Rajiv Gandhi University of Health Sciences, Karnataka

Fellowship Examination – 17-Feb-2023

Time: Three Hours **Max. Marks: 100 Marks**

PAEDIATRIC INTENSIVE CARE - PAPER – II

QP Code: 4144

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary.

Answer All The Questions **10 X 10 = 100 Marks**

1. How can the 'central tendency' of data be measured. How is the 'degree of dispersion' is described.

2. Outline the causes, consequences and management of intrinsic PEEP.

3. Outline the indications for high frequency oscillation in intensive care and the mechanism of gas exchange when using high frequency oscillation.

4. Critically evaluate the role of Procalcitonin (PCT) as a biomarker in the diagnosis and management of sepsis.

5. Outline the principles involved in the care of the organ donor.

6. Outline the aetiology, clinical manifestations and possible preventive measures for nosocomial infections in intensive care.

7. The following questions relate to separation from invasive mechanical ventilation.
   a. With reference to a spontaneous breathing trial (SBT).
      i. What is an SBT?
      ii. Over what duration should it occur?
      iii. Why would you perform an SBT in a mechanically ventilated patient?
      iv. List three methods of performing an SBT
   b. What is the rapid shallow breathing index (RSBI) and how should it ideally be measured?
   c. Briefly outline the role of prophylactic (planned) non-invasive ventilation (NIV) immediately following extubation. Explain how this differs from therapeutically applied (rescue) NIV used in the same context.

8. What are the indications for intracranial pressure monitoring in traumatic brain injury? What are the limitations of intracranial pressure monitoring?

9. Outline ICU management of Dengue.

10. With regard to the EEG :
    a. List three indications for the use of the EEG in a critically ill patient
    b. What are the clinical implications of non-convulsive status epilepticus (NCSE) in the critically ill patient?
    c. List two EEG patterns that may be seen after hypoxic brain injury thought to be associated with a poor prognosis.

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