

**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

**[DM 0124]**

**JANUARY 2024**

**Sub. Code :1489**

**D.M. – CRITICAL CARE MEDICINE**

**PAPER IV – RECENT ADVANCES, ETHICS AND COMMUNICATION  
ADMINISTRATION AND LEGAL ASPECTS**

***Q.P. Code: 161489***

**Time: Three Hours**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 15 = 30)**

1. Discuss the global markers of tissue perfusion and their applications and limitations in the critically ill.
2. In the setting of trauma, discuss the general management of the exsanguinating patient in shock. Discuss the non-surgical options for the management of bleeding following pelvic trauma.

**II. Write short notes on**

**(10 x 7 = 70)**

1. Persistent inflammation, Immunosuppression, and catabolism syndrome (PICS).
2. Frailty and post ICU syndrome.
3. Discuss the role of conservative fluid administration and dereuscitation in critical illness.
4. Critically evaluate the timing of elective tracheostomy in ICU patients.
5. Three patients with diarrhoea, positive for *Clostridium difficile*, have been identified in your unit. Describe your approach to specific patient treatment and infection control and prevention strategies for this problem. Write a brief note on fecal microbial transplantation.
6. Discuss the mechanism of action, pharmacokinetics, and role of dexmedetomidine for sedation in mechanically ventilated patients.
7. Critically appraise the role of steroids for severe pneumonia.
8. Your intensive care unit has had a noticeable increase in the rate of Ventilator-Associated Pneumonia (VAP). Several cases involve multi-resistant organisms. Outline the strategies you would recommend implementing in your unit to reduce the incidence of VAP. Explain the rationale for each recommended quality improvement strategy in your answer.
9. What is stress index? How is this measured? What is its utility and how does it guide mechanical ventilation?
10. Critically evaluate the use of adjunctive corticosteroid treatment in the management of septic shock.

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