

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

SELECTION EXAMINATION FOR ENROLMENT TO THE IN-SERVICE
TRAINING PROGRAMME IN POSTGRADUATE DIPLOMA IN
TRANSFUSION MEDICINE – OCTOBER 2023

Date :- 10th October 2023

Time:- 1.00 p.m. - 4.00 p.m.

Answer all six (06) questions.

Answer each question in a separate book.

1.

- 1.1. Briefly describe how recipient's immune system generate an immune response against transfused red blood cells. (40 marks)
- 1.2. List non haemolytic immune mediated transfusion reactions. (30 marks)
- 1.3. Outline how acute haemolysis differ from delayed haemolysis. (30 marks)

2. A 40-year-old male awaiting a routine thyroidectomy was found to have a Hb of 7.9 g/dL and was transfused one unit of red cell concentrate. The patient developed dyspnoea towards the end of the transfusion.

- 2.1. Briefly discuss the immediate management of this patient. (40 marks)
- 2.2. List four (04) differential diagnoses. (10 marks)
- 2.3. Outline the additional information you require to arrive at a definitive diagnosis. (35 marks)
- 2.4. List three (03) alternative pre-operative management options available to avoid transfusion in this patient. (15 marks)

3. A 32-year-old healthy male donor wants to donate blood at a hospital blood bank. He inquires whether this unit of blood could be allocated to his wife who is awaiting elective caesarean section in 5 days at the same hospital.

- 3.1. State whether you accept this request. Give reasons. (30 marks)
- 3.2. Briefly describe the importance of pre-donation blood donor counselling. (30 marks)
- 3.3. Outline the important post donation advice you would provide. (40 marks)

4. A 53-year-old female was admitted to the gynaecology ward for elective total abdominal hysterectomy. One unit of blood was requested for the surgery.
- 4.1. List important information you would mention in the request form for red cell products. (20 marks)
 - 4.2. Explain the steps you would take as the ward medical officer before administration of a blood component. (40 marks)
 - 4.3. Outline the importance of monitoring and documentation of a transfusion episode. (40 marks)
- 5.
- 5.1. Define the term "Massive blood transfusion". (10 marks)
 - 5.2. List five (05) clinical scenarios where a massive blood loss can occur. (10 marks)
 - 5.3. Outline the principles in the management of massive blood loss. (30 marks)
 - 5.4. State what is meant by the massive transfusion protocol. (20 marks)
 - 5.5. Briefly discuss the limitations of the massive transfusion protocol. (30 marks)
6. A 5-month-old boy presented with severe pallor and growth retardation. No other physical abnormalities or bleeding manifestations were detected.
- Full blood count:
- | | | |
|------------------------|----------|---------------|
| Hb | 5.0 g/dL | (11.0 - 16.0) |
| HCT | 15.4 % | (33 - 45) |
| MCV | 61.2 fl | (80 - 100) |
| MCH | 18.1 pg | (27- 34) |
| MCHC | 27 g/dL | (32 - 36) |
| WBC and platelet count | Normal | |
| PT, APTT | Normal | |
- 6.1. State the most likely diagnosis. (10 marks)
 - 6.2. Write the important information you need to know in the family history. (10 marks)
 - 6.3. Write two (02) other haematological investigations required to diagnose the above condition and the expected results. (20 marks)
 - 6.4. List the investigations you would request from the blood bank before transfusion. (20 marks)
 - 6.5. Briefly describe the management plan for this patient. (40 marks)