Metered Dose Inhalers Education Plan

Getting ready to learn about metered dose inhalers

Learning something new can be hard. It is even harder if you are not feeling well. The purpose of this education plan is for you and the staff to review this information together. Here are some good things to tell the staff.

- Who you want to learn with you. We would like to have someone who will be helping you at home learn with you.
- The best way for you to learn. Do you learn best by reading a book or pamphlet, or by doing things yourself?
- If you are not feeling well, if you are in pain or you cannot focus right now.

This information is important to your health. We may explain something more than once. We will be giving you information in small bits over several days. If there is something you don’t understand it is OK to ask us to explain.

What I need to learn about metered dose inhalers

By the time I leave the hospital I will be able to show or tell staff:

1. What kinds of inhaled medicine I will be using.
2. How often I should use my inhaler or medicine (s).
3. How I will use my inhaler.

The staff will use three questions to teach me about metered dose inhalers:

1. What is my main problem?
2. What do I need to do?
3. Why is this important to me?

The staff will ask me to repeat back important points in my own words, or ask me to show what I have learned. They want to make sure that I know about my breathing and how to use my inhaler correctly.

What is my main problem?

I am having trouble breathing. Sometimes I will need to use medicine that I inhale. It is important that I know how to use my inhaler the right way.
What do I need to do?

- I will be able to tell the staff about the inhaled medicine I will be using.
- I will be able to tell staff what kinds of medicine I will be using and how often I should use them.
- I will be able to tell staff how I will take these medicines

I will be using a:

☐ Metered dose inhaler (MDI) with or without holding chamber/spacer

The medicine(s) I take with a metered dose inhaler is/are:

Name: __________________  # of Puffs: _____  When: ________________
Name: __________________  # of Puffs: _____  When: ________________

☐ Dry Powder Inhaler (DPI)

The medicine(s) I take with a dry power inhaler is/are:

Name: __________________  # of Puffs: _____  When: ________________
Name: __________________  # of Puffs: _____  When: ________________

☐ Soft Mist Inhaler (SMI)

The medicine(s) I take with a soft mist inhaler is/are:

Name: __________________  # of Puffs: _____  When: ________________
Name: __________________  # of Puffs: _____  When: ________________
I will be able to tell the staff how I will use my MDI inhaler.

Priming your MDI:

If you are using an inhaler for the first time or have not used the medication within the last two weeks, you will need to prime the inhaler by following these steps:

1. Remove the cap from the inhaler
2. Shake the inhaler four to five times
3. Spray the inhaler into the air until you see a full puff of medication come out of the inhaler. You may need to do this a few times.
4. Your inhaler is now primed and ready to use.

Steps for using a MDI:

1. If this is the first time, you are using this inhaler, or if it has been more than two weeks, since you last used your inhaler, you must first prime your inhaler. (See instructions above.)
2. Remove the cap from your inhaler.
3. Shake your inhaler 4 to 5 times.
4. Breathe out completely.
5. Place the first two fingers of one hand on the top of the inhaler and the thumb of the same hand on the bottom of the inhaler.
6. Place the mouthpiece of the inhaler into your mouth and close your lips around the mouthpiece.
7. Begin a long, slow, deep breath in, compress the inhaler canister between your fingers, and thumb one time. Continue to breathe in slowly and deeply.
8. Hold your breath for 5 to 10 seconds.
10. Wait at least one full minute before repeating steps 4-9.

If you are unable to hold your breath for ten seconds, you should hold as long as you can. Waiting one minute between puffs of medication is important to allow the first puff of medicine to start working. The second puff of medicine can then get deeper into your lungs.
Using a holding chamber or spacer with a MDI

Steps for using a holding chamber or spacer with your MDI:

1. Remove the caps from your inhaler and the chamber.
2. Insert the mouthpiece of the inhaler securely into the back of the chamber.
3. If a mask is needed, place the mask onto the mouthpiece end and gently twist until it fits securely.
4. Shake the chamber and inhaler 4-5 times.
5. Place your lips around the mouthpiece to form a tight seal. Exhale. Spray one puff of medicine into the chamber and immediately begin to inhale slowly, taking a full deep breathe.
6. If the flow alert “whistle” sounds, breathe in more slowly.
7. Hold your breath for up to 8 seconds and then breathe out.
8. Or, if using a mask, press and hold the mask over the mouth and nose. Spray one puff of medicine into the chamber and breathe in and out for 6 breaths.
9. If your doctor has instructed you to take more than one puff of medicine, wait for one minute and then repeat steps 5-8.

**I will be able to tell the staff how I will use my DPI inhaler.**

1. Prepare & open the inhaler
2. Load the dose (see specific inhaler instructions)
3. Exhale normally
4. Place the mouthpiece between your lips and close your lips around it
5. Take a long steady, deep breath in through your mouth
6. Remove the inhaler from your mouth
7. Hold your breath for at least 5 to 10 seconds
8. Breath out normally
I will be able to tell the staff how I will use my SMI inhaler.

1. Prepare & open the inhaler
2. Load the dose (see specific inhaler instructions)
3. Exhale normally
4. Place the mouthpiece between your lips and close your lips around it
5. Take a long steady, deep breath in through your mouth
6. Remove the inhaler from your mouth
7. Hold your breath for at least 5 to 10 seconds
8. Breath out normally

Why is this important to me?

I need to be able to take my medicine the right way to treat or prevent episodes of breathing problems. I want to be sure the right amount of medicine is used each time. I do not want to waste my medicine.
**Metered Dose Inhaler**

Resources for staff:

- Bronson Policy RC 36.90 ([Bronson Methodist Hospital Manuals](Bronson Methodist Hospital Manuals), type in RC 36.90 in the search box)

Teaching Tools:

- Metered dose inhaler and placebo inhaler if available.
- Respiratory care staff to use specific medication instruction sheets located on the respiratory care webpage of the Bronson Intranet as needed.
- Patient & family education plans - COPD and asthma with action plans (Green, Yellow & Red Zones)

References:


Approved by:

- Patient Education Council July 2016

Authored by:

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  Respiratory Staff Development Instructor
- Kathleen Bedford BS, RRT

Revision Date:

- 6/9/2016

**Are there any contraindications to this teaching?** Age and ability of the patient help to determine type of delivery device to use. Cognitive ability to follow directions is essential for teach back.

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<table>
<thead>
<tr>
<th>Drug: Brand</th>
<th>Generic</th>
<th>Inhaler (mcg)</th>
<th>Number of puffs Or Vials</th>
<th>Solution for nebulizer (mg)</th>
<th>Duration of action (hours)</th>
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<tr>
<td><strong>Beta 2 Agonists- Short Acting- Rescue</strong></td>
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<tr>
<td>Albuterol</td>
<td>90 HFA-MDI</td>
<td>1-2 Q 4-6 PRN</td>
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<td>4-6</td>
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<td>Foradil</td>
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<td>Indacaterol Maleate</td>
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<td>5 SMI</td>
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<td>Atrovent</td>
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<td>5/5 SMI</td>
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<td><strong>Short-Acting Anticholinergic plus B2 Agonist (IB/SABA)</strong></td>
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<tr>
<td>Asmanex</td>
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<td>Mometasone Furoate-Fomoterol Furoate</td>
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<td>100/25 DPI</td>
<td>1 Q Day</td>
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Scripting for Staff to use with Patients & Families

A prescription from your doctor will tell you how much medication to take and how often. Follow your doctor’s instructions. Your medications may include:

- An inhaled corticosteroid -- a medicine to control swelling inside your airways. Inhaled corticosteroids treat inflammation in the airway, and only very small amounts of the medicine are absorbed into the body. So these medicines don't tend to cause the serious side effects, such as weakening of the bones, that corticosteroids can cause when they are taken in liquid, pill, or injection form (systemic corticosteroids).

- A long acting bronchodilator -- These medications are long-acting and their effects last for a long time. Therefore, these medications should not be used for acute shortness of breath in an emergency. Long-acting bronchodilators are used regularly to open the airways and keep them open.

- A fast acting bronchodilator -- These medications work quickly (within 15-20 minutes) to help decrease shortness of breath. They are sometimes described as "rescue" or "quick-reliever" medications. Your doctor may prescribe a short-acting beta-agonist to use as-needed to decrease shortness of breath or to use every day. They may also be prescribed before exercise.

Breathing medications can be delivered with a nebulizer or an inhaler. A nebulizer or an inhaler is a way to get the medication to your lungs. Some medications are only available in inhaler form. Other medications such as Albuterol (ProAir/Proventil/Ventolin) are available in both nebulizer solution and inhaler. This is important to understand. If you take a nebulizer treatment with albuterol, you should not use your Albuterol/ProAir/Proventil/Ventolin inhaler for 4-6 hours.

Some inhalers and nebulizer solutions contain more than one medication. For example, several breathing medications combine both a long-acting bronchodilator and an inhaled corticosteroid (Advair, Symbicort, Dulera are examples of combined medications.) It is important that you not take more of these medications than prescribed as they can cause serious health issues when over used.

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