HEALTH HOLDING

HAFER ALBATIN HEALTH CLUSTER
MATERNITY AND CHILDREN HOSPITAL

Department:	Respiratory Care Services		
Document:	Multidisciplinary Policy and Procedure		
Title:	Oxyqen Therapy		
Applies To:	Respiratory Theparist, Physicians , Nurses		
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1. PURPOSE:

1.1 The procedure addressed is the administration of oxygen therapy among patients in need of oxygen therapy.

2. DEFINITONS:

2.1 **Oxygen Therapy -** is the administration of oxygen as a medical intervention, which can be for a variety of purposes in both chronic and acute patient care. Oxygen is widely used in emergency medicine, both in hospital and by emergency medical services or those giving advanced first aid. It is an administration of oxygen at concentrations greater than that in ambient air (20.9%) with the intent of treating or preventing the symptoms and manifestations of hypoxia. Oxygen is a medical gas and should only be dispensed in accordance with all federal, state, and local laws and regulations.

2.2 **Neonatal Oxygen Administration** - the administration of supplemental oxygen to neonatal patients requires the selection of an oxygen delivery system that suits the patient's size,needs,and the therapeutic goals. Oxygen delivery systems are categorized as either low-flow (variable performance) or high-flow (fixed performance) systems. Low-flow provide an FDO2 (fractional concentration of delivered oxygen) that varies with the patient's inspiratory flow and are classified as variable-performance oxygen delivery systems. High-flow systems can provide a specific FDO2 at flows that meet or exceed the patient's inspiratory flow requirement and are classified as fixed-performance oxygen delivery systems.

3. POLICY:

3.1 Respiratory therapist will provide oxygen therapy according to physician's order/protocol.
3.2 Staff Nurses can administer Oxygen therapy according to physician's order or in emergency cases as long as they have Competency assessment on oxygen therapy
3.3 This policy is intended for all health care professionals initiating, delivering and monitoringoxygen therapy
3.4 Staff who will give oxygen therapy shall secure that all patients who receive supplementary oxygen therapy is appropriate to their clinical condition
3.5 All oxygen therapy shall be prescribed by the physician according to the indications
3.6 All oxygen therapy modalities are for single patient use only.
3.7 All oxygen therapy modalities shouldbe changed if visibly soiled, contaminated and malfunctioned
3.8 Oxygen therapy modalities include the following:
- 3.8.1 **Nasal Cannula** consists of a plastic tube has two openings connected to the patient's nose. It provides patient oxygen concentrationranging from 22%to 44% rate of flow starts from1 liter to a maximum 6 liters
- 3.8.2 **Simple Face Mask** openings on either side to provide entrance the room air and exit of carbon dioxide. Provides patient oxygen concentration ranges from40%to 60%and starts

a flow rate of 5 liters at least to a maximum of 10 liters. Must be at least flow rate of 5 liters in order to expel the gases exhaled and not to inhale again..

3.8.3 **Partial Rebreathing Mask** it is similar to a simple face mask with the addition of a bag to store oxygen. Through the patient's inspiration pulls airfrom the mask andbag storage and ambient side through holes. Provides patient by oxygen, ranging from 40% to 70%. Starts the flow rate of a minimumof 6 liters to a maximum of 10 liters.Best used in patients with Moderate hypoxia (PaO2 50 - 60mmHg or SpO2 85 - 90%). Severe hypoxia(PaO2<SOmmHq or SpO2<85).

3.8.4 **Non Rebreathing Mask** is similar in design to simple mask,but contains storage bag and 2 valves. A one-way valve between the storage bag and mask, which closes by expiration and opens on inspiration to prevent the entry of exhaled gases from entering the bag. Other one - way valve on the mask closes on inspiration and opens on expiration to allow the exit of exhaled gases and prevent the entry of room air. The purpose of these valves. Provides patient by oxygen, ranging from 60% to 90 %. Flow rate begins at minimum of 10 liters to a maximum of 15 liters. Best use in patient with Severe hypoxia.

3.8.5 **Nebulizer mask** it is similar to the simple face mask with a plastic bottle to put bronchodilators inhaled by the patient with a normal saline solution in the form of steam. Flow rate of 5 litres as a minimum to a maximumof 10 litres. In the case of not seeing the steam, increase the flow rate until you see the steam rising.

3.8.6 **T - Piece** a piece by three slots, one of which is connected with oxygen and the second is connected to the patient whether the patient intubated or with tracheotomy tube and the third to be exhaled gases exit. Provide oxygen at 5Lpm-10lpm.

3.8.7 **Venturi Mask** is a High-flow system considering of a bottle of sterile water, corrugated tubing, a drainage bag,air-oxygen ratio nebulizer system,and amask that works with the corrugated tubing. The system can provide e 24%-60% oxygen at 1L-12Lpm.

3.8.8 **Tracheostomy Mask** or Collar set the oxygen flow rate and concentration as ordered, 8Lpm provides 30-100% oxygen in this high flow system.

3.9 To avoid inaccuracy and failure,the Respiratory therapist staff always should conduct an operational check of any blender before using it to the patient.

3.10 An oxygen device that does not perform according to expectations should be replaced immediately.

3.11 In emergency/urgent cases oxygen therapy can be administered without physician's order but it must be secured at the earliest possible time after emergency has occurred.

3.12 Oxygen prongs on vigorous patients must be stabilized by placing tape along the tubing on face.

3.13 Oxygen prong flow rate is limited only at 2LPM among neonatal patients.

4. PROCEDURE:

4.1 Verify physician order refer to doctor's order sheet.

4.2 Assess for the need of oxygen administration

4.3 Check patient's file for details of physician's order or protocol.

4.4 Identify patient using two identifiers.

4.5 Introduce yourself to patient and explain procedure.

4.6 Wash hands rigidly with germicidal soap or solution.

4.7 Gather and Prepare all necessary materials: Oxygen flow meter or Oxygen Blender, and Humidifier

4.8 Sterile water if needed.

4.9 Plug flow meter into the oxygen outlet.

4.10 Adjust flow meter according to the desired flow as order by the physician.

4.11 Assess the factuality of the device. Listen and/ or feel for flow of gas. Check mask valves and reservoir.

4.12 Place and fit oxygen modality to the patient properly.

4.13 Check oxygen saturation of the patient before and upon initiation of oxygen therapy

4.14 Evaluate patient's tolerance of treatment

4.15 Wash hands.

5. MATERIALS AND EQUIPMENT:

5.1 N/A

6. RESPONSIBILITIES:

6.1 Nurses
6.2 Physicians
6.3 Respiratory Therapist

7. APPENDICES:

7.1 N/A

8. REFERENCES:

8.1 http://www.rcjournal.com/cpgs/soddnppcpg-update.html.
8.2 Egan's Fundamentals of Respiratory Care 10th edition.
8.3 https://www.aarc.org/wp-contenuuploads/2014108106.02.707.pdf.

9. APPROVALS:

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