

14. Patients who have undergone operations for benign prostatic hypertrophy or hyperplasia:
- Require routine rectal examinations to detect the development of carcinoma of the prostate.
 - Do not need routine prostate examinations.
 - Have a lesser incidence of carcinoma of the prostate.
 - Have a greater incidence of carcinoma of the prostate.
15. All of the following are early life threatening complications of thyroidectomy except?
- tracheomalacia and collapse of larynx
 - wound hematoma with compression of the trachea
 - hypocalcaemia
 - thyroid storm
 - Bilateral recurrent laryngeal nerve injury
16. Which of the following statements is false about inherited susceptibility to colon cancer?
- There is no known genetic susceptibility to colon cancer.
 - There are known genetic susceptibilities to colon cancer, but they are always associated with multiple adenomatous polyps.
 - There are known genetic susceptibilities to colon cancer, but they are always associated with specific ethnic or racial groups.
 - There are known genetic susceptibilities to colon cancer but they are frame-shift mutations only.
 - None of the above.
17. All of the following factors influence healing of a wound except?
- Vascular insufficiency
 - Diabetes insipidus
 - Malnutrition
 - Site of wound
 - Smoking
18. Which of the following statements is true?
- Cutting needles are used for skin and bowel closure
 - Hand needles are ideal for skin closure.
 - Round-bodied needles are used for closure of laparotomy wounds.
 - Needles with a loop-suture should not be used for laparotomy closure.
 - In subcuticular suturing, double-ended needle sutures are used.
19. Which of the following statements with regard to postoperative vomiting are false?
- Inadequate analgesia can be a cause of postoperative vomiting.
 - All abdominal operations must routinely have a nasogastric tube inserted preoperatively.
 - Metoclopramide and cyclizine can help.
 - Pulmonary aspiration may inadvertently occur.
 - Wound dehiscence is a distinct possibility.
20. All of the following statements about hydrocephalus are true EXCEPT?
- It is the diagnosis when the ventricles are enlarged on CT scan.
 - It may present with a 6th nerve palsy.
 - It may present with sunseting eyes and a bulging fontanelle in infants.
 - It can cause head enlargement in infants.
 - It can cause papilloedema
21. A thyroglossal duct cyst is a remnant of which structure?
- The thyrocervical trunk
 - The cervical sinus
 - The track of the thymus through the neck into the mediastinum
 - The fourth branchial pouch
 - The track of the thyroid from the tongue base to the neck.

22. Which of the following statements regarding clinical features of gastric cancer are true?
- They may be non-specific in the late stages.
 - Anaemia can be a presenting symptom.
 - Treiser's sign refers to a palpable "Virchow's node" in the 7th supraclavicular fossa.
 - This is a rare cause of COO.
 - Trousseau's sign is diagnostic.
23. Which of the following causes dehydration and electrolyte loss in intestinal obstruction EXCEPT?
- Reduced oral intake
 - Defective intestinal absorption
 - Vomiting
 - Diarrhoea
 - Sequestration in the bowel lumen.
- Choose and match the correct diagnosis with each of the scenarios given below:
24. A 30-year-old female presents with a 2-day history of constant pain over the right upper quadrant (RUQ) associated with vomiting. She is febrile with a positive Murphy's sign. **E**
25. A 38-year-old female presents with a 6 h history of colicky abdominal pain over the RUQ. This radiates to the back and right shoulder. On examination she is afebrile with a soft abdomen. **A**
26. A 78-year-old female with known gallstones for several years presents with central colicky abdominal pain and vomiting. She has also been constipated for the past few days. Clinical examination reveals a distended abdomen with increased bowel sounds. **D**
27. A 42-year-old male presents with a sudden onset of severe epigastric pain radiating to the back. This is associated with repeated vomiting and retching. He is very uncomfortable and in shock. Clinical examination reveals epigastrium tenderness with some guarding. **C**
28. A 60-year-old male presents with a history of episodic abdominal pain, jaundice and fever with chills. **B**
- Biliary colic
 - Cholangitis
 - Pancreatitis
 - Gallstone ileus
 - Acute cholecystitis
- * 29. Which of the following statements regarding fine-needle aspiration cytology (FNAC) in oropharyngeal cancer is true?
- It causes seeding of disease to the skin.
 - It provides reliable results independent of the operator.
 - It is used for diagnosis of primary disease.
 - It is used in assessment of enlarged cervical lymph nodes.
 - It requires adequate fixation for interpretation.
30. Which of the following is not an ominous sign in a patient with abdominal pain?
- Diaphoresis
 - Pallor
 - Hypotension
 - Patient lying still
 - Jaundice

31. A 45-year-old man is assaulted by persons known to him during a bar brawl. He arrives at the emergency department with unresponsive responses to questions, eyes opening to pain only, and a reflex response to pain. What is this patient's Glasgow Coma Scale (GCS) score?

a) 3
b) 6
c) 9
d) 12
e) Not enough information given to calculate

*V-2
E-2
M-3*

32. A 30-year-old man is brought to the emergency department after falling astride a manhole. His vital signs are stable. A high-riding prostate is noted on rectal examination. On portable pelvic radiographs he is found to have bilateral pubic ramus fractures. He has not yet voided since admission. Which of the following should be the next step?

a) Wait for the patient to void freely before attempting transurethral bladder catheterization.
b) Initially attempt gentle transurethral bladder catheterization, but stop if resistance is encountered.
c) Obtain a cystourethrogram before attempting transurethral bladder catheterization.
d) Insert a suprapubic cystostomy tube.
e) Perform computed tomography of the pelvis with three-dimensional reconstruction

33. The most common histologic type of melanoma is:

a) Superficial spreading
b) Nodular
c) Lentigo maligna - *characteristic*
d) Acral lentiginous - *commonest in blacks / Hispanics*
e) Desmoplastic

34. Which of the following hernias represent incarceration of a limited portion of the small bowel?

a) Spigelian hernia - *under the last edge of the last scapulars*
b) Grynfeltt hernia
c) Peitl hernia
d) Richter hernia
e) Littre hernia - *stomach contains Meckel's*

35. A 24-year-old woman who is 9 months postpartum has a tender, fluctuant area in her right breast near the areolar border. She has a fever and chills and has no other medical problems. What is the most appropriate treatment?

a) Surgical incision and drainage
b) Needle aspiration
c) Multidrug antibiotics
d) Core needle biopsy to exclude malignancy
e) Observation only

36. A patient with gastric outlet obstruction and prolonged vomiting has which of the following metabolic abnormalities?

a) Hypochloremic, hyperkalemic metabolic alkalosis
b) Hyperchloremic, hypokalemic metabolic acidosis
c) Hyponatremic, hypokalemic metabolic acidosis
d) Hypochloremic, hyperkalemic metabolic alkalosis
e) Hyperchloremic, hyperkalemic metabolic acidosis

37. Common causes of bowel anastomotic breakdown include all of the following except:

a) Poor blood supply to the bowel edges
b) Gross peritoneal contamination
c) Inadequate bowel mobilization
d) Hand-sewn anastomosis
e) Poor technique

38. Which of the following statements regarding subdural hematomas (SDHs) is false?

a) Acute SDHs are generally unilateral and have a poorer prognosis than chronic SDHs do.
b) Adequate treatment of an acute SDH usually consists of drainage through burrholes.
c) Chronic SDHs frequently recur.
d) Chronic SDHs should be suspected in elderly patients with progressive changes in mental status, even without a definite history of trauma.
e) SDHs carry a worse prognosis than do epidural hematomas (EDHs).

39. A 14-year-old boy is brought to the emergency department with a 1-hour history of acute, severe left scrotal pain. Examination reveals a high-riding left testicle with severe pain on palpation. Urinalysis does not reveal any evidence of red or white blood cells. Which of the following is the treatment of choice at this point?

a) Heat, scrotal elevation, and antibiotics
b) Manual attempt at detorsion
c) Analgesics and re-examination
d) Doppler examination to assess testicular blood flow
e) Surgical exploration

40. A 40-year-old man with a history of alcoholism comes to the emergency department with obtundation and scrotal pain. Physical examination reveals a temperature of 38.5°C and an ecchymotic and exquisitely tender scrotum with palpable cephalitis. What are the immediate next steps in management?

a) CT of the pelvis to the mid thigh
b) Incision and drainage of the scrotal skin and culture of the retrieved fluid
c) Plain radiograph of the pelvis
d) Duplex ultrasonography of the scrotum
e) Wide débridement of the affected tissues

41. Which of the following is true concerning Hirschsprung disease?

a) More common in females
b) Absent ganglion cells in both the Auerbach and Meissner plexuses
c) Failure to pass meconium in the first 48 hours of life
d) Best diagnosed by lower gastrointestinal contrast-enhanced study
e) Atrophy of submucosal nerve endings seen on rectal biopsy specimens

42. The VACTERL association most commonly includes which of the following?

a) Ankylosis
b) Imperforate anus
c) Eye deformities
d) Congenital cystic lung malformation
e) Choanal atresia

43. A 6-month-old infant has a history of an acute onset of crampy abdominal pain and leg withdrawal of 12 hours' duration. Rectal examination shows red currant stool. Which of the following is the most likely diagnosis?

a) Bleeding Meckel diverticulum
b) Acute appendicitis
c) Kidney stone
d) Infected urachal cyst
e) Intussusception

44. Which of the following is an important risk factor for transmission of HIV to the surgeon after a needle stick injury?

- a) The source patient has advanced HIV infection with a CD4+ T-cell count of less than 50 cells/mm³.
- b) The surgeon sustains a deep puncture injury.
- c) Blood was visible on the sharp object causing the injury.
- d) The injury was caused by a device that had entered a blood vessel of the source patient before injury.
- e) All of the above.**

45. Preoperative preparation of patients with Graves disease should include all of the following except?

- a) A Thyroid ultrasound
- b) Preoperative antibody assay of autoimmune diseases
- c) Achievement of a euthyroid state through the use of antithyroid drugs
- d) Administration of supersaturated potassium iodide (SSKI) 7 to 10 days before surgery**
- e) Control of arrhythmias and palpitations

46. A 50 year old male comes to see you because of weight loss associated with on and off colicky abdominal pain. He also noticed that his stools have diminished in calibre and has a feeling of tenesmus. The most likely differential diagnosis is?

- a) Rectal carcinoma**
- b) Amebic colitis
- c) Intussusception
- d) Ileocecal tuberculosis
- e) Inflammatory bowel disease

47. In trauma imaging, which of the following statements is false?

- a) In a multiply injured patient, CT scan of the head and spine should be the first line of imaging.**
- b) Focused assessment with sonography for trauma (FAST) helps in detecting intraperitoneal fluid and cardiac tamponade.
- c) CT should not be used when a patient is unstable.
- d) CT is the main imaging method for intracranial, intra-abdominal and vertebral injuries.
- e) Use of MRI in trauma is limited.

48. All of the following are true of preoperative patient preparation EXCEPT?

- a) It includes a thorough history-taking and medical examination.
- b) The patient's medical state is not important.**
- c) It is to anticipate and plan for management of perioperative problems.
- d) Good communication is required.
- e) It involves taking informed consent.

49. Which of the following statements is true about sigmoid volvulus?

- a) This is the most common site of volvulus in adults.**
- b) The predisposing factors include constipation, long pelvic mesocolon and broad attachment of the mesocolon.
- c) The rotation is usually in a clockwise direction.
- d) Flatus tube decompression is associated with a low rate of recurrence.
- e) There is no role for emergency surgery

50. Which of the following statements regarding clinical features of intestinal obstruction are true?

- a) Vomiting occurs early in low bowel obstruction.
- b) The development of severe pain is not indicative of strangulation.
- c) Distension is an early feature in large-bowel obstruction.
- d) Some patients may pass flatus or faeces even after the onset of obstruction.**
- e) Constipation is a predominant feature of Richter's hernia.

13
DOCS

WINGWA SURG/ORTH0



UNIVERSITY OF NAIROBI
DEPARTMENT OF SURGERY

MRCCH LEVEL IV CAT IN SURGERY AND ORTHOPAEDICS

GROUP A

DATE: FRIDAY 6TH MAY 2016

Time 9.00 - 10.00

INSTRUCTIONS

1. Attempt all questions
2. Mark ONE most appropriate response for each question
3. NO MARK will be awarded if you give more than one response. No mark will be deducted for a wrong response.
4. Mark your answer by SHADING the corresponding box on the answer sheet provided. The Answer sheet should bear your NAME and ID NUMBER pre-printed at the top.
5. More than 2 marks per question will be taken as a multiple response and will invalidate your answer.

1. Which of the following is the commonest cancer in Kenya?
 - a) Breast cancer
 - b) Oesophageal cancer
 - c) Cervical cancer
 - d) Squamous cell cancer of the skin
 - e) Prostate cancer

♀ - Breast (34/100K), Cervical (25/100K)
♂ - Prostate (17/100K), Esophageal (9/100K)
2. The following are risk factors for breast cancer development EXCEPT
 - a) Radiation
 - b) Family history
 - c) Oral contraceptives
 - d) Obesity
 - e) Dietary oestrogens
3. Which of the following is true about peptic ulcers?
 - a) Complicated ulcers are more commonly caused by *H. pylori*
 - b) A bleeding ulcer will NOT cause haematochezia
 - c) Barium meal has better diagnostic accuracy than endoscopy
 - d) Nonhealing ulcers can be due to malignancy
 - e) Omeprazole at a dose of 10mg every day for 7 days will heal most uncomplicated ulcers
4. Which of the following is NOT true about thyroid malignancy?
 - a) They commonly present as a goitre
 - b) Most patients will have features of hyperthyroidism
 - c) Early disease will appear as a solitary nodule on ultrasound and scan ✓
 - d) Total thyroidectomy is the recommended mode of management ✓
 - e) The medullary type is not a major component of MEN type 1 syndrome ✓ M&O 2

Commonest cause: benign → Gallstones
malignant → Head of pancreas CA.

in a patient with surgical jaundice

Most will have pruritus

Direct bilirubin levels are higher than indirect

It rarely leads to liver failure

MRCP cannot differentiate the various causes

The commonest cause is biliary strictures

6. A 62-year old man is brought to Accident and Emergency unit with an obstructed right inguinal hernia that has been there for 2 hours. He has been vomiting quite a bit, and is in much pain. The following is a logical order of initial treatment:

a) Intravenous line, fluid resuscitation, hernia reduction

b) Intravenous line, catheterization, hernia repair

c) Intravenous line, analgesics, hernia reduction, fluid resuscitation

d) Intravenous line, analgesics, catheterization, fluid resuscitation

e) Intravenous line, analgesics, antibiotics, hernia reduction, hernia repair *If there is risk for antibiotics*

In hernia management in adults, the following statement is true

a) Indirect inguinal hernias occur more commonly in the elderly ** Indirect hernias commonest*

b) Women rarely develop direct inguinal herniae *More common in children than adults*

c) There is no role for conservative management ** Direct Caused by smokers, ↑ intraabdominal pressure*

d) Incisional hernias do not occur in children

e) Hernioplasty leads to more recurrence rates than herniorrhaphy

The initial treatment for snake bite should be

a) Tourniquet to prevent venom spread

b) Multiple cuts around the bite to encourage bleeding

c) Suck out the venom, but taking care not to swallow the venom

d) Antivenin

e) Splinting the limb and keeping the patient calm to reduce spreading of the venom

9. A 50-year-old man presents to the emergency department with head injury after a road traffic accident. Which of the following is true?

a) A lucid interval is a period of unconsciousness between two periods of full consciousness

b) A Glasgow coma scale of 10 represents a moderate head injury

c) Post-traumatic amnesia of 24 hours indicates a severe head injury

d) Primary damage can be cured but secondary damage is rarely reversed

e) To reduce brain oedema, intravenous fluids should not be given

Use the following information to answer questions 10-13:

Refer to the attached case report 5B, when you meet Mr Majeika, a 50-year-old, otherwise healthy man. He has had an abdominal operation previously. You note the following: he has a nasogastric tube which has drained 100 ml of gastric juices. His BP, temperature and pulse are normal. He has had 500 ml of intravenous saline since theatre. He has not passed urine and is not catheterised. He does not have an urge to pass urine.

10. What is your diagnosis?

a) Insufficient fluid intake

b) Excessive fluid intake

c) Hypovolaemia

d) Renal failure

e) Persistent intestinal obstruction

11. Which type of intravenous fluid would suit him?
- a) Normal saline
 - b) Hartman's or lactated Ringer's solution
 - c) 5% dextrose solution
 - d) Dextran 20
 - e) Fluids should not be given since he is not passing urine

12. What would be your most important recommendation?
- a) Catheterisation
 - b) Intravenous furosemide (Lasix) challenge at 40mg, given slowly
 - c) Intravenous saline 500mL over 30-60 minutes
 - d) 5% dextrose 500mL over 30-60 minutes
 - e) Abdominal ultrasound scan to assess residual urine volume

13. After catheterising the patient, you decide to perform a urine analysis. Which of the following findings would be expected in this patient?
- a) Low urea levels
 - b) Low creatinine levels
 - c) Specific gravity (SG) of 1010
 - d) Urinary sodium 10mmol/L
 - e) Protein casts

Use the following information to answer questions 14-16.

Kiprop is a 30-year-old man admitted to the surgical wards at Kapsabet Hospital with worsening right abdominal pain and vomiting. It woke him up 6hrs previously and now he prefers to remain still to reduce the intensity of the pain. He is otherwise a healthy and fit man. He is very tender in the right lower side of the abdomen.

14. What is the next best action?
- a) Proceed to do an appendicectomy
 - b) Do an abdominal ultrasound or x-ray
 - c) Give antibiotics
 - d) Do Widal or typhoid tests, Brucella test, urinalysis, stool tests and malaria test
 - e) Refer to Kenyatta National Hospital for specialised tests and management
15. While taking consent for appendicectomy, you inform Kiprop about his illness. Which of the following information is true?

- a) All cases of appendicitis progress to perforate if not operated on
 - b) Laparoscopic appendicectomy is better than open appendicectomy
 - c) The commonest complication of appendicectomy is intraabdominal abscess formation
 - d) Not all patients with appendicitis will need antibiotics
 - e) Histology of an obviously inflamed appendix is not necessary
16. During surgery, the appendix was noted to be perforated. Which combination of antibiotics would suit him best?
- a) Amoxicillin/clavulanate, ceftriaxone, ciprofloxacin
 - b) Amoxicillin, cefazolin, metronidazole
 - c) Amoxicillin/clavulanate, gentamicin, metronidazole
 - d) Ceftriaxone, ciprofloxacin
 - e) Ciprofloxacin, gentamicin, amikacin

Wound infection (5-10%) is the commonest post-op complication

- a) Almost invariably undergo malignant change
- b) Occasionally transform into adult type
- c) Are pre-malignant ** No risk of malignant transformation, unless it occurs in Juvenile polyposis syndrome*
- d) Are not associated with pain
- e) Are not associated with rectal bleeding

18. The most common complication of gallstones is

- a) Obstructive jaundice
- b) Acute pancreatitis
- c) Acute cholangitis
- d) Cancer of gallbladder
- e) Cholecystitis *(Acute calculus cystitis)*

Charcot's triad consists of *Cholangitis*

- a) Fever, nausea and vomiting
- b) Pain, nausea and jaundice
- c) Pain, nausea and vomiting
- d) Pain, jaundice and fever *RQO pain + shock + Altered mental status → Reynold's pentad*
- e) Jaundice, fever and vomiting

19. Which is the first-line imaging investigation for suspected gallstones?

- a) MRCP
- b) ERCP
- c) PTC
- d) Ultrasound scan
- e) CT scan

21. Meigs's disease is *inherited dx in which pt develops lymphoedema; onset - puberty*

- a) The familial form is lymphoedema praecox
- b) It is not a familial disease
- c) Caused by filarial worms
- d) Caused by primary lymphoedema
- e) Post axillary surgery lymphoedema of the upper limb

**NOT: Meigs's syndrome = Triad of unilateral pleural effusion + Ascites + Benign ovarian fibroma.*

22. Fournier's gangrene is

- a) A common complication of acute prostatitis
- b) Caused by *Clostridium perfringens*
- c) A complication of gastritis
- d) Preceded by circulatory collapse
- e) Caused by *Bacillus anthracis*

23. Which statement regarding breast cancer is true?

- a) The commonest site of metastases is the contralateral breast
- b) Local spread to the chest wall occurs earlier in male patients than female patients
- c) Klinefelter's syndrome is a predisposing factor
- d) Breast sparing surgery always results in local disease recurrence
- e) There is no role for neo-adjuvant chemotherapy

24. The following signs & symptoms are consistent with acute pancreatitis

- a) Patient writhing in pain and vomiting
- b) Pain initially periumbilical, then moves to right iliac fossa
- c) Rovsing's sign positive
- d) Raised temperature 38.5°C
- e) Tenderness over McBurney's point

Appendix

25. A 45-year-old primary school teacher presents with recent onset hoarseness of voice; examination reveals a hard nodule in her left thyroid lobe and mobile enlarged cervical nodes on the same side. The best test to confirm malignancy is
- FNA cytology
 - Core needle biopsy
 - Perform left lobectomy and subject specimen for histology
 - Radioactive iodine scan
 - Bone scan
26. A 78-year-old diabetic male resident of an old peoples' home is brought to A&E with a 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
- Alzheimer's disease
 - Acute subdural haematoma
 - Chronic subdural haematoma
 - Viral encephalitis
 - Epidural haematoma
27. In patients with cancer of the colon
- Right sided disease initially presents with constipation
 - Haematogenous spread occurs mainly via the inferior vena cava
 - They do not respond to chemotherapy
 - Cancers commonly arise from premalignant adenomatous polyps
 - There is weak familial aetiology
28. In trauma
- Trauma series includes xrays of skull, neck, chest and pelvis
 - CPR is administered at a ratio of 10 compressions for every 2 breaths
 - Raised blood pressure and low pulse rate may indicate intracranial bleeding
 - All patients should have CT scan of the head to rule out intracranial injury
 - A patient who presents with inability to pass urine, but with a small drop of blood seen at the tip of urethra should be catheterised so as to monitor input/output *Symphoric catheter*
29. In trauma, the initial fluid challenge for a patient with circulatory failure is
- 0.5L
 - 1.5L
 - 2.5L
 - 3.5L
 - 4.5L
30. The best position to drain a tension pneumothorax using a wide bore needle is
- Suprasternal area
 - Subcostal area
 - 2nd intercostal space, lateral to the sternum
 - 6th intercostal space, midclavicular line
 - Where the injury is located
31. The following are causes of spinal cord compression EXCEPT
- Tumours
 - Poliomyelitis
 - Vertebral fractures
 - Advanced tuberculosis of the spine
 - Surgery

32. Which part of the joint is primarily involved in rheumatoid arthritis?

- a. Capsule
- b. Tendons
- c. Bone
- d. Meniscus
- e. None of the above

33. Which one of the following fractures is more common in elderly women?

- a. Clavicle
- b. Distal radius
- c. Metacarpals
- d. Shaft of tibia
- e. 5th Metatarsal

34. The following structures commonly get injured following a cut on the volar aspect of the wrist EXCEPT

- a. Palmaris longus
- b. Flexor digitorum superficialis
- c. Flexor digitorum profundus
- d. Median branch of the radial nerve
- e. All of the above

35. Septic arthritis is more common in which age bracket?

- a. 0-2 years
- b. 10-20 years
- c. 20-30 years
- d. 30-45 years
- e. Above 60 years

36. The following modalities are useful in treatment of osteoporosis EXCEPT

- a. Encouraging weight-bearing
- b. Steroid use
- c. Calcium medications
- d. Vitamin D3
- e. Alendronate *Biphosphonate*

37. Following a fracture, the following bone has a tendency to get avascular necrosis

- a. Humerus
- b. Iliac crest
- c. Tibia
- d. Talus
- e. Clavicle

38. The following is a common long term complication of a fracture of the supracondylar region of the humerus in a child

- a. Median nerve injury
- b. Injury to the brachial artery
- c. Compartment syndrome
- d. Gun stock deformity
- e. Avascular necrosis of the scapula bone

39. A 24-year-old patient presents to the Accident and Emergency department with an undisplaced fracture of the tibia shaft. What type of plaster cast would you recommend?
- a. Above knee
 - b. U-slab
 - c. Below knee
 - d. Boot
 - e. Hip spica
40. Which statement is correct regarding treatment of congenital talipes equinovarus?
- a. There is need for a multidisciplinary approach
 - b. Orthopaedic shoes are used
 - c. Treatment should start as soon as the child is born
 - d. The patient needs to be followed up for many years
 - e. All of the above
41. The following are different ways one can treat a fracture of the femur EXCEPT
- a. Skeletal traction
 - b. Intramedullary nail
 - c. Plate and screws
 - d. Plaster of Paris cast
 - e. Firm bandage
42. The leading causative organism in osteomyelitis in a patient with sickle cell disease is
- a. *Salmonella typhi*
 - b. *Staphylococcus aureus*
 - c. *Haemophilus influenzae*
 - d. *Streptococcus pneumoniae*
 - e. *Streptococcus pyogenes*
43. The following are useful treatment modalities in open fracture EXCEPT
- a. Tetanus toxoid
 - b. Antibiotics
 - c. Surgical debridement
 - d. Analgesics
 - e. Early internal fixation (ORIF)
44. Which nerve is commonly involved in carpal tunnel syndrome
- a. Ulnar
 - b. Median
 - c. Radial
 - d. Musculocutaneous
 - e. Anterior interosseous
45. The following are modalities used in the treatment of osteoarthritis EXCEPT
- a. Weight loss
 - b. Walking aids
 - c. NSAIDs
 - d. Antibiotics
 - e. Surgery - osteotomy / arthroplasty
46. Giant cell tumour is more common in the following age group
- a. 0-10 years
 - b. 10-20 years
 - c. 20-40 years
 - d. 50-70 years
 - e. Over 70 years

47. Malignant tumours from the following organ commonly metastasise to the bones

- a. Thyroid
- b. Tongue
- c. Ovaries
- d. Lung
- e. Liver

48. The following are modalities used in the treatment of TB of the spine except

- Surgery
- Anti TB drug
- Thoracolumbar brace

- c. All of the above
- d. None of the above

49. Which pattern of fracture do elderly patients commonly get following a twisting force?

- a. Comminuted
- b. Transverse
- c. Spiral
- d. Oblique
- e. Segmental

50. The following are features of septic arthritis in children except

- a. Swollen joint
- b. Tenderness
- c. Pus on aspiration
- d. Raised ESR

- e. Low CRP ↑

Varus
Adductor
Varus
Equinus - plantar flexion

MULTIPLE CHOICE QUESTIONS

Antero-posterior and rotary stability

- If the anterior cruciate is torn:
 - The tibia moves anteriorly when the anterior drawers test is performed
 - The tibia moves posteriorly when the anterior drawers test is performed
 - The pivot shift test is negative *Complex ligamentous injury, can be positive*
 - Flexion is not possible
 - McMurray test is always positive *meniscal tear (click) - meniscal tear*
- The congenital Talipes Equino varus:
 - The foot is in eversion
 - The foot is swollen and shiny
 - The navicular displaced laterally relative to the talus *- Talus points downwards on its body is rotated outwards in the calcaneus*
 - The foot is in inversion *- Calcaneum is tilted into*
 - The fifth toe touches the shin on eversion of the foot *- Navicular and forefoot sh and rotated into supina*
- Compartment syndrome is likely to occur in:
 - Fractures of the humerus
 - Fractures of the femur
 - Fractures of the tibia *wrist - high risk*
 - Ruptured tendo achilles *forearm of fibia*
 - Fractures of the patella *Foot crush injuries, circumfracture*
- In spinal injury the last reflex to disappear is:
 - Knee jerk
 - Ankle jerk
 - Babinski
 - Biceps jerk
 - Anal reflex *lost to disappear and first to come back*
- In fracture of midshaft humerus, the patient is likely to suffer:
 - Wrist drop *radial n. radial nerve palsy and paralysis of MCP extensors*
 - Ulnar nerve injury
 - Median nerve injury *- tested by active extension of MCP joints*
 - Loss of sensation of the ulna two fingers
 - Humeral circumflex nerve injury
- Which of the following is a stress fracture:
 - Fracture neck of femur
 - Fracture of distal radius
 - Fracture of second metatarsal *metatarsals*
 - Fracture of thoracic vertebra *Distal end of tibia*
 - Fracture of clavicle *Proximal half of tibia*

Order of frequency
 - March fracture of 2nd and 3rd metatarsal heads
 - Mid and distal fibula and fibula fractures in long distance runners
 * Neck of femur
 - Fractures of pubic rami osteoporotic patients

Kids < 4 yrs

7. In sickle cell disease the commonest organism causing osteomyelitis is:
- a. Haemophilus influenzae
 - b. Streptococcus pneumoniae
 - c. Salmonella species typhi ✓
 - d. Streptococcus pyogenes
 - e. Staphylococcus aureus ✓
- * In the West Salmonella most common in SSA & Staph Aureus

8. Which of the following is not a procedure on joints:
- a. Tenodesis ✓ suturing the end of tendon to bone (stabilizes a joint by)
 - b. Arthrolysis - restoring mobility of stiff and ankylosed joints
 - c. Arthroscopy - examination and tx of joint
 - d. Aspiration
 - e. Arthrodesis - fusion of joint

9. The following are features of fat embolism EXCEPT: multiple closed fractures
- a. Hypoxia ✓
 - b. Raised erythrocyte sedimentation rate
 - c. Low platelet count ✓
 - d. Petechial hemorrhages ✓
 - e. Raised serum lipase ✓
- Occurs 1-3 days after trauma. Signs: tachypnea, tachycardia, hypoxia, fever, conjunctival petechiae, petechiae on trunk, axilla, respiratory distress and CO₂ retention.

10. The management of dry gangrene should be:
- a. Emergency amputation of the affected limb
 - b. Guillotine amputation
 - c. Observation until demarcation has occurred before amputation ✓
 - d. Hyperbaric oxygen immersion of the limb
 - e. None of the above
- Due to bone trauma. Distal vascular occlusion. Only for wet gangrene.

11. Osteogenic sarcoma has all the following except:
- a. Elevated alkaline phosphatase
 - b. Codman's triangle
 - c. Predislocation for the ends of long bone
 - d. Metastases through the lymphatics
 - e. Expression of P-glycoprotein → poor predictor
- Typical of children and adolescents: 10-25 yrs. Commonest is red - lower end of femur, upper end of humerus. Signs: pain, swelling, lymph node swelling, haemorrhage, fracture.

12. Fractures of the ankle in an adult should be immobilized in a cast for:
- a. Six weeks ✓
 - b. Four weeks
 - c. Three weeks
 - d. Eight weeks
 - e. Twelve weeks
- partial weight bearing from 3 weeks

Fat emboli criteria		For Embolism Criteria	
Major	Minor	Major	Minor
- Acral petechiae	- Tachycardia > 110	- CNS	- RR > 110
- Hypoxia	- Fever < 38.5	- RESP	- pupal > 25
- CNS depression	- Emboli present on fundoscopy	- Petechial rash	- Renal cholestasis
- Pulmonary edema	- Fat present in urine		- Splenomegaly
- At least 1 major and 1 minor criteria	- Thrombocytopenia or ↓ HCT		- ↓ platelet
	- ↑ ESR		- ↑ BUN
	- Fat globules in sputum		- Fat in urine

(L1)

A To Neuroge
brady
vascular

13. One of the following is a good device for limb lengthening
a. Angle plate
b. Intramedullary nail
c. External fixator of alligator type ✓
d. Dynamic hip screw
e. None of the above
Use of Exo fix
- Stabilising pelvis
- Open fractures
- limb lengthening
e.g. syringomyelia injury of cervic

14. What are the features you mainly get in a central cord syndrome?
a. Weakness in the lower limbs and normal power in the upper limbs
b. Paraplegia
c. Complete quadriplegia
d. More weakness in the upper limbs than the lower limbs ✓
e. Hemiplegia
central of Cervic
Spinal Cord
greater motor impairment
to the variable degrees
injury combination

15. Skull traction is indicated in the following injuries EXCEPT?
a. Thoracic vertebra 4 fracture
b. C4 fracture
c. C4C5 intrafacet dislocation
d. C4C5 bifacet dislocation
e. C3 wedge compression fracture
→ All cervical fractures
landmark 2cm above and
anterior (for posterior fracture)
Posterior fracture
all sub-c
Calculating weight Sky for head
entry subc

16. The following statements about osteomyelitis are true EXCEPT?
a. Infection starts in the diaphysis most of the time ✓
b. Commonly affects children ✓
c. Acute osteomyelitis is mainly treated with medication ✓
d. In infants it easily spreads to the joints ✓
e. Chronic osteomyelitis needs surgical intervention ✓
metaphysis

17. The following are radiological features found in TB spine EXCEPT?
a. Wedge collapse of the vertebra with no disc involvement ✓
b. Psoas shadow → paravertebral abscess
c. Erosion of edges of adjacent vertebra
d. Irregular margins of involved vertebra
e. Loss of height of vertebra
disk involvement
collapsed vertebra
area anteriorly and posteriorly
erosion of adjacent vertebra
and discs
Anterior collapse
vertebral fracture

18. Which of the following is not a feature in acute osteomyelitis:-
a. Periosteal reaction ✓
b. Fever ✓
c. Raised ESR ✓
d. Raised CRP ✓
e. Swelling ✓
acute osteomyelitis
cortico-cortical outline on x-ray

Osteo
osteoma
Chondroma

19. Which of the following is a benign tumour:
- a. Giant cell tumor *Benign, multiloculated giant cells*
 - b. Osteogenic sarcoma
 - c. Ewing's tumor
 - d. Chondrosarcoma
 - e. Fibrosarcoma

20. Which of the following is the commonest joint disease:
- a. Rheumatoid arthritis
 - b. Psoriatic arthritis
 - c. Synovitis
 - d. Reactive arthritis
 - e. Osteoarthritis

21. Which of the following deformity does not occur in congenital talipes equinovarus:
- a. Equinus ankle
 - b. Plantar flexion of foot
 - c. Forefoot adduction
 - d. Valgus foot *varus*
 - e. Inversion of foot *carus dey*

22. The average blood loss in a femur fracture is:
- a. 500mls *humeral 1-2 femur*
 - b. 750mls
 - c. 1000mls
 - d. 1500mls
 - e. 2000mls *pelvis 3-6*

23. Which of the following is not a cause of non-union of fractures:
- a. Infection
 - b. Minor movements *poor apposition*
 - c. Interposition *impaction*
 - d. Poor blood supply *Excess movement*
 - e. Large gap between fragments *Poor local blood supply*

24. Which of the following is not a treatment of non-union:
- a. Electric stimulation
 - b. Bone grafting
 - c. Illizarov apparatus
 - d. Isotopic radioactive calcium scans
 - e. Compression plating of the fragments

Conservative Operative

Conservative: External fixation, Cast fixation w/ type of cast, etc.

Operative: Ilizarov - deformity, Bone grafts packed around site, etc.

CLF: - Interposition, - Poor blood supply, - Large gap between fragments, - Excess movement, - Poor local blood supply, - Local blood supply non-viable, - Impaction, - Distraction, - Antiprothrombinic agents, - Chronic infection.

25. A patient who has the following injuries is classified as a patient with multiple injuries.

- a. Fracture of the skull and subdural haematoma
- b. Fracture of the femur and haemopneumothorax
- c. Fractures of the ribs and haemothorax
- d. Fracture of the femur, tibia and humerus
- e. None of the above

26. In management of hypovolaemic shock one of the following is not indicated

- a. Use of catecholamines
- b. Massive fluid infusion
- c. Central venous pressure monitoring
- d. Urinary catheter
- e. Pulmonary Wedge pressure monitoring

Heart failure

27. One of the following is not a classification of peripheral nerve injury

- a. Neuropraxia *1st degree - possible recovery after a few days*
- b. Axonotmesis *Disruption of axon following closed fracture*
- c. Neurotmesis *Division of the nerve trunk, no recovery*
- d. Wallerian degeneration *Transient ischaemia after nerve compression and tearing part of axonotmesis*
- e. None of the above

28. Which of the following fractures is prone to non-union?

- a. Supracondylar fracture in children's humeri
- b. Supracondylar fracture in children's femora
- c. Scaphoid fracture *water shed or o*
- d. Fracture of the fifth metatarsal
- e. Greenstick fracture of the radius

radius

Brachial art

29. What is the commonest complication of supracondylar fracture of the humerus?

- a. Gunstock deformity *(radial nerve)*
- b. Volkman's ischaemic contracture
- c. Wrist drop *radial nerve*
- d. Myositis ossificans
- e. Cubitus valgus

Median nerve (in supracondylar fracture)

30. Osteoporosis can be assumed if a patient presents with a Bone Mineral Density (BMD) T-score of

- a. Zero
- b. -1
- c. +1
- d. -3
- e. +3

T score: patient's BD compared to @ BD in healthy adult of same sex and age

1 score: patient's BD compared to @ BD in healthy adult of same sex and age is 0

-1 to -2.5 osteopenia

below -2.5 osteoporosis

2 score: No. of standard deviation above or below of what is exp of someone of the patients age, sex, weight, race

below -2 is abnormal bone density

31. Patient who complains of pain in the heel of the foot when he starts to walk in the morning is likely to have
- A bunion
 - Hallux rigidus
 - Plantar fasciitis ✓
 - Pes planus
 - Tarsal tunnel syndrome

32. Which of the following is the commonest cause of infection in the hand
- Staph. aureus ✓
 - Strep. pyogenes
 - E. coli
 - Salmonella typhimurium
 - Clostridium welchii

33. The following is characteristic of ureteric colic secondary to urinary stone.
- The pain intensity is not commensurate with the site and degree of obstruction
 - The impacted ureteral stone may result in the classical loin to groin type of pain ✓
 - The referred pain to the groin is via the iliohypogastric nerve - ilioinguinal nerve
 - During the ureteric pain episode the patient is usually afraid of any movement
 - The PUJ stone impaction may not necessarily be confused with loin muscle spasm

34. A 40 year old man presents with acute intestinal obstruction. Which of the following is the most useful in diagnosing generalized peritonitis?
- Abdominal rigidity ✓
 - Rebound tenderness
 - Effect on the pain after 2 hours of gastrointestinal suction
 - Abdominal x-rays films
 - Elevated white blood cell count

35. The commonest of all post operative complications is
- Wound infection ✓
 - Atelectasis
 - Wound hematoma
 - Pulmonary embolism
 - Urinary tract infection

36. Which of the following is the first event in hemorrhagic shock?
- Constriction of the spleen
 - Constriction of the splanchnic bed
 - Constriction of the peripheral arterioles ✓
 - Increased activity of the vasomotor center
 - Increased excretion of adrenal corticosteroids

↑ formation of angiotensin
 - increase in catecholamines & severe vasoconstriction of vessels
 ↓ increased flow
 ↓ drop in urine output and ↓

1) Skin constriction
 Vasoconstrict of kidney
 Release of NE & E → tachycardia + sweating

Question 37-40

For each of the surgical operations below, select the single most suitable local or regional anaesthetic blockade from the options A to E. Each option may be used once, more than once or not at all.

- a. Interscalene block → Roots or trunks of Brachial plexus in the neck between anterior and middle
 - b. Paravertebral block → Breast surgery, thoracotomy, herniorrhaphy, open cholecystectomy
 - c. Caudal block → Surgery below umbilicus, hernia, lower limb surgery, herniorrhaphy, skin grafts, etc
 - d. Axillary block → Surgery of hand, elbow and forearm, provided axilla is not innervated by lower
 - e. Iliofemoral iliopsoas with field block → surgical procedures involving lower abdomen or inguinal region. Not used for visceral surgery (superficial)
37. Small incision cholecystectomy B → Paravertebral block + unilateral block of a spinal nerve, including dorsal and ventral nerve, on same side
38. Circumcision in a child C C E
39. Shoulder surgery A A → Rotator cuff repair, humerus fractures but not medial aspect of S
40. Inguinal herniorrhaphy E B C

Given the management of an injured patient, for each of the clinical situations described below (41-43) select the single most likely first line of management from the options listed above (A-E). Each option may be used once, more than once or not at all.

- a. Needle thoracocentesis ✓
- b. Tube thoracostomy
- c. A sealed dressing
- d. Thoracoscopy
- e. Arterial

41. A patient with traumatic open pneumothorax with significant hemothorax B B F
42. A patient with the clinical signs of tension pneumothorax A A → Emerged ventilator → To allow re-expansion → prevent further lung collapse
43. A patient with respiratory distress and a sucking wound communication with the pleural space C → positive pressure
44. A 25 year old man with a history of no alcoholic intake has noticeable right gynecomastia since age 20 years. He should be advised to have which of the following:
a. Right mastectomy
b. Observation
c. Needle biopsy of the breast
d. Endocrine workup and right subcutaneous mastectomy ✓
e. Testosterone therapy by transdermal patch ✓

For each numbered item, select the appropriate lettered option. Each lettered option may be selected once, more than once, or not at all. Select the most appropriate option for each case.

Questions 45 through 47

- a. Peritoneal lavage
- b. Wound exploration
- c. Sonogram
- d. Paracentesis
- e. CT with intravenous and oral contrast
- f. IVP
- g. Exploratory laparotomy
- h. Angiogram

DEF
- Several points
- Unexplained shock
- Aortic aneurysm
- Best approach to exam

45. A 16 year old boy presents to the emergency department with a gunshot wound to the abdominal cavity. **GG**

*46. A 60 year old woman presents with a stab wound to the back just above the iliac crest. She is in stable condition. **renal** **E (A)**

47. A 26 year old man presents with a tangential small-caliber gunshot wound of the anterior abdominal wall. **A** **G**

For each numbered item, select the appropriate lettered option. Each lettered option may be selected once, more than once, or not at all. Select the most appropriate option for each case.

Question 48-54

Options (each option may be used once, more than once or not at all)

- a. Heparin
- b. Haemophilus influenza type B vaccine
- c. Clopidogrel
- d. Dextran
- e. Aspirin
- f. N acetylcysteine
- g. Cefuroxime
- h. Meningococcal group C conjugate vaccine
- i. Metronidazole - **Antibiotic**
- j. Tetanus toxoid booster
- k. Gentamicin - **G**
- l. Pneumatic compression
- m. TED stockings
- n. Amoxicillin

Stems

- 48. Thromboprophylaxis prior to surgery *A - heparin*
- 49. Antibiotic prophylaxis pre-thyroid surgery *G - Cefazolin*
- 50. Antibiotic prophylaxis pre-bowel surgery *I - Imipenem*
- 51. Renal protection prior to intravenous contrast *F - methyl*
- 52. Immunization prior to elective splenectomy *B - B*
- 53. Dental procedures in patients with endocarditis or prosthetic heart valve *Amoxicillin*
- 54. Prophylaxis prior to urinary catheterization in the presence of prosthesis *K - K*

55. Features of the systemic inflammatory response syndrome (SIRS) include:
- a. Temp $> 38.4^{\circ}\text{C}$
 - b. Temp $< 35.6^{\circ}\text{C}$
 - c. Wbc $34,000/\text{ml}$
 - d. Respiratory rate $> 20\text{mm}/\text{min}$ ✓
 - e. PaCO₂ $> 32\text{ mm Hg}$

56. In the early assessment and resuscitation of a trauma patient:
- a. Application of tourniquet to control obvious external blood loss from a limb is essential to minimize hypovolaemic shock. ✓
 - b. Airway patency ensures adequate ventilation. *patency*
 - c. A urinary catheter should be inserted if the patient is unconscious. ✓
 - d. A normal lateral cervical spine X-ray excludes a cervical spine injury.
 - e. Nasotracheal intubation should be undertaken in apnoeic patient.

57. In compensated hypovolaemia due to hemorrhage
- a. There is no significant reduction of systemic blood pressure. ✓
 - b. The vital organs are inadequately perfused. ✗
 - c. There will be associated bradycardia. ✗
 - d. The patient may feel thirsty. ✓
 - e. 1000ml of blood may have been lost from the intra-vascular compartment. *< 750 ml*

58. The following feature is associated with early sepsis.
- a. Respiratory acidosis
 - b. Decreased cardiac output
 - c. Hypoglycemia
 - d. Increased arteriovenous oxygen difference
 - e. Cutaneous vasodilation ✓

59. Which of the following inhalation anesthetics accumulates in air-filled cavities during general anesthesia?
- a. Diethyl ether
 - b. Nitrous oxide ✓
 - c. Halothane
 - d. Methoxyflurane
 - e. Trichloroethylene

60. Major alterations in pulmonary function associated with adult respiratory distress syndrome (ARDS) include

- a. Hypoxemia
- b. Increased pulmonary compliance
- c. Increased resting lung volume
- d. Increased functional residual capacity
- e. Decreased dead space ventilation

61. During blood transfusion, clotting of transfused blood is associated with

- a. ABO incompatibility
- b. Minor blood group incompatibility
- c. Rh incompatibility
- d. Transfusion through Ringer's lactate
- e. Transfusion through 5% dextrose and water

62. To prepare for operating on a patient with a bleeding history diagnosed as von Willebrand's disease, you would give

- a. High-purity factor VIII:C concentrates
- b. Low-molecular-weight dextran
- c. Fresh frozen plasma (FFP) *→ No factor VIII*
- d. Cryoprecipitate *→ No factor IX*
- e. Whole blood

*Type I
Type II
Type III*

Desmopressin → von cause hypotension

63. The most commonly injured organ following blunt trauma to the abdomen is?

- a. Liver
- b. Kidney
- c. Spleen
- d. Intestine
- e. Pancreas

64. Appropriate treatment for an acute stable hematoma of the pinna of the ear includes which of the following measures?

- a. Ice packs and prophylactic antibiotics
- b. Excision of the hematoma
- c. Needle aspiration
- d. Incision, drainage, and pressure bandage
- e. Observation alone

65. Fibrocystic disease of the breast has been associated with elevated blood levels of

- a. Testosterone
- b. Progesterone *→ indeed*
- c. Estrogen
- d. Luteinizing hormone
- e. Aldosterone

65. Malignant melanoma is most commonly seen on
- Foot ✓
 - Head ✓
 - Trunk ✓
 - Scrotum
 - None of the above
67. The following is not correct concerning congenital tracheo-esophageal atresia
- Presents prenatally with polyhydramnios.
 - Excessive salivation at birth is a common presentation.
 - Oesophageal stricture is a known complication post operatively.
 - Neonates with birth weights of less than 2000 gms have better prognosis when operated upon ✓
 - A nasogastric tube has no role in the management of these patients.
68. The following is not an indications for colostomy
- Rectal atresia
 - Rectal prolapse ✓ - complication
 - Imperforate anus
 - Sigmoid volvulus
 - Carcinoma of the rectum.
69. The coronary blood flow:-
- Is about 250mls per minute at rest.
 - The oxygen uptake is about 40 mls per minute at rest.
 - Is altered directly by vagal activity.
 - Ceases in systole.
 - Shows autoregulation. ✓
70. Estrogen receptor activity is clinically used in predicting
- The presence of ovarian cancer.
 - The presence of metastatic disease.
 - The response to chemotherapy.
 - Response to hormonal manipulation ✓
 - The likelihood of development of osteoporosis.
71. When galactorrhea occurs in a high school student, which of the following could be a diagnostic finding.
- Gonadal atrophy.
 - Bitemporal hemianopia ✓ pituitary adenoma
 - Exophthalmos and lid lag.
 - Episodic hypertension.
 - "Buffalo hump"

72. A 35 year old woman undergoes her first screening mammogram. Which of the following mammographic findings would require a breast biopsy?

- a. Breast calcification larger than 2mm in diameter.
- b. Five or more clustered breast microcalcifications per square centimeter.
- c. A density that effaces with compression.
- d. Saucer-shaped microcalcifications.
- e. Multiple round well-circumscribed breast densities.

73. The course of papillary carcinoma of the thyroid is best described by which of the following statements?

- a. Metastases are rare, local growth is rapid, erosion into the trachea and large blood vessels is frequent.
- b. Local invasion and metastases almost never occur, which makes the term carcinoma misleading.
- c. Bony metastases are frequent and produce an osteolytic pattern particularly in the vertebrae.
- d. Metastases frequently occur to cervical lymph nodes, distant metastases and local invasion are rare.
- e. Rapid widespread metastatic involvement of the liver, lung and bone marrow results in a 5-year survival rate of approximately 10%.

74. Which of the following statements concerning Anorectal malformation is true?

- a. Imperforate anus affects females more than males.
- b. In 90% of males but only 50% of females, the rectum ends below the level of the levator ani complex.
- c. The rectum usually ends in a blind pouch.
- d. The chance for eventual continence is greater when the rectum lies not descended below the levator ani muscles.
- e. Immediate definitive repair of the anatomic defect is required to maximize the chance of eventual continence.

75. Umbilical hernias 10% of infants

- a. Occur more frequently in white than in black children (B:W = 8:1).
- b. Do not require repair, since they do not tend to strangulate.
- c. Should be repaired by a mesh.
- d. Are usually opened by a vertical incision.
- e. Mayo-in-vest repair is the best method of repair.

76. The commonest cause of esophageal perforation is:-

- a. Penetrating trauma
- b. Post emetic rupture
- c. Carcinoma of the esophagus
- d. Caustic ingestion
- e. Instrumentation

Failure to insert tube correctly

77. Benign strictures of the esophagus may be treated by all of the following EXCEPT;
- a. Bougie dilatation
 - b. Self-expanding metal stent
 - c. Bingham gastroplasty
 - d. Total gastrectomy
 - e. Colon interposition

78. The commonest cause of dysphagia in adults is;
- a. Carcinoma of the esophagus
 - b. Achalasia
 - c. Sliding hiatus hernia
 - d. Paraesophageal hernia
 - e. Esophageal diverticulum

79. There is an increased incidence of carcinoma of the esophagus in all of the following EXCEPT;
- a. Achalasia of the cardia
 - b. Corrosive esophagitis
 - c. Plummer-vinson syndrome
 - d. Mallory-Weiss tear
 - e. Barret's esophagus
- diet*
- Lyost
- BA - bx of gut

80. Hernias through the diaphragm include all of the following EXCEPT;
- a. Bochdalek
 - b. Paraesophageal
 - c. Henry
 - d. Sliding
 - e. Morgagni
- Henry - Ferguson's sigmoid hernia repair*
Morgagni - Right side; 2%

81. A boy of 17 years got injured on the scrotum while playing football. Now he has pain and swelling of left hemiscrotum. At casualty, the most important action to be done will be
- a. Doppler ultrasound of the scrotum
 - b. Sedate the patient and aspirate the haematoma
 - c. Plain X-ray of the pelvis
 - d. Pass catheter and get urine for mid stream specimen of urine
 - e. Sedate and admit to the ward

82. A matoru tout gets involved in a road traffic accident. He is admitted to the ward after failing to pass urine. Plain X-rays of the pelvis show bilateral fracture superior pubic rami. What is the best immediate management.
- a. Fixation of the bony fractures alone
 - b. Catheterisation per urethra after cysto-urethroscopy
 - c. Fixation of cystofix
 - d. Pelvic bone fixation and urethral catheterization
 - e. Exploration and possible urethroplasty
- Suprapubic catheterisation*

83. The most prevalent early complication following enterostomy is:

- a. Catabolism
- b. Fluid & electrolyte imbalance
- c. Excoriation of abdominal skin
- d. Retraction
- e. Protrusion

84. The commonest complication following fashioning of a colostomy is:

- a. Prolapse
- b. Stenosis
- c. Para colostomy abscesses
- d. Retraction
- e. Bleeding

85. Five days postoperative, a middle-aged woman is found to have a serum sodium level of 125 meq/L. Proper management would be:-

- a. Administration of normal saline solution <math>< 11.5</math>
- b. Restriction of free water
- c. Plasma ultrafiltration
- d. Haemodialysis
- e. Aggressive diuresis with furosemide

Handwritten notes:
A E I O Z → ...
e (hypovole) fluid overload

86. Infantile Hypertrophic Pyloric Stenosis: Which of the following statement is true?

- a. Bottle fed babies are more prone to pyloric stenosis
- b. Bile in the vomit excludes pyloric stenosis
- c. Persistent vomiting results ultimately in intra-cellular acidosis.
- d. Balloon dilation is ineffective in infantile pyloric stenosis
- e. Symptomatic pyloric sphincter incompetence is a common problem after pyloromyotomy

87. Abdominal wound dehiscence and incisional hernia. In patient with abdominal wound failure:-

- a. 90% of incisional hernia occur within three years
- b. A transverse incision reduces the incidence of wound dehiscence
- c. Surgical repair of a large incisional hernia with about 20% loss of domain can result in compartment syndrome
- d. Mesh inlay techniques are preferred to on lay techniques
- e. Laparoscopic techniques are contraindicated in the acute situation if bowel ischaemia is probable X

WOUNDS HEALING

88. Which of the following statements is correct?
- a. Collagen content reaches a maximum at approximately 1 week injury → 500
 - b. Monocytes are essential for normal wound healing
 - c. Fibroblasts appear in the wound within 48 hours after injury (appear day 3 days)
 - d. The function of the macrophage in wound healing is limited to phagocytosis of bacteria and debris + Fibroblast regulation
 - e. Early in wound healing, type I collagen is predominant → type 3-1
SM-U
89. A 12-year-old boy arrives with pain and inflammation over the ball of his foot and red streaks extending up to the inner aspect of his leg. The most likely infecting organism is: III → early
- a. *Clostridium perfringens*
 - b. *Clostridium tetani*
 - c. *Staphylococcus*
 - d. *Escherichia coli*
 - e. *Streptococcus*
90. With regard to the above patient, the appropriate antibiotic to prescribe while awaiting specific culture verification is:
- a. Augmentin
 - b. Erythromycin
 - c. Tetracycline
 - d. Azithioprine
 - e. Claxacillin
91. True statement regarding tendon injuries in the hand is:-
- a. Flexor digitorum superficial inserts on the distal phalanx
 - b. Flexor digitorum profundus inserts on the middle phalanx
 - c. The tendons of flexor digitorum superficial arise from a common muscle belly
 - d. The best results for repair of a flexor tendon are obtained with injuries in the fibro-osseous tunnel (zone 2)
 - e. The process of healing a tendon injury involves formation of a tenoma

Questions 92-96

For each numbered item, select the appropriate lettered option. Each lettered option may be selected once, more than once, or not at all. Select the most appropriate option for each case.

- a. Perforated ulcer ✓
- b. Acute appendicitis ✓
- c. Perforation following bowel obstruction ✓
- d. Cholecystitis
- e. Diverticulitis

92. A 35-year-old woman experiences an acute onset of epigastric and right upper quadrant pain several hours after a large dinner. She has had similar episodes in the past that resolved after a few hours. This episode persists, and she has fever and non-bilious vomiting. What is the most likely source of the abdominal pain? **A D**
93. A 60-year-old man with chronic alcoholism awakens at 3:00 am with severe, sharp epigastric pain that 3 hours later becomes diffuse abdominal pain. What is the most likely source of the abdominal pain? **A A - perforated ulcer**
94. A 55-year-old man with a 2-day history of abdominal distention, vomiting, crampy abdominal pain, and obstipation is experiencing severe, diffuse abdominal pain. What is the most likely source of the abdominal pain? **C E**
95. A 22-year-old man awakens with periumbilical abdominal pain followed by non-bilious vomiting. What is the most likely source of the abdominal pain? **B E**
96. A 65-year-old man with a history of chronic constipation has a 3-day history of abdominal distention without a bowel movement. He has fever and abdominal rigidity. What is the most likely source of the abdominal pain? **C**
97. An otherwise healthy 40-year-old man seeks treatment in the emergency department because of haematemesis after a night of binge drinking and retching. Which of the following is true of his condition?
- It is caused by a pulsion diverticulum.
 - Endoscopy should not be performed because of the increased risk for perforation.
 - The bleeding is from an arterial source.
 - Surgical resection is often required.
 - H. pylori** infection is a known risk factor.
98. Which of the following statements is false regarding direct inguinal hernias?
- The most likely cause is destruction of connective tissue as a result of physical stress.
 - Direct hernias should be repaired promptly because of the risk for incarceration.
 - A direct hernia may be a sliding hernia involving a portion of the bladder wall.**
 - A direct hernia may pass through the external inguinal ring.
 - An indirect hernia may be present together with direct hernia.

99. A 25-year-old man sustains burns during a fire in his department. He has blistering and erythema of his extremity. He is hypotensive and tachycardiac. Which of the following statements concerning this patient's initial wound management is correct?

- a. Tropical antibiotics should not be used, as they will encourage growth of resistant organisms. ~~X~~
- b. Early excision of facial and hand burns is especially important. *Lower priority*
- c. Escharotomy should only be performed if neurologic impairment is imminent. ~~X~~
- ~~/~~ d. Excision of areas of 3rd degree or of deep 2nd degree burns usually takes place 3-7 days.
- e. After injury
- f. None of the above

100. True statements regarding squamous cell carcinoma of the lip include:

- ~~/~~ a. The lesion often arises in areas of hyperkeratosis
- b. More than 90% of cases occur on the upper lip. *Lower lip*
- c. The lesion constitutes 30% of all the cancers of the oral cavity.
- d. Radiotherapy is considered appropriate treatment for these lesions.
- e. Initially, metastases are to be the ipsilateral posterior cervical lymph nodes.



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2012/2013

FINAL YEAR EXAMINATION FOR THE DEGREE OF BACHELOR OF
MEDICINE AND BACHELOR OF SURGERY (MBCbB)

PAPER II - MULTIPLE CHOICE QUESTIONS

HMS 300-11/HMS 500-11/HMS 600-12:

DATE: Friday, 26th July, 2013

TIME: 9.00 a.m. - 10.40 a.m.

INSTRUCTIONS:

- Answer ALL questions in the answer sheet provided
- Answer by ticking in the corresponding space in the answer sheet.
- Choose only ONE answer.

MCQ

1. An adult underwent laparotomy for elective cholecystectomy. She was put on nil by mouth and I.V. fluids for 3 days. Which one of the following statement is correct with regards to this patient.
 - a) She requires daily maintenance of I.V. fluids 1.5 L. per day for 3 days.
 - b) She does not require any potassium maintenance for the three days.
 - c) She requires daily maintenance of sodium of 154 mmol per day for 3 days.
 - d) She requires total parenteral nutrition of 2000 Kcal per day for 3 days

2. An adult was admitted with a clinical diagnosis of acute intestinal obstruction. He

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had signs of severe dehydration. His blood pressure was 90/50 mm Hg, and a pulse rate of 130/min. The total amount of I.V. fluids required to correct his dehydration is:

- a) 1.5 L
 - b) 2.5 L
 - c) 4.0 L
 - d) 6.0 L
3. In compensated shock
- a) The pulse rate is normal.
 - b) Systolic BP is below 70 mmHg.
 - c) Skin blood flow is reduced.
 - d) Oliguria is present.
4. In septic (endotoxic) shock, the most likely organism is
- a) *S. aureus*
 - b) *E. coli*
 - c) *N. meningitidis*
 - d) *C. perfringens*
5. A 65 year old man was hit on the head with a broom stick. He sustained a minor bruise on the right parietal region. He was okay for two weeks after which he developed headache, drowsiness, and left side weakness. The most likely diagnosis is
- a) Extradural haematoma
 - b) Sub-dural haematoma
 - c) Intra-cerebral haematoma
 - d) Ruptured aneurysm
6. A CT scan of a baby with congenital hydrocephalus confirmed a non

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communicating hydrocephalus. Both the lateral ventricles were dilated. The most likely point of obstruction is:

- a) Aqueduct of sylvia.
- b) Foramen of monro
- c) Foramen of Luschka
- d) Foramen of magedie

7. A 50 year old male presented with a spontaneous ulcer on the (left) medial lower leg for 6 months. It was a large ulcer (5cm x 5cm), circular with smooth sloping edges. The most likely clinical diagnosis is

- a) Diabetic ulcer
- b) Arterial (ischemic) ulcer
- c) Venous ulcer
- d) Malignant ulcer

8. Malignant skin ulcers are characterized by:

- a) Undermined edge.
- b) Sloping edge.
- c) Everted edge.
- d) Vertical edge.

9. 35 year old female presented with an anterior lower neck swelling which was painful and moderately tender. It moved with swallowing. The most likely diagnosis is:-

- a) Malignant goiter
- b) Toxic goiter
- c) Inflammatory goiter
- d) Simple goiter

10. A 60 year old male presented with a small goiter for two months. He had

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hoarseness without dysphagia or airway obstruction. The trachea was central.

The most likely diagnosis is:

- a) Malignant goiter
- b) Toxic goiter
- c) Simple goiter
- d) Inflammatory goiter

11. A 50 year old lady presented with non progressive dysphagia for 3 years.

Surprisingly, her dysphagia was worse with liquids than solids. Barium swallow showed a constriction at the lower esophagus. The likely diagnosis is:

- a) Cancer of the lower third of esophagus
- b) Stricture lower third of esophagus
- c) Achalasia cardia
- d) Barret's esophagus

12. A gangster woman was shot in the chest with a rifle at 10 metres range. There was an entry wound on the right anterior chest and an exit wound on the right posterior chest. Both wounds were at the level of 4th rib. A chest tube was inserted. On the 3rd day there was no expansion of the right lung. The next course of action is:

- a) To change the chest tube
- b) Start chest physiotherapy by balloon inflation
- c) Needle thoracocentesis in the right 2nd intercostal
- d) Thoracotomy

13. A 25 year old Chinese worker who migrated to Kenya recently to work with Thika Highway project developed jaundice, pale stool, dark urine and pruritus. The most likely cause of this condition in this patient is:

- a) Gallstones
- b) Cancer Pancreas
- c) Cholangiocarcinoma

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d) Clonorchis sinensis

14. A 40 year old female has obstructive jaundice clinically. The imaging investigation of first choice is:

- a) CT scan.
- b) MRI scan.
- c) U/S scan.
- d) ERCP.

15. A 35 year old male was diagnosed with acute appendicitis. He had symptoms for six days before coming to the hospital. He had a fever of 38°C . On palpation, he had a tender mass of 10 x 10 cm in the right iliac fossa. The treatment of choice is:

- a) Immediate appendicectomy
- b) Orschner-shellen regime
- c) Immediate laparotomy
- d) Immediate drainage of abscess

16. In a direct inguinal hernia, the abdominal wall defect is found in the:

- a) Internal inguinal ring.
- b) External inguinal ring.
- c) Anterior wall of inguinal canal.
- d) Posterior wall of inguinal canal.

17. A 5 year old girl has an uncomplicated umbilical hernia. The best advice to the parents is:

- a) Support hernia with truss belt using a coin.
- b) It will close spontaneously on its own.
- c) Elective hernia repair
- d) Keep a close surveillance on her and rush her to the hospital if it incarcerates.

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18. A 4 weeks old baby presented with projectile non bilious vomiting after feeds for 2 weeks. The growth chart showed poor weight gain. Visible peristalsis was observed in the upper abdomen. The most likely diagnosis is:
- Neonatal intestinal obstruction
 - Congenital hypertrophic pyloric stenosis
 - Duodenal atresia
 - Esophageal atresia
19. A 45 year old male complains of recurrent burning upper abdominal pain which is made worse by hunger, alcohol and relieved by milk and other snacks. The diagnosis is best confirmed by:
- Basal acid secretion studies
 - Serum gastrin assays
 - Barium meal and follow through
 - Upper IT endoscopy
20. A 58 year old had partial gastrectomy (Bilroth II) for peptic ulcer. Two weeks later he developed attacks of sweating, weakness, fainting attacks with hypotension. These attacks occurred 30 min – 1 hour after meals. This post gastrectomy complication is called:
- Small stomach syndrome
 - Early dumping syndrome
 - Late dumping syndrome
 - Blind loop syndrome
21. Regarding surgical suture materials, the following statement is true:
- Vicryl (polyglactin) elicits more tissue reaction than catgut
 - Catgut is made from submucosa of cat's bowels.
 - Prolene has a high suture – memory.
 - Mersilk is a monofilament derivative of silkworm larva.

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22. The following statement is true regarding acute appendicitis:
- a) Ultrasonography is the imaging modality of choice
 - b) Migrating pain is scored 2 points in Alvarado score.
 - c) Risk is high with high fiber diets.
 - d) Obturator sign is positive when hip flexion and medial rotation elicits pain
23. Pathological conditions associated with neonatal jaundice
- a) Caroli's disease is characterized by extrahepatic bile duct dilatations
 - b) Anomalous pancreaticobiliary junction predisposes to choledochal cysts.
 - c) Alkaline phosphatase is elevated in polycystic liver disease
 - d) Choledochal cysts lack communication to the biliary duct system
24. Hirschsprung's aganglionic megacolon
- a) Affects females more than males
 - b) Hard fecal masses are felt in the Rectum
 - c) Most lesions occur in the Distal colon
 - d) Acetyl cholinestense activity is decreased in the affected segment
25. Splenectomy is absolutely indicted in
- a) Hodgkin's disease
 - b) Splenic abscess
 - c) Splenic laceraton
 - d) Heretitary spherocytosis
26. Premalignant colorectal pathologies include all **Except**:
- a) Lynch syndrome
 - b) Ulcerative colitis
 - c) Ureterosigmoidostomy
 - d) Peutz-Jegher's syndrome

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27. In regard to colonic polyps it is True that:
- Harmatomatous polyps are premalignant
 - Villous polyps have a higher malignancy potential than tubular polyps
 - Polyp size is inversely related to malignancy risk
 - Familial adenomatous polyposis (FAP) is associated with carcinoma in the elderly
28. A positive Diagnostic peritoneal lavage (DPL) is characterized by all Except:
- A Red cell count $> 10^5/cc$
 - A White cell count $> 200/cc$
 - Amylase level $> 175u/dl$.
 - Vegetative matter in the aspirate
29. A $T_3N_2M_x$ colonic adenocarcinoma implies
- Lymph node involvement is limited to nodes along the main feeding arteries
 - Tumor invades structures adjacent to peritonealised colon
 - Only pericolic nodes are involved
 - Tumor has microscopic hematogenous metastasis
30. Prostatic adenocarcinoma
- Is resected through a transvesical suprapubic prostatectomy
 - Is diagnosed when PSA exceeds $4ng/ml$
 - Radical prostatectomy is indicated when patients have raised Alkaline Phosphatase
 - Stage T3 extends to seminal vesicles or bladder
31. Marjolin's ulcers
- Routinely send early secondary deposits to regional nodes
 - Are common in arterial occlusive disease
 - Are relatively painless

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- d) Are sensitive to low dose radiotherapy
32. In assessing the severity of burn injuries
- a) 1st degree burns heal with a pale scar
 - b) Inhalational injuries could manifest after several days
 - c) 3rd degree burns appear red and wet
 - d) Half the fluids required is given in 6 hours
33. The catabolic phase in trauma is associated with:
- a) Increased Triiodothyronin
 - b) Depressed catecholamines
 - c) Increased insulin
 - d) Increased cortisol
34. In regard to electrical burns
- a) Parkland's formula is accurate in estimating fluid needs
 - b) Alternating current is more dangerous than direct current
 - c) Bones are better electrical conductors than nerves
 - d) Myoglobin release aggravates cardiac and respiratory failure
35. Amoebic liver abscess
- a) Is a primary liver infection
 - b) Commonly affects the left lobe
 - c) Affects males more than females
 - d) Cyst aspirate is pale yellow in colour
36. When examining the Anal canal
- a) The surgical anal canal extends below the dentate line
 - b) The internal sphincter is composed of longitudinal smooth muscles
 - c) 90% of anal fissures are posteriorly located
 - d) Primary hemorrhoids are found at 3, 6 and 12 o'clock in lithotomy

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position

37. Acute pancreatitis is associated with the following except:
- a) Furosemide
 - b) Hypoparathyroidism
 - c) Pancrease divisum
 - d) Burns
38. In management of varicose veins
- a) Trendelenburg test distinguishes superficial venous reflux from deep venous incompetence
 - b) Pain in varicose veins increases on walking
 - c) The greater saphenous vein has 3 valves
 - d) Stripping may be done in patients with deep vein thrombosis
39. In calculating nutritional needs following major abdominal surgery, the following is incorrect:
- a) Average protein requirement is 1g/kg/day
 - b) Parenteral feeds can be administered through a percutaneous endoscopic gastrostomy (PEG)
 - c) 1 g of glucose provides 4 kilocalories
 - d) 1 g of fat provides 9 kilocalories
40. In Benign Prostatic hyperplasia
- a) Begins in the periphery of the gland
 - b) Alpha blockers act on the epithelium
 - c) Is a cause of incontinence in elderly men
 - d) Finasteride relaxes bladder neck muscles
41. Following assault, a man is able to make a fist but unable to extend the ipsilateral wrist. The most likely reason is:

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- a) Brachial plexus injury
 - b) Lunate dislocation
 - c) Injury to the radial nerve
 - d) Global neuropraxia
42. The knee extensor mechanism comprises the following:
- a) The Biceps femoris, the Biceps tendon, the patella and the patella tendon.
 - b) The rectus femoris, the extensor tendon, the patella and the patella tendon
 - c) The anterior hamstrings, the quadriceps tendon and the patella
 - d) The patella tendon, the quadriceps tendon, the quadriceps muscles and the patella
43. Polydactyl
- a) Is a special form of syndactyly.
 - b) Refers to the presence of extra digits
 - c) Is the same as multiple dactylitis .
 - d) Is due to drug ingestion by the mother in early pregnancy
44. Ortolanis test is a test for:
- a) Perthes disease
 - b) Coxa vara
 - c) Developmental dysplasia of the hip
 - d) Malrotation of the hip
45. Genu valgus is
- a) Angulation at the knee apex medial
 - b) Excessive external rotation at the knee
 - c) Is a serious congenital deformity
 - d) Means bowing of the knees open lateral

46. A complete division (cut) of the nerve is known as:
- a) Axonotemesis
 - b) Neurotenresis
 - c) Neuropraxia
 - d) Neurolysis
47. Acute osteomyelitis
- a) Is a common sequela of sickle cell disease
 - b) is commoner among the people of the lower socio economic status
 - c) Is best treated by complete rest and penicillin
 - d) Is most common following wounds
48. The most critical action in treating acute septic arthritis is
- a) An urgent blood culture
 - b) Joint aspiration for microscopy, culture and sensitivity
 - c) Splinting and resting the affected joint
 - d) Urgent arthrotomy and adequate joint lavage
49. The most common benign bone tumor is
- a) The osteoid osteoma
 - b) The osteoblastoma
 - c) The giant cell tumor
 - d) The osteochondroma
50. Quite often, the first signs of malignant bone tumor is
- a) Fever and bone pain at night
 - b) Bone fracture following mild injury
 - c) Bone sclerosis seen on plain X-ray with soft tissue swelling
 - d) Osteoporosis as seen on X-ray.

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- 51. The blood clot at a fracture site
 - a) Strips off the periosteum and retards bone healing
 - b) Should be evacuated early to hasten fracture healing
 - c) Is the beginning of healing by forming the fibrin mesh
 - d) Is a good bacterial culture media and predisposes the patient to infections

- 52. A vascular necrosis of the femoral head is a common sequelae of
 - a) Femoral intertrochanteric fracture
 - b) Severe degenerative arthritis of the hip
 - c) Dynamic hip screw fixation of the hip
 - d) Displaced fractures of the femoral neck

- 53. Fractures of the femoral neck in the elderly
 - a) Are too porotic to fix
 - b) Should have a dynamic hip screw fixation done
 - c) Are best managed by a hip replacement
 - d) Heal satisfactorily with adequate traction

- 54. A supracondylar fracture of the femur is best managed by
 - a) Skeletal traction
 - b) The K nail
 - c) Long leg cast
 - d) Open reduction and angle plating

- 55. Pelvic fractures are potentially dangerous
 - a) Because the pelvis protects vital organs
 - b) As they cause severe bladder and urethral injuries
 - c) Due to the residual pelvic tilt and leg length discrepancy
 - d) Because there is great potential for massive hemorrhage

- 56. Locked intramedullary nailing of femoral fractures

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- a) Must be done in all femoral fractures
 - b) Has no complications as the nail is locked at both ends
 - c) Gives rotational stability and preserves length
 - d) Increases the speed of bone healing
57. Recurrent shoulder dislocation
- a) Is commonest in the elderly weak patient
 - b) Is managed by closed reduction and use of a sling for 6 weeks
 - c) Is most prevalent among the young
 - d) Has poor prognosis even following surgery
58. Log rolling must be done.
- a) For all patients with severe fractures
 - b) In all patients with multiple injuries
 - c) In the unconscious patients only
 - d) With two people, one person taking control of the head and the other at the feet
59. Cubitus valgus/varus deformity
- a) Fractures of the olecranon
 - b) Humerus shaft fractures
 - c) Elbow dislocation
 - d) Supracondylar humeral fractures.
60. The painful arc syndrome is
- a) A sign of shoulder osteoarthritis
 - b) An early sign of the frozen shoulder
 - c) Due to impingement of the rotator cuff at the shoulder
 - d) Because of calcification of the deltoid muscle

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61. Which ones are the most common pathogens in acute Otitis Externa
- a) P. aeruginosa and S. aureus
 - b) Proteus mirabilis and S. aureus
 - c) Strep pneumonia and P. aeruginosa
 - d) Strep pneumonia and Proteus mirabilis
62. Which one is not an indication for adenoidectomy
- a) Otitis media with Effusion
 - b) Sleep disturbance
 - c) Cor pulmonale
 - d) Snoring a lot
63. Which one is true concerning Epistaxis
- a) Hypertension is a very important cause
 - b) HIV infected patients suffer more than HIV negative patients
 - c) Coagulation profile should always be done
 - d) It is usually not serious in the elderly
64. Which of the following is false concerning foreign bodies in ENT
- a) Keratosis obturans can present as ear wax
 - b) In unilateral nasal discharge in a child should be considered a foreign body
 - c) Batteries may present with electrolyte challenges
 - d) CXR is not important in foreign bodies in the esophagus
65. Which of the following statements is false?
- a) Rhinitis medicamentosa is a sequel of oxymetazolin
 - b) Intranasal steroids is the mainstay of allergic Rhinitis treatment
 - c) Allergic Rhinitis always worsen in pregnancy
 - d) Immunotherapy causes decline in IgE antibodies

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66. Which are in false concerning unilateral tonsillar enlargement.
- a) Most often is due to asymmetric anatomical position of same sized tonsils.
 - b) A short course of antibiotic will sort out the problem
 - c) Can be from unusual infections like actinomycosis
 - d) Neoplasia is important
67. Which one is not a common complication of Foreign Body in the esophagus
- a) Perforation
 - b) Fistula
 - c) Mediastinitis
 - d) Hematemesis
68. Concerning HIV infection which one is not true.
- a) Kaposi sarcoma is a common tumor on head and neck caused by Herpes Simplex Virus.
 - b) Kaposi's sarcoma are pink-purplish lesions which responds well to Antiretroviral therapy HAART
 - c) Kaposi sarcoma is the most common oral malignancy
 - d) Kaposi sarcoma can cause upper airway obstruction
69. Concerning the management of metastatic neck disease, which is the least Important
- a) Knowledge of levels of lymphatic drainage helps in predicting the Primary disease
 - b) Panendoscopy targeting suspected areas
 - c) Unilateral Otitis media effusion in a 40 year old female necessitates for nasopharyngoscopy
 - d) Knowledge of childhood neck swellings especially if it is episodic

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70. In Rhinosinusitis, which one is false
- a) Oteomeatal complex comprises the Bullae Ethmoidalis, uncinata process and middle turbinate
 - b) Mucocilliary clearance is dependent on good aeration and mucous consistency
 - c) Facial pain and hyposmia is diagnostic
 - d) Paranasal sinus X-Rays are an integral part of the work up because it shows air-fluid levels and mucosal thickening.
71. In radiation, ALARA stands for:
- a) As Low as Responsibly Acceptable
 - b) Alarm Loss Activated Radiation
 - c) As Low As Reasonably Achievable
 - d) As Low As Reasonably Attenuated
72. Piezzo electric crystals are made use in:
- a) MRI
 - b) Ultrasound
 - c) Computed Tomography
 - d) Radionuclide studies
73. The following statement is true about radiographic features in intestinal obstruction
- a) The ileum has regularly placed valvulae conniventes
 - b) The caecum has characteristic haustrations
 - c) Sigmoid volvulus appears as an inverted U tube
 - d) Perforation is identified on a plain AP view
74. Phlebography refers to the contrast examination of which of the following?
- a) Arteries
 - b) Lymphatics

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- c) Pulmonary vessels
d) Veins
75. Which imaging method is best for staging esophageal carcinoma? 80.
- a) Barium study
b) Endoscopic Sonography
c) Position electron tomography
d) Mediastinoscopy 81.
76. Decubitus chest view is most useful in diagnosing
- a) Middle lobe consolidation
b) Pleural effusion
c) Pneumothorax
d) Ascites 82.
77. X-ray finding of Osteomyelitis within day 8 is:
- a) Soft tissue swelling
b) Periosteal reaction
c) Cystic swelling
d) Sequestrum formation 83.
78. The atomic number is a measure of:
- a) Proton
b) Electrons + Protons
c) Neutron
d) Proton + Neutron 84.
79. Which of the following modalities does not use a form of ionizing radiation:
- a) Computed Tomography
b) Sonography

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- c) Tomosynthesis
 - d) Positron Emission Tomography
80. All are true about benign calcification seen in mammography Except:
- a) Often bilateral and involves multiple quadrants
 - b) Calcification tends to be round or oval
 - c) Calcification are often of similar densities
 - d) Calcification are typically variable in densities
81. Which one is not true about the eyelids
- a) They possess an average two rows of eye lashes
 - b) They have muscle orbicularis oculi that is responsible for lid opening
 - c) They aid in flow of tears
 - d) Drooping may occur due to 3rd nerve palsy
82. The cornea:-
- a) Has multiple fine blood vessels
 - b) Has no sensory nerve endings
 - c) Is the main refractory media of the eye
 - d) The aqueous humor supplies it with nourishment
83. The following form part of the orbital content
- a) Ethmoidal sinus
 - b) Naso-lacrimal ducts
 - c) Optic chiasm
 - d) Ciliary ganglion
84. The following is an endemic cause of blindness
- a) Ophthalmia Neonatorum
 - b) Trachoma
 - c) Adenovirus conjunctivitis

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- d) Glaucoma
85. Following may cause strabismus except
- a) Oculomotor palsy
 - b) Thyroid eye disease
 - c) Fifth nerve palsy
 - d) Abducence palsy
86. Which one is false about retinoblastoma
- a) May present with strabismus
 - b) Leucocoria is the commonest presentation
 - c) Is a tumor of the elderly
 - d) Its peak age of presentation is 2½ years
87. Presbyopia occurs due to
- a) Loss of cornea smoothness
 - b) Loss of lens elasticity
 - c) Retinal degeneration
 - d) Loss of cornea elasticity
88. Ophthalmia neonatorum
- a) Is preventable by measles vaccination
 - b) Causes blindness due to retinal disease
 - c) Is preventable by use of prophylactic antibiotics
 - d) May cause blindness due to cataract formation
89. Which one is false about the visual pathway
- a) The optic nerve forms synapse at the lateral geniculate body
 - b) The nasal fibres of the retina cross over at the optic chiasm
 - c) The visual cortex is found at the frontal lobe

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d) Homonymous Hemianopia occurs due to unilateral injury at the optic radiations

90. Following are features of allergic conjunctivitis except:

- a) Irregular pupil
- b) Conjunctiva papilla
- c) Conjunctiva pigmentation
- d) Limbal infiltration

91. Volatile anaesthetic agents commonly used during anaesthesia include:

- a) Suxamethonium
- b) Chloroform
- c) Halothane
- d) Curare

92. Regarding intravenous anaesthetic agents, which statement is true?

- a) IV induction agents inhibit GABA – mediated neuronal transmission
- b) Rapid awakening of the patient after a few minutes is due to metabolism and excretion of the IV induction agent rather than redistribution of the drug
- c) Intravenous induction agents are metabolized in the liver
- d) Only barbiturates are contra – indicated in porphyria

93. Concerning inhalational anaesthetic agents, which statement is true?

- a) Halothane is colour coded red
- b) Halothane is highly flammable
- c) Isoflurane is contra-indicated in neuro anaesthesia
- d) Sevoflurane is best avoided during induction due to its irritant effect on the airway

INVOLVEMENT IN ANY EXAMINATION IRREGULARITY SHALL LEAD TO DISCONTINUATION

94. Which of the following statement is true?
- a) ASA class I status indicates a normal healthy individual
 - b) In ASA classification, the letter E is applied if the operation is an elective procedure
 - c) Routine premedication includes Atropine 6mg intramuscular
 - d) Elective surgery must be done within 24 hours
95. Which statement is false about regional anaesthesia?
- a) Patients are usually awake
 - b) Patient refusal is a contra indication
 - c) It is generally safe to do a spinal anaesthesia in a patient with a coagulopathy
 - d) It is cheaper than general anaesthesia
96. Which of the following statements is true?
- a) Colloids include Haemacel and 0.9% saline
 - b) Ringer's Lactate is a crystalloid
 - c) Normal saline is a colloid
 - d) Dextran is usually the initial fluid given during resuscitation of a hypertensive patient
97. Which of the following is not a recognized hazard in the operating room?
- a) Transmission of infection
 - b) Electrocutation
 - c) Gas explosion from a mixture of oxygen, nitrous oxide and halothane
 - d) Atmospheric pollution
98. What does induction of anaesthesia involve?
- a) Administration of neostigmine with atropine
 - b) Introduction of the anaesthesia subject
 - c) Rendering the patient unconscious and insensitive to pain

99.

100.

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d) Discussing the anaesthesia with the patient

99. Choose the false statement concerning pain,

- a) Pain is whatever the experiencing person says it is
- b) Its highly subjective leading to under-treatment
- c) Chronic pain is pain lasting more than 2 weeks
- d) It is unpleasant sensory and emotional experience

100. Important basic processes involved in pain sensation do not include:

- a) Transmission
- b) Modulation
- c) Transduction
- d) Amplification

* A young couple gives birth to a 2.5 kg female baby with a complete left cleft lip and palate. There is a positive family history of cleft lip on the mother's side.

- a) What is the embryological basis of this defect?
- b) What would you advise this couple about the timing of repair of this defect?
- c) List four complications of cleft lip surgery.

5. A 60 years old man presents with thinning of the urinary stream, hesitancy, urgency and nocturia. Digital rectal examination shows a smooth uniformly enlarged prostate gland.

- a) Briefly outline the possible causes of his symptomatology.
- b) Outline your investigations in order to prove significant obstruction.
- c) What are the treatment options that you are going to offer this patient?

6. Make Short notes on all of the following

- a) The causes of fractures of the neck of the femur in elderly patients.
- b) Classify fractures of the neck of the femur.
- c) Briefly mention the indications for conservative, and operative management of the same.

d) Discuss complications associated with this fracture

- 1. AVN
- 2. Late OA
- 3. Displaced and rephrased
- 4. Lesser limb TEU
- 5.

1) An 18-year old man is admitted to the emergency room following a motorcycle accident. He is alert and fully oriented, but witnesses to the accident report an interval of unresponsiveness following the injury. Skull films disclose a fracture of the left temporal bone. Following x-ray, the patient suddenly loses consciousness and dilation of the left pupil is noted. This patient should be considered to have:-

- a. Ruptured berry aneurysm
- b. Acute subdural haematoma
- c. Epidural haematoma
- d. Intra-abdominal haemorrhage
- e. Ruptured arteriovenous malformation

2. Dash board fracture is associated with: -> Tibial plateau, patella, post dislocation

- a. The elbow
- b. The ankle
- c. The patella
- d. The second metatarsal
- e. The fifth metatarsal

3. Volkmann's ischemic contracture is associated with:-

- a. Inter-trochanteric femora fracture
- b. Supra-condylar fracture of the humerus
- c. Posterior dislocation of the knee
- d. Traumatic shoulder separation
- e. Colles "silver fork" fracture

4. The most severe epiphyseal growth disturbance is likely to result from which of the following types of fracture?

- a. Fracture dislocation of a joint adjacent to an epiphysis
- b. Fracture through the articular cartilage extending into the epiphysis
- c. Transverse fracture of the bone shaft on the metaphyseal side of the epiphysis
- d. Separation of the epiphysis at the diaphyseal side of the growth plate
- e. Crushing injury compressing the growth plate

5) Which of the following statements is true regarding the thoracic outlet syndrome?

- a. It is associated with cervical spine disc disease
- b. It is reliably diagnosed by positional obliteration of the radial pulse
- c. If conservative measures fail, it is best treated by surgical decompression of the brachial plexus
- d. It most commonly affects the median nerve
- e. It can be reliably ruled out by angiography

Rx is by surgical decompression, dividing the inf fibrous band or removing the cervical rib

* this infection predisposes infants to intussusception
 Definitive diagnosis is made by rectal biopsy: 1. Mucosal biopsy
 2. full thickness biopsy

6. Regarding the ocular features of tuberculosis, one of the following is ~~not~~ true:
- a. Most of the lesions are immune-related ✓
 - b. Uveitis is the most common manifestation ✓
 - c. Phlyctenulosis (Phlyctenular keratoconjunctivitis) has allergic origin ✓
 - d. Primary infective keratitis is rare ✓
 - e. Uveitis in these patients responds well to steroids ✓

7. Correct statements concerning intussusception in infant include which of the following:
- a. Recurrence rates following treatment are high ✓ *low* *3-5%* *parvovirus, rotavirus, hypoxylar*
 - b. It is frequently preceded by a gastrointestinal viral illness. *esp. in children* ✓
 - c. A one to two week period of parenteral alimentation should precede surgical reduction when surgery is required. ✓
 - d. Hydrostatic reduction without surgery rarely provides successful treatment ✓
 - e. The most common type occurs at the junction of the descending colon and the sigmoid colon. *most are ileocolic* ✓

clear evening
 goes good
 result
 lower frequency
 reduction

Risk factors: Alcohol, smoking,
 Achalasia, Plummer-vinson syndrome,
 Diet ↓ A ↑ C, nitrosamine exposure,
 obesity, reflux esophagitis,
 Barrett's esophagus
 Site: 50% middle
 Proximal (squamous cell)
 Distal (adenocarcinoma)

8. Which of the following statements concerning carcinoma of the oesophagus is true?
- a. Alcohol has been implicated as a precipitating factor ✓ *upper 2/3*
 - b. Squamous carcinoma is the most common type at the cardio-oesophageal junction ✓ *adenocarcinoma*
 - c. It has a higher incidence in males ✓ *more in males than females*
 - d. It occurs more commonly in patients with corrosive esophagitis ✓
 - e. Surgical excision is the only effective treatment. *Investigation: Esophagectomy with*

✓ Characterized by absence of ganglion cells in distal colon
 ✓ Considered in any newborn fails to pass meconium within 24-48 hrs of birth

9. Which of the following statements concerning Hirschsprung's disease is true?
- a. It is initially treated by colostomy ✓ *surgical* *Caecostomy, colostomy, colectomy*
 - b. It is best diagnosed in the newborn period by barium enema ✓ *full thickness*
 - c. It is characterized by the absence of ganglion cells in the transverse colon ✓ *Biopsy*
 - d. It is associated with a high incidence of genitourinary tract anomalies ✓ *distal colon*
 - e. It is the congenital disease that most commonly leads to subsequent faecal incontinence ✓

high levels
 of cortisol
 produced due
 to a tumor

10. The most likely diagnosis in a patient with hypertension, hypokalaemia and a 7-cm supra-renal mass is:-
- a. Hypernephroma - renal cell carcinoma ✓ *renal cell carcinoma*
 - b. Cushing's disease - pituitary adenoma ✓ *SupraRenal Mass*
 - c. Adrenocortical carcinoma ✓ *Pseudocyst*
 - d. Pheochromocytoma ✓ *Adrenal myelolipoma*
 - e. Carcinoid tumour ✓ *Neuroblastoma*

Adrenal cortex (zona glomerulosa) releases aldosterone
 ↑ Na⁺ & water retention & causes hypok

teratoma
 adrenal cortical carcinoma

H9. Definitive diagnosis is by full thickness rectal biopsy
 known to have met...
 (circle)

Which statement about transmission of HIV in the health care setting is true?

- a. A freshly prepared solution of dilute chlorine bleach will not adequately decontaminate clothing
- b. All needles should be capped immediately after use
- c. Cuts and other open skin wounds are believed to act as portals of entry for HIV
- d. Double gloving reduces the risk of intra-operative needle sticks
- e. The risk of seroconversion following a needle stick with a contaminated needle is greater for HIV than for hepatitis B

Response to shock includes which of the following metabolic effects?

- a. Increase in sodium and water excretion ~~x~~ - increased retention
- b. Increase in renal perfusion ~~x~~ - decreased renal perfusion
- c. Decrease in cortisol levels ~~x~~
- d. Hyperkalaemia
- e. Hypoglycaemia

Which of the following fractures or dislocations of the extremities induced by blunt trauma is associated with significant vascular injuries?

- a. Knee dislocation ~~x~~
- b. Closed posterior elbow dislocation ✓
- c. Mid-clavicular fracture ~~x~~
- d. Supra-condylar femoral fracture
- e. Tibial plateau fracture ~~x~~

Regarding high-voltage electrical burns to an extremity:-

- a. Injuries are generally more superficial than those of thermal burns ~~x~~ - full thickness
- b. Intravenous fluid replacement is based on the percentage of body surface area burned ✓
- c. Antibiotic prophylaxis is not required ~~x~~
- d. Evaluation for fracture of the other extremities and visceral injury is indicated
- e. Cardiac conduction abnormalities are unlikely ~~x~~ - likely

A 31-year old man is brought to the emergency room following an automobile accident in which his chest struck the steering wheel. Examination reveals stable vital signs, but the patient exhibits multiple palpable rib fractures and paradoxical movement of the right side of the chest. Chest x-ray shows no evidence of pneumothorax or haemothorax, but a large pulmonary contusion is developing. Proper treatment would consist of which of the following?

- a. Tracheostomy, mechanical ventilation and positive end-expiratory pressure
- b. Stabilization of the chest wall with sandbags ✓
- c. Stabilization with towel clips ✓
- d. Immediate operative stabilization
- e. No treatment unless signs of respiratory distress develop

O₂
Analgesia
physio
Ventilate if developing
resp failure despite
analgesia & O₂

Wound
and wound
healing

16. Which of the following cases is considered a clean contaminated wound? - upper GI tract + hepatobiliary
- a. Open cholecystectomy for cholelithiasis - Clean contaminated
 - b. Hemiorrhaphy with mesh repair - contaminated clean
 - c. Laparotomy with axillary node dissection - infected
 - d. Appendectomy with walled-off abscess - infected
 - e. Gunshot wound to the abdomen with injuries to the small bowel and sigmoid colon - contaminated

2nd 3rd of 4th

17. In performing a tracheostomy, authorities agree that:
- a. The strap muscles should be divided
 - b. The thyroid isthmus should be preserved - no regard to two glomus in each way
 - c. The trachea should be entered at the second or third cartilaginous ring - vertical incision
 - d. Only horizontal incisions should be used - vertical incision
 - e. Normal tracheostomy is preferred to cricothyroidotomy as an emergency procedure - not difficult

18. During blood transfusion, clotting of transfused blood is associated with:
- a. ABO incompatibility - not difficult
 - b. Minor blood group incompatibility - more preferred, full body
 - c. Rhesus incompatibility - calcium containing solution
 - d. Transfusion through Ringer's lactate - through 10 litre xxx hypotonic solution
 - e. Transfusion through 5% dextrose and water - causes hemolysis

19. Which of the following statements concerning nasopharyngeal cancer is true?
- a. It is associated with Human Papilloma virus - EBV 90% too is transmitted
 - b. It occurs primarily after the sixth decade of life - turning 6th decade
 - c. It undergoes early metastasis to the lungs
 - d. The treatment of choice is wide surgical excision of the primary tumour - radiation
 - e. Initial evaluation should involve a biopsy of the primary tumour and neck nodes

Head
trauma

20. Severe maxillofacial trauma is often the result of high-velocity impact sustained in automobile or motorcycle accidents. Regarding these injuries, which of the following statements is true? - maxillofacial
- a. Evaluation of the cervical spine should precede that of the facial injuries
 - b. Severe haemorrhage from the nasopharynx rarely occurs with LeFort fractures
 - c. Direct oral or nasotracheal intubation should be performed promptly to prevent airway obstruction
 - d. Standard facial x-ray series are preferable to computed tomography to assess facial fractures because they may be obtained in the emergency department, are performed faster, and are equally accurate - fractures
 - e. Definitive management of fractures of facial bones should not be delayed - fractures

1. Which of the following is true of a green-stick fracture?
- It always communicates with exterior
 - It only involves the forearm bones
 - It is incomplete
 - Manipulation under anaesthesia is always necessary
 - The best treatment is by open reduction and fixation
2. Colles' fracture is not commonly associated with which of the following?
- Osteoporosis
 - Osteopetrosis
 - Elderly ladies
 - "Dinner-fork" deformity
 - A fall on the outstretched hand
3. A patient reporting to the outpatient department with severe low back pain should have the following as the best first line of investigation:
- Magnetic Resonance Imaging
 - Computerized tomography scan
 - Plain x-rays
 - Total body isotope scan
 - Ultrasound scan
4. Which of the following statements regarding tuberculosis of the spine is NOT true?
- Always associated with Human Immunodeficiency Virus *Spinal TB is AIDS defining*
 - Affects all age groups ✓
 - Erythrocyte sedimentation rate can be used in its management ✓
 - Muscle charts are useful in the management ✓
 - Is common at the thoraco-lumbar junction ✓

Questions 25-28

For each of the clinical features described below select the single most likely endocrine condition from the options a-e. Each option may be used once, more than once or not at all.

- Insulinoma
- Zollinger-Ellison syndrome
- Carcinoid syndrome *Appendix Carcinoma*
- Glucagonoma
- Vipoma

25. A 65 year old woman presents with sweating, tachycardia and recurrent hypoglycaemia. No neck swelling but reports general muscle weakness on exertion. **A A**

26. A 45 year old man reports on and off lower abdominal pain with profuse watery diarrhoea and abdominal distension. Also had features of tetany, hypocalcaemia and hypotension. **E**

27. A 42 year old man presents with acid reflux, dysphagia and occasional diarrhoea. He has been on recurrent proton pump inhibitor prescriptions with short remissions. He has pernicious anaemia. **B B**

28. A 68 year old woman presents with marked weight loss, anaemia and stomato-glossitis. Random blood sugar is diagnostic of diabetes mellitus. **D B**

36. The following are true of pelvic fractures except:
- a. Majority are due to road traffic accidents
 - b. They are broadly classified into stable and unstable
 - c. Shock is a common form of presentation
 - d. Conservative treatment usually gives bad results
 - e. External or internal fixation is done for specific indications

37. Which of the following statements describe Monteggia fracture?
- a. Fractured proximal ulna and dislocated proximal radio-ulnar joint
 - b. Fractured proximal radius and dislocated proximal radio-ulnar joint
 - c. Fractured distal radius and dislocated distal radio-ulnar joint
 - d. Fractured distal ulna and dislocated distal radio-ulnar joint
 - e. Fractured ulna and dislocated proximal radio-ulnar joint

38. Which of the following statements is true regarding infantile hypertrophic pyloric stenosis?
- a. Bottle fed babies are more prone to pyloric stenosis. *Formula*
 - b. Bile in the vomit excludes pyloric stenosis. *Shows duodenal stenosis*
 - c. Persistent vomiting results ultimately in intra-cellular acidosis. *hypocell alkalosis*
 - d. Balloon dilation is ineffective in infantile pyloric stenosis
 - e. Symptomatic pyloric sphincter incompetence is a common problem after pyloromyotomy

39. Which of the following statements is ^{not} true regarding oesophageal atresia?
- a. Pre-natal diagnosis may be achieved by foetal ultrasonography.
 - b. Over 20% of infants with a distal trachea-oesophageal fistula have associated maternal hydroamnion.
 - c. Contrast studies are not essential to confirm the nature of true fistula. *in isolated oesophageal atresia with no trachea-oesophageal fistula, it is nearly always possible to join the ends together with an immediate anastomosis.*
 - e. After surgical reconstruction of oesophageal atresia, 50% of the patient will have problems with gastro-oesophageal reflux. *usually not cured*

40. Which of the following statements is true regarding umbilical abnormalities in childhood?
- a. At about 10 weeks of gestation, the allantois develops into the urachus
 - b. Umbilical polyps invariably respond to silver nitrate treatment
 - c. Associated severe malformations occur in up to 10% of patients with exomphalos
 - d. Gastroschisis almost invariably occurs to the right of the umbilical cord. *true*
 - e. Incarceration of an umbilical hernia is exceptionally uncommon in childhood. *X*

Questions 29-32

Each numbered item, select the appropriate lettered option. Each lettered option may be used once, more than once, or not at all. Select the most appropriate option for each case.

- Peritoneal lavage
- Wound exploration
- Sonogram
- Paracentesis
- CT with intravenous and oral contrast
- Intravenous Pyelography (IVP)
- Exploratory laparotomy
- Angiogram

29. A 16 year old boy presents to the emergency department with a gunshot wound to the abdominal cavity. ~~A, G~~

30. A 60 year old woman presents with a stab wound to the back just above the iliac crest. She is in stable condition. ~~A, B, C~~ A

31. A 26 year old man presents with a tangential small-calibre gunshot wound of the anterior abdominal wall. A

32. A 60 year old man is in a car crash in which he is the driver. He did not have a seat belt or an airbag. He is found to have multiple rib fractures over his right chest. His pulse is weaker during inspiration.

33. What is the commonest complication of fracture neck of femur in the elderly?

- a. Deep venous thrombosis
- b. Non-union of the fracture
- c. Osteoarthritis of the hip
- d. Senile dementia
- e. Bed sores

The following fracture is more likely to go into non-union compared to the others:

- a. Fracture tibial plateau
- b. Fracture proximal third of the tibia
- c. Fracture of the lateral malleolus
- d. Fracture of the distal third of the tibia
- e. Fracture midshaft of the tibia

Regarding the tear film, the following is false -

- a. The aqueous layer is produced by the accessory lacrimal glands
- b. It is important in the refractive function of the cornea
- c. It consists of 4 layers ~~4~~ 3 layers
- d. It contains immunoglobulin
- e. The inner most layer is mucinous

out
Lipid
Water
Mucin

- 41) Which of the following statements is true regarding biliary atresia and congenital biliary abnormalities?
- a. In cases of biliary atresia, obliteration occurs at the level of the insertion of the cystic duct
 - b. Radio nucleotide scanning with iminodiacetic acid derivatives cannot distinguish biliary atresia from neonatal hepatitis
 - c. Hepatobiliary ultrasound can always positively diagnose biliary atresia
 - d. A common pancreatobiliary channel is found in only about 20% of patients with choledochal cysts
 - e. Malignant transformation occurs in more than 40% of patients with choledochal cyst that are left in situ and drained into the jejunum

- 42) Which of the following statements is true regarding day case anaesthesia?
- a. Patient with BMI > 34 should be excluded from day surgery
 - b. Patient with severe systemic disease and some functional limitation are graded as ASA 4 **significant**
 - c. Non-steroidal anti-inflammatory drugs should not be used in day-case surgery
 - d. Prior to day case surgery patient may drink clear fluid up to about 3 hours pre-operatively
 - e. Spinal anaesthesia is contraindicated in the day case setting

- 43) Which of the following statements is true with regard to shock?
- a. In shock the relative importance of oxygen in plasma decrease
 - b. When blood loss exceeds 20% of blood volume, there is marked catecholamine mediated tachycardia **only in the pe**
 - c. Vasoconstriction induced by haemorrhage is a uniform response throughout the body
 - d. The onset of anaerobic metabolism is reflected by a decrease in the lactate/pyruvate ratio **increase**
 - e. During the "flow" phase of metabolism that follows prolonged shock, there is resistance to insulin activity

- 44) Which of the following statements is true with regard to forearm fractures?
- a. Avulsion fractures of the olecranon seldom require surgery
 - b. Children are seldom susceptible to compartment syndrome
 - c. In elderly patients, in whom they check radiograph a week after a Colles' fracture shows displacements, remanipulation is of questionable benefit
 - d. For fracture of the distal radius in children, there is a male to female ratio of about 4:1
 - e. Rupture of the extensor pollicis longus usually occurs after a minimally displaced Colles' fracture

5. Which of the following statements is true with regard to acetabular fracture?
- a. The advent of widespread availability of CT and MRI scans has rendered plain radiographs almost obsolete for acetabular fractures.
 - b. Undisplaced fractures are treated by a period of 4-weeks on skeletal traction.
 - c. Fractures of the anterior wall and column make over 60% of displaced acetabular fractures.
 - d. Recovery is complete in 50% of patients with sciatic nerve palsy associated with acetabular fractures and posterior dislocation of the hip.
 - e. Heterotrophic ossification can occur in 25 to 36% of cases of posterior approaches for displaced fractures of the acetabulum.

6. Which of the following statements is true with regard to fractures of the hip?
- a. The incident of fractures of the hip is higher in Caucasian than in blacks.
 - b. The blood supply to the femoral head is not significantly disrupted by extracapsular fracture.
 - c. Although cementing the stem improves survival, it increases thigh pain.
 - d. 7 years after hemiarthroplasty 40% of patients experience hip or thigh pain caused by erosion or loosening.
 - e. In young adults, hip fractures are treated by emergency reduction and internal fixation.

7. Which of the following statements is true with regard to spontaneous intra-cerebral haemorrhage?
- a. Intra-cerebral haemorrhage is the least common type of stroke in patients under the age of 50 years.
 - b. Cerebrovascular amyloidosis is the second most common cause of intra-cerebral haemorrhage after hypertension.
 - c. Over the past 20 years, the incidence of hypertensive intra-cerebral haemorrhage has risen dramatically.
 - d. After intra-cerebral haemorrhage, the clinical deficit is maximal at presentation in over 80% of patients.
 - e. About 5% of patients presents in coma.

8. Which of the following statements is true with regard to enterocutaneous fistulas?
- a. A high output pancreatic fistula is one in which the output exceeds 200ml/day. 7900
 - b. In Crohn's disease, type 1 fistulas are those that respond to elemental diets or parenteral nutrition.
 - c. The control of sepsis in patients with intestinal fistulas requires prolonged antibiotic usage.
 - d. In the presence of active infection, only aggressive nutritional support will reverse the catabolic state.
 - e. Provided sepsis has been controlled, 60% of enterocutaneous fistula will close spontaneously within 1 month.

pyloric stenosis

target seen 13 seen in tuberculosis

19. Which of the following statements is true with regard to intestinal obstruction?
- a. The target sign on ultrasound is associated with gallstones ileus
 - b. CT scan will identify obstruction in up to 95% of patients - 80-95%
 - c. In intestinal obstruction, potassium losses are replaced more directly by biochemists than sodium losses *acute adouit pseudo-obstruction*
 - d. In Ogilvie's syndrome of functional colonic obstruction, neostigmine is preferred over colonoscopy under sedation in patients with ischaemic heart disease
 - e. Air-fluid levels above 3 are definitive of obstruction

20. Which of the following statements is true with regard to symptomatic benign prostatic hyperplasia?
- a. For uroflowmetry to record reliable flow rate, the passage of minimum of 50ml is required
 - b. Post-micturition residual volumes are obtained easily using trans-abdominal ultrasonography
 - c. Finasteride has been shown to produce a reduction in prostate volume of up to 20-30%
 - d. Use of epithelializing endoprosthesis is confined to the elderly and infirm patients with voiding difficulties
 - e. The results of retropubic prostatectomy are better than trans-urethral prostatectomy in terms of relief of obstruction

21. Which of the following statement is true concerning abdominal minimal access techniques?
- a. A reverse Trendelenberg position provides better access to the pelvis
 - b. When using access needles, aspiration of instilled saline is always possible by the needle if truly intraperitoneal
 - c. Safety shields on retractor trocars prevent injury to intra-abdominal organs
 - d. A diathermy blade for an abdominal incision has no adverse effect on wound healing or cosmetic effect
 - e. Interrupted absorbable sutures are recommended if infection is present

22. When treating adult groin hernias either electively or in emergency, which of the following statement is true?
- a. The mesh used in repair should be tough and smooth to prevent it from becoming wrinkled or ridged and causing discomfort
 - b. Femoral hernias account for up to two-third of strangulated hernias
 - c. Gentle reduction should be attempted before operating on an incarcerated/strangulated femoral hernia
 - d. Damage can occur to the lateral femoral cutaneous nerve during laparoscopic inguinal hernia repair
 - e. The commonest groin hernia is femoral in women

1. With regard to abdominal wound dehiscence and incisional hernia, which of the following statement is true?

- a. 90% of incisional hernia occur within three years
- b. A transverse incision reduces the incidence of wound dehiscence
- c. Surgical repair of a large incisional hernia with about 20% loss of domain can result in compartment syndrome
- d. Mesh inlay techniques are preferred to onlay techniques
- e. Laparoscopic techniques are contraindicated in the acute situation if bowel ischaemia is probable

2. When carrying out intestinal anastomoses which of the following statement is true?

- a. Intestinal anastomoses have adequate intrinsic resistance to distension until collagen deposition is established
- b. Single-layer anastomoses heal slower than two-layer anastomoses
- c. The seromuscular layer is the strongest layer of the gut wall
- d. Proportionately placed interrupted sutures can accommodate luminal disparities of up to 50% without recourse to an anti-mesenteric slit
- e. A stapling device is preferable if the bowel wall is markedly thickened

3. In the care of critically ill patient, which of the following statement is true?

- a. Up to 40% of emergency admissions to ICU could potentially be avoided by early recognition
- b. Type II respiratory failure is associated with raised CO₂
- c. Positive end-respiratory pressure reduces cardiac overload
- d. Concentration of vasopressin is increased in septic shock
- e. Early feeding reduces gastric stress

4. Surgical options for treatment of degenerative joints include the following except:-

- a. Synovectomy and intra-articular steroid injections
- b. Osteotomy
- c. Arthroplasty
- d. Arthrodesis
- e. Amputation

5. The following are the contraindications for joint arthroplasty except:-

- a. Uncontrolled medical problem
- b. Skeletal immaturity
- c. Evidence of bone metastatic disease
- d. Neuropathic joints
- e. Progression neurological disease

Outline pg
81
Q11

58. As regards club foot the following are some anatomical defects present, except:
- a. Severe tibio-talar plant flexion
 - b. Adducted and inverted calcaneus ✓
 - c. Wedge-shaped distal calcaneal surfaces
 - d. Lateral talar neck inclination
 - e. Severe medial displacement of the navicular bone

Q17

59. As regards developmental dysplasia of the hip in the neonates after examination, the following is the classification except:
- a. Normal
 - b. Dislocatable or subluxable
 - c. Dislocated but reducible
 - d. Non-dislocated and irreducible
 - e. Stable hip with acetabular dysplasia

60. With regard to developmental dysplasia of the hip, which of the following statement is true
- a. Is more common in girls than boys ✓
 - b. Is affected by hydroamnion ✓ *Diigo*
 - c. Gestational ultrasound is the best mode of diagnosis
 - d. Types that are subluxable at birth and are naturally reduced stabilize spontaneously over the next 2-3 weeks
 - e. The capacity to remodel decreases with age

61. For patients with degenerative and rheumatoid arthritis, which of the following statement is true?
- a. Interventions cannot arrest the osteoarthritis process once it is underway ✗
 - b. Walking sticks can provide benefit for a patient with knee arthritis, as long as it is held in the contra-lateral hand
 - c. Arthrodesis should be avoided at all costs in a young manual worker
 - d. Neuropathic joints are not a contraindication for joint arthroplasty ✗
 - e. Venography can reveal an incidence of 40-50% of the deep vein thrombosis after arthroplasty of the hip or knee

62. In patients with clubfoot, which of the following is true? *B>G*
- a. Bilateral inversion occurs in about 50% of the cases ✓ *1/3, 1/3, 1/3*
 - b. Maternal smoking can be a contributing factor ✓
 - c. The diagnosis can be confirmed prenatally at 20 weeks by CT scan ✓
 - d. Radiographs are not critical for assessing severity in neonates ✓
 - e. The trend toward early surgery is growing ✗

Arthrodesis surgical reconstruction of a joint by fusing of adjacent vertebrae
bone for its brucellosis, TB, etc

53. Which of the following statements is true as concerns cancer management?
- a. Immunoglobulin are produced by lymphocytes
 - b. Interleukin-2 is a natural product secreted by activated CD4 cells
 - c. The presence of vitiligo around a malignant melanoma is a sinister sign
 - d. Around 2% of the patients with red blood cell carcinoma undergo spontaneous regression
 - e. Adding levamisole to 5FU and folia acid as adjuvant treatment produces no benefits

54. The appropriate intravenous rate for maintenance fluids for a 50-kg patient would be
- a. 75ml/hr
 - b. 90ml/hr
 - c. 105ml/hr
 - d. 120ml/hr
 - e. 125ml/hr
- Maintenance fluids (water requirement)
 4 ml/kg/hr for the first 10kg of body weight
 $+ 2 \text{ ml/kg/hr}$ for the next 10kg of body weight
 $+ 1 \text{ ml/kg/hr}$ for the remainder of body weight

For a 50kg patient
 $= 4 \times 10 + 2 \times 10$
 $+ 1 \times 30$
 $= 90 \text{ ml/hr}$

55. Which of the following statements is true with regard to use of radiotherapy?
- a. Megavoltage therapy increases the risk of skin necrosis
 - b. Differentiated cells are more resistant to irradiation
 - c. Hypofractionation is the use of a large number of small dose fractions
 - d. Effectiveness depends on the tumour being well vascularised
 - e. Cure rate of over 90% can be achieved for stage II cancer

56. A patient on chronic Warfarin therapy with acute appendicitis. INR is 1.4. Which of the following is the most appropriate management?

- a. Proceed immediately with surgery without stopping the warfarin
- b. Stop the Warfarin, give fresh frozen plasma and proceed with surgery
- c. Stop Warfarin and proceed with surgery in 8-12 hours
- d. Stop the Warfarin and proceed with surgery in 24-36 hours
- e. Stop the Warfarin and proceed with surgery in 48-72 hours

57. Which of the following is NOT a risk factor for developing a surgical site infection?

- a. Radiation exposure ✓
- b. Recent surgery ✓
- c. Prolonged hospitalization ✓
- d. Infancy
- e. Obesity ✓

58. Which of the following would mandate elective intubation in a patient with a normal voice, normal oxygen saturation, and no respiratory distress?

- a. Airway bleeding
- b. Stab wound to the neck with mild swelling in the left lateral neck
- c. Localized right lateral subcutaneous emphysema
- d. Bilateral mandibular fracture
- e. Maxillary fracture

✓ (69) Five days postoperative, a middle-aged woman is found to have a serum sodium level of 125 meq/L. Proper management would be:

- a. Administration of normal saline solution
- b. Restriction of free water
- c. Plasma ultrafiltration
- d. Haemodialysis
- e. Aggressive diuresis with Furosemide

✓ (70) Which of the following is a complication of jejunioileal bypass?

- a. Hyperparathyroidism
- b. Hyperuric aciduria
- c. "Hungry bone" syndrome
- d. Hypoxaluria
- e. Sporadic unicameral bone cysts

(71) With regard to common complications of thyroidectomy, which of the following is true?

- a. Bilateral injury to the recurrent laryngeal nerve presents with hoarseness of voice
- b. Injury of superior laryngeal nerve cause voice fatigue
- c. Symptomatic hypocalcaemia is usually persistent
- d. Hypothyroidism is common after lobectomy
- e. Thyroid storm can be avoided through prophylaxis

(72) Which of the following developments has not led to a decrease in recurrence rates after groin hernia repair?

- a. Modifications of the Bassini repair *no longer used*
- b. Routine use of prosthetic material
- c. Widespread acceptance of the "tension-free" concept ✓
- d. Use of the preperitoneal space for hernia repair ✓
- e. Use of laparoscopy in hernia repair

(73) Which of the following should be performed in a patient with suspected Marjolin ulcer?

- a. Hyperbaric therapy for 6 weeks
- b. Zinc supplementation
- c. Oral tetracycline for 6 weeks
- d. Biopsy
- e. Proceed to excise the ulcer

(74) A 47-year-old woman presents with a rapidly enlarging 1-cm right breast mass without palpable axillary node. Core biopsy results are suggestive of phyllodes neoplasm. The appropriate next step in management would be?

- a. Tumour enucleation
- b. Tumour excision with a 2-cm margin and sentinel node biopsy
- c. Tumour excision with 1-cm margin
- d. Simple mastectomy
- e. Close follow-up

Human Immunodeficiency Virus (HIV) has been isolated from many body fluids. Which of the following is a major source of transmission?

- a. Tears
- b. Semen
- c. Urine
- d. Saliva
- e. Blood and blood products

Which of the following is the most effective dosing of antibiotics in a patient undergoing elective colon resection?

- a. A single dose given within 30 minutes prior to skin incision
- b. Avoidance of oral antibiotics to prevent emergence of *Clostridium difficile*
- c. A single dose given at the time of skin incision
- d. A single preoperative dose plus 24 hours of postoperative antibiotics
- e. A single preoperative dose plus 48 hours of postoperative antibiotics

A 50-year-old undergoes an emergency sigmoid colectomy and end colostomy for perforated diverticulitis. His post-operative course is complicated by a myocardial infarction and atrial fibrillation. Four weeks later, he has improved and requests elective colostomy closure. You would recommend:

- a. Discontinuation of anti-arrhythmic and anti-hypertensive medications on the morning of surgery
- b. Discontinuation of beta-blocking medications on the day prior to surgery
- c. Control of congestive heart failure with diuretics and digitalis in severe cases
- d. Administration of prophylactic antibiotics, other than Ampicillin and Gentamicin, for patients with valvular heart disease who are undergoing gastrointestinal procedures
- e. Postponement of elective surgery for 6-8 weeks after sub-endocardial myocardial infarction

brump

A 65-year-old man undergoes a domino-perineal resection for a rectal cancer. On review in the intensive care unit he is bleeding heavily from his perineal wound. Emergency coagulation studies reveal normal prothrombin, partial thromboplastin and bleeding times. The fibrin degradation products are not elevated but the serum fibrinogen content is depressed and the platelet count is 70,000/dl. The most likely cause of the bleeding is:

- a. Delayed blood transfusion reaction
- b. Auto-immune fibrinolysis
- c. A bleeding blood vessel in the surgical field
- d. Factor VII deficiency
- e. Hypothermic coagulopathy

- 9 (79) A 63-year old man is admitted with severe mid-abdominal pain. On physical examination, blood pressure is 90/50mm Hg and pulse is 110 beats/min and regular; the abdomen is soft with mild generalized tenderness and distension. Bowel sounds are hypoactive; occult stool test is positive. The next step in this patient's management should be which of the following?
- a. Barium enema
 - b. Upper gastrointestinal contrast studies
 - c. Angiography
 - d. Ultrasonography
 - e. Laparotomy

- (80) Oesophageal adenocarcinoma occurs most commonly in the
- a. Upper cervical oesophagus
 - b. Lower cervical oesophagus
 - c. Upper thoracic oesophagus
 - d. Middle thoracic oesophagus
 - e. Lower thoracic oesophagus

- (81) Which of the following is the best test to confirm eradication of *Helicobacter pylori*?
- a. Negative histology after biopsy during endoscopy
 - b. Negative faecal antigen
 - c. Negative urea breath test
 - d. Negative urea blood test
 - e. Negative urine antigen

- (82) Which of the following is NOT a feature of late dumping syndrome? Reactive hypoglycaemia
- a. Occurs second hour after meals
 - b. Relieved by meals
 - c. Aggravated by more food
 - d. Patient present with tremors
 - e. Octreotide is very effective in dealing with this condition

Plr 1039
Blair

- (83) A 6 year old present with a tibial fracture of the metaphysis extending across the growth plate. This would be a
- a. Salter-Harris type 1 fracture
 - b. Salter-Harris type 2 fracture
 - c. Salter-Harris type 3 fracture
 - d. Salter-Harris type 4 fracture
 - e. Salter-Harris type 5 fracture

- (84) In the management of haemolytic reaction caused by incompatible blood transfusion, the step that is most likely to be helpful is:
- a. Promoting diuresis by giving 50% mannitol
 - b. Treating anuria with fluid and potassium replacement
 - c. Acidifying the urine to prevent haemoglobin precipitation in the renal tubules
 - d. Catheterizing the patients for urinary monitoring
 - e. Stopping the transfusion immediately

Which of the following is not a trigger of visceral pain?

- a. Ischemia
- b. Traction
- c. Distension
- d. Heat
- e. Inflammation

Distention
stretch
traction
compression
torsion

ischemia
inflammation } Triggers of visceral pain

Which of the following is not an ominous sign in a patient with abdominal pain?

(suggesting sth bad is going to happen in the future)

- a. Diaphoresis
- b. Pallor
- c. Hypotension
- d. Patient lying still
- e. Jaundice

Which of the following statements is correct?

- a. Collagen content reaches a maximum at approximately 1 week after injury
- b. Monocytes are essential for normal wound healing
- c. Fibroblasts appear in the wound within 48 hours after injury
- d. The function of the monocytes in wound healing is limited to phagocytosis of bacteria and debris
- e. Early in wound healing, type I collagen is predominant

A 12-year-old boy arrives with pain and inflammation over the ball of his foot and red streaks extending up to the inner aspect of his leg. The most likely infecting organism is:-

- a. Clostridium perfringens
- b. Clostridium tetani
- c. Staphylococcus
- d. Escherichia coli
- e. Streptococcus

Cellulitis

With regard to the above patient, the appropriate antibiotic to prescribe while awaiting specific culture verification is:-

- a. Augmentin
- b. Erythromycin
- c. Tetracycline
- d. Azithromycin
- e. Cloxacillin

True statement regarding tendon injuries in the hand is:-

- a. Flexor digitorum superficialis inserts on the distal phalanx
- b. Flexor digitorum profundus inserts on the middle phalanx
- c. The tendons of flexor digitorum superficialis arise from a common muscle belly
- d. The best results for repair of a flexor are obtained with injuries in the fibro-osseous tunnel (zone 2)
- e. The process of healing of tendon injury involves formation of a tenoma

Flexor digitorum superficialis - arises from medial epicondyle of humerus & ulna & radius & attaches to middle phalanx

profundus - arises from lateral & medial surfaces of the ulna from interosseous membrane & attaches to distal phalanx

Question: 91-95

For each numbered item, select the appropriate lettered option. Each lettered option may be selected once, more than once, or not at all. Select the most appropriate diagnosis for each case.

- a. Perforated peptic ulcer
- b. Acute appendicitis
- c. Perforation following bowel obstruction
- d. Cholecystitis
- e. Diverticulitis

91. A 35-year-old woman experiences an acute onset of epigastric and right upper quadrant severe pain several hours after a large dinner. She has had similar episodes in the past that resolved a few hours. This episode persists, and she has fever and non-bilious vomiting. What is the most likely source of the abdominal pain? **D**
92. A 60-year-old man with chronic alcoholism awakens at 1:00 am with severe, sharp epigastric pain that 3 hours later becomes diffuse abdominal pain. What is the most likely source of abdominal pain? **A** *such PEI remember the other PEI -> classic feature exact time*
93. A 55-year-old man with a 2-day history of abdominal distension, vomiting, crampy abdominal pain, and obstipation is experiencing severe diffuse abdominal pain. What is the most likely source of the abdominal pain? **C**
94. A 22-year-old man awakens with peri-umbilical abdominal pain followed by non-bilious vomiting. What is the most likely source of the abdominal pain? **B**
95. A 65-year-old man with a history of chronic constipation has a 3-day history of abdominal distension without a bowel movement. He has fever and abdominal rigidity. What is the most likely source of the abdominal pain? **E**

Mallory Weiss tear

96. An otherwise healthy 40-year-old man seeks treatment in the emergency department because of haematemesis after a night of binge drinking and retching. Which of the following is true of his condition?
- a. It is caused by a pulsion diverticulum. **X**
 - b. Endoscopy should not be performed because of the increased risk for perforation. **X**
 - c. The bleeding is from an arterial source. **X** *in Mallory Weiss tear*
 - d. Surgical resection is often required. **X**
 - e. *H. pylori* infection is a known risk factor. **X**

97. Which of the following statements is false regarding direct inguinal hernias?
- a. The most likely cause is destruction of connective tissue as a result of physical stress. **X**
 - b. Direct hernias should be repaired promptly because of the risk for incarceration. **X**
 - c. A direct hernia may be a sliding hernia involving a portion of the bladder wall. **X**
 - d. A direct hernia may pass through the external inguinal ring. **✓**
 - e. An indirect hernia may be present together with a direct hernia. **✓**

8) A 25-year-old man sustains burns during a fire in his department. He has blistering and erythema of his extremity. He is hypotensive and tachycardic. Which of the following statements concerning this patient's initial wound management is correct?

- a. Tropical antibiotics should not be used, as they will encourage growth of resistant organisms.
- b. Early excision of facial and hand burns is especially important.
- c. Escharotomy should only be performed if neurologic impairment is imminent.
- d. Excision of areas of 3rd degree or of deep 2nd degree burns usually takes place 3-7 days after injury.
- e. None of the above.

9) True statements regarding squamous cell carcinoma of the lip include:

- a. The lesion often arises in areas of hyperkeratosis.
- b. More than 90% of cases occur on the upper lip.
- c. The lesion constitutes 30% of all the cancers of the oral cavity.
- d. Radiotherapy is considered appropriate treatment for these lesions.
- e. Initially metastases to the ipsilateral posterior cervical lymph nodes.

10) Which of the following regarding burn wound depth is true?

- a. First-degree burns heal rapidly but contribute significantly to the total body surface area (TBSA) burned in large, mixed-depth wounds.
- b. Second-degree burns characteristically cause erythema, pain, and blistering.
- c. Third-degree burns are generally painful and extremely sensitive to touch.
- d. Fourth-degree burns mandate amputation of the involved extremities.
- e. Superficial partial-thickness burn is the contemporary term for first-degree burns.



UNIVERSITY OF NAIROBI

SPECIAL/SUPPLEMENTARY EXAMINATIONS 2017/2018

FIFTH YEAR EXAMINATIONS FOR THE DEGREE OF BACHELOR OF
MEDICINE AND BACHELOR OF SURGERY

HMS 500 : SURGERY MCQ PAPER

DATE: AUGUST 3, 2018

TIME: 2.00 P.M. - 5.00 P.M.

INSTRUCTIONS

1. Attempt all questions.
2. Pick the BEST answer for each question.
3. There is no negative marking for wrong answers.
4. Answer on the answer sheet provided. Shade using a pen: Pencil shading is NOT ALLOWED.
5. Use the answer sheet with your Registration number ONLY.

1. Acute arterial occlusion

- a. Should be treated conservatively if the site of the occlusion is above the inguinal ligament
- b. Demands the urgent use of vasodilator drugs
- c. Of a limb is usually painless due to the anoxia damage produced in the peripheral nerves
- d. May produce irreversible muscle necrosis after 6 hours
- e. None of the above

Crohn's disease

- a. Has infective Etiology
- b. Is limited to the bowel
- c. Does not produce mucosal ulceration
- d. Is characterised by the absence of fibrous tissue in the affected inflamed bowel
- e. Is highest among young adults

Carcinoma of the prostate on examination feels

- a. Soft
- b. Cystic
- c. Firm
- d. Hard and nodular
- e. Smooth and around

4. Urethral stricture can be realized on examination as

- a. A swelling
- b. An induration
- c. Smooth area along the urethra
- d. A fibrous cord along the urethra
- e. A string like feel along the urethra

5. Which of the following features best distinguish a malignant ulcer from a chronic non-healing ulcer

- a. Pus discharge from the ulcer
- b. Red granulation tissue
- c. Raised rolled out edge
- d. Undermined edge
- e. Punched out edge

6. A woman presents with chronic cough, swelling in the armpit and breast. She also had pus discharge from the armpit and breast swelling. Examination shows masses in the axilla, induration in the breast and discharging sinuses in both. The most likely diagnosis is?

- a. Carcinoma of the breast with metastasis to the axilla and lungs
- b. Tuberculosis of the breast secondary to pulmonary tuberculosis
- c. Axillary lymphadenopathy
- d. Fibroadenosis
- e. Paget's disease of the breast

7. Hydrocele

- a. Is always a scrotal swelling
- b. The cause is always filariasis
- c. May communicate directly with the peritoneal cavity
- d. Is never congenital
- e. All of the above are false

(smoothly enlarged & blood)
surgical intervention until 18 months - here can be spontaneous resolution

8. A patient present with an inguino-scrotal swelling which is painful tender and tense. The skin over it is stretched and shiny; which of the following should be considered as the diagnosis?

- a. Epydidimo-orchitis
- b. Tortion of the testis
- c. Strangulated hernia
- d. Paniculitis
- e. All of the above

9. The following is not true about inguinal hernia
- a. If cough impulse is absent the diagnosis is ruled out
 - b. Cough impulse and reducibility strongly suggests hernia
 - c. The patient can usually reduce hernia more easily than the doctor
 - d. A direct and indirect hernia may coexist on the same side
 - e. The indirect hernia is more commonly complicated than the direct hernia

10. A patient with thyrotoxicosis presents with all of the following except?
- a. Exophthalmos
 - b. Enophthalmos
 - c. Tachycardia
 - d. Tremors
 - e. Menstrual irregularities

11. The management of carcinoma of the esophagus
- a. Surgical excision of the tumor is possible in majority of the patients
 - b. Radiotherapy is mainly used
 - c. Chemotherapy is of particular value in squamous cell carcinoma
 - d. Gastrostomy provides good palliation for the patients with complete dysphagia
 - e. All of the above

12. In peripheral arterial disease which statement is true

- a. ABI < 0.4 is associated with tissue loss
 - b. ABI ≥ 0.7 is normal
 - c. ABI 1-1.3 is normal (0.9-1.3)
 - d. ABI > 1.3 is associated with claudication
 - e. None of the above
- > 1.3 Calcification/non compressible vessels/
vessel hardening*

13. All of the following are true of benign prostatic hypertrophy except
- a. Is the result of hyperplasia of the fibromuscular capsule of the gland
 - b. Results in diminished flow of urination ✓
 - c. Results in terminal dribbling of urine ✓
 - d. May present with haematuria ✓
 - e. Is most effectively treated by surgery

14. All of the following are true of uncomplicated benign gastric ulcers except
- a. Occurs most commonly on the greater curvature of the stomach
 - b. Should initially be treated medically
 - c. Commonly recur after medical treatment
 - d. Should receive surgical management if healing has not occurred after 4-6 weeks of medical therapy
 - e. Produce epigastric pain after eating

✓ gastric ulcers usually affect the lesser

15. Rectal cancer: choose the incorrect statement
- a. Is usually squamous cell in origin *Adenocarcinoma ✓*
 - b. Usually characterised by lymphatic spread
 - c. Frequently presents with tenesmus
 - d. Frequently requires colonoscopy for accurate diagnosis
 - e. All of the above are true
16. An obstructed inguinal hernia is one which is usually
- a. Reduced in size
 - b. Excessively large
 - c. Associated with a hydrocele
 - d. Associated with bilious vomiting
 - e. Associated with non-bilious vomiting
17. A reducible direct inguinal hernia is one which can be palpated digitally at the
- a. Inguinal ligament?
 - b. External inguinal ring
 - c. Internal inguinal ring
 - d. Scrotal neck
 - e. Pubic symphysis
- Indirect enters the scrotum (patent T. vaginalis)*
18. Causes of perianal pain include all of the following except
- a. Ischioirectal abscess
 - b. Fissure in ano
 - c. Fistula in ano
 - d. Thrombosed haemorrhoid
 - e. Psoas abscess
19. Concerning Monteggia fractures which of the following is correct?
- a. Closed reduction and immobilization with an above elbow POP is the treatment of choice
 - b. Surgery is indicated only when closed reduction fails
 - c. ORIF is the only appropriate treatment
 - d. B and C are correct
 - e. None of the above
20. 60-year-old lady presents with a minimally displaced pertrochanteric fracture. Which of the following is correct
- a. Due to high risk of avascular necrosis of the femoral head hemiarthroplasty should be performed
 - b. Treatment of choice is skin traction for 6 weeks followed by mobilization of the patient
 - c. Since the fracture is extracapsular and is minimally displaced bed rest and early mobilization is preferred
 - d. ORIF with dynamic hip screw should be performed
 - e. None of the above

- c. The common cause of haemorrhagic shock is rupture of a major vessel
 d. A and B
 e. None of the above
27. Which of the following is **not true** about acute dislocation of the knee
 a. It is a true orthopaedic emergency and thus best treated by immediate ORIF
 b. Can be satisfactorily treated by closed reduction and immobilization with a cast
 c. Associated incidence of vascular injuries is higher when compared to dislocations at other joints
 d. Complete dislocation is associated with tear of both cruciate ligaments
 e. All of the above
28. 65 year old lady presents with an impacted fracture of the surgical neck of the humerus of 3 days duration. Choose the correct management strategy.
 a. Closed reduction then apply a simple arm sling
 b. Open reduction and internal fixation
 c. Apply a triangular arm sling then start pendulum exercises after a week
 d. A & C
 e. None to the above
29. In Allis method of closed reduction of the posterior dislocation of the Hip joint which is false
 a. Patient is placed in supine position with the lower limb of affected side in extension, reduction is done by traction in long axis of femur
 b. Together with the surgeon, there must be atleast 2 assistants
 c. It is important to give adequate analgesia and a mild muscle relaxant
 d. Traction of the lowerlimb is done with the hip and knee joints flexed in 40% flexion
 e. B and D are correct
30. Regarding management of chronic osteomyelitis
 a. Antibiotic therapy should be started as soon as possible as the diagnosis is made
 b. Antibiotic therapy should only be initiated after surgery
 c. After sequestrectomy and saucerization the wound must be closed
 d. Wound is left open after sequestrectomy
 e. B and D are correct
31. In the management of pelvic fractures which statement is false
 a. In tile A fractures bed rest, analgesics are early mobilization is the treatment choice
 b. In some Tile type A ORIF may be used
 c. Symphysiolysis of whatever severity must be reduced and internally to reduce instability

- d. In a major pelvic fracture external fixation may assist to control haemorrhage
e. All are true
32. 60 year old lady presents with a grossly displaced transcervical fracture of the neck of femur, the best treatment option
a. ORIF with cancellous screws
b. Closed reduction and percutaneous fixation with cancellous screws
c. Skin traction for 5 weeks
d. ORIF and K-wire
e. None of the above (ORIF with dynamic hip screws/hemi-/total arthroplasty)
33. In the management of subtrochanteric fractures of the femur
a. Simple plating with a DCP would be the best option
b. Even when displaced conservative treatment is the treatment of choice
c. The cranial and lateral displacement of the proximal fragment is due to the abductors of the hip joint
d. The proximal fragment is usually adducted and cranially displaced
e. None of the above
34. In primary assessment of a multiply injured patient
a. If chest movements are observed then "breathing" is normal
b. Airway patency can be checked by examination of the oral cavity and oropharynx alone
c. To ensure patent airway maximum "jaw thrust" must immediately be done irrespective of other possible injuries
d. Priority is to ensure the patient is breathing by inspecting the chest movements
e. None of the above
35. One of the following is not a spinal cord syndrome
a. Low back pain syndrome (Lumbago)
b. Brown sequard syndrome
c. Conus medularis syndrome
d. Anterior cord syndrome
e. Central cord syndrome
36. Paraplegia resulting from trauma
a. May be due to cord transection
b. Will be of spastic type if the injury is at L2 or below
c. Is always of flaccid type
d. Is surgically curable irrespective of the kind of injury
e. Never presents with a sensory level

37. Hydrocephalus in infants may occur as a result of
- Chiari type of malformation
 - Neonatal or postnatal infection
 - Spina bifida occulta
 - None of the above
 - A and B are correct
38. Brain tumours can present with the following except
- First time seizures
 - Visual impairment
 - Focal motor deficits
 - Meningitis
 - Speech abnormalities
39. With regard to brain tumours
- Meningiomas are more common than gliomas
 - Gliomas are more common than meningiomas
 - Meningiomas have the worst prognosis of all brain tumours
 - Surgical excision of meningiomas offer no advantage to the patient
 - Gliomas of all grades are eminently amendable to surgical cure
40. In degenerative spinal disc disease
- Back pain is never a feature ✗
 - The patient may present with leg pain due to disc prolapse
 - Disc protrusion cannot be diagnosed by myelography
 - Without the MRI it is impossible to determine what causes leg pain
 - Surgery rarely ever helps relieve the leg pain
41. In a typical acute epidural hematoma the CT-scan shows the following
- A concave lesion which is hypodense to the cortex
 - A concave lesion with is isodense to the cortex with ventricular effacement
 - A convex lentiform lesion which is hyperdense to the cortex
 - Non-specific features which are rarely diagnostic
 - None of the above
42. Which of the following clinical test is useful to determine the integrity of the abductor mechanism of the hip joint
- Trendelenburgs test
 - Thomas Hugh Owen test
 - Straight leg raising test
 - The Nelaton's line
 - The apparent and real leg discrepancy measurement

43. Which of the following hip joint affections commonly involve the male at adolescent age
- Posttraumatic osteoarthritis of the HIP joint
 - Tuberculosis of the hip joint
 - Slipped femoral capital epiphysis
 - Leg calves Perthes disease
 - Avascular necrosis of the femoral head
44. Two hours after application of the plaster cast for supracondylar fracture of the humerus, a patient comes back to the emergency room complaining of severe pain in the hand associated with swelling of fingers. The appropriate treatment would be to
- Elevate the limb and close observation
 - Immediately call an orthopaedic specialist for his option
 - Split the entire case immediately
 - Administer vasodialators and analgesics
 - None of the above
45. Which is false with regards to fracture of the distal 1/3 third of the tibia
- Delayed union occurs often
 - External fixator is ideal for grade 3 open fractures
 - Open fracture are very common
 - Indirect violence force results into spiral or oblique fracture line
 - Open comminuted fracture are usually treated by early open reduction and internal fixation
46. Correct about management of open fractures
- Are treated by surgical debridement and depending on the grade the wound is either closed primarily or secondarily
 - Depending on the site of the fracture, the wound is either closed primarily or secondarily
 - Are treated by surgical debridement and wound closed primarily if the injury is less than 6 hours old
 - Are treated by surgical debridement and the wound left open to heal secondarily
 - All of the above are correct
47. Which of the following statement is not true regarding osteosarcoma
- Metastasis commonly occurs through the hematogenous route
 - The commonest site is the metaphyseal region of long bones
 - Is most frequently seen in 10-25 years age groups
 - May arise secondarily from paget's disease of the bone
 - The radiological feature is "onion-peel" appearance

48. Mark the false statement with regards to fracture of the pelvis
- May present with scrotal swelling as the only sign in an unconscious patient
 - Is often accompanied with features of acute abdomen
 - May be associated with extra-peritoneal urine extravasation
 - Isolated fracture of the ischial or pubic rami are treated by early mobilisation
 - Malgaigne injury denotes fracture of both pubic rami
49. Hyperventilation to P_{CO_2} of 20-25 mmHG
- Should routinely be recommended for ICP management
 - Does not reduce cerebral blood flow
 - Causes cerebral vasodilatation
 - Reduces ICP
 - None the above
50. Which of the following statements is true?
- Cranial osteomyelitis most frequently arises from the spread of bacteria through the blood stream from an infection elsewhere in the body.
 - Subdural empyema is ordinarily treated by administration of antibiotics without the need for surgical drainage.
 - A bacterial brain abscess commonly presents as a mass lesion of the brain, without systemic signs of infection such as fever or leukocytosis.
 - Bacterial brain abscesses are difficult to visualize by CT.
 - None of the above
51. Subdural hematomas are frequently due to
- Rupture of an intracranial aneurysm
 - Rupture of cerebral aneurysm
 - Injury to cortical veins
 - Hemophilia
 - None of the above
52. Which is not a sign in base of skull fracture
- Battle's sign
 - Subconjunctival hemorrhage
 - Raccoon eyes
 - CSF otorrhea
 - None of the above

53. Which of the following lesions is not one of the cutaneous stigmata of occult spinal dysraphism?
- a. Midline lumbar capillary hemangioma
 - b. Focal hairy patch in the thoracolumbar region
 - c. Café au lait spot over thoracolumbar region
 - d. Dermal sinus located over the mid sacrum
 - e. Midline subcutaneous lipoma
54. Myelomeningoceles are congenital lesions of the spine. Which of the following findings are not commonly associated?
- a. Hydrocephalus ✓
 - b. Chiari II malformation ✓
 - c. A midline dorsal mass seen at birth
 - d. Mandatory urinary incontinence
 - e. Skin, bone and dural defects superficial to the neural placode
55. Which of the following signs does Horner's syndrome include
- a. Miosis
 - b. Facial hyperhidrosis
 - c. Exophthalmos
 - d. Mydriasis
 - e. None of the above
56. Which of the following statements concerning head injury is not true?
- a. Increased ICP contributes to secondary brain injury by reducing cerebral perfusion and producing cerebral ischemia ✓
 - b. Intracranial hypertension is one of the most important factors influencing outcome in traumatic brain injury
 - c. In using the GCS, the lower the score, the poorer the outcome
 - d. Comatose patients who require emergent surgery for other injuries would have their ICP monitored
 - e. Corticosteroids are first line management for elevated ICP
57. Which of the following is true of tuberculous meningitis?
- a. Headache is usually absent.
 - b. If untreated, the clinical course is self-limited.
 - c. The inflammatory exudate is confined to the subarachnoid space.
 - d. The inflammatory exudate is found mainly at the convexities.
 - e. The protein content of the cerebrospinal fluid (CSF) is almost always elevated.

65. A 40-year-old man is brought to the emergency department by his wife one hour after he had sudden onset of shortness of breath. Medical history includes chronic obstructive pulmonary disease and prior spontaneous right pneumothorax. The patient has an 80-pack-year history of cigarette smoking. Temperature is 37.1°C (98.7°F), pulse rate is 95/min, respirations are 28/min, and blood pressure is 140/100 mmHg. Oxygen saturation is 87% on 2 L of oxygen via nasal cannula. On physical examination, breath sounds are distant bilaterally. Chest x-ray study shows a large right pneumothorax. After placement of an appropriately sized chest tube, which of the following is the most definitive management?
- Discharge the patient with a Heimlich valve and schedule outpatient follow-up
 - Initiate patient-controlled anesthesia
 - Perform pleurodesis with doxycycline
 - Schedule the patient for blebectomy
 - Wait for the lung to seal on continuous suction
66. A 35-year-old man involved in a motor vehicle accident presents with a knee dislocation that is easily reduced. Radiography of the knee shows no fracture. Which of the following statements about his treatment are true?
- If he has normal pulses he can be discharged.
 - If he has normal pulses he requires either close observation or arteriography.
 - If he has absent distal pulses and severe ischemia he should undergo arteriography in the radiology suite.
 - A popliteal vein injury is best treated with ligation.
 - A popliteal artery injury should be repaired with the ipsilateral saphenous vein if available.
67. Which of the following statements about acute arterial occlusion today is/are not true?
- Most arterial emboli originate in the heart as a result of underlying cardiac disease.
 - It can be treated under local anesthesia.
 - It is usually due to atherosclerotic disease.
 - Surgical treatment can usually be avoided if the lesion is diagnosed early.
68. Thrombosis occurs frequently in thromboangiitis obliterans (Buerger's disease) in which the following vessels except?
- Superficial femoral artery.
 - Radial or ulnar artery.
 - Digital arteries.
 - Superficial veins.

* Rectal biopsy - Suction
- Full thickness

- X 69. Which of the following statements regarding Hirschprung's disease are true?
- a. Suction rectal biopsy is always diagnostic if the specimen includes submucosa
 - X b. Hirschprung's disease is the result of a sex linked dominant gene
 - c. The endorectal pullthrough is demonstrably superior to other forms of surgical construction
 - d. 35 percent or less of patients have an excellent or good functional result following reconstructive surgery
 - e. The important cause of mortality in contemporary practice is enterocolitis

AD (long segment dx)
AR (short segment dx)

70. Which of the following inhalation anesthetics accumulates in air-filled cavities during general anesthesia?
- a. Diethyl ether
 - b. Nitrous oxide
 - c. Halothane
 - d. Methoxyflurane
 - e. Trichloroethylene

71. The calorie-nitrogen ratio for an infant should be maintained at:
- a. 75:1.
 - b. 100:1.
 - c. 50:1.
 - d. 150:1.
 - e. 25:1.

72. A full term neonate is found to have a swollen right scrotum. Gentle persistent pressure easily reduces an air filled structure back into the abdomen. The condition recurs promptly as the infant begins to cry. This
- a. Mandates immediate surgical repair
 - b. Is the same defect as a communicating hydrocele
 - c. Should have a tension-free mesh repair
 - d. Should prompt exploration of the left groin
 - e. Is generally irreducible in children

73. Which of the following statements about extracellular fluid are true?
- a. The total extracellular fluid volume represents 40% of the body weight.
 - b. The plasma volume constitutes one fourth of the total extracellular fluid volume.
 - c. Potassium is the principal cation in extracellular fluid.

- d. The protein content of the plasma produces a lower concentration of cations than in the interstitial fluid.
e. The interstitial fluid equilibrates slowly with the other body compartments.
74. A newborn full-term baby boy with diagnosis of imperforate anus is also at risk to have a **VACTERL**
- a. Dextrocardia
 - b. Rib cage anomaly
 - c. Tracheoesophageal fistula
 - d. Ulnar skeletal deformity
 - e. Proximal limb malformation
75. In a patient who had a motor-cycle crash, a CT of the abdomen revealed a peripancreatic hematoma and indistinct pancreatic border. The most definitive test for a pancreatic injury requiring operative intervention is:
- a. ERCP
 - b. Ultrasonography
 - c. CT scanning
 - d. Operative exploration
 - e. Amylase test of lavage fluid
76. In repair of a femoral hernia, the structure most vulnerable to major injury lies:
- a. Medially
 - b. Laterally - femoral vein
 - c. Anteriorly
 - d. Posteriorly
 - e. Superficially
77. In neonates with necrotizing enterocolitis, which of the following findings is an indication of significant bowel ischemia?
- a. Increased gastric residuals.
 - b. Septic shock. ?
 - c. Cardiac failure due to a patent ductus arteriosus.
 - d. Elevated platelet count.
 - e. Erythema of the abdominal wall.
78. On examination, patients presenting with appendicitis typically show maximal tenderness over which of the following areas?
- a. Inguinal region

- b. Immediately above the umbilicus
- c. At a point between the outer one-third and inner two-thirds a line between the umbilicus and the anterior superior iliac spine
- d. At a point between the outer two-thirds and inner one-third a line between the umbilicus and the anterior superior iliac spine
- e. At the midpoint of a line between the umbilicus and the anterior superior iliac spine

* 79. A child with a hernia and cryptorchidism is operated upon through the usual inguinal incision. No testicle is found in the inguinal canal. The surgeon should

- a. Repair the hernia and no more at the time
- b. Repair the hernia and use hormones
- c. Explore the retropubic space and repair the hernia
- d. Explore the retropubic space upto the renal pedicle and if the testicle is found and cannot be replaced in the scrotum, leave the testicle in position and repair the hernia
- e. Do the same as in D but excise the testicle if it cannot be replaced in the scrotum

80. Regarding infantile hypertrophic pyloric stenosis

- a. Usually presents between 6 and 12 months of age *X (3-4) weeks ✓*
- b. The female : male ratio is 4:1 *X*
- c. Has a strong familial predisposition
- d. Pathologically shows hypertrophy of the longitudinal muscle layer of the pylorus *X* *circular muscles*
- e. Presents with bile-stained projectile vomiting *X*

81. Flaps can be classified according to:

- a. Shape
- b. Size
- c. Colour
- d. Blood supply, *Mode of transfer, composition*
- e. Depth

82. The following are phases of wound healing except:

- 2.* a. Inflammation
- 3.* b. Proliferation
- 4.* c. Remodelling
- d. Cellular differentiation
- 1.* e. Haemostasis

83. Systemic factors affecting wound healing include the following except

- a. Smoking
- b. Nutrition
- c. Radiation**
- d. Corticosteroids
- e. Diabetes mellitus

84. The following are true about skin grafts, except:

- a. They are either full or split thickness ✓
- b. A skin graft is a unit of tissue transferred with its blood supply**
- c. The thicker the graft the greater the degree of secondary contracture X
- d. The thinner the graft the greater the degree of secondary contracture
- e. Secondary contracture occurs after the graft has healed

85. The initial phase of skin graft healing involves:

- a. Adherence**
- b. Serum imbibition
- c. Inosculation
- d. Neovascularisation
- e. Remodelling

Stages of Graft take
① Adherence
② Imbibition
③ Revascularization

86. The most common cause of graft failure is:

- a. Infection 2.
- b. Haematoma 1.**
- c. Inappropriate wound bed
- d. Shearing forces
- e. Technical error

87. The following is false about the epidemiology of cleft lip and palate:

- a. The incidence is lower in the African population compared to the Caucasian population ✓
- b. The incidence is highest in the Asian population ✓
- c. Left sided clefts are commoner than right sided clefts
- d. Isolated cleft palate is commoner in males than females**
- e. Isolated cleft lip is more common than isolated cleft palate

- Cleft lip ♂ >
- Cleft palate ♀ >
- Asians > Whites > Blacks

*88. The fluid of choice for intravenous fluid resuscitation of a paediatric patient with severe burns is:

- a. 10% Dextrose
- b. Ringer's Lactate
- c. 0.9% Normal Saline
- d. 5% Dextrose
- e. 5% Dextrose in Normal Saline

89. The management of a patient with cleft lip and palate begins:

Intrauterine diagnosis & counselling

- a. Before birth
- b. At birth
- c. At 3 months
- d. At 6 months
- e. At 9 months

↓
10 Hb
10 wks
10 lbs

↓
10 Hb
10 months
10 kg

*90. A 6 year-old boy was brought to KNH at 1 pm today after being rescued from a house fire. He sustained burns to his left upper limb, right upper limb and entire posterior trunk. He weighs 25 kilograms. The Modified Parklands Formula is used to calculate the volume of fluids required for fluid resuscitation in the first 24 hours. The total volume of fluids he should receive is:

- a. 2 L
- b. 2.7 L + Maintenance intravenous fluids
- c. 2.7 L
- d. 3.6 L
- e. 3.6 L + Maintenance intravenous fluids

$$\begin{aligned} \text{TBSA} &= 4.5 + 4.5 + 18 = 27\% \text{ (Adult)} \\ \text{Parkland formula} &= 4 \times \text{TBSA} \times \text{kg} \\ &= 4 \times 27 \times 25 = 270 \text{ L} \end{aligned}$$

91. Regarding exomphalos and gastroschisis → not assoc. with any anomalies except intestinal atresia.

- a. A gastroschisis has a sac
- b. Gastroschisis is associated with major congenital abnormalities
- c. The postoperative mortality of surgery for gastroschisis approaches 50%
- d. Both conditions may be diagnosed prenatally with ultrasound
- e. Both conditions require delivery by caesarian section

92. Definition of organ space surgical site infections

- a. Infection that occurs within 30 day of operation ✓ (within 1 yr - if implant)
- b. Infection involving deep tissues of the incision ✓ (any part of the wound other than the incision i.e. deep to the incision)
- c. Organisms isolated from aseptically aspirated fluid ✓
- d. All of the above
- e. A & D alone

93. The best treatment of a 70-year old patient with metastatic carcinoma of the prostate is:

- a. Radical prostatectomy

- b. Radical radiotherapy
- c. Bilateral orchidectomy
- d. Stilboesterol 5 mg daily for one month
- e. A single dose of Zoladex injection

94. Which of the following cases is considered a clean wound? *no viscus opened*

- a. Open cholecystectomy for cholelithiasis
- b. Herniorrhaphy with mesh repair
- c. Open prostatectomy ?
- d. Appendectomy with walled-off abscess
- e. Gunshot wound to the abdomen with injuries to the small bowel only

95. Assessment of a breast lump include all of the following EXCEPT

- a. Clinical examination
- b. Mammography
- c. Core biopsy
- d. Ultrasonography
- e. Mastectomy

96. 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

97. All are important in the preoperative management of patients with jaundice except

- a. Vitamin K
- b. Adequate hydration
- c. Input-Output charts
- d. Prophylactic antibiotics
- e. Scrubbing of the surgical site in the ward

98. 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

99. Which of the following people can give a valid consent for elective surgery?

- a. A surgeon not involved in care of the patient
- b. The headmaster of a child in boarding school
- c. A patient who is under the influence of alcohol

21. Regarding anterior dislocation of the shoulder joint which one is false
- "Bankart lesion" denotes radiological evidence of fragments from anterior rim of the glenoid process
 - "Hill Sachs lesion" denotes rupture of the anterior part of the glenoid capsule of the shoulder joint
 - "Hill Sachs lesion" denotes a depression fracture of the humeral head
 - Kocher's method is the method of choice in reducing this
 - None of the above
22. In examination of the knee joint which one is correct
- Mc Murray test tests the integrity of the cruciate ligament
 - Lachmann test tests the integrity of the anterior and posterior cruciate ligaments
 - Varus stress test checks the integrity of the medial collateral ligament
 - All of the above are correct
 - None of the above are correct
23. A tibial fracture denotes
- A comminuted fracture of the proximal tibia
 - A depressed intra-articular fracture of the distal tibia
 - An undisplaced fracture involving the distal articulating surface of the tibia
 - Fracture dislocation of the ankle joint
 - None of the above
24. Concerning supracondylar fractures in children
- The flexion type is sustained when one falls with the arm outstretched
 - Brachial vessels are never injured
 - Volkman's ischaemic contracture can occur as a complication
 - Open reduction and K-Wire fixation is the treatment of choice
 - None of the above
25. In fractures of the neck of femur which is correct
- Extent of the fragments does not predict the prognosis but the age of the patient does
 - The Gardners classification is only useful to show the angle of the fracture
 - The Puwel classification defines the extent of the displacement of the fragments
 - The anatomical classification is more widely used compared to the other two classifications
 - None of the above
26. In major fractures of the pelvis
- Mortality can reach 20% even in major trauma centers
 - One can lose only 2 litres of blood

58. Weakness of the deltoid muscle is caused by injury to the
- axillary nerve
 - dorsal scapular nerve
 - musculocutaneous nerve
 - suprascapular nerve
 - thoracodorsal nerve
59. The 72-year-old patient had prior elective aortic aneurysm resection but returned to a surgeon with the unusual complaint that both lower legs fell asleep when he had been kneeling on a church bench. Physical examination reveals tense pulsatile masses in the flexor space behind both knees

The MOST likely diagnosis is:

- Baker cysts
 - Popliteal aneurysms
 - Bursitis
 - Osteoarthritis
 - Lesser saphenous thrombophlebitis
60. A 70-year-old woman comes to the office because she has had claudication in her left hip and buttock during the past eight months. She says the symptoms occur after she walks approximately one block. Medical history includes type 2 diabetes mellitus, hypertension, and hyperlipidemia. Daily medications include amlodipine, atenolol, metformin, glyburide, and rosuvastatin. The patient has a 40-pack-year history of cigarette smoking. Physical examination shows diminished left femoral pulse and absent left popliteal pulse. Right femoral and popliteal pulses are intact. Which of the following is the most likely site of arterial stenosis in this patient?
- Abdominal aorta
 - Left common iliac artery
 - Left deep femoral artery
 - Left popliteal artery
 - Left superficial femoral artery
61. A 72-year-old man is referred to the clinic after his first physical examination since 50 years of age. At that time, hypertension was diagnosed but the patient refused drug therapy. Medical history includes no known illnesses or surgical procedures. The patient has smoked two packs of cigarettes daily since 20 years of age. Review of systems shows dyspnea on exertion, tightness of the calves after walking up three or four flights of stairs, and forgetfulness. Screening for which of the following conditions is the most appropriate next step?
- Abdominal aortic aneurysm

- b. Chronic obstructive pulmonary disease
 - c. Coronary artery disease
 - d. Major neurocognitive disorder (dementia)
 - e. Peripheral vascular disease
62. A 57-year-old man comes to the medical clinic because he has had fatigue and unintentional weight loss of 20 lb during the past month. He also has had inability to swallow solid foods for the past two weeks. He has a 30-pack-year history of cigarette smoking. Medical history includes Barrett esophagus, achalasia, alcohol use disorder (alcohol abuse), and ingestion of lye at 15 years of age. Esophagogastroduodenoscopy confirms the suspected diagnosis of adenocarcinoma of the distal esophagus. Which of the following findings in this patient's history is his greatest risk factor for this condition?
- a. Achalasia
 - b. Alcohol use disorder (alcohol abuse)
 - c. Barrett esophagus
 - d. Cigarette smoking
 - e. Ingestion of lye
63. A 72-year-old woman is referred to the thoracic surgery office by her primary care provider because she has had worsening cough over the past six weeks as well as recent onset of wheezing, shortness of breath, night sweats, and unintentional weight loss. Medical history includes hypertension that is managed with hydrochlorothiazide and hyperlipidemia that is managed with atorvastatin. The patient smokes one pack of cigarettes daily. Chest x-ray studies show a mass in the lower lobe of the left lung as well as pleural effusion on the left. Which of the following is the most appropriate next step?
- a. Chemotherapy
 - b. Closed pleural biopsy
 - c. Surgical resection of the mass
 - d. Surgical thoracoscopy
 - e. Thoracentesis with cytology
64. An 18-year-old man is brought to the trauma center by ambulance after he sustained a gunshot wound to the chest. Physical examination shows narrow pulse pressure, jugular venous distension, muffled heart sounds, and pulsus paradoxus. Which of the following is the most likely diagnosis?
- a. Cardiac tamponade
 - b. Cardiogenic shock
 - c. Perforation of the left ventricle
 - d. Pneumothorax
 - e. Rupture of the aorta

- d. A magistrate for a minor whose parents decline life-saving surgery
- e. A 14-year old

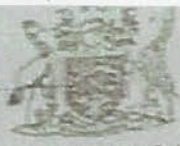
100. Which of the following statements is true?

- 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.

✓ Cutting needles - tough/dense tissue e.g. skin, fascia
✓ Round-bodied: separate tissue fibres rather than cut through them.
✓ Blunt-ended: closure of abdominal wall
✓ Hand held: may be used for skin, although it is advised that needle holder be used in all instances to avoid needle stick injuries

SURG

Ranayut Kar



UNIVERSITY OF NAIROBI
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DEPARTMENT OF SURGERY

(4)

MBChB V **END OF ROTATION** CONTINUOUS ASSESSMENT EXAMINATION
(MCQ)

DATE: **13/10/2015** ✓

TIME: ALLOCATED 1 1/2 HOURS - 9.00 AM - 10.30 A.M.

INSTRUCTIONS:

YOU HAVE BEEN GIVEN 100 MULTIPLE CHOICE QUESTIONS. CHOOSE THE BEST ANSWER. EACH CORRECT ANSWER EARNS ONE MARK. ANSWER IN THE ANSWER SHEET PROVIDED

- ✓ 1. A 27 year old woman experiences peri-oral numbness the morning after neck surgery. What is the most likely cause of her symptoms:
- A. Hypokalaemia
 - B. Hypercalcaemia
 - C. Hypocalcaemia
 - D. Hypochloreaemia
 - E. Hyperkalaemia
- Post-op complication of neck surgery*

- ✓ 2. A 40 year old man undergoes laparotomy for small bowel obstruction due to adhesions. During the release of the adhesions an enterotomy is made in the obstructed but viable gut resulting in spillage of faecal material into the abdomen. This converts the wound to:

	Category	Description	Infection risk
A.	Clean contaminated		
B.	Secondary		
<input checked="" type="radio"/> C.	Infected		
D.	Contaminated		
E.	Clean		

- ✓ 3. Delayed primary wound closure would be most appropriate for the following procedure:

- A. Removal of perforated appendix
- B. Repair of wound dehiscence one week after colectomy
- C. Emergency drainage of a diverticular abscess with sigmoid resection and end colostomy
- D. Partial gastrectomy for a bleeding duodenal ulcer
- E. Repair of incisional hernia 10 weeks after an elective left colectomy complicated by a wound infection and a resultant incisional hernia

tertiary intention

Healing by 3rd intention

Healing by 1st intention - clean surgical wound, usually closed & heals w/o complications

Healing by 2nd intention - wound left open, granulate to form, contraction of the wound

Healing by 3rd intention - delayed closure of open wound, initially debrided, covered with a dressing, closed either directly using staples or skin grafts

4. Several studies have followed up patients with asymptomatic gallstones. What percentage of patients develops symptoms after 5-20 years?

- A < 2%
- B 10-20%
- C 30-40%
- D 50-60%
- E 60%

5. In a patient with hypovolaemic shock, which cannular size would you ideally choose for infusion?

- A 21G
- B 19G
- C 14G
- D 26G
- E 30G

6. 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

Meige's disease is:

- A Not a familial disease - autosomal dominant
- B Caused by filarial worms
- C Secondary lymphoedema - 1^o lymphoedema
- D Post-axillary surgery lymphoedema of the upper limb
- E The familial form of lymphoedema praecox

8. Falsely high non-invasive blood pressure measurements may not be associated with:

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

In anorectal malformation, the following statements are true except:

- A Occurs in one in 5000 births
- B The commonest lesion in females is recto-vaginal fistula
- C Recto-urethral fistula is the commonest lesion in males
- D Persistent cloaca is the third-most common lesion in females
- E Imperforate anus in males or females occurs in under 12% of cases

Excessive pressure on head of stethoscope

TABLE 58.1 Aetiological classification of lymphoedema.

Primary lymphoedema	Secondary lymphoedema
Congenital (onset < 2 years old); sporadic; familial	Tarda (onset after 35 years old)
(Nonne-Milroy's disease)	Parasitic infection (filariasis)
Praecox (onset 2-35 years old); sporadic; familial	Fungal infection (tinea pedis)
(Letessier-Meige's disease)	Exposure to foreign body material (silica particles)
Primary lymphatic malignancy	Metastatic spread to lymph nodes
Radiotherapy to lymph nodes	Surgical excision of lymph nodes
Trauma (particularly degloving injuries)	Superficial thrombophlebitis
Deep venous thrombosis	

pg 998, baby & Lewis

✓ 10. The following lesions are developmentally similar except:-

- ✓ A. Rectal urethral fistula ✓ (Common in ♂)
- ✓ B. Imperforate anus ✓
- ✓ C. Recto-vestibular fistula ✓ (Common in ♀)
- ✓ D. Persistent cloaca ✓
- E. Rectal atresia

✓ 11. Which of the following lesions will require colostomy as an emergency life saving procedure?

- A. Imperforate anus in males and females w/o fistula
- B. Perineal fistula in both sexes
- C. Rectovestibular fistula F
- D. Recto-urethral fistula M
- E. Persistent cloaca

✓ 12. Mrs Joseph, a 47 year lady is complaining of epigastric and right hypochondrial pain. She has nausea and has been vomiting for the last 24 hours. She recalls that the symptoms started when she was eating a cheese cake. The pain did not respond to over the counter antacids and prokinetic drugs which she tried. On examination she was an obese lady. Her liver enzymes are marginally elevated. Which ONE of the following is the most appropriate next investigation?

Gallstones

- A. Erect abdominal x-ray ✓
- B. Endoscopy
- C. Ultrasound scan of the abdomen
- D. HI breath test for H pylori ✓
- E. CT abdomen

FAST

- 1) massive pain - peritoneal irritation
- 2) Rebound
- 3) RDS
- 4) Percussion (subphoid)

USE THE FOLLOWING CHOICES TO ANSWER QUESTIONS 13-17. Each choice may be used once, more than once or not at all.

- A. Immediate laparotomy
- B. Diagnostic peritoneal lavage
- C. Abdominal CT scan
- D. Observation
- E. Pericardiocentesis

Review the domain

13. Haemodynamically stable road traffic accident (RTA) victim with free gas under the diaphragm. **A**
14. Haemodynamically stable RTA victim who has blunt abdominal trauma with a grade I liver injury on CT scan. **D** - Majority of PTB admitted for liver injuries have grade I/II/III & are successfully treated by NBM (non-operative mgmt). 2/3 of grade III/IV require OR. Pts overall condition (e.g. hemodynamic stability) >>> FAST liver injury grade
15. Patient with multiple rib fractures without haemo/pneumothorax but has hypotension, distant heart sounds and low blood pressure following blunt chest trauma. **E** (Backs tend: muffled heart sounds, low BP, ↑ JVP/dilated neck veins)
16. Patient with ruptured urinary bladder following blunt abdominal trauma. **A**
17. Patient who presents two days after blunt abdominal trauma with tachycardia, fever and abdominal distension. **E** (No Urinary (retention) (dist.)
18. Which one of the statements is INCORRECT with regard to sepsis
- A. Tachycardia or tachypnea may be a sign ✓ ✓
 - B. Sepsis is defined as systemic inflammatory response syndrome in the presence of infection ✓
 - C. Leucocytosis or leukopenia may be a sign ✓ ✓
 - D. Sepsis and hypotension is defined as septic shock
 - E. Temperature greater than 38 or less than 36 may be a sign ✓

19. Which of the following clinical conditions is not associated with rapid gastric emptying? *5/3/2016 Diagnostic Index*

- A. Pancreatic insufficiency ✓ - hypoglycaemia due to excess release of insulin
- B. Hyperthyroidism ✓
- C. Hypocalcaemia → ↑ SM tone → ~~constipation~~
- D. Impaired fat absorption ✓
- E. Zollinger-Ellison syndrome ✓

Chest Trauma

- 1) Tension pneumothorax - air enters through small intercostal space & trapped - deprive chest lobe
- 2) Open chest wound - air enters into one way valve by chest gland trapping - deprive chest lobe & chest wound
- 3) Hemothorax - severe chest tube, tamponade, dependent hemothorax, spurting of (arterial) blood
- 4) Cardiac tamponade - muffled distant heart sounds, muffled heart sounds (Beck's triad) - distended neck veins, ↑ JVP, peripheral vascular collapse
- 5) Flail chest - multiple rib fractures (usually 2-3 ribs) - multiple rib fractures w/ flail chest
- 6) Simple pneumothorax - clear wound above/wounding chest drain
- 7) Hemothorax - chest drain
- 8) Pul contusion - airway in chest pleura
- 9) Fractured ribbed injuries - Sa
- 10) Blunt cardiac trauma (collar, etc) - Sa, myocardial rupture
- 11) Double injury
- 12) Diaphragmatic injury - Charcot's up old stomach (flail chest) - liver injury

20. Infection with *Helicobacter pylori* has been associated with all of the following conditions EXCEPT:

- A. Duodenal ulcer ✓
- B. Gastric cancer ✓
- C. Mucosa associated lymphoid tissue [MALT] lymphoma ✓
- D. Gastroesophageal reflux disease [GERD]
- E. Chronic gastritis (Type B)

* GERD is not a result of the presence of *H. pylori*. GERD arises from a transient relaxation of LES (other causes: incompetent LES, gastroparesis, hiatal hernia). Most acute Mot: 20-30% pH monitoring with impedance. EGD + biopsy if refractory to initial empiric therapy (proton pump inhibitors, H₂-antagonists, PPIs), long-standing (Barrett's, adenocarcinoma), alarm symptoms (eg. blood in stool, weight loss).

21. A 75 year old man taking NSAIDs for arthritis has an acute abdomen and pneumoperitoneum. His symptoms are 6 hours old and his vital signs are stable after the infusion of 1L of normal saline solution. What should the next step in the management of this patient?

- A. Computed tomography of the abdomen
- B. Esophagogastroduodenoscopy [EGD] ✓
- C. Antisecretory drugs, broad spectrum antibiotics, and surgery if he fails to improve in 6 hours
- D. Antisecretory drugs, antibiotics for *H. pylori*, and surgery if he fails to improve in 6 hours
- E. Surgery

* Eoat cXR - free gas under diaphragm
 CT - diffn ul p aneurysm
 + Rx - rescue & analgesia
 - following resect the Rx is principally in pyloroplasty / omental patch.
 - systemic Abs + peritoneal lavage
 - fail in antisecretory drugs started immediately.

24. Which of the following is the best test to confirm eradication of *Helicobacter pylori*?

- A. Negative histology after biopsy during endoscopy
- B. Negative faecal antigen test
- C. Negative urea breath test
- D. Negative urea blood test
- E. Negative urine antigen

hydrolyse urea
 13C → 14C breath test

22. A 45-year old man requires surgery for an intractable duodenal ulcer. which operation best prevents ulcer recurrence

- A. Subtotal gastrectomy
- B. Truncal vagotomy and pyloroplasty.
- C. Truncal vagotomy and antrectomy - 1% recurrent ulcers
- D. Selective vagotomy - 5-10%
- E. Highly selective vagotomy - 2-10%

Repeat EGD biopsies

23. The most common cause of gastric outlet obstruction in adults is

- A. Peptic ulcer disease
- B. Extrinsic neoplastic compression
- C. Cancer
- D. Primary lymphoma of the stomach
- E. Duodenal Crohn's disease

Rarely benign & PUD
 37% benign; the rest due to malignancy

USE THE FOLLOWING CHOICES TO ANSWER QUESTIONS 25-29.

- A. Fluctuating levels of consciousness
- B. Lucid interval
- ~~C. Posterior fossa tumour~~ ✓
- ~~D. Bitemporal hemianopsia~~ ✓
- ~~E. Retroviral infection~~ ✓ (HIV)

SDH - middle meningeal artery - 60-10% of cases
 lucid interval
 bitemporal hemianopsia

- a 25. Chronic subdural haematoma **A** *may not present sympt. till weeks after trauma; delayed neurological deterioration.*
- ~~b~~ 26. Extradural haematoma **B B**
- ~~d~~ 27. Pituitary adenoma **D D**
- c 28. Ventriculoperitoneal shunt is indicated **C C**
- e 29. Primary brain lymphoma **E E**

USE THE FOLLOWING CHOICES TO ANSWER QUESTIONS 30-34. MATCH THE CHOICES WITH THE MOST APPROPRIATE ANSWER.

- A** • Stewart-Treves' syndrome *(lymphangiosarcoma) → a lymphangio sarcoma that arises due to mastectomy and/or radiotherapy for breast ca*
- B** • Von Hippel-Lindau disease *→ mutation of VHL suppressor gene; hemangioblastoma, pheo, RCC*
- C** • Von Recklinghausen's disease *→ aka neurofibromatosis I*
- D** • Lynch syndrome / HNPCC *→ high risk colorectal ca & endometrial, ovary, stomach, CI, hepatobiliary, upper GIT, brain and skin.*
- E** • Peutz-Jegher's syndrome *→ intestinal hamartomatous polyps with mucosal 2. mucosal 15x risk of colorectal ca*

- B** 30. Renal cell carcinoma **VHL**
- ? **C** 31. Increased risk of soft tissue sarcoma **Lynch**
- D** 32. Increased risk of colon cancer and endometrial cancer **Lynch syndrome**
- A** 33. Lymphangiosarcoma associated with lymphoedema following radical mastectomy **Stewart Treves**
- C** 34. Neurofibromatosis type I **→ Von Recklinghausen's disease**

35. With regard to the storage of banked blood, which of the following statement is true?

- ~~A. Packed red blood cells stored in additive solution (AS-3) and kept at 4°C are suitable for transfusion for 3 months. †~~
- ~~B. Platelets in banked blood retain their function for 3 days. †~~
- C. Factor II, VII IX and XI are stable at 4°C †**
- ~~D. A decrease in red blood storage cell oxygen affinity occurs during storage as a result of a decrease in 2, 3-diphosphoglycerate (2,3-DPG) levels.~~
- ~~E. There is a significant rate of hemolysis in stored blood.~~

36. In cirrhotic patient who are actively bleeding, the coagulopathy of end-stage liver disease can be differentiated from DIC most readily by estimation of which of the following factors?

- A. Factor II
- B. Factor V
- C. Factor VII
- D. Factor VIII:C
- E. Factor X

CHD or ↑ FVIII & FII
 ↓ FVIII, + fibrinogen (CFI) & ↑ D-dimer
 Thrombin time (F2)
 Liver dx: (N)
 DIC: prolonged

37. Which of the following statements regarding the distribution, composition, and osmolarity of the body fluid compartments is not true?

- A. Most intracellular water resides in skeletal muscles.
- B. The principal ^{extra}intracellular cation is sodium. $K^+ V^+ K$
- C. Nonpermeable proteins determine the effective osmotic pressure between the interstitial and intravascular (plasma) fluid compartments.
- D. Calcium greatly determines the effective osmotic pressure between the ICF and ECF
- E. The principal extracellular anion are chloride and bicarbonate.

38. Which one of the following is not a stimulus for ECF expansion?

- A. Hemorrhage leading to a reduction in blood volume
- B. Increased capillary permeability after major surgery
- C. Peripheral arterial vasoconstriction
- D. Negative interstitial fluid hydrostatic pressure
- E. Colloid oncotic pressure

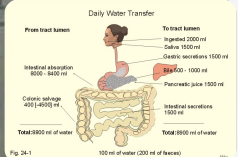
39. Which of the following statements regarding hypervolemia in postoperative patients is not true?

- A. Hypervolemia can be reduced by the administration of isotonic salt solutions in amounts that exceed the loss of the volume.
- B. Acute overexpansion of the ECF space is usually well tolerated in healthy individuals
- C. Avoidance of volume excess requires daily monitoring of intake and output and determinations of serum sodium concentrations to guide accurate fluid administration.
- D. The most reliable sign of volume excess is peripheral edema
- E. The earliest sign of volume excess is weight gain.

40. Which of the following pairing statements regarding daily fluid balance is incorrect?

- A. Daily water intake, 2000 to 2500 mL → Ingested liquid + 5L + Average daily H₂O losses
- B. Average stool loss, 1000 mL - 300 mL → food = 0.8L, metabolic = 0.2L
- C. Average insensible loss, 600 mL ✓
- D. Average urine volume, 800 to 1500 mL
- E. Average increase in insensible loss in a febrile patient, 250 mL/day for each degree of fever.

① urine (600) = 1.5L
 ② Insensible (skin + resp) = 0.6L
 ③ GIT = 0.2L



(all secretions = 1.5L sweat + 1.1L = 0.4)

41. With regard to intraoperative management of fluids, which of the following statements is true?

- A. In a healthy person, up to 500mL of blood loss may be well tolerated without the need for the blood replacement
- B. During an operation, functional ECF volume is directly to the volume lost to suction.
- C. Functional ECF losses should be replaced with plasma
- D. Administration of albumin plays an important role in the replacement of functional ECF volume loss.
- E. Operative blood loss is usually overestimated by the surgeon.

42. A 70-year-old man with sepsis has a pH of 7.18. Which of the following statements is true regarding his metabolic acidosis?

- A. Tissue hypoxia leads to increased oxidative metabolism.
- B. Acute compensation for metabolic acidosis is primarily renal.
- C. Metabolic acidosis results from the loss of bicarbonate or the gain of fixed acids
- D. The most common cause of excess acid is prolonged nasogastric suction. X
- E. Restoration of blood pressure with vasopressors corrects the metabolic acidosis associated with circulatory failure.

43. Which of the following is true with regard to the metabolic response to stress as described by Cuthbertson:

- A. The flow phase of Cuthbertson's two-phase model of the metabolic response to injury is characterized by physiologic responses designed to restore tissue perfusion and circulating volume.
- B. The ebb phase begins once the patient is successfully resuscitated.
- C. The ebb phase entails both a catabolic and an anabolic period.
- D. The flow phase occurs initially after traumatic injury.
- E. The anabolic phase starts after wounds have closed and is characterized by the return of normal homeostasis

44. Which of the following cases is considered a dirty wound?

- A. Open cholecystectomy for cholelithiasis
- B. Hemiorrhaphy with mesh repair
- C. Open prostatectomy
- D. Appendectomy with walled-off abscess
- E. Thyroidectomy

45. Acute haemolytic transfusion reaction is associated with:-

- A. ABO incompatibility
- B. Minor blood group incompatibility
- C. Rh incompatibility
- D. Transfusion through Ringer's lactate
- E. Transfusion through 5% dextrose and water

46. A patient with a non-obstructing carcinoma of the sigmoid colon is being prepared for elective resection. To minimize the risk of postoperative infectious complications, your planning should include:-

- A. A single pre-operative parenteral dose of antibiotic effective against aerobes and anaerobes
- B. Avoidance of oral antibiotics to prevent emergence of *Clostridium difficile*
- C. Parenteral nutrition
- D. Postoperative administration for 5-7 days of parenteral antibiotics effective against aerobes and anaerobes *Wk*
- E. Operative time less than 5 hrs

47. The most important effect of pre-operative potassium iodide solution in thyroid surgery is:

- A. A reduction in thyroid storm
- B. Reduced vascularity of the gland *B inhibits growth of thyroid hormones*
- C. Increased chance of saving the parathyroid glands
- D. Reduced risk of recurrent laryngeal nerve damage
- E. Pigment deposition in the parathyroid gland which helps to identify them

48. Phosphate containing solutions for bowel preparation for colonoscopy are contraindicated in the elderly because of the risk of:

- A. Hypokalaemia
- B. Hypercalcaemia
- C. Large fluid shifts
- D. Nausea and vomiting
- E. Bloating

49. Severe and complicated pancreatitis is associated with all of the following EXCEPT:

- A. Adult Respiratory Distress Syndrome ✓
- B. Hyperglycaemia ✓
- C. Ascites ✓
- D. Hypocalcaemia ✓
- E. Gout

50. In inflammatory bowel disease, which extra-gastrointestinal manifestation is more likely in a patient with ulcerative colitis than one with Crohn's disease?

- A. Uveitis - CD
- B. Renal stones - CD
- C. Gallstones - CD
- D. Venous thrombosis
- E. Erythema nodosum - CD

* UC - mucosal disease

- colon
- continuous inflammation
- endo-epithelial lining

* CD - chronic full thickness inflammatory process that can affect

- any part of GIT
- patchy inflammation; skip areas
- 2 major types based on extent
- more commonly causes stricture & fistulation
- does not risk for colorectal Ca.
- 1st part - 20-40, 2nd part - 70% ; Carcinoma

* Extra-intestinal manifestations of Crohn's disease

- Erythema nodosum
- Pyoderma gangrenosum
- Arthropathy
- Eye complications (iritis/uveitis)
- Aphthous stomatitis
- Gall stones
- Anal fissure
- Increasing cholangitis
- Chronic cystitis
- Spondylitis

2 P's = Pheochromocytoma + Parathyroids

51. With regard to MEN IIA (Sipple's syndrome)
- A. Pheochromocytoma will 20% of cases $\times 50\%$
 - B. Medullary thyroid carcinoma will be present all the time $\times 90-100\%$
 - C. Parathyroid over activity will be present 60% of cases $\times 20-50\%$
 - D. Parathyroid tumours will be present all the time $\times 5-20\%$
 - E. Most of the time pheochromocytoma will be bilateral $\times 10-50\%$ Bilateral

52. With regard to risk of breast tumour, all the following syndromes carry genetic risk of the disease EXCEPT:

- A. Women with Li-Fraumeni syndrome are at risk ✓
- B. Men with Cowden syndrome are at risk ✓
- C. Muir-Torre syndrome, ✓
- D. Sipple syndrome, (MEN IIA) MEN IIA
- E. Ataxia-telangiectasia ✓

53. Which of the following is true with regard to hernia?

- A. It is impossible to differentiate femoral from inguinal hernia clinically. ✓
- B. It is impossible to differentiate indirect from direct hernia clinically. ✓
- C. Ultrasound is always the investigation of choice before diagnosis of hernia. ✓
- D. Hernia is the commonest cause of intestinal obstruction in developed countries. ✓

E. Saphena varix is a differential diagnosis of groin hernia. ✓

54. Assessment of a breast lump include all of the following EXCEPT

- A. Clinical examination ✓
- B. Mammography ✓
- C. Core biopsy ✓
- D. Ultrasonography ✓
- E. Mastectomy ✓

Table 8.3 Clotting screen abnormalities in coagulopathies

Disorder	INR	APTT	Thrombin time	Platelet count	Notes
Heparin	↑	↑↑	↑↑	↓↓	
DIC	↑↑	↑↑	↑↑	↓	↑D-dimer, p346
Liver disease	↑	↑	↑/↓	↑/↓	AST↑
Platelet defect	↑	↑	↑	↓	
Vit K deficiency	↑↑	↑	↑	↑	
Haemophilia	↑	↑↑	↑	↑	see p344
von Willebrand's	↑	↑↑	↑	↑	see p712

Special tests may be available (factor assays) - consult a haematologist.

55. Which of the following conditions is associated with an isolated prothrombin time (PT/INR) prolongation?

- A. von Willebrand disease (APTT ↑)
- B. Factor VIII deficiency (hemophilia A) (APTT ↑)
- C. Common pathway factor deficiencies (factors II, V, and X and fibrinogen) (APTT ↑)
- D. Therapeutic anticoagulation with warfarin (Coumadin) (PT ↑, INR ↑)
- E. Therapeutic anticoagulation with heparin (PT ↑, APTT ↑, TT ↑)

- DTA
- 2
60

USE THE FOLLOWING INFORMATION FOR QUESTIONS 56-60. A two year old boy presents in hospital having been run over by his father when he was reversing in the driveway. He is found to be drifting in and out of consciousness, blood pressure of 50/35mmHg, pulse of 120 beats per minute and capillary refill of 4 seconds.

56. What will be the initial management?

- A B C D E
- A. Put a large bore intravenous cannula and start saline boluses
 - B. Take to theatre for exploration x
 - C. Give oxygen
 - D. Immobilise any fractured bones to prevent further bleeding x
 - E. Secure the airway.

57. In giving saline boluses, the recommended initial dose is

- 20 x 70 = 1.4 L
- A. 20ml/kg body weight
 - B. 10ml/kg
 - C. 100ml
 - D. 1L
 - E. 50ml/kg

58. Which of the following test is NOT recommended initially to evaluate for the presence of intraabdominal trauma in such a child

- A. Abdominal CT scan ✓
- B. Liver function tests
- C. Urinalysis
- D. Serum amylase
- E. Abdominal FAST scan ✓

59. The child is found to stabilise but have splenic laceration. Which is the best management option? - Flare home

- A. Urgent operation and splenectomy
- B. Bed rest
- C. Discharge for observation at home
- D. Blood transfusion
- E. Anticoagulants

60. In resuscitating a child, the following is the recommended chest compression:breath ratio 15 1

- A. 15:2
- B. 15:1
- C. 30:2
- D. 30:1 x
- E. 5:1

61. A six week infant is brought to hospital with projectile nonbilious vomiting. The doctor orders an ultrasound scan and confirms presence of pyloric stenosis. He then orders some laboratory tests. The following are possible findings EXCEPT

- A. Acidosis
- B. Alkalosis
- C. Hypochloraemia
- D. Hyponatraemia
- E. Hypokalaemia

Vomiting = ↓ electrolytes
 = ↓ acid

62. A 12 year old girl complains of abdominal pain that started suddenly in the morning and has persisted 4 hours since. She is also vomiting and has not had any diarrhoea. She reports no change in appetite or dysuria. She is not febrile but is tender in suprapubic and left iliac fossa, and the tenderness is not migratory. Laboratory tests are ordered and white blood cell count is 8 and a CRP of 4. What is the most likely diagnosis?

(N) = < 10mg/L

- A. Appendicitis ✗
- B. Ovarian torsion ✗
- C. Merkel's diverticulitis
- D. Constipation
- E. Mesenteric adenitis

→ obstruction that occurs in absence of mechanical cause or acute intraabdominal dx.

63. Colonic pseudo obstruction is caused by all except

- A. Systemic illness
- B. Electrolyte imbalance
- C. Faecal impaction ✓ dx
- D. Opioids ✓
- E. Hypothyroidism ✓

Metabolic - DM, hypok⁺, uremia, hyponatremia
 Endocrine - thyroid
 Suck - burn, MI, sepsis, pancreas
 Retropelvic vessel entrapment - w/ blood, urine, sigmoid, tumor
 Drugs - TCAs, anticholinergics, barbiturates
 2° GIT involvement - colostomy, changes in diet

64. An 18 year old girl is brought to the casualty with worsening severe abdominal pain which started 6 hours ago. Her abdomen is tender particularly in the lower abdomen and there is guarding. She also has a history of Chlamydia. She has tachycardic but her blood pressure is normal at 137/78. Which one of the following is the diagnosis you should confirm or rule out in this patient?

- A. Acute appendicitis
- B. Pelvic inflammatory disease
- C. Acute intestinal obstruction ✗
- D. An ectopic pregnancy ✗ (previous STI hx & risk factor)
- E. Crohn's disease ✗

65. Which of the following is INCORRECT concerning colorectal carcinoma?

- ⌘ A. Is the second most cause of cancer related death in western world?
- ⌘ B. A T1 N1 M0 stage III is equivalent to Duke stage C tumour ^{→ KNE involved}
- C. Majority of the cancers occur in the descending colon ^{→ 49% tumor of the left side MC}
- ⌘ D. Familial adenomatous polyposis and HNPCC are two inherited causes of colon cancer
- E. Patient with primary Sclerosing cholangitis and ulcerative colitis have increased risk of developing colon cancer <sup>→ morbidity 17% risk at 10yrs
10-15% risk at 20yrs
20% at 30yrs</sup>

66. Which ONE of the following is INCORRECT with regard to familial adenomatous polyposis.

- ⌘ A. Account for about 1% of colorectal cancers ^{< 1%} - accounts for 1% of all colon Ca
- ⌘ B. Is autosomal dominant inherited ^{but not for colorectal Ca is 100%}
- ⌘ C. Patient may develop extra colonic manifestation such as desmoids, epidermoid cysts and dental cysts. ✓
- D. Adenomas develop during teenage years of life will become malignant around the age of 20 <sup>→ develop at age 15, Ca colon occurs 10-20yrs after onset of the polyps
Age 25-35</sup>
- ⌘ E. Treatment is with a subtotal colectomy <sup>colectomy w/ ileorectal anastomosis
Proctocolectomy w/ ileorectal anastomosis</sup>

67. All are important in the preoperative management of patients with jaundice except

- A. Vitamin K ⌘
- B. Adequate hydration ⌘
- C. Input-Output charts ⌘
- D. Prophylactic antibiotics ⌘
- E. Scrubbing of the surgical site in the ward

68. All are complications of cholelithiasis except

- A. Cholangitis ✓ ⌘ ^{1) Biliary colic}
- B. Pancreatitis ✓ ⌘ ^{2) acute cholecystitis}
- C. Gall bladder abscess ✓ ⌘ ^{3) Empyema / abscess of gall bladder}
- D. Duodenal ulcers ^{4) mucocele}
- E. Recurrent cholecystitis ✓ ⌘ ^{5) Peric}
^{6) Biliary obstruction}
^{7) Acute cholangitis}
^{8) " pancre}
^{9) Int obstruction (gallstone ileus)}

69. Carcinoma of the bladder:

- A. Is primarily of squamous cell origin. ~~X~~ TCC
- ~~B~~ Is preferentially treated by radiation.
- F C. May be treated conservatively by use of intravesical agents even if it invades the bladder muscle. ~~X~~
- D. May mimic an acute UTI with irritability and hematuria. Painless
- E. Is preferentially treated by partial cystectomy. ~~X~~

70. If torsion of the testicle is suspected, surgical exploration:

- A. Can be delayed 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

71. 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 ~~X~~
- B. Ischiorectal abscess
- C. Pelvic abscess
- D. Ovarian cyst ~~X~~
- E. Uterine fibroids ~~X~~

72. The following investigations are appropriate prior to surgery

- A. An ECG in all patients older than 30 years ~~X~~
- B. Coagulation screen for all patients with obstructive jaundice ~~X~~
- C. HIV screening for patients with acute appendicitis ~~X~~
- ~~D~~ Chest X-ray for all patients over 40 years
- E. Liver function test for patients with acute appendicitis

USE THE FOLLOWING CHOICES TO ANSWER QUESTIONS 73-77. CHOOSE THE MOST APPROPRIATE CHOICE FOR EACH STEM

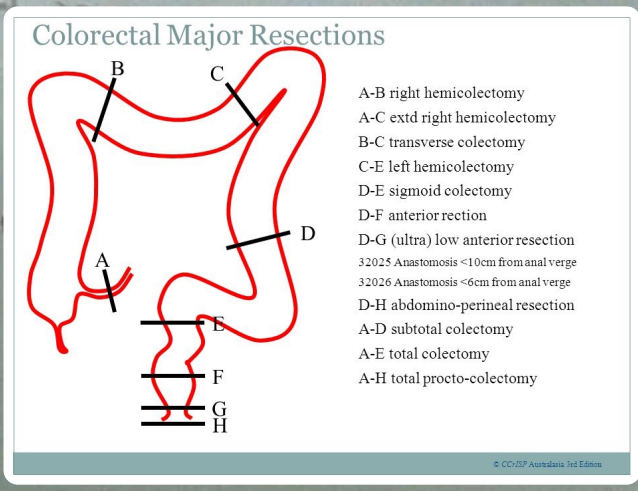
- ~~A~~ Familial adenomatous polyposis syndrome (13)
- ~~B~~ BRCA mutation
- ~~C~~ Down's Syndrome
- ~~D~~ MEN IIA
- ~~E~~ Long-term immunosuppressive treatment after kidney transplant

- A 73. 100% lifetime risk of colon cancer **A**
- 74. Increased risk of periampullary tumours **- A A**
- B 75. Increased risk of bilateral breast cancer **B B**
- D 76. Increased risk of phaeochromocytoma **D**
- E 77. Increased risk of Kaposi's sarcoma **E**

USE THE FOLLOWING CHOICES TO ANSWER QUESTIONS 78-82. CHOOSE THE MOST APPROPRIATE CHOICE FOR EACH STEM.

- A. Left hemicolectomy - Desc colon & sigmoid cae
- ~~B~~ Anterior resection - ^{up to} 5cm from anal
- C. Diverting ileostomy
- D. Abdominoperineal resection
- ~~E~~ Right hemicolectomy - Ca caecum

- B **B** 78. Rectal cancer 3 cm from the anal verge *Extented R2 hemicolectomy - Ca*
- A** 79. Colon cancer at the rectosigmoid junction
- C** 80. Descending colon perforation at colonoscopy
- D** 81. Consent for a permanent colostomy
- E** **E** 82. Hepatic flexure tumour *WGS cae*



USE THE FOLLOWING CHOICES TO ANSWER QUESTIONS 83-87. CHOOSE THE MOST APPROPRIATE CHOICE FOR EACH STEM.

- A. Distended small bowel identifiable by the valvulae conniventes ✓
- B. Coffee bean sign *- sigmoid volvulus ; kidney bean sign - caecal volvulus*
- C. Modest amount of gas in the pelvis. ✓
- D. Peripheral, rather than central, distribution of gas.
- E. Prominent haustral markings ✓

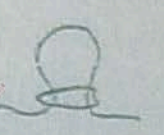
C 83. Intussusceptions *B A* C*

B 84. Sigmoid volvulus *D B B*

A 85. Small bowel obstruction *A A A*

D 86. "Closed-loop" obstruction of the colon *C E D*

E 87. Obstructing rectal cancer *E - ~~has a narrow neck~~ D*



88. Rectal Juvenile polyps:

- A. Almost invariably undergo malignant change
- B. Occasionally persist into adult life
- C. Are pre-malignant
- D. Are not associated with pain
- E. Are not associated with rectal bleeding

89. Which statement with regards to breast cancer is ^{False} TRUE? *True*

- A. The commonest site of metastases is the contralateral breast X
- B. Local spread to the chest wall occurs earlier in female patients than male patients X
- C. Klinefelter's syndrome is a predisposing factor X *X gynecomastia*
- D. Inflammatory breast cancer is classified as locally advanced disease ✓
- E. There is no role for neo-adjuvant chemotherapy X ✓

90. Preservation of normothermia in surgical patients is important. All of the following are negative outcomes associated with perioperative hypothermia except?

- A. Coagulopathy ✓
- B. Wound infection ✓
- C. Nosocomial pneumonia
- D. Myocardial ischaemia
- E. Delayed wound healing

91. Which of the following is NOT a complication of urethral stricture?

- A. Retention of urine ✓
- B. Urethral diverticulum ✓
- C. Peyronie's disease
- D. Peri-urethral abscess ✓
- E. Urethral fistula ✓

92. Which of the following people can give a valid consent for elective surgery?

- A. A surgeon not involved in care of the patient ✗
- B. The headmaster of a child in boarding school ✗
- C. A patient who is under the influence of alcohol ✗
- D. A magistrate for a minor whose parents decline life-saving surgery
- E. A 14-year old ✗

93. Kaposi's sarcoma:

- A. Is an X-linked recessive disease
- B. Can be treated with radiotherapy ✓
- C. Does not respond to chemotherapy
- D. Only affects people with AIDS
- E. Mainly affects the central nervous system *Mucosal*

94. Regarding gastric carcinoma

- A. H. pylori is not known to be a risk factor ✗
- B. Early gastric cancer is , even in the presence of nodal involvement have 90% 5 year survival *confined to the mucosa & submucosa and serosa depends on nodal inv.*
- Intestinal* C. Diffuse type in Lauren's classification have the best prognosis ✗ *intestinal*
- D. Troisier's sign is due to transperitoneal spread ✗ *thoracic due to supraclavicular*
- E. Sister Mary Joseph nodule is due to lymphatic spread *periumbilical* *Virchow's nodes* *transperitoneal*

95. Regarding preoperative evaluation

- A. There is no role for history and physical examination ✗
- B. Chest x ray is useful in all circumstances ✗
- C. Usefulness of hemogram is to avoid blood loss ✗
- D. Post operative complication are a consideration
- E. Comorbidities are an occasional consideration ✗

96. The following are methods of managing Inguinal hernia except

- A. McVays method ✓
- B. Bassini's method ✓ *No longer used*
- C. Lichtensteins method ✓
- D. Lockwood (*Femoral hernias*)
- E. Shouldice method ✓

97. A postoperative pulmonary embolus

- A. Is invariably associated with chest pain ~~X~~
- B. A chest x-ray is always normal ~~X~~
- C. Diagnosis can be confirmed by radioisotope ventilation/perfusion scan ✓
- D. ECG may show Q wave in lead III. ✓ ✓ S₁ Q₃ T₃ S₁Q₃T₃
- E. is rarely seen between 7 and 10 days after operation ~~X~~

most commonly

98. Phylloides tumour

- A. Is invariably a benign disease
- B. Modified radical mastectomy is the treatment of choice ~~X~~
- C. Commonly affect ages 20-30 years just like fibroadenoma
- D. Chemotherapy may not be useful ~~X~~
- E. Local recurrence are common than distance metastasis

smc

99. Enterocutaneous fistula

- A. Always close spontaneously ~~X~~
- B. 250ml discharge from the fistula per day is considered low output ~~X~~ mod + secretion
- C. Conventional therapy is surgery for the first phase (stabilize the patient/resuscitate)
- D. Spontaneous causes include intestinal sepsis
- E. Fistulas with tracts longer than 2cm hardly closes

Low output = < 200ml/24hrs
 Moderate = 200-500ml/24hrs
 High output = > 500ml/24hrs

- A - Border
- C - colour
- D - Diam - 6mm
- E - evolution

100. Which of the following is true regarding malignant melanoma

- ~~F~~ A. The most common type is nodular melanoma ~~X~~ ^{supt spreading}
- ~~F~~ B. Breslow thickness is not a good prognostic factor ~~X~~ ^{extent}
- ~~F~~ C. Sentinel lymph node biopsy is not a means of assessing lymph node status in this disease ~~X~~
- D. Isolated limb perfusion with cytotoxic agents palliates recurrent limb disease
- ~~F~~ E. Lentigo maligna is deep disease ~~X~~

good prognosis superficial dx

↑
 transit metastases
 inresectable local dx
 palliation to maintain limb fx
 adjuvant therapy to
 poor prognostic times

Acral lentiginous dx occurs in site

The following may characterize chronic urine retention.

- a) T Dribbling of urine
- b) F Nocturia
- c) Stress incontinence
- d) F Severe suprapubic pain *bull*
- e) T Suprapubic mass

2. Ulcers

- a) F The base of an ulcer is assessed by inspection
- b) F Tuberculous ulcers often have raised edges. (*under ... -11 gastric/neoplas*)
- c) T Venous ulcers (varicose ulcers) have shallow edges
- d) F Should always be skin grafted (*only for some specific ones*)
- e) F Daily dressing is required in all types of ulcers.

3. True about a sinus

- a) F Defined as an abnormal communication between two epithelial surfaces. (*with fistula*)
- b) T May be a complication of an abscess
- c) T May be associated with presence of foreign bodies
- d) T May be congenital
- e) F All of the above

4. Cysts

- a) F Are always congenital
- b) T May be transillumination positive
- c) T Are usually lined by epithelium or endothelium
- d) T Fluctuation is an unreliable clinical test in cysts of less than 2cm diameter.
- e) F All of the above

5. Indirect inguinal hernia

- a) F Leaves the abdominal cavity medial to inferior epigastric artery through Hasselback's triangle. (*lateral*)
- b) T Traverses the inguinal canal
- c) T Its coverings are the same as those of spermatic cord
- d) T The sac lies anteromedial to the vas deferens and other structures in the cord. (*Antero Medial*)
- e) F All of the above

6. Strangulated hernia

- a) T Femoral herniae are prone to it
- b) T There is risk of developing peritonitis
- c) F Recognized when cough impulse is lost in an irreducible hernia
- d) T Hernia is tense, tender with red shiny overlying skin
- e) F All the above

7. In lower extremity chronic arterial insufficiency symptomatology may include:

- a) T Muscle pain precipitated by exercise but relieved by rest
- b) F Limb rest pain usually relieved by limb elevation
- c) T Paraesthesia
- d) F Nail deformity
- e) T Ulcers

SURG

the claudication²

*100
2500
24 = 100*

- ✓ 8. Which of the following is true about total body water
- a) T 1/3 of body water is within extracellular compartment
 - b) F Daily water requirement within the body is 1 ml/kg/hr $\rightarrow 2.4L/d$.
 - c) T Insensible water loss in the tropics in a 70 kg weight person is about 500mls
 - d) F In a child the total body water accounts for 75% of the weight due to increase in intracellular fluid.
 - e) T Severe diarrhoea leads to significant loss of potassium and bicarbonate

- ✓ 9. Gangrene
- a) T Implies death and putrefaction of macroscopic portions of tissue
 - b) T Sudden arterial occlusion may result in wet gangrene with blister formation
 - c) T Crepitus in the tissues is an important clinical sign implying gas gangrene
 - d) T Zone of demarcation is a result of granulation tissue forming between the dead and living parts.
 - e) F A line of demarcation should be awaited before amputation in all cases F

- ✓ 10. Hypokalaemia in the surgical patient
- a) T May be caused by upper GI obstruction ✓
 - b) T May be a complication of entero-cutaneous fistula ✓
 - c) T Is worsened by alkalosis ✓ ✓
 - d) T May be a cause of paralytic ileus ✓
 - e) T Should be treated by oral potassium supplementation ✓

- ✓ 11. Dysphagia
- a) F Is defined as painful swallowing \times o/e
 - b) F Is usually experienced for several years before presentation in patients with Ca oesophagus \times
 - c) F A pharyngeal pouch is not a cause \times
 - d) F Endoscopy is done mainly to grade the dysphagia \times (clinical)
 - e) F Cardiomegaly caused by ventricular enlargement is a known cause \times

- ✓ 12. Cancer of the oesoph.
- a) F Tylosis reduces risk - \uparrow form of callus on the skin
 - b) F Majority are adenocarcinomas \times SCC
 - c) F Development of oesophagobronchial fistula is an indication for urgent surgical resection.
 - d) T Surgical resection may be the preferred treatment option in most cases
 - e) T Is common in communities of low socio-economic status.

- ✓ 13. In acute appendicitis \rightarrow periumbilical
- a) F The initial pain is usually felt over MacBurney's point (Right iliac fossa) \times
 - b) F Fever is an uncommon finding \times
 - c) F Muscle rigidity, percussion tenderness and rebound tenderness are usually negative \times
 - d) F Leucocytosis of about 15,000 cells μ l is a common finding \times $> 10,000$ cells μ l
 - e) T Palpation of the left iliac fossa may generate pain in the right iliac fossa \times \rightarrow Rovsing

- ✓ 14. Clinical features associated with intestinal obstruction are
- a) T Abdominal distention ✓
 - b) T Constipation ✓
 - c) T Vomiting ✓
 - d) T Increased bowel sounds \times \rightarrow ↓

Acute

$30ml/kg/d$
 2500
 $1.5L$

Reduced or absent bowels sounds - *Reibuh's rule*

- Routine pre-operative preparation of all surgical patients should include
- a) Administration of intravenous fluids ✓
 - b) Assessing fitness for surgery and anaesthesia by careful testing and physical examination
 - c) Administration of prophylactic antibiotics ✗
 - d) Performing pulmonary function test
 - e) Discussion with the patient/or relatives about the surgery and obtaining informed consent
16. ✓ In patients being prepared for surgery
- a) A minimum haemoglobin of 12.5 g/dl is recommended 10 10
 - b) A routine chest xray is recommended in elderly patients, smokers and those with primary malignancies elsewhere.
 - c) Oral anticoagulants should be stopped one day before surgery ✗ F
 - d) An ECG is recommended in those over 40 years old ✗ F
 - e) Premedication is mainly given to reduce anxiety and raise the pain threshold
17. ✓ About post operative care of a patient
- a) F The first 24 hours should always be in the intensive care unit where possible ✗
 - b) T Is mainly about careful monitoring of the patient in order to identify early any physiological derangements and provision of adequate pain relief
 - c) F The central venous pressure (CVP) is the only guide to a patient's fluid volume status and should be monitored in all patients.
 - d) F Urine output should be more than 2ml/kg/hour for adults to avoid renal failure $> 30 \text{ ml} / \frac{1}{2} \text{ milk}$
 - e) F All drains must be removed within 24 hrs. ✗
18. ✓ In post operative pain relief
- a) F Standard doses are recommended for all patients to avoid over dosage ✗
 - b) T Inadequate relief of pain may predispose to thrombo-embolism ✓
 - c) T Opiates can usually be combined with non-steroidal anti-inflammatory agents for better pain relief.
 - d) T Intravenous, intramuscular, local blocks, inhalation and oral routes can all be used in post operative analgesia
 - e) F All the above ✗
19. ✓ In the postoperative period
- a) T Bleeding may be a complication of over transfusion - Thrombocytopenia
 - b) F Infection is usually systemic and presents as septicaemia ✗
 - c) F Confusion in an elderly person is usually due to a cerebrovascular incident ✗
 - d) T Fever may be a sign of atelectasis ✓
 - e) Patients with preoperative jaundice are likely to develop renal failure
20. ✓ The following is true of cellulitis
- a) T Spreading inflammation of subcutaneous and subfacial planes
 - b) F Pott's' puffy tumour of scalp is an example
 - c) T Ludwig's angina of sub maxillary region can be a presentation
 - d) F The commonest organisms is the streptococcal pneumoniae - *Strep pyogenes*
 - e) T Glotticaedema with respiratory obstruct ca could be a complication *of Ludwig's Angina*

4
 $1.4 \text{ L} / 70 \text{ kg} / 24 \text{ hr}$
 $0.02 \text{ L} / \text{kg} / 24$

$\frac{1.4}{70} = 0.02$
 $\frac{20 \text{ ml} / \text{kg} / 24}{20} = 1 \text{ ml}$

21. ✓ The signs and symptoms of perforated duodenal ulcer include

- ~~T~~ A. Sudden onset severe abdominal pain ✓
- ~~T~~ B. Board like rigidity ✓
- ~~T~~ C. Pneumoperitoneum ✓
- ~~T~~ D. Severe haematemesis X
- e) F Diarrhea X

22. Rising intracranial tension in a patient with head injury is diagnosed by

- ~~T~~ A. Decrease in level of consciousness
- ~~T~~ B. Slowing of the pulse
- e) T Rising blood pressure ✓
- d) T Cardiac arrhythmias ✓
- ~~T~~ E. Vomiting

Cushing's triad
HTN
↓ PR
Irregular resp

23. Which of the following statements about open fractures is/are correct?

- T T A. Intravenous antibiotics should be administered as soon as possible. ✓
- T T B. They should be regarded as an emergency. ✓
- F T C. Wound closure is necessary within 8 hours.
- T T D. Systematic wound debridement and irrigation should be performed.
- F F E. They most often result from low-energy injuries. High

24. The goals of proper fracture reduction include which of the following?

- T T A. Providing patient comfort and analgesia.
- T T B. Allowing for restoration of length of the extremity. ✓
- T T C. Correcting angular deformity and rotation. ✓
- F F D. Enabling immediate motion of all fractured extremities. X
- T T E. Providing a foundation for bone healing and union. ✓

25. The radial nerve is at greatest risk for injury with which fracture?

- F A. Fracture of the surgical neck of the humerus - Axillary nerve
- T B. Fracture of the shaft of the humerus (radial nerve)
- F C. Fracture of the head of the radius.
- F D. Olecranon fractures. Ulnar
- F E. Fracture of the distal radius.

26. The most reliable sign of compartment syndrome in the hand includes:

- T T A. Pain with passive stretch of the digits.
- F B. Absent of radial pulse
- F C. Motor paralysis
- F D. Swelling of the digits.
- F E. Stiffness of the digit.

27. Which of the following statements with regards to fractures in children compared to those in adults is/are true

- F A. Nonunion is more common. F
- F B. Compound fractures are more common F
- F T C. More angulation and shortening may be acceptable. T
- F D. Long bone shaft fractures more often require open reduction F
- F E. Fractures of neck of femur is more common in children. F

28. A 5-year old child presents with a 2-day history of the traumatic onset of pain, erythema and swelling of the right knee joint. The child is febrile with an elevated white blood cell count. The differential diagnosis includes:

- T A. ~~T~~ Acute rheumatic fever ✓
- F B. ~~T~~ Leukemia ✓
- F C. ~~T~~ Gout ✓
- T D. ~~T~~ Acute septic arthritis ✓
- F E. ~~F~~ Osteoarthritis ✓

29. Complications of hip dislocation include which of the following

- ~~T~~ A. ~~T~~ Sciatic nerve injury ✓
- ~~T~~ B. ~~T~~ Avascular necrosis ✓
- ~~T~~ C. ~~T~~ Degenerative arthritis ✓
- D. ~~F~~ Compartment syndrome ✓
- E. ~~T~~ Inferior gluteal artery injury ✓ ^{superior}

30. Regarding osteomyelitis

- ~~T~~ A. ~~T~~ Is most commonly due to a staphylococcus aureus infection. ✓
- ~~T~~ B. ~~T~~ Can be due to salmonella infection in patients with sickle cell anaemia. ✓
- ~~T~~ C. ~~T~~ Infection usually involves the metaphysis of long bones. ✓
- F D. ~~F~~ Dead bone within the medullary canal is known as the involucrum. ✓ ^{sequestrum}
- F E. ~~F~~ New bone forming beneath the periosteum is known as the sequestrum. ✓ ^{involucrum}

31. Regarding eponymous fractures

- A. ~~F~~ Bennett's fractures involves the distal ulna - base of the 5th metacarpal bone ✓
- ~~T~~ B. ~~T~~ Colle's fracture involves the distal radius. ✓
- C. ~~F~~ Galeazzi's fracture involves the radial shaft and dislocation of the proximal radioulnar joint. ✓ ^{distal}
- D. ~~T~~ Monteggia's fracture involves the proximal ulna and anterior dislocation of the head of the radius. ✓
- E. ~~F~~ Pott's fracture is a general term applied to fractures around the knee. - Anterior ✓

32. Regarding osteosarcomas

- ~~F~~ A. ~~T~~ Affects the epiphyses of long bones ✓ ^{Metaphyses}
- ~~T~~ B. ~~T~~ Are most commonly seen around the knee and in the proximal humerus. ✓
- ~~T~~ C. ~~T~~ Haematogenous spread can result in pulmonary metastases. ✓
- D. ~~T~~ Is exclusively a disease of adolescence and early adult life. ✓ ^{children adolescents}
- ~~T~~ E. ~~T~~ X-ray shows a 'sunburst' appearance due to soft tissue involvement. ✓ ^{codman's triangle}

33. Which of the following injuries is/are associated with serious risk of vascular injury

- ~~T~~ A. ~~T~~ Supracondylar fracture of the humerus ✓
- ~~T~~ B. ~~F~~ Supracondylar fracture of the femur ✓
- F C. ~~F~~ Olecranon fracture
- F D. ~~F~~ Ankle fracture.
- F E. ~~F~~ Colles fracture.

34. in examination of the lower limbs

- ~~T~~ A. ~~T~~ Apparent shortening is measured from the umbilicus. ✓ ^{Xiphisternum}
- B. True shortening is measured from the xiphisternum. ✓ ^F
- C. True shortening is measured from the pubic symphysis. ✓ ^F
- D. Apparent shortening is measured after one evaluates true shortening. ✓

42. When pain persists after close reduction and casting the immediate concern should be
- A. Inadequate immobilization.
 - B. Neural injury
 - C. Muscle spasm
 - D. Pressure point necrosis
 - E. Ischaemia
43. In carpal tunnel syndrome:
- A. F The tingling is over the ulnar side ^{Radial} (radial is 1st 2)
 - B. F Surgery is not helpful
 - C. F Rheumatoid Arthritis is not a predisposing factor
 - D. T Pain is usually at night
 - E. T May be predisposed by pregnancy
44. Common paediatric fractures include:
- A. T Greenstick fracture
 - B. F Fractures of the neck of the femur
 - C. F Fractures of the spine
 - D. T Supracondylar fracture of the humerus ^{Gaillard}
 - E. T Fracture of the distal radius.
45. Patients with spinal injury may complicate with:
- A. T Contractures ^{Disuse}
 - B. T Urinary tract infections
 - C. T Constipation
 - D. F Low pulse and low blood pressure
 - E. T Muscular spasms
46. A fracture is said to be
- A. F Closed if an overlying skin laceration has been sutured.
 - B. T Open if it communicates with the outside environment.
 - C. T Complicated if there has been associated damage to nerves and vessels.
 - D. F A fatigue fracture if it occurs through diseased bone. ^{Pathological.}
 - E. T Pathological if it occurs through bone metastasis
47. Concerning injuries of the hip
- A. F Fractures of the femoral neck are common in the young & old
 - B. F Anterior dislocation is more common than posterior ^{Post}
 - C. F Posterior dislocation of the limb is short and internally rotated.
 - D. T In fracture neck of the femur the limb is shortened and externally rotated
 - E. T Dislocation of the hip should be reduced as a matter of emergency
48. Shoulder pain may be caused by which of the following entities
- A. T Spinal arthritis
 - B. T Lung cancer.
 - C. F Umbilical hernia
 - D. T Diaphragmatic irritation

~~E.~~ T Agina

49. In fracture of the mid shaft of the femur the - flexed & ext rotated
- ~~A.~~ T Proximal fragment is usually flexed - Prox 1/3
 - ~~B.~~ T Proximal fragment is usually abducted
 - C. F Distal fragment is usually abducted & adduct
 - D. F Common femoral vessels are usually damaged.
 - E. F Femoral nerve is often damaged.
50. Which of the following organisms are commonly found in pyogenic arthritis
- ~~A.~~ T E.Coli
 - ~~B.~~ T S. aureus MCC
 - ~~C.~~ T H. Influenzae
 - E. T Haemolytic streptococcus
 - F. T P. vulgaris
51. Acute retention of urine in a 50 year old man could be due to
- ~~A.~~ T Urethral stricture
 - ~~B.~~ T Benign Prostatic Enlargement
 - C. F Kidney malignancy
 - ~~D.~~ T Road traffic accident resulting in fracture pelvis
 - ~~E.~~ T Bladder calculi
52. In head injury with fracture (base) of skull
- A. F Clinical evaluation may be unhelpful and x-rays are usually required to make a diagnosis.
 - B. T Pneumatocoele in the subdural space may occur x Depth depressed skull #
 - ~~C.~~ T Subconjunctival haemorrhage is a useful sign
 - ~~D.~~ T CSF rhinorrhoea may occur
 - E. F CSF through the auditory meatus is a sign of posterior forsa fracture x (middle)
53. According to the 'rule of 9' the area of skin of the head and neck is what per cent of the total skin surface area in an adult?
- ~~A.~~ T 9%
 - B. F 18%
 - C. F 27%
 - D. F 4.5%
 - E. F 36%
54. About the examination of abdomen
- A. F Visible peristalsis is only seen in pyloric stenosis v
 - ~~B.~~ F Striae gravidarum is not found in ascites
 - C. F An enlargement spleen is usually bimannually palpable v Kidney
 - D. F Murphy's sign is positive in chronic cholecystitis v
 - ~~E.~~ T Diffuse abdominal enlargement with resonant flanks may be found in a patient with an ovarian cyst.
55. Criteria for admission of a burns patient include:-
- ~~A.~~ T Inhalation injury
 - B. F Burn size greater than 10% in any patient. p 14.70
 - ~~C.~~ F Full thickness burn involving > 1% TBSA 5.70
 - ~~D.~~ T Associated trauma
- > 10% (< 10%: 2/10/40)

~~A~~ T Comorbid states

56. T Pain in burn patients:-

- ~~A~~ T May result in post-traumatic stress disorder
- ~~B~~ F Results in elevation of blood pressure ✓
- ~~C~~ T Increases the metabolic rate
- ~~D~~ T Is present in first degree burns
- ~~E~~ T May be minimal in fourth degree burns

57. Inhalation injury may be diagnosed by :-

- A. T Determining the depth of the burn wound
- ~~B~~ T Fibreoptic bronchoscopic examination
- C. T Haemoglobin estimation
- D. F Determining the urine output
- E. F Gastric lavage

58. T Escharotomy

- ~~A~~ T Is often necessary in circumferential full thickness burns
- ~~B~~ T Relieves the constriction caused by burn oedema
- C. F Is contraindicated in burns of the hands
- D. F Is often done on scalp burns
- E. T Is best performed immediately after the burn occurs ✓

59. Silver Sulphadiazine

- A. F Is an oral antibiotic useful for burn patients - Topical ✓
- B. F Is painless ✓ Pain
- ~~C~~ T May cause Neutropenia
- ~~D~~ T May cause hypersensitivity ✓
- E. T Has limited eschar penetration

60. A three (year) old child is seen who has had constipation since birth. He has had frequent bouts of abdominal distention. On examination, the child has a large abdomen with the colon containing gas and faecal material. Faeces are not palpable in the rectum. The most probable diagnosis is:

- A. F Enterocolitis
- B. F Massive cryptosporidial infection
- ~~C~~ T Hirschsprung's disease
- D. F Idiopathic sprue
- E. F Duodenal atresia

RIYAMT

PAPER I

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END OF ROTATION CONTINUOUS ASSESSMENT EXAMINATION (CAE)

16. 08 2012

TIME ALLOCATED 1 1/2 HOURS 9.00 A.M. - 10.30 A.M.

INSTRUCTIONS:

YOU HAVE BEEN GIVEN 100 MULTIPLE CHOICE QUESTIONS. CHOOSE THE BEST ANSWER FOR EACH QUESTION. EACH CORRECT RESPONSE EARNS ONE MARK. THERE ARE NO NEGATIVE MARKS.

1. The following is a differential of cellulitis in children below 10 years

- a) Acute osteomyelitis
- b) Necrotizing fasciitis
- c) Pyoderma
- d) Localized abscess
- e) Dry gangrene

Obstructive Jaundice

Not on Impetus Consideration in pre-op

Obstructive Jaundice

Pre-op in obstructive jaundice

- 2. The following is/are important in the management of patients with obstructive jaundice:
 - a) Bowel preparation ✓
 - b) Rehydration ✓
 - c) Prophylactic antibiotics ✓
 - d) Full Micronutrients ✓ vit-k
 - e) Plasma protein levels ✓

Thyroidectomy

- 3. The following complication of thyroid surgery can be completely avoided with proper pre-operative management:
 - a) Hoarseness of the voice ✓
 - b) Hypocalcaemia ✓
 - c) Hypoparathyroidism ✓
 - d) Thyroid storm ✓ *Maintenance of Ca^{2+} in thyroid*
 - e) Tracheomalacia ✓

Cardinal rule of thyroidectomy: Ca^{2+} level > 1.0 mmol/L

Pre-OP Care Preoperative

- 4. The following consideration is not important in the pre-operative period:
 - a) Informed consent ✓
 - b) Type of surgery ✓
 - c) Readiness of the patient ✓
 - d) Type of anaesthesia ✓
 - e) Existing co-morbidities ✓

- 5. In considering a patient for patients with head injury, the following is not important:
 - a) Age of the patient ✓
 - b) History of vomiting ✓
 - c) History of convulsions ✓

ph, V, vital, GCS, LOC

- 6. The occupation of the patient:
 - a) History of alcohol intake ✓

painful defecation

Anal fissure fresh pain

A 35 year old lady complains of painful defecation associated with fresh blood per rectum. Possible diagnosis to consider:

- a) hemorrhoids ✓
- b) diverticulitis ✓
- c) pilonidal sinus ✓

- pilonidal sinus
- Anal fissure
- Perirectal abscess
- Hemorrhoids

- d) anal fissure ✓
- e) diverticulitis ✓

- The familial form of Lymphoedema is
- b) Not a familial disease *intermittent disease*
- c) Caused by blood worms *lymphoedema*
- d) Secondary lymphoedema *XI^o*
- e) Post-surgery lymphoedema of the upper limb

13. Gas gangrene is: *Gas gangrene*

- a) A common complication of acute peritonitis
- Caused by *Clostridium perfringens*
- c) A complication of gastritis
- d) Precipitated by circulatory collapse
- e) Caused by *Bacillus anthracis*

14. Which statement with regards to *breast cancer* is TRUE?

- b) The commonest site of metastases is the axilla *lateral chest*
- Local spread to the chest wall occurs earlier in male patients than female patients
- c) Kohnstetter's syndrome is a predisposing factor *caused by*
- d) Breast sparing surgery always results in local disease recurrence
- e) There is *opinion* for neo-adjuvant chemotherapy

15. The following signs & symptoms are consistent with acute pancreatitis:

- Patient exhibiting in pain and vomiting *acute pancreatitis*
- b) Pain initially peri-umbilical, then migrates to right iliac fossa *pain for several*
- c) Rovsing's sign positive
- d) Rectal temperature 38.1°C
- e) Tenderness over McBurney point

coloured cervical smears on the same side. The best test to confirm malignancy is best test to confirm malignancy

16. Core needle biopsy - lymphoma

- Perform left pharynx and subject specimens for histopathology
- d) Radioactive iodine scan
- e) Bone scan

Chronic subdural hematoma

17. A 70 year old diabetic male resident of an old people's home brought to A&E with a two weeks history of episodic vomiting 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 - Middle meningeal

18. Kaposi's sarcoma Kaposi's sarcoma

- a) Is an X-linked recessive disease
- b) Can be treated with radiotherapy
- c) Does not respond to chemotherapy - Bleomycin, Vinorelbine, Vinorel
- d) Only affects people with AIDS
- e) Mainly affects the central nervous system

19. Initial fluid resuscitation of a patient with multiple fractures and hypovolaemia should be:

- a) Blood transfusion
- b) Hypertonic saline
- c) Fresh frozen plasma
- d) Ringers lactate
- e) Albumin

20. The following ~~test~~ may be necessary in

- a) White blood cell count and differential
- b) Abdominal CT scan
- c) Plus needle aspiration
- d) Lymphangiography
- e) Trial therapy

21. Regarding medical ethics *Ethics*

- a) A doctor should ensure a chaperone is present when performing gynaecological examinations
- b) Counselling plays little importance in office procedures
- c) History taking is much more important than documentation of the history and record keeping
- d) Confidentiality is not important
- e) Substance abuse by doctors is tolerated occasionally

22. A 40 year old man undergoes laparotomy for small bowel obstruction due to adhesions. During the release of the adhesions an enterotomy is made in the obstructed but viable gut resulting in spillage of faecal material into the abdomen. This converts the wound to

- a) Clean contaminated
- b) Secondary
- c) Infected
- ~~d) Contaminated~~

Wound 3

e) Clean *found part thru Rip, Gut, Genitourinary*

23. An 11-year old boy presents with a sudden onset of severe right lower quadrant pain and acute tenderness accompanied by nausea and vomiting. Which of the following is the most likely diagnosis which also qualifies as a surgical emergency?

- a) Acute pancreatitis
- b) Acute epiglottitis
- c) Testicular torsion *Testicular Torsion*
- d) Acute appendicitis
- e) Gastroenteritis

hemorrhagic and pericardial effusion. Which is TRUE?

- a) catheterise
- b) surgery to repair rupture
- c) suprapubic catheterisation if patient is not passing urine *cydofix*
- d) serota exploration bilaterally
- e) immediate exploratory laparotomy

15. Which statement with regards to burns is TRUE? *BURNS*

- a) the commonest cause of death is overwhelming infection *hypotension*
- b) In electrical burns, extent of surface injury is a good reflection of underlying injury *good*
- c) flame burns are worse than scalds
- d) Partial thickness burns are aseptic
- e) Inhalation injury has no bearing on prognosis *Cholelithiasis*

26. Complications of cholelithiasis include all the following, except

- a) Cholangitis ✓
- b) Pancreatitis ✓
- c) Jaundice ✓
- d) Gastroenteritis *Gallstone ileus*
- e) Biliary strictures

27. In a patient with jaundice, the first investigation would be:

- a) ERCP
- b) Liver function tests and abdominal ultrasound *Jaundice*
- c) Abdominal CT scan
- d) Laparoscopy
- e) MRCP (Magnetic Resonance Cholangio-pancreatography)

28. Patients with Wilms' tumour most frequently present with which of the following?

- a) Bilateral metachronous lesions
- b) Bilateral synchronous lesions *Wilms' tumour*
- c) An extrarenal primary ✓
- d) A multicentric primary lesion
- e) A unifocal, unilateral lesion

29. Which of the following is the ^{most common liver tumor of childhood} ~~most common liver tumor of childhood?~~

- ~~a) Hemangioma and hemangioendothelioma~~ - *do + deus*
- ~~b) Hepatoblastoma~~ - *Rare*
- c) Hepatocellular carcinoma - *Prevalence*
- d) Mesenchymal hamartoma - *Recalls spots*
- e) Hepatoma - *Mets to liver*

30. You are asked to recommend therapy for an asymptomatic 7 year old who swallowed a small alkaline watch battery 4 hours ago. A plain film shows the intact battery in the intestine beyond the stomach. The best course of therapy is?

- a) Immediate laparotomy, enterotomy and removal of the battery.
- b) Enteroscopy with extraction.
- c) Laparoscopy with ultrasound localization and extraction.
- ~~d) Cathartics and a follow-up plain film in 48 hours if the child remains asymptomatic.~~
- e) Colonoscopic extraction.

31. The treatment of choice for neonates with uncomplicated meconium ileus is:

- a) Observation.
- b) Emergency laparotomy, bowel resection, and Bishop-Koop enterostomy.
- ~~c) Intravenous hydration and a Gashoproliferant.~~ - *Wagstaff Meconium*
- d) Emergency laparotomy, bowel resection, and anastomosis.
- e) Sweat chloride test and pancreatic enzyme therapy.

32. Polyhydramnios is frequently observed in all of the following conditions except

- a) Oesophageal atresia ✓✓
- b) Duodenal atresia ✓✓
- c) Pyloric atresia ✓✓
- ~~d) Hirschsprung's disease~~
- e) Congenital diaphragmatic hernia

33. Which of the following is correct in thyroid cancer? *Thyroid ca*

- a) Anaplastic carcinoma has a good prognosis if treated promptly. *F*
- b) Follicular carcinoma spreads via the lymphatic system. *Hematogenous invasion*
- ~~c) Medullary carcinoma is associated with calcitonin.~~ *parafollicular cells*
- d) Papillary carcinoma is associated with RET. *lymphatic. large people*
- e) The majority are follicular carcinomas. *papillary F*

34. Which of the following is NOT an ultrasonographic finding in acute cholecystitis?

~~Abundance of gallstones~~ ~~X~~ ~~Acalculia~~ ~~Thickened gallbladder wall~~ ~~more than 6 mm~~ ~~Peri-4 mm~~ ~~Pericholecystic fluid~~ ~~Wall thickness of more than 4 mm~~

34. Which of the following is NOT an ultrasonographic finding in acute cholecystitis?

Abundance of gallstones X Acalculia

Thickened gallbladder wall - 6 mm

Pericholecystic fluid

Sonographic Murphy's sign

Air in gallbladder

Air in wall of gallbladder

No shadow seen

35. The following is true with regards to carcinoid tumours

a) Most commonly affect the colon ~~ben~~ ~~T lungs~~

b) Symptoms of carcinoid syndrome often arise after metastases have arisen ~~F~~

c) Carcinoid syndrome occurs once lung metastases have occurred ~~F~~

d) Urinary 5-HIAA is elevated in patients with carcinoid syndrome ~~chemo~~ ~~mito~~ ~~uptake~~

e) Surgery is deemed inappropriate once the tumour has metastasised

35. The following is true with regards to carcinoid tumours

Most commonly affect the colon ~~ben~~ ~~T lungs~~

Symptoms of carcinoid syndrome often arise after metastases have arisen ~~F~~

Carcinoid syndrome occurs once lung metastases have occurred ~~F~~

Urinary 5-HIAA is elevated in patients with carcinoid syndrome ~~chemo~~ ~~mito~~ ~~uptake~~

Surgery is deemed inappropriate once the tumour has metastasised

36. Fissure in ano

a) Is premalignant ~~X~~ ~~Fistula in ano~~

b) Respond ~~well~~ ~~poor~~ to topical glycerol trinitrate (GTN) ~~X~~ ~~Bot Toxin, Larabre & tea~~

c) Are mainly laterally located ~~X~~ ~~Posteriorly~~ ~~BT & a half sp hinderelea~~

d) Usually require surgical intervention

e) Can be treated using botulinum toxin

36. Fissure in ano

Is premalignant X ~~Fistula in ano~~

Respond ~~well~~ ~~poor~~ to topical glycerol trinitrate (GTN) X ~~Bot Toxin, Larabre & tea~~

Are mainly laterally located X ~~Posteriorly~~ ~~BT & a half sp hinderelea~~

Usually require surgical intervention

Can be treated using botulinum toxin

37. Aetiological factors for sigmoid volvulus include:

~~Chronic constipation~~ ~~X~~ ~~Sigmoid volvulus~~

~~High fibre diet~~ ~~High~~ ~~megacolon~~

Colon cancer

Warfarin

Previous left hemicolectomy

37. Aetiological factors for sigmoid volvulus include:

Chronic constipation ~~X~~ ~~Sigmoid volvulus~~

High fibre diet ~~High~~ ~~megacolon~~

Colon cancer

Warfarin

Previous left hemicolectomy

38. A patient with Duke's C ascending colon cancer

a) Will have a poorer prognosis than a patient with Duke's D disease ~~X~~ ~~F~~

b) Can expect survival benefit with adjuvant chemotherapy ~~X~~

c) Is most likely to develop metastatic disease in the right kidney

d) May have an T-stage using the TNM staging system ~~X~~

e) Must be offered post-operative chemotherapy ~~X~~

Duke's C

A - Confined to bowel wall

B - through bowel wall but not

38. A patient with Duke's C ascending colon cancer

Will have a poorer prognosis than a patient with Duke's D disease X ~~F~~

Can expect survival benefit with adjuvant chemotherapy X

Is most likely to develop metastatic disease in the right kidney

May have an T-stage using the TNM staging system X

Must be offered post-operative chemotherapy X

Duke's C

A - Confined to bowel wall

B - through bowel wall but not

1/P

acute abd pain

usung

malabsorption

celiac

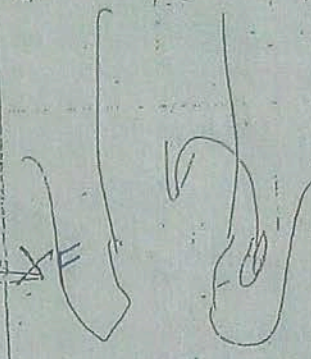
chronic symptoms

39. Colonoscopy:

- a) Does not require formal mechanical bowel preparation ~~XF~~
- b) Carries a 1% perforation rate $0.01\% - 0.2\%$
- c) ~~Is more sensitive than barium enema at detecting colorectal polyps~~
- d) Is safest when performed under general anaesthesia ~~X~~ *comfort sedation*
- e) Unlike ultrasound is not user dependent ~~X~~

40. Anorectal (per-anal) abscesses

- a) Cause pain on defecation only ~~F~~
- b) ~~May discharge spontaneously into the rectum~~
- c) Should be treated initially with high dose intravenous antibiotics ~~XF~~
- d) Are not associated with systemic disorders ~~X~~ *the*
- e) Are more likely to recur if a skin-derived organism is cultured ~~F~~



41. Regarding stomas

- a) ~~Ileostomies are mainly sited in the right lower quadrant~~ ~~T~~
- b) Colostomies should have a spout to protect the surrounding skin ~~F~~ *flushed* *ileostomy, urostomy*
- c) Loop transverse colostomy is associated with fewer complications than loop ileostomy ~~F~~
- d) Defunctioning stoma must be reversed within six months ~~F~~ *2 months*
- e) Peristomal hernias usually results from ischaemia ~~F~~

42. While strolling in the neighbourhood in the morning, a 40 year old man develops sudden radiating pain in the right flank n back which radiates to the right groin. What is the most likely diagnosis

- a) Acute mesenteric ischaemia
- b) Muscle spasm
- c) ~~Ureteric colic~~
- d) Prolapsed intervertebral disc
- e) Ruptured abdominal aortic aneurysm

43. A 50-year-old man presents with abdominal distension and vomiting. Which of the following abdominal X-ray features will point to small bowel obstruction?

- a) Free air under the diaphragm ~~X~~ *Perforation*
- b) Dilated bowel with haustra ~~X~~ *large bowel*
- c) Peripheral position of distended loop ~~X~~
- d) Presence of air in the rectum ~~X~~ *large bowel*
- e) ~~Presence of valvulae conniventes in distended loops of bowel~~

L

Handwritten notes at the top left of the page, including the word "sympathetic" and other illegible scribbles.

44. The axillary lymph nodes are the first lymph nodes along the internal thoracic vessels.

- a) The axilla contains the axillary lymph nodes
- b) The pectoralis major muscle divides the axilla into three levels
- c) The sentinel lymph node is the first node draining the tumour-bearing area of the breast

45. Regarding investigations of the breast **breast**

- ~~a) Clinical assessment is a reliable way for diagnosing breast cancer~~
- b) Mammographic interpretation is easier in young women
- c) Mammography involves exposure to high radiation dose
- d) Fine needle aspiration cytology (FNAC) is always reliable
- e) Ultrasound is an effective screening tool

Handwritten notes on the right side of the page: "Clinical - 1/20", "Breast - 1/17", "Investigations - 1/11", "H".

46. Breast abscesses **breast**

- a) Occur only in lactating women
- b) The common causative organism is *Streptococcus aureus*
- c) Must always be included in the differential diagnosis of a breast lump
- ~~d) May indicate an underlying carcinoma~~

e) Requires breast feeding to stop

47. Clinical examination of the breast **breast**

- ~~a) The most common sign and symptom of breast disease is a palpable mass~~
- b) Clinical assessment of axillary nodes is very accurate
- c) A bloody nipple discharge indicates malignancy
- d) Ulceration of the skin is an early finding in breast cancer
- e) Examination of the abdomen is an accurate method for picking up metastases

48. In examining the thyroid gland **thyroid**

- ~~a) Palpation of the gland is performed from behind the patient~~
- b) The neck should be extended during palpation
- c) The ears must be examined
- d) If no mass is felt in the gland there is no need to examine the neck lymph nodes
- e) A stethoscope is not essential

49. Enlargement of the left supraclavicular (Virchow's) lymph node is not associated with

- a) Breast adenocarcinoma
- b) Gastric adenocarcinoma
- c) Parotid pleomorphic adenoma
- d) Ovarian serous carcinoma
- e) Hepatocellular carcinoma

50. Incisional hernias

- a) Are increased by post-operative wound infection
- b) Can be prevented by use of a corset
- c) Always require surgical correction
- d) Are more common in thin patients
- e) Can be avoided by using laparoscopic surgery

51. A strangulated hernia *Strangulated hernia*

- a) Can be treated by reducing the hernia
- b) May be reducible
- c) Is usually painless
- d) Should be managed with early surgery
- e) Is more commonly observed in inguinal than femoral hernias

52. Complications of hernia surgery include *hernia*

- a) Loss of sensation to the ipsilateral side of the penis
- b) Loss of sensation to the skin of the lower abdomen
- c) Impotence
- d) Recurrence of the hernia *Strain*
- e) Hydronephrosis

*53. When managing post-operative fluid requirements

- a) Hypotension may worsen acute renal failure
- b) Fluid restriction is always needed in liver failure
- c) A central venous pressure of 17 mmHg usually indicates hypovolaemia *10 3-8*
- d) Excessive gastrointestinal losses can be adequately replaced by 4% dextrose 0.18% saline solution (dextrose saline) *Not*
- e) Urine output is not a good indicator of organ perfusion in the post-operative surgical patient *F*

- a) Sodium is elevated
- b) Potassium is elevated
- c) Metabolic rate is decreased
- d) Urinary nitrogen levels fall
- e) ADH secretion is reduced

55. During the first hour of untreated acute blood loss of 15% of blood volume

- a) Peripheral vascular resistance decreases ~~X~~
- b) Fluid shifts from the interstitial space to the intravascular space
- c) Oliguria is mainly due to ADH secretion ~~X~~
- d) Capillary permeability is reduced
- e) Reticulocyte count increases ~~X~~

56. Consequences of total parenteral nutrition (TPN) include

- a) Pancreatitis
- b) Altered gut flora
- c) Reduced mortality after major surgery
- d) Reduced gut permeability
- e) Hypoglycaemia

TPN
 enteral nutrition
 - Tube related
 - Malposition etc
 - GIT eg ID
 - Metabolic
 - Infection

Related to nutrient
 Related to overfeed
 Related to sepsis
 Related to line

57. Chronic ankle ulcers

- a) Are usually due to arterial disease
- b) Should always be treated with compression bandaging
- c) Should be biopsied if not healing
- d) Are more common below the medial malleolus
- e) Should be treated with topical antibiotics

Chronic ankle ulcers

58. Urethral Catheterization

- a) Acute urinary retention is an uncommon urological indication
- b) Foley catheters are retained in the bladder by a coiling device
- c) Is performed using a clean technique
- d) Suprapubic catheters are used instead of urethral catheters in patients presenting with frank haematuria and clot retention
- e) Urethral stricture is a recognised complication

Urethral Catheterization

Monday morning lecture for 6/14

59. The following statement about benign prostatic hyperplasia is false

- a) Arises from the ^{peripheral} peripheral zone of the prostate
- b) Is generally a disease of elderly men
- c) Trans-urethral resection of the prostate (TURP) is the most common surgical treatment
- d) Is commonly treated with alpha-blockers - I usually use love
- e) Can lead to renal failure

60. Obstructive urinary symptoms include

Intake: FUND

- a) Frequency
- b) Haematuria
- c) Hesitancy
- d) Urgency
- e) Nocturia

61. Testicular torsion

- a) Occurs most frequently between the ages two and ten years
- b) The underlying cause is known as the 'ball and chain' abnormally
- c) Is commonly associated with dysuria
- d) Classically presents as a painful, high riding testicular with a horizontal lie
- e) Can be treated expectantly to see if they untwist

62. Suprapubic catheters

- a) Should be inserted when the bladder is empty
- b) Are inserted 2 cm ^{down} below the umbilicus
- c) Is the first choice of catheter for patients in acute urinary retention
- d) Complications include bowel perforation
- e) Should always be inserted in theatre under aseptic conditions

63. Routine investigations for haematuria do not include

- a) Urea and electrolytes
- b) Ultrasound scan of the kidneys, ureters, and bladder (KUB)
- c) Full blood count
- d) Angiogram
- e) Flexible cystoscopy - Labs, imaging, [cystoscopy]

- a) Isopoglycans (e.g. Pectin) is a bulk forming agent
- b) Lactulose is a glucose polymer
- c) Lactulose is hydrolyzed by bacteria in the small intestine
- d) Senna is a sal stimulant that acts within 30 minutes
- e) Laxative abuse can lead to hyperkalemia and colonic atony

65. Regarding bladder tumours, all are true except 70% are squamous carcinomas

- a) ~~70%~~ are squamous carcinomas TCC + mt on TCC
- b) Painless haematuria is the commonest presentation
- c) Cigarette smoking is an important aetiological factor
- d) 80% of tumours are superficial (i.e. no muscle invasion)
- e) Superficial tumours are often well controlled by transurethral resection

66. Which of the following is the commonest symptom of gastro-oesophageal reflux disease? GERD

- a) Regurgitation
- b) Hoarseness
- c) Water brash
- d) Globus sensation
- e) Odynophagia

67. Type II gastric ulcers Gastric ulcers

- a) Occur only in the lesser curvature of the stomach
- b) Occur only in the antrum of the stomach
- c) Occur both in duodenum and body of the stomach body + Duodenum
- d) Occur both in lesser curvature and duodenum
- e) Does not depend on hypersecretory state for its occurrence 25%

68. Diagnostic peritoneal lavage is positive when all the following are present except DPL

- a) Red blood cells are more than 100,000 per mm³ ↑
 - b) White blood cells are more than 500 per mm³ ↑
 - c) Amylase of more than 200 IU/L (M)
 - d) Alkaline phosphatase level of more than 1,000 IU/L 57
 - e) Any bile material Food (green) ↓
- WBC > 500 cells/mm³
 RBC > 100,000 "
 blood > 10 ml
 Bile / Bacteria / Food particle
 Amylase > 175 IU/ml

69. The following are systemic complications of perforation except

- a) Bone marrow suppression
- b) Renal failure
- c) Respiratory failure
- d) Liver abscess
- e) Endotoxic shock

Bacteremia
Septicemia
Bronchopneumonia
Septic peritonitis
Bone marrow suppression
Hypotensive phase

Not typical
Adhesions
Small bowel obstruction
Paralytic ileus
Delayed intestinal transit
Oral pyrexia

70. A 15 year old boy comes to the Accident and Emergency with history of intermittent right iliac fossa pain, no nausea or vomiting. On examination she has tenderness of right inguinal fossa with no rebound. She has leucocytosis. The temperature is normal. What is the appropriate action?

- a) Appendectomy
- b) Ultrasound
- c) Repeat the complete blood count
- d) The patient should be sent back home with pain killer
- e) Patient should be re-examined with a senior person

71. Regarding nipple retraction

- a) Is never congenital
- b) Is always pre-malignant
- c) Requires intervention always

d) A slit-like retraction may be due to duct ectasia or chronic periductal mastitis

- e) Circumferential retraction has no significance

72. In an endemic goitrous area, the commonest thyroid cancer is:

- a) Papillary thyroid cancer - radiation - commonest
- b) Medullary thyroid cancer
- c) Lymphoma
- d) Anaplastic thyroid carcinoma - agonal
- e) Follicular thyroid carcinoma - TSH stimulation

73. Which of the following does not describe laparoscopic surgery?

- a) Smaller scars
- b) Reduced post-operative pain
- c) Shorter hospital stay
- d) Faster return to normal function
- e) No lifting heavy weights after operation

The most acceptable operation for this mass is

- a) Mass excision
- b) Anterior resection
- c) Abdomino-perineal resection
- d) Lateral sphincterotomy
- e) Rectal resection and "pull through"

A - I rect
 B - splinted
 - Alloms and

75. Regarding phimosis, the following are correct EXCEPT

- a) Sometimes associated with diabetes mellitus
- b) Occurs only children
- c) Balanitis xerosica obliterans is a cause
- d) Can cause urinary obstruction
- e) Treatment is circumcision

Phimosis

76. Cause of urethral stricture except

- a) Congenital
- b) Traumatic
- c) Instrumentation
- d) Infection
- e) Indwelling catheter

steroid; dia
 Urethral stricture
 except

~~Infection~~ is disease

Prosthetic
 relative within 1/3

77. Which of the following is not part of routine management of cellulitis of the leg?

- a) Antibiotics
- b) Elevation of the limb
- c) Analgesics
- d) Surgical toilet
- e) Antipyretics

Cellulitis
 Antibiotic
 Analgesic
 Antipyretic
 Elevate limb
 Anticoagulate

78. The most common topical dressing for thermal burns is

- a) 1% silver sulphadiazine
- b) 1% silver nitrate solution
- c) Mafenide acetate cream
- d) Bacitracin
- e) 0.5% silver nitrate

Burns

79. A 15 year boy weighing 35kg comes in with 3% burns that occurred one hour ago, what is the total amount of fluid to be administered over 24 hrs. Burns

- a) 900ml
- b) 1300ml
- c) 3100ml
- d) 2500ml
- e) 22500ml

4 x 25 x 13

Painklands =

4 x 25 x 13
4 x 25 x 15

80. Which of the following items of the patient's history or physical would suggest you do not have a high risk of inhalation injury?

- a) Sulphuric acid splashed by a jealous wife
- b) Dragged from a burning hotel T
- c) Carbonaceous sputum T
- d) Hoarse voice in a patient T
- e) singed facial hair T facial burns

Tachypnea

81. The following are important when taking history concerning injury except Pain.

- a) Site
- b) Onset
- c) History of surgery
- d) Surface
- e) Timing

SOCRATES

82. A 45 year old man with a history of involvement in road traffic accident present with history of loss of consciousness, opening eyes only to pain, flexion upper limbs but extends lower limb in pain, no response to noxious stimuli on pain. The right pupil is dilated. What is the Glasgow Coma scale score? GCS

- a) 9
- b) 8
- c) 7
- d) 6
- e) 10

1 - 4 - 5

Eye

4 Spontaneous
3 Pain
2 Voice
1 No

Eye Spontaneous
Voice 3
Pain 2
No

Motor

Verbal 5



UNIVERSITY OF NAIROBI

College of Health Sciences
SCHOOL OF MEDICINE
DEPARTMENT OF SURGERY

50 RQ
MURUGUA
Am... ..

MBChB V END OF ROTATION CONTINUOUS ASSESSMENT EXAMINATION (MCO)

DATE: 12/10/2015

TIME: ALLOCATED 1 1/2 HOURS - 9.00 AM - 10.30 AM

INSTRUCTIONS:

YOU HAVE BEEN GIVEN 100 MULTIPLE CHOICE QUESTIONS. CHOOSE THE BEST ANSWER. EACH CORRECT ANSWER EARNS ONE MARK. ANSWER IN THE ANSWER SHEET PROVIDED

- A 27 year old woman experiences peri-oral numbness the morning after neck surgery. What is the most likely cause of her symptoms?

Total thyroidectomy will remove of parathyroid glands
→ peri-oral numbness
→ Trousseau sign
→ chestbeating

 - A. Hypokalaemia
 - B. Hyperkalaemia
 - C. Hypocalcaemia
 - D. Hypochloraemia
 - E. Hyperkalaemia
- A 40 year old man undergoes laparotomy for small bowel obstruction due to adhesions. During the release of the adhesions an enterotomy is made in the obstructed but viable gut resulting in spillage of faecal material into the abdomen. This converts the wound to:

 - A. Clean contaminated
 - B. Secondary
 - C. Infected
 - D. Contaminated
 - E. Clean
- Delayed primary wound closure would be most appropriate for the following procedure

 - A. Removal of perforated appendix
 - B. Repair of wound dehiscence one week after colectomy
 - C. Emergency drainage of a diverticular abscess with sigmoid resection and end colostomy
 - D. Partial gastrectomy for a bleeding duodenal ulcer
 - E. Repair of incisional hernia 10 weeks after an elective left colectomy complicated by a wound infection and a resultant incisional hernia

- ✓ 4. Several studies have followed up patients with asymptomatic gallstones. What percentage of patients develops symptoms after 5 - 20 years?
- A. < 2%
 - B. 10 - 20 %
 - ✓ C. 30 - 40 %
 - D. 50 - 60 %
 - E. 60%

- ✓ 5. In a patient with hypovolaemic shock, which cannular size would you ideally choose for infusion?
- A. 21G
 - ✓ B. 19G
 - ✓ C. 14G *largest*
 - D. 26G
 - E. 30G

- ✓ 6. Charcot's triad consists of:
- A. Fever, nausea and vomiting
 - ✓ B. Pain, nausea and jaundice *Pain, Fever, Jaundice*
 - C. Pain, nausea and vomiting
 - ✓ D. Pain, jaundice and fever
 - E. Jaundice, fever and nausea

- ✓ 7. Meigs's disease is:
- ✓ A. The familial form of lymphoedema praecox *autosomal dominant*
 - ✗ B. Not a familial disease
 - C. Caused by filarial worms
 - D. Secondary lymphoedema
 - E. Post-axillary surgery lymphoedema of the upper limb

Primary Lymphoedema

- congenital hereditary (Milroy ck)
- lymphoedema praecox (Meigs ck)
- lymphoedema tarda

secondary lymphoedema

- ✗ 8. Falsely high non-invasive blood pressure measurements may not be associated with:-
- A. Relatively smaller cuffs *high*
 - ✓ B. Loosely applied cuff *low*
 - C. Extremity below the heart *high*
 - D. Even compression applied on arm
 - E. Larger cuffs *low*

cuff length 80% of arm circumference.
width 40%

- ✓ 9. In anorectal malformation, the following statements are true except:-
- A. Occurs in one in 5000 births ✓
 - ✓ B. The commonest lesion in females is recto-vaginal fistula *rectovestibular*
 - ✗ C. Recto-urethral fistula is the commonest lesion in males *rectourethral fistula*
 - D. Persistent cloaca is the third most common lesion in females ✓
 - E. Imperforate anus in males or females occurs in under 12% of cases

- 5000 live births
- 70% M 55% F
- 95% ARM asso. fistula
- 50% w/o fistula w/ bowel syndrome

Associated anomalies

- ✓ - Sacral agenesis, tethered cord, syringomyelomyelia
- A - anorectal malformation
- C - CVs: ASD, PDA, TOF + VSD
- T - tracheo-oesophageal fistula / atresia

10. The following lesions are developmentally similar except:-

- A. Rectal urethral fistula
- B. Imperforate anus
- C. Recto-vestibular fistula
- D. Persistent cloaca
- E. Rectal atresia

11. Which of the following lesions will require colostomy as an emergency life saving procedure?

- A. Imperforate anus in males and females *is to fistula*
- B. Perineal fistula in both sexes
- C. Recto-vestibular fistula
- D. Recto-urethral fistula *urgent but not emergency*
- E. Persistent cloaca

12. Mrs Joseph, a 47 year lady is complaining of epigastric and right hypochondrial pain. She has nausea and has been vomiting for the last 24 hours. She recalls that the symptoms started when she was eating a cheese cake. The pain did not respond to over the counter antacids and prokinetic drugs which she tried. On examination she was an obese lady. Her liver enzymes are marginally elevated. Which ONE of the following is the most appropriate next investigation?

- A. Erect abdominal x-ray
- B. Endoscopy *ERCP*
- C. Ultrasound scan of the abdomen
- D. H1 breath test for H pylori
- E. CT abdomen

40% female -> Gall stones

Effect + complications of gallstones

- biliary colic
- acute + chronic cholecystitis
- empyema of the gall bladder
- microlith
- perforation
- biliary obstruction
- acute cholangitis
- acute ~~cholecystitis~~ pancreatitis
- gallstone ileus (rare)

Differentials

Common -> appendicitis, perforated DU, acute pancreatitis

Rare -> acute pyelonephritis, myocardial infarction, pneumonia - right lower lobe.

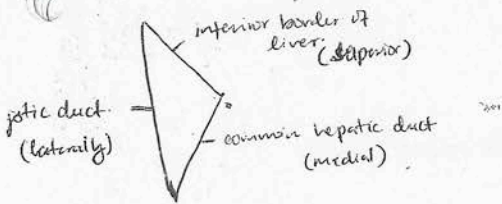
Non-op Mgt

- OPO + IV fluids.
- Analgesics.
- Antibiotics: α -ve - ceftriaxone, gentamicin.

Operative

Priority to - diabetics, congenital hemolytic anaemia, perforation, gangrene, sepsis

Calot's triangle



Caterpillar turn -> tortuous common hepatic artery

Mayrshank's hump -> tortuous right hepatic artery w/ short cystic artery

Surg Topics

ver + Gall bladder things, pancreatitis.

USE THE FOLLOWING CHOICES TO ANSWER QUESTIONS 13-17. Each choice may be used once, more than once or not at all.

- A. Immediate laparotomy
- B. Diagnostic peritoneal lavage *hemodynamically unstable*
- C. Abdominal CT scan
- D. Observation
- E. Pericardiocentesis

Pericardiocentesis

- ✓ 13. Haemodynamically stable road traffic accident (RTA) victim with free gas under the diaphragm. **C**
- ✓ 14. Haemodynamically stable RTA victim who has blunt abdominal trauma with a grade I liver injury on CT scan **D** *(Observation)*
- ✓ 15. Patient with multiple rib fractures without haemo/pneumothorax but has hypotension, distant heart sounds and low blood pressure following blunt chest trauma **E** *(Pericardiocentesis) → Cardiac tamponade*
- ✓ 16. Patient with ruptured urinary bladder following blunt abdominal trauma **A** *(Immediate laparotomy)*
- ✓ 17. Patient who presents two days after blunt abdominal trauma with tachycardia, fever and abdominal distension **C** *(Abdominal CT scan)*

* 18. Which one of the statements is INCORRECT with regard to sepsis

- A. Tachycardia or tachypnea may be a sign ✓
- B. Sepsis is defined as systemic inflammatory response syndrome in the presence of infection ✓
- ✓ C. Leucocytosis or leukopenia may be a sign ✓
- D. Sepsis and hypotension is defined as septic shock ✓
- E. Temperature greater than 38 or less than 36 may be a sign ✓

* 19. Which of the following clinical conditions is not associated with rapid gastric emptying?

- A. Pancreatic insufficiency ✓
- B. Hyperthyroidism ✓
- ✓ C. Hypocalcaemia
- D. Impaired fat absorption ✓
- E. Zollinger-Ellison syndrome

20. Infection with *Helicobacter pylori* has been associated with all of the following conditions EXCEPT:

- A. Duodenal ulcer
- B. Gastric cancer (A. I. Campagna)
- C. Mucosa associated lymphoid tissue [MALT] lymphoma
- D. Gastroesophageal reflux disease [GERD]
- E. Chronic gastritis

Duodenal ulcer
Gastric ulcer
Gastritis
Gastric ca.
Gastric mucosa associated lymphoid lymphoma (MALTOMA)

21. A 75 year old man taking NSAIDs for arthritis has an acute abdomen and pneumoperitoneum. His symptoms are 6 hours old and his vital signs are stable after the infusion of 1L of normal saline solution. What should the next step in the management of this patient?

- A. Computed tomography of the abdomen
- B. Esophagogastroduodenoscopy [EGD]
- C. Antisecretory drugs, broad spectrum antibiotics, and surgery if he fails to improve in 6 hours
- D. Antisecretory drugs, antibiotics for *H. pylori*, and surgery if he fails to improve in 6 hours
- E. Surgery

Perforated ulcer

24. Which of the following is the best test to confirm eradication of *Helicobacter pylori*?

- A. Negative histology after biopsy during endoscopy
- B. Negative faecal antigen test
- C. Negative urea breath test
- D. Negative urea blood test
- E. Negative urine antigen

27. A 45-year old man requires surgery for an intractable duodenal ulcer. which operation best prevents ulcer recurrence

- A. Subtotal gastrectomy
- B. Truncal vagotomy and pyloroplasty
- C. Truncal vagotomy and antrectomy
- D. Selective vagotomy
- E. Highly selective vagotomy

low recurrence

23. The most common cause of gastric outlet obstruction in adults is

- A. Peptic ulcer disease
- B. Extrinsic neoplastic compression
- C. Cancer
- D. Primary lymphoma of the stomach
- E. Duodenal Crohn's disease

USE THE FOLLOWING CHOICES TO ANSWER QUESTIONS 25-29.

- A. Fluctuating levels of consciousness
- B. Lucid-interval
- C. Posterior fossa tumour ✓
- D. Bitemporal hemianopsia ✓
- E. Retroviral infection ✓

- A 25. Chronic subdural haematoma **B**
- B 26. Extradural haematoma **A B**
- D 27. Pituitary adenoma **D D**
- C 28. Ventriculoperitoneal shunt is indicated **CC**
- E 29. Primary brain lymphoma **E**

USE THE FOLLOWING CHOICES TO ANSWER QUESTIONS 30-34. MATCH THE CHOICES WITH THE MOST APPROPRIATE ANSWER.

- A • Stewart-Treves' syndrome
- B • Von Hippel-Lindau disease
- C • Von Recklinghausen's disease **34**
- D • Lynch syndrome
- E • Peutz-Jegher's syndrome

- 30. Renal cell carcinoma **A**
- 31. Increased risk of soft tissue sarcoma **B**
- 32. Increased risk of colon cancer and endometrial cancer **C**
- 33. Lymphangiosarcoma associated with lymphoedema following radical mastectomy **D**
- 34. Neurofibromatosis type I **E**

35. With regard to the storage of banked blood, which of the following statement is true?
- A. Packed red blood cells stored in additive solution (AS-3) and kept at 4°C are suitable for transfusion for 3 months. ✓
 - B. Platelets in blanked blood retain their function for 3 days. ✓
 - C. Factor II, VII IX and XI are stable at 4°C ✓
 - D. A decrease in red blood storage cell oxygen affinity occurs during storage as a result of a decrease in 2, 3-diphosphoglycerate (2,3-DPG) levels.
 - E. There is a significant rate of hemolysis in stored blood.

Blood Products
4

36. In cirrhotic patient who are actively bleeding, the coagulopathy of end-stage liver disease can be differentiated from DIC most readily by estimation of which of the following factors?

- A. Factor II
- B. Factor V
- C. Factor VII
- D. Factor VIII:C
- E. Factor X

37. Which of the following statements regarding the distribution, composition, and osmolarity of the body fluid compartments is not true?

- A. Most intracellular water resides in skeletal muscles.
- B. The principal intracellular cation is sodium.
- C. Nonpermeable proteins determine the effective osmotic pressure between the interstitial and intravascular (plasma) fluid compartments.
- D. Calcium greatly determines the effective osmotic pressure between the ICF and ECF
- E. The principal extracellular anion are chloride and bicarbonate.

38. Which one of the following is not a stimulus for ECF expansion?

- A. Hemorrhage leading to a reduction in blood volume
- B. Increased capillary permeability after major surgery
- C. Peripheral arterial vasoconstriction
- D. Negative interstitial fluid hydrostatic pressure
- E. Colloid oncotic pressure

39. Which of the following statements regarding hypervolemia in postoperative patients is not true?

- A. Hypervolemia can be reduced by the administration of isotonic salt solutions in amounts that exceed the loss of the volume.
- B. Acute overexpansion of the ECF space is usually well tolerated in healthy individuals
- C. Avoidance of volume excess requires daily monitoring of intake and output and determinations of serum sodium concentrations to guide accurate fluid administration.
- D. The most reliable sign of volume excess is peripheral edema.
- E. The earliest sign of volume excess is weight gain.

40. Which of the following pairing statements regarding daily fluid balance is incorrect?

- A. Daily water intake, 2000 to 2500 mL
- B. Average total loss, 1000 mL *Paradoxical*
- C. Average insensible loss, 600 mL
- D. Average urine volume, 800 to 1500 mL
- E. Average increase in insensible loss in a febrile patient, 250 mL/day for each degree of fever.

6-5 leaves
6x500
3000 ml
Fluid Balance.

* 41. With regard to intraoperative management of fluids, which of the following statements is true?

- A. In a healthy person, up to 500mL of blood loss may be well tolerated without the need for the blood replacement ✓ *a part of blood*
- B. During an operation, functional ECF volume is directly to the volume lost to suction.
- C. Functional ECF losses should be replaced with plasma
- D. Administration of albumin plays an important role in the replacement of functional ECF volume loss.
- E. Operative blood loss is usually overestimated by the surgeon.

* 42. A 70-year-old man with sepsis has a pH of 7.18. Which of the following statements is true regarding his metabolic acidosis?

- A. Tissue hypoxia leads to increased oxidative metabolism.
- B. Acute compensation for metabolic acidosis is primarily renal.
- C. Metabolic acidosis results from the loss of bicarbonate or the gain of fixed acids
- D. The most common cause of excess acid is prolonged nasogastric suction. X
- E. Restoration of blood pressure with vasopressors corrects the metabolic acidosis associated with circulatory failure.

* 43. Which of the following is true with regard to the metabolic response to stress as described by Cuthbertson:

- A. The flow phase of Cuthbertson's two-phase model of the metabolic response to injury is characterized by physiologic responses designed to restore tissue perfusion and circulating volume.
- B. The ebb phase begins once the patient is successfully resuscitated.
- C. The ebb phase entails both a catabolic and an anabolic period.
- D. The flow phase occurs initially after traumatic injury.
- E. The anabolic phase starts after wounds have closed and is characterized by the return of normal homeostasis.

44. Which of the following cases is considered a dirty wound?

- A. Open cholecystectomy for cholelithiasis
- B. Herniorrhaphy with mesh repair
- C. Open prostatectomy
- D. Appendectomy with walled-off abscess ✓ *abscess*
- E. Thyroidectomy

* 45. Acute haemolytic transfusion reaction is associated with:-

- A. ABO incompatibility ✓
- B. Minor blood group incompatibility
- C. Rh incompatibility
- D. Transfusion through Ringer's lactate
- E. Transfusion through 5% dextrose and water

Blood Transfusion & Shift.

A - ve Curve Anaerobic.

- * 46. A patient with a non-obstructing carcinoma of the sigmoid colon is being prepared for elective resection. To minimize the risk of postoperative infectious complications, your planning should include:-
- A. A single pre-operative parenteral dose of antibiotic effective against aerobes and anaerobes
 - B. Avoidance of oral antibiotics to prevent emergence of *Clostridium difficile*
 - C. Parenteral nutrition
 - D. Postoperative administration for 5-7 days of parenteral antibiotics effective against aerobes and anaerobes
 - E. Operative time less than 5 hrs
47. The most important effect of pre-operative potassium iodide solution in thyroid surgery is:
- A. A reduction in thyroid storm
 - B. Reduced vascularity of the gland ✓ 3 ml 2 gm
 - C. Increased chance of saving the parathyroid glands
 - D. Reduced risk of recurrent laryngeal nerve damage
 - E. Pigment deposition in the parathyroid gland which helps to identify them
- * 48. Phosphate containing solutions for bowel preparation for colonoscopy are contraindicated in the elderly because of the risk of:
- A. Hypokalaemia
 - B. Hypercalcaemia
 - C. Large fluid shifts ✓
 - D. Nausea and vomiting
 - E. Bloating
49. Severe and complicated pancreatitis is associated with all of the following EXCEPT:
- A. Adult Respiratory Distress Syndrome ✓
 - B. Hyperglycaemia ✓
 - C. Ascites ✓
 - D. Hypocalcaemia
 - E. Gout
- * 50. In inflammatory bowel disease, which extra-gastrointestinal manifestation is more likely in a patient with ulcerative colitis than one with Crohn's disease?
- A. Uveitis
 - B. Renal stones
 - C. Gallstones
 - D. Venous thrombosis
 - E. Erythema nodosum ✓

* 51. With regard to MEN IIA

- A. Pheochromocytoma will 20% of cases ^{50%}
- B. Medullary thyroid carcinoma will be present all the time ^{almost all the time}
- C. Parathyroid over activity will be present 60% of cases
- D. Parathyroid tumours will be present all the time ^{50%}
- E. Most of the time pheochromocytoma will be bilateral ^X

* 52. With regard to risk of breast tumour, all the following syndromes carry genetic risk of the disease EXCEPT:

- A. Women with Li-Fraumeni syndrome are at risk ✓
- B. Men with Cowden syndrome are at risk ✓
- C. Muir-Torre syndrome.
- D. Sipple syndrome, ^{MEN II}
- E. Ataxia-telangiectasia.

53. Which of the following is true with regard to hernia?

- A. It is impossible to differential femoral from inguinal hernia clinically ✓
- B. It is impossible to differentiate indirect from direct hernia clinically ✓
- C. Ultrasound is always the investigation of choice before diagnosis of hernia ✓
- D. Hernia is the commonest cause of intestinal obstruction in developed countries ✓
- E. Saphena varix is a differential diagnosis of groin hernia.

54. Assessment of a breast lump include all of the following EXCEPT

- A. Clinical examination ✓
- B. Mammography ✓
- C. Core biopsy ✓
- D. Ultrasonography ✓
- E. Mastectomy ✓

Tuple assessment

55. Which of the following conditions is associated with an isolated prothrombin time (PT) prolongation?

- A. von Willebrand disease
- B. Factor VIII deficiency (hemophilia A)
- C. Common pathway factor deficiencies (factors II, V, and X and fibrinogen)
- D. Therapeutic anticoagulation with warfarin (Coumadin)
- E. Therapeutic anticoagulation with heparin

USE THE FOLLOWING INFORMATION FOR QUESTIONS 56-60. A two year old boy presents in hospital having been run over by his father when he was reversing in the driveway. He is found to be drifting in and out of consciousness, blood pressure of 50/35mmHg, pulse of 120 beats per minute and capillary refill of 4 seconds.

- 1.5clujcord
- RTA
- 2nd
low

56. What will be the initial management?
- A. Put a large bore intravenous cannula and start saline boluses
 - B. Take to theatre for exploration x
 - C. Give oxygen
 - D. Immobilise any fractured bones to prevent further bleeding x
 - E. Secure the airway ✓

A B C D E

57. In giving saline boluses, the recommended initial dose is

- A. 20ml/kg body weight ✓
- B. 1ml/kg
- C. 100ml
- D. 1l
- E. 50ml/kg

20 x 70 = 1.4 L

* 58. Which of the following test is NOT recommended initially to evaluate for the presence of intraabdominal trauma in such a child

- A. Abdominal CT scan ✓
- B. Liver function tests
- C. Urinalysis ✓
- D. Serum amylase ✓
- E. Abdominal FAST scan ✓

59. The child is found to stabilise but have splenic laceration. Which is the best management option?

- A. Urgent operation and splenectomy ✓
- B. Bed rest
- C. Discharge for observation at home
- D. Blood transfusion ✓
- E. Anticoagulants

- Splenic haem
Hb or injury emergency or splenectomy

60. In resuscitating a child, the following is the recommended chest compression:breath ratio

- A. 15:2 ✓
- B. 15:1 ✓
- C. 30:2
- D. 30:1 x adult ✓
- E. 5:1

15 1

61. A six week infant is brought to hospital with projectile nonbilious vomiting. The doctor orders an ultrasound scan and confirms presence of pyloric stenosis. He then orders some laboratory tests. The following are possible findings EXCEPT

- A. Acidosis
- B. Alkalosis
- C. Hypochloraemia
- D. Hyponatraemia
- E. Hypokalaemia

Vomiting = ↓ electrolytes
= ↓ acid

* 62. A 12 year old girl complains of abdominal pain that started suddenly in the morning and has persisted 4 hours since. She is also vomiting and has not had any diarrhoea. She reports no change in appetite or dysuria. She is not febrile but is tender in suprapubic and left iliac fossa, and the tenderness is not migratory. Laboratory tests are ordered and white blood cell count is 8 and a CRP of 4. What is the most likely diagnosis?

- A. Appendicitis
- B. Ovarian torsion
- C. Merkel's diverticulitis
- D. Constipation
- E. Mesenteric adenitis

63. Colonic pseudo obstruction is caused by all except

- A. Systemic illness
- B. Electrolyte imbalance
- C. Faecal impaction
- D. Opioids
- E. Hypothyroidism

64. An 18 year old girl is brought to the casualty with worsening severe abdominal pain which started 6 hours ago. Her abdomen is tender particularly in the lower abdomen and there is guarding. She also has a history of Chlamydia. She has tachycardic but her blood pressure is normal at 137/78. Which one of the following is the diagnosis you should confirm or rule out in this patient?

- A. Acute appendicitis
- B. Pelvic inflammatory disease
- C. Acute intestinal obstruction
- D. An ectopic pregnancy
- E. Crohn's disease

65. Which of the following is INCORRECT concerning colorectal carcinoma?
- A. Is the second most cause of cancer related death in western world?
 - B. A T1 N1 M0 stage III is equivalent to Duke stage C tumour
 - C. Majority of the cancers occur in the descending colon
 - D. Familial adenosis polyposis and HNPCC are two inherited causes of colon cancer ✓
 - E. Patient with primary Sclerosing cholangitis and ulcerative colitis have increased risk of developing colon cancer

66. Which ONE of the following is INCORRECT with regard to familial adenomatous polyposis.

- A. Account for about 1% of colorectal cancers ✓ *almost 100% in absence of surgical intervention*
- B. Is autosomal dominant inherited ✓
- C. Patient may develop extra colonic manifestation such as desmoids, epidermoid cysts and dental cysts. ✓
- D. Adenomas develop during teenage years of life will become malignant around the age of 20 ✗
- E. Treatment is with a subtotal colectomy ✓

67. All are important in the preoperative management of patients with jaundice except

- A. Vitamin K
- B. Adequate hydration
- C. Input-Output charts
- D. Prophylactic antibiotics ✓
- E. Scrubbing of the surgical site in the ward

68. All are complications of cholelithiasis except.

- A. Cholangitis ✓
- B. Pancreatitis ✓
- C. Gall bladder abscess ✓
- D. Duodenal ulcers ✓
- E. Recurrent cho. ecystitis ✓

69. Carcinoma of the bladder:

- A. Is primarily of squamous cell origin. ~~X~~
- B. Is preferentially treated by radiation. ✓
- C. May be treated conservatively by use of intravesical agents even if it invades the bladder muscle. ~~X~~
- D. May mimic an acute UTI with irritability and hematuria. ~~X~~
- E. Is preferentially treated by partial cystectomy. ~~X~~

70. If torsion of the testicle is suspected, surgical exploration:

- A. Can be delayed 24 hours and limited to the affected side. ~~X~~
- 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

71. 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 ~~X~~
- B. Ischiorectal abscess ✓
- C. Pelvic abscess
- D. Ovarian cyst ~~X~~
- E. Uterine fibroids ~~X~~

72. The following investigations are appropriate prior to surgery

- A. An ECG in all patients older than 30 years ~~X~~
- B. Coagulation screen for all patients with obstructive jaundice ✓
- C. HIV screening for patients with acute appendicitis ~~X~~
- ~~X~~ D. Chest X-ray for all patients over 40 years ✓
- E. Liver function test for patients with acute appendicitis

USE THE FOLLOWING CHOICES TO ANSWER QUESTIONS 73-77. CHOOSE THE MOST APPROPRIATE CHOICE FOR EACH STEM

- A. Familial adenomatous polyposis syndrome
- B. BRCA mutation
- C. Down's Syndrome
- D. MEN IIA → Medullary Ca. of Thyroid
→ PCC → PTH
- F. Long-term immunosuppressive treatment after kidney transplant

- 73. 100% lifetime risk of colon cancer **A**
- 74. Increased risk of periampullary tumours **C**
- 75. Increased risk of bilateral breast cancer **BB**
- 76. Increased risk of pheochromocytoma **D**
- 77. Increased risk of Kaposi's sarcoma **E**

USE THE FOLLOWING CHOICES TO ANSWER QUESTIONS 78-82. CHOOSE THE MOST APPROPRIATE CHOICE FOR EACH STEM.

- A. Left hemicolectomy
- B. Anterior resection
- C. Diverting ileostomy
- D. Abdominoperineal resection
- E. Right hemicolectomy

- 78. Rectal cancer 3 cm from the anal verge **D**
- 79. Colon cancer at the rectosigmoid junction **A**
- 80. Descending colon perforation at colonoscopy **DE**
- 81. Consent for a permanent colostomy **B**
- 82. Hepatic flexure tumour **E**

USE THE FOLLOWING CHOICES TO ANSWER QUESTIONS 83-87. CHOOSE THE MOST APPROPRIATE CHOICE FOR EACH STEM.

Q17 Radio

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

- 83. Intussusceptions **B**
- 84. Sigmoid volvulus **D**
- 85. Small bowel obstruction **A**
- 86. "Closed-loop" obstruction of the colon **C**
- 87. Obstructing rectal cancer **E**

88. Rectal Juvenile polyps:
- A. Almost invariably undergo malignant change*
 - B. Occasionally persist into adult life*
 - C. Are pre-malignant ✓
 - D. Are not associated with pain**
 - E. Are not associated with rectal bleeding*

89. Which statement with regards to breast cancer is TRUE?
- A. The commonest site of metastases is the contralateral breast*
 - B. Local spread to the chest wall occurs earlier in female patients than male patients*
 - C. Klinefelter's syndrome is a predisposing factor*
 - D. Inflammatory breast cancer is classified as locally advanced disease ✓
 - E. There is no role for neo-adjuvant chemotherapy*

90. Preservation of normothermia in surgical patients is important. All of the following are negative outcomes associated with perioperative hypothermia except?
- A. Coagulopathy *↑ bleeding* ✓
 - B. Wound infection ✓
 - C. Nosocomial pneumonia ✓
 - D. Myocardial ischaemia ✓
 - E. Delayed wound healing ✓

91. Which of the following is NOT a complication of urethral stricture?
- A. Retention of urine*
 - B. Urethral diverticulum*
 - C. Peyronie's disease ✓
 - D. Peri-urethral abscess ✓
 - E. Urethral fistula ✓

92. Which of the following people can give a valid consent for elective surgery?

- A. A surgeon not involved in care of the patient ✗
- B. The headmaster of a child in boarding school ✗
- C. A patient who is under the influence of alcohol ✗
- D. A magistrate for a minor whose parents decline life-saving surgery ✓
- E. A 14-year old ✗

93. Kaposi's sarcoma:

- A. Is an X-linked recessive disease ✗
- B. Can be treated with radiotherapy ✓
- C. Does not respond to chemotherapy ✗
- D. Only affects people with AIDS ✗
- E. Mainly affects the central nervous system ✗

94. Regarding gastric carcinoma *which is not.*

- A. H. pylori is not known to be a risk factor ✗ *ulcers precipitate to gastric ca*
- B. Early gastric cancer is, even in the presence of nodal involvement have 90% 5 year survival
- C. Diffuse type in Lauren's classification have the best prognosis
- D. Troisier's sign is due to transperitoneal spread
- E. Sister Mary Joseph nodule is due to lymphatic spread

95. Regarding preoperative evaluation

- A. There is no role for history and physical examination ✗
- B. Chest x ray is useful in all circumstances ✗
- C. Usefulness of hemogram is to avoid blood loss ✗
- D. Post operative complication are a consideration ✓
- E. Comorbidities are an occasional consideration ✗

96. The following are methods of managing Inguinal hernia except

- A. McVays method
- B. Bassini's method
- C. Lichensteins method
- D. Lockwood ✓
- E. Shouldice method

right: Thrombolytics: (Streptokinase) & heparin with total time
 Pul embolectomy bypass is immediate thrombolysis
 Venous thrombolysis
 prophylactic VC pills

97. A postoperative pulmonary embolus

- A. Is invariably associated with chest pain
- B. A chest x-ray is always normal
- C. Diagnosis can be confirmed by radioisotope ventilation/perfusion scan
- D. ECG may show Q wave in lead III.
- E. is rarely seen between 7 and 10 days after operation

may be pain femoropopliteal or deep venous thrombosis
 Type: Small emboli + pul. HTL / fracture of long bones
 mechanism: → chest pain, hemoptysis, tachypnea
 large → sudden chest pain, severe dyspnea, shock
 cause: venous thrombosis & embolism
 evidence of V/Q mismatch high suspicion

pulmonary angiogram less diagnostic
 CT scan
 BSA
 Doppler ultrasonography - 1st line

98. Phylloides tumour

- A. Is invariably a benign disease
- B. Modified radical mastectomy is the treatment of choice
- C. Commonly affect ages 20-30 years just like fibroadenoma
- D. Chemotherapy may not be useful
- E. Local recurrence are common than distance metastasis

Benign
 Modified radical mastectomy
 Total mastectomy
 40-50 years
 15% distant metastasis

99. Enterocutaneous fistula

- A. Always close spontaneously
- B. 250ml discharge from the fistula per day is considered low
- C. Conventional therapy is surgery for the first phase
- D. Spontaneous causes include intestinal sepsis
- E. Fistulas with tracts longer than 2cm hardly closes

high cut put 20-30ml/day
 low cut put 100-200ml/day
 7 days cut put 1/2 day
 10 days cut put 1/2 day
 15 days cut put 1/2 day
 20 days cut put 1/2 day
 25 days cut put 1/2 day
 30 days cut put 1/2 day
 35 days cut put 1/2 day
 40 days cut put 1/2 day
 45 days cut put 1/2 day
 50 days cut put 1/2 day
 55 days cut put 1/2 day
 60 days cut put 1/2 day
 65 days cut put 1/2 day
 70 days cut put 1/2 day
 75 days cut put 1/2 day
 80 days cut put 1/2 day
 85 days cut put 1/2 day
 90 days cut put 1/2 day
 95 days cut put 1/2 day
 100 days cut put 1/2 day

* 100. Which of the following is true regarding malignant melanoma

- A. The most common type is nodular melanoma
- B. Breslow thickness is not a good prognostic factor
- C. Sentinel lymph node biopsy is not a means of assessing lymph node status in this disease
- D. Isolated limb perfusion with cytotoxic agents palliates recurrent limb disease
- E. Lentigo maligna is deep disease

Intermittent limb perfusion
 Phase 1: Revascularization
 Restoration
 2. Investigation
 3. Decision
 4. Treatment

SURG

Registration No. KL/114-107



UNIVERSITY OF NAIROBI

UNIVERSITY EXAMINATIONS 2017

LEVEL IV EXAMINATIONS FOR THE DEGREE OF BACHELOR OF MEDICINE AND BACHELOR OF SURGERY
HSU 400: SURGERY

DATE: MAY 24, 2017 MCQ
THE DE NOVO PAPER

TIME: 2.00 P.M. - 5:00 P.M.

INSTRUCTIONS

Choose ONE correct answer.
Mark the correct answer on this question paper before transferring to the answer sheet.

* 1. The risk of colon cancer in an adenomatous polyp is related to all of the following factors EXCEPT

- a) Dysplasia ✓
- b) Number of polyps ✓
- c) Histological appearance ✓
- d) Size of polyp ✓
- e) Genetic predisposition ✓

* 2. In patients receiving massive blood transfusion for acute blood loss, which of the following is CORRECT?

- a) Packed red blood cells and crystalloid solution should be infused to restore oxygen-carrying capacity and intravascular volume. ✓
- b) Two units of FFP should be given with every 5 units of packed red blood cells in most cases. Six packs of platelet concentrate should be administered with every 10 units of packed red blood cells. FFP if more than 6 units of PRBCs
- c) One to two ampules of 8.4% sodium bicarbonate should be administered with every 5 units of packed red blood cells to avoid acidosis.
- d) One ampule of calcium chloride should be administered with every 5 units of packed red blood cells to avoid hypocalcaemia.
- e) Whole blood and crystalloid solution should be infused to restore oxygen-carrying capacity and intravascular volume.

3. Which one of the following statements is INCORRECT regarding surgical emphysema of the chest?

- a) It is a surgical emergency ✓
- b) It is iatrogenic after thoracic surgical procedures ✓
- c) It is a common complication in patients with chronic obstructive pulmonary disease (COPD) ✓ Asthma
- d) A perforated oesophagus is a well-known cause of surgical emphysema ✓
- e) On a Chest radiograph it is noted as radiolucent areas within the subcutaneous tissue. ✓

ADUS

1

Colon Ca.
Colon

Massive Blood loss
Shock
Blood Transfusion

Emphysema
Surgical Emphysema
No tension

* 4. A 49-year-old otherwise healthy man presented to the surgical clinic with complaints of a lump in his abdomen. On examination he was found to have a vertical midline mass measuring 5cm in diameter with a cough impulse and was more prominent as he sat up than when he recumbent. His abdomen is otherwise soft and non-tender and he has no visible line scars. What do you think this patient has?

- a) Umbilical hernia X
- b) Epigastric hernia ✓
- c) Inguinal hernia X
- d) Divarification of the rectus ✓ *Diastasis recti (common in pregnancy & newborns)*
- e) All of the above X

Which one of the following statements is INCORRECT regarding a Meckel's diverticulum:

- a) It is present in about 2% of the population ✓
- b) It is about two metres from the ileocaecal junction ✓ *60cm / 20 feet*
- c) It may contain heterotopic pancreatic and gastric tissue ✓
- d) It is about two inches long ✓
- e) It is a true diverticulum ✓

*2/2
2 feet
2 inches
20% heterotrophic tissue*

* 6. A 56-year-old man had an abdominoperineal resection for rectal cancer. He has a stoma in the left iliac fossa that has no pout and is flush to the skin. What kind of stoma does this patient have?

- a) Loop colostomy X
- b) Sigmoid fistula X
- c) End colostomy ✓
- d) Ileostomy X *uprated*
- e) Double barrel colostomy X

* 7. Which one of the following statements is FALSE in regard to hernias?

- a) Inguinal hernia lie superomedial to the pubic tubercle ✓
- b) Femoral hernias lie inferolateral to the pubic tubercle ✓
- c) Men are most likely to have femoral hernias than women ✓
- d) The most common hernia in women are inguinal hernias ✓
- e) Men are more likely to get inguinal hernias than women ✓

*Inguinal - 7 men
Femoral - 7 women*

* 8. Capillary refill time is elicited by which of the following statements?

- a) Pressing over skin for ten seconds with normal return of perfusion (i.e. Pink) by 5 seconds X
- b) Pressing over skin for five seconds with normal return of perfusion (i.e. Pink) by 3 seconds X *delayed*
- c) Pressing over skin for three seconds with normal return of perfusion (i.e. Pink) by 3 seconds X
- d) Pressing over skin for ten seconds with normal return of perfusion (i.e. Pink) by 2 seconds X
- e) Pressing over skin for five seconds with normal return of perfusion (i.e. Pink) by 2 seconds ✓

9. Assessment of a breast lump includes all of the following EXCEPT?

- a) Lumpectomy ✓
- b) Clinical examination ✓
- c) Core biopsy ✓
- d) Breast imaging ✓
- e) Fine needle aspiration ✓

Appendicitis

34. Which of the following types of patients do not have an increased risk of perforation in acute appendicitis?

- a) Extremes of age X ✓
- b) Immunosuppressed X ✓
- c) Diabetes mellitus X ✓
- d) Pelvic position of appendix X ✓
- e) Obese patient. ✓ → protection by fat.

Previous abdominal ca.
Fecolith Obstruction

Perianal abscess

35. Which of the following statements regarding perianal abscesses is TRUE?

- a) They present as a painful, throbbing swelling in the gluteal area. X anal region.
- b) They are always associated with an underlying anal fistula. X ~~an abscess is not the cause~~
- c) Fistulotomy is advised if a fistula is found at the time of draining the abscess. X ~~only experienced hands~~
- d) Treatment of abscess involves a cruciate incision over the most fluctuant point, de-roofing the cavity and finger curettage. ✓
- e) Finding Gram-positive organisms on culture is associated with an underlying anal fistula. X ~~ca-re~~

36. Which of the following statements is FALSE regarding haematuria?

- a) Microscopic haematuria is not always abnormal. ✓
- b) Haematuria at the start of urinary stream indicates a cause in the lower urinary tract. ✓
- c) Haematuria where the urine is uniformly mixed with the urine points to a cause in the upper urinary tract. ✓
- d) Terminal haematuria is caused by bladder irritation or infection. ✓
- e) Painful haematuria indicates malignant pathology. ✓ ~~stones~~

Prostate

37. Which of the following statements is FALSE?

- a) The prostate is anatomically divided into peripheral zone, a central zone and a transitional zone. ✓
- b) The glands of the peripheral zone are lined by transitional epithelium. ✓
- c) Benign prostatic hypertrophy occurs in the transitional zone. ✓
- d) Most carcinomas arise in the peripheral zone. ✓
- e) Denonvilliers' fascia separates the prostate from the rectum. ✓ ~~laka rectoprostatic fascia~~

BPH - Transitional
ca - Peripheral zone

BPE

38. In benign prostatic hypertrophy (BPH) which of the following statements is FALSE?

- a) It is the commonest cause of bladder outflow obstruction (BOO) in men > 70 years of age. ✓
- b) Decrease in serum testosterone levels and therefore relative increase in serum oestrogens cause BPH. ✓
- c) The condition affects the transitional zone and the central zone. ✓ ~~field glands~~
- d) All lower urinary tract symptoms (LUTS) in men > 70 years are due to BPH. X
- e) The prostatic urethra is elongated. ✓

Prostate ca

39. On rectal examination, which of the following features do not suggest prostatic carcinoma?

- a) Nodules within the prostate ✓ ✓
- b) Obliteration of the median sulcus ✓
- c) Irregular stony hard induration ✓
- d) Mobile rectal mucosa over the prostate ✓ ~~immobile~~
- e) Extension beyond the capsule into the bladder base. ✓

prostatic

40. In rupture of the membranous urethra, which of the following statements is FALSE?

Urethra

- a) It is almost always associated with a pelvic fracture. ✓
- b) 10-15 per cent of fractured pelvis cases will have associated urethral injury. ✓
- c) It is usually a part of polytrauma. ✓
- d) The prostate may be high-riding and out of reach on rectal examination. ✓
- e) Urethral catheter inserted as a part of initial resuscitation. ✓

* 41. Which of the following statements about urethral stricture is FALSE?

Urethral stricture

- a) The symptoms are those of bladder outflow obstruction (BOO). ✓
- b) Ascending urethrography is necessary. ✓ or urethroscopy ✓
- c) Urethroscopy is mandatory to evaluate. ✓
- d) Perineural abscess is a complication. ✓ infection, bladder calculus, upper tract dilatation, diverticulum
- e) Urethral dilatation is the ideal treatment. ✓

Retrograde urethrogram, antegrade cystourethrogram

* 42. Which of the following statements on hypovolaemic shock is TRUE?

Hypovolaemic shock

- a) Class I shock is equal to voluntary blood donation of one unit. ✓
- b) Class II shock is evidenced by change in vital signs and a significant decrease in systolic blood pressure. ✓
- c) Class III shock can be managed by simple administration of crystalloids only. ✓
- d) Class IV shock is evidenced by blood loss of less than 40% and is not life threatening. ✓
- e) In class III shock capillary return is more than two seconds. ✓

* 43. A 56-year-old woman presents with a two weeks history of increasing jaundice and pruritis. Further questioning reveals that she has vague epigastric pain radiating to the back for the last few months. On examination, the gall bladder is palpable with no obvious hepatomegaly. The most likely diagnosis is

- a) Cholangiocarcinoma ✓
- b) Adenocarcinoma of pancreas ✓
- c) Carcinoma of gall bladder ✓
- d) Intraductal papillary carcinoma ✓ HCC
- e) Gallstone disease ✓

jaundice & pruritis
epigastric pain radiating to back

* 44. Which of the following factors present in an entero-cutaneous fistula increases the possibility of closure of the tract?

entero-cutaneous fistula

- | | | |
|---|----------------------|---------------------------|
| <input checked="" type="radio"/> Non-epithelialization of the tract ✓ | Favourable | Unfavourable: |
| <input type="radio"/> High output fistula ✓ | Non epithelial tract | Epithelial tract |
| <input type="radio"/> Malnutrition ✓ | low output | High output |
| <input type="radio"/> Sepsis ✓ | Fistula tract > 2cm | Fistula tract < 2cm |
| <input type="radio"/> Distal obstruction ✓ | Simple | Complex |
| | Oropharyngeal | Presence of intra-hepatic |
| | Oesopharyngeal | Ductal obstruction |
| | | Gastric type |

* 45. Which of the following is true about Monteggia's fractures?

- a) It is usually associated with posterior interosseous nerve paralysis. ✓
- b) It can be usually treated conservatively in adults. ✓
- c) It is an injury of children. ✓
- d) It is a combination of fracture of radius with distal radio-ulnar joint dislocation. ✓
- e) It is a combination of fractures of proximal ulna with dislocation. ✓ Galeazzi

Registration No. _____

Thyroidectomy

46. You are the intern covering the surgical floor for the night and the nurses ask you to review a patient who has had thyroidectomy earlier in the day. You notice that she has an anterior neck swelling and difficulty breathing. The next step of management will be

- a) Open the wound immediately ✓
- b) Oro-tracheal intubation
- c) Wait and watch
- d) Oxygen by mask ✓
- e) Call the surgeon urgently

? Laryngeal oedema due to haematomata. Indicate to relieve symptoms then intubate.

Appendicitis

47. Acute appendicitis is most commonly associated with which of the following signs?

- a) Temperature above 40° C. ✗
- b) Frequent loose stools ✗
- c) Anorexia, abdominal pain, and right lower quadrant tenderness ✓
- d) White blood cell count greater than 20,000 per mm³ ✗
- e) Palpable right iliac fossa mass ✗

Intussusception

48. A 6-month-old infant has a history of an acute onset of crampy abdominal pain and leg withdrawal of 12 hours' duration. Rectal examination shows red currant stool. Which of the following is the most likely diagnosis?

- a) Bleeding Meckel diverticulum ✗
- b) Acute appendicitis ✗
- c) Kidney stone ✗
- d) Infected urachal cyst ✗
- e) Intussusception ✓

Testicular Torsion

49. A 14-year-old boy is brought to the emergency department with a 4-hour history of acute severe left scrotal pain. Examination reveals a high-riding testis with severe pain on palpation. Urinalysis does not reveal any evidence of red or white blood cells. Which of the following is the treatment of choice at this point?

- a) Heat, scrotal elevation, and antibiotics ✗
- b) Manual attempt at detorsion ✓
- c) Analgesics and re-examination ✗
- d) Doppler examination to assess testicular blood flow ✗
- e) Surgical exploration ✗

4 hour

> 6 hours

Oesophageal ca

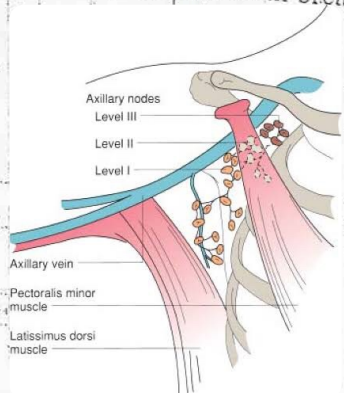
50. A 70 year old man presents with a history of progressive dysphagia of solids initially to liquids and weight loss. On examination he is noted to have an enlarged left supraclavicular node. Which of the following investigations would confirm the diagnosis in this patient?

- a) Barium meal ✗
- b) CT scan abdomen ✗
- c) Barium swallow ✗
- d) Endoscopy with biopsy ✓ Oesophageal ca
- e) Ultrasound of the abdomen ✗

Breast

51. Which one of the following is TRUE regarding level 2 axillary lymph nodes in breast surgery?

- a) Lie anterior to the pectoralis minor ✗
- b) Lie inferior to the lower edge of the pectoralis minor ✗
- c) Lie posterior to pectoralis minor ✓
- d) Lie superomedial to pectoralis minor level III ✗
- e) Lie inferior to pectoralis major ✗



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* 52 A 30-year-old female presents to the casualty department with a history of right calf tenderness and gives a history of using oral contraceptives. A Doppler scan confirms a deep vein thrombosis. The most appropriate management plan for her would be?

- a) Start her on warfarin
- b) Start her on IV heparin
- c) Start her on low molecular weight heparin → prophylactic
- d) Call a senior consultant first to decide on anticoagulation
- e) None of the above

3. Which one of the following statements is **INCORRECT** in regards to sepsis?

- a) Tachypnoea and tachycardia are early signs
- b) Sepsis is defined as Systemic Inflammatory response syndrome in the setting of documented infection
- c) Leucocytosis or leucopaenia may be a sign
- d) Septic shock is defined as hypotension and sepsis

SEPSIS STEPS		SEVERE SEPSIS Sepsis + Signs of End Organ Damage Hypotension (SBP < 90) Lactate > 4 mmol	SEPTIC SHOCK Severe Sepsis with persistent Signs of End Organ Damage Hypotension (SBP < 90) Lactate > 4 mmol
SIRS T: >100.4 F < 96.8 F RR: >20 HR: >90 WBC: >12,000 < 4,000 >10% bands PCO2 < 32 mmHg	SEPSIS 2 SIRS + Confirmed or suspected infection		

Slides Courtesy of Curtis Merritt, D.O.

4. A 20-year-old man is brought in to the casualty department in respiratory distress after being involved in a road traffic collision. On examination he is noted to have reduced air entry on auscultation on the left side of the chest with tracheal deviation to the right side. Which of the following is the most appropriate management option for this patient?

- a) A chest X-ray
 - b) CT scan of the chest
 - c) Immediate intubation and ventilation
 - d) Decompression using a large bore needle to the left of the sternum
 - e) Decompression using a large bore needle to the right of the sternum
 - f) Insert a chest drain after needle thoracotomy
- Tension Pneumothorax*

* 53. A 24-year-old female presents to the surgical outpatient clinic with a history of palpitations, intolerance to heat, weight loss. On examination you notice she has clammy palms, increased reflexes and a large goitre. What is the most likely diagnosis?

- a) Graves disease
 - b) Hashimoto thyroiditis
 - c) Solitary thyroid nodule
 - d) Toxic multinodular goitre
 - e) De Quervain's thyroiditis
- Hyperthyroidism*

54. Which of the following statements is **false** about Hirschsprung's disease?

- a) Male and females have equal incidence
 - b) In approximately 8% of patients the entire colon is affected
 - c) Constipation is a common problem after surgery
 - d) Down syndrome is present in 3-5% of cases
 - e) It is characterised by lack of ganglion cells in the Auerbach's and Meissner's plexus
- Myf*
Swan-Hammel procedure

57. A 25-year-old male is brought in by paramedics after having been involved in a road traffic accident. His initial BP at the scene was 80/40 mmHg with a pulse rate of 120 beats per minute. He was given two litres of saline and his current BP in the casualty is 110/70 mmHg. On examination he is noted to have left upper quadrant tenderness. What is the most appropriate next step in his management?

- a) Undertake a full abdominal examination
- b) Shift him to ICU and observe
- c) Plan him for laparoscopy
- d) Take him for an exploratory laparotomy
- e) Give him whole blood

liver injury cracks
 I: laceration, parenchymal disruption 25-75% hepatic lobe 1-3 (united segments)
 II: laceration > 75% or 75% grade
 III: hepatic avulsion
 I: subcapsular < 10% capsule tear < 1cm depth
 II: subcapsular 10-50% capsule tear < 10cm depth
 III: subcapsular > 50% capsule tear > 10cm depth
 IV: intraparenchymal haematomas
 I: laceration > 3cm depth

when Pneumothorax

schizophrenia

injury

Pancreatitis

- *58. All of the following tests may be useful in the diagnosis of acute pancreatitis EXCEPT?
- a) Serum amylase ✓
 - b) Serum lipase ✓
 - c) Abdominal ultrasound *Amoxic*
 - d) Serum amylase isoenzymes ✓
 - e) Faecal fat ✓

Upper GI bleed

59. What is the most common cause of significant upper gastrointestinal bleeding?
- a) Oesophageal varices ✓
 - b) Mallory Weiss tears *A. 90*
 - c) Peptic Ulcer disease → does not cause significant bleeding
 - d) Oesophagitis
 - e) Dieulafoy lesions → abnormally large tortuous artery in the lining of GIT *05*

Ulcer Erosions

Appendicitis

60. The following are useful corroborative signs of acute appendicitis EXCEPT
- a) Referred pain in the right side with pressure on the left (Rovsing's sign) ✓
 - b) Relief of pain with elevation of testicle (Prehn's sign) ✓
 - c) Production of pain in right lower abdomen with extension of thigh (Psoas's sign) ✓
 - d) Production of pain in right abdomen with internal rotation of flexed thigh (Obturator's sign) ✓
 - e) All of the above X
- epididymo-orchitis has no pain relief*

Resuscitation in fluids

61. After the infusion of 2000 ml of intravenous fluid following trauma, a patient's blood pressure is 110/70 mmHg. Which of the following findings would be the best clinical guide to adequate fluid resuscitation of this patient?
- a) Urine output greater than 30ml/hour ✓ *35-50 ml/hour / 0.5 ml/kg/day*
 - b) Decrease in pulse to less than 100 beats/minute X
 - c) Return of normal skin temperature X
 - d) Return of normal sensorium X
 - e) The disappearance of orthostatic hypotension X

Intestinal Obstruction

62. A 45 year old lady who has hysterectomy presents to the hospital with a two day history of abdominal pain, abdominal distension and vomiting. Plain abdominal radiograph shows a feature suggestive of intestinal obstruction. What is the likely cause of the obstruction?
- a) Carcinoma of the colon X
 - b) Small bowel tumour X
 - c) Adhesions ✓ → due to prior hysterectomy
 - d) Incarcerated inguinal hernia X
 - e) Diverticulitis X

Urethral injury

63. A 21 year old male patient is brought to the emergency department for evaluation after a motor vehicle accident. As part of his secondary survey, he is found to have blood at the urethral meatus. What is the next step?
- a) Urethral Foley's catheter insertion followed by a cystogram X
 - b) Suprapubic catheterization followed by a urethrogram ✓
 - c) Intravenous pyelography (IVP) X
 - d) CT scan of the pelvis X
 - e) Diagnostic peritoneal lavage X

Patients with injuries with significant pneumo-haemothorax, the following

- a) Chest tube should be fixed at the 2nd ICS same side ✓
- b) Underwater seal drainage should be fixed on the same side 5th ICS anterior axillary line. ✓
- c) Prophylactic antibiotics may be of use after fixing the tube. ✓
- d) The chest is not necessary. ✗
- e) None of the above. ✗

In Intestinal stoma, which of the following statements is TRUE? -

- a) Ileostomies should have a spout. ✓
- b) A right sided stoma is invariably an ileostomy. ✗
- c) A Hartmann's procedure involves resection of a segment of colon and formation of an ileostomy. ✗ *end colostomy*
- d) A loop ileostomy is usually permanent. ✗ *Temporary*
- e) A defunctioning stoma is performed to protect an anastomosis proximal to the stoma. ✓ *Distal*

Parenteral nutrition is most commonly administered via large central veins. ✓

It is indicated in approximately 25% of patients in hospital requiring nutritional support. ✗

It should be administered using an infusion pump. ✗

It may induce renal dysfunction. ✗

- Indications of central line*
- ① TPN
 - ② Ab
 - ③ Post for chemo
 - ④ Plasmapheresis
 - ⑤ Measurement of CVP

67. In Obstructive jaundice;

- a) Ultrasound can readily reveal intra-hepatic ductal dilatation. ✓ *False*
- b) Obstructive jaundice is suggested by raised AST and ALT. ✗ *ALP ↑ 1007*
- c) Malabsorption of vitamin D in jaundiced patients can affect the synthesis of coagulation factors. ✓
- d) Endoscopic retrograde cholangio-pancreatography (ERCP) is of diagnostic and therapeutic value in jaundiced patients. ✓
- e) Pale urine and dark stools are suggestive of obstructive jaundice. ✗ *Pale stools, dark urine*

68. Patients vary greatly in their requirement for postoperative analgesia. What is the best to assess adequacy of pain relief?

- a) Measure the degree of tachycardia.
- b) Ask the patient to measure the pain. ✓
- c) Assess the level of hypertension.
- d) Look for tachypnoea.
- e) Examine for wound splinting.

69. In scrubbing, which of the following statements IS FALSE?

- a) If the surgeon has a suspected infected lesion, it is sprayed with iodine and covered with a sterile dressing before gloving. ✓
- b) The first scrub of the day should take about 5 min from start to drying. ✓
- c) A sterile scrubbing brush and nail cleaner are used for 1-2 min at the first scrub provided the surgeon stays within the theatre suite in between cases. ✓
- d) After applying disinfectant, the arms are washed from distal to proximal with hands up and elbows flexed. ✓
- e) Drying, using a towel for each side should start with the fingers and work across the hand and up the arm. ✓

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70. In the immediate post operative period Which of the following statements are FALSE?
- a) Infusion and certain monitoring systems can cause complications. ✓
 - b) Abdominal surgical wounds may compromise postoperative respiratory function. ✓
 - c) The commonest cause of postoperative hypotension may be due to bleeding or insufficient fluid administration. ✓
 - d) Postoperative deep vein thrombosis (DVT) is classically diagnosed by Homan's well's score. ✓ *may dislodge thrombus; painful technique*
 - e) Oliguria is defined as urinary output of less than 0.5 mL/kg per h. ✓

Post-op care

71. Which of the following IS NOT a cause of acute shortness of breath on the first postoperative day?

Post-op

- a) Atelectasis ✓ *clear*
- b) Pulmonary embolism ✓
- c) Myocardial infarction ✓
- d) Chest infection ✓
- e) Pneumothorax ✓

Day 1 Post-Op

MI, heart failure

PE

Chest inf.

Exacerbation of asthma

72. Which of the following statements regarding burn depth IS TRUE?
- a) The depth of a burn together with percentage of TBSA and smoke inhalation are key parameters in the assessment and management of a burn. ✓
 - b) Alkalis, including cement, usually result in superficial burns. ✓ *Deep burns (worse than acid)*
 - c) Fat burns are deeper than electrical contact burns. ✓
 - d) Capillary filling is not present in superficial burns. ✓
 - e) Deep dermal burns take a maximum of 2 weeks to heal without surgery. ✓

Burns

73. Which of the listed muscles does not control the rotator cuff?

- a) Supraspinatus ✓
- b) Teres major ✓
- c) Teres minor ✓
- d) Infraspinatus ✓
- e) Subscapularis ✓

74. Which of the following IS TRUE regarding burst abdomens? *6-8 days post-op*

Burst abdomen

- a) The incidence is around 10-15 per cent. ✓
- b) Midline and vertical incisions are more likely to burst than transverse incisions. ✓
- c) Catgut is associated with a lower risk of burst abdomen. ✓ *higher*
- d) A serosanguinous discharge is the forerunner of disruption in almost all cases. ✓ *chronic cough - symptom*
- e) Most cases are managed conservatively. ✓ *mass closure is better than layer by layer*

75. Which of the following statements IS TRUE?

- a) Peritonitis in perforated duodenal ulcer is initially sterile. ✓
- b) Immunocompromised patients rarely present with opportunistic peritoneal infection. ✓
- c) *Bacteroides* are sensitive to penicillin. *Flagel metronidazole & micropenic*
- d) In perforated duodenal ulcer there are no signs of peritonitis in the right iliac fossa. ✓
- e) Children can localise infection effectively. ✓ *poorly dev omentum*

Peptic ulcers

76. Which of the following IS TRUE with regard to the clinical feature of peptic ulcers?

- a) The pain never radiates to the back and this differentiates this from biliary colic. ✓
- b) Vomiting is a notable feature. ✓
- c) Bleeding is rare. ✓
- d) They may cause gastric outlet obstruction. ✓ *by chronic duodenal ulcers*
- e) Weight loss is a typical symptom. ✓ *gastric ca.*

- * 77. The evaluation of a comatose patient with head injury begins with:-
- a) An urgent CT scan of the brain and C-spine with cervical immobilization
 - b) Urgent Neurosurgical consult for evacuation of any hematomas
 - c) Complete neurological examination after a thorough history
 - d) Establishment of an airway
 - e) All of the above

Head injury

78. An epidural hematoma:-

- a) Should be suspected only in comatose patients
- b) Most commonly presents following a lucid interval
- c) Is usually accompanied by a skull fracture
- d) Should always be urgently evacuated for good functional outcome of patients
- e) Is usually as a result of venous bleed

Head injury

Middle meningeal

* 79. Regarding secondary brain injury which one IS CORRECT?

- a) In using the Glasgow Coma scale, the higher the score the poorer the neurologic status
- b) Corticosteroids are first line treatment for management of increased intracranial pressure
- c) Intracranial hypertension is one of the most important factors affecting outcome
- d) Systemic hypernatraemia leads to poor outcomes but hyponatraemia is tolerable
- e) Cerebral perfusion pressure must be maintained within broad limits because too little pressure will cause brain tissue to become ischemic and too much could raise intracranial pressure

Head injury

* 80. A 15 year old boy is struck by a baseball on the side of the head. He loses consciousness briefly but regains it 5 minutes later. Which of the following is correct?

- a) If the patient has normal neurologic exam at assessment in the Accident and emergency, he can safely be discharged home
- b) A CT scan should be performed regardless of the patient's neurologic state
- c) The patient has rapid deterioration into coma with fixed and dilated pupils with decerebration, the most likely cause is a subdural hematoma
- d) The initial neurological exam may be dilatation of the ipsilateral pupil
- e) The patient and his guardians need not be educated on warning signs and symptoms that may be indicative of a progressing injury

Head injury

81. Which of the following statements IS TRUE?

- a) Cranial osteomyelitis most frequently arises from the spread of bacteria through the bloodstream from an infection elsewhere in the body
- b) Bacterial meningitis may lead to hydrocephalus
- c) Bacterial abscesses are difficult to visualize on CT scan and thus an MRI is required
- d) Subdural empyema is usually treated by high dose antibiotics for 6 weeks without the need for surgical drainage
- e) All of the above

Neurology

82. Concerning the Glasgow coma scale:-
- a) Gives an accurate impression of neurologic status ✓
 - b) Once assessed for the patient at admission it guides treatment and does not need to be repeated ✓
 - c) An overall score of less than 8 negatively affects patient outcome ✓
 - d) Cannot be assessed in an unconscious patient ✓
 - e) Has minimal inter-observer variability ✓

Head injury

- *83. Which of the following IS NOT indicative of cervical spinal cord injury?

- a) Flaccidity ✓
- b) Increased rectal tone ✓
- c) Diaphragmatic breathing ✓
- d) Priapism *Crigin has painful erection; reported following spinal shock*
- e) Poor cough reflex ✓

Spinal cord injury

- *84. Which of the following forms a part of the Cushing response to increased intracranial pressure?

- a) Tachycardia ✓ *bradycardia*
- b) Hypertension ✓
- c) Hyperventilation ✓ *irregular breathing*
- d) Reduced level of consciousness ✓
- e) Imminent herniation is indicated ✓

↑ ICP =
HTN
Irregular breathing
↓ PR

- *85. The most common cause of paediatric hydrocephalus in our setting.

- a) Congenital ✓
- b) Post-traumatic ✓
- c) Due to prematurity ✓
- d) Post-infectious - meningitis ✓
- e) None of the above ✓

Hydrocephalus

86. Symptoms of hydrocephalus in adulthood include

- a) Rapidly increasing head size ✓
- b) Bulging Fontanelle ✓
- c) Visual blurring ✓
- d) Cracked pot sign ✓
- e) Sunset eyes ✓

87. The following list of primary malignancies accounts for the majority of metastatic brain tumors:

- a) Lung, breast, melanoma ✓
- b) Testis, ovary, melanoma ✓
- c) Lung, prostate, uterus ✓
- d) pancreas, melanoma, ovary ✓
- e) Salivary gland, ovary, testis ✓

melanoma	40%
lung	21%
AUT	11%
Osteosarcoma	10%
Breast	9%
Head & neck	6%
GI	3%
Lymphoma	1%

88. Brain tumors may present with
- a) Progressive neurologic deficits ✓
 - b) Seizure ✓
 - c) Non focal neurologic disorder ✓
 - d) All of the above ✓
 - e) None of the above ✓

Brain tumors

89. Spinal shock consists of all of the following EXCEPT

- a) Weakness ✓
- b) Hypotonia ✓
- c) Sensory loss ✓
- d) Anreflexia ✓
- e) Hyperreflexia ✓

Paralytic
Hypotonia
Areflexia

< 24h

90. Features of headache due to increased ICP include all of the following EXCEPT

- a) Frontal ✓
- b) Episodic ✓
- c) Frequency more than once a day ✓
- d) Develop rapidly and subside quickly ✓
- e) Associated with nausea or vomiting ✓

91. The most common tumor in the brain is

- a) Glioblastoma multiforme ✓
- b) Metastasis ✓
- c) Medulloblastoma
- d) Pleomorphic Xanthoastrocytoma
- e) Meningioma

* 92. As regards Intussusception in children, all statements are false except: TRUE?

- a) More than 80% of the intussusceptions are ileo-ileal ✓ *ileo-colic commonest*
- b) Intussusceptions follow closely episodes of upper respiratory tract infections ✓
- c) The causation agent of the above is often an adenovirus.
- d) Less than 50% of the cases of intussusceptions occur after 2 years of age.
- e) The incidence of leading point decreases with age of the patient.

Malignant melanoma is commonly seen on

- a) Foot ✓ *black*
- b) Head ✓
- c) Trunk ✓ *white*
- d) Scrotum
- e) None of the above

You are attached to ward 5B, when you meet Mr Majeika, a 50-year-old, otherwise healthy man. He has just had an abdominal operation 6 hrs previously. You note the following: he has a nasogastric tube that has drained 600 mL of gastric juices. His BP, temperature and pulse are normal. He has had 500 mL of intravenous saline since theatre. He has not passed urine and is not catheterised. He does not have an urge to pass urine. Use this information to answer questions 94-96

94. What is your diagnosis?

- a) Insufficient fluid intake ✓ *vitals are @*
- b) Sufficient fluid intake
- c) Hypovolaemia
- d) Renal failure
- e) Persistent intestinal obstruction

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95. Which type of intravenous fluid would suit him?
- a) Normal saline
 - b) Hartman's or lactated Ringer's solution ✓
 - c) 5% dextrose solution
 - d) Dextran 20
 - e) Fluids should not be given since he is not passing urine ✗

96. What would be your most important recommendation?
- a) Catheterisation ✓
 - b) Intravenous furosemide (Lasix) challenge at 40mg given slowly ✓
 - c) Intravenous saline 500mL over 30-60 minutes ✓
 - d) 5% dextrose 500mL over 30-60 minutes ✓
 - e) Abdominal ultrasound scan to assess residual urine volume ✓

Use the following information to answer questions 97-99

Kipsiro is a 30-year-old man admitted to the surgical ward with worsening right abdominal pain and vomiting. It woke him up at 3 hours previous and now he prefers to remain still to reduce the intensity of the pain. He is otherwise healthy and like the man. He is very tender in the right lower side of the abdomen.

97. What is the next best action?
- a) Proceed to do an appendicectomy ✗
 - b) Do an abdominal ultrasound or x-ray ✓
 - c) Give antibiotics
 - d) Do Widal or typhoid tests, Brucella test, urinalysis, stool tests and a malaria test
 - e) Refer to Kenyatta National Hospital for special tests and treatment

98. While taking consent for appendicectomy, you inform the following information is true? Which

- a) All cases of appendicitis progress to perforate if not operated on ✗
- b) Laparoscopic appendicectomy is better than open appendicectomy ✓
- c) The commonest complication of appendicectomy is wound infection
- d) Not all patients with appendicitis will need antibiotics
- e) Histology of an obviously inflamed appendix is not necessary ✗

99. During surgery, the appendix was noted to be perforated. Which combination of antibiotics would suit him best?

- a) Amoxicillin/clavulanate, Ceftriaxone, Ciprofloxacin ✓
- b) Amoxicillin, Cefazolin, Metronidazole
- c) Amoxicillin/Clavulanate, Gentamicin, Metronidazole
- d) Ceftriaxone, Ciprofloxacin ✗
- e) Ciprofloxacin, Gentamicin, Amikacin ✗

100. A sinus produces a serous or purulent discharge. The following are present EXCEPT:

- a) The cavity is inadequately drained ✓
- b) The cavity has not epithelialized ✓
- c) The cavity has undergone malignant changes ✓
- d) There is a foreign body ✓
- e) There has been exposure to radiation ✓

SURG

Colorectal Neoplasia

- b. Contact points may have a blow-out appearance ✓
 - a. ~~STSGs~~ are better than flaps for reconstruction ✓
 - d. Immediate reconstruction is not necessary ✓
 - * e. Radio-isotope scanning may be useful ✓
2. Which of the following is NOT a sign suggestive of possible inhalation injury
- a. Haemoptysis
 - b. Carbonaceous sputum
 - c. Stridor
 - d. Bronchorrhea
 - e. Singed nasal vibrissae
3. The following formulas may be utilized in estimating the fluid requirement for a burn patient EXCEPT
- a. Curreri formula ✓ *feeding Sutherland feeding formulae.*
 - b. Evans formula ✓ *Dair feeding formulae.*
 - c. Parklands formula ✓
 - d. Brooke formula ✓
 - * e. Slater formula ✓
4. The following is true about Hirschsprung's disease.
- a. Incidence of 1 in 5000 live births
 - b. Male to female ratio of 1:4 ✓ *XMF*
 - c. Familial disease is associated with other anomalies ✓
 - d. Associated anomalies are usually cardiovascular ✓ *Down's syndrome*
 - e. Familial disease usually involves a short segment ✓
- * 5. The following is not an important presenting pattern of a neonate with Hirschsprung's disease:
- a. Delayed passage of meconium
 - b. Intestinal obstruction
 - c. Abdominal distension
 - d. Megacolon
 - e. Enterocolitis ✓ *(complication)*
- * 6. The most important cause of mortality in Hirschsprung's disease is:
- a. Intestinal obstruction
 - b. Complications of surgery
 - c. Malnutrition
 - d. Other associated anomalies
 - e. Enterocolitis ✓
7. In Hirschsprung's disease, the following is usually the initial management option
- a. Decompression by colostomy or washouts
 - b. Pull through procedure
 - c. Observation and conservative care
 - d. Immediate laparotomy
 - e. Total parenteral nutrition

8. Most cases of Hirschsprung disease involve which segment?
- a. Rectum
 - b. Rectosigmoid (70%)
 - c. Short segment ✓ *Ultra " " (anorectal group) - 1%*
 - d. Ultrashort segment
 - e. Whole colon
 - Long " " (extensive colonic involve Rare)
9. In an emergency situation following massive blood loss, a 50 year old man who is blood group B receives group A blood. This is dangerous for which of the following reasons.
- a. He will have IgM antibodies to group A blood
 - b. He will have IgG antibodies to group A blood
 - c. He will have IgA antibodies to group A blood
 - d. He will have IgE antibodies to group A blood
 - e. He will have IgD antibodies to group A blood
10. In mammography, a "halo sign" is identified. Which is the most likely underlying diagnosis?
- a. Invasive lobular cancer
 - b. Invasive ductal cancer
 - c. Comedo type DCIS
 - d. Benign breast cyst ✓
 - e. Radial scar
11. A 2 year old baby has a swelling in the posterior triangle of the neck which is soft on palpation and transilluminates. Which is the most likely diagnosis?
- a. Thyroglossal cyst ✓ *- anterior triangle*
 - b. Dermoid cyst
 - c. Rhabdomyosarcoma
 - d. Cystic hygroma ✓ *Post triangle of neck*
 - e. Carotid body tumour
12. Infantile Hypertrophic Pyloric Stenosis: Which of the following statement is true?
- a. Bottle fed babies are more prone to pyloric stenosis
 - b. Bile in the vomit excludes pyloric stenosis ✓
 - c. Persistent vomiting results ultimately in intra-cellular acidosis ✓ *(alkalosis)*
 - d. Balloon dilation is ineffective in infantile pyloric stenosis
 - e. Symptomatic pyloric sphincter incompetence is a common problem after pyloromyotomy
- * 13. What is the most common serious complication of an end colostomy?
- a. Bleeding
 - b. Skin breakdown
 - c. Parastomal hernia ✓
 - d. Colonic perforation during irrigation ✓
 - e. Stomal prolapse ✓ *- most frequent in transverse*
- colitis cystica hyperplastica lymphocytosa - stoma leak*
recovery - 100% - 1 year
- cause - lymph
- most frequent in transverse
- tumor - sphincter
- Neuroendocrine syndrome

14. Twenty-four hours after admission to the surgical intensive care unit (ICU), a postoperative patient is noted to have bright red blood through the nasogastric tube. All of the following have shown efficacy in preventing stress gastritis except:

- a. Sucralfate
- b. Proton pump inhibitors
- c. Enteral diet
- d. Histamine-2 (H₂) receptor antagonists
- e. Antacids

Routinely used H₂ receptor antagonists + Sucralfate

15. All of the following statements regarding complications of transfusions are false EXCEPT True?

- a. Febrile reactions are rare
- b. Gram-positive organisms are the most common contaminants of stored blood
- c. Screening for minor antigens should be repeated every week when multiple transfusions are given
- d. A small amount (more than 0.1cc) of intravenous air is well tolerated
- e. Malaria, Chagas disease, human T-cell leukemia virus I, Human immune deficiency virus (AIDS) and hepatitis can be transmitted by blood transfusions

16. Which of the following pairing statements regarding daily fluid balance is incorrect?

- a. Daily water intake, 2000 to 2500 mL
- b. Average stool loss, 1000mL X 3 (100m)
- c. Average insensible loss, 600mL
- d. Average urine volume, 800 to 1500mL
- e. Average increase in insensible loss in a febrile patient, 250mL/day for each degree of fever

17. Which of the following provides the main energy source during critical illness/injury?

- a. Skeletal muscle
- b. Liver
- c. Adipose tissue
- d. Kidney
- e. Gut

18. Regarding patients with rigid abdomen and free air in plain film, which one of the following statements is true?

- a. No further radiologic work up is required
- b. CT scanning with contrast enhancement is required to confirm the diagnosis
- c. Bedside sonographic imaging is preferred over CT imaging to confirm the diagnosis of the free air
- d. Nauseas are contradicted in patients with an acute abdomen
- e. Preoperative prophylactic antibiotics are indicated in patients with free air

19. A 2 year old boy awakens with periumbilical abdominal pain followed by nonbilious vomiting. What is the most likely source of abdominal pain?

- a) Perforated ulcer
- b) Acute appendicitis
- c) Perforation following bowel obstruction
- d) Cholecystitis
- e) Diverticulitis

20. Spontaneous closure of which of the following congenital abnormalities of the abdominal wall generally occurs by the age of 4 years?

- a. Umbilical hernia (may close spontaneously by age 4)
- b) Patent urachus
- c) Patent omphaloenteric duct
- d) Omphalocele
- e) Gastroschisis

21. A previously healthy 9 year old child comes to the emergency room because of fulminant upper gastrointestinal bleeding. The haemorrhage is most likely to be the result of

- a. Esophageal varices
- b) Mallory-Weiss syndrome
- c) Gastritis
- d) A gastric ulcer
- e) A duodenal ulcer

22. Correct statements concerning intussusception in infants include which of the following?

- a) Recurrence rates following treatment are high (5-4) in non-op; 3% post op
- b. It is frequently preceded by a gastrointestinal viral illness (Rotavirus)
- c) A 1-to-2 week period of parenteral alimentation should precede surgical reduction when surgery is required
- d) Hydrostatic reduction without surgery rarely provides successful treatment
- e) The most common type occurs at the junction of the descending colon and sigmoid colon *Blauchole*

23. For the purposes of "Chest Tube" insertion, which are the boundaries of the "safe triangle"?

- a. Lateral border of Pectoralis major, Mid-axillary line and the 5th intercostal space
- b) Anterior axillary line, posterior axillary line and the 4th intercostal space
- c) Anterior axillary line, mid axillary line and the 6th intercostal space
- d) Lateral border of Pectoralis major, Mid-axillary line and a line projected from the 5th intercostal space
- e) Lateral border of Pectoralis major, Posterior axillary line and the 6th intercostal space

24. The appropriate initial management for a tension pneumothorax is:

- a) Insert a peripheral venous cannula and give a bolus of colloid solution if the patient is in shock
- b) Send the patient for a chest radiograph to confirm your clinical suspicion
- c) Insert a chest drain if the patient is in respiratory distress
- d. Put a large needle into the 2nd intercostal space, mid-clavicular line on the affected side and then insert a chest drain on the affected side.
- e) Put a large needle into the 2nd intercostal space, mid-clavicular line on the opposite side and then insert a chest drain on the affected side.

- Had central and peripheral cyanosis that disappeared on oxygen therapy
- Coughed after breast feeding
 - Did not pass meconium within 24 hours of birth
 - If it had peripheral but not central cyanosis
- * 26. The most useful thing to do to help diagnose a congenital heart defect in a neonate is:
- to do a chest radiograph
 - to pass a naso-gastric tube
 - to auscultate the chest
 - to palpate the peripheral pulses
 - apply pulse oximetry to the patient
27. For patients with a prosthetic mitral valve:
- The target INR is 2 to 3
 - The target INR is 2.5 to 3.5
 - An INR of 1.8 may be acceptable
 - You normally should not withhold warfarin for 3 to 4 days before surgical procedures
 - You should not start warfarin on post-operative day 1
28. For patients with a prosthetic aortic valve: ** If both, then 2.5-3.5*
- The target INR is 2 to 3
 - The target INR is 2.5 to 3.5
 - An INR of 1.5 may be acceptable
 - You normally should not withhold warfarin for 3 to 4 days before surgical procedures
 - You would normally start warfarin on the 3rd postoperative day
29. In patients with peripheral arterial disease:
- Surgery is the treatment of choice for the majority of patients
 - Most patients may be managed conservatively
 - Exercise is contraindicated
 - Venous disease is an indication for amputation
 - Swelling of the limb is a prominent feature
30. In venous disease of the lower limb:
- Varicose veins contribute significantly to swelling of the limb
 - One can safely perform varicose vein surgery without investigation of the deep venous system
 - Pain is a prominent feature in the medical history
 - Bilateral swelling of the limbs is the usual presentation
 - Most patients are adequately managed by compression dressings or stockings
31. In lymphatic disease of the lower limbs:
- Swelling of the limbs is worse in the mornings
 - The definitive treatment is usually surgery
 - Compression stockings are the mainstay of management
 - Pain is a common complaint
 - Woody oedema is not a feature

- often resolves after chest tube drainage, if diagnosed early
 - often requires prolonged chest tube drainage, even if diagnosed early
 - rarely requires decortication if diagnosed late
 - Only requires antibiotics if diagnosed early
 - Usually requires a thoracotomy for optimal treatment
33. A 13 year old girl is scheduled for elective splenectomy. Preoperative evaluation shows the presence of mild to moderate hypothyroidism. Select the next most appropriate action:
- Proceed with surgery with the knowledge that minor perioperative complications could develop
 - Postpone surgery until a euthyroid state is achieved
 - Proceed with surgery while beginning treatment with levothyroxine
 - Proceed with surgery while beginning treatment with thionamides
 - Proceed with surgery if severe clinical symptoms are not present
- * 34. Regarding peritonitis, which of the following statements is not true?
- Primary peritonitis is more common in children with nephrosis and adults with cirrhosis than with patients without such conditions
 - Primary peritonitis is usually monomicrobial
 - Chemical peritonitis often precedes bacteria contamination
 - Multiple organisms are commonly cultured from peritoneal dialysis catheters
 - Tuberculosis peritonitis has an insidious onset
35. Small bowel obstruction
- Is more severe in onset when the cause is distal
 - If caused by adhesions, should be treated initially by nasogastric suction and intravenous fluids
 - Is usually caused by adenocarcinoma
 - With distension is mainly caused by excretion of fluid into the lumen
 - Shows haustra on a plain film
36. Causes of post-operative fever include all of the following EXCEPT
- Subphrenic abscess
 - Deep venous Thrombosis
 - Urinary tract infection
 - Atelectasis
 - Blood transfusion
37. Factors predisposing to wound infection includes all of the following EXCEPT
- inadequate haemostasis
 - Prolonged operation
 - Diabetes
 - Obstructive Jaundice
 - Malnutrition

38. The following factors may adversely affect the healing of wounds EXCEPT

- a) Exposure to ultraviolet light
- b) Obstructive Jaundice
- c) Advanced neoplasm
- d) Exposure to ionising radiation
- e) Infection

39. Which of the following statements is INCORRECT regarding burn injuries

- a) Those involving 20% of body surface area can be managed by daily dressing at any health centre
- b) Those involving the chest may require escharectomy ✓
- c) Of partial thickness are often painless, but needle pricks can usually be felt
- d) Parklands formula should be used to estimate fluid replacement within the first 24 hours
- e) Those involving the head and neck have the lowest mortality rate ✓

40. When a casualty has severe facial injuries, which is the inappropriate response?

- a) An immediate danger to life is blood loss
- b) Transport to the casualty department should be in the supine position
- c) Airway obstruction can occur due to inhaled blood
- d) Surgical cricothyroidectomy may be required due to oedema
- e) Cervical spine injury should be considered after securing a definitive airway

41. Severe head injury may be associated with all of the following EXCEPT

- a) Raised systolic blood pressure
- b) No evidence of damage on CT scan
- c) Secondary injury due to tissue hypoxia
- d) Glasgow coma scale of 8
- e) Vomiting ✓

Cushing's reflex

* Hypertension

* Bradycardia

* Irregular RR

42. Regarding Intestinal obstruction, the following are cardinal symptoms and signs, EXCEPT

- a) Abdominal distension ✓ 4 cardinal signs & symptoms
- b) Abdominal pain ✓ Pain - Obstipation / absolute constipation
- c) Increased peristalsis ✓ Vomiting - Distention
- d) Vomiting ✓
- e) Constipation ✓

43. Which of the following muscles do not form the posterior relation of the breast?

- a) Pectoralis major
- b) Serratus anterior ✓
- c) Rectus abdominis
- d) Latissimus dorsi
- e) None of the above

44. Minimum number of lymph nodes to be dissected in axillary sampling in breast conservation surgery is

- a) 2
- b) 3
- c) 4
- d) 5
- e) 6

avoids complete disruption to axillary lymph drainage. ↓ risk of lymphoedema

Mastectomy

45. In breast reconstructive surgery after mastectomy, which of the following is not true regarding TRAM flap

- a) TRAM flap may be based on a pedicled superior epigastric artery
- b) TRAM flap can be transferred as a free flap using the inferior pedicle.
- c) It is a type of myocutaneous flap
- d) It uses supra-umbilical fat & rectus abdominis muscle.
- e) None of the above

* 46. NOT a true statement regarding breast implants

- a) They are made of silicone shell filled with either saline or silicone gel
- b) Silicone gel filled implants provide a more natural shape
- c) Silicone gel filled implants became controversial because of risk of associated malignancy
- d) In case of rupture of implants, silicone gel may get absorbed in axillary lymph nodes.
- e) All of the above

47. What is the vertical extension of the thyroid gland in relation to the vertebrae

- a) C4 - T1
- b) C5 - T1
- c) C6 - T1
- d) C3 - T1
- e) C2 - T1

48. Screening method for medullary carcinoma of thyroid include:

- a) Serum calcitonin
- b) Serum calcium
- c) Serum ALP
- d) Serum acid phosphatase
- e) Serum CEA

49. Medullary Carcinoma of thyroid arises from?

- a) Para follicular cells
- b) Cells lining the acini
- c) Capsule of thyroid
- d) Stroma of the gland
- e) All of the above

50. An 18-year old man is admitted to the emergency room following a motorcycle accident. He is alert and fully oriented, but witnesses to the accident report an interval of unresponsiveness following the injury. Skull films disclose a fracture of the left temporal bone. Following X-ray, the patient suddenly loses consciousness and dilation of the left pupil is noted. This patient should be considered to have

- a) Ruptured berry aneurysm
- b) Acute subdural hematoma
- c) Epidural hematoma
- d) Intra-abdominal hemorrhage
- e) Ruptured arteriovenous malformation

- d) The second metatarsal
- e) The fifth metatarsal

52. Volkemann's ischemic contracture is associated with-

- a) Inter-trochanteric femoral fracture
- b) ~~Supra-condylar fracture of the humerus~~
- c) Posterior dislocation of the knee
- d) Traumatic shoulder separation
- e) Colles "silver fork" fracture

53. The most severe epiphyseal growth disturbance is likely to result from which of the following types of fracture?

- a) Fracture dislocation of a joint adjacent to an epiphysis
- b) Fracture through the articular cartilage extending into the epiphysis
- c) Transverse fracture of the bone shaft on the metaphyseal side of the epiphysis
- d) Separation of the epiphysis at the diaphyseal side of the growth plate
- e) ~~Crushing injury compressing the growth plate~~

54. Which of the following statement is true regarding the thoracic outlet syndrome?

- a) It is associated with cervical spine disk disease
- b) It is reliably diagnosed by positional obliteration of the radial pulse
- c) ~~If conservative measures fail, it is best treated by surgical decompression of the brachial plexus~~
- d) It most commonly affects the median nerve
- e) It can be reliably ruled out by angiography

55. Regarding the ocular features of tuberculosis, one of the following is not true:-

- a) Most of the lesions are immune-related
- b) Uveitis is the most common manifestation
- c) Phlyctenulosis (Phlyctenular keratoconjunctivitis) has allergic origin
- d) Primary infective keratitis is rare
- e) Uveitis in these patients responds well to steroids

58. Which of the following statements concerning carcinoma of the oesophagus is true?

- a) Alcohol has been implicated as a precipitating factor
- b) Squamous carcinoma is the most common type at the cardio-oesophageal junction
- c) ~~It has a higher incidence in males~~
- d) It occurs more commonly in patients with corrosive oesophagitis
- e) Surgical excision is the only effective treatment

57. Which of the following fractures or dislocations of the extremities induced by blunt trauma is associated with significant vascular injuries?

- a) ~~Knee dislocation~~
- b) Closed posterior elbow dislocation
- c) Mid-clavicular fracture
- d) Supra-condylar femur fracture
- e) Tibial plateau fracture

anaerobes

- b) Avoidance of oral antibiotics to prevent emergence of Clostridium difficile
- c) ~~Mechanical bowel preparation and appropriate pre-operative antibiotics~~
- d) Postoperative administration for 5-7 days of parenteral antibiotics effective against aerobes and anaerobes
- e) Operative time less than 5 hours

59. Which of the following statement concerning nasopharyngeal cancer is true?

- a) ~~It has an unusually high incidence among Chinese~~
- b) It occurs primarily after the sixth decade of life
- c) It undergoes early metastasis to the lungs
- d) The treatment of choice is wide surgical excision of the primary tumor
- e) Initial evaluation should involve a biopsy of the primary tumor and neck nodes

60. One of the following is true of a greenstick fracture:-

- a) It always communicates with the exterior
- b) It only involves the forearm bones
- c) ~~It is incomplete~~
- d) Manipulation under anaesthesia is always necessary
- e) The best treatment is by open reduction and fixation

61. Colles's fracture is NOT commonly associated with one of the following:-

- a) Osteoporosis
- b) ~~Osteopetrosis~~
- c) Elderly ladies
- d) Dinner fork deformity
- e) A fall on the outstretched hand

62. A patient reporting to the outpatient department with severe low back pain should have the following as the best first line of investigation:

- a) MRI
- b) CT scan
- c) ~~Plain X-rays~~
- d) Total body isotope scan
- e) Ultrasound scan

63. Tuberculosis of the spine is true in all of the following EXCEPT?

- a) ~~Always associated with Human Immunodeficiency Virus~~
- b) Affects all age groups
- c) Erythrocyte sedimentation rate can be used in its management
- d) Muscle charts are useful in the management
- e) Is common at the thoracolumbar junction

- a) Fracture neck of femur
- b) Fracture of distal radius
- c) Fracture of second metatarsal
- d) Fracture thoracic vertebra
- e) Fracture of clavicle

65. In sickle cell disease the commonest organism causing osteomyelitis is:

- a) Haemophilus influenza
- b) Streptococcus pneumoniae
- c) Salmonella species
- d) Streptococcus pyogenes
- e) Staphylococcus aureus

66. Which of the following is NOT a procedure on joints?

- a) Tenodesis
- b) Arthrolysis
- c) Arthroscopy
- d) Aspiration
- e) Arthrodesis

67. Osteogenic sarcoma has all the following except:

- a) Elevated alkaline phosphatase
- b) Codman's triangle
- c) Predilection for the ends of long bone
- d) Metastases through the lymphatics *Haemogenous*
- e) Expression of P-Glycoprotein

68. Fractures of the ankle in an adult should be immobilized in a cast for:

- a) Six weeks
- b) Four weeks
- c) Three weeks
- d) Eight weeks
- e) Twelve weeks

69. Skull traction is indicated in the following injuries EXCEPT?

- a) Thoracic vertebra 4 fracture
- b) C4 fracture
- c) C4C5 intrafacet dislocation
- d) C4C5 bifacet dislocation
- e) C3 wedge compression fracture

70. Which of the following is not a feature in acute osteomyelitis:

- a) Periosteal reaction
- b) Fever
- c) Raised ESR
- d) Raised CRP
- e) Swelling

71. Which of the following is NOT a cause of non-union of fractures?

- a) Infection
- b) Minor movements
- c) Interposition
- d) Poor blood supply
- e) Large gap between fragment

72. Which of the following is NOT a treatment of non-union?

- a) Electric stimulation
- b) Bone grafting
- c) Illizarov apparatus
- d) Isotopic radioactive calcium scans
- e) Compression plating of the fragments

73. A patient who has the following injuries is classified as a patient with multiple injuries:

- a) Fracture of the skull and subdural haematoma
- b) Fracture of the femur and haemopneumothorax
- c) Fractures of the ribs and haemothorax
- d) Fracture of the femur, tibia and humerus
- e) None of the above

74. Patient who complains of pain in the heel of the foot when he starts to walk in the morning is likely to have

- a) A bunion
- b) Hallux rigidus
- c) Plantar fasciitis
- d) Pes planus
- e) Tarsal tunnel syndrome

75. Which of the following is the commonest cause of infection in the hand

- a) Staph. aureus
- b) Strep. pyogenes
- c) E. coli
- d) Salmonella typhimurium
- e) Clostridium welchii

76. The following is characteristic of ureteric colic secondary to urinary stone

- a) The pain intensity is not commensurate with the site and degree of obstruction
- b) The impacted ureteral stone may result in the classical loin to groin type of pain
- c) The referred pain to the groin is via the iliohypogastric nerve
- d) During the ureteric pain episode the patient is usually afraid of any movement
- e) The PUJ stone impaction may not necessarily be confused with loin muscle spasm

77. A 40 year old man presents with acute intestinal obstruction. Which of the following is the most useful in diagnosing generalized peritonitis?

- a) Abdominal rigidity
- b) Rebound tenderness
- c) Effect on the pain after 2 hours of gastrointestinal suction
- d) Abdominal x-rays films
- e) Elevated white blood cell count

*fracture in ulna
not main station*

- c) A urinary catheter should be inserted if the patient is unconscious
- d) A normal lateral cervical spine X-ray excludes a cervical spine injury
- e) Nasotracheal intubation should be undertaken in apnoic patient

79. The following is NOT an indication for colostomy

- a) Rectal atresia ✓
- b) Rectal prolapse ✓
- c) Imperforate anus ✓
- d) Sigmoid volvulus ✓
- e) Carcinoma of the rectum ✓

80. Benign strictures of the esophagus may be treated by all of the following EXCEPT:

- a) Bougie dilatation
- b) Self expanding metal stent
- c) Bingham gastroplasty
- d) Total gastrectomy ✓
- e) Colon interposition - graft join the colon

81. The commonest cause of dysphagia in adults is:

- a) Carcinoma of the esophagus ✓
- b) Achalasia
- c) Sliding hiatus hernia
- d) Paraesophageal hernia
- e) Esophageal diverticulum

82. A boy of 17 years got injured on the scrotum while playing football. Now he has pain and swelling of left hemiscrotum. At casualty, the most important action to be done will be

- a) Doppler ultrasound of the scrotum ✓
- b) Sedate the patient and aspirate the haematoma
- c) Plain X-ray of the pelvis
- d) Pass catheter and get urine for mid stream specimen of urine
- e) Sedate and admit to the ward

83. A motorist gets involved in a road traffic accident. He is admitted to the ward after failing to pass urine. Plain X-rays of the pelvis show bilateral fracture superior pubic rami. What is the best immediate management?

- a) Fixation of the bony fractures alone
- b) Catheterisation per urethra after cysto-urethroscopy ✓
- c) Fixation of cyste fix (Cysto-urethroscopy)
- d) Pelvis bone fixation and urethral catheterization
- e) Exploration and possible urethroplasty

- a) Perforated ulcer
- b) Acute appendicitis
- c) Perforation following bowel obstruction
- d) Cholecystitis
- e) Diverticulitis ✓

84. A 35-year-old woman experiences an acute onset of epigastric and right upper quadrant pain several hours after a large dinner. She has had similar episodes in the past that resolved after a few hours. This episode persists, and she has fever and non-bilious vomiting. What is the most likely source of the abdominal pain? **D**

85. A 60-year-old man with chronic alcoholism awakens at 3:00 a.m. with severe, sharp epigastric pain that 3 hours later becomes diffuse abdominal pain. What is the most likely source of the abdominal pain? **A**

86. A 55-year-old man with a 2-day history of abdominal distention, vomiting, crampy abdominal pain, obstipation and is experiencing severe, diffuse abdominal pain. What is the most likely source of the abdominal pain? **C**

87. A 22-year-old man awakens with periumbilical abdominal pain followed by non-bilious vomiting. What is the most likely source of the abdominal pain? **B**

88. A 65-year-old man with a history of chronic constipation has a 3-day history of abdominal distention without a bowel movement. He has fever and abdominal rigidity. What is the most likely source of the abdominal pain? **E**

89. True statements regarding squamous cell carcinoma of the lip include:-

- a) The lesion often arises in areas of hyperkeratosis
- b) More than 90% of cases occur on the upper lip (25% → upper lip) ✓
- c) The lesion constitutes 30% of all the cancers of the oral cavity
- d) Radiotherapy is considered appropriate treatment for these lesions (70% cure rate) ✓
- e) Initially metastases are to the ipsilateral posterior cervical lymph nodes (Ant. Triang. G. 7 nodes) ✓

90. Congenital absence of a limb is known as

- a) Amelia ✓
- b) Complete hemimelia
- c) Partial hemimelia
- d) Lamelia
- e) Phocomelia

91. Closed fracture through the scaphoid may be at risk of:-

- a) Infection
- b) Haemorrhagic shock
- c) Nerve injury
- d) Vessel injury
- e) Avascular necrosis ✓

92. Which of the following tests is used to evaluate for integrity of the Anterior Cruciate Ligament;

- a) Anterior Drawers test
- b) Posterior Drawers test
- c) Varus stress test
- d) Valgus stress test
- e) Ortolanis test

93. Pott's paraplegia is due to spinal:

- a) Trauma
- b) Tuberculosis
- c) Deformity
- d) Tumor
- e) Spondylosis

94. In Radial nerve palsy, which of the following deformities is observed:

- a) Foot drop
- b) Ape hand
- c) Claw hand
- d) Wrist drop
- e) Intrinsic plus

95. The articulation between C1 and C2 is primarily specialised for:

- a) Flexion only *→ Atlas-occipital*
- b) Extension only
- c) Lateral flexion only *→ Atlas-axis*
- d) Forward flexion only
- e) All of the above

96. The carpal arch and the flexor retinaculum together are known as:

- a) Carpal canal
- b) Carpal tunnel
- c) Palmer tunnel
- d) Palmar canal
- e) Palmar arch

97. Which of the following is NOT a method of traction

- a) Gardens
- b) Gatlows
- c) Bryant
- d) Perkins
- e) Hamilton-Kussel

98. The gold standard treatment of chronic osteomyelitis of femur diaphysis is:

- a) Outpatient parenteral antibiotics.
- b) Surgical debridement
- c) Biological toiletting
- d) Oral antibiotic
- e) None of the above

99. The most subtle radiological sign of developmental dysplasia of hip is?

- a) V-shaped tear drop
- b) Abnormal soral line
- c) Shallow acetabular
- d) black-jack thorn sign
- e) Valgus femoral neck

100. Which of the following is a classification system for open fractures:

- a) Gartlands
- b) Weber
- c) Gustilo-Anderson
- d) Garden's
- e) Pauwels

Vanessa Minsani Ogega.

(18)



UNIVERSITY OF NAIROBI

UNIVERSITY EXAMINATIONS 2017/2018

FINAL YEAR EXAMINATION LEVEL VI FOR THE DEGREE OF BACHELOR OF
MEDICINE AND BACHELOR OF SURGERY

HSU 600: SURGERY MULTIPLE CHOICE

DATE: OCTOBER 16, 2018

TIME: 2.00 P.M. – 5.00 P.M.

INSTRUCTIONS

1. Attempt all questions in this paper. There is no negative marking
2. The choices are between a-e; choose the best choice as per the stem of the questions
3. Use the answer sheet and shade appropriately. Ensure the answer sheet has your registration number on it. DO NOT SHADE USING A PENCIL.

1. A 25 year old man who has no other health issues has been scheduled for a fistulectomy under general anesthesia as a day case procedure. Which is the single most appropriate option for his thromboprophylaxis? *only for high risk pts*

- A
- (a) None
 - b) TED stockings only
 - ~~c) TED stockings and 2500IU LMW heparin SC once a day~~
 - (d) TED stockings and 5000IU LMW heparin SC once a day ~~X~~
 - e) 2500IU LMW heparin SC once a day

Early Ambulation
0-1 low Risk 2% Risk *Early Ambulation*
2-4 Mod. 10-20% Seq. Compression device / Heparin 5000 IU SC BD
3-4 high 20-40% Med. ± Compression dev.

7-5 highest

Page 1 of 20
Heparin 5000 IU SC TID
Enoxaparin 40 mg SC OD.

2. A 60 year old man presents with grade three dysphagia and weight loss. Upper gastrointestinal endoscopy and biopsy indicates adenocarcinoma of the esophagus. Which of the following is the most likely associated pathology?
- Achalasia cardia
 - Barrett's disease**
 - Human papilloma virus
 - Alcohol use
 - Peptic ulcer disease

3. A 50 year old man undergoing routine screening with colonoscopy is found to have an adenomatous polyp at the descending colon. Which of the following characteristics of polyps is not associated to its risk of being cancerous?

- Size of the polyp ✓
- Number of polyps ✓ *FAP 7 100*
- Histological appearance ✓
- Dysplasia ✓
- All of the above**

- * 4. A 57 year old man who has been having a spinal cord disorder had a laparotomy ^{*acute*} four days ago for acute appendicitis. He now has abdominal pain, nausea and vomiting with fever. On examination, his abdomen is distended, tender with reduced bowel sounds and an empty rectum on digital rectal examination. A plain abdominal radiograph indicates massive colonic dilatation involving the caecum and ascending colon with normal caliber of small bowel. What is the most likely diagnosis?

- Acute colonic pseudo obstruction** - *isolated LB dilatation*
- Chronic colonic pseudo obstruction
- Fecal impaction
- Intussusception
- Post operative ileus** *x large and small bowel distention, silent abdomen*

5. A 54 year old man who has had a Right Hemicolectomy for colon cancer presents to the surgical outpatient clinic for follow up six months after surgery. You decide to order for carcino-embryogenic antigen (CEA). Which of the following statements is true regarding CEA?

- Low specificity** *Sensitivity 80% most useful to detect liver mets in Colon CA*
- Falls after one week of surgery to baseline *Specificity 70%*
- Pre operative high value is a good prognostic marker** *x*
- Follow up, first test of CEA in 8-10 days followed by weekly tests thereafter
- All of the above

6. A 30 year old male was involved in a road traffic accident three months ago and sustained a left lower limb compound tibiofibular fracture. He was seen at a peripheral hospital, had wound debridement and a cast applied and discharged home. He presents to the surgical clinic with pain and multiple discharging sinuses at the site of the fracture. The most likely diagnosis is:

- a) Tuberculosis
- b) Actinomycosis
- c) Dracunculosis
- d) Acute osteomyelitis
- e) Chronic osteomyelitis

7. A 40 year old female presents to the surgical outpatient clinic with complaints of flatulent dyspepsia for two years that has been on and off. Ultrasonography shows a thickened gall bladder wall with a solitary 1cm stone at the fundus. The best treatment for her would be:

- a) Bile salts
- b) Antibiotics/analgesia
- c) Open cholecystectomy with stone clearance
- d) Laparoscopic cholecystectomy with stone clearance
- e) Endoscopic Retrograde Cholangiopancreatography

→ Symptomatic Gallstones = cholecystectomy.
 → Asymptomatic
 ✓ Surgical ← 2cm non-pedal gb
 ✓ Medical ← 5GD ursodeoxycholic acid.

8. A 30 year old patient presents with complaints of an anterior neck mass. Examination and evaluation reveals a thyroid swelling. An ultrasound and FNA confirm a multinodular goiter. She is scheduled for a total thyroidectomy. Which of the following is a potential complication of this surgery?

- a) Acromegaly
- b) Cretinism
- c) Renal osteodystrophy
- d) Hypoparathyroidism
- e) Thyroid storm

9. A 30 year old male weighing 60kg sustained an 80% burn during a blast. He comes to your hospital and you are the surgical intern on call. What is the amount of fluid you would prescribe for the first 24 hours after the burn? Parkland Burn Formula.

- a) 19.2 L of 5% glucose in lactated ringers
- b) 14.4 L of lactated ringers
- c) 9.6L of hypertonic saline
- d) 7.2 L of 5% albumin
- e) 5.5 L of hydroethylpentastarch

$$4 \text{ ml} \times \text{Pt Wt (kg)} \times \% \text{BSA} = \text{Amount of fluid.}$$

$$4 \times 60 \times 80 = 19200 \text{ ml}$$

$$\begin{array}{r} 324 \\ \times 8 \\ \hline 19200 \end{array}$$

10. A 45 year old man with history of epigastric pain and dyspepsia is evaluated for peptic ulcer disease with upper gastrointestinal endoscopy that confirms the same. Which of the following is not one of the possible causes of his disease?

- a) Cigarette use ✓
- b) NSAID use ✓
- c) H. Pylori ✓
- d) Zollinger Ellison syndrome ✓
- e) Spicy foods *precipitants*

11. A 68 year old male presents with painless gross haematuria. His evaluation reveals carcinoma of the bladder. Which of the following is true of his disease?

- a) Is primarily of squamous cell origin *X Transitional cell*
- b) Is preferentially treated by radiation *X TURB, thermo, Radical Cystectomy.*
- c) May be conservatively treated by use of intravesical chemotherapy even if its muscle invasive disease *X*
- d) May mimic a UTI *X painful*
- e) Is preferentially treated by partial cystectomy

12. A neurotrauma patient is seen in the emergency room with decreased mental status. Prior to intubation, she does not open her eyes, withdraws her extremities to pain stimuli and makes incomprehensible sounds. What is her Glasgow Coma Scale score?

- a) 3
 - b) 4
 - c) 5
 - d) 6
 - e) 7
- E - 1
V - 2
M - 4

13. You schedule a patient for an abdominoperineal resection for a low rectal cancer. Which of the following is not associated with increased likelihood of infection post operatively?

- a) Age over 70 years ✓
- b) Chronic malnutrition ✓
- c) Controlled Diabetes *X*
- d) Long term steroid use ✓
- e) Infection at a remote body site ✓

14. Narcotics are commonly used in the administration of general anesthesia. Which of the following statements is true concerning this class of agents?

- a) They have profound analgesic and amnesic properties
- b) They can cause hypotension by direct myocardial depressive effects
- c) Naloxone should be used routinely for the reversal of narcotic analgesia
- d) Acutely injured hypovolemic patients are at significant risk for decreased blood pressure with the use of narcotic analgesia
- e) Propofol is a short acting narcotic used frequently in the outpatient setting

Bladder Cancer

0 (Bladder lining) } TURB

I (shallow) } TURB

II (ms) superficial } Neoadj chemo + Rad. Cystectomy.

III (ts) deep } Partial Cystectomy + chemo & PXT

IV = Incurable, NO surgery. Chemo to ↓ dx burden.

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15. You perform an end colostomy on a 70 year old man who had a sigmoid volvulus with gangrenous bowel. Which of the following is the most common serious complication you expect?

- a) Bleeding
- b) Skin breakdown
- c) **Parastomal hernia**
- d) Colonic perforation during irrigation
- e) Stomal prolapse

16. A 25 year old man presents with abdominal pain and distension for one day. On examination, he has rebound tenderness and rigidity. A plain erect chest radiograph shows free air under the diaphragm. What is the next step of management? *Preparation = Emergency*

- a) **No further work up is required**
- b) CT scan with contrast is required to confirm the diagnosis
- c) Bedside ultrasonography is preferred to CT scan to confirm the diagnosis of free air
- d) Narcotics are contraindicated in patients with an acute abdomen
- e) Preoperative prophylactic steroids are indicated in patients with free air

17. A 21 year old male presents to the casualty department with a history of a gunshot wound to the chest. Vital signs on initial evaluation are heart rate of 126 beats per minute, and a systolic blood pressure of 88 mmHg. A right sided chest tube is placed with return of 1200 ml of blood. He is resuscitated with 2L of ringers lactate and his vital signs normalize. His chest tube output is rechecked 4 hours later and is found to be 2300 ml. What is the next most appropriate step in his management?

- a) Chest CT scan
- b) Immediate complete blood count
- c) **Emergency thoracotomy**
- d) Immediate arterial blood gas analysis
- e) Admission to the ICU for close monitoring

Indications of Surgery in Hemothorax:

- Initial drainage ≥ 1500 ml

- Drain 200 ml/hr for 3 consecutive hrs / 500 ml/hr for 3 hours

18. You are evaluating a 24 year old man with a 30% Total Burn Surface Area (TBSA). He has burns at varied depths. Which of the following regarding burn wound depth is true?

- a) First degree burns rapidly heal but contribute significantly to the TBSA burned in large mixed depth wounds *X Can't absolute*
- b) **Second degree burns characteristically cause erythema, pain and blistering** ✓
- c) Third degree burns are generally painful and extremely sensitive to touch *X*
- d) Fourth degree burns mandate amputation of involved extremities *X*
- e) Superficial partial thickness burn is the contemporary term for first degree burns *X*

1st / Superficial

2nd / Partial thickness / Sup. Deep

Full thickness / 3rd / 4th

19. A 35 year old lactating mother comes for evaluation in the emergency department due to breast pain. A breast examination reveals an erythematous and inflamed fluctuant area. Which of the following statements is false concerning her diagnosis?

- a) The causative organism is staphylococcus aureus ✓ *Breast Abscess*
- b) Open surgical drainage is likely indicated ✓ *I & D*
- c) **Breastfeeding absolutely should be discontinued** ✗ *Contralateral breast.*
- d) If the inflammatory process does not completely respond to treatment, a biopsy may be indicated. ✓
- e) Image guide drainage is an option that can be offered to this mother. ✓

20. A 50 year old lady presents with a 1.5 cm right upper outer quadrant breast mass of the right breast. On mammogram it is a single focus BIRADS V lesion and core biopsy shows ER/PR-positive HER-2 negative invasive ductal carcinoma. You perform a wide local excision of the mass with negative margins but due to financial constraints, radiation is omitted. What is the greatest risk that the lady faces?

- a) **Recurrence of cancer in ipsilateral breast** ✗
- b) Shorter survival time
- c) Regional nodal recurrence ✓
- d) Greater chance of mortality
- e) Development of metastatic disease ✓

21. Vitamin and Nutrient shortages are a major concern over the past five years. Deficiencies of which of the following micronutrients can result in insulin resistance?

- a) Selenium
- b) Chromium
- c) **Zinc** ✓
- d) Iron
- e) Glucagon

22. A two year old child is brought to the pediatric outpatient clinic for evaluation due to chronic constipation and over-reliance on enemas. Which of the following statements in regard to the suspected disease is true?

- a) **It is initially treated by colostomy** ✓
- b) It is best diagnosed in the newborn period by barium enema *Bx is gold std of Hirschsprung's diago*
- c) It is characterized by the absence of ganglion cells in the transverse colon
- d) It is associated with a high incidence of genitourinary tract anomalies
- e) It is a congenital disease that most commonly leads to fecal incontinence

23. A 40 year old male presents with an 8cm stab wound on the left thigh that occurred 14 hours ago. The wound extends to the subcutaneous tissues and contains foreign debris and dirt. What is the best management of this wound?

- a) Vacuum assisted closure
- b) Primary closure with suture
- c) **Delayed primary closure** *debridement* ✓
- d) Primary closure with staples
- e) Primary closure with adhesive or steri-strips

	ER/PR	Her 2
I (50%) luminal A	+	-
B	+	+/-
Her 2 Iner	-	+
Basal like (triple negative)	-	- (worst prognosis)

24. All of the following are steps of the primary survey in trauma patients except?

- a) Ensuring adequate ventilator support ✓
- b) Measurement of blood pressure and pulse ✓
- c) Neurologic evaluation with the Glasgow coma scale ✓
- d) Examination of the cervical spine *2° survey*
- e) Examination for any obvious areas of bleeding ✓

25. Arterial blood gas is performed on a patient admitted with a diagnosis of severe acute pancreatitis in the critical care unit. It reveals a PH of 7.3 with low levels of bicarbonate and pCO₂. The most urgent part of management of this patient is:

A

- a) Volume resuscitation
- b) IV bicarbonate
- c) Calcium
- d) Mechanical ventilation
- e) Dialysis

Compensated Metabolic Acidosis
hypotension

26. A 45 year old woman presents to the emergency department a week after open appendectomy for perforated appendicitis, the Lanz incision is noted to be erythematous, fluctuant and tender. The most appropriate next step of management in this patient is:

- a) Needle aspiration
- b) Oral antibiotics
- c) Regional ultrasound with drain placement
- d) Admission for systemic antibiotic therapy
- e) Incision and drainage with local wound care

27. A man is brought to the emergency department with blood spurting from a wound in his right distal thigh. He is alert but has a systolic blood pressure of 90 mmHg. What is his initial management?

- a) Apply digital pressure on the proximal right femoral artery
- b) Apply a thigh tourniquet above the wound
- c) Apply direct pressure on wound with sterile gauze
- d) Take to theatre immediately
- e) Open the wound and clamp the bleeders

28. You are the surgical intern on call and you are asked to review a patient who had a laparotomy for a perforated duodenal ulcer six hours ago. The patient has had no urine output since the surgery despite four litres of fluid boluses and has a systolic blood pressure of 60mmHg. His laboratory markers show a lactate level of 4 with a white cell count of 30×10^9 cells/L. Which of the following statements is true about this condition?

- a) Mortality rate is between 10 to 20%
- b) Gram negative organisms are exclusively involved in its pathogenesis.
- c) Majority of patients are elderly
- d) The most common source of infection is the gastrointestinal tract.
- e) Treatment does not involve early goal directed therapy

- ENT 29. A 43 year old man presents with nasal obstruction and occasional epistaxis. Imaging studies combined with endoscopic studies have led to a diagnosis of nasopharyngeal cancer. What is the gold standard of treatment?
- a) Intracavitary radiation ✗
 - b) External beam radiation therapy ✗
 - c) Combined chemo radiation ✗
 - d) Surgical resection ✗
 - e) Neoadjuvant chemo radiation then surgical resection

- ENT * 30. What is the best procedure for a 50 year old man with a sudden onset lateral neck swelling?
- a) Fine needle aspirate ✗
 - b) Block dissection
 - c) Incision biopsy
 - d) Excision biopsy
 - e) Watchful waiting

- ENT 31. The management of acute uncomplicated acute sinusitis is:
- a) Antibiotics then surgery
 - b) Surgery then antibiotics
 - c) Antihistamine nasal spray, analgesia, antibiotics, nasal drops ✗
 - d) Analgesia, antibiotics, nasal drops
 - e) Antihistamine nasal spray, analgesia, nasal drops

- ENT 32. A 2 year old boy is brought to the allergy clinic with a history of a running nose and a severe earache with a mucopurulent discharge. What is the most likely diagnosis?
- a) Malignant otitis externa
 - b) Acute suppurative otitis media ✗
 - c) Barotrauma
 - d) Myringitisbullosa
 - e) Eustachian catarrh

33. A 54 year old female with no previous history of a neurological disorder, has new onset seizures without associated gross neurological deficits. She has a history of breast cancer 10 years ago. If brain metastasis is the consideration, this is best confirmed by:-
- a) MRI
 - b) EEG ✗
 - c) CT scan Head
 - d) Doppler U/S ✗
 - e) Mammogram ✗

34. The equilibrium between collagen synthesis and degradation occurs during which stage of healing?

- a) Proliferation
- b) Hemostasis and inflammation
- c) Remodeling
- d) Maturation
- e) All of the above

35. A 35 year old female has recent onset bloody discharge of the nipple from the right breast. A breast examination reveals no palpable lesion. What diagnostic test is indicated?

- a) Mammogram
- b) Ductography
- c) Cytology of discharge
- d) Ultrasound
- e) MRI breast

36. The most common cause of intestinal obstruction in all age groups combined is?

- a) Strangulated hernia
- b) Volvulus
- c) Cancer
- d) Adhesive bands
- e) Infection

37. An obstructed recto sigmoid cancer in association with a competent ileocecal valve junction is liable to develop perforation of which part of the bowel?

- a) Cecum ✓
- ~~b) Splenic flexure~~
- c) Hepatic Flexure
- d) Sigmoid colon ✓
- e) Terminal ileum ✓

Op 38. A 7-year-old boy presents with a grossly swollen eyelid. His mother cannot think of anything that set this off. What finding is most characteristic of orbital cellulitis?

- a) Chemosis
- b) warmth and erythema of the eyelid
- c) physically taut-feeling eyelid
- d) proptosis
- e) All of the above

Op 39. Which of the following is the biggest risk factor for primary open angle glaucoma?

- a) Asian ancestry
- b) smaller diurnal pressure IOP changes
- c) thin corneas
- d) large optic disks
- e) None of the above

Qp 40. A man calls the Ophthalmologists' office complaining of splashed bleach in his eye. You should instruct him to:

- a) Patch the eye and immediately go to the office ✓
- b) Irrigate the eye for 15 minutes and then go to the office ✓
- c) Immediately apply lubricating ointment and then go to the office ✓
- d) Immediately wash the eye with contact saline solution and go to the office if he notices any change in vision

Qp 41. The pupillary defect that affects the afferent arm of the pupillary response is the:

- a) Marcus Gunn pupil
- b) Argyll Robertson pupil
- c) Adies pupil
- d) Horner's pupil
- e) Ramsay Hunt pupil

Qp 42. Which conjunctivitis is least likely to occur bilaterally?

- a) Allergic ✓
- b) Viral ✓
- c) Bacterial
- d) Vernal
- e) All of the above

ORTHO 43. What is the most common primary bone cancer?

- a) Ewing's Sarcoma
- b) Osteosarcoma
- c) Multiple Myeloma
- d) Chondrosarcoma
- e) Chordoma ?

44. Bone remodeling involves all the above EXCEPT?

- a) It involves the replacement of lamellar bone by woven bone ✓
- b) Osteoclastic activity at the resorption site ✓
- c) Osteoclastic activity and osteoblastic activity are both needed for bone remodeling in cortical and cancellous bones ✓
- d) Osteoblast transform into osteocytes ✓
- e) Essential component of bone healing ✓

45. Regarding anterior dislocation of the shoulder joint, which of the following statements is false?

- a) "Bankart lesion" denotes radiological evidence of fragments from anterior rim of the glenoid process
- b) "Hill sachs lesion" denotes rupture of the anterior part of the glenoid capsule of the shoulder joint
- c) "Hill sachs lesion" denotes a depression fracture of the humeral head
- d) Kocher's method is the method of choice in reducing this
- e) None of the above

46. During examination of the knee joint, which of the following statements is correct?
- a) The Mc Murray test tests the integrity of the cruciate ligament ✗
 - b) The Lachmann test tests the integrity of the anterior and posterior cruciate ligaments ✗
 - c) The Varus stress test checks the integrity of the medial collateral ligament ✗
 - d) All of the above are correct ✗
 - e) None of the above are correct ✓

47. A Tibia fracture denotes:

- a) A comminuted fracture of the proximal tibia ✗
- b) A depressed intra-articular fracture of the distal tibia ✗
- c) An undisplaced fracture involving the distal articulating surface of the tibia ✗
- d) Fracture dislocation of the ankle joint ✗
- e) None of the above ✓

48. A 5 year old child is brought to the casualty department with a history of a fall on an outstretched hand. The parents report that the child is hesitant to use the hand. Examination reveals pain and tenderness with limited range of motion at the elbow. Concerning this type of suspected fracture in children:

- a) The flexion type is sustained when one falls with the arm outstretched ✗
- b) Brachial vessels are never injured ✗
- c) Volkmann's ischemic contracture can occur as a complication ✓
- d) Open reduction and K-Wire fixation is the treatment of choice ✗
- e) None of the above ✗

49. Concerning fractures of the neck of femur, which of the following statements is correct?

- a) Extent of the fragments does not predict the prognosis but the age of the patient does ✗
- b) The Gardner's classification is only useful to show the angle of the fracture ✗
- c) The Puwel classification defines the extent of the displacement of the fragments ✗
- d) The anatomical classification is more widely used compared to the other two classifications ✓
- e) None of the above ✗

50. In major fractures of the pelvis:

- a) Mortality can reach 20% even in major trauma centers ✗
- b) One can lose only 2 litres of blood ✗
- c) The common cause of hemorrhagic shock is rupture of a major vessel ✓
- d) A and B ✗
- e) None of the above ✗

51. Which of the following is not true about acute dislocation of the knee?

- a) It is a true orthopedic emergency and thus best treated by immediate ORIF ✓
- b) Can be satisfactorily treated by closed reduction and immobilization with a cast ✗
- c) Associated incidence of vascular injuries is higher when compared to dislocations at other joints ✗
- d) Complete dislocation is associated with tear of both cruciate ligaments ✗
- e) All of the above ✗

52. A 65 year old lady presents with pain at the right humerus. She gives a history of a fall three day ago. A radiograph of the area shows an impacted fracture of the surgical neck of the humerus. Choose the correct management:-
- Closed reduction then apply a simple arm sling
 - Open reduction and internal fixation
 - Apply a triangular arm sling then start pendulum exercises after a week
 - A & C
 - None to the above
53. In the primary assessment of a polytrauma patient:
- If chest movements are observed then "breathing" is normal
 - Airway patency can be checked by examination of the oral cavity and oropharynx alone
 - To ensure patent airway maximum "jaw thrust" must immediately be done irrespective of other possible injuries
 - Priority is to ensure the patient is breathing by inspecting the chest movements
 - None of the above
54. Which of the following hip joint affections commonly involves the male of adolescent age?
- Posttraumatic osteoarthritis of the HIP joint
 - Tuberculosis of the hip joint
 - Slipped femoral capital epiphysis
 - Leg calves Perthes disease
 - Avascular necrosis of the femoral head
55. Two hours after application of the plaster cast for a supracondylar fracture of the humerus, a patient comes back to the emergency room complaining of severe pain in the hand associated with swelling of fingers. The most appropriate next step of management would be:
- Elevate the limb and close observation
 - Immediately call an orthopedic specialist to review the patient
 - Split the entire cast immediately
 - Administer vasodilators and analgesics
 - None of the above
56. The best treatment method of choice for chronic osteomyelitis is:
- Sequestrectomy / saucerisation followed by spongiosa bone grafting
 - High doses of appropriate antibiotics given intravenously
 - Sequestrectomy / saucerisation followed by gentamycin beads application
 - Sequestrectomy / saucerisation followed by muscle pedicle grafting
 - Sequestrectomy / saucerisation followed by leaving wound open
57. In degenerative spinal disc disease:
- Back pain is never a feature
 - The patient may present with leg pain due to disc prolapse
 - Disc protrusion cannot be diagnosed by myelography
 - Without the MRI it is impossible to determine what causes leg pain
 - Surgery rarely ever helps relieve the leg pain

58. A 22 year old male is brought to the emergency department after having been involved in a motor cycling accident. Examination reveals a left lower limb injury with a wound approximately 6cm in length with tissue loss and exposed comminuted bone. Which of the following statements is correct about management of this type of injury?

- a) It is treated by surgical debridement and depending on the grade, the wound is either closed primarily or secondarily
- b) Depending on the site of the fracture, the wound is either closed primarily or secondarily
- c) It is best treated by surgical debridement and wound closed primarily if the injury is less than 6 hours old
- d) Is treated by surgical debridement and the wound left open to heal secondarily
- e) All of the above are correct

59. In the management of major pelvic fractures:

- a) External fixation of the pelvis should await stabilization of the patients vital signs
- b) Urine output of 15mls/hour indicates good renal perfusion
- c) Intravenous administration of crystalloids should be initiated even before blood transfusion
- d) If the patient is in shock blood transfusion should be given as early as possible, even before IV crystalloids
- e) None of the above

60. Which of the following statements is false with regard to fracture of distal 1/3 of the tibia shaft?

- a) Indirect violence force results in a spiral or oblique fracture line
- b) Open fractures are common
- c) Delayed union occurs often
- d) Open comminuted fractures are usually treated by early ORIF
- e) External fixation is ideal for grade 3 open fractures

61. Wrist drop is usually a complication associated with:

- a) Colles fracture
- b) Displaced supracondylar fracture of the humerus
- c) Fracture of the scaphoid
- d) Fracture of the humeral diaphysis
- e) All of the above

62. Which of the following statements is false about acute dislocation of the knee joint:

- a) There is a higher risk of neuro-vascular injuries as compared to other joint dislocations
- b) Complete dislocation is associated with tear of the joint's stabilizing ligaments
- c) The treatment of choice during the acute phase is closed reduction and immobilization in a cast
- d) Because they are true medical emergencies the treatment of choice is immediate surgical intervention
- e) May be complicated by joint instability which may require surgical treatment

63. In a typical acute epidural hematoma the CT-scan shows the following:

- a) A concave lesion which is hypo dense to the cortex ✗
- b) A concave lesion which is isodense to the cortex with ventricular effacement ✗
- c) **A convex lentiform lesion which is hyper dense to the cortex**
- d) Non-specific features which are rarely diagnostic
- e) None of the above

* 64. Hyperventilation to PCO_2 of 20-25 mmHg:

- a) Should routinely be recommended for ICP management ✗
- b) Does not reduce cerebral blood flow ✗
- c) Causes cerebral vasodilatation ✗
- d) **Reduces ICP**, $low\ CO_2 = V\ constriction \rightarrow \downarrow ICP$
- e) None the above ✗

65. With regards to acute traumatic subdural hematoma:

- a) Blood products collect between the inner surface of the calvarium and the Dura ✗
- b) **Bleeding usually results from tearing of the bridging vessels** ✓
- c) Cerebral contusions are infrequently seen
- d) Burr hole drainage is the surgical treatment of choice ✗
- e) Presents with a lucid interval ?

66. With regards to Infantile hydrocephalus, select the most correct answer:-

- a) **Ultrasound scanning is a very useful investigative technique** ✓
- b) Shunt dysfunction is common and often requires a shunt revision ✓
- c) Shunt complications include extrusion through the abdomen ✓
- d) Surgical treatment is contraindicated before 1 year ✓
- e) Bacterial meningitis is a possible cause ✓

67. Cerebral blood flow is defined as:

- a) Is a function of renal perfusion ✗
- b) **Is a function of MAP and ICP**
- c) Is not influenced by $PaCO_2$ ✗ $\downarrow PaO_2 = \downarrow ICP = \uparrow CPP$
- d) Remains constant at all values of pathological intracranial pressure
- e) Is not an important factor in the management of cranial trauma

$$\text{Cerebral Blood Flow (CBF)} = MAP - ICP - (0-10\text{ mmHg})$$

68. Symptoms associated with uncal herniation may include:

- a) Ipsilateral pupillary dilation ✓ CN III
- b) Contralateral hemiplegia ✓
- c) Ipsilateral hemiplegia ✓
- d) **All of the above**
- e) None of the above

Kernohan phenomenon = Uncal transtentorial herniation \rightarrow comp. of cerebral peduncle \Rightarrow CN III pressed against free edge of tentorium \rightarrow Kernohan notch

69. Management options in the treatment of intracranial hypertension secondary to trauma include all of the following except:

- a) High dose corticosteroids
- b) Mild sedation ✓ prevent seizures,
- c) External ventricular drain ✓
- d) Use of osmotic diuretics ✓
- e) Hyperventilation ✓

70. Acute arterial occlusion:

- a) Should be treated conservatively if the site of the occlusion is above the inguinal ligament X
- b) Demands the urgent use of vasodilator drugs X
- c) Of a limb is usually painless due to the anoxia damage produced in the peripheral nerves X painful
- d) May produce irreversible muscle necrosis after 6 hours ✓
- e) None of the above

71. Which of the following statements regarding Hirschsprung's disease are true?

- a) Suction rectal biopsy is always diagnostic if the specimen includes submucosa
- b) Hirschsprung's disease is the result of a sex linked dominant gene
- c) The endorectal pullthrough is demonstrably superior to other forms of surgical construction
- d) 35 percent or less of patients have an excellent or good functional result following reconstructive surgery
- e) The important cause of mortality in contemporary practice is enterocolitis

72. The following are true regarding testicular torsion except:

- a) The highest incidence is in the neonatal and peri-pubertal 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 ✓

73. Regarding exomphalos and gastroschisis:

- a) A gastroschisis has a sac X Omphalocele
- b) Gastroschisis is associated with major congenital abnormalities X Omphalocele
- c) The postoperative mortality of surgery for gastroschisis approaches 50% X 40-66%
- d) Both conditions may be diagnosed prenatally with ultrasound
- e) Both conditions require delivery by caesarian section

>M 4:1

Congenital hypertrophic pyloric stenosis

74. A six week old infant is brought to the pediatric casualty. The mother reports that the child vomiting and not retaining feeds. She reports that the infant is irritable and the vomitus is post prandial. The infant remains hungry after emesis. Regarding this suspected condition:

- a) Usually presents between 6 and 12 months of age ~~X 1 mo.~~
- b) The female : male ratio is 4:1 ~~X >M~~
- c) Has a strong familial predisposition ✓
- d) Pathologically shows hypertrophy of the longitudinal muscle layer of the pylorus ~~X Circular~~
- e) Presents with bile-stained projectile vomiting ~~X Nonbilious~~

75. A 2.8-kg full term neonate with excessive salivation develops respiratory distress. Attempts to pass an orogastric catheter fail because the catheter coils in the back of the throat. A chest radiograph is obtained and shows right upper lobe atelectasis and a gasless abdomen. The most likely diagnosis is:

- a) Proximal esophageal atresia without a fistula ✓
- b) Proximal esophageal atresia with a distal tracheoesophageal (TE) fistula. ✓
- c) "H-type" TE fistula. ✓
- d) Esophageal atresia with both proximal and distal TE fistula. ✓
- e) Congenital esophageal stricture.

76. A newborn full-term baby boy on full body examination is noted to have an imperforate anus. He is also at an increased risk to have:

- a) Dextrocardia
 - b) Rib cage anomaly
 - c) Tracheoesophageal fistula ✓
 - d) Ulnar skeletal deformity ✓
 - e) Proximal limb malformation ✓
- Vertebral anomalies
Anorectal malf.
Cardiac = PDA, ASD, VSD, TOF
Tracheal
Radial, Renal anomalies
Esophageal Attr.
Limb defects*

77. A full term neonate is found to have a swollen right scrotum. Gentle persistent pressure easily reduces an air filled structure back into the abdomen. The condition recurs promptly as the infant begins to cry. This suspected condition:-

- a) Mandates immediate surgical repair ✓
 - b) Is the same defect as a communicating hydrocele ✓
 - c) Should have a tension-free mesh repair
 - d) Should prompt exploration of the left groin
 - e) Is generally irreducible in children ✓
- Hernia Indirect Inguinal*

78. The repair of a cleft lip should be done at what age?

- a) 1 month
- b) 3 months ✓
- c) 6 months
- d) 9 months
- e) 12 months

Rule of 10%: lip earlier than palate → > 10 months

> 10 kg, > 10 g/dl Hb

> 10 weeks, 10 pounds (4.5kg), Hb 10g/dl

Failure of fusion of medial nasal process & maxillary process.

79. Which of the following is not a commonly used graft in plastic surgery?

- a) Skin graft
- b) Cartilage graft
- c) **Arterial graft**
- d) Venous graft
- e) None of the above

80. The most common cause of skin graft failure is

- a) **Seromas/Hematomas underneath the graft**
- b) Infection
- c) Shearing of the graft
- d) Adhesion of the graft
- e) Poor granulation tissue

81. The following is true about burns:

- a) **Burns are associated with more mortality in developing than in developed countries**
- b) Burns are less common in developing than in developed countries
- c) Scald burns are more common in adults than in children * *Children*
- d) Open flame burns are more common in children than in adults & *adults*
- e) Electrical burns do not cause rhabdomyolysis &

82. The following micronutrients affect wound healing **except**

- a) Zinc
- b) Vitamin C
- c) **Potassium**
- d) Copper
- e) Vitamin A

83. The following are methods of classification of flaps **except**

- a) Based on the blood supply → *Arterial, Arteriovenous*
 - b) Based on the distance from the recipient site
 - c) **Based on the shape**
 - d) Based on the type of tissue
 - e) All of the above
- Thickness*
- Site = local/distant*
- Transposition → Forehead
 - Z-plasty → Deltopectoral
 - Rotation → Groin
 - Advancement → L. dors
 - V-Y adv. → Pec. major
 - V-V adv. → Gastrocnemius
 - Flap → TRAM
 - Arrowhead

84. Langers lines are defined as:

- a) **Normal skin tension lines**
- b) Perpendicular to relaxed skin tension lines
- c) Abnormal skin tension lines
- d) Wrinkle lines
- e) Vertical to relaxed skin tension lines

85. The following are stages in skin graft healing/take except:

- a) Imbibition ✓
- b) Hemostasis ✓
- c) Revascularization ✓
- d) Inosculation ✓
- e) Remodeling ✓

86. In an ideal setting diagnosis and management of the cleft lip/palate pathology begins:

- a) in utero ✓
- b) at birth ✓
- c) at age 1 month ✓
- d) at age 3 months ✓
- e) at age 6 months ✓

87. The following are indications for ordering a CT Angiogram in a patient who has suffered from blunt chest trauma EXCEPT

- a) History of a High-speed deceleration injury ✓
- b) Widened mediastinum on chest x-ray ✓
- c) loss of aortic knob shadow on radiograph ✓
- d) open pneumothorax ✓
- e) Unexplained hypotension ✓

88. Following a road traffic accident a chest radiograph done on the driver of a matatu showed that he had sustained multiple fractures to the 3rd, 4th, 5th and 6th anterior ribs on the right side. The following are some of the modalities of management for this patient except:

- a) Early intubation and mechanical ventilation ✓
- b) Adequate ionotropic support ✓
- c) Adequate pain medication ✓
- d) Chest wall stabilization surgery ✓
- e) Thoracic epidural analgesia ✓

89. Features suggestive of cancer of the esophagus on a barium swallow include all of the following except:

- a) distal narrowing and rat tail appearance ✓
- b) irregular filling defects ✓
- c) bird beak appearance ✓ ? Achalasia cardiae
- d) proximal dilatation ✓
- e) shouldering effect ✓

90. A 30 year old male comes to the emergency department with complaints of chest pain and shortness of breath after being involved in a road traffic accident. A chest radiograph shows a traumatic haemopneumothorax. A chest tube is inserted and offers him instant relief. This chest tube should be removed when:

- a) There is a very large swing in the tube ✓
- b) The nurse reports a drainage of 200mls in the last 24 hours ✓
- c) The patient complains of pain at site of insertion and wants the tube removed ✓
- d) There is continuous bubbling in the underwater seal drainage bottle
- e) There are vesicular breath sounds on auscultation and lung expansion is confirmed on a chest x ray

91. A 45 year old female is brought to the casualty with a history of blunt abdominal trauma after a road traffic accident. She has a systolic blood pressure of 60mmHg and a pulse rate of 114 beats per minute. A FAST scan done shows free fluid in the abdomen. The best indicator of successful fluid resuscitation in this patient is:

- a) An increase in blood pressure
- b) An increase in urine output ✓
- c) An increase in arterial oxygenation
- d) A decrease in thirst
- e) A decrease in tachycardia ✓

92. The most important test to assess the risk of intra-operative bleeding is:

- a) Bleeding time
- b) APTT
- c) INR ✓
- d) History and examination
- e) Platelet count

93. After excision of multiple lipomas under local anaesthesia, a 42 year old woman has seizures. The surgeon should be aware that the maximum safe dose of Lidocaine in a 70kg woman is:

- (1% of lidocaine has 10mg/ml) 5
- a) 10-20mls 1% lidocaine
 - b) 40-50mls 2% lidocaine with adrenaline
 - c) 40-50mls 1% lidocaine with adrenaline ✓
 - d) 40-50mls 0.5% lidocaine
 - e) 40-50mls 1% lidocaine without adrenaline

without adr. 4.5 x 70 = 315 mg
 with adr. 7 x 70 = 490 mg
 31.5 ml 1% lidocaine
 49 ml 1% lidocaine
 1% Epi 4.5 mg/kg up to 300
 1% Epi 7 mg/kg up to 500 mg

94. The leading cause of Empyema Thoracis is:

- a) pneumonia ✓
- b) Pulmonary Tuberculosis
- c) trauma
- d) tube thoracostomy
- e) post pneumonectomy

95. The following are features of Fallot's Tetralogy EXCEPT:

- a) An atrial septal defect
- b) Pulmonary stenosis
- c) Right ventricular hypertrophy
- d) An overriding aorta
- e) ventricular septal defect

DS 96. An avulsed tooth may be stored in the following:-

- a) Chlorhexidine mouthwash
- b) Milk
- c) Tap water
- d) Ice
- e) Sterile gauze

97. The Following are Dental Emergencies commonly encountered in children EXCEPT

- a) Toothache
- b) Gingival Inflammation ✓
- c) Avulsion of teeth ✓
- d) Dental abscess
- e) Ludwig's Angina ?

98. Oral and maxillofacial infections:

- a) Rarely arise from extensively carious teeth ✓
- b) Can spread to the retropharyngeal space ✓
- c) Is rarely a complication of orofacial trauma ✓
- d) Are always managed conservatively ✓
- e) Are always an indication of underlying systemic disease

99. The following is an odontogenic neoplasm:

- a) Oral squamous cell carcinoma
- b) Ameloblastoma
- c) Juvenile ossifying fibroma
- d) Fibrous dysplasia
- e) Radicular cyst

100. The following are signs and symptoms of midface trauma EXCEPT:

- a) Subconjunctival hemorrhage
- b) CSF rhinorrhoea
- c) Diplopia
- d) Telecanthus
- e) Step deformity of the mandible