

Student Asthma Management Skills Competency Assessment Form

Student _____ Date _____
School _____ Inhaler Type _____

Metered Dose Inhalers (MDI)

1. SPRAY INHALER WITH A SPACER OR A HOLDING CHAMBER:

If using a tube type spacer/holding chamber:

- 1. Remove cap, inspect, and clean if necessary.
- 2. Put inhaler in spacer opening. Hold spacer and inhaler together and shake 8-10 times.
- 3. Breathe out gently, emptying lungs. Hold breath. Place spacer in mouth with lips closed tightly around the mouthpiece.
- 4. Spray one puff of medicine into the spacer, and begin to take in a slow deep breath. If you hear a whistle, breathe slower, but keep taking a deep breath.
- 5. Take the spacer out of mouth, and hold breath. Count to 10 slowly, then breathe out slowly.
- 6. Repeat for each puff of medicine the doctor orders. Wait one minute between each puff.

If you use a spacer with a facemask:

- 1. Remove cap, inspect, clean if necessary.
- 2. Put inhaler in spacer opening. Hold spacer and inhaler together and shake 8-10 times.
- 3. Put mask over the nose AND mouth and press against the face gently so no air or medicine escapes.
- 4. Spray one puff of medicine and hold the mask in place while breathing in and out 6 times.
- 5. Repeat for each puff of medicine the doctor orders. Wait one minute between each puff.

2. INSPIREASE DEVICE:

Inspirease: Type of spacer or holding chamber, does not have a one-way valve. Most useful for those who can't inhale deeply or hold breath for more than a few seconds.

- 1. Connect the mouthpiece to the bag and untwist the bag to its full size.
- 2. Shake the medication canister 8-10 times and put in the upright part of the mouthpiece. Exhale completely.
- 3. Put mouthpiece in mouth and close lips tightly around it.
- 4. Spray only one puff of the inhaler. Breathe in slowly to a count of 5 until the bag collapses. If you hear a whistle, breathe slower until there is no sound.
- 5. Hold breath while counting slowly to 5, then breathe out slowly into the bag.

INSPIREASE DEVICE –CONTINUED–

- 1. Breathe in again and count to 5, but DO NOT spray the medicine again. Hold breath for a count of 5, then breathe out.
- 2. Repeat for each puff of medicine the doctor orders. Wait one minute between each puff.
- 3. How to clean: Do not clean collapsible bag; Take mouthpiece off and clean in warm soapy water, rinse and air dry on clean towel.
- 4. Replace collapsible bag every 3-4 weeks or sooner if needed.

Key Points for all Above:

1. Breathe in slowly (as age allows)
2. Wait at least 1 minute between each new puff of medicine.
3. If MDI has not been used in **4 weeks**, you need to prime it (spray) **4 times**.
4. Keep a diary to determine when the MDI is empty: Record each time MDI is used.
DO NOT float the MDI in water, this WILL NOT tell if it is empty.
5. A spacer or holding chamber is recommended for all ages when using an MDI, especially with inhaled corticosteroids (should have a one-way valve to be effective).
6. Never put two puffs of medicine in the chamber at the same time.
7. **Spacer with mask** – ages 1-5 or anyone who cannot hold breath or breathe deeply.
8. **Spacer with mouthpiece** - for approximately 7-8 years of age and above. The student must be able to take a deep breath and hold 10 seconds.
9. Spacer or holding chamber:
 - Increases the amount of medicine reaching the lungs,
 - Reduces throat irritation and sore mouth,
 - If unable to breathe through mouth or follow directions, use a mask with the holding chamber.
10. How to clean: Wash with soapy water and rinse before first use; Clean once a week following the manufacturer's recommendations (see package insert).

**Cleaning too frequently will cause static electricity, which will cause medication to adhere to the walls of the device.*

NOTE: It is NOT recommended to use inhaler without spacer (exception: autohaler), but if this is done it should be with open mouth technique (which may not work well with the round shape of some HFA inhalers) to avoid spraying medicine directly on tongue or roof of mouth.

3. SPRAY INHALER OPEN MOUTH:

- 1. Remove cap, inspect and clean if necessary. Shake the inhaler 8-10 times.
- 2. Stand up if possible.
- 3. Breathe out.
- 4. Open mouth and hold the inhaler two finger widths away. As start to breathe in, push down on the top of the inhaler and keep breathing in slowly.
- 5. Hold breath for 10 seconds.
- 6. Breathe out gently through pursed lips if possible.
- 7. If more than one puff prescribed, wait one minute before each puff.

Metered Dose Inhaler (MDI)

AUTOHALER (MAXAIR):

- 1. Hold canister upright and remove the cap.
- 2. Raise the lever so that it stays up. It will “snap” in place. Keep upright.
- 3. Hold autohaler around the middle and shake gently several times. Do NOT block air vents at bottom.
- 4. Continue to hold upright. Exhale fully. Seal lips tightly around mouthpiece.
- 5. Inhale deeply through mouthpiece with steady, moderate force. A “click” will be heard and a soft puff felt when the inhalation triggers the release of medicine. Do not stop when click is heard or the puff felt. Continue to take a full, deep breath.
- 6. Take Autohaler away from mouth and hold breath for 10 seconds, then exhale slowly.
- 7. Continue to hold autohaler upright while lowering the lever. Lower lever after each puff. Wait one minute for each additional puff prescribed and repeat above steps.
- 8. If not used for 48 hrs, follow steps **1-3** and click lever at bottom to release 1 puff; repeat. This clears the inhaler before use. Then follow **1-7** as above

Keypoint

If Maxair has not been used in 48 hours (2 days) you **must prime (spray) it twice.**

Dry Powder Inhalers (DPI)

- All are controller medications.
- Currently come as a diskus, turbuhaler and aerolizer. The DPI does not use propellants and is not shaken.
- Breath activated, not pressurized. A forceful inhalation is necessary to activate the pre-measured dose.
- Do not expose to moisture, store in a cool, dry place; do not shake before use. The DPI must be held level or the dose will dump out.

A. DISKUS

1. **Open:** With Diskus level in one hand, place thumb of other hand on grip and push away to expose lever underneath.
2. **Click:** Push lever away until you hear and/or feel a “click”. (Hold the diskus level and don’t tip or you will lose the dose.)
3. Turn face away and breathe out. Do not blow into the device.
4. **Inhale:** Place the mouthpiece between lips and inhale deeply and forcefully. Then close the diskus.
5. Rinse mouth with water, gargle, and spit. Do not swallow.
6. The exact number of doses left is indicated on the side of the diskus.
7. Delivers 60 doses of Serevent, or Advair (fluticasone/salmeterol) (one month supply), or 28 doses of samples (2 weeks supply). Use only one inhalation per dose: The counter indicates how many doses are left.

B. TURBUHALER

1. To Prime (**the first time only**): Hold upright, twist off white cap and twist brown base to the right, then to the left until hear the click. Repeat.
2. To use: Hold upright, twist off white cap and twist brown base to the right, then to the left until hear the click.
3. Turn face away and breathe out. Do not blow into the device
4. Place the mouthpiece between lips and inhale deeply and forcefully. (The turbuhaler must be held upright or horizontal or you will lose the dose.)
5. If more than one dose is prescribed, repeat **steps 2 through 4**.
6. Replace cover. Turbuhaler must be kept clean and dry.
7. Rinse your mouth with water, gargle and spit. Do not swallow.
8. When red line shows on side of Turbuhaler, there are 20 doses left.

TURBUHALER – CONTINUED-

- 9. Delivers 200 doses of Pulmicort (budesonide)
- 10. When using it for the first time, it must be primed.
- 11. When 20 doses are left, red mark appears on side of turbuhaler and will remain.

C. AEROLIZER INHALER

Delivers Foradil in a capsule. Capsule is NOT to be swallowed.

- 1. Pull cover off.
- 2. Hold base of Aerolizer inhaler and twist mouthpiece in the direction of the arrow to open.
- 3. Push buttons in to make sure that the 4 pins are visible in the capsule well on each side.
- 4. Peel paper backing from one blister capsule and push capsule through the remaining foil. Remove capsule just before use.
- 5. Place capsule in the capsule-chamber (not in the mouthpiece).
- 6. Twist mouthpiece back to closed position.
- 7. Hold inhaler/mouthpiece upright; at the same time press both buttons once. A click should be heard as the capsule is being pierced.
- 8. Release the buttons (don't press again).
- 9. Tilt head back slightly and place mouthpiece in mouth, close lips around it. (Make sure inhaler is horizontal, with the blue buttons to the left and right...NOT up and down).
- 10. Inhale deeply and steadily. A whirring noise will be heard and a sweet taste experienced.
- 11. Open the Aerolizer inhaler and remove the empty capsule.

Nebulizer:

- 1. Choose a comfortable position that allows you to inhale medicine.
- 2. Place the nebulizer compressor on a stable surface and plug machine in.
- 3. Unscrew top of nebulizer.
- 4. Put premeasured unit or prescribed dose of medicine in nebulizer cup.
- 5. Replace top of nebulizer and turn until secure.
- 6. Attach mouthpiece onto nebulizer with valve facing down, or attach mask if mouthpiece can't be used correctly. Blowby (Blowing the medicine into the face) is not very effective and not recommended unless other delivery methods are not possible.
- 7. Attach the tubing to bottom of nebulizer by pressing on firmly.

Nebulizer – continued-

- 8. Attach opposite end of tubing to machine's outlet port.
- 9. Turn compressor machine on. Check for a steady mist.
- 10. Place mouthpiece between teeth and top of tongue and inhale through the mouth.
- 11. If using a mask, hold mask to face or secure with a strap.
- 12. If using a nebulizer mask with holes, place mask over nose and mouth and take the cap off of neb, otherwise it will take much longer to dispense.

If using Pulmicort respules, be sure to use a mask without holes and use the accompanying one-way valve attachment, to allow medicine to reach lungs effectively. Wash face and rinse mouth after.

If side effects are experienced such as dizziness, nausea, chest pain, uncontrollable coughing, heart racing extremely fast, or irregular heartbeat, or any other side effects that may occur with any medication, **STOP** the treatment and call your primary health care provider.

- 13. Continue treatment until medicine is gone.
- 14. Turn compressor off.
- 15. Rinse mouth with water if using Budesonide respules.
- 16. **DO NOT** throw the machine adaptor away.
- 17. Rinse nebulizer parts as appropriate and wash at recommended intervals.

Key Points- Nebulizer

1. A liquid medicine suspended in a saline solution is poured into nebulizer.
2. Air compressors or jet nebulizers produce a fine mist of the solution.
3. The mist with the medicine can penetrate deep into the lungs.
4. Effective for those who cannot use inhalers.
5. Both quick relief and inhaled corticosteroids are available in liquid form for the nebulizer.
6. There are different types of nebulizers: jet and ultrasonic. Pulmicort (budesonide) respules should not be used with ultrasonic Nebulizer.
7. Some deliver greater volumes and take less time for the aerosol therapy.
8. Average treatment time is 8-10 minutes.
9. Explain how to clean every other day to prevent infection from bacteria (hot, soapy water to wash nebulizer, rinse with vinegar or sterile water per instructions. May be cleaned in dishwasher, if dishwasher safe. Do not wash tubing.)
10. Explain how to check and replace the filter when it turns gray/dirty looking.

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