



EDEN UNIVERSITY
SCHOOL OF MEDICINE
 DEPARTMENT OF MEDICINE AND CLINICAL SCIENCES
 BACHELOR OF SCIENCES IN CLINICAL MEDICINE

INTERNAL MEDICINE (5,2)
 (MED 4010)

First Attempt EXAMINATION – PAPER I

DURATION 3 HOURS

November 2024

STUDENT ID No.	[REDACTED]
NRC No. /PASSPORT No.	[REDACTED]
EXAMINATION VENUE	SCHOOL HALL

INSTRUCTIONS TO CANDIDATE

1. Indicate your student ID and NRC numbers on this question paper, and the booklets use

2. Do NOT start writing before you are told

3. Read the questions very CAREFULLY before attempting to answer

4. Maximum marks = 100 Marks

5. This paper contains ONE (1) SECTION

CELLPHONES, SMART WRISTWATCHES AND PROGRAMMED CALCULATORS ARE NOT ALLOWED IN THE EXAMINATION ROOM

1

DO NOT TURN THIS PAGE UNTIL YOU ARE TOLD TO DO SO BY THE INVIGILATOR

MCQS: CHOOSE THE BEST SINGLE ANSWER IN THE ANSWER -GRID PROVIDED

1. You have decided to start tuberculosis treatment in a patient. During systematic inquiry, you found that the patient had never taken anti-tuberculous drugs before. If Rifampicin is R, Isoniazid H, Ethambutol E, Pyrazinamide Z, and Streptomycin S, with the numerals representing the number of months of treatment, which of the following will be the regimen you will give to the patient?
 - a) 2 SREZ/4SR
 - b) 4 RHEZ/2HE
 - ☒ c) 2 RHEZ/4RH
 - d) 3SZH/4EZ
 - e) 4 RHEZ/4RH
2. You repeat the sputum after three months of tuberculosis treatment in a patient. The results are still positive. In which of the following scenarios are you going to diagnose Multidrug-resistant tuberculosis?
 - a) When there is resistance to Rifampicin
 - b) When there is resistance to Streptomycin and Quinolones
 - c) When there is resistance to Ethambutol and Penicillin
 - ☒ d) When there is resistance to Rifampicin and Isoniazid
 - e) When there is resistance to Streptomycin, Rifampicin and quinolones
3. Which of the following statements is true about tuberculosis?
 - a) Haematogenous spread rarely gives rise to military tuberculosis
 - b) Tuberculosis in adults is often the result of reinfection
 - c) TB of the gastrointestinal tract mainly affect the duodenum but occasionally the peritoneum
 - d) Genitourinary system tuberculosis is always associated with infertility in males
 - ☒ e) In TB adenitis, scrofula is the term used to describe lymph node enlargement with discharging sinuses
4. When Tuberculosis affects organs outside the lungs, it is known as extrapulmonary tuberculosis. Which of the following statements is NOT true about extrapulmonary tuberculosis?
 - a) The most common site of skeletal TB involvement is the spine (Potts' disease)
 - b) One of the common symptoms of extrapulmonary tuberculosis is back pain or stiffness.
 - c) In spine tuberculosis, known as Potts' Disease, lower-extremity paralysis occurs in up to half of patients.
 - d) Tuberculous arthritis usually involves only one joint
 - ☒ e) Hips and Knee joints are never infected by tuberculosis
5. A 30-year-old immune-competent patient presents with a long-standing, productive cough with hemoptysis. You are investigating the patient for suspected tuberculosis. Which of the following radiological findings is typical in pulmonary tuberculosis?
 - a) Pleural effusion
 - b) Pneumonia
 - c) Hyperinflated chest
 - ☒ d) The presence of cavitations in the lung parenchyma
 - e) Peri-hilar reaction
6. Which of the following statements is true about tuberculosis?
 - ☒ a) Tuberculosis (TB) is one of the top 10 causes of death worldwide
 - b) Annually, 10 million people fall ill with TB, and 1.5 million die from the disease only among people with HIV.
 - c) TB is a leading killer of HIV-positive people but does not affect HIV-negative individuals.

- d) Multidrug-resistant TB (MDR-TB) remains a public health crisis and a health security threat. But this threat hasn't reached Zambia yet.
- e) In Zambia, the Sustainable Development Goals health target of ending the TB epidemic by 2030 is attainable even before the target.
7. **Which of the following is true in tuberculous meningitis?**
- a) Tuberculous meningitis always follows episodes of bacterial meningitis
 - ~~b) Patients with tuberculous meningitis may present with a headache that has been either intermittent or persistent~~
 - c) In TB meningitis, mental status changes never progress to coma
 - d) Fever is always present
 - e) The absence of any significant physical findings always excludes active TB
8. **A 24-year-old patient presents with 2-2-day history of fever to the Adult Medical Emergency unit while you are the clinician on duty. On examination, you found that his Blood pressure was 82/55 mmHg with neck stiffness; he is jaundiced and has splenomegaly. He is passing urine well, and the colour was normal. The unit consultant tells you on the phone to assess the patient. You noticed that the patient has petechial, purpura and ecchymotic patches. Which of the following diagnoses will you tell the consultant about this patient?**
- a) Cerebral malaria
 - b) Cryptococcal meningitis
 - c) Neisseria meningitidis meningitis
 - d) Pneumococcal pneumonia meningitis
 - e) Hypovolemic shock
9. **Finger clubbing is a typical finding in all, BUT which of the following conditions?**
- a) Chronic bronchitis.
 - b) Bronchiectasis.
 - c) Primary biliary cirrhosis.
 - d) Cryptogenic fibrosing alveolitis.
 - e) Community-acquired lobar pneumonia.
10. **Typical chest findings in a large right pleural effusion include which of the following features?**
- a) Normal chest expansion.
 - b) Impaired percussion note.
 - c) Absent breath sounds.
 - d) Vocal resonance decreased.
 - e) Pleural friction rubs.
11. **Typical chest findings in right lower lobe consolidation include which of the following features?**
- a) Decreased chest expansion.
 - b) Dull percussion notes.
 - c) Decreased breath sounds.
 - d) Increased vocal resonance.
 - e) Rhonchi and crepitation's
12. **Typical chest findings in the right lower lobe collapse include which of the following?**
- a) Decreased chest expansion.
 - b) S, tony dull percussion note.
 - c) Bronchial breath sounds.
 - d) Decreased vocal resonance
 - e) Crepitations
13. **The best duration of treatment to ensure Peptic Ulcer healing with eradication therapy is which of the following?**
- a) 1 week

- b) 2 weeks
 - c) 4 weeks
 - d) 8 weeks
 - e) 1 year
14. **Antacid therapy relieves symptoms by which of the following mechanisms?**
- a) By complete neutralisation of gastric acid
 - b) By eradicating *Helicobacter pylori*
 - c) Indefinitely
 - d) By protecting the mucosa from acid
 - e) By preventing gastric acid formation
15. **Basal and peak acid output are most important in the diagnosis of which of the following?**
- a) Duodenal ulcer
 - b) Gastrinoma
 - c) Gastric ulcer
 - d) Gastric carcinoma
 - e) Rickets
16. **Gastric atony can occur in which of the following?**
- a) Motor neuron disease
 - b) Marfan's syndrome
 - c) Friedreich's ataxia
 - d) Diabetes insipidus
 - e) Diabetes mellitus
17. **Which of the following may be followed by gastric surgery?**
- a) Osteomalacia
 - b) Weight loss
 - c) Pulmonary tuberculosis
 - d) Gallstones
 - e) Gastric cancer
18. **Which of the following is a characteristic of *Helicobacter pylori* bacteria?**
- a) Survives in gastric acid contact
 - b) Adhere to the gastric mucosa in an alkaline layer
 - c) Have you never seen healthy people?
 - d) Can be simply identified in the endoscopy room by their urease activity
 - e) Are associated with peptic ulcer relapse
19. **The stomach is sometimes involved in which of the following conditions?**
- a) Coeliac disease
 - b) Lymphoma
 - c) Crohn's disease
 - d) Anastasia
 - e) Barrett's esophagus
20. **Prostaglandin analogues heal peptic ulcers but cause which of the following?**
- a) Are slow to take effect
 - b) Have some action on gastric acid
 - c) Have an unusually high relapse rate
 - d) Cause diarrhea
 - e) Are unlikely to be drugs of first choice
21. **A patient with a third episode of gastrointestinal hemorrhage from an unknown site should be offered which of the following?**
- a) Early endoscopy
 - b) Barium radiology
 - c) Laparotomy

- d) Intravenous acid-suppressing therapy
 - e) A Sengstaken tube
22. **Body mass index is measured by which of the following?**
- a) Weight/height
 - b) $\text{Weight}^2 / \text{height}$
 - c) $\text{Weight} / \text{height}^2$
 - d) $\text{Weight}^2 / \text{height}^2$
 - e) $\text{Weight}^3 / \text{height}$
23. **Which of the following best describes Fiber-optic upper digestive endoscopy?**
- a) Is less accurate than video endoscopy
 - b) Is superior to barium meal examination
 - c) Replaces the need for small
 - d) No option is correct
24. **A Known diabetic comes to your clinic with a well-controlled blood sugar. Their spouse mentions they have not been consistent with their insulin injections this past 2 months and only take them on days leading up to the review. What investigation can help prove or dispel this statement from the spouse?**
- a) Fasting blood sugar
 - b) Blood cholesterol levels
 - c) C-peptide levels
 - d) Fasting insulin levels
 - e) Glycosylated hemoglobin
25. **A 20-year-old man presents to the ER with a history of palpitations and generalised muscle weakness. On examination, Vitals are BP: 125/90mmHg, Pulse: 55/min (irregularly regular), Respirations 19/min and Temperature: 36.4 Celsius. The cardiovascular system is unremarkable. CNS examination reveals depressed tendon reflexes and power of 3/5 in all four limbs. Full blood count is normal; serum potassium is 7.8mmol/L. And ECG tracing showed tall peaked T waves and a widened QRS complex. What medication is indicated?**
- a) Calcium gluconate
 - b) Potassium infusion
 - c) Ringer lactate infusion
 - d) Spironolactone
 - e) Metformin
26. **A patient with stage 3 chronic kidney disease on dialysis presents with easy fatigability, palpitations and weakness. On examination, they are pale and have an Hb of 8 g/dL. What is the best management option?**
- a) Ferrous sulphate
 - b) Erythropoietin stimulating agents
 - c) Folic acid
 - d) Steroid administration
 - e) Dialysis
27. **Chronic Kidney disease staging is based on the?**
- a) Urine output
 - b) Glomerular filtration rate
 - c) Blood creatinine levels
 - d) Blood urea levels
 - e) Potassium levels

28. Which of the following will NOT cause progression of renal injury in chronic kidney disease?
- a) Ibuprofen use
 - b) Dehydration
 - c) Proteinuria
 - d) Smoking
 - e) Enalapril use
29. A woman comes to your facility with a history of pain on urination for 2 days. This is associated with increased urinary frequency and inability to hold urine. She was treated for a similar illness last week and finished her Nitrofurantion medication 3 days ago. Over the past 3 months, she has had an episode every month. The examination is remarkable. Urinalysis shows leucocytes and nitrites. What investigation is best suited to guide your next step in this woman's management?
- a) Urine culture and sensitivity
 - b) Cystoscopy
 - c) Full blood count and differential count
 - d) Blood culture
 - e) Retrograde urethrogram
30. What is the recommended management of an uncomplicated lower urinary tract infection?
- a) IV antibiotics for 7 days
 - b) Oral antibiotics for 14 days
 - c) IV antibiotics for 14 days
 - d) Oral antibiotics for 7 days
 - e) IV antibiotics for 7 days, then oral for 7 days
31. A patient presents to you with a burning epigastric pain that is worsened by feeds. The pain is non-radiating and has no known relieving factors. She has had this problem for nearly 3 years, and it is on and off. What organism must be tested for in this condition?
- a) Staphylococcus aureus
 - b) Hemophilus influenza
 - c) Clostridium botulinum
 - d) Helicobacter pylori
 - e) Campylobacter jejuni
32. A 50-year-old male presents to you with a history of epigastric pain that he describes as dull and burning in nature at times. He mentions having had this problem for over 3 decades now. He is worried because, this time, the pain is non-remitting and is associated with projectile vomiting that is blood-streaked at times. He complains of weight loss and easy satiety. On questioning, he agrees to a very dark stool, nearly black. Examination only reveals pallor. What is the best diagnostic test for this patient?
- a) Abdominal ultrasound
 - b) Abdominal MRI
 - c) Colonoscopy
 - d) Complete blood count and differential
 - e) Upper GI endoscopy

33. A patient was involved in a road traffic accident and sustained a minor injury. The attending doctor found no fractures and prescribed Ibuprofen for 7 days for pain management. The patient's pain persisted, and he got off-the-counter Ibuprofen, which he has taken for over 1 month now. He comes to you with complaints of epigastric burning pain that has worsened after feeds in the past week. He has no previous history of such pain and is worried. You prescribe medication for peptic ulcer disease. What relevant counsel would you give this patient?
- Daily exercise
 - Change the type of pain medication to acetaminophen if needed
 - Change diet to a vegetarian diet
 - Drink more water first thing in the morning
 - Use Aspirin for the pain
34. Which medication is NOT part of the triple therapy cocktail in eradication of H. Pylori infection?
- Esomeprazole
 - Clarithromycin
 - Amoxicillin
 - Metronidazole
 - Tinidazole
35. Which of the following is the strongest risk factor for developing gastric cancer?
- Antacid use
 - Alcohol use
 - Smoking
 - Smoked food ingestion
 - Chronic Helicobacter pylori infection
36. A 17-year-old male student presents with the chief complaint of rash. There is no headache, fever, or myalgia. A slightly pruritic maculopapular rash is noted over the abdomen, trunk, palms of the hands, and soles of the feet. Inguinal, occipital, and cervical lymphadenopathy are also noted. Hypertrophic, flat, wart-like lesions are noted around the prepuce.
- Urine dipstick
 - VDRL test
 - Chlamydia titer
 - blood cultures
 - skin scraping
37. A 92-year-old woman with a history of ischemic heart disease and hypertensive heart disease is brought unconscious to the emergency room from a nursing home. She has been compliant with losartan 25 mg daily, aspirin 75 mg daily and rosuvastatin 10 mg daily since having a myocardial infarction 5 years earlier. Her blood pressure is 70/30 mm Hg. She is febrile (38°C) and tachypnoeic. Laboratory studies reveal a white blood cell count of 22,000/ μ L with 92% neutrophils. Urinalysis reveals numerous Gram-negative organisms. Which of the following most likely accounts for this patient's signs and symptoms?
- Septic shock
 - Neurogenic shock
 - Cardiogenic shock
 - Anaphylactic shock
 - Hypovolemic shock

38. A 35-year-old woman with rheumatic fever in childhood presents with a cough and shortness of breath. She has an apical systolic murmur and bilateral pedal oedema. An echocardiogram reveals an ejection fraction of 38% with no wall motion abnormalities. Which of the following drugs would best minimise recurrent admissions in this woman?
- Aspirin
 - Digoxin
 - Enalapril
 - Furosemide
 - Torsemide
39. A 52-year-old black man undergoing a routine medical check-up is found with a blood pressure of 180/ 95 mm Hg. His BP profile over 4 days showed all readings above 150/ 90 mm Hg. He remains asymptomatic, and physical examination and investigations do not show any evidence of target organ damage. Which would be the best drug to initiate him on?
- Atenolol
 - Lisinopril
 - Amlodipine
 - Telmisartan
 - Torsemide
40. What is the best first-line combination antiretroviral therapy?
- Abacavir, lamivudine and efavirenz
 - Abacavir, lamivudine and tenofovir alafenamide
 - Tenofovir alafenamide, lamivudine and dolutegravir
 - Tenofovir disoproxil fumarate, lamivudine and efavirenz
 - Tenofovir disoproxil fumarate, lamivudine and dolutegravir
41. A 61-year-old HIV patient has been on first-line combination antiretroviral therapy for 2 years. The estimated glomerular filtration rate and blood sugar are normal, but urinalysis shows proteinuria 1+ and glucose 2+. What is the most likely drug to cause such urinalysis findings?
- Abacavir
 - Efavirenz
 - Tenofovir
 - Lamivudine
 - Zidovudine
42. A 42-year-old man is seen because of a long history of slowly developing congestive heart failure. His blood pressure is normal. He has a history of alcohol intake, which he has since stopped. Coronary artery angiography reveals no vascular disease. No heart murmurs are heard. The white blood cell count, differential, and erythrocyte sedimentation rate are normal. What is the most likely diagnosis?
- Myocardial infarction
 - Dilated cardiomyopathy
 - Carcinoid heart disease
 - Coarctation of the aorta
 - Constrictive pericarditis
43. During the SARS-CoV-2 pandemic, you receive a lot of queries regarding laboratory confirmation for the virus. Which of the following is the highest-yielding specimen for SARS-CoV-2 RNA?
- Blood
 - Saliva
 - Oropharyngeal specimen
 - Nasopharyngeal specimen
 - Broncho-alveolar lavage fluid

44. A 57-year-old man presents with complaints of chest pain and fever. The pain is not associated with exertion and is alleviated somewhat by sitting up and leaning forward. The patient states that he had a recent upper respiratory tract infection a week earlier. Physical examination reveals a friction rub on cardiac auscultation. What is the most likely etiology of this patient's chest pain?
- Pericarditis
 - Costochondritis
 - Reflux esophagitis
 - Peptic ulcer disease
 - Ischemic heart disease
45. A 20-year-old woman contacts a medical doctor and asks if he would like to join her for dinner. The doctor treated the woman during her 2-week hospitalisation for treatment of major depressive disorder 7 months ago. He has not treated or seen the patient since she was discharged from the hospital. He is attracted to this former patient and would be interested in dating her. Which of the following is the most appropriate action by the medical doctor regarding this patient's invitation?
- He can date her because she is no longer his patient
 - He can date her, but only after at least 1 year has passed since he treated her
 - He cannot date her because she was once his psychiatric patient
 - He can only date her on condition no one at his hospital knows about the dating
 - He cannot date her unless she agrees never to seek care at his hospital in the future
46. A study is designed to evaluate the feasibility of acupuncture in adults with chronic headaches. Sixty adults with chronic headaches are recruited for the study. In addition to their usual therapy, all adults are treated with acupuncture three times a week for 2 months. Which of the following best describes this study design?
- Case-control
 - Case series
 - Crossover
 - Cross-sectional
 - Clinical trial
47. A 20-year-old man comes to your clinic with a history of generalised body malaise and lethargy for the past 2 weeks. The review of symptoms is unremarkable. On examination, the patient has hair loss in the eyelashes and patches on the head. He has a generalised maculopapular rash all over the body, including the palms of his hands and sores on the foot. The rash is reddish. He gives a history of a healed penile ulcer that was painless but 'open' in his words. The ulcer came 2 weeks after intercourse with his new girlfriend. What is the diagnosis?
- Gonorrhoea
 - Syphilis
 - Herpes simplex virus 1
 - Measles
 - Chlamydial infection
48. A 16-year-old girl is admitted with confusion. On examination, her blood pressure is 80/50 mm Hg. Laboratory results show plasma sodium of 115mmol/L with urine sodium > 20mmol/L. What is the most likely cause of hyponatremia?
- Vomiting
 - Diarrhoea
 - Pancreatitis
 - Severe burns
 - Adrenal failure
49. A 26-year-old man presented to the Emergency Unit with a first-time hematemesis that lasted for a day. His vitals were normal except for slight tachycardia of 104 beats per minute. His

hemoglobin was 8g/ dl. Gastroscopy revealed grade 3 oesophageal varices. What is the best initial treatment for him?

- a) Propranolol
- b) Oral octreotide
- c) Banding of the oesophageal varices
- d) Blood transfusion
- e) Hematinics

50. A teenager comes to your department worried about an ulcer on his penis. The patient agrees to have been sexually active and admits to engaging in unprotected sex. On examination, the ulcer is located on the glans. It has rolled-up edges with a punched-out base. Rapid plasma reagin RPR was positive. What is the recommended treatment for this patient?

- a) Benzathine penicillin
- b) Procaine penicillin
- c) Ceftriaxone
- d) Azithromycin
- e) Doxycycline

51. George is a 23-year-old mine worker. He presents to you with a 5-day history of painful urination that is burning in nature. He has now noticed a pus discharge from the urethra. He gives a history of having unprotected sex with an unknown woman a week before the onset of symptoms. Examination revealed no signs. Vitals: Temperature: 36.7 Celsius, Pulse: 70/min, Respirations: 16/min and BP: 120/70mmHg. HIV and RPR are negative, and full blood count is normal. What is the diagnosis?

- a) Gonococcal urethritis
- b) Disseminated Gonococcal infection
- c) Gonococemia
- d) Gonococcal conjunctivitis
- e) Gonococcal arthritis

52. Which sexually transmitted infection presents similarly with gonorrhea and is likely to co-exist with Gonococcal infection?

- a) Syphilis
- b) HIV
- c) HSV
- d) Chlamydia
- e) Pubic lice

53. Which one is NOT a complication of *N.gonorrhea* infection?

- a) Infertility in women
- b) Lymphocytosis
- c) Reiter's syndrome
- d) Fitz-Hugh Curtis syndrome
- e) Septic arthritis

54. A sexually active teenage lady presents to your clinic with complaints of a 3day old rash on her vaginal region. The rash gives a burning sensation and has rapidly progressed over 3 days, causing painful urination as well. She admits to having had unprotected sex 5 days before the onset of the rash. She also complains of mild chills, lethargy and malaise. On examination, the rash is located on the labia and anterior vagina. The rash is ulcerative and vesicular. Some vesicles can be seen capturing and becoming purulent. What medication is indicated here?

- a) Cloxacillin
- b) Septrin
- c) Fluconazole

- d) Sitz baths
 - e) Acyclovir
55. Which one is a relief agent used to treat exacerbations of asthma?
- a) Short-acting beta agonists
 - b) Long-acting beta-agonists
 - c) Inhaled steroids
 - d) Theophylline
 - e) Leukotriene modifiers
56. A known asthmatic is brought into the ER with difficulties breathing. On examination, he is wheezing and unable to complete sentences. Vitals: Pulse 120/min, Respirations: 30/min, Temperature: 36.5 Celsius and BP: 110/70mmHg. Oxygen saturation was 89%. Auscultation reveals inspiratory and expiratory wheezes. What is the diagnosis?
- a) Moderately severe asthmatic episode
 - b) Severe asthmatic episode
 - c) Mild asthmatic episode
 - d) Severe persistent asthma
 - e) Moderate persistent asthma
57. A Known asthmatic patient presents to the ER with difficulties breathing and cough. He ran out of his inhaler 2 weeks ago. On examination, he has an expiratory wheeze, is afebrile, and is able to talk but struggling with eating. Vitals: Respirations: 20/min, Pulse: 101/min, Temperature: 36.8 Celsius and BP: 130/70mmHg. What medication is indicated to stabilise this patient?
- a) Oral prednisone
 - b) IV antibiotics
 - c) Inhaled budesonide
 - d) Salmeterol
 - e) Leukotrienes
58. Which of the following medications is likely to precipitate an asthmatic attack?
- a) Adrenaline
 - b) Dexamethasone
 - c) Paracetamol
 - d) Aspirin
 - e) Hypertonic saline
59. Which of the following is the most prevalent mental illness?
- a) Schizophrenia
 - b) Conversion disorders
 - c) Depression
 - d) Generalised anxiety disorder
 - e) Opioid use disorder
60. A 30-year-old woman presents to your clinic with complaints of scanty menses and weight loss besides having a 'great appetite', she also complains of heat intolerance and palpitations at times. On examination, she has hand tremors, proptosis with lid lag and a characteristic pretibial scaly shiny rash. Vitals: Pulse: 111/min, BP: 145/90mmHg, Temperature: 37.5 centigrade and Respirations: 20/minute. What diagnostic test would be relevant for this patient?
- a) TSH
 - b) ACTH
 - c) Free T4
 - d) Cortisol levels
 - e) Dexamethasone suppression test.
61. The patient comes with a history of restlessness, hyperactivity, and difficulties sleeping; she has a history of weight loss in the past few months. Her spouse complains of irregular menses despite not being on hormonal contraceptives and has an increased libido. He also complains that she

- has become clumsy and easily irritable. On examination, she has tremors. Vitals: Pulse: 120/min, BP: 150/95mmHg, Respirations: 19/minute, Temperature: 38 centigrade. Full blood count was normal, TSH was markedly reduced, and T3 and T4 were normal. What is the diagnosis?
- Manic psychosis
 - Bipolar disorder
 - Hyperthyroidism
 - Cushing's disease
 - Essential hypertension
62. A patient presents with weight loss, pretibial myxedema, proptosis, hand tremors, heat intolerance, hyperactivity and raised vitals. She has a goitre, only appreciated on swallowing test. Her TSH is reduced, and T3 and T4 are raised. What is the most common cause of this presentation?
- Toxic adenoma
 - Multinodular goitre
 - Graves' disease
 - Hashimotos thyroiditis
 - Euthyroid goiter
63. Which of the following medications are used in the treatment of hyperthyroidism?
- Levothyroxine
 - Methimazole
 - Hydrocortisone
 - Enalapril
 - Risperidone
64. A nurse has been missing work due to recurrent urinary tract infections. She is brought to you for treatment. On examination, she has truncal obesity with thin limbs; she has multiple ecchymotic patches, she has abdominal striae and a buffalo hump. On examination, her BP is 150/90mmHg, and her Random blood sugar is 13mmol/L. What is your diagnosis?
- Obesity
 - Diabetes mellitus
 - Chronic kidney disease
 - Cushing's syndrome
 - Urinary tract infection
65. A patient presents with mood swings, easy bruising, hypertension, glucose intolerance, moon facies, buffalo hump, truncal obesity, recurrent infections and poor wound healing. Prolonged use of which drug could be responsible?
- Dexamethasone
 - Hydrochlorothiazide
 - Alcohol
 - Metformin
 - Salbutamol
66. A patient presents to the ER with complaints of headache, chills, muscle aches and body hotness for 3 days. A review of symptoms reveals no added symptoms. On examination, the patient is stable, alert, not pale, and not jaundiced. He is febrile and diaphoretic. Vitals Temperature: 38 centigrade, BP: 110/70mmHg, Pulse: 75/minute and Respirations: 16/minute. Full blood count is normal. RDT for malaria is positive. What is the treatment of choice for this patient?
- Artemether/lumefantrine PO
 - Artesunate IV
 - Quinine IV
 - Chloroquine
 - Fansidar
67. Which of the following is a sign of severe malaria?

- a) Hb of 13g/dL
 - b) BP of 130/95mmHg
 - c) GCS of 10/15
 - d) Temperature of 38 Celsius
 - e) Oxygen saturation of 95%
68. A patient presents to your facility with a febrile illness. Laboratory investigation shows a malaria parasite percentage of 10%. What is the best treatment for this patient?
- a) Artesunate followed by Artemether/lumefantrine
 - b) Artemether/lumefantrine followed by Artesunate
 - c) Artesunate only
 - d) Artemether lumefantrine only
 - e) Chloroquine
69. A patient referred from a rural health centre after being found with malaria presents with a urine output of 200ml/24 hours. The urine is Coca-Cola coloured. The malaria slide shows an 8% parasite load. What is the diagnosis?
- a) Uncomplicated malaria
 - b) Hematuria
 - c) Cerebral malaria
 - d) Severe malaria
 - e) Pyrexia of unknown origin
70. A patient comes to the ER with shortness of breath and a fever. The fever has been present for 5 days, and shortness of breath 2 days. He has associated vomiting, headache and lethargy. On examination, he has chest in-drawings and uses accessory muscles to breathe. His respiratory rate is 26/minute. Fine bilateral crepitations are heard on auscultation. Chest X-ray reveals diffuse reticular infiltrates with Kerly-B lines. Malaria parasites are identified on the blood slide. What is the preferred medical treatment for this patient?
- a) Quinine
 - b) Chloroquine
 - c) Artemether/Lumefantrine
 - d) Cotrimoxazole
 - e) Artesunate
71. Which investigation helps determine the parasite load/percentage in malaria diagnosis?
- a) Thick malaria slide
 - b) Thin malaria slide
 - c) RDT
 - d) PCR
 - e) Blood culture
72. Which of the following causes heart failure by Volume overload?
- a) Systemic hypertension
 - b) Myocardial infarction
 - c) Regurgitate valve
 - d) Restrictive cardiomyopathy
 - e) None of the above
73. In a patient with heart failure, high output status includes which of the following?
- a) Hypertension
 - b) Thyrotoxicosis

- c) Hypertrophic cardiomyopathy
 - d) Diabetes mellitus
 - e) Dilated cardiomyopathy
74. In a patient with heart failure, pressure overload conditions include which of the following?
- a) High output states
 - b) Systemic hypertension
 - c) Chronic ischemia
 - d) Restrictive cardiomyopathy
 - e) Dilated cardiomyopathy
75. Which of the following explains heart failure pathogenesis in a patient with acute myocardial infarction?
- a) Myocyte hypertrophy
 - b) Pericardial thickening
 - c) Valvular dysfunction
 - d) Myocyte loss
 - e) None of the above
76. Which of the following best describes heart failure from the hemodynamic stand?
- a) High-pressure versus low-pressure
 - b) Systolic versus diastolic
 - c) Afterload versus preload
 - d) Rheumatic fever versus non-rheumatic fever
 - e) None of the above
77. Clinical manifestations of heart failure include all, but which of the following?
- a) Shortness of breath on exertion
 - b) Easy fatigability
 - c) Pedal edema in a patient without orthopnea
 - d) Paroxysmal Nocturnal Dyspnea (PND)
 - e) Central Cyanosis
78. Which of the following best describes the effect of activation of the Renin-Angiotensin-Aldosterone System (RAAS) in a heart failure patient?
- a) Increased preload
 - b) Increased afterload
 - c) Increased preload and afterload
 - d) Water and Sodium retention
 - e) Vasoconstriction
79. Which of the following neuro-hormonal changes in heart failure will cause vasodilation?
- a) Increased sympathetic activity
 - b) Activation of the RAAS
 - c) Increase production of vasopressin
 - d) Nitric oxide production
 - e) Increased production of endothelia
80. Which of the following conditions is the most common cause of heart failure in Zambia?
- a) Paget disease
 - b) Schistosomiasis
 - c) Hypertension
 - d) Tuberculosis
 - e) Hypertrophic cardiomyopathy
81. Cardinal manifestations of heart failure include which of the following features?
- a) Dysphagia
 - b) Odynophagia
 - c) Dysuria

- d) Fatigue
- e) Fluid depletion

82. Which of the following features is attributable to low cardiac output in heart failure?
- a) Shortness of breath
 - b) Paroxysmal nocturnal dyspnea
 - c) Tender hepatomegaly
 - d) Easy fatigability
 - e) Pulmonary edema
83. Which of the following are known aggravating factors in heart failure?
- a) Dietary excess in sodium
 - b) Decreased fluid intake
 - c) Good compliance with medication
 - d) Reduced physical activity
 - e) Use of Angiotensin receptor blockers
84. In a patient with heart failure, increased sympathetic activity is associated with which of the following?
- a) Bradycardia
 - b) Reduced venous return
 - c) Reduced contractility
 - d) Increased oxygen consumption
 - e) Improved cardiac functioning
85. Which of the following best describes Heart failure?
- a) Failure to breathe adequately
 - b) Inability to attend to daily activities
 - c) Inability to pump enough blood to meet metabolic needs
 - d) Easy fatigability
 - e) Dysfunctional electrical heart conduction
86. Which of the following is not a cause of Heart failure?
- a) Inappropriate workload
 - b) Restricted filling
 - c) Myocytes loss
 - d) Atrial myxoma
 - e) Hypertension
87. Which of the following statements is true about compensatory mechanisms in heart failure?
- a) These mechanisms are dangerous in acute loss of cardiac output
 - b) There is increased renal blood flow in heart failure
 - c) Remodeling occurs in heart failure
 - d) There is ischemia affecting the lungs
 - e) There is a reduced respiratory rate
88. Which of the following statements is true about physical signs of heart failure?
- a) Finger clubbing occurs in all patients.
 - b) Rales at the apical(top) regions are a very significant finding in heart failure.
 - c) Apex beat is never displaced in heart failure patients
 - d) Raised Jugular Venous Pressure (JVP) is the most significant finding in right ventricular failure
 - e) The liver span is reduced in right-sided failure
89. Which of the following conditions can cause acute heart failure?
- a) Cardiomyopathy such as Dilated cardiomyopathy (DCM)
 - b) Large acute myocardial Infarction
 - c) Rheumatic heart disease
 - d) Hypertension

- e) Atrial fibrillation
90. Which of the following statements is true about right-sided heart failure?
- Patient experience severe shortness of breath
 - Basal crepitations are commonly found
 - Easy fatigability is a common finding
 - Left-sided heart failure is the most common cause
 - It presents without edema
91. Which of the following statements is true about left-sided heart failure?
- Pedal edema is the most important finding
 - Tender Liver is found in all patients with left-sided heart failure
 - Ascites are a common feature
 - Crepitations (Rales) at the lung bases are a very significant finding
 - Cardiac output is not impaired
92. Which of the following is the most important investigation in a patient with heart failure?
- Full blood count
 - Chest X-ray
 - Urinalysis
 - Echocardiogram
 - Electrocardiogram
93. Which of the following targets should be considered for the efficient treatment of heart failure?
- Edema, crepitation and Raised JVP
 - Ascites, jaundice and dyspnea
 - Crepitations, jaundice and edema
 - Preload, afterload and contractility
 - palpitations
94. In a patient diagnosed with heart failure, which of the following is the most important treatment response monitoring tool?
- An electrocardiogram is done every day of treatment
 - Echocardiogram every week of treatment
 - Full blood counts every day
 - Daily weight ensures that the patient loses 0.5 to 1 Kg per day of treatment.
 - Monitoring kidney function tests daily.
95. In the treatment of heart failure, the most important diuretic shown to reduce mortality in various studies is which of the following?
- Lasix
 - Hydrochlorothiazide
 - Bendrofluzide
 - Spironolactone
 - Metolazone
96. You examine a 50-year-old woman who complains of a long-standing history of joint pains on both sides and stiffness when moving the joints. The pain is on and off, and she usually uses diclofenac to abate the pain. Your examination reveals hand deformities of the 'swan-neck' and boutonniere type. More than 10 Joints are tender on palpation. CRP is elevated, and the rheumatoid factor is positive. What is the diagnosis?
- Osteoarthritis
 - Rheumatic fever
 - SLE
 - Rheumatoid arthritis
 - Gout
97. Which of the following are the intended benefits when spironolactone is prescribed in heart failure patients?

- a) It inhibits aldosterone
 - b) Improves survival in patients with chronic heart failure
 - c) It causes sodium depletion
 - d) It increases diuresis being a diuretic
 - e) Increases orthopnea
98. **In the treatment of chronic left-side heart failure, which of the following represents the most important pharmacological intervention?**
- a) Prescription of Lasix
 - b) Prescription of Digoxin
 - c) Prescription of ACE inhibitors
 - d) Prescription of aspirin
 - e) Prescription of Amiodarone
99. **Which of the following is the most pathognomic feature of infective endocarditis?**
- a) Presence of fever
 - b) Presence of vegetation on the valves
 - c) Presence of anemia
 - d) Presence of skin and nail lesions (Jane Way's lesions)
 - e) Presence of dyspnoea
100. **A patient admitted with a diagnosis of infective endocarditis should be treated for a minimum number of?**
- a) 5 days of oral antibiotics
 - b) 7 days of IV antibiotics
 - c) 14 days of oral antibiotics
 - d) 21 days of IV broad-spectrum antibiotics
 - e) 7 days of oral antibiotics

THE END

-The End-