

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (ORTHOPAEDIC SURGERY) EXAMINATION - JULY/AUGUST 2025

Date: 28th July 2025

Time: 2.00 p.m. - 4.00 p.m.

PAPER I

Answer all four (04) questions.

Answer each question in a separate book.

1. A 65-year-old man is seen by you 3 hours after a road traffic accident. He is in pain but clinically stable after the primary survey. His extrication from the vehicle had been prolonged due to the entrapment of his right leg under the dashboard. There is clinical and radiological evidence of a closed right proximal tibial shaft fracture.

1.1. State the life and limb threatening complications you anticipate in this man (10%)

1.2. Outline factors related to the scenario and clinical features that will suggest the presence of the complications stated in 1.1. (40%)

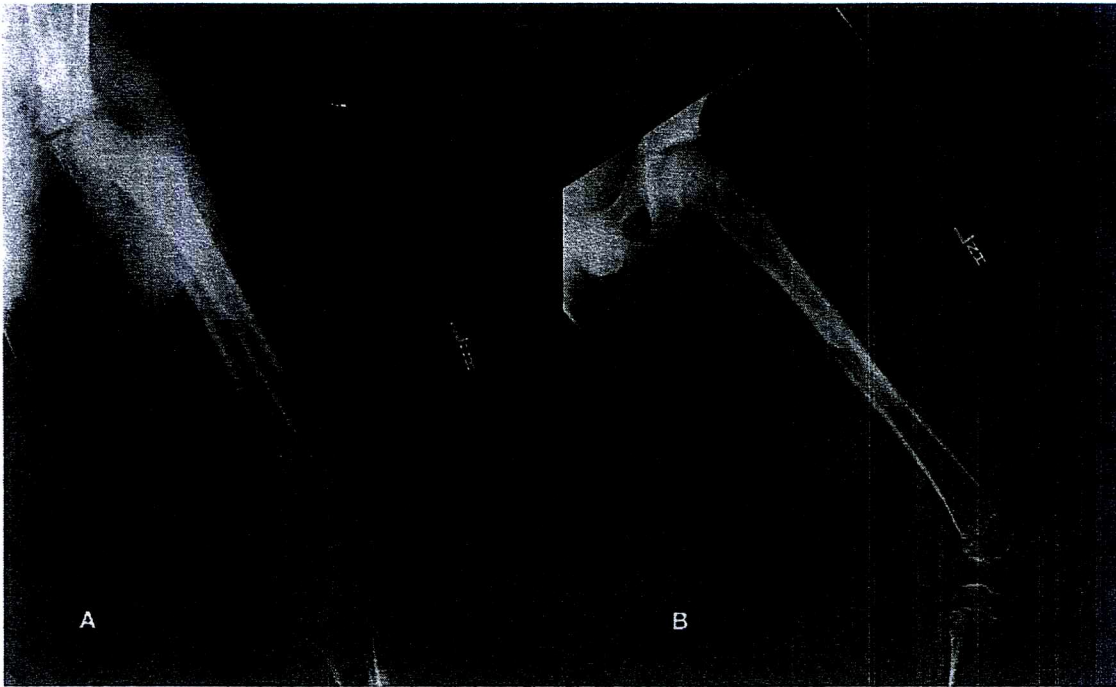
He subsequently undergoes an above knee amputation. Twelve hours after amputation he develops oliguria.

1.3. Outline your assessment and management of his oliguria. (50%)

Contd...../2-

2. A 9-year-old girl weighing 32 kg after falling from a staircase presented with pain and swelling of her left thigh. She had sustained an isolated closed fracture of the left femur. She is haemodynamically stable with no distal neuro-vascular deficit.

Following are her X-rays.

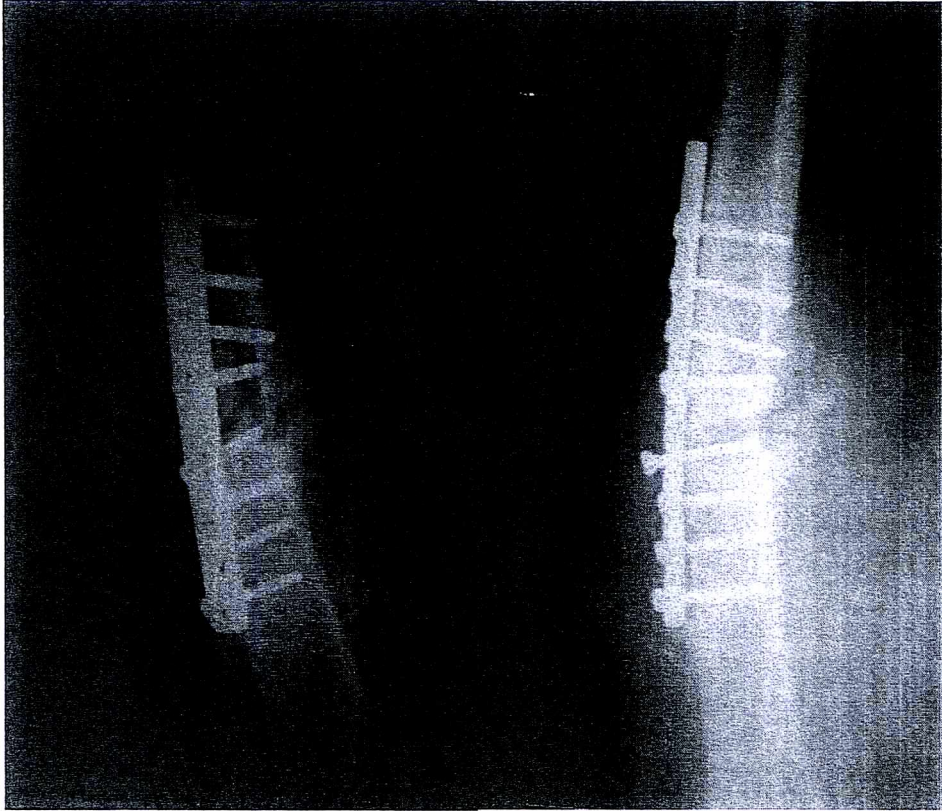


- 2.1. What are the management options with justification for each option? (15%)
- 2.2. Outline the management of this girl using titanium elastic nail implants, including limitations, implant selection, biomechanics and operative technique (70%)
- 2.3. List five (05) possible complications of your treatment and how they could be prevented. (15%)

Contd...../3-

3. A 40-year-old man sustained a comminuted mid-shaft femoral fracture in a motorcycle accident and underwent open reduction internal fixation (ORIF) with a dynamic compression plate (DCP). Six months postoperatively, he presents with persistent thigh pain and inability to bear weight.

The X-rays (AP/lateral views) are given below:



- 3.1. Describe the radiological findings. (20%)
- 3.2. List five (05) potential causes for this scenario. (20%)
- 3.3. Outline your stepwise management plan for this patient, including investigations and surgical strategies. (40%)
- 3.4. How would you counsel this patient regarding prognosis and potential complications of revision surgery? (20%)

4. A 68-year-old woman who underwent right total knee replacement (TKR) 3 weeks ago, presented with a 2 day history of fever, pain and swelling around the right knee. She was unable to wightbear and walk. Her blood pressure was 110/70 mmHg, and the pulse rate was 92 beats/minute.

Blood investigations revealed the following:

White cell count	17 x10 ³ /μL	(4 - 11)
ESR	60 mm 1 st hour	
CRP	248 mg/dL	

- 4.1. Discuss the clinical diagnosis and immediate management of the above patient. (30%)
- 4.2. The above patient subsequently presented with two more similar episodes within the next six months. She has no comorbidities and is fit for surgery. Outline the most suitable management plan in detail at this stage. (60%)
- 4.3. What are the alternate management options if the treatment suggested above (4.2) has failed? (10%)