

UNIVERSITY OF JAFFNA, SRI LANKA
BACHELOR OF PHARMACY
FOURTH YEAR FIRST SEMESTER EXAMINATION in BPharm Honours – 2022
CLINICAL PHARMACY – PHACL 4134

Date: 09.03.2024

Time: 03 hours

ANSWER ALL SIX QUESTIONS.

1.
 - 1.1. Define the following terms.
 - 1.1.1. Rational medication use. (10 Marks)
 - 1.1.2. Medication reconciliation. (10 Marks)
 - 1.2. List five (05) activities carried out by clinical pharmacists. (15 Marks)
 - 1.3. List the steps involved in obtaining a best possible medication history. (15 Marks)
 - 1.4. Outline the “Brown bag approach” in obtaining medication history from the patients. (20 Marks)
 - 1.5. Briefly describe the importance of taking a best possible medication history. (30 Marks)

2.
 - 2.1. Define the following terms.
 - 2.1.1 Adverse drug reactions (ADRs) (10 Marks)
 - 2.1.2. Causality assessment (10 Marks)
 - 2.2. List three (03) factors that need to be considered in performing causality assessment. (15 Marks)
 - 2.3. Briefly explain prescribing cascade with a suitable example. (20 Marks)
 - 2.4. Briefly describe the role of a clinical pharmacist in the following aspects.
 - 2.4.1 Management of ADR (15 Marks)
 - 2.4.2 Medication use evaluation (15 Marks)
 - 2.4.3 Prevention of substance abuse (15 Marks)

3. Mrs. MN is a 65-year-old patient with a history of hypertension for the past 5 years. She has been admitted to the hospital due to uncontrolled hypertension and has been newly diagnosed with type-2 diabetes mellitus.
She has negative belief towards the effect of medications and make dose reductions or skips taking them frequently. She takes her medications only when her symptoms get worsen.

Her regular medications include:

- Hydrochlorothiazide 25 mg mane
- Metoprolol 50 mg mane

During discharge, it was decided to continue her regular medications and add Metformin 500 mg BD along with attempts to improve her medication adherence.

- 3.1. What is meant by medication adherence? (10 Marks)
 - 3.2. Identify the different forms of medication non-adherence observed in Mrs. MN. (15 Marks)
 - 3.3. Comment on the suitability of the current antihypertensives in Mrs. MN with regard to her new condition. (20 Marks)
 - 3.4. State the counselling points that needs to be provided when dispensing metformin to Mrs. MN. (25 Marks)
 - 3.5. Discuss the strategies that can be used to improve medication adherence of Mrs. MN during discharge. (30 Marks)
4. Mrs. CK is a 65-year-old patient who was admitted to hospital with sudden onset chest pain. Her body weight was 57 kg.

Past Medical History:

- Chronic kidney disease (Stage III)

Presenting complaints:

- Chest pain and tightness (radiating to arm and not relieved by rest)
- Shortness of breath, sweating and tiredness

Laboratory Findings:

- Her 12-lead ECG showed ST segment elevation
- Troponin I – 6.8 ng/mL
- Blood pressure – 150/90 mm Hg
- Serum Potassium levels – 4.5 mmol/L
- Serum creatinine levels – 100 µmol/L

Routine medications:

- Losartan 25 mg BD
- Furosemide 80 mg BD
- Calcium carbonate 1 tablet TDS
- Ferrous sulphate 1 tablet TDS
- Vitamin C 1 tablet TDS
- Alfacalcidol 0.25 µg Nocte

- 4.1 Review Mrs. CK's routine medication list and state the reason why each of this medication has been prescribed. (25 Marks)
- 4.2 Calculate the estimated glomerular filtration rate (in mg/min/1.73 m²) of Mrs. CK using Cockcroft & Gault formula. (10 Marks)
- 4.3 What condition does Mrs. CK's presenting symptoms and laboratory investigations suggest? (10 Marks)
- 4.4 The following medications were prescribed to Mrs. CK on admission:
- Aspirin 150 mg Nocte
 - Clopidogrel 150 mg Nocte
 - SC Enoxaparin 40 mg BD
 - Atorvastatin 20 mg Nocte
 - IV Morphine 2.5 mg Stat
 - Salbutamol MDI 2 puffs 6 hourly
- 4.4.1 Review Mrs. CK's current medication list and state the reason why each of this medication has been prescribed. (25 Marks)
- 4.4.2 Provide suggestions to resolve any drug related problem(s) identified in Mrs. CK. (30 Marks)
5. Mr. PC, a 70-year-old, is diagnosed with the terminal stage prostate cancer. His physician has decided to start palliative care simultaneously with his treatment.
- 5.1 What is palliative care? (10 Marks)
- 5.2 Outline the bow and tie palliative care enhanced model. (20 Marks)
- 5.3 Compare and contrast between palliative care and hospice care. (25 Marks)
- 5.4 Briefly describe the importance of providing palliative care to Mr. PC. (30 Marks)
- 5.5 List three (03) challenges in providing palliative care to Mr. PC. (15 Marks)
6. 6.1. What is Evidence Based Medicine (EBM)? (10 Marks)
- 6.2 List the major components of EBM. (15 Marks)
- 6.3 List the types of drug information resources providing one (01) example for each. (15 Marks)
- 6.4 What is the importance of following a systematic approach for answering drug information enquiries? (20 Marks)
- 6.5 Briefly describe the steps in EBM. (40 Marks)