



UNIVERSITY OF NAIROBI
DEPARTMENT OF SURGERY

MRCGP LEVEL IV CAT IN SURGERY AND ORTHOPAEDICS

GROUP A

DATE: FRIDAY 6TH MAY 2016

Time 1.00 - 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 NUMBER on the pre-printed top.
5. More than 2 marks per question will be taken as a multiple response and 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 scan ✓
 - d) Total thyroidectomy is the recommended mode of management ✓
 - e) The medullary type is not a major component of MEN type 1 syndrom. ✓ *MED 2*

Commonest cause - benign → Gallstones
malignant → Head of pancreas CA

- 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, analgesia, hernia reduction, fluid resuscitation
 - d) Intravenous line, analgesia, catheterization, fluid resuscitation
 - e) Intravenous line, analgesia, antibiotic, hernia reduction, hernia repair
- In hernia management in adults, the following statement is true
- a) Indirect inguinal hernias occur more commonly in the elderly
 - b) Women rarely develop direct inguinal herniae
 - c) There is no role for conservative management
 - 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 GCS low conia scale of 12 represent a moderate head injury
 - c) Post-traumatic amnesia of 2 hours indicates a severe head injury
 - d) Primary damage can be reversed but secondary damage is rarely reversed
 - e) To reduce brain oedema, intravenous fluids should not be given

If there a role for anti
* Indirect hernias commonest
more common in children than
Direct (acquired) - smokers, 4 in

Use the following information to answer questions 10-13.

Mr Majeika, a 50-year-old, otherwise healthy man. He had an abdominal operation 6 hrs previously. You note the following: he has a nasogastric tube which has drained 100ml of gastric juices. His BP, temperature and pulse are normal. He has had 500ml 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) Hypovolemia
 - 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, give 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

Normal Urine Na - 20 mEq/L

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 currently 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

- Polypoid Juvenile - Polyps
- a) Almost invariably undergo malignant change
- b) Occasionally transform into adult type
- c) Are pre-malignant *X No risk of malignant transformation, unless it occurs in Juvenile polyps*
- 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

- a) Fever, nausea and vomiting
- b) Pain, nausea and jaundice
- c) Pain, nausea and vomiting
- d) Pain, jaundice and fever
- e) Jaundice, fever and vomiting

RUQ pain + Shock + Altered mental status → Reynold's pentad

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

- a) The familial form of lymphoedema praecox
- b) Not a familial disease
- c) Caused by filarial worms
- d) Secondary lymphoedema
- e) Post-operative lymphoedema of the upper limb

**NOT: Meigs's syndrome = Triad of ascites + Ovarian effusion + Benign ovarian tumour*

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) Rectal 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
- a. FNA cytology
 - b. Core needle biopsy
 - c. Perform left lobectomy and subject specimen for histology
 - d. Radioactive iodine scan
 - e. 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
- a. Alzheimer's disease
 - b. Acute subdural haematoma
 - c. Chronic subdural haematoma
 - d. Viral encephalitis
 - e. Epidural haematoma
27. In patients with cancer of the colon
- a. Right sided disease initially presents with constipation
 - b. Haematogenous spread occurs mainly via the inferior vena cava
 - c. They do not respond to chemotherapy
 - d. Cancers commonly arise from premalignant adenomatous polyps
 - e. There is weak familial aetiology
28. In trauma
- a. Trauma series includes xrays of skull, neck, chest and pelvis
 - b. CPR is administered at a ratio of 10 compressions for every 2 breaths
 - c. Raised blood pressure and low pulse rate may indicate intracranial bleeding
 - d. All patients should have CT scan of the head to rule out intracranial injury
 - e. 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
29. In trauma, the initial fluid challenge for a patient with circulatory failure is
- a. 0.5L
 - b. 1.5L
 - c. 2.5L
 - d. 3.5L
 - e. 4.5L
30. The best position to drain a tension pneumothorax using a wide bore needle is
- a. Suprasternal area
 - b. Subcostal area
 - c. 2nd intercostal space, lateral to the sternum
 - d. 6th intercostal space, midclavicular line
 - e. Where the injury is located
31. The following are causes of spinal cord compression EXCEPT
- a. Tumours
 - b. Poliomyelitis
 - c. Vertebral fractures
 - d. Advanced tuberculosis of the spine
 - e. 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. Metacarpal
- 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
- Scaphoid**
Lunate
Head of femur
Talus

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 drugs
- Thoracolumbar brace
- All of the above
- 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 ↑