

Breath of Fresh Air

Volume 10, No. 2

Information, news and advice for improving asthma well-being

Summer 2007

Albuterol with HFA Propellant

The “green movement” has caught up with the world of asthma inhalers. As a result, your quick-relief albuterol inhaler will soon — if not already — have a different look and feel to it. You will soon have no choice but to use for your albuterol spray a metered-dose inhaler driven by a hydrofluoroalkane (HFA) propellant. You will be prescribed one of the three available albuterol HFA metered-dose inhalers: ProAir-HFA, Proventil-HFA, or Ventolin-HFA. At present there is no generic albuterol-HFA on the market.

You may already know why this transition from traditional to HFA-driven metered-dose inhalers is taking place. The traditional metered-dose inhalers all use chlorofluorocarbons (CFCs) as their propellants. CFCs react chemically with ozone high in our atmosphere, depleting the protective ozone layer that surrounds planet Earth. The resulting “ozone hole” contributes to global warming and excess ultraviolet light exposure.

In response to this man-made environmental calamity, nations of the world banned production and use of CFCs beginning in 1989, with certain medical exemptions. The world community has set the end of 2008 as its target for eliminating CFCs in medication inhalers. In anticipation of this deadline, alternative metered-dose inhalers have come to market. You may have already encountered, for example, Flovent-HFA, Atrovent-HFA, Qvar(-HFA), or Xopenex-HFA. Albuterol, the most widely prescribed metered-dose inhaler for asthma treatment, is now following suit.

If you have tried one of the albuterol-HFA products, you will likely have noticed a different feel to the medication than traditional albuterol-CFC inhalers. The medication spray (or “plume”) leaves the canister nozzle at a slower speed than from traditional metered-dose inhalers. The mist is not as cold and does not feel as forceful in the back of the throat. Change is difficult, but it is not necessarily bad. Although the spray feels different, the albuterol in the new inhalers has the same bronchodilator effect on your lung as the albuterol in the old CFC-driven inhalers.

In experiments where neither the asthmatic patient nor the investigator conducting the experiment knew which type of albuterol metered-dose inhaler the patient was using (called a “double-blinded” clinical trial), the effect of the albuterol-HFA inhalers was identical to that of the traditional inhalers — in the rapidity with which they began to work, in their effectiveness in opening the bronchial tubes, and in the duration with which they continued to exert their effects. Albuterol-HFA and albuterol-CFC are indistinguishable in terms of benefit and side effects, but they *feel* different in your mouth and throat. Of course, if you choose to use your albuterol inhaler with a spacer (officially called a valved holding-chamber), this difference in sensation will disappear. Give the plume of medication a second or two to slow its velocity within the chamber, and it will feel the same whether it left the nozzle of the inhaler more or less rapidly. You could probably arrange for a “blinded” test of your own to prove to yourself that this is true.

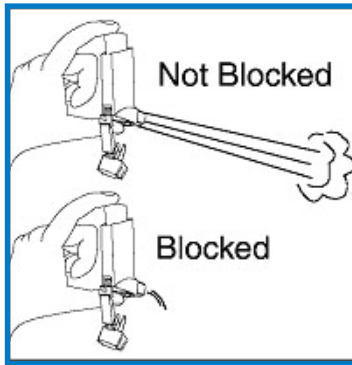


Continued on page 2

Albuterol with HFA Propellant, continued from page 1

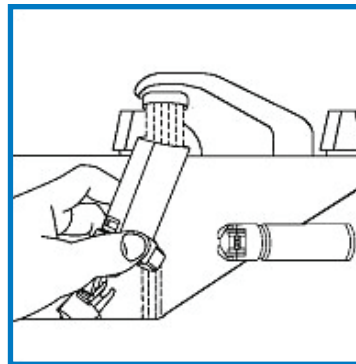
Cleaning your albuterol-HFA inhaler

One other aspect of the new albuterol-HFA inhalers worth noting is that some medication may accumulate at the nozzle of the metal canister where it sits in the actuating well of its plastic holder. Build up of medication residue may block the spray of medicine from being released.



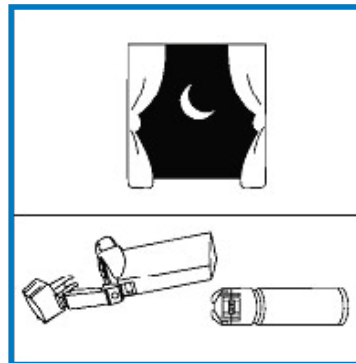
Medication build-up can clog the actuation system.

Therefore, once a week you should remove the metal canister from its plastic holder (just pull up on the metal canister while holding the plastic holder in place), rinse out the inside of the plastic holder (particularly, the little round well where the nozzle of the metal canister sits), and then allow the plastic holder to air dry.



Rinse with running warm water for 30 seconds..

Don't replace the metal canister until you are sure that there is no water still filling the well, because water could block the flow of medication too. Then push the metal canister back down into its plastic holder, seating the nozzle in its well, and you are ready to go. (The accompanying illustrations are taken from the website, www.ventolin.com/howtouse.html).



Air-dry thoroughly, such as overnight.

Breath of Fresh Air

Editor-in-chief

Christopher H. Fanta, M. D.

Breath of Fresh Air is published quarterly by the Partners Asthma Center, 75 Francis Street, Boston, MA 02115. We gratefully acknowledge Glaxo Smith Kline for their generous contribution toward publication of this newsletter.

© 2007 Partners Asthma Center.

Requests for permission to reprint should be addressed to the above.

Telephone: (617) 732-4353 Fax: (617) 732-7421

Internet: <http://www.asthma.partners.org>

E-mail: asthma@partners.org



Partners Asthma Center's Annual Gala and Silent Auction

Mark your calendar: **Thursday, November 1** is a day that you won't want to miss!

Partners Asthma Center will hold its third annual fundraising event at the Hyatt Regency Hotel in Cambridge, MA on that evening. And here are four reasons for you to join us for this gala event.

One: The location. The event will take place in the Charles View Ballroom (former Spinnaker restaurant), sixteen stories above the Charles River, overlooking Harvard University to the West and Beacon Hill to the East.



Hyatt Regency Hotel, Cambridge, on the Charles River

Two: The food and drink. We plan multiple food and wine stations with delectable treats to satisfy every palate.

Three: The company. Join with your friends, your doctors, our Asthma Awardees, and the special Asthma Honoree in an evening of camaraderie and good cheer.

Four: The good cause. By your participation you can help raise money to support the many patient-focused materials and activities of Partners Asthma Center that we make available free of charge, including publication and distribution of this newsletter, spacers and peak flow meters, patient brochures and booklets, and more. With your help we will be able to continue and expand these activities, for the good of our common community of people with asthma and related diseases.

Now, we can't keep our special news quiet any longer. Reason to attend number **Five:** This year's Partners Asthma Center's Asthma Honoree is **Mayor Thomas M. Menino**. With this award we will acknowledge the many programs that the City of Boston has initiated to improve the health of its residents with asthma, including Healthy Homes, Kids with Asthma Can ..., and the Boston Asthma Summer Program.



Mayor Thomas M. Menino

News About Asthma

Symbicort

The combination of an inhaled steroid with a long-acting inhaled beta-agonist bronchodilator has proved to be highly effective for the treatment of asthma that is not well controlled with use of an inhaled steroid alone. Currently available inhaled steroids and long-acting bronchodilators are shown in the accompanying table.

Inhaled Steroid	Long-Acting Beta-Agonist Bronchodilator
Beclomethasone (Qvar)	Formoterol (Foradil)
Budesonide (Pulmicort)	Salmeterol (Serevent)
Flunisolide (Aerobid)	
Fluticasone (Flovent)	
Mometasone (Asmanex)	
Triamcinolone (Azmacort)	

Until recently, only one product was available that combined both an inhaled steroid and a long-acting beta-agonist bronchodilator in a single device, maximizing convenience by taking both medicines together from one inhaler. Advair, available as both a dry-powder inhaler (Diskus) and more recently as a metered-dose inhaler (Advair HFA), combines the inhaled steroid, fluticasone, with the long-acting inhaled beta-agonist bronchodilator, salmeterol.

In June, a new combination inhaler was released by the pharmaceutical company, Astra Zeneca. Symbicort combines the inhaled steroid, budesonide, with the long-acting inhaled beta-agonist bronchodilator, formoterol. Long available in Europe and other parts of the world, Symbicort is being marketed in the US as an HFA-driven metered-dose inhaler. It comes in two different strengths, reflecting different amounts (in micrograms) of the steroid medication, budesonide, contained in each puff: Symbicort 160/4.5 and Symbicort 80/4.5. A distinctive feature of the Symbicort inhaler is the quick onset of effect of the bronchodilator, formoterol, which begins to work within 3-5 minutes.

Singulair

The leukotriene (pronounced LOU-ko-TRI-ene) blocker, montelukast (Singulair) is recommended for daily use as an asthma controller medication. It is also approved for the treatment of allergic nasal and ocular symptoms (allergic rhinitis and conjunctivitis, such as “hay fever”). The medication is available as a tablet, chewable tablet, and, for children under two years of age, as sprinkles that can be added to food.

Recently, the Food and Drug Administration gave approval to an additional indication for the use of Singulair: as a medication that helps to block the narrowing of the airways brought on by exercise in people with asthma. Taken as a single dose 30 minutes prior to exercise or taken daily, Singulair blocks exercise-induced bronchoconstriction. A particular benefit of Singulair compared with other medications used to prevent asthmatic symptoms brought on by exercise is that its effectiveness does not wear off with repeated or daily use. Singulair is preventive therapy, not recommended as treatment for the rapid relief of exercise-induced asthmatic symptoms.

Spiriva

Spiriva is infrequently used in the treatment of asthma. It is a long-acting bronchodilator

continued on page 5

News About Asthma, continued from page 4

(administered once daily) of the anticholinergic class of bronchodilators, a group generally not as powerful in persons with asthma as the beta-agonist family of bronchodilators. Spiriva (generic name: tiotropium) is recommended primarily for treatment of chronic obstructive pulmonary disease (COPD). The dry-powder inhaler used to deliver Spiriva, called a Handihaler, has been redesigned, making it easier to open the outside cover (by pressing the blue button on the side of the device) The inner mouthpiece that is raised to load and unload the medication-containing capsule now has a small, easier-to-grip lip on its side. In addition, the medication capsules are now provided in single-unit foil holders.

Veramyst (Correction)

In the last issue of *Breath of Fresh Air*, we described a new nasal steroid spray, fluticasone furoate, about to be released by GlaxoSmithKline for the treatment of allergic nose and eye symptoms (allergic rhinitis and conjunctivitis). We erroneously identified the brand name of this medication as Allermist. Its correct brand name (in the United States) is Veramyst. The medication is now available in pharmacies.



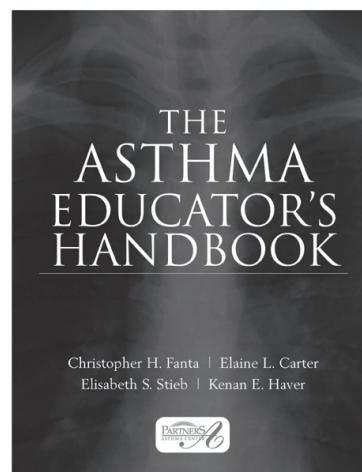
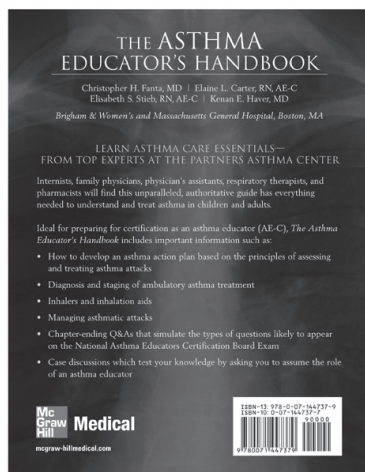
News from Partners Asthma Center

Nora Barrett, M.D. has joined the faculty at Partners Asthma Center. She is a member of the Brigham and Women's Hospital Allergy group practicing at 850 Boylston Street. Her background training as both a fellow in Pulmonary Medicine and thereafter as a fellow in Allergy and Clinical Immunology makes her particularly well-qualified in the care of patients with asthma.



Nora Barrett, M.D.

A New Book about Asthma from Partners Asthma Center. Members of Partners Asthma Center (Drs. Christopher Fanta and Kenan Haver and Nurses Elaine Carter and Lisa Stieb) have written a book for nurses, respiratory therapists, and other healthcare professionals interested in becoming asthma educators. The book, called the *Asthma Educator's Handbook*, derives from a series of seminars presented by many of the faculty members of Partners Asthma Center, called "Becoming an Asthma Educator: Learning to Teach Patients and Families about Asthma." The *Asthma Educator's Handbook* was published by McGraw-Hill and is available via Amazon.com and other booksellers.



Share Your Asthma Story

Do you have an asthma story to share with others?

Perhaps it's a lesson that you learned about living with asthma, an anecdote that would help others deal with their asthma, or a special way that you have learned to manage your asthma.

We'd like to hear from you and to have the opportunity to share your experiences with other readers of *Breath of Fresh Air*.

Please send us your asthma story by mail (Partners Asthma Center, 15 Francis Street, Boston, MA 02115), by e-mail (asthma@partners.org), or by fax (617-732-7421, att'n: *Breath of Fresh Air*).

Thank you in advance for sharing your story.

All of us at Partners Asthma Center wish you a Healthy and Happy Autumn!



Breath of Fresh Air

Partners Asthma Center
75 Francis Street
Boston, MA 02115
1-800-9PARTNERS

Non-Profit
Organization
U. S. Postage
PAID
Permit #187
Burlington, MA

INSIDE

- ◆ Albuterol with HFA Propellant
- ◆ Partners Asthma Center's Annual Gala and Silent Auction
- ◆ News About Asthma: Medication Developments
- ◆ News from Partners Asthma Center: New Doctor; New Book
- ◆ Share Your Asthma Story