

## Network News

## Lahey Clinical Performance Network

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## **Generic Inhalers are now Here!**

How to navigate the options

Several generic inhalers have become available in recent months. Though this will help with patient affordability (and costs to provider organizations), the new options may have delivery devices that are different than equivalent brand-name products. It's important to review the different inhaler devices and individualize therapy for your patient.

Three main types of inhaler devices are available: pressurized metered dose inhaler [MDI, including those containing hydrofluoroalkane (HFA)], dry powder inhaler (DPI), and soft mist inhaler (SMI).

The new generic options include:

- Short-acting beta-agonists: two albuterol HFA products (for ProAir HFA and Ventolin HFA. Proventil HFA does not yet have an authorized, interchangeable generic)
  - Same strength and delivery devices
- Long-acting beta-agonist with inhaled corticosteroid: three fluticasone / salmeterol products (for AirDuo RespiClick and Advair Diskus)
  - For AirDuo: generic fluticasone propionate/salmeterol (RespiClick) (strengths: 55/14 mcg, 113/14 mcg or 232/14 per dose, administer 1 inhalation twice daily)
  - For Advair Diskus: generic fluticasone propionate/salmeterol Diskus, OR Wixela (fluticasone propionate/salmeterol)
     Inhub (both product strengths: 100/50 mcg, 250/50 mcg, or 500/50 mcg per dose, administer 1 inhalation twice daily)
  - NOTE: Advair HFA does not have an authorized generic available.

The issue is that some authorized generics are not on the list of products automatically interchangeable at the pharmacy (i.e. not in the FDA "Orange Book"), but are considered therapeutically equivalent. Further complicating this is several insurers do not cover the authorized generics or require step therapy to use them, and therefore the brand name products may have the lower copay. **The best advice we can offer:** Consider writing prescriptions for the generic names in the preferred strength, which then will allow the pharmacy to dispense the lower-cost, covered agent for patients.

But which device is best for select patients? Below is a quick reference when considering the different devices. The Institute for Safe Medication Practices (ISMP) has a good references on the correct use of inhalers at this link.

	Pros	Cons
Pressurized MDI (HFA)	<ul> <li>Portable and compact</li> <li>Multidose device</li> <li>Metered dose</li> <li>Available for most inhaled medications</li> <li>Spacer can help with product delivery</li> </ul>	<ul> <li>Requires coordination</li> <li>High deposition in mouth and oropharynx</li> <li>Contains propellants</li> <li>Spacer can add complexity to dose coordination</li> </ul>

<b>Breath-Actuated MDI</b> (Autohaler, Redihaler)	<ul><li>Portable and compact</li><li>Multidose device</li><li>Breath-actuated</li></ul>	<ul> <li>Contains propellants</li> <li>Requires a moderate inspiratory effort</li> </ul>
<b>DPI</b> (Diskus, HandiHaler, RespiClick, Flexhaler, Neohaler, Pressair, Ellipta, Inhub, Twisthaler)	<ul> <li>Portable and compact</li> <li>Breath-actuated</li> <li>Does not contain propellants</li> <li>Multidose device available</li> </ul>	<ul> <li>Requires a minimum inspiratory effort</li> <li>May not be appropriate for emergency situations</li> <li>Multiple designs - may be confusing for the patient</li> <li>May be complicated to load</li> <li>Most have multiple preparation steps which could challenge patients with arthritis, low dexterity, decreased visual acuity or poor grip strength. Ellipta has one step which may make it easier</li> </ul>
<b>SMI</b> (Respimat)	<ul> <li>Portable and compact</li> <li>Multidose device</li> <li>Lower dependency on inspiratory effort</li> <li>High fine-particle fraction</li> <li>High lung disposition, low mouth and oropharynx disposition</li> <li>Does not contain propellants</li> </ul>	<ul> <li>Not breath-actuated</li> <li>Only one device currently available</li> <li>Requires hand strength to load and prime</li> </ul>

## References:

- Article: Be Ready for New Albuterol HFA and Advair Diskus Generics, Pharmacist's Letter, March 2019
- Dekhuijzen P. N., Lavorini F., Usmani O. S. Patients' perspectives and preferences in the choice of inhalers: the case for Respimat® or HandiHaler® Patient Preference and Adherence. 2016;10:1561–1572. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4993394/ Accessed 4/1/2019
- Clinical Resource: Correct Use of Inhalers. Pharmacist's Letter/Prescriber's Letter. January 2017