



Ventilator Emergencies

History

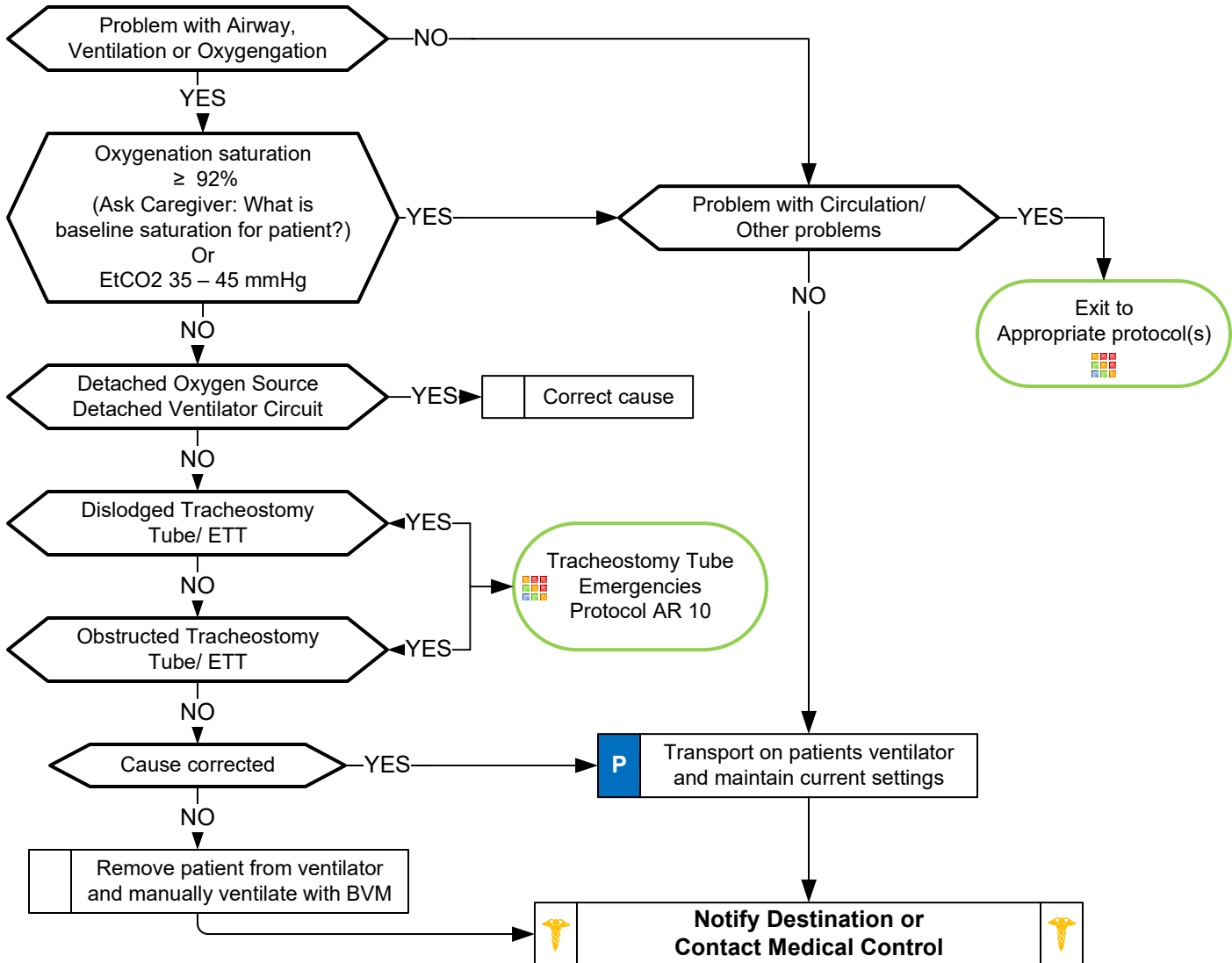
- Birth defect (tracheal atresia, tracheomalacia, craniofacial abnormalities)
- Surgical complications (damage to phrenic nerve)
- Trauma (post-traumatic brain or spinal cord injury)
- Medical condition (bronchopulmonary dysplasia, muscular dystrophy)

Signs and Symptoms

- Transport requiring maintenance of a mechanical ventilator
- Power or equipment failure at residence

Differential

- Disruption of oxygen source
- Dislodged or obstructed tracheostomy tube
- Detached or disrupted ventilator circuit
- Cardiac arrest
- Increased oxygen requirement / demand
- Ventilator failure



Pearls

- **Always talk to family/ caregivers as they have specific knowledge and skills.**
- **If using the patient's ventilator bring caregiver knowledgeable in ventilator operation during transport.**
- **Take patient's ventilator to hospital even if not functioning properly.**
- Always use patient's equipment if available and functioning properly.
- Continuous pulse oximetry and End Tidal CO₂ monitoring must be utilized during assessment and transport.
- Unable to correct ventilator problem: Remove patient from ventilator and manually ventilate using BVM.
- Typical alarms:
 - Low Pressure/ Apnea: Loose or disconnected circuit, leak in circuit or around tracheostomy site.
 - Low Power: Internal battery depleted.
 - High Pressure: Plugged/ obstructed airway or circuit.
- **DOPE: Displaced tracheostomy tube/ ETT, Obstructed tracheostomy tube/ ETT, Pneumothorax and Equipment failure.**