ADMINISTRATION OF OXYGEN THERAPY

POLICY
The staff will instruct the patient in safe oxygen use following procedure as described.

PURPOSE
To administer oxygen in safe and correct manner using different modes of equipment and evaluating the patient’s response of therapy.

EQUIPMENT
1. DME vendor to deliver and set up the following appropriate equipment
2. Source of oxygen supply
3. Regulator-flow meter
4. Nasal cannula, face mask, tracheostomy collar, small-bore oxygen tubing
5. Humidifier
6. Sterile water for respiratory therapy

PROCEDURE
1. To be performed by RN or LPN
2. Review the physician's prescription for the type of therapy, the source of the oxygen supply, the use of a cannula, a mask, a face tent, or a tracheostomy collar and for the desired liter flow.
3. Explain the procedure to the patient/caregiver.
4. Assess the cognitive and cardiopulmonary status for signs and symptoms of hypoxemia.
5. Notify the physician when the patient’s health changes or deviates from baseline status.
6. Evaluate the ability of the patient/caregiver to administer oxygen. Assess the following:
   A. Correct liter flow
   B. Whether the patient knows when to use the oxygen

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C. The correct operation of the equipment recommendations and review the procedure with a DME therapist.
D. Whether the patient/caregiver knows what to do in case of power failure or equipment malfunction
E. Home ventilator management as applicable
F. Suctioning as applicable
G. Cleaning and disinfecting reusable equipment

7. Implement the following home oxygen safety precautions with the patient/caregiver:
   
   A. No open flames or smoking within 10 feet of the oxygen source
   B. Do not use electric equipment, such as space heaters near oxygen administration; remove the oxygen from the patient when an electric razor is used.
   C. Care should be taken during use of gas or electric appliances when patients are using oxygen.
   D. Use oxygen as ordered for shortness of breath, but use oxygen only as prescribed amounts because too little or too much oxygen is harmful and can cause death.
   E. Make sure that the oxygen tank is in an approved stand to prevent it rolling or falling accidentally
   F. Store the oxygen tank away from the direct sunlight or heat
   G. Keep oxygen concentrators away from walls to allow adequate air circulation
   H. Ground oxygen concentrators

8. Ensure that the patient/caregiver knows how to reach the DME vendor respiratory therapist 24 hours a day for supplies or for problems with equipment.

9. Evaluate the caregiver’s ability to assist the patient and to comply with oxygen therapy recommendations.


**USING A NASAL CANNULA AND PRONGS**

1. General Information

   This equipment is easily tolerated by most patients. It is also simpler than a mask but provides less humidification.

2. Procedure

   A. Follow the procedure for Oxygen Therapy.
B. Connect the nasal cannula to the oxygen tubing and the humidified source.

C. Adjust the oxygen flow to the number of liters prescribed. (The usual liter flow is from 1 to 5 LPM; the liter flow for patients with carbon dioxide retention is 1 to 3 LPM or low flow O₂.)

D. Place the tips of the cannula no more than 1.25 cm into the patient’s nares. Adjust the elastic headband or plastic slide guard for a snug and comfortable fit.

E. Secure the oxygen tubing to the patient’s clothing to prevent unnecessary pulling.

F. Promote patient comfort by the following methods:
   1. Instruct the patient to place cotton balls over the ears or wrap moleskin around the tubing to avoid skin irritation
   2. Use a water-based lubricant on the nares to reduce irritation of the nose.
   3. Use a room humidifier to prevent the drying of the mucosal membranes; clean the humidifier daily to prevent nebulizing mold or bacteria
   4. Use up to 50 feet of extension tubing to maximize independence and ambulation in the living area
   5. Instruct the patient to wear the nasal cannulas while eating, while taking a shower, while using the bathroom, during sexual activity, and as needed for shortness of breath; remove the cannula when washing the hair or head.

 USING AN OXYGEN FACE MASK

1. General Information

Patients who require oxygen face masks usually need more intensive management than home care permits. However, as sicker patients are being discharged from the acute care setting to the home, the use of oxygen face masks becomes a real possibility.

2. Procedure

   A. Follow the procedure for Oxygen Therapy.
   B. Connect the face mask or tent to the oxygen tubing and to the humidified oxygen or gas source.
   C. Adjust the oxygen to the prescribed liter flow. If the reservoir bag is attached, partially inflate it with oxygen before placing the mask on the patient.
   D. Fit the mask to the patient’s face, from the nose downward. A tight fit prevents oxygen from escaping around the patient’s eyes or nose. If the reservoir bag is attached, the oxygen flow must be at a level to prevent the bag from fully collapsing during the patient’s inspiratory efforts.
E. Adjust the sides of the face mask or tent to ensure a snug yet comfortable fit. Mist should always be present when using a face tent.
F. Keep the tubing free of kinks.
G. If the patient is combative or confused, consider short-term use of restraints to keep the oxygen delivery device on. Combative behaviors or confusion often clears up once the patient is well oxygenated. Arterial blood gas determinations may be indicated with combative behaviors.
H. Sit the patient up in bed; support the patient with pillows as needed.
I. Change the mask and tubing PRN. If the patient uses a mask or tent, obtain a physician’s order for a nasal cannula during meals.

**USING A TRACHEOSTOMY COLLAR**

1. **General Information**

   The tracheostomy collar is a curved device with an adjustable strap that fits around the patient’s neck. It is designed to deliver high humidity and oxygen to patients with a tracheostomy. The tracheostomy collar has an exhalation port that must remain patent at all times and another port that connects to large-bore tubing.

2. **Procedure**

   A. Follow the procedure for Oxygen Therapy.
   B. Connect the tracheostomy collar to large-bore oxygen tubing and to the humidified oxygen source. Mist should always be visible.
   C. Adjust the oxygen flow rate to 10 LPM or as prescribed by the physician and adjust the nebulizer to correct FiO₂ setting.
   D. Apply the tracheostomy collar so that it loosely covers the patient’s tracheostomy.
   E. Drain excess water from the tubing as needed. The tubing must drain away from the patient to prevent draining contaminated water into the sterile distilled water and contaminating the humidifying unit. A condensate trap may be necessary to reduce the risk of condensate aspiration.
   F. Clean the collar with soap and water every day or more frequently to remove secretions if necessary.
   G. Instruct the patient/caregiver on suctioning. Use the frontal suctioning port of the tracheostomy collar.
   H. Provide patient comfort measures.
   I. Documentation for administration of all types of oxygen delivery systems should include procedure, equipment used, liters of oxygen per minute, cardio pulmonary status and any patient instruction on visit report.