. It is the most common inflammatory condition of the middle ear
 - B. It may be associated with mastoiditis
 - C. The tympanic membrane appears red and bulges due to pus accumulating behind it
 - D. A normal ear drum is present in mastoiditis
 - E. The most common causative organisms are *Staphylococcus pneumoniae* and *Haemophilus influenzae*
27. The following are indications for tonsillectomy except;
- A. Chronic tonsillitis
 - B. Systemic disease due to β -haemolytic streptococcus
 - C. Suspected tonsillar malignancy
 - D. Sleep apnoea
 - E. Acute otitis media
28. The symptom which is LEAST specific for bladder outflow obstruction is:
- A. Hesitancy
 - B. Intermittency
 - C. Nocturia
 - D. Terminal dribbling
 - E. Reduced urinary stream
29. Which of the following statements is TRUE?
- A. Haemospermia usually results from malignancy of the prostate
 - B. Pneumaturia is most frequently due to gas-forming organisms in diabetic patients with high concentrations of urinary sugar
 - C. A thick, purulent, profuse urethral discharge is usually seen in non-gonococcal urethritis
 - D. Cloudy urine most commonly results from phosphate crystals precipitated in alkaline urine
 - E. Spontaneous emission of semen from the urethra is abnormal

30. Which of the following statements about scrotal and testicular problems is true?
- A. Torsion of the testis is most common between 20-30 years of age
 - B. Hydrocele is diagnosed by transillumination, if any part transilluminates then malignancy is excluded
 - C. A right sided varicocele is slightly less common than a left sided one
 - D. A painless testicular mass in a 20-35 year old man is the most common presentation of a testicular tumour
 - E. Epididymal cysts always occur in the tail of the epididymis
31. You are the intern on call in casualty in Meru. You are called to casualty to examine a patient with a chemical injury of the left eye. What is your immediate management of this patient?
- A. Refer to the ophthalmologist in Nairobi
 - B. Topical antibiotics
 - C. Oral analgesia
 - D. Neutralization of the pH by irrigation
 - E. Topical cycloplegia
32. Which of the following is a feature of a fracture of the orbital floor?
- A. Diplopia on upgaze or downgaze
 - B. Damage to the supra-orbital nerve
 - C. Haemoptysis
 - D. Numbness of the lateral canthus
 - E. Haziness of the ethmoidal sinus on X-ray
33. If torsion of the testicle is suspected, surgical exploration;
- A. Can be delayed for 24 hours and limited to the affected side.
 - B. Can be delayed but should include the asymptomatic side.
 - C. Should be immediate and limited to the affected side.
 - D. Should be immediate and include the asymptomatic side.
 - E. Is not needed and patient can be managed conservatively
34. A 65-year-old male is diagnosed as having prostatic cancer based on transrectal biopsy of a 1 cm palpable nodule. Which of the following statements is true concerning his management?
- A. If the tumour is confined within the prostatic capsule (stage A or B), radical prostatectomy is an appropriate option
 - B. If positive lymph nodes are detected on laparoscopic pelvic lymph node dissection (stage D1), radical prostatectomy is indicated
 - C. Radical prostatectomy is invariably associated with impotence
 - D. External beam radiation is not an appropriate treatment if the tumour is confined to the prostate
 - E. There is currently no role for orchiectomy in the management of prostatic cancer
35. The most common cause of hearing loss in Kenya is?
- A. Acute Otitis Media
 - B. Chronic Otitis Media
 - C. Cerumen Impaction
 - D. Otitis Media with Effusion
 - E. Tympanic Membrane Perforation

36. Jose is a 62-year-old man who has just been diagnosed with pancreatic cancer. You run into his brother in the corridor and he asks you not to tell Jose because the knowledge will kill him faster. A family conference to discuss the prognosis is scheduled for that same afternoon. What is the best way for you as the doctor to handle the situation?
- A. Honour the request of the family member who is protecting his brother from the bad news
 - B. Tell his brother that withholding information is not permitted under any circumstance
 - C. Tell his brother to withhold the information as he wishes
 - D. Give the brother a dressing down for suggesting such an option
 - E. Ask Jose how he would wish to handle the information in front of the rest of the family and allow the family some time to discuss the matter
37. Your 36-year-old patient has just tested positive for HIV. He asks that you do not inform his wife of the results claiming he is not ready to tell her just yet. What would you say to your patient?
- A. Encourage the patient to share the information with his wife on his own and give him a bit more time if necessary
 - B. Tell the patient that his wife is at serious risk of being infected and that you have a duty to ensure she knows the risk
 - C. Tell the patient that public health law requires reporting both the patient and any known sexual partners to local health officers
 - D. All of the above
 - E. None of the above
38. Which of the following liver tests are abnormal?
- A. Bilirubin 5-17 $\mu\text{mol/L}$
 - B. Alkaline phosphatase 35-130 IU/L
 - C. Albumin 35-50 g/L
 - D. Aspartate Transaminase (AST) 55-80 IU/L
 - E. Prothrombin time 12-16 sec
- 10-35
39. A 28-year-old man presents to casualty with testicular torsion and is in extreme pain. He is scheduled for emergency surgery and the consultant urologist tells you he is on his way and will be there in the next one hour. He asks you not to give any pain medication so that "consent can be obtained" on his arrival. Are the surgeon's concerns about informed consent valid?
- A. Yes. To obtain informed consent the patient must be lucid and pain medication can invalidate the consent
 - B. Yes. Because hospital policy requires informed consent from a lucid person before surgery
 - C. It's an emergency you do not need informed consent in this case
 - D. Because of severe pain, the surgeon's concerns are not valid as it can impair a patient's ability to listen and understand in the informed consent process
 - E. None of the above
40. Which of the following statements about the process of wound healing are true?
- A. Inflammatory phase begins 2-3 days after the injury
 - B. Proliferative phase lasts from 3 days to 3 weeks following the injury
 - C. The remodelling phase involves fibroblast activity and production of collagen
 - D. Fibroblasts do not require vitamin C to produce collagen
 - E. The white cells stick to the damaged endothelium and release cytokines

41. Which of the following statements regarding management of the acute wound are incorrect?

- A. A bleeding wound should be elevated and a pressure pad applied
- B. Clamps may sometimes need to be put on bleeding vessels blindly
- C. Anaesthesia is usually required in the assessment of wounds
- D. A thorough debridement is essential
- E. Repair of all damaged structures may be attempted in a tidy wound

42. A 21-year-old woman presents with an asymptomatic breast mass. Which of the following is true concerning her diagnosis and treatment?

- A. Mammography will play an important role in diagnosing the lesion
- B. Ultrasonography is often useful in the differential diagnosis of this lesion
- C. The mass should always be excised
- D. The lesion should be considered pre-malignant
- E. The mass will definitely disappear after the first pregnancy

USE THE FOLLOWING CHOICES TO ANSWER QUESTIONS 43-45. SELECT THE MOST APPROPRIATE CHOICE FOR EACH STATEMENT CONCERNING MALIGNANT MELANOMA.

- A. Nodular type
- B. Acral lentiginous type
- C. Mucosal lentiginous type.
- D. Lentigo maligna melanoma.
- E. Superficial spreading type.

43. Carries the worst prognosis

44. Usually occurs on the face

45. Locally aggressive disease

A
D
A

46. A careful history is necessary in all patients being considered for inguinal hernia repair. Symptoms which deserve investigation and appropriate treatment prior to proceeding with inguinal hernia repair include all the following except:

- A. Chronic cough
- B. Urinary hesitancy and straining
- C. Chronic constipation
- D. A specific episode of muscular straining with associated discomfort
- E. History of long-standing heavy smoking

47. Carcinoma of the urinary bladder:

- A. Is primarily of squamous cell origin.
- B. Is preferentially treated by radiation.
- C. May be successfully treated using only intravesical agents even if it invades the bladder muscle.
- D. May mimic an acute UTI with irritability and haematuria.
- E. Is preferentially treated by partial cystectomy.

48. A 22-year-old female patient presents five days after laparoscopic appendicectomy with fever and a rectal mass. What is the most likely diagnosis?

- A. Ruptured ectopic pregnancy
- B. Ischiorectal abscess
- C. Pelvic abscess
- D. Ovarian cyst
- E. Uterine fibroids

49. The following investigations are appropriate prior to surgery
- A. An ECG in all patients older than 30 years
 - B. Coagulation screen for all patients with obstructive jaundice
 - C. HIV screening for patients with acute appendicitis
 - D. Chest X-ray for all patients over 40 years
 - E. Liver function test for patients with acute appendicitis
50. In a diabetic patient scheduled for elective surgery
- A. Fasting blood sugar of 16 mmol/l on the day of surgery is optimal
 - B. An intravenous infusion of 5% dextrose should be started on the morning of surgery
 - C. Insulin requirements may increase after major surgery
 - D. Half the morning dose of insulin should be given on the day of surgery
 - E. Prophylactic antibiotics are not necessary
51. The following are components of standard neuro-observation in head injury except
- A. Glasgow coma scale
 - B. Pupillary size
 - C. Pulse rate
 - D. Grade of power in the limb
 - E. Intracranial pressure monitoring
52. With regard to MEN2B
- A. Medullary carcinoma occurs 100% of time
 - B. Pheochromocytoma occurs in up to 40% of time
 - C. Hyperparathyroidism occur in 25% of times
 - D. Pheochromocytoma occurs in 10-20% of cases
 - E. Is an autosomal recessive disorder associated with an activating germ line mutation of the RET proto-oncogene
53. In a T1, N0, M0 breast tumour
- A. The tumour size is between 2-5cm
 - B. Breast conservative surgery may be a management option
 - C. There is no role for radiotherapy in the management
 - D. There is a definite role for chemotherapy
 - E. This is TIS disease

USE THE FOLLOWING CHOICES TO ANSWER QUESTIONS 54-58. CHOOSE THE MOST APPROPRIATE CHOICE FOR EACH STEM.

- A. Leriche's syndrome
 - B. Chronic ankle ulcers
 - C. Claudication
 - D. Angina pectoris
 - E. Flank bruit
54. Aorto-iliac arteriosclerosis
55. Renal artery stenosis
56. Suprarenal aortic dissection
57. Venous insufficiency
58. Erectile dysfunction

A
E
D
B
C

50

AD

USE THE FOLLOWING CHOICES TO ANSWER QUESTIONS 59-62. CHOOSE THE MOST APPROPRIATE CHOICE FOR EACH STEM.

- A. Wet gangrene
- B. Necrotizing fasciitis
- C. Toxic epidermal necrosis
- D. Dry gangrene
- E. Gas gangrene

- 59. Meleney's synergistic gangrene **A**
- 60. Clostridium species **E**
- 61. Fournier's gangrene **B**
- 62. Demarcation is very clear **D**

63. The following statement about peritonitis are all true EXCEPT:
- A. Peritonitis is defined as inflammation of the peritoneum.
 - B. Most surgical peritonitis is secondary to bacterial contamination.
 - C. Primary peritonitis has no documented source of contamination and is more common in adults than in children and in men than in women.**
 - D. Tuberculous peritonitis can present without ascites
 - E. Peritonitis can present as intestinal obstruction

USE THE FOLLOWING CHOICES TO ANSWER QUESTIONS 64-67. CHOOSE THE MOST APPROPRIATE CHOICE FOR EACH STEM.

- A. CT of the abdomen.
- B. Contrast study of the intestine.
- C. Supine and erect radiographs of the abdomen.
- D. Ultrasonography of the abdomen.
- E. Colonoscopy

- 64. The most helpful diagnostic radiographic procedure in small bowel obstruction **D**
- 65. The most commonly used imaging method for diagnosis of acute cholecystitis **C**
- 66. Useful study for suspected entero-enteric fistula **B**
- 67. The best radiographic procedure for grading liver injuries **A**

USE THE FOLLOWING CHOICES TO ANSWER QUESTIONS 68-70 CHOOSE THE MOST APPROPRIATE CHOICE FOR EACH STEM.

- A. Distended small bowel identifiable by the valvulae conniventes
- B. Coffee bean sign
- C. Modest amount of gas in the pelvis.
- D. Peripheral, rather than central, distribution of gas.
- E. Prominent hiatal markings

- 68. Patients with established complete, simple, distal small bowel obstruction usually have the following finding on plain and upright abdominal radiographs. **A**
- 69. Sigmoid volvulus **B**
- 70. Obstructing rectal cancer **D**

71. All of the following statements about the embryology of Meckel's diverticulum are true except:
- A. Meckel's diverticulum usually arises from the ileum within 90 cm. of the ileocecal valve.
 - B. Meckel's diverticulum results from the failure of the vitelline duct to obliterate.
 - C. The incidence of Meckel's diverticulum in the general population is 5%.
 - D. Meckel's diverticulum is a true diverticulum possessing all layers of the intestinal wall.
 - E. Gastric mucosa is the most common ectopic tissue found within a Meckel's diverticulum.
72. For which of the following consequences of radiation injury of the intestine is urgent laparotomy required?
- A. Small bowel obstruction. Emergency
 - B. Colonic perforation.
 - C. Rectovaginal fistula.
 - D. Malabsorption and diarrhoea.
 - E. Rectal stenosis.
73. Which of the following statements or descriptions typically characterizes the syndrome of overwhelming post-splenectomy sepsis?
- A. A syndrome of fulminant gram-negative bacteraemia and septicaemia in asplenic individuals, characterized by the presence of as many as 10^6 bacterial organisms per cu. mm. circulating in the bloodstream.
 - B. A syndrome caused primarily by impaired host ability to mount an effective humoral (immunoglobulin) response to infection.
 - C. A syndrome that occurs in 5% to 7% of patients following traumatic splenectomy.
 - D. A syndrome of rapidly appearing septic shock unresponsive to antibiotic therapy, with an average mortality of 50%.
 - E. The syndrome may be prevented by preserving as little as 15% of splenic mass in adult trauma victims.
74. Which of the following statement is true concerning the Advanced Trauma Life Support (ATLS) classification system of haemorrhagic shock?
- A. Class I shock is equivalent to voluntary blood donation
 - B. In Class II shock there will be evidence of change in vital signs with tachycardia, tachypnea and a significant decrease in systolic blood pressure
 - C. Class III haemorrhage can usually be managed by simple administration of crystalloid solution
 - D. Class IV haemorrhage involves loss of over 20% of blood volume loss and can be classified as life-threatening
 - E. Respiratory rate has no relation with the level of shock
75. All of the following are true about inhalation injury in burn patients except
- A. A chest x-ray obtained within 24 hours of injury is an accurate means of diagnosis.
 - B. Its presence characteristically necessitates administration of resuscitation fluids in excess of estimated volume.
 - C. When moderate or severe, it exerts a comorbid effect that is related to both extent of burn and the age of the patient.
 - D. It increases the prevalence of bronchopneumonia.
 - E. Prophylactic high-frequency ventilation reduces the occurrence of pneumonia and mortality in burn patients with inhalation injury.

76. The following are forms of primary lymphoedema except
- A. Milroy's disease
 - B. Meige's disease
 - C. Primary lymphatic malignancy
 - D. Tarda
 - E. Sporadic praecox lymphoedema
77. The following features favour late dumping syndrome over early dumping syndrome
- A. At times presents with diarrhoea
 - B. Presents almost immediately after meal
 - C. Relieved by lying down
 - D. Aggravated by exercise
 - E. Caused by osmotic pressure
78. The following are symptoms of anal fissure except
- A. Pain on defecation
 - B. Copious bright red bleeding
 - C. Mucus discharge
 - D. Constipation
 - E. Tenderness on rectal examination
79. Regarding the management of major trauma
- A. Deaths follow a trimodal distribution
 - B. X-rays after the primary survey should be of AP Cervical spine, chest and pelvis
 - C. Cardiac tamponade is characterised by raised BP, low JVP and muffled heart sounds
 - D. Assessment of uncomplicated limb fractures should occur during the primary survey
 - E. Deterioration of the casualty during the primary survey should lead to the secondary survey
80. Which of the following is true regarding appendicitis?
- A. The risk of developing the illness is greatest in middle age
 - B. Mortality increases with age and is greatest in the young adult
 - C. 90% of appendices are extra peritoneal in a retrocaecal position
 - D. Faecoliths are present in 75-80% of resected specimens
 - E. Appendicitis is impossible to diagnosis in the absence of abdominal tenderness
81. Which of the following is true regarding benign breast disease?
- A. Cyclical mastalgia is not the commonest reason for referral to the breast clinic
 - B. Fibroadenomas are derived from the breast lobule
 - C. Lactational breast abscesses are usually due to Enterobacteriaace
 - D. Duct ectasia is least more common in smokers
 - E. Atypical lobular hyperplasia is associated with an times increased risk of breast cancer

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FOR QUESTIONS 82-85, USE THE FOLLOWING STATEMENT
For each description, select the type of bone disease with which it is most likely to be associated. Each lettered option may be used once, more than once, or not at all.

- A. Osteogenesis imperfecta
- B. Osteopetrosis
- C. Osteitis fibrosa cystica
- D. Osteomalacia
- E. Osteitis deformans (synonym for Paget disease)

82. A patient with elevated parathyroid hormone levels presents with brown tumours in the long bones. **C**
83. A patient with chronic renal failure presents with skeletal deformity and pain. **D**
84. A genetically determined disorder in the structure or processing of type I collagen may require your patient to wear various orthoses to protect himself. **A**
85. A patient presents with cortical thickening and cortical expansion of the bone with sclerotic areas. **B**

FOR QUESTIONS 86-88, USE THE FOLLOWING STATEMENT

For each description, select the type of lesion with which it is most likely to be associated. Each lettered option may be used once, more than once, or not at all.

- A. Osteoid osteoma
- B. Osteoblastoma
- C. Osteosarcoma
- D. Chondrosarcoma
- E. Ewing sarcoma

86. An 11-year-old boy presents with pain in his right leg. A radiograph shows a circumscribed, densely sclerotic mass limited to the metaphysis of the lower femur. **A**
87. A 9-year-old boy presents with severe pain in the left femur. The pain is relieved by aspirin. On plain film, a 0.5-cm lucent lesion, which is surrounded by marked reactive sclerosis, is seen. **A**
88. A 12-year-old boy complains of pain in his left leg that is worse at night. He has been experiencing fevers and also has a 4.5kg weight loss. X-ray demonstrates an aggressive lesion with a permeative pattern of bone lysis and periosteal reaction. There is an associated large soft tissue mass as well. Pathology demonstrates the tumour to be of the round cell type. **E**

FOR QUESTION 89-92, USE THE FOLLOWING STATEMENT.

For each description, select the type of fracture or dislocation with which it is most likely to be associated. Each lettered option may be used once, more than once, or not at all.

- A. Navicular (scaphoid) fracture
- B. Monteggia deformity
- C. Night stick fracture
- D. Anterior shoulder dislocation
- E. Fracture of the scapula

89. A patient presents with pain in the shoulder after a fall. On examination, the shoulder is internally rotated. **E**
90. A patient has tenderness over the forearm after being attacked by gang members with baseball bats. **C**
91. A 30-year-old cyclist falls and injures her forearm. The radial head is dislocated and the proximal third of the ulna is fractured. **B**
92. A patient has tenderness in the anatomical snuffbox. **A**

93. An 18-year-old football player is seen in the emergency ward with severe knee pain incurred after being hit by a tackler while running. Which of the following findings on physical examination is most sensitive for an anterior cruciate ligament injury?
- A. Excessive valgus laxity of the knee
 - B. Excessive varus laxity of the knee
 - C. Locked knee
 - D. Positive Lachman test
 - E. Positive posterior drawer test
94. A 34-year-old man is extricated from an automobile after a motor vehicle collision. The patient has an obvious deformity of his right thigh consistent with a femur fracture. Upon closer examination of the right thigh, there is bone visible through an open wound. Which of the following is the most appropriate management of his open femur fracture?
- A. Intravenous (IV) antibiotics and cast or splint placement
 - B. IV antibiotics and internal or external fixation
 - C. Early irrigation and debridement, IV antibiotics, and cast or splint placement
 - D. Early irrigation and debridement, IV antibiotics, and internal or external fixation
 - E. Early irrigation and debridement, IV antibiotics, compartment decompression, and internal or external fixation
95. A 6-year-old boy is brought into the emergency room by his mother for walking with a limp for several weeks. On examination, the patient has tenderness over his right thigh without evidence of external trauma. An x-ray of the pelvis shows a right femoral head that is small and denser than normal. Which of the following is the most likely diagnosis?
- A. Slipped capital femoral epiphysis (SCFE)
 - B. Legg-Calve-Perthes (LCP) disease
 - C. Dysplasia of the hip
 - D. Talipes equinovarus
 - E. Blount disease
96. A 65-year-old man presents with acute onset of pain, swelling, and erythema of the left knee. He denies previous episodes or trauma to the knee. The differential diagnosis includes septic arthritis and gout. Which of the following is the best study to differentiate between gout and septic arthritis?
- A. White blood cell count
 - B. X-ray of the knee
 - C. Magnetic resonance imaging (MRI) of the knee
 - D. Bone scan
 - E. Evaluation of synovial fluid aspirate
97. While playing with his children, a 44-year-old man falls and lands on his right shoulder. There is immediate pain and deformity. In an uncomplicated dislocation of the gleno-humeral joint, the humeral head usually dislocates primarily in which of the following directions?
- A. Anteriorly
 - B. Superiorly
 - C. Posteriorly
 - D. Laterally
 - E. Medially

98. In a failed suicide gesture, a depressed student severs her radial nerve at the wrist. Which of the following is her expected disability?
- A. Loss of ability to extend the wrist
 - B. Loss of ability to flex the wrist
 - C. Wasting of the intrinsic muscles of the hand
 - D. Sensory loss over the thenar pad and the thumb web
 - E. Palmar insensitivity
99. After being injured by a bull on his mother's farm, a young man is placed in a cast for a supracondylar fracture of his humerus. A few hours later he begins to experience intense pain, swelling, and weakness in the ipsilateral hand. Pulses are normal in bilateral upper extremities. Which of the following is the most appropriate initial management of this patient?
- A. Observation
 - B. Repeat imaging of the humerus
 - C. Elevation of the extremity
 - D. Removal of the cast
 - E. Surgical decompression (fasciotomy)
100. A 39-year-old man presents with an isolated fracture of the tibia after being hit on the leg with a car. The patient is stable and a radiograph of the leg shows a tibial shaft fracture with severe dislocation. Which of the following is the most appropriate management of the fracture?
- A. Closed reduction and application of a long leg cast
 - B. Intramedullary nailing
 - C. Surgical fixation with un-reamed nailing
 - D. External fixation
 - E. Plate fixation