

Ventilator Emergencies



History

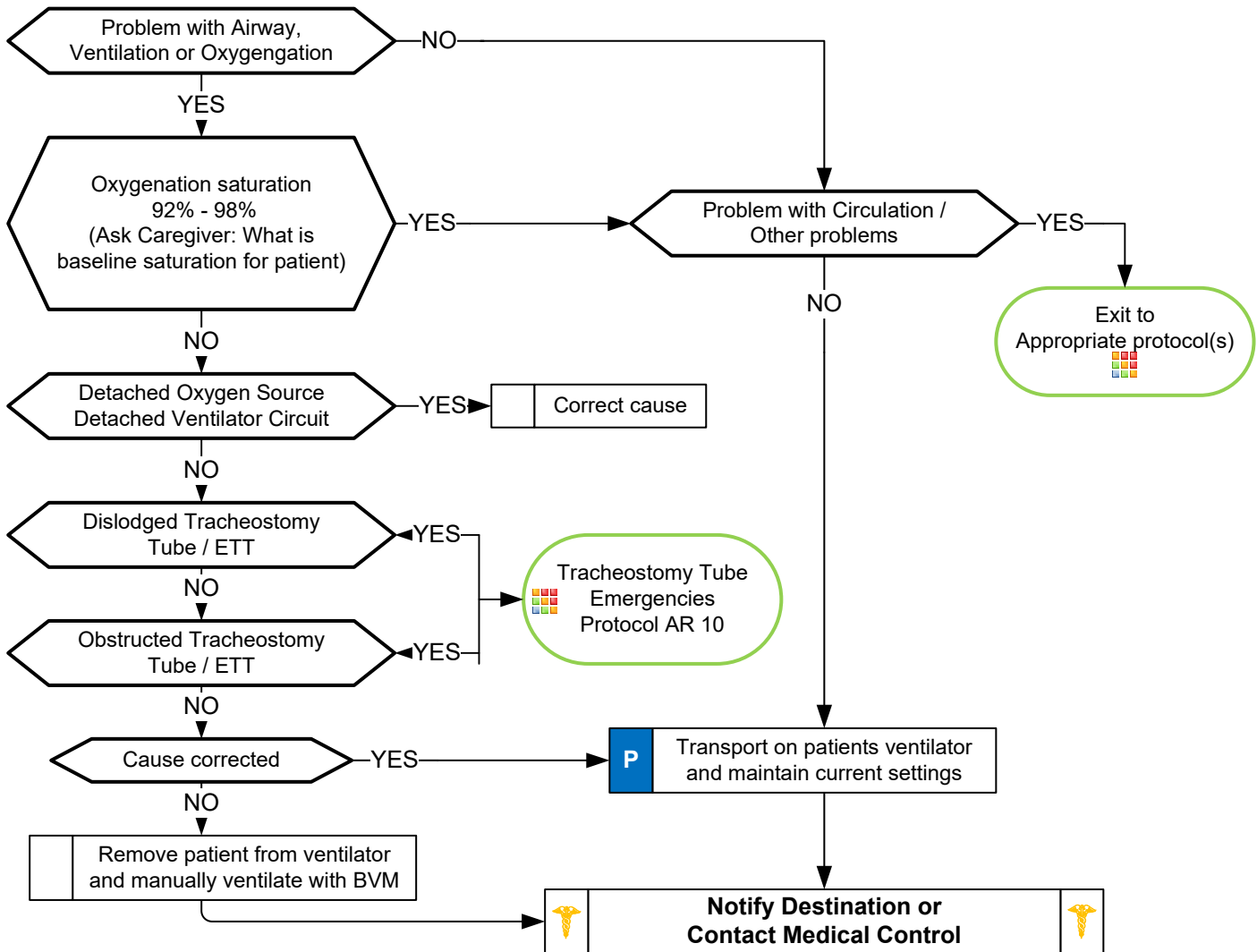
- * Birth defect (tracheal atresia, tracheomalacia, craniofacial abnormalities)
- * Surgical complications (damage to phrenic nerve)
- * Trauma (post-traumatic brain or spinal cord injury)
- * Medical condition (bronchopulmonary dysplasia, muscular dystrophy)

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.