

CP 4.10: CPAP, BiPAP, Oxygen Therapy, and Oximetry

Updated:
Reviewed:

Purpose

To assist the health care team in observing and documenting recently diagnosed/chronic sufferers of obstructive sleep apnea or other conditions requiring oxygen therapy to ensure proper ventilation of the patient for the purpose of avoidance of long term pathologic outcomes and to ensure that patients are aware of the proper functioning of equipment.

Policy Statements

In response to a referral from a health authority or primary health care provider, the Community Paramedic (CP) will follow guidelines outlined on the Request for Service form and care plan for follow up on patients requiring CPAP, BiPAP or oxygen therapy.

It is expected that the CP will document findings and report them to the primary health care provider and collaborate with other health care team members to provide support as appropriate.

Definitions

BiPAP: Supports spontaneous respiration by providing a positive pressure on inspiration (IPAP – inspiratory positive airway pressure) and a positive pressure on expiration (IEAP) – expiratory positive airway pressure).

CPAP: Supports spontaneous respirations by providing one continuous positive pressure on inspiration and expiration to help stent open obstructive airways.

Sleep apnea: a common sleep disorder in which a person has one or more pauses in breathing or shallow breaths while sleeping. Breathing pauses can last from a few seconds to minutes and can occur 30 times or more per hour. As a result, the quality of sleep is poor, which leads to daytime sleepiness.

Obstructive sleep apnea is the most common type of sleep apnea and occurs when the airway collapses or becomes blocked during sleep. Central sleep apnea is less common and occurs if the area of the brain that controls breathing doesn't send the correct signals to the breathing muscles. As a result, no effort to breathe is made for brief periods (NIH – National Heart, Lung and Blood Institute, July 10, 2012).

Procedure

1. **OBTAIN** and **REVIEW** patient's health history and care plan prior to appointment.
2. **REFER** to Request for Service form and care plan for direction with respect to assessment and patient teaching required.
3. **REVIEW** equipment usage including equipment care, cleaning, and use of distilled water for humidification with patient/caregiver as required.
4. If patient is recently diagnosed and new to using CPAP/BiPAP, **MONITOR** for hemodynamic instability (changes in vital signs, capillary refill, urine output).
5. **CONDUCT** assessment:
 - Vital signs including RR, SpO₂ and pulse (check for signal strength on the oximeter, ensuring the SpO₂ and heart rate correlate with pulse rate).
 - Assess sleep habits (shift work? irregular work schedule?)
 - Assess alcohol/recreational drug use
 - Assess use of medication that may affect oxygenation such as benzodiazepines, OTC sleep aids
6. **ASSESS** quality of life and whether there are noticeable changes after usage.
7. **COMMUNICATE** immediately with health care provider or health care team if concerns arise.
8. **INSPECT** equipment and **TROUBLESHOOT** if necessary including ensuring proper fit of mask and use of machine as well as general condition of machine.
9. **ENSURE** that patient is connected with necessary resources (oxygen supply company, etc.)

Documentation

DOCUMENT findings and details of the visit on the CP progress notes and notify primary health care provider or health care team of findings and any concerns.

References

1. Eagle County Paramedic Services. Community Paramedic Protocols Manual. 2013. [\[Link\]](#)
2. Tri-County Health Care Emergency Medical Services. Community Paramedic Policy & Procedure Manual. 2016. [\[Link\]](#)
3. Vancouver Coastal Health. *Oximetry Management Guidelines for Community Settings & Residential Care*. 2013.

