



## Therapeutic Class Review<sup>SM</sup>

### Respiratory: Short-Acting Beta Agonists – Albuterol HFA Inhalers (Proventil HFA<sup>®</sup>, Ventolin HFA<sup>®</sup>, ProAir HFA<sup>®</sup>)

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#### Available Therapeutic Alternatives:

Preferred/Formulary	Non-Preferred/Non-Formulary
Proventil HFA <sup>®</sup> - [Schering-Plough]	Ventolin HFA <sup>®</sup> [GlaxoSmithKline]
	ProAir HFA <sup>®</sup> [IVAX Corp]

#### Executive Summary:

- The FDA mandated the removal of albuterol inhalers containing chlorofluorocarbons (CFCs) from the U.S. to protect the environment and prevent the depletion of the ozone layer by December 2008.<sup>1-3</sup>
- With this removal, patients need to transition from albuterol CFC inhalers to a non-ozone-depleting propellant, hydrofluoroalkane (HFA) product.
  - There are three albuterol HFA metered-dose inhalers marketed in the United States: Proventil HFA, Ventolin HFA (GlaxoSmithKline), and ProAir HFA.
  - Generic albuterol inhalers are no longer available because they contain CFCs.
- HFA products are in short supply because of the large population of patients converting from CFC to HFA albuterol inhalers.
- There is continued concern that manufacturers of albuterol HFA products cannot meet the current and future market demands.
- ProAir or Ventolin may provide an additional source for members needing a short-acting beta-agonist.
- Prescribers indicate and recognize ProAir as an acceptable therapeutic alternative for albuterol HFA inhalers.

**Conclusion:**

ProAir HFA is preferred/formulary because this product will provide an additional option for members during anticipated intermittent shortages of HFA products.

**Appendix 1: Albuterol HFA Inhaler Product Comparison** <sup>2,4-5</sup>

Product <sup>T</sup>	Patent Exp.	FDA Approved Indication	Status	Qty	Usual Dose	Puffs per day	Cost per canister	Puffs per canister	Cost per puff	Approximate Cost per day
Proventil HFA <sup>®</sup>	11/09 – 2/14	Adults and children ages 4 and older for treatment or prevention of reversible obstructive airway disease and prevention of exercised-induced bronchospasms	F	6.7 gm	Up to 2 puffs every 4 – 6 hours prn	200	\$44	200	\$0.22	\$1.76 – \$2.64
Ventolin HFA <sup>®</sup>	4/15 – 12/17	Adults and children ages 4 and older for treatment or prevention of reversible obstructive airway disease and prevention of exercised-induced bronchospasms	N	18 gm	Up to 2 puffs every 4 – 6 hours prn	200	\$38	200	\$0.19	\$1.52 - \$2.28
ProAir HFA <sup>®</sup>	11/09 – 2/14	Adults and children ages 12 and older for treatment or prevention of reversible obstructive airway disease and prevention of exercised-induced bronchospasms	N	8.5 gm	Up to 2 puffs every 4 – 6 hours prn	200	\$37	200	\$0.185	\$1.48 - \$2.22

F = Formulary; N = Non formulary

\* Cost estimate based on AWP (average wholesale price) listed in First Data Bank as of January 18, 2007.

**References:**

1. National Institutes of Health, National Heart, Lung and Blood Institute, "Guidelines for the Diagnosis and Management of Asthma," 1997
2. ProAir<sup>®</sup> HFA Package Insert, IVAX Pharmaceuticals, Miami, Florida, February 2006.
3. The Montreal Protocol on Substances that Deplete the Ozone Layer as adjusted and/or amended in London 1990, Copenhagen 1992, Vienna 1995, Montreal 1997, Beijing 1999, "Preamble," [http://www.unep.org/ozone/Montreal-Protocol/Montreal-Protocol2000.shtml#\\_Toc483027784](http://www.unep.org/ozone/Montreal-Protocol/Montreal-Protocol2000.shtml#_Toc483027784). Accessed June 2, 2006.
4. Ventolin HFA Package Insert, GlaxoSmithKline, Inc., Research Triangle Park, NC, December 2005.
5. Proventil HFA Package Insert, Key Pharmaceuticals, Inc., Kenilworth, NJ, October 2001.