

NEBULIZATION

- Nebulizer Therapy is to liquefy and remove retained secretions from the respiratory tract. A nebulizer is a device that a stable aerosol of fluid and /or drug particles.
- Most aerosol medication have bronchodilating effects and are administered by respiratory therapy personnel.

Purpose

- 1. To relieve respiratory insufficiency due to bronchospasm.
- 2. To correct the underlying respiratory disorders responsible for bronchospasm.
- 3. To liquefy and remove retained thick secretion form the lower respiratory tract.
- 4. To reduce inflammatory and allergic responses the upper respiratory tract.
- 5. To correct humidify deficit resulting from inspired air by passing the airway during the use of mechanical ventilation in critically and post surgical patients.

Types of nebulizer

- 1. Inhaler or metered-dose nebulizer
- 2. Jet nebulizer
- 3. Ultrasonic nebulizer



Equipments required

- 1. Dr.'s order card, client's chart and kardex
- 2. Inhaler
- 3. Tissue paper
- 4. Lip cream as required

Procedure

- Perform hand hygiene.
- Prepare the medication following the Five rights of medication administration:
 1. Right client
 2. Right time
 3. Right drug
 4. Right dose
 5. Right route

- Assist the client to make comfortable position in sitting or semi-Fowler position.
- Shake the inhaler well immediately prior to use.
- Spray once into the air.

Procedure

- Plug the compressor unit into the mains. Connect the tubing from the compressor unit to the bottom of the nebulizer chamber.
- Unscrew the top of the nebuliser chamber. Open the vial of drug solution by twisting off the top.
- Measure out the correct amount of drug solution and pour into the nebuliser chamber as is prescribed, following both the doctors and manufacturer's instructions.
- Check with G.P. or pharmacist before mixing two or more drug solutions in the nebuliser chamber.

- Sometimes the drug solution needs to be diluted. Add the required amount of normal saline.
- **DO NOT** dilute the drug solution with water. You need around 4-5ml solution in the nebuliser chamber for it to work properly.
- Screw on the top of the nebuliser chamber and attach the face mask or mouthpiece to the top of the chamber.

- Staff member will engage with the service user and confirm that they are ready
- Apply the 7 rights of medication administration.
- Place the facemask over the service user's mouth and nose and place the strap over the service user's head (alternatively, if a mouthpiece is used place it between the service user's lips).
- Support the service user to sit up, in a chair or in bed and keep the nebuliser chamber upright.
- Switch the compressor unit on and ask the service user to breathe in and out as normal. Help the service user to relax whilst using the nebuliser, (perhaps by watching television.)

- Whilst the nebuliser is in use, small drops of drug solution may form on the sides of the nebuliser chamber. Knock these droplets back into the drug solution by gently tapping the side of the nebuliser chamber with a fingernail.
- When the nebuliser starts to 'splutter' the treatment has finished - this will take between 10 and 20 minutes. A small amount of solution may be left in the nebuliser at this stage, but this is normal.
- Switch off the compressor unit and disconnect the nebuliser chamber from the tubing.
- Wash hands

- If at any point the service user is uncomfortable or distressed, stop before starting again.
- Medication Administration Record is signed.
- If the service user is not getting the usual relief from symptoms advise to contact G.P.
- Report any adverse reactions; itching, changes in hearing, balance,
- infection or severe pain to lead clinical person/line manager /G.P. Record in Best Possible Health Daily Continuation Sheet