

Write short notes on:

1. Diagnostic criteria for Ventilator associated pneumonia, Central catheter associated blood stream infection and Catheter associated UTI. Describe measures to prevent each of these. 10
2. a) Role of Ultrasound in PICU for assessment of lung conditions. 5+5
b) Describe features of tumour lysis syndrome and its treatment.
3. Write briefly how ventilation perfusion relationship is affected in various lung diseases and measures to improve V/Q mismatch. 10
4. An 8-year-old boy who fell from roof while flying kite. He is unconscious (GCS 6) with unequal pupils and having seizures. Describe briefly process of transport of this boy from peripheral health centre to a tertiary care centre 40 Km away. 10
5. Ventilator settings in a 6-month old infant with cardiogenic shock due to myocarditis. SpO₂ on O₂ by non rebreathing mask is 78%. 10
6. a) Pediatric early warning score and its use in sick children. 5+5
b) Management of a child with AKI and serum potassium of 6.5 mEq/L.
7. Describe briefly weaning from ventilator. Define extubation failure in PICU and its causes. Write on prevention and management of extubation failure. 5+2.5+2.5
8. a) Prone positioning in ARDS (method and results). 5+5
b) Auto PEEP (measurement and effects).
9. Describe principles of ECMO and criteria for use of ECMO in a patient in PICU. 6+4
10. a) Kaplan-Meyer survival analysis. 5+5
b) Heated humidifier versus heat and moisture exchanger.