

THE NATIONAL UNIVERSITY OF LESOTHO

FACULTY OF HEALTH SCIENCES

DEPARTMENT OF PHARMACY

PHA 515: CLINICAL PHARMACY II

SUPPLEMENTARY EXAMINATION

AUGUST 2023

100 MARKS

3 hours

Instructions:

- Answer all the questions
- The paper consists of two sections – Section A (40 marks) and Section B (60 marks)
- The paper consists of 5 pages including the cover page

SECTION A- short answer questions**40 marks**

1. A 37 year old male accompanied by mother admitted in male medical ward F on the 3rd April 2023 at 13:55 with admission diagnosis as acute confusion state. Chief complaints include headache, neck stiffness and confusion for the past 2 days. The patient is RVD reactive not on HAART and has no prior admissions and no known chronic illnesses.
 - a) Justify key investigations you would recommend, leading to confirmatory diagnosis (2 marks per investigation) **6 marks**
 - b) Discuss the empiric antibiotic treatment of this patient (2 marks per treatment) **4 marks**

2. A 60 year old male was admitted on the 16/04/2023 via A & E. He was admitted complaining of fatigue, vomiting every time he eat and loss of appetite. He is a known HTN (2010) and DM (2015) patient which were poorly controlled. He stopped smoking and drinking alcohol a month ago due to illness. Laboratory results revealed K⁺ 7.3mmol/l, Na⁺ 133mmol/l, SCr 1839mcmo/l, 107.6mmol/l, calculated eGFR 1.28ml/min
 - a) Provide a provisional diagnosis for this patient **1 mark**
 - b) Discuss the most appropriate management -both drug and non-drug management on admission. Provide the rationale behind your answer **4 marks**

3. A 25 year old male was admitted into ICU on the 15/04/23 through A & E and later that day was transferred into ward F. The patient had just arrived from business trip in Mpumalanga. The chief complaints were vomiting for 3 day and diarrhea for 2 days, shivering, dizziness, generalized body weakness and abdominal pain, chest pain. According to a patient he was well until 3 days prior to presentation. He started vomiting 3 episodes per day. He vomits everything he eats and sometimes has green/yellow fluids. He sometimes has dark colored urine. A provisional diagnosis of malaria was made.

- a) What key investigations would you recommend against the diagnosis made, so as to confirm presence of malaria? Justify your answer. (2 marks per investigation) **4 marks**
- b) Malaria is not endemic in Lesotho but due to migration, symptomatic malaria cases are encountered in health settings. Discuss antimalarial treatment you would recommend to this patient, in line with *P. falciparum*. (2 marks per treatment) **6 marks**
4. A 38 year old female patient was admitted at the hospital complaining of difficulty breathing for a month that worsened at night, cough with whitish and greenish sputum lasting for two months. The patient was also complaining of chest pain, night sweats, drastic weight loss and poor appetite. Sputum genexpert were found to be negative.
- a) What further tests would you recommend to rule out or confirm some possibilities? **5 marks**
5. A 54 year known CCF, DM and HTN male, on Tx, was admitted on the 2nd March and discharged on the 4th March 2023 due to Decompensated CCF. He was then re-admitted on the 8th March 2023 via A&E for the same condition. HTN & DM well controlled. On admission he had Difficulty in breathing, Cough and Leg swelling. Furosemide 40mg p.o od, Spironolactone 25mg p.o od, Enalapril 5mg p.o od, ASA 150mg p.o o.d, Thiamine 100mg p.o od, Metoclopramide 10mg p.o od, Metformin 1g p.o bd and Gliclazide 80mg p.o bd. On Admission, Ceftriaxone 1g IV stat and Simvastatin 20mg p.o nocte were added.
- a) Identify (and briefly discuss the nature of) all potential drug-interactions, drug-disease interaction (if there are any) and provide any intervention you will make **8 marks**
- b) Why were the two drugs added? **2 marks**

SECTION B - long answer questions**60 MARKS****QUESTION ONE****15 marks**

A 52 years female admitted to ward E on the 06th of March 2023 with a day history of not talking, and on & off vomiting for the past three days. The patient was previously admitted twice at Scott hospital; the first time she was admitted with the complaints of persistent watery diarrhoea and vomiting, skin rash, swollen groins and oral thrush, and she was newly diagnosed RVD positive. The second time, she was admitted with PTB and anaemia.

She is currently on

- TDF/3TC/DTG 300mg/300mg/50mg PO OD
- DTG 50mg PO OD
- Fluconazole 200mg PO OD
- Cotrimoxazole 960mg PO OD
- RHZE 3tabs
- Vitamin B6 25mg
- Folic acid 10mg PO OD
- FeSO₄ 200mg PO OD

Discuss the drug treatment given to this patient in terms of HAART/ATT interactions, prevention of opportunistic infections and prevention drug induced adverse effects

QUESTION TWO**15 marks**

A 50 year old male referred from Makoanyane Military Hospital through A&E to QMMH (ICU) on the 8/04/23, chief complaint of chest pain for a day. He was referred with acute onset, sudden central crushing chest pain poorly responding to sublingual Nitroglycerine 0.4mg PO stat and nifedipine 10mg PO stat at Makoanyane).He is a known HTN long standing, defaulted R_x for 1 week. In ICU, CPR was initiated per ACLS protocol, 1 shock delivered, ROSC achieved after 1 cycle of CPR. Post CPR care included Oxygen therapy, pain management, lipid lowering agents and anticoagulants.

Discuss this post CPR care (include regimens) recommended for this patient.

QUESTION THREE

15 marks

A 61 year old male was admitted on 08 April 2023 via Accident and emergency department complaining of abdominal pain 2/7, Vomiting 2/7. Patient has been previously well, until symptoms arise which are severe abdominal pain (8/10) for 2 days and accompanied by vomiting 5 episodes. RVD reactive on TDF/3TC/DTG 300mg/300mg/50mg since 2019.

Initiate this patient on pain management on arrival, prior to exploratory laparotomy, during the operation, post operatively and wean-off the patient from analgesics.

QUESTION FOUR

15 marks

A 14-year-old female patient was admitted into A&E on 13/04/23 at 10.00pm, went to the operational theater straight from there and was then admitted to surgical ward post-operation. On admission, the chief complaints were Severe LAP, vomiting, no diarrhea, no fever, dysuria++. Urinalysis revealed blood+++ , bacteria +++ , protein +++++. An exploratory laparotomy was performed and acute abdominal pylorus perforation was diagnosed.

Discuss the general anaesthesia protocol for this surgical procedure, include examples of drugs (dose, route of administration) and their rational use in line with phases of general anaesthesia.