CFC metered-dose inhalers: Counseling patients on the phase-out

In accordance with longstanding U.S. obligations under an international agreement called the Montreal Protocol on Substances that Deplete the Ozone Layer, seven metered-dose inhalers (MDIs) used to treat asthma and chronic obstructive pulmonary disease (COPD) are gradually being removed from the U.S. marketplace.

The MDIs being phased out contain ozone-depleting chlorofluorocarbons (CFCs), which are propellants that move medication out of the inhaler so patients can breathe the medication into their lungs. Most CFC inhalers already have been phased out as part of this agreement.

Alternative medications that do not contain CFCs are available, and dates for the phase-out of each CFC inhaler have been set. After those dates, these CFC inhalers cannot be made, dispensed, or sold in the United States (Table 1).

Of the seven CFC inhalers listed, four are no longer being manufactured. Three CFC inhalers currently in use Aerobid, Combivent, and Maxair will be phased out over the next 1 to 3 years. These later phase-out dates give patients time to talk with their health professional and switch to another medication.

Alternatives for patients

In the United States, many other inhalers are available that do not contain CFCs; these inhalers use the propellant hydrofluoroalkane (HFA) instead of CFCs. Also available are dry-powder inhalers that don t use propellants, as well as liquids that are used with a nebulizer machine.

To see some of the treatments approved by FDA for asthma and COPD, refer to the agency s list of treatments that don t use CFCs available online at www.fda.gov/Drugs/DrugSafety/InformationbyDrugClass/ucm082370.htm.

The role of pharmacists

Pharmacists can play a key role in educating patients about alternative treatments for asthma and COPD that do not use CFCs. The following counseling points may be helpful:

- Encourage patients to talk to their health professional about switching to an alternative treatment soon because manufacturers may stop making CFC inhalers before the last day they can be sold.
- Tell patients to continue using their current inhaler until they are switched to another medication.
- Educate patients that alternative medications may look, feel, or taste different and they may be used in a different way than CFC inhalers.
- Tell patients that each HFA-propelled inhaler has different priming, cleaning, and drying instructions.
- Urge patients to read and understand the instructions that come with each HFA-propelled inhaler before using it.

Patients who have concerns about the cost of their inhaler should check with the company that makes the drug to see if it has a patient assistance program that provides the medication at no cost or at a lower cost. Some patients also may be eligible for help paying for medications from CMS.

For more information about the phase-out of these seven CFC inhalers, as well as other CFC inhalers that already have been phased out, FDA has posted a podcast, question-and-answer sheet, consumer article, and press release at the agency website. Visit www.fda.gov/Drugs/DrugSafety/InformationbyDrugClass/ucm193896.htm for these resources.

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Table 1: Affected products and their phase-out schedule

Inhaler medication	Last date to be manufactured, sold or dispensed in United States	Manufacturer
Tilade Inhaler (nedocromil)	June 14, 2010	King Pharmaceuticals
Alupent Inhalation Aerosol (metaproterenol)	June 14, 2010	Boehringer Ingelheim Pharmaceuticals
Azmacort Inhalation Aerosol (triamcinolone)	December 31, 2010	Abbott Laboratories
Intal Inhaler (cromolyn)	December 31, 2010	King Pharmaceuticals
Aerobid Inhaler System (flunisolide)	June 30, 2011	Forest Laboratories
Combivent Inhalation Aerosol (albuterol and ipratropium in combination)	December 31, 2013	Boehringer Ingelheim Pharmaceuticals
Maxair Autohaler (pirbuterol)	December 31, 2013	Graceway Pharmaceuticals