Oxygen Administration

Audience: All personnel in the Sleep Disorder Center.

Purpose: To establish technical guidelines for proper oxygen administration and titration for patients undergoing a polysomnogram.

Policy: Supplemental oxygen may be administered during the night under specified circumstances.

Procedure:

Criteria for initiating oxygen:
- Physician order
- Sustained SaO2 < 70% for 2 minutes, regardless of associated respiratory events
- Sustained SaO2 < 88% for 2 minutes in the absence of Apnea and Hypopnea
- Cardiac indication for initiating CPAP
  - Worsening arrhythmias associated with desaturations

Oxygen Titration:
- Initiate O2 at 1 L/min if indicated using nasal cannula, oxygen mask, or bleed into positive airway pressure circuit.
- Titrate O2 flow rate up, down, or off to maintain baseline SaO2 ≥ 88%, not to exceed 4 L/min above baseline.
- If patient on is on positive airway pressure, pay special attention to need for decreasing O2 flow rate as changes in pressures improve ventilation.
- All patients who are placed on O2 in sleep will be titrated up or down regardless of their history of O2 use.
- Allow a minimum of 20 minutes between O2 flow rate changes if SaO2 is ≥ 75%. If SaO2 is sustained < 75% a minimum of 2 minutes between changes is recommended.
- If unable to achieve SaO2 goal after titrating oxygen 4 L/min above baseline titration contact sleep physician on call.
- Emergency procedures should be followed as necessary.

The titration model above is a guide and does not include all scenarios that will be encountered in the sleep laboratory during a titration. If you have questions during a titration, contact the Medical Director, his designee, or Denise McElyea, Program Manager for assistance.

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