

N-14 Oxygen Concentrator

Purpose: To suggest guidance for use and care of an oxygen concentrator.

If a resident is not able to breathe enough oxygen, supplemental oxygen may be needed. Oxygen therapy is required when the proper level of oxygen is not circulating in the blood. Medical conditions, such as asthma, chronic bronchitis, or chronic obstructive pulmonary disease (COPD) may require supplemental oxygen. Oxygen concentrators are not intended for life supporting or life sustaining applications.

Oxygen is classified as a drug and must be prescribed by a physician. A flow rate (liters per minute) and the method of delivery are prescribed. The flow rate is changed with physician orders.

An oxygen concentrator provides oxygen therapy at higher concentrations than available in ambient air. The machine collects and concentrates oxygen from room air and stores it for use. Concentrators are safer, less expensive, and more convenient than tanks of compressed oxygen. The machine must be plugged into an appropriate electric outlet, and *not* an outlet controlled by a switch. Never use an extension cord. No other appliance is plugged into this outlet.

The concentrator is connected to the resident with oxygen tubing. The tubing is long enough to allow mobility. Tubing should never exceed 50 feet in length, in addition to a 7 foot nasal cannula, as less oxygen is delivered to the resident. A humidifier to moisten the oxygen is available if needed. The moisture may prevent dryness in the nose, mouth, and throat. For flow rates less than 5 liters/minute, humidity may not be needed.

Most residents on oxygen use a nasal cannula. This is a 2-pronged plastic tube that fits inside the resident's nostrils. The prongs are placed so they curve down, into the nostrils. Loop the tubing around the resident's ears. Adjust the tubing to fit comfortably under the chin by sliding the adjuster upward.

Care of oxygen concentrator and equipment:

Always use the resident's backup oxygen system while caring for the concentrator equipment and supplies.

Adding water to a humidifier bottle:

- Check humidifier bottle daily. Refill when low. Don't touch the inside of the bottle.
- Turn concentrator off.
- Unscrew jar from humidifier bottle lid.
- Discard any water in bottle.
- Run warm tap water for 3 minutes in sink. Rinse bottle under stream of warm tap water. Shake off excess water.
- Refill jar with distilled or sterile water to marked line.
- Do not overfill.

- Screw bottle back on humidifier tightly. Be careful not to cross thread (misalign).

Cleaning the humidifier bottle and/or oxygen water trap:

- Turn concentrator off. Remove humidifier bottle.
- Wash bottle in a solution of dish soap and warm water.
- Soak for 20 minutes in 1 part vinegar to 3 parts water.
- Run tap water for 3 minutes. Rinse in warm tap water. Shake bottle dry.
- Replace humidifier bottle with distilled/sterile water filled to correct level.
- Discard vinegar rinse.

Cleaning an oxygen filter:

- Turn concentrator off. Remove filter from concentrator.
- Use mild detergent and water. Clean.
- Rinse thoroughly and allow to air dry. Excess moisture could cause the concentrator to malfunction.
- Replace in concentrator.

Oxygen tubing and mask changes:

- Nasal cannulas are changed every 2 weeks, document in CNA flow sheet.
- Masks are changed every 2 weeks, document in CNA flow sheet. Any part of the mask touching the face is cleaned daily with mild soap and water, and rinsed well.
- Nasal extension tubing is changed every 90 days. Label the date you changed the tubing with tape on the extension tubing.
- Oxygen tubing should never be longer than 50 feet (without the 7 ½ foot nasal tubing).

Cleaning the concentrator unit:

- Turn the concentrator off and unplug the unit.
- Use a damp cloth to wipe the cabinet. Allow to dry.
- Disinfect the buttons and outside of the concentrator with sanitizing wipes.

Servicing the concentrator:

- This is completed yearly from the equipment company providing the oxygen service. The oxygen concentrator must be serviced and repaired by a qualified medical equipment technician.

Safety:

Always have a backup source of oxygen for the resident in case of emergency. In the event of power failure, a portable system is available for use.

Oxygen deliver equipment is checked at least daily by the resident or staff. Flow rate, humidifier, filters, and tubing are checked to assure set and running appropriately.

Do not smoke or use anything flammable while wearing the oxygen device. Keep the concentrator 5 feet away from open flames or heaters.

Use cotton bedding and cotton clothing to avoid sparks from static electricity. Avoid nylon, wool, or synthetic fabrics and bedding.

Do not use any petroleum-based products such as oily back rubs, lotion, or Vaseline near the unit. Do not handle the concentrator with such products on hands.

Do not use aerosol sprays in the vicinity of oxygen.

Put an "Oxygen in Use" sign on the resident's door. Maintain a master list of residents who use oxygen in the event of a Home-wide emergency.

Keep concentrators secure and in an upright position. There must be a minimum 1/2 inch clearance beneath and 6-12 inches clearance on all sides of the concentrator. Never place directly against a wall, drapes or heat ducts. Do not place concentrator on plush rugs. Allow sufficient space for free air circulation on all sides of unit. No items are stacked or stored on the unit. Do not cover with blankets or quilts.

Do not route oxygen tubing under carpet or furniture.

Do not allow oxygen tubing to be covered by bedding or other objects.

Do not oil or grease oxygen equipment. Do not attempt repairs to a concentrator.

Oxygen is not used in shared rooms or where residents cannot be instructed or are unable to understand precautions and demonstrated safety procedures.

N-14 Approved: 08/21/2013