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# **Venturi Oxygen Delivery**

#### **Purpose**

To standardize delivery of precise concentrations of oxygen at high flow via facemask, tracheostomy collar, or t-tube, utilizing a Venturi device for the entrainment of room air to achieve the desired FIO<sub>2</sub>.

#### **Policy**

- Respiratory Care Services provides equipment and therapy according to physician's orders for patients requiring supplemental oxygen to maintain adequate blood levels of oxygen.
- A Licensed Respiratory Care Practitioner may institute oxygen by Venturi.
- Training must be equivalent to the minimal therapist entry level in the Respiratory Care Service with understanding of age specific requirements of the patient population treated.

# Physician's Order

The written physician's order must include:

- Inspired oxygen concentration.
- In the absence of a complete order, Venturi mask oxygen therapy is to be administered only in an emergency. The order must be secured at the earliest possible time after emergency administration has occurred. Otherwise, the complete order must be secured before therapy can be administered.

#### **Indications**

Documentation of need with arterial blood gases or oximetry or as indicated by respiratory distress or other acute or chronic indicators.

### Contraindications

Venturi mask therapy may be contraindicated for the patient with facial injuries.

#### Goals

To achieve adequate oxygenation of the blood.

#### **Procedure**

Step	Action
1	Check physician's order and identify patient using two identifiers.
2	Wash hands.
4	Assemble the venturi mask per the manufacturer instructions to deliver the ordered FiO <sub>2</sub> .
5	Attach oxygen connecting tubing to flow meter and set appropriate flow rate of ordered FiO <sub>2</sub> .

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# Procedure Continued

Step	Action
6	Secure mask to patients face and explain the importance of leaving the mask on.
7	Document in EPIC as outlined in RCS Policy # 7.1.1.

## Infection Control

Follow as outlined in the Healthcare Epidemiology Policies and Procedures #2.24; Respiratory Care Services http://www.utmb.edu/policy/hcepidem/search/02-24.pdf

### Undesirable Side Effects

- Atelectasis Absorption atelectasis may occur under conditions of reduced lung capacity, early airway closure, or normal lung volumes in the absence of coughing or sighing.
- Oxygen-induced hypoventilation Occurs in patients with chronic hypoxemia and hypercapnia.
- Pressure necrosis of the skin from tight fitting straps.
- Any backpressure on a Venturi device increases the oxygen concentration around the entrainment ports, thereby increasing the FIO<sub>2</sub>. Causes of backpressure are blowing into mask, occluding mask portholes, and/or connection of supply tubing.

#### References

AARC Clinical Practice Guidelines, <u>Oxygen Therapy For Adults in the Acute Care Facility – 2002 Revision & Update</u>, Respiratory Care 2002; 47(7): 717-720

AARC Clinical Practice Guidelines, <u>Oxygen Therapy in the Home or Extended Care Facility</u>. Respiratory Care. 1992, 37:918-922.

Scanlan, C., Sheldon, R., Spearman, C., <u>Egan's Fundamentals of Respiratory Care, 8th Edition</u> 2003

Burton, Gee, Hodgkin, <u>Respiratory Care: A Guide to Clinical Practices</u>, Reviewed March 2001.

Branson, Richard D., RRT; Hess, Dean R., PhD, RRT; Chatburn, Robert L., RRT <u>Respiratory Care Equipment</u> Lippincott Williams & Wilkins, September 1998

Campbell DJ, Fairfield MC. <u>The Delivery of Oxygen by a Venturi T piece</u>. Anaesthesia. 1996: 51:558-60.