

BMK



UNIVERSITY OF NAIROBI

UNIVERSITY EXAMINATIONS 2016/2017

LEVEL IV EXAMINATIONS FOR THE DEGREE OF BACHELOR OF MEDICINE
AND BACHELOR OF SURGERY
HSU 400: SURGERY

MCQ

DATE: MAY 24, 2017

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.

Colon ca

* 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 *↑ FAP > 100 polyps*
- c) Histological appearance *↑ villous > cancer*
- d) Size of polyp *↑ if size > 2cm*
- e) Genetic predisposition *↑ APC, FAP*

polyp tubular villous cancer

acute blood loss shock

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.
- 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

Emphysema

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).
- 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.

→ gas air in layer under skin

*trapped air
vacuum cracking feel to touch
penetrating trauma
blow post partum (chamman) (GNO)
infection ie gas gangrene
pneumothorax & dissection
spontaneous due to rupture of alveoli*

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 by 6cm with a cough impulse and was more prominent as he sat up from the recumbent position. His abdomen is otherwise soft and non-tender and he has no midline scars. What do you think this patient has?

- a) Incisional hernia
- b) Epigastric hernia - may trap fat & pain, tissue damage.
- c) Inguinal hernia
- d) Divarification of the rectus - newborn, pregnant women; stretching of rectus abdominis
- e) All of the above

2 feet
2 inch
2%
2 tubes
Q15
Q11 NIT
M=F, Male like MORE complication

5. Which one of the following statements is INCORRECT regarding a Meckel's diverticulum

- a) It is present in about 2% of the population T
- b) It is about two metres from the ileocaecal junction (60-100cm)
- c) It may contain heterotopic pancreatic and gastric tissue T
- d) It is about two inches long T (3-6cm) 60%
- e) It is a true diverticulum T - has all layers - mucosa, submucosa, muscle, serosa

ele
hital

Total
7m

Distal ileum

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 - Tranverse
- b) Mucous fistula
- c) End colostomy - NO pout, no flud, LIF
- d) Ileostomy - RIF, sprout
- e) Double barrel colostomy - Tranverse middle right side

ma
shony

Middle right side

upper and middle 1/3
LAD - temporary colostomy for 6-8 wks
loop
APA - lower 1/3
- end

7. Which one of the following statements is FALSE in regard to hernias?

- a) Inguinal hernia lie superomedial to the pubic tubercle T
- b) Femoral hernias lie inferolateral to the pubic tubercle T
- c) Men are most likely to have femoral hernias than women F
- d) The most common hernia in women are inguinal hernias T
- e) Men are more likely to get inguinal hernias than women T

ernia

C

Inguinal hernia
Common in women and Men
- Femoral commonest in 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
- b) Pressing over skin for five seconds with normal return of perfusion (i.e. Pink) by 3 seconds
- c) Pressing over skin for three seconds with normal return of perfusion (i.e. Pink) by 3 seconds
- d) Pressing over skin for ten seconds with normal return of perfusion (i.e. Pink) by 2 seconds
- e) Pressing over skin for five seconds with normal return of perfusion (i.e. Pink) by 2 seconds

fill

C

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 ✓

SW
mp

hypercalcemia
parathyroid adenoma
adrenal tumor
dx → diarrhoea + flushing, pruritus
due to ↑ calcitonin

10. A 49 year old man is found to have a solitary neck nodule on physical examination. Laboratory studies reveal an elevated calcitonin level and fine needle aspiration confirms a diagnosis of medullary carcinoma of the thyroid. Which of the following disease processes might the physician be concerned to look for in this patient?

- a) Hyperparathyroidism
↓ parafollicular cells → calcitonin
- b) Papillary thyroid carcinoma
- c) Pituitary adenoma → pheochromocytoma
↓ Metanephrine levels
- d) Subacute thyroiditis
- e) Zollinger-Ellison syndrome → acid

11. A 67 year old lady who is on ibuprofen and steroids for rheumatoid arthritis presents to the casualty with a history of sudden onset epigastric pain with vomiting. On examination she is noted to have epigastric tenderness with guarding and rigidity. Which is the single most important investigation that should be ordered to aid in diagnosis?

- a) CT scan abdomen
- b) Endoscopy
- c) Erect Chest X-ray
Rigler's sign
perforated viscus under diaphragm
- d) Complete blood count
- e) Abdominal ultrasound

12. Which of the following wound classifications is correctly matched with its description?

- a) Clean: - controlled opening with minor break in technique
Clean/contaminated
- b) Clean-contaminated: - emergency laparotomy for peritonitis
clean contaminated
- c) Contaminated: - obvious infection present
contaminated
- d) Dirty: - major spillage or technique break
dirty
- e) None of the above

13. Mrs Jones is a 45 year old lady who presented to the casualty department with complaints of abdominal pain localised to the epigastrium and right upper quadrant. This occurred after having some cheesecake at an office party. She says she is also nauseous and has been vomiting for the past 24 hours and reports the pain has not responded to over the counter antacids. On examination you note that she is an obese lady and that her liver enzymes are marginally elevated. Which of the following steps is the most appropriate in her management?

- a) Erect Chest X-ray
- b) CT scan abdomen
- c) Ultrasound of the hepatobiliary system
ul's main 24hrs doesn't establish dx
- d) Endoscopy (OGD) - not done
- e) MRCP
ERCP: mx → conservative
serene dx

14. Which one of the following is not associated with compartment syndrome?

- a) Disproportionate level of pain ✓
- b) Paralysis ✓
- c) Absent distal pulses
Pain, paraesthesia, pulselessness, pallor, paralysis → early
- d) Paraesthesia ✓
- e) Pallor ✓

thyroid
MEN 1
parathyroid
hypercalcemia
peptic ulcer

MEN 2a) MP2
parathyroid
medullary
pheochromocytoma
b) Mucosal
Wounds
Mucosal Body
habitus
Medulla
traumatic
every case

pancreatitis
for female
class
females

Compartment
syndrome

EMK
 HISA - postoperative scan
 Porrelini...
 calcification of gall bladder
 believed to be brought
 by extra gallstone?

on No. _____

5. A 79 year old lady slipped and fell at home and was brought in for a check up by her worried son. On examination she is noted to be oriented with a GS of 15/15 but has an externally rotated and shortened right lower limb with intact neurology. What is the most likely diagnosis of this lady?

- a) Ankle fracture
- b) Fracture neck of femur
- c) Posterior dislocation of the hip → shortened, ER
- d) Anterior dislocation of the hip → no shortening
- e) Mid shaft tibial fracture

16. Which one of the following statements is INCORRECT regarding chronic osteomyelitis?

- a) X-ray features may include sunrise calcification T
- b) Brodie's abscess is a subacute complication of chronic osteomyelitis T
- c) Marjolin's ulcer may be a long term complication in this disease T
- d) Treatment include surgical debridement and long course IV antibiotics T
- e) *Staphylococcus aureus* is the most common pathogen isolated in acute and chronic osteomyelitis T

17. Which is the common causative organism of chronic osteomyelitis in children with sickle cell disease?

- a) *Staphylococcus aureus*
- b) *Salmonella* - sickle cell dx
- c) Group A *Streptococcus*
- d) Group B *Streptococcus*
- e) *Shigella*

18. Which of the following statements about necrotising soft-tissue infections is TRUE?

- a) They are usually polymicrobial infections F type I
- b) The onset is usually gradual and they run a chronic course F
- c) 'Dishwater pus' is a non-characteristic feature. F
- d) Clostridial species cause toxic shock syndrome. → Group A strep with significant tissue loss
- e) Treatment is essentially medical using antibiotics F + debride + supportive care

19. Which of the following statements is TRUE?

- a) Scars continue maturing for 3 months. upto 2 years
- b) Keloids contain an excess of type B collagen. T Keloid is an overgrowth of scar tissue
- c) Suture marks can be reduced by using polyfilament sutures.
- d) The tensile strength of the scar almost always reaches that of the normal skin F
- e) A hypertrophied scar extends beyond the boundaries of the previous incision F

20. The following are true of preoperative patient preparation EXCEPT?

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

Keloids - extend beyond boundaries, don't improve over time
 can be larger than original wound, can grow with age
 chest, shoulder, earlobe, cheeks, atypical fibroblast with excessive ECM; collagen, elastin, fibronectin
 maybe flesh colored, lump, ridged, mechanical tension in wound leading cause
 itchy, early late, type III or I collagen, Fib + pain, thicker upto growth
 can arise spontaneously; due to acco, choice rpx
 #B in a wound

Hypertrophied scar - improve over time
 raised scar that doesn't grow beyond boundaries of original wound
 high levels of TGF-β

21. All of the following are problems associated with surgery in the jaundiced patient EXCEPT?

- a) Clotting disorders ✓
- b) Hepatorenal syndrome ✓
- c) Infection ✓
- d) Poor wound healing ✓
- e) Myocardial infarction ✓

Peri-op

22. In skin preparation prior to operation, which of the following statements is TRUE?

- a) In preparing open wounds, aqueous solutions are used. *Normal*
- b) For intact skin, alcohol-based solutions may be used.
- c) Prepare the skin from the incision site outwards.
- d) Heavily contaminated areas are prepared last, with the swab being discarded.
- e) All of the above.

Fluids

23. Which of the following statements regarding 0.9 per cent normal saline is TRUE?

- a) It has the same sodium concentration as plasma. ✓
- b) It has equimolar concentration of sodium and chloride. ✓ *154 (Na⁺) 154 (Cl⁻)*
- c) It is low in potassium. ✓ *None none*
- d) It contains dextrose. ✓ *none*
- e) It is the best fluid to be used in hypovolaemia.

Grade 10 Compound fractures

24. Which of the following statements regarding the Gustillo and Anderson classification of fractures is TRUE?

- a) It applies to the soft and bony tissues. ✓
- b) It relies primarily on the length of any laceration. ✓
- c) It is influenced primarily by the energy involved. It takes account of whether or not there is soft-tissue cover of fractured bone. ✓
- d) It takes account of contamination.
- e) It takes account of the body part involved. ✓

Principles of Fr

25. Which of the following statements regarding the treatment of fractures is TRUE?

- a) All fractures should be reduced. ✓
- b) Reduction of a fracture means jamming the fragments together. ✓
- c) All fractures should be stabilised. ✓
- d) Relative stability means that no movement at the fracture site is going to occur. ✓ *absolute*
- e) Absolute stability is obtained by getting exact reduction and then compressing the fragments of the fracture together.

Burn

26. Which of the following statements are true in regard to electrical burns?

- a) High-tension electrical burn injury is most likely to be found in accidents in the home. Underlying heart muscle damage is likely in low-tension injuries. ✓ *F*
- b) Large amounts of damage to subcutaneous tissues and muscle are associated with high-tension electrical burns. ✓ *high*
- c) Myoglobinuria is a serious complication of low-tension burns. ✓ *high*
- d) Severe alkalosis is common in large electrical burns. ✓ *high*
- e) Underlying heart muscle damage is likely in low-tension injuries. ✓ *high*

Which of the following descriptions of ulcer edges denote malignancy?

- a) Sloping
- b) Overhanging
- c) Flat
- d) Punched out
- e) Rolled.

Vertical - neuropathic ulcer
Undermined - pressure ulcer



hypertrophic

Myxoedema
↓
Hypothyroidism

28. All of the following are associated with Graves' disease EXCEPT?

- a) Pretibial myxoedema
- b) Exposure keratitis
- c) Hair loss
- d) Atrial fibrillation
- e) Dermopathy

Hyperthyroidism

eye dx.
pretibial myxoedema
acropathy

Thyroid

B

29. Which of the following statements is FALSE in regard to benign breast disease?

- a) Benign breast disease is the most common cause of breast problems.
- b) Lipoma is a common condition of the breast.
- c) Traumatic fat necrosis can be mistaken for a carcinoma.
- d) 30 per cent of breast cysts recur after aspiration.
- e) Cyclical mastalgia is more common in premenopausal women.

Breast

B

30. Which of the following is NOT TRUE in relation to strangulated hernias?

- a) They present with local and then generalised abdominal pain and vomiting.
- b) A normal hernia can strangulate at any time.
- c) This is more common in femoral hernia.
- d) They can be reliably excluded in irreducible hernias on clinical examination.
- e) They require urgent surgery.

Hernias

D

31. The following are causes of dehydration and electrolyte loss in intestinal obstruction EXCEPT?

- a) Reduced oral intake
- b) Defective intestinal absorption
- c) Vomiting
- d) Diarrhoea
- e) Sequestration in the bowel lumen.

Abd pain
Distension
Constipation
Vomiting

B

32. 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 wide 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.

narrow

A

33. Which of the following statements regarding clinical features of intestinal obstruction is FALSE?

- a) Vomiting occurs early in high small-bowel obstruction.
- b) The development of severe pain is indicative of strangulation.
- c) Distension is a late 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.

partial

B

Indication for surgery - emergency

Condition getting worse or may not vomit, bowels open normally, distension + colicky pain
 ✓ Peritonitis
 ✓ obstruction a closed loop obstruction
 ✓ prostration
 ✓ volvulus
 ✓ obstructed strangulated hernia.

peritonitis
intestinally

ischaemic bowel with bowel necrosis

Acute abdomen

34. Which of the following types of patients do not have an increased risk of perforation in acute appendicitis?

- a) Extremes of age ✓
- b) Immunosuppressed ✓
- c) Diabetes mellitus ✓
- d) Pelvic position of appendix ✓
- e) Obese patient. ✗

fecal obstruction
prev. abd. ex.

pannicul - ball-like, red
warm

Painful anal condition

35. Which of the following statements regarding perianal abscesses is TRUE?

- a) They present as a painful, throbbing swelling in the gluteal area. ✗
- b) They are always associated with an underlying anal fistula. ✗ → 50%
- c) Fistulotomy is advised if a fistula is found at the time of draining the abscess. ✗
- 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 pus culture is associated with an underlying anal fistula. ✗

Haematuria

36. Which of the following statements is FALSE in regard to haematuria?

- a) Microscopic haematuria is not always abnormal. ✗ T can be traumatic
- b) Haematuria at the start of urinary stream indicates a cause in the lower urinary tract. ✗
- c) Haematuria where the ^{blood} 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. ✗ bladder is painless

Prostate

37. Which of the following statements is FALSE?

- a) The prostate is anatomically divided into a peripheral zone, a central zone and a transitional zone. ✓
- b) The glands of the peripheral zone are lined by transitional epithelium. ✗ columnar
- 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. ✓

BPH

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. ✓
- d) All lower urinary tract symptoms (LUTS) in men >70 years are due to BPH. ✗
- e) The prostatic urethra is elongated ✓ but narrowed

Physiology - Testosterone
Pathology - Oestrogen

Prostate

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 ✗ Fixed
- e) Extension beyond the capsule into the bladder base. ✗

39. In rupture of the membranous urethra, which of the following statements is FALSE?

- a) It is almost always associated with a pelvic fracture. T
- b) 10-15 per cent of fractured pelvis cases will have associated urethral injury. T
- c) It is usually a part of polytrauma T
- d) The prostate may be high-riding and out of reach on rectal examination. T
- e) A urethral catheter is inserted as a part of initial resuscitation. **Suprapubic**

do ascending urethrogram with water based contrast

40. Which of the following statements about urethral stricture is FALSE?

Strictures

- a) The symptoms are those of bladder outflow obstruction (BOO). T
- b) Ascending urethrography is necessary. T
- c) Urethroscopy is mandatory to evaluate. T
- d) Periurethral abscess is a complication. T
- e) Urethral dilatation is the ideal treatment. **Urethral dilatation**

elderly men short duration of

urine retention, urethral diverticulum, fistula, hemg, urethroplasty, urethrotomy

41. Which of the following statements on hypovolaemic shock is TRUE?

Shock

- a) Class I shock is equal to voluntary blood donation of one unit. **500ml**
- b) Class II shock is evidenced by change in vital signs and a significant decrease in systolic blood pressure. **Class IV** **No vital change, MHT ↓, RR ↑, skin pale.**
- c) Class III shock can be managed by simple administration of crystalloids only. **DRSP** **No change in systolic BP.**
- d) Class IV shock is evidenced by blood loss of less than 40% and is not life threatening. **F** **Vitals change (Cap refill, PR, PP ↓, RR ↑)**
- e) In class II shock, capillary return is more than two seconds. **✓**

42. 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

Obstructive jaundice

- a) Cholangiocarcinoma → pain, abd pain ± ascites, malaise, ↑ bilirubin
- b) Head of pancreas carcinoma → painless
- c) Carcinoma of gall bladder → biliary colic, jaundice + anorexia late feature
- d) Hepatocellular carcinoma → hepatomegaly
- e) Gallstone disease → gallbladder not palpable.

43. Which of the following factors present in an entero-cutaneous fistula increases the possibility of closure of the tract?

Fistula

- a) Non-epithelialization of the tract **✓**
- b) High output fistula F
- c) Malnutrition F
- d) Sepsis **✓**
- e) Distal obstruction **✓**

Foreign body: Radiation, Injury, Irritants, Epithelialization, Neoplasms, Distal obstruction, Repair

adherence distal I/O, epithelialization of tract, high output, short tract, ↑ abd distension

44. Which of the following is true about Monteggia's fractures?

Monteggia's Fracture of radius & ulna

- a) It is usually associated with posterior interosseous nerve paralysis. **F** → supracondylar
- b) It can be usually treated conservatively in adults. **Open ORIF**
- c) It is not an injury of children. **F** → closed reduction or ORIF
- d) It is a combination of fracture of radius with distal radio-ulnar joint dislocation. **F**
- e) It is a combination of fractures of proximal ulna with dislocation of proximal head of radius. **prox. radioulnar joint**

Acute & Chronic → CA

Gallstone, Alcohol, Trauma, Steroids, Mumps, Autoimmune, Scorpion, Hypertension, P, A, S, T, Zidovudine, Azathioprine

2-51
Complication
Hematomas
Thyroid storm
Resp. obstruction
Pneumothorax
Thyroid insula
Acute
abdomen
pelvic
prostate

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

release tension hematoma
(endotracheal) intubate for several days
steroids to ↓ edema.

47. Acute appendicitis is most commonly associated with which of the following signs?

- a) Temperature above 40° C ^{37.8°}
- b) Frequent loose stools
- c) Anorexia, abdominal pain, and right lower quadrant tenderness.
- d) White blood cell count greater than 20,000 per cm³ ^{> 10,000}
- e) Palpable right iliac fossa mass

M
A
I
L
B
L
S.

Ped's
diag.

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 Merkel diverticulum
- b) Acute appendicitis
- c) Kidney stone
- d) Infected urachal cyst
- e) Intussusception

(E)

Acute
scrotum

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 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

(B)

Esophageal
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
- e) Ultrasound of the abdomen

- Proximal dilation - Shouldering effect - Ret bar apparatus
- Filling defect - Rugged mucosa

(D)

Breast
Cr.

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 ^{level 1}
- c) Lie posterior to pectoralis minor ^{level 2 Unknown}
- d) Lie superomedial to pectoralis minor ^{level 1}
- e) Lie inferior to pectoralis major

I -> below lower edge of pec. minor
II -> underneath/posterior to pec minor
III - above medial to pec minor

(C)

Question No. _____

A 30-year-old lady 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 venous thrombosis. The best 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 - *correct*
- d) Call a senior consultant first to decide on anticoagulation
- e) None of the above

53. Which one of the following statements is INCORRECT in regards to sepsis?

- a) Tachycardia and tachypnoea are early signs ✓ T $> 35^{\circ}C$, $> 36^{\circ}C$
- b) Sepsis is defined as Systemic Inflammatory response syndrome in the setting of documented infection ✓ Sepsis, 2° peritonitis
- c) Leucocytosis or leucopaenia may be a sign ✓ T
- d) Septic shock is defined as hypotension and sepsis ✓ T

54. A 20 year old man is brought in to the casualty department in respiratory distress after having been involved in a head on collision. On examination he is noted to have reduced air entry on auscultation 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 ✓ T
- e) Decompression using a large bore needle to the right of the sternum
- f) Insert a chest drain

55. A 24-year-old female presents to the surgical outpatient clinic with a history of palpitations, heat intolerance and weight loss. On examination you notice she has clammy palms, mild tremor with exophthalmos and a large goitre. What is the most likely diagnosis?

- a) Graves disease ✓ T
- b) Hashimoto thyroiditis
- c) Solitary thyroid nodule
- d) Toxic multinodular goitre
- e) De Quervains thyroiditis

56. Which of the following statements is false about Hirschsprung's disease?

- a) Male and females have equal incidence ✓ T
- b) In approximately 8% of patients the entire colon is affected ✓ T
- c) After surgery constipation is a common problem ✓ T
- d) Down syndrome is presenting 3-5% of cases. ✓ T
- e) It is characterised by lack of ganglion cells in the Auerbach's and Meissner's plexus ✓ T

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) Ultrasound of the abdomen - FAST ✓ T
- b) Shift Him to ICU and observe
- c) Plan him for laparoscopy
- d) Take him for an exploratory laparotomy
- e) Give Him whole blood

- Folan's sign
 - Froment's sign
 - Meralgia paraesthetica
 - Lidwane

- Bone tumors
 - Great toe injury
 - TB
 - Mirels disease
 - Maffucci syndrome

Trigger finger
 Asymmetric biceps
 Bamboo spine
 Actinomycosis

Registration No. _____

Acute abdomen

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 ✓
 - 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
 - c) Peptic Ulcer disease *MC with significant*
 - d) Oesophagitis
 - e) Dieulafoy lesions

Acute abdomen

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) *Not relevant*
 - c) Production of pain in right lower abdomen with extension of thigh (Psoa's sign)
 - d) Production of pain in right abdomen with internal rotation of flexed thigh (Obturator's sign)
 - e) All of the above

Fluids check

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 *Adults: 0.5-1 ml/kg/hr. Children: 1-2 ml/kg/hr.*
 - b) Decrease in pulse to less than 100 beats/minute
 - c) Return of normal skin temperature
 - d) Return of normal sensorium
 - e) The disappearance of orthostatic hypotension

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. A plain abdominal radiograph shows features suggestive of intestinal obstruction. What is the likely cause of this obstruction?

- a) Carcinoma of the colon
- b) Small bowel tumour
- c) Adhesions
- d) Incarcerated inguinal hernia
- e) Diverticulitis

Trauma

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
- b) Suprapubic catheterization followed by a urethrogram
- c) Intravenous pyelography (IVP)
- d) CT scan of the pelvis
- e) Diagnostic peritoneal lavage

For patients with chest injuries who have significant pneumo-haemothorax, the following necessary:-

- 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.

65. In intestinal stoma, which of the following statements is TRUE?-

- a) Ileostomies should have a spout. Irritative? temp. colostomy
- b) A right sided stoma is invariably an ileostomy. who doubt
- c) A Hartmann's procedure involves resection of a segment of colon and formation of an ileostomy. Resection of rectosigmoid with closure of anastomosis & formation of end ileostomy
- d) A loop ileostomy is usually permanent.
- e) A defunctioning stoma is performed to protect an anastomosis proximal to the stoma.

66. Total parenteral Nutrition:-

- a) Most commonly is administered via large central veins. preferred, but can be given peripherally
- b) Is indicated in approximately 25% of patients in hospital requiring nutritional support.
- c) Is indicated for all patients with paralytic ileus. bowel obstruction, short bowel and gastrocolic anastomosis, ulcerative colitis, etc
- d) Should be administered using an infusion pump.
- e) May induce renal dysfunction. infection, blood clot, fatty liver + liver failure, lung, cholelithiasis, gut atrophy, refeeding syndrome, pruritus

67. In Obstructive jaundice;-

- a) Ultrasound can readily reveal intra-hepatic ductal dilatation. True
- b) Obstructive jaundice is suggested by raised AST and ALT. ALT, ALP, GGT
- c) Malabsorption of vitamin D in jaundiced patients can affect the synthesis of coagulation factors. 2, 7, 10, 11
- 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 way 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.

70. In the immediate post operative period Which of the following statements IS 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 sign ✗
 - e) Oliguria is defined as urinary output of less than 0.5 mL/kg per h. - children < 1ml/kg/h - infants < 17/21 ml/h - adult ✓

71. Which of the following IS NOT a cause of acute shortness of breath on the first postoperative day?
- a) Atelectasis ✓ Anesthetics, Oxygen, physio ✓
 - b) Pulmonary embolism ✓
 - c) Myocardial infarction ✓
 - d) Chest infection ✓ eg PNP.
 - e) Pneumothorax ✓

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. ✗
 - 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

73. Which of the listed muscles does not control the rotator cuff?
- a) Supraspinatus ✓ C1-C5
 - b) Teres major ✗
 - c) Teres minor ✓
 - d) Infraspinatus ✓
 - e) Subscapularis. ✓

74. Which of the following IS TRUE regarding 'burst abdomens'?
- a) The incidence is around 10-15 per cent. ✓ 8%
 - b) Midline and vertical incisions are more likely to burst than transverse incisions. ✓ midline
 - c) Catgut is associated with a lower risk of burst abdomen. ✓ F higher
 - d) A serosanguinous discharge is the forerunner of disruption in almost all of these cases. ✓ 50%
 - e) Most cases are managed conservatively. ✓ F operate

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. ✓
 - d) In perforated duodenal ulcer there are no signs of peritonitis in the right iliac fossa. ✗
 - e) Children can localise infection effectively. ✗

76. Which of the following IS TRUE with regard to the clinical features 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. ✗
 - e) Weight loss is a typical symptom ✓ atypical ✗ non-specific

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

B

Head 78. An epidural hematoma:-

- a) Should be suspected only in comatose patients ~~X~~
- b) **B** Most commonly presents following a lucid interval ~~X~~ then permanent LOC due to uncal herniation
- c) **C** Is usually accompanied by a skull fracture ✓
- d) Should always be urgently evacuated for good functional outcome of patients if > 5mls
- e) Is usually as a result of a venous bleed ~~arterial~~ subdural Middle Meningeal artery

Head 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 ~~X~~
- b) Corticosteroids are first line treatment for management of increased intracranial pressure ~~X~~
- c) **E** Intracranial hypertension is one of the most important factors affecting outcome
- d) Systemic hypernatraemia leads to poor outcomes but hyponatraemia is tolerable
- e) **C** Cerebral perfusion pressures must be maintained within broad limits because too little pressure could cause brain tissue to become ischemic and too much could raise intracranial pressure

Head 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 ~~X~~
- b) **B** A CT scan should be performed regardless of the patient's neurologic state.
- c) **C** If the patient thereafter has rapid deterioration into coma with fixed and dilated pupils with decerebration, the most likely cause is a subdural hematoma ~~X~~ Epidural
- d) The initial neurologic exam may be dilatation of the ipsilateral pupil
- e) Him and his guardians need not be educated on warning signs and symptoms that may be indicative of a progressing injury ~~X~~

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 brain 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) **E** All of the above

- Head injury 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 outcomes
 - d) Cannot be assessed in an unconscious patient
 - e) Has minimal inter-observer variability

- Spinal 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
 - e) Poor cough reflex

- Head injury 84. Which of the following forms a part of the Cushing response to increased intracranial pressure?
- Hypertension, Irreg breathing, Bradycardia
- a) Tachycardia
 - b) Hypertension
 - c) Hyperventilation
 - d) Reduced level of consciousness
 - e) Imminent herniation

- Paed. surg 85. The most common cause of paediatric hydrocephalus in our setting is?
- a) Congenital
 - b) Post-traumatic
 - c) Due to prematurity
 - d) Post-infectious
 - e) None of the above

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

Headache
Nausea
Drowsiness
Change in personality
Seizures
Unsteady walking/gait
Leg weakness
Sudden pathologic instability

87. The following list of primary malignancies accounts for the majority of metastatic brain tumors:
- a) Lung, breast, melanoma, R.P.P.
 - b) Testis, ovary, melanoma
 - c) Lung, prostate, uterus
 - d) pancreas, melanoma, ovary
 - e) Salivary gland, ovary, testis

lung > 20%
+ renal ca
+ colorectal

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

Tumor

Emph
+
Vaca crackle
touch
pe
Mamma
post partum
Infection ie
pneum

477

SUE

Question No.

Spinal shock consists of all of the following EXCEPT

- a) Weakness
- b) Hypotonia
- c) Sensory loss
- d) Areflexia
- e) Hyperreflexia

90. Features of headache due to increased ICP include all of the following EXCEPT

- a) Frontal
- b) Episodic *Global*
- c) Frequency more than once a day *persistent / chronic*
- d) Develop rapidly and subside quickly *↑ intensity*
- e) Associated with nausea or vomiting

91. The most common tumor in the brain is

- a) Glioblastoma multiforme *most*
- b) Metastasis
- c) Medulloblastoma
- d) Pleomorphic Xanthoastrocytoma
- e) Ependymoma

92. As regards Intussusception in children, all statements are false except:

- a) More than 80% of the intussusceptions are ileo-ileal. *ileo-cecal*
- b) Intussusceptions follow closely episodes of upper respiratory tract infections. *commonly*
- c) The causation agent of the above is often an adenovirus. *rotavirus*
- d) Less than 50% of the cases of intussusceptions occur after 2 years of age. *> 2 yrs of age*
- e) The incidence of leading point decreases with age of the patient. *The older the child the higher the risk of a lead point*

Rare in neonates & premature
60% of pts → < 1 yr.
50% of cases < 24 months
per op 11/15/31

93. Malignant melanoma is commonly seen on

- a) Foot
- b) Head
- c) Trunk
- 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

Fluick

94. What is your diagnosis?

- a) Insufficient fluid intake
- b) Sufficient fluid intake
- c) Hypovolaemia
- d) Renal failure
- e) Persistent intestinal obstruction

Registration No. _____

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.

Appendicitis

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 lithe 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 malaria test
- e) Refer to Kenyatta National Hospital for specialised tests and management

98. 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 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 and fails to close if the following are present EXCEPT:

- a) The cavity is inadequately drained
- b) The cavity has not epithelialized
- c) The cavity has undergone malignant change
- d) There is a foreign body
- e) There has been exposure to radiation

*Foreign body
Radiation
Infection, inflammation
Epithelialization
Neoplastic
Distal obstruction
steroids*