

# Appropriate Device Use for Optimum Delivery of Asthma Medication



Device/Drugs	Population	Optimal Technique*
Metered-dose inhaler (MDI) Beta <sub>2</sub> -agonists Corticosteroids Cromolyn sodium Anticholinergics	≥5 years old  (<5 years old with spacer or valved holding chamber (VHC) or mask)	Actuation during a slow (30 L/min or 3–5 seconds) deep inhalation, followed by 10-second breath-hold.  Under laboratory conditions, open mouth technique (holding MDI 2 inches away from open mouth) enhances delivery to the lung. This technique, however, has not been shown to enhance clinical benefit consistently compared to closed-mouth technique (inserting MDI mouth piece between lips and teeth).
Breath-actuated MDI Beta <sub>2</sub> -agonist	≥5 years old	Tight seal around mouthpiece and slightly more rapid inhalation than standard MDI (see above) followed by 10-second breath-hold.
Dry powder inhaler (DPI) Beta <sub>2</sub> -agonists Corticosteroids Anticholinergics	≥4 years old	Rapid (60 L/min or 1–2 seconds), deep inhalation. Minimally effective inspiratory flow is device dependent.  Most children <4 years of age may not generate sufficient inspiratory flow to activate the inhaler.
Spacer or valved holding chamber (VHC)	≥4 years old  <4 years old VHC with face mask	<ul style="list-style-type: none"> <li>Slow (30 L/min or 3–5 seconds) deep inhalation, followed by 10-second breath-hold immediately following actuation. Actuate only once into spacer/VHC per inhalation.</li> <li>If a facemask is used, it should have a tight fit and allow 3–5 inhalations per actuation.</li> <li>Rinse plastic VHCs once a month with low concentration of liquid household dishwashing detergent (1:5,000 or 1–2 drops per cup of water) and let drip-dry.</li> <li>Indicated for patients who have difficulty performing adequate MDI technique.</li> </ul>
Nebulizer Beta <sub>2</sub> -agonists Corticosteroids Cromolyn sodium Anticholinergics	Patients of any age who cannot use MDI with VHC and face mask.	<ul style="list-style-type: none"> <li>Slow tidal breathing with occasional deep breaths. Tightly fitting facemask for those unable to use mouthpiece.</li> <li>Using the “blow by” technique (i.e., holding the mask or open tube near the infant’s nose and mouth) is <b>NOT</b> appropriate.</li> <li>NOTE: Potential for bacterial infections if not cleaned properly.</li> </ul>

FIGURE 10. Aerosol Delivery Devices  
(Additional information concerning therapeutic issues is also included in this table in the actual guidelines.)

<http://www.nhlbi.nih.gov/guidelines/asthma/asthgdln.pdf>

(Full Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma – Summary Report 2007)

<http://www.nhlbi.nih.gov/guidelines/asthma/asthsumm.htm> (Summary)



## Asthma Billing Guidelines and Education

### HFS Covered Services and Durable Medical Equipment

Providers may prescribe the following items that can be received from enrolled medical equipment providers. Any prior approval required for the equipment is the responsibility of the DME provider.

- The Illinois Healthcare and Family Services Fee Schedule can be consulted at [www.hfs.illinois.gov/feeschedule](http://www.hfs.illinois.gov/feeschedule).
- The DME reimbursement schedule can be obtained at [www.hfs.illinois.gov/reimbursement/dme.html](http://www.hfs.illinois.gov/reimbursement/dme.html).
- Location of participating DME providers can be obtained by the client or provider by contacting the Client Hotline at 1-800-226-0768.
- For more detailed information concerning HFS policies and procedures, please consult and review the HFS Provider Handbook at [www.hfs.illinois.gov/handbooks](http://www.hfs.illinois.gov/handbooks).

### Durable Medical Equipment

Equipment and Prostheses ONLY—Listed Alphabetically  
Updated as of: 10/26/2009

HCPCS	Description	Prior Approval Needed	Purchase Price	Rent	Max Quantity Covered**
E0580	Nebulizer Glass-Auto Plastic Use W/Regulator	No	\$126.00	\$0.00	1 per year
E0570	Nebulizer W/ Compressor	No	\$96.62	\$0.00	1 every 3 yrs
E0575	Nebulizer; Ultrasonic, Large Volume	Yes	\$844.00	\$84.40	N / A
E0574	Nebulizer; Ultrasonic, Small Volume	Yes	\$376.50	\$0.00	N / A
A4614	Peak Expiratory Flow Rate Meter Hand Held	No	\$22.35	\$0.00	4 per year
A4627	Spacer/Bag/Reservoir, W/ Or W/O Mask, W/ Metered Dose Inhaler	No	\$13.77	\$0.00	4 per year

\* These items are covered by Medicare. Medicare must be billed **first** if the patient is dually eligible.

\*\* Quantities that exceed the allowable maximum quantity within the period shown will require prior approval.

**Patient Example #1:** Patient sees a practitioner for an exam and a diagnosis of asthma is made on the history and physical and confirmed with pulmonary function tests. The patient is educated on asthma and an action plan is developed with the patient, which includes the use of a peak flow meter and potentially an MDI with a spacer.

HCPCS	Description	Reimbursement Rate
99xxx	Evaluation and Management Code Asthma Action Plan	Per fee schedule
94010	Spirometry	Per fee schedule
A4614	Peak Expiratory Flow Rate Meter, Hand Held	Provided through DME Provider
A4627	Spacer/Bag/Reservoir W/ Metered Dose Inhaler	Provided through DME Provider

\* HFS will pay for both an office visit and spirometry when billed under the same DCN.

\*\* Provider should prescribe the appropriate DME to the patient. The patient will fill the prescription with an enrolled medical equipment provider. The enrolled DME provider will know the quantity limitations and will be responsible for obtaining the appropriate prior approval, as necessary. **Location of participating DME providers can be obtained by contacting the Client Hotline at 1-800-226-0768.**

**Patient Example #2:** Patient requires a home nebulizer but had received (and lost) one two years prior.

HCPCS	Description	Reimbursement Rate
E05xx	Nebulizer	Per fee schedule

\* Provider should prescribe an appropriate nebulizer. The patient will fill the prescription with an enrolled medical equipment provider. The enrolled DME provider will know the quantity limitations and will be responsible for obtaining the appropriate prior approval, as necessary.

**Patient Example #3:** Patient seeks care in-office for an acute exacerbation of their asthma. Patient receives an in-office nebulizer treatment.

HCPCS	Description	Reimbursement Rate
94640	Pressurized or Non-Pressurized Inhalation Treatment	Per fee schedule
99xxx	Evaluation and Management Code	Per fee schedule

\* HFS will pay for both an office visit and nebulizer treatment separately when the appropriate CPT codes for each specific service are billed.

Any codes provided in these examples are subject to change. Providers are responsible for reviewing current documentation and selecting the appropriate CPT code from the AMA's CPT book for billing submission.

## Smoking Cessation

Smoking cessation is a critical component of asthma management for asthmatic patients who smoke. Several resources are available to assist patients with smoking cessation.

The **Illinois Tobacco Quitline** (Quitline), **1-866-QUIT-YES (1-866-784-8937)**, provides free, confidential counseling and support to tobacco users through all stages of the quitting process. The Quitline is staffed by Addiction Specialists, Respiratory Therapists and Registered Nurses trained at the Mayo Clinic. These specially trained staff can provide ongoing support through the process of quitting. The Quitline hours are Monday through Friday, from 7 am to 9 pm, and translation services are available in 150 languages.

HFS provides reimbursement of smoking cessation medication to assist HFS-covered patients in quitting the use of tobacco. This includes nicotine replacement products, bupropion and varenicline. Over-the-counter smoking cessation products are covered by HFS when prescribed.

More information about smoking cessation support can be accessed at: [www.hfs.illinois.gov/assets/123008smoking.pdf](http://www.hfs.illinois.gov/assets/123008smoking.pdf).



## Free CMEs

For more information about FREE Asthma and COPD CMEs, visit [www.YHPlus.com](http://www.YHPlus.com) or call IAFP at (630) 435-0356.

## Appropriate Device Use for Optimum Delivery of Asthma Medication

Effective management of asthma largely hinges on patient education and appropriate use of asthma medications. Devices designed to enhance the delivery of inhaled medications can be critical to the control of a patient's asthma. HFS does not currently reimburse for asthma patient education as a separate service; this service is considered and billed as part of the appropriate E & M code.

For Disease Management eligible patients, you may wish to call upon Your Healthcare Plus staff for additional patient education support: **1-800-973-6792** (ask for the provider line to make a patient referral).

The following information may assist clinicians in providing asthma education to patients on the appropriate use of medications.

The major advantages of delivering drugs directly into the lungs via inhalation are that higher concentrations can be delivered more effectively to the airways and that systemic side effects are lessened. Inhaled medications, or aerosols, are available in a variety of devices that differ in the technique required.

*The clinical information on the next page has been extracted from the asthma clinical guideline summary.*

- The Expert Panel does NOT recommend regularly scheduled, daily, long-term use of SABA (short acting beta agonists) (Evidence A).