

AEROSOLIZED MEDICATION THERAPY

FOR NURSING STAFF



INDICATIONS FOR TREATMENT

- 1) Bronchospasm
- 2) Asthma/ reactive airways disease
- 3) COPD (bronchitis & emphysema)
- 4) Tracheostomy
- 5) Tenacious secretions
- 6) Sputum induction for diagnostic purposes
- 7) Bronchiectasis
- 8) Cystic fibrosis
- 9) Severe laryngitis

ADVERVSE REACTIONS TO AEROSOL NEBULIZER

- Allergic reaction to medication being delivered
- Bronchospasm
- Nervousness
- Tachycardia
- Hyperventilation
- Chest pain or palpitations
- Dizziness, light-headedness, or headache
- Tingling of fingers or tremors
- Nausea
- Nosocomial infection from contaminated delivery device

BEST ORDER TO GIVE AEROSOL NEBULIZER

- 1st beta2 - adrenergic bronchodilator (EXP: Ventolin, Albuterol, Xopenex)
- 2nd anticholinergic bronchodilator (EXP: Atrovent)
- Combined Adrenergic/Anticholinergic (EXP: Duoneb)
- WAIT 15 MINUTES
- 3rd corticosteroids*** (EXP: Flovent , Pulmicort, Symbicort)

YOU MAY GIVE BETA2 AND ANTICHOLINERGIC BRONCHODILATOR TOGETHER , BUT NEVER GIVE A CORTICOSTEROID WITH A BETA2 OR ANTICHOLINERGIC BRONCHODILATOR

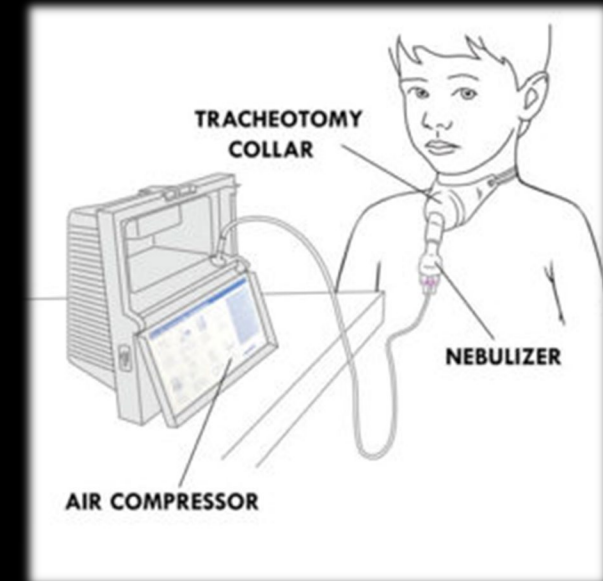
- *****Gargle and rinse mouth with water after corticosteroid to help prevent throat irritation and infections.**

PROPER WAY TO GIVE AEROSOL TREATMENT

- **Verify physician order**
- **Gather equipment**
- **Observe universal precautions**
- **Wash your hands**
- **Place patient in an upright position. Sitting upright at the edge of the bed or in a semi-fowlers position**
- **Assess patient's Breath sounds, heart rate, and respiratory rate**
- **Plug in small compressor and turn on to test function. Turn compressor off.**

PROPER WAY TO GIVE AEROSOL TREATMENT

- Connect nebulizer tubing to compressor or oxygen source and the other end to the nebulizer body.
- Remove the nebulizer top and add prescribed medication to nebulizer cup and reattach top.
- Attach mouth piece, aerosol mask, or tracheostomy mask to the nebulizer.



PROPER WAY TO GIVE AEROSOL TREATMENT

- When using a mouthpiece, attach reservoir tubing to t-piece for increased medication delivery.
- Turn on air compressor or oxygen source and verify that medication is nebulizing and producing a mist.
- Treatments should last approximately 15 minutes. Duration of medication depends upon the air/oxygen source used and volume of medication. Check inlet filters and condition of nebulizer machine if treatment times are too lengthy.



PROPER WAY TO GIVE AEROSOL TREATMENT

- **While giving the treatment, instruct the patient to breathe about 16-18 times a minute slowly and deeply. If possible, have the patient take a deep breath and hold it for a few seconds to further medication deposition.**
- **Monitor the heart rate before, during, and after treatment. Stop treatment if heart rate is greater than 20 points above the starting rate.**

PROPER WAY TO GIVE AEROSOL TREATMENT

- **When the medication gets low in the nebulizer, the sound will change.**
- **Shake the nebulizer in order to get all of the medication out of the nebulizer cup**
- **When finished, place the nebulizer in a labeled bag with patient name and date**

DOCUMENTATION SHOULD INCLUDE

- **Date and time of therapy**
- **Type of medication and dosage**
- **Breath sounds before and after treatment**
- **HR before and after treatment**
- **RR before and after treatment**
- **Pulse oximeter before and after treatment**
- **Cough and sputum produced, if applicable. (Include amount, color, and consistency)**
- **Patient's response to treatment including any adverse reactions and interventions**
- **Effectiveness of therapy**
- **Signature and credentials of personnel administering treatment**
- **Return unused medications to proper storage**
- **Notify appropriate personnel if adverse reactions occurred.**

CLINICAL CONSIDERATIONS

- Follow your specific facility's policy and procedure
- Patients should be monitored during the first treatment of any medication, particularly a nebulizer treatment, because of the rapid onset of action when drugs are delivered directly to the respiratory tract.
- If the heart rate changes greater than 20 points during a treatment, it is considered an adverse reaction. The treatment should be stopped and the physician should be notified.
- When assessing the patient, listen to lung sounds bilaterally and note where abnormal sounds are heard and their quality.

CLINICAL CONSIDERATIONS

- Record the patient's subjective level of shortness of breath, if any.
- Common medications include; Albuterol Sulfate (Proventil/Ventolin), Xopenex (levalbuterol), Atrovent (Ipratropium Bromide), and Pulmicort (Budesonide)
- Monitor the use of MDI's given and assure that the same medication isn't being delivered in a nebulized form **IF IT IS, GET ONE D/C'd (UNLESS IT IS PRN)**.
- Never leave a resident unattended when a treatment is being given.

AEROSOLIZED MEDICATION QUIZ

- **Indications for Nebulizer treatments are**
 - **Bronchospasm**
 - **Mobilize secretions**
 - **COPD/Asthma**
 - **Facilitate sleep**
 - **All of the above**
 - **A-C**
- **What is the device used to nebulize medications?**
 - **Large volume nebulizer**
 - **50 PSI air compressor**
 - **Cannula**
 - **Small volume nebulizer**
- **Nebulizer treatments (bronchodilators) are used to treat reversible bronchospasm**
 - **True**
 - **False**

AEROSOLIZED MEDICATION QUIZ

- **When should the caregiver listen to breath sounds?**
 - **After the treatment**
 - **Before the treatment**
 - **During the treatment**
 - **Listening to breath sounds is not necessary with breathing treatments**
 - **A & B**
- **Side effects of Albuterol could be:**
 - **Nervousness**
 - **Tachycardia**
 - **Infection**
 - **B**
 - **A & B**
- **At what point would you stop a treatment in relation to the pulse rate?**
 - **When the pulse rate is 150**
 - **When the pulse rate is 200**
 - **When the pulse rate is 20 points above the starting rate**



**FOR
FURTHER
INFORMATION
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