Portable Oxygen Transport

Purpose
Oxygen is provided for patients who require continuous oxygen therapy when they need to be removed from their primary oxygen source for transport within the hospital.

Policy
Respiratory Care Services (RCS) supplies oxygen for the transport of patients who require continuous oxygen therapy. Critically ill patients or those with special needs (i.e. patients with tracheostomies) may require the assistance of and/or evaluation by a respiratory therapist prior to or during transport.

Scope
Nurses, Respiratory Care Practitioners, and Transportation personnel trained to transport patients requiring continuous oxygen.

Request for Transport
Transports may be requested by nursing services or any other responsible unit personnel. Requests for transports for patients requiring continuous oxygen are called into the Transportation department, designating the patient's name, place of patient pick-up, need for oxygen and destination. Therapists are to be notified in advance of the need for assistance or evaluation so that arrangements can be made to provide adequate coverage for other areas as needed.

Equipment
- Oxygen cylinder with regulator
- Cart with wheels, bed cylinder holder or wheelchair holder for portable oxygen cylinder

Procedure
Non-Emergent Transports

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Once a request for transport with oxygen is received, obtain a portable cylinder with regulator or integrated valve.</td>
</tr>
<tr>
<td>2</td>
<td>Verify the amount of gas in the cylinder. Duration of transport can be estimated by the following calculation: For an E-cylinder ([(\text{PSI in tank} - 500\text{PSI}) \times 0.28] \div \text{Liter flow.}) For a D-cylinder ([(\text{PSI in tank} - 500\text{PSI}) \times 0.16] \div \text{Liter flow.})</td>
</tr>
<tr>
<td>3</td>
<td>Identify patient to be transported using two identifiers.</td>
</tr>
<tr>
<td>4</td>
<td>Verify with the patient’s nurse or attending personnel</td>
</tr>
</tbody>
</table>

Continued next page
5 Turn on the cylinder and adjust flow meter to match the liter flow the patient is receiving. Remove the oxygen connecting tubing from the oxygen source and connect to the transport cylinder. Turn the flow meter at the wall source off.

6 Transport the patient safely to destination.

7 Upon arrival to the procedural area or new destination, inform the nurse or attending staff that the patient has arrived and is oxygen.

8 Place the patient on the receiving area’s oxygen source (wall source or large cylinder) and ensure that the flow is set appropriately and that there is adequate pressure (>1000 psi) to support the patient if using cylinder oxygen.

9 Notify RCS at 21635 if a tank change is required.

**Emergent Transports**

<table>
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<th>Action</th>
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<tbody>
<tr>
<td>1</td>
<td>Patients on oxygen will be transported <em>emergently</em> with a therapist/nurse or trained Transportation personnel being present. It is the Respiratory Therapist’s responsibility to ensure that the patient is safely and correctly connected to an oxygen source. Notify RCS at 21635 or on pager 409-643-0803 for assistance if needed.</td>
</tr>
<tr>
<td>2</td>
<td>Ensure that the e-cylinder <em>is full prior to transport</em>.</td>
</tr>
<tr>
<td>3</td>
<td>Identify patient to be transported using two identifiers.</td>
</tr>
<tr>
<td>4</td>
<td>Verify with the patient’s nurse or attending personnel the liter flow required for transport.</td>
</tr>
<tr>
<td>5</td>
<td>Turn on the e-cylinder and adjust flow meter to match the liter flow the patient is receiving. Remove the oxygen connecting tubing from the oxygen source and connect to the transport cylinder. Turn the flow meter at the wall source off.</td>
</tr>
<tr>
<td>6</td>
<td>It is the transporting therapist’s responsibility to notify the therapist assigned to the patient’s new location of...</td>
</tr>
</tbody>
</table>
their impending transfer so that they can ensure that an oxygen flowmeter is available in the patient’s new location.

7. Turn off the cylinder flowmeter and turn the cylinder dial back to the off position.

8. Wipe the tank down with a disinfecting wipe.

9. Verify the amount of gas remaining in the cylinder and return the tank to the appropriate rack.

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**Cylinder Management**

**Cylinder Storage Requirements:**

- Medical gases *In Storage* must be labeled as belonging to one of the following groups:
  1. Full Cylinders
  2. Empty/Partially Full Cylinders
- In areas of high oxygen use cylinders may be separated out into three storage racks labeled as:
  1. Full Cylinders
  2. Partial Cylinders
  3. Empty Cylinders.
- Unopened (full) cylinders will be physically separated from Empty/Partially full cylinders in appropriately labeled cylinder racks
- **Unopened (full) cylinders will be used for all emergent transports**
- E Cylinders properly secured (i.e. on a stretcher, code cart) are considered “In Use”.
- After transport cylinders will be wiped down with disinfecting wipes before being returned to a rack.

**Transport with Oxygen Cylinders:**

- Never leave a cylinder standing free or unsecured on the top of a patient bed or cart. All gas cylinders must be stored in approved storage racks or securely restrained.
- Oxygen cylinders may not be placed in the bed with a patient during transport. Cylinders must be secured in an appropriate cylinder holder on or under the bed.
Undesirable Side Effects
Patients that are not ambulatory may experience distress when moved. Respiratory Care Service staff and other clinical personnel must be aware of signs such as dizziness, nausea, weakness, a drop in blood pressure or a rise in pulse. If these signs occur, immediately notify the patient's nurse or physician of the change in patient status.

Patient Teaching
Instruct the patient as follows:
- Explain to the patient why he or she is being moved.
- Reassure the patient that everything will be done to make the move as comfortable as possible and that his/her oxygen therapy will continue uninterrupted.

Infection Control

References
AARC Clinical Practice Guidelines; Respiratory Care; 2002: – 2002 Revision and Update; 47(7): 721-723 In-Hospital Transport of the Mechanically Ventilated Patient


