Oxygen/Ventilation Therapy

Types of oxygen/ventilation devices:

- ***Nasal Cannula*- a two pronged soft plastic tubing placed in the client's nostrils and held in place behind the ears and around neck area that is connected to an oxygen tank.**
- ***Oxygen mask*- a face mask made of soft molded plastic material that fits over the clients nose and mouth and secured in place by a strap and is connected to an oxygen tank. A face mask can deliver oxygen at a higher concentration than a nasal cannula.**
- ***CPAP-* continuous positive airway pressure is a treatment that uses mild air pressure to keep the airway open. CPAP typically is used by people who have breathing problems such as sleep apnea which causes pauses in breathing or shallow breaths while sleeping. As a result not enough air reaches the lungs. In obstructive sleep apnea the airway collapses or is blocked during sleep. When you try to breath, any air that squeezes past**

- **the blockage can cause loud snoring. The mild pressure from CPAP can prevent your airway from collapsing or becoming blocked.**
- ***Mechanical ventilation*- a machine called a ventilator breathes for a person who cannot breathe on their own. There are many reasons that a person might need to be put on a ventilator. For example, a serious head injury, stroke, ALS, or drug overdose that can affect the breathing control centers in the brain, which means that regular breathing will no longer occur automatically.**
- ***Oxygen Concentrator*- takes in room air and removes impurities and gases other than oxygen, allowing the oxygen to become concentrated in the unit. The air delivered to the client form the concentrator is more than 90% oxygen. It is delivered by tubing attached to a nasal cannula or mask. The flow rate is usually 2 liters per minute on the flow meter.**
- ***Suctioning*- is the process of removing fluid and mucus from a person's airway using a Yankauer suction tip catheter. People with respiratory disorders often need help removing secretions from the airway. Conditions such as pneumonia or chronic bronchitis can cause the production of large amounts of sputum which builds up in the lungs and bronchi and make it difficult to breathe. Other conditions interfere with a person's ability to cough up secretions. For example, a person with Parkinson's, ALS, MS, end stage COPD and CHF may not have an intact cough reflex. Therefore, the person does not cough and saliva/sputum secretions continue to build up blocking airways**
- ***Respiratory Vests for Airway Clearance*- uses air pressure and pulses to create compressions that loosens and moves thin mucus from the lungs while being connected to an electrical outlet motor source. Must receive hands on training by the RP and QP as there are many models available. These vests also come with a manufacture instruction booklet.**
- ***Ventilation dependence*- If a client is vent dependent community outreach is need by a license professional.**

Procedure for nasal cannula, and mask cleaning:

- **Wash hands**
- **Remove nasal cannula or mask**
- **Clean around nose and /or mouth area**
- **Dry area thoroughly**
- **Wipe nasal cannula or inside of mask using warm water**
- **Observe skin for redness or signs of irritation and report to QP and or RP**

Procedure for oxygen safety:

- **Do not allow smoking with oxygen running.**
- **Do not allow an open flame such as matches, lighters, or candles.**
- **Notify the RP and/or QP if a client's skin has a blue or gray tinge, either at rest or while exercising and is coughing up sputum that is discolored as well as is coughing up sputum that is discolored (green, frothy, brown, or red-streaked)**
- **Do not adjust the liter flow meter. Notify the RP or QP if flow meter registers zero (0)**
- **Be sure oxygen source tank is upright and secure on the carrier or in a stand so that it will not fall over which might cause and explosion.**
- **Observe the oxygen tubing so that it is not kinked, pinched or restricted. Monitor the clients face so that it is free from visible secretions and signs of irritation from straps on the mask or cannula tubing behind the ears.**

CPAP Treatment:

- **A mask or other device that fits over the nose or nose and mouth. Straps secure the mask in place while it is being worn.**
- **A tube connects the mask to the CPAP machine's motor which is small, lightweight and fairly quiet.**

Oxygen Concentrator Treatment:

- **Make sure that the concentrator is placed at least 5 feet away from a heat source and at least 4 inches from the wall.**
- **Be sure the unit is plugged in and grounded.**
- **Do not use an extension cord with the concentrator.**
- **Clean concentrator surfaces using a damp cloth only.**
- **Remove filter weekly and wash in warm soapy water, rinse, squeeze dry, and replace.**

Drainage Treatment:

- **Suctioning is done using various types of suction catheters.**
- **The suction catheter is attached to tubing and a suction source, which works like a vacuum cleaner to remove the secretions from the airway.**
- **A Yankauer suction tip is used to remove secretions that collect in the back of the throat. <u>The Yankauer tip is placed into the person's mouth only</u> and not down the throat and suction is applied to remove mouth secretions only. Must receive hands on training by the RP and QP.**