Asthma Devices 101
Theresa Blount, BSN, RN, AE-C
Coordinator, Pediatric Asthma Program
Vidant Medical Center

Objectives

- Demonstrate use of asthma devices and how to optimize medication delivery.
- Discuss cleaning and maintenance of devices.

Metered Dose Inhalers (MDIs)

- Check inhaler for expiration date
- Shake the inhaler 5 times before each use
- Prime the inhaler when using for the first time and if not used after 10-14 days
- Use spacer when indicated
- Rinse mouth after use
- Always refill before empty
- Clean mouthpiece of the inhaler
- Allergy & Asthma Network has poster with priming and cleaning information

Spacers

- A spacer (holding chamber) is a tool used with a metered dose inhaler.
- When used correctly, spacers help more medicine get into the lungs.
- Spacers come in different sizes and shapes for all ages.

Why Use a Spacer?

- When an inhaler is used alone, medicine ends up in the mouth, throat, stomach and lungs.
- When an inhaler is used with a spacer device, more medicine is delivered to the lungs.
Facemask Spacers

Using Facemask Spacer

- Remove cap from inhaler.
- Shake inhaler and insert into back of spacer.
- Apply mask covering nose and mouth with gentle pressure to form seal.
- Press inhaler once then breathe in and out 5-6 times and repeat for each puff as prescribed.
- Keep stored in sealable bag.
- Clean per instructions only as needed.

Mouthpiece Spacers

Using Mouthpiece Spacer

- Remove cap from inhaler and spacer.
- Shake inhaler and insert into back of spacer.
- Take big breath in and out then insert mouthpiece in mouth forming good seal.
- Press inhaler once and take in slow, deep breath. Hold until the count to 10 then slowly breathe out.
- Keep stored in sealable bag.
- Clean per instructions only as needed.

Nebulizer

- Place nebulizer on sturdy surface and plug in.
- Pour prescribed medication into medication cup and replace cap.
- Connect mask or mouthpiece to medication cup.
- Connect tubing to nebulizer and medication cup.
- If using a mask, position securely and comfortably. If using a mouthpiece, place it between teeth and seal lips around it.
- Take slow deep breaths and breathe out slowly.
- Continue treatment until medication is gone. The nebulizer will make a sputtering noise and the medication cup will be empty.
- Turn off machine. Disconnect medication cup from tubing. Soak medication cup, mask and mouthpiece in a solution of 1 part distilled white vinegar to 3 parts hot tap water for one hour. Rinse with warm water. Allow parts to air dry and store in a sealed bag.

Built in Spacer

- Pull purple actuator out of the gray spacer.
- Snap into an "L" shape making sure the purple actuator and gray spacer match up.
- Deep breathe in and out through away from mouthpiece.
- Put mouthpiece in mouth to form tight seal. While breathing in, fully depress the metal canister of medicine for at least 1 second. Continue to breathe for 3 more seconds.
- Hold breath for 10 seconds then breathe out gently away from mouthpiece.
- If a second dose is needed, repeat steps 4-7.
- Snap the purple actuator back to the straight position
- Gently push purple actuator back into gray spacer.
Dry Powder Inhalers (DPIs)

- Dry powder inhaler does not have a propellant.
- It is self-actuated or breath-actuated.
- No spacer used.

Breath–Actuated Inhaler

- Hold Respivclick upright then open cap fully until hear “click”.
- Breathe out through your mouth away from mouthpiece.
- Put mouthpiece in your mouth forming a tight seal. Take in a deep, steady breath. Hold breath for 10 seconds then breathe out gently away from mouthpiece.
- Close cap.
- If a second dose is needed, repeat steps 2 - 5.
- No washing, shaking or priming needed. No spacer device is required for this inhaler.

Diskus

- Hold Diskus in one hand. Place thumb on thumb grip. Push thumb grip away until you hear a “click”.
- Hold Diskus with mouthpiece towards you; slide lever away until you hear a “click”.
- Place mouthpiece in your mouth and take in a deep, steady breath. Hold your breath for 10 seconds then gently blow out away from mouthpiece.
- To close, slide thumb grip back towards you as far as it will go until you hear a “click”.

Flexhaler

- Hold Flexhaler upright, twist off white cover.
- Do not shake.
- Prime two (2) times before first use. Twist grip back and forth until it clicks, then repeat.
- To load a dose, hold Flexhaler upright with mouthpiece on top and twist the grip back and forth until it clicks.
- Deep breath in and out. Put mouthpiece in mouth forming a tight seal. Take in a deep, steady breath. Hold breath for 10 seconds then breathe out gently.
- If a second dose is needed, repeat steps 4 & 5.
- Put cover on.

Twisthaler

- Hold main body of Twisthaler upright, with the pink base at bottom.
- Remove white cap. Medicine is loaded and ready.
- Arrow should be pointing toward the counter window.
- Deep breath in and out. Keep level and put mouthpiece in mouth to form a tight seal. Take in deep, steady breath.
- Hold your breath for 10 seconds then breathe out.
- Replace cap, turning it until you hear a click.
- If another dose is required, repeat steps 2-6.
- Cap locks when the device is empty.

Ellipta

- Slide the cover down to reveal the mouthpiece. Should hear a “click”.
- Deep breath in and out through mouth away from mouthpiece.
- Put mouthpiece in mouth forming a tight seal. Do not block the air vent with fingers.
- Take in a deep, steady breath. Hold breath for 3-4 seconds then breathe out gently away from mouthpiece.
- Close cover.
**Peak Flow Meters**

- Devices that measure the amount of air that can be blown out of the lungs.
- Peak flow meters can detect changes in the lungs hours, even days, before symptoms appear.
- Predicted peak flow numbers are based on a combination of your height, your gender, your age and your normal values when you are not having symptoms.
- The colored zones on the peak flow can help determine how your overall management plan is working, when to take your medicine, and when to call the doctor.
- Effort dependent.

**Asthma Action Plan**

**Authorization for Medication Form**

**Content Information**

- Please refer to pharmaceutical information for proper use, dosing, priming, and cleaning.

**Contact Information**

Theresa Blount, BSN, RN, AE-C
Coordinator, Pediatric Asthma Program
Vidan Medical Center
Phone: 252-847-6835
Email: tpblount@VidantHealth.com