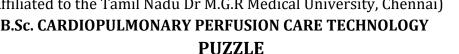
#### SNS COLLEGE OF ALLIED HEALTH SCIENCE, COIMBATORE -35

(Affiliated to the Tamil Nadu Dr M.G.R Medical University, Chennai)





# Subject: 1422-Cardio Pulmonary Bypass and Perfusion Technology **UNIT - II - PATIENT MONITORING DURING BYPASS**

### Reasoning Puzzle: The Bypass Monitoring Dilemma

### **Instructions**

- Read the scenario and clues carefully.
- There are **five monitoring mistakes or oversights** during cardiopulmonary bypass (CPB) in the case below.
- Your task: **Identify and explain each mistake or oversight**, referencing correct monitoring protocols.
- For each, briefly justify why it is critical for patient safety and optimal outcomes.
- Structure your answer as:
  - 1. Mistake/Oversight 2. Why it is critical 3. What should be done instead

### **Puzzle Scenario**

A 56-year-old woman with mitral stenosis, pulmonary hypertension, and diabetes is undergoing elective mitral valve repair under CPB. During bypass, the following monitoring steps are recorded:

- 1. Arterial blood pressure is monitored continuously.
- 2. Central venous pressure (CVP) is checked only at the start of bypass.
- 3. Perfusion flow is set at 1.6 L/min/m<sup>2</sup> throughout, regardless of temperature changes.
- 4. Urine output is measured at the end of bypass only.
- 5. Temperature is monitored using a single rectal probe.
- 6. Arterial blood gases (ABG) are checked once, 30 minutes after starting bypass.
- 7. ECG is monitored, but ST segment changes are not documented.
- 8. No record of coagulation status (ACT) during bypass.
- 9. No neurological monitoring is performed.
- 10. Reservoir volume and circuit pressures are checked every 30 minutes.

## Rubric (10 Marks)

Criteria	Marks	Description
Identification (5)	5	Find all five key monitoring mistakes/oversights
Explanation (3)	3	Explain why each is critical for safe and effective monitoring
Correction (2)	2	State what should be done instead for each issue