# Non-Rebreathing Mask

## Purpose

To standardize the delivery of high oxygen concentration via face mask utilizing a reservoir bag and one-way valves at the inlet port and on the exhalation ports on the mask. It is used to provide a high $FIO_2$ ($FIO_2$ range - 90+) in an acute emergency or to provide an $FIO_2$ of 1.0.

## 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.

**Accountability/Training Requirement**

- A Licensed Respiratory Care Practitioner may institute oxygen by Non-Rebreathing Mask.
- 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 should include 100% $O_2$ by non-rebreathing mask.
- **In the absence of a complete order, Non-Rebreathing Mask therapy will be administered only in an emergency.** The order must be secured **ASAP** 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.

## Contrain-dications

Non-Rebreathing Mask may be contraindicated:

- In patients that are chronic $CO_2$ retainers.
- For patients with facial injuries.
- For patients who will not leave mask in place.
- For patients experiencing adverse psychological effects of mask therapy.

## Goals

- To treat hypoxemia and/or hypoxia.
- To decrease the work of breathing.
- To decrease myocardial work.

## Equipment and Supplies

- Disposable non-rebreathing facemask with reservoir bag and tubing.
- Flow meter or cylinder regulator.

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## Procedure

| Step | Action |
|---|---|
| 1 | Check physician's orders in EPIC. |
| 2 | Explain to patient what is to be done and why. |
| 3 | Connect oxygen flow meter to an oxygen source. |
| 4 | Preset the oxygen flow to 15 liters per minute and check the system. |
| 5 | Place mask over patient's face covering the nose and mouth. |
| 6 | Pass strap over patient's head and adjust for comfort and fit. |
| 7 | Adjust nose piece and pinch to nose for best comfort and fit. |
| 8 | Adjust the oxygen flow as necessary to keep the bag from totally collapsing at any time in the respiratory cycle. If the mask contains two flaps, remove one of the flaps. |
| 9 | Explain safety regulations to patient, patient's family and other visitors. |
| 10 | Record pertinent data in Epic and on department treatment card. |

## Discontinuation of Orders

Patients will be evaluated after every treatment. A complete pulmonary assessment will be done every 72 hours as indicated. Based on the assessment, the therapist will make recommendations for changes in therapy or discontinuance as needed.

## Assessment of Outcomes

Includes, but not limited to:

- Arterial blood gas measurement.
- Mixed venous blood gas measurement (if available).
- Assessment of the cardiopulmonary system.
- The clinical observations of color, alertness, respiratory rate, pulse rate, work of breathing and blood pressure.
- Pulse oximetry.

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## Patient Teaching

Instruct the patient as follows:

- Explain to the patient why oxygen is being received. Relate it to disease or injury state.
- Reassure the patient that this is a safe procedure.
- Inform the patient that oxygen mask may be removed only per physician orders.
- Instruct patient in safe use of oxygen.

## Safety

- Instruct patient and visitors in safety rules for safe oxygen use.
- Safety guidelines as outlined in section 3.6 of this manual will be followed.

## 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

## References

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