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**DEPARTMENT OF CARDIOPULMONARY PERFUSION CARE**  
**TECHNOLOGY**

**TOPIC : WATER LEAK INTO OXYGENATOR**



# WATER LEAK INTO OXYGENATOR



- Water Leak into oxygenator is a serious issue that can lead to **hypoxia** and **hemodynamic instability**.
- **CAUSES**
  - Manufacturing defects in heat exchanger
- **DIAGNOSIS**
  1. Sudden rise in venous reservoir level without addition of fluid
  2. Sudden hemodilution



3. Haematuria → blood cell damage
4. Saturation drop ( over hemodilution)
5. Hb↓ Po<sub>2</sub> ↓ Hct ↓
6. Sudden increase in urine output
7. Hemoglobinuriya



## STEP TO BE TAKEN:



- Stop the pump immediately to prevent further entry of water into oxygenator and patients circulation
- Check for source of water leak
- Isolated the part of heat exchanger
- Replace the oxygenator which is contaminated by unsterile water .
- Administer 100% of O<sub>2</sub> for a short time



- Monitor patient vital and provide supportive care it includes :
  - volume resistation ( connect hemofilter)
  - organ perfusion
  - Inotropes
  - vasopressors to enhance Bp
  - Mannitol
  - Antibiotic
  - ABG



# PREVENTION



- Check for the hemotherm and H<sub>2</sub>O line before adding prime to the circuit to monitor water line
- Check for any water leak via gas inlet and outlet



**THANK YOU**

