

ADMINISTRATION OF NEBULIZER/AEROSOLIZED TREATMENTS



Training Agenda

- ✓ Understand nebulized aerosol actions
- ✓ Discuss medications
- ✓ Identify side-effects of common nebulizer medications
- ✓ Identify onset/duration of medication
- ✓ Procedures to follow pre and post treatment
- ✓ Demonstrate correct procedure for administration of nebulized treatment



Medicare Cost Reimbursement

- To be able to bill for respiratory therapy services it must be done by a qualified professional
- Qualified professional = Trained Nurse

Nebulized Aerosol Actions

1. Relieve bronchospasms
2. Decrease mucosal edema
3. Liquefy bronchial secretions



Common Medications

- Albuterol (Proventil, Ventolin)
- Atrovent (Ipratropium)
- Duoneb (Albuterol/Ipratropium)
- Xopenex (Levalbuterol)



ALBUTEROL

- Most commonly prescribed medication for use with Nebulizer therapy
- It is a short acting smooth muscle relaxer

Most Common Side Effects

- Palpitations/ Tachycardia
- Increase blood pressure
- Dysrhythmias
- Heartburn
- Nausea/Vomiting
- Restlessness/Nervousness

- Muscle Cramps
- Dry mouth/nose
- Gastric irritation
- Flushing
- Diuresis

Major Adverse Effects of Albuterol

It can precipitate:

- Angina
- Dysrhythmias



Less Commonly Used Medication

- Mucomyst (Acetylcysteine)
- Pulmozyme (Dornase Alpha)

Used to decrease mucus viscosity

A bronchodilator must be given 10-15 minutes prior.

Adverse Reaction: Rhinorrhea, bronchospasm, fever, chest tightness, clamminess

Onset/Duration

Onset – 5-15 minutes after inhalation

Duration – 3-4 hours after inhalation



Pre & Post Procedures

- Obtain a baseline blood pressure and pulse
- Listen to lung sounds
- Count respirations and assess the breathing pattern
- Assess for cough and sputum production

DOCUMENT ALL YOUR FINDINGS!



Gather Your Equipment

- Nebulizer Compressor
- Disposable Nebulizer kit
- Medication



Operation of Nebulizer Compressor

- Assemble all components and add medication
- Connect the tubing to the inlet of compressor
- Turn on
- Place the facemask on the patient (if using the mouthpiece place it between the teeth)
- Instruct patient to periodically inhale deeply and slowly, then hold their breath briefly before exhaling
- Monitor medication chamber

DOCUMENT

DOCUMENT

DOCUMENT

What is an Adverse Reaction?

- Heart rate 20 beats per minute greater than starting heart rate
- Respirations 10 breaths per minute greater than starting breath rate



References

- Epocrates Medical Information Team. (2011). *Duoneb*. Retrieved August 18, 2011, from Epocrates Online: <http://www.epocrates.com>
- HCPro. (2009). *MDS 2.0 RAI User's Manual* (2009 Edition ed.). Marblehead:HCPro
- Texas State Board of Nursing. (2007, November 15). *Standards of nursing practice*. Retrieved March 20, 2010, from Texas State Board of Nursing: <http://info.sos.state.tx.us>

Thank You!