Suction

**Objectives:**

At the end of this procedure the nursing student will be able to:

* 1. Define the suctioning.
	2. Identify Suction Indications.
	3. Illustrate deferent between oropharyngeal /nasopharyngeal suctioning and endotracheal/ tracheostomy suctioning.
	4. Prepare the equipment needed for the procedure.
	5. Perform an appropriate technique for each type of the suction.

**Definition of suctioning:**

Suctioning is employed to clear the mouth, pharynx and trachea from secretions , blood, or vomitus.

**Suction Indications:**

1. To maintain oral/ nasal hygiene
2. To remove blood and vomit in an emergency situation
3. To remove secretion that obstruct the airway.
4. To facilitate the ventilation.
5. To obtain sample of secretion for diagnostic purposes
6. To Prevent infection that may occur from accumulation of secretions.

**Deferent between Oropharyngeal /Nasopharyngeal suctioning and Endotracheal/ tracheostomy suctioning:**

|  |  |
| --- | --- |
| **Oropharyngeal /Nasopharyngeal suctioning** | **Endotracheal/Tracheostomy suctioning** |
| Remove secretion from the **upper**respiratory tract. | Remove secretion from the trachea and bronchi or the **lower** respiratory tract. |

**Size of suction Catheter:**

|  |  |
| --- | --- |
| **Children** | 8 to 12 French |
| **Infant** | 5 to 8 French |

**Setting the Correct Pressure:**

* **Wall unit:**

|  |  |
| --- | --- |
|  | **Unit** |
| **Child** | 100 to 120 mm Hg. |
| **Infant** | 80 to 100 mm Hg. |
| **Neonates** | 60 to 80 mmHg |

* **Portable unit:**

|  |  |
| --- | --- |
|  | **Unit** |
| **Child** | 5 – 10 mm Hg. |
| **Infant** | 2 – 5 mm Hg. |

**Sction machine**

**Suction procedure**

**Before beginning:**

1. Doctor‘s order.
2. Review the patient‘s blood gas.
3. Monitor heart rate and O2 saturation level and auscultating the breath sound.
4. Evaluate the patient‘s ability to cough & deep-breathe to determine her ability to move secretions.

**Equipment:**

1. Towel.
2. Suctioning machine with tubing and collection receptor.
3. Sterile container for fluids.
4. Normal saline or Sterile water.
5. Gloves, mask, gone
6. Goggles or face shield.
7. Sterile Suction Catheter kit.
8. Water – soluble lubricant.
9. Moisture resistant disposable bag.
10. Oxygen source.

**SuctionCatheter**

**Suctioning procedure:**

|  |  |
| --- | --- |
| **Steps** | **Rational**  |
| 1. Gather necessary equipment
 |  |
| 1. Turns on the wall suction or portable suction machine and adjusts the pressure regulator according to policy.
 | * To ensure that machine working well.
* Ensure the pressure is set right correctly i.e. 95 to 110mmHg as higher setting may cause trauma to the lining and soft tissues of the nose.
 |
| 1. Explain procedure to the child and family
 |  |
| 1. Positions the patient:
	1. **For oropharyngeal suctioning**: Semi-Fowler’s position with his head turned toward the nurse.
	2. **Nasopharyngeal suctioning:** Semi-Fowler’s position with his head hyper extended (unless contraindicated).
 | * To facilitate the insertion of catheter and to prevent aspiration of secretion.
 |
| 1. Places the towel or waterproof pad on the child's chest
 | * + To protects the child's clothing.
 |
| 1. Wash hand
 | * + Stander precustion
 |
| 1. Wear clean gloves, mask and gone
 | * + The nostrils, mouth, and throats are not sterile areas. In specific cases, such as isolation, sterile technique may be required.
 |
| 1. Pours irrigating solution into the container
 |  |
| 1. Select the appropriate size and attach it to the suction tubing.
 |  |
| 1. Approximates the depth to which to insert the suction catheter:

**a. Oropharyngeal suctioning:** Measures the distance between the edge of the patient’s mouth and the tip of the patient’s ear lobe. **b. Nasopharyngeal suctioning:** Measures the distance between the tip of the patient’s nose and the tip of the patient’s ear lobe. |  |
| 1. Insert the tip of the suction catheter   into the container of water. Apply suction by placing the thumb over the suction control
 | * + To check the suction and the patency of the tubing by aspirating some of the water through the catheter.
 |
| 1. Lubricates the catheter tip with normal saline ( for oral suction) or Lubricates with lubricant ( for nasopgaryngeal suctioning).
 | * + To prevent the injury and to facilitate the insertion of catheter
 |
| 1. Insert the catheter through the mouth, nose.
2. DO NOT apply suction whilst introducing the catheter

**N.B.**  If an obstruction is met, or if the patient's cough reflex is stimulated, remove the catheter and wait a moment before reinserting. | * To prevent damage to mucosa membrane or nasal passage, which may lead to trauma and infection.
 |
| 1. Applies suction by placing a finger over the suction control port on/off.
 |  |
| 1. Ask child to take several slow deep breaths, or if he/ she has any distress, administers supplemental oxygen before, during, and after suctioning.

**N.B. Both inserting the catheter and suctioning should normally take no longer than5seconds.** | * To reduce the chances of hypoxia.
	+ Applying the suction longer can cause injury, hypoxia and brady cardia.
 |
| 1. Withdraw the catheter slowly and check secretions i.e. color, smell, consistency
 |  |
| 1. Allow child to take breaths and rest.
 |  |
| 1. Clean the catheter with irrigating solution .
 |  |
| 1. Repeats suctioning as needed, allowing at **least 20-second intervals between suctioning**.
	* + For nasopharyngeal suctioning, alternates nostril each time suction is repeated.
 | * Allow the patient time to recover between suctioning attempts.
 |
| 1. Monitor oxygen levels and Resp. & heart rate  and breath sounds.
 | * To make sure the patient is tolerating the procedure well.
 |
| 1. Discard gloves and other protective wear, wash hands.
 |  |
| 1. Document procedure and findings (secretion amount , consistency, color and appearance .
 |  |

**Documentation:**

The following should be noted on the client's record :

* 1. Breath sounds before and after suctioning
	2. Character of respirations before and after suctioning
	3. Significant changes in vital signs.
1. Color amount, and consistency of secretions .
2. Tolerance to treatment (e.g , state of incisions , drains).
3. Replacement of oxygen equipment on client after treatment.
4. Client's need for oxygen.

8- Response of the child to suctioning.