Subject: NON-REBREATHING (NRB) OXYGEN MASKS

Purpose: The structure of this mask is similar to the partial rebreather with the addition of one-way valves placed between the reservoir bag and mask and at the exhalation ports. NRBs can deliver higher FiO2 than nasal prongs or simple masks, and can theoretically administer =100% oxygen under ideal conditions. In most clinical environments, it is unlikely that a FiO2 > 0.80 can be achieved, due to room air entrainment around the mask seal.

Policy:
1. The set-up and operation of the non-rebreathing masks (NRB’s) will be the responsibility of the Respiratory Care Practitioners (RCP).
2. Care must be taken to set flow rates sufficient to keep the reservoir bag inflated at all times. Failure to do so will lead to decreased FiO2’s. In addition, a proper face seal is necessary to maintaining the efficacy of this device.
3. NRB’s should be checked at regular intervals (at least once every shift) for correct placement on the patient’s face, proper flow rates.

OBJECTIVES:
1. Relief of hypoxemia
2. Reduction of myocardial work
3. Reduction of work of breathing

EQUIPMENT:
1. Oxygen flow meter
2. Non-rebreathing mask
3. Oxygen tubing if not supplied with the mask.

PROCEDURE:
1. Check for a complete physician’s order.
2. Introduce self and explain procedure to the patient/family.
3. Attach oxygen flow meter to the oxygen outlet.
4. Attach oxygen tubing to the flow meter.
5. Set the flow at a level sufficient to keep the reservoir bag inflated.
6. Place the mask on the patient’s face making certain that the mask is snug on the face.
7. Adjust the soft metal clamp on bridge of patient’s nose.

INDICATIONS:
1. Demonstrated hypoxemia
2. Clinical signs of poor oxygenation

CONTRAINDICATIONS:
1. No clinical evidence of need for oxygen.
2. Patient unable to tolerate mask.
ASSESSMENT OF THERAPY:
- Adequate arterial oxygenation should be assessed within 30 minutes of the start of therapy either by arterial blood gas analysis or pulse oximetry.

DOCUMENTATION:
- Date and time (military)
- Flow rate used
- Results of oxygen monitoring

PROBLEMS:
1. Reservoir bag not filling
   - tubing disconnected
   - check one-way valves in mask

NOTE: A simple bubble humidifier may be used if the flow does not activate the pressure relief valve. If this occurs the humidifier must be discontinued.

References: