(LN 484) AUGUST 2018 **Sub. Code: 1484**

D.M. – CRITICAL CARE MEDICINE

Paper IV – RECENT ADVANCES IN CRITICAL CARE MEDICINE INCLUDING MONITORING, INSTRUMENTATION AND IMAGING

Q.P.Code: 161484

Time: Three Hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 15 = 30)**

1. List the diagnostic methods you would employ in dealing with a patient with gastro-intestinal bleed needing significant blood transfusion? Discuss Rotational thromboelastogram (ROTEM) with graphs in various clinical conditions. How would you use it in clinical your practice?
2. How would you use the available literature to treat a profoundly hypoxic patient in your ICU?

II. Write notes on: **(10 x 7 = 70)**

1. What is the role of granulocyte infusions in a critically ill patient? What are the complications of granulocyte transfusion?
2. Discuss briefly the principles of pulseoximetry and capnography. Enumerate the factors, which could affect these monitors?
3. Discuss extracorporeal carbon-dioxide removal and its current role in critical care?
4. Discuss the current evidence for the use of corticosteroids in sepsis quoting most recent trials.
5. Discuss the indications of muscle relaxants and the current evidence in critically ill patients.
6. Write briefly about the current evidence an extracorporeal haemadsorption techniques in sepsis.
7. What is the recent classification for acute kidney in a critically ill patient? What are the differences between the Acute Kidney Injury Network criteria and the Kidney Disease: Improving Global outcomes criteria? In your opinion, which of these guidelines is better applied in the ICU?
8. What is your approach on transfusion of blood in a critically ill patient? Write briefly on the use of fresh blood in critically ill patients.
9. How would you use the science of pharmacokinetics and pharmacodynamics to deal with extremely drug resistant pneumonia in a ventilated critically ill patient?
10. Write a critique on Sepsis 3.

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Time: Three Hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 15 = 30)**

1. Discuss whether Sepsis 3 guidelines are relevant in India and how it will impact critical care delivery in India?

2. Describe how you would execute the wishes of a patient who has an advanced directive (Living will) and is now admitted into the ICU.

II. Write notes on: **(10 x 7 = 70)**

1. Describe the evidence base for extracorporeal gas exchange in the ICU.
2. Describe the rationale for the use of beta blockers in shock.
3. Discuss a rational approach to manage antibiotic resistance.
4. Discuss utility of molecular diagnostics in infections in ICU patients.
5. Describe current evidence for use of steroids in shock.
6. Describe evidence in support of recruitment maneuver's in ICU.
7. Discuss rationale for the use of albumin in surgical patients.
8. Describe situations where CT scan would be superior to MRI in ICU patients.
9. Discuss the role of continuous monitoring of blood sugar in ICU.
10. Discuss the evidence base of trans esophageal echocardiography in ICU patients.

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(LQ 484) FEBRUARY 2020 **Sub. Code: 1484**

D.M. – CRITICAL CARE MEDICINE

Paper IV – RECENT ADVANCES IN CRITICAL CARE MEDICINE INCLUDING MONITORING, INSTRUMENTATION AND IMAGING

Q.P. Code: 161484

Time: Three Hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 15 = 30)**

1. Enumerate the strategies that you would consider in a patient with refractory shock? Describe the role of VA-ECMO in the management of shock.

2. Describe the role of lung ultrasound in the setting of critical illness.

II. Write notes on: **(10 x 7 = 70)**

1. Describe in brief the methods used to assess renal injury in critically ill.
2. Thromboelastogram.
3. Antibiotic therapy in multi-drug resistant gram negative sepsis.
4. Dexmedetomidine.
5. Subglottic suctioning.
6. Lactic acidosis.
7. Oxygen delivery systems.
8. FAST HUGS BID.
9. Root cause analysis.
10. Intra-aortic balloon pump.

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