



Faculty of Medicine University of Ruhuna
Third Examination for Medical Degrees (Part II) July/August 2018
Pharmacology Paper I

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Wednesday 1st August 2018

Answer all 05 questions

(9.00 a.m. - 11.30 a.m.) 2 ½ hours

Answer each part in a separate answer book

Part A

- Describe the pharmacological basis of using
- 1.1. propylthiouracil in hyperthyroidism. (25 marks)
 - 1.2. bisoprolol in cardiac failure. (25 marks)
 - 1.3. Misoprostol in acute peptic ulcer disease. (25 marks)
 - 1.4. Vasopressin in esophageal varices. (25 marks)
1. A 65 year old male presented to the ETU with severe shortness of breath, chest pain for two hours. His urine output is very low. On examination patient is febrile, semiconscious, heart rate around 150 /minutes and pulse volume was diminished and weak, BP was 60/40 mmHg. This condition was diagnosed as cardiogenic shock after acute myocarditis.
- 2.1.1. What is the specific drug you would like to use to manage cardiogenic shock in this patient? (10marks)
 - 2.1.2. State the other drugs which can be used to manage cardiogenic shock. (10 marks)
 - 2.1.3. Justify your selection of the drug of choice in 2.1.1 indicating its dose and therapeutic effects. (20 marks)
2. Compare therapeutic effects of
- 2.2.1. prazosin and tamzulosin. (20 marks)
 - 2.2.2. amioderone and digoxin. (20 marks)
 - 2.2.3. propranolol and labetalol. (20 marks)

Part B

- 3.
- 3.1. List five (5) indications of benzodiazepines. (10 marks)
- 3.2. Describe the mechanism of action of the benzodiazepines. (30 marks)
- 3.3. Describe the pharmacological basis of using clozapine in schizophrenia. (30 marks)
- 3.4. Name five (5) antidepressant drugs. (10 marks)
- 3.5. Write the differences between tricyclic antidepressants and selective serotonin re-uptake inhibitors. (20 marks)

Ans
Ans

1.

1.1.

Part C

4. A 52 year old truck driver who was a heavy smoker got admitted to the emergency unit with a history of severe central chest pain associated with sweating for 6 hrs duration. He has not experienced a similar type of chest pain in the past. On examination, his BP was 130/80mmHg, heart rate 88 beats per minute. Lung bases were clear. ECG showed ST depressions in anterior leads. Cardiac troponin was not elevated.
- 4.1. List four (4) drugs from different classes that are used in the acute management of this patient. (20 marks)
- 4.2. Describe briefly the pharmacological basis of using the drugs mentioned in 4.1 for this patient. (60 marks)
- 4.3. If this patient had ST elevation in the ECG on admission, what is the drug you would likely to use in the acute management? (10 marks)
- 4.4. If this patient had BP of 170/110mmHg, what is the drug you would likely to use in the acute management? (10 marks)

1.2.

1.3.

2.

2.1.

2

2.2.

2.

2.

Part D

- 5.
- 5.1.
- 5.1.1. List the aims of randomized controlled trials. (10 marks)
- 5.1.2. Explain the importance of using placebo in a randomized controlled trial. (20 marks)
- 5.2.
- 5.2.1. Define Adverse Drug Reaction (ADR). (15 marks)
- 5.2.2. Describe the aims of pharmacovigilance. (25 marks)
- 5.3. Explain the following terms with examples
- 5.3.1. Tolerance. (15 marks)
- 5.3.2. Therapeutic index. (15 marks)

3.1.

3.1

3.1

2.

3.2.