Oxyhood

Purpose

To standardize the use of oxyhood cubes to deliver humidified gases.

Scope

Respiratory Care Services provides equipment and therapy according to Physicians Orders for patients requiring supplemental oxygen/ to maintain adequate blood levels of oxygen.

Accountability/Training

- A Licensed Respiratory Care Practitioner may institute Oxyhood.
- Training must be equivalent to the minimal Therapist entry level in the Respiratory Care Service with the understanding of the age specific requirements of the patient population treated.

Physician's Order

The physician's order must include:

- Specified FiO_2 via Oxyhood.
- In absence of an order, oxyhood oxygen therapy will be administered at an adequate FIO_2 to maintain patient 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

Any condition in which tissue oxygen demand exceeds supply and required supplemental administration of oxygen, the method of delivery, duration, and concentration are determined by the particular pathological state encountered. These conditions may be pulmonary, cardiovascular, maternal, decreased oxygen carrying capacity, decreased oxygen consumption, or others as indicated by respiratory distress or other acute or chronic indicators.

Goals

- Treat hypoxemia - when arterial hypoxemia is a result of decreased alveolar oxygen tension, hypoxemia may be dramatically improved by increasing the inspired oxygen fraction.
- Decrease the work of breathing - increased ventilatory work is a common response to hypoxemia and/or hypoxia. Enriched inspired oxygen atmospheres may allow more alveolar gas exchange to maintain adequate alveolar oxygen levels. The result is a decreased need for total ventilation, which means a decreased work of breathing at no expense to the oxygenation status.
- Decrease myocardial work - the cardiovascular system is a primary mechanism for compensation of hypoxemia and/or hypoxia. Oxygen therapy can effectively support many disease states by decreasing or preventing the demand for increased myocardial work.

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Equipment

- One (1) oxygen/Air blender.
- One (1) single limb heated wire Fisher Paykel circuit
- One (1) compensated flow meter.
- One (1) humidification/heating system (with heater chamber, feed set and sterile water bag).
- One (1) oxyhood.
- One (1) oxygen analyzer

Procedure

ISCU:

Step	Action
1	Verifies correct Physician's Orders and Patient's I.D. and washes hands.
2	Attach the lines of the blender to the appropriate air and oxygen wall outlets.
3	Attach oxygen compensated flow meter to blender.
4	Attach the heated wire circuit to the hood or cube and humidification system.
5	Insert temperature probe into the heated wire circuit.
6	Turn Flow meter on 10 to 12 liters per minute. Do not exceed 12 liters per minute as this raises the noise level inside the hood to a level that could cause damage over time to the patient's hearing. No less than 8 liters to assure CO_2 removal.
7	Set the Fisher Paykel heater, model MR850, to Bypassed Airway Mode.
8	Calibrate O_2 Analyzer and place analyzing cell in hood for a continuous reading.

Documen-tation

Document in 'Doc Flowsheet' or 'RCS Assessment' portion of EPIC concerning oxygen therapy and patient assessment and Treatment Card per Respiratory Care Services Policies # 7.1.1 and # 7.1.2.

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Infection Control	Follow procedures outlined in Healthcare Epidemiology Policies and Procedures #2.24; Respiratory Care Services. http://www.utmb.edu/policy/hcepidem/search/02-24.pdf
Safety	Follow Safety Procedures outlined in Respiratory Care Service Policy 3.6.1.
Correspond-ing Policies	RCS Policy and Procedure Manual, Guidelines for Medical Record Documentation, #7.1.1. RCS Policy and Procedure Manual, Therapist Treatment Cards, # 7.1.2.
References	AARC Clinical Practice Guidelines, Oxygen Therapy in the Acute Care Hospital. Respiratory Care, 1991; 38:1410-1413. AARC Clinical Practice Guidelines. Selection of an Oxygen Delivery Device for Neonatal and Pediatric Patients. Respiratory Care 1996; 41:637-646. Scanlan CL, Thalken RF; Medical Gas Therapy. In: Egan's Fundamentals of Respiratory Care, Eighth Edition, Mosby; June 2, 2003 Malloy R, Pierce M; Oxygen therapy. In: Dantzker DR, MacIntyre NR, Bakow ED, Eds. Comprehensive Respiratory Care. Philadelphia: WB Saunders; 1995 Scanlan CL, Thalken RF; Medical Gas Therapy. In: Egan's Fundamentals of Respiratory Care, Eighth Edition, Mosby; June 2, 2003 Ward JJ; Equipment for Mixed Gas and Oxygen Therapy. In: Barnes TA, Ed. Core Textbook of Respiratory Care Practice. 2nd edition. St. Louis: Mosby-Year Book; 1994.