

The Medical Letter®

on Drugs and Therapeutics

Some Inhaled Corticosteroids for Treatment of COPD

Last updated: March 20, 2018

Some Inhaled Corticosteroids for Treatment of COPD					
Drug	Some Formulations	Delivery Device ¹	Usual Adult Dosage	Comments ^{2,3}	Cost ⁴
Inhaled Corticosteroids (ICSs)⁵					
Beclomethasone dipropionate – QVAR (Teva) QVAR Redihaler (Teva)	40, 80 mcg/inh	HFA MDI (120 inh/unit)	40-320 mcg bid	<ul style="list-style-type: none"> ▶ ICSs do not slow progression of COPD or reduce mortality ▶ Should not be used as monotherapy ▶ An ICS plus a LABA improves lung function and reduces exacerbations ▶ Addition of an ICS is recommended for patients with severe COPD who have frequent exacerbations despite treatment with a LAMA plus a LABA ▶ Withdrawal may lead to exacerbations in some patients ▶ Local adverse effects on the mouth and pharynx include candidiasis and dysphonia ▶ Systematic absorption has been associated with skin bruising, cataracts, reduced bone mineral density and an increased risk of fractures ▶ Associated with an increased risk of pneumonia in patients with COPD ▶ Rinse mouth after inhalation ▶ HFA MDIs require hand-breath coordination, except the breath-actuated Redihaler ▶ DPIs require ability to perform rapid, deep inhalation ▶ Doses may be wasted if <i>Ellipta</i> inhaler is opened/closed accidentally 	\$169.30
	40, 80 mcg/inh	HFA MDI (120 inh/unit) ⁶	40-320 mcg bid		169.30
Budesonide ⁷ – Pulmicort Flexhaler (AstraZeneca)	90, 180 mcg/inh	DPI (60, 120 inh/unit)	180-720 mcg bid		229.50
Ciclesonide – Alvesco (Sunovion)	80, 160 mcg/inh	HFA MDI (60 inh/unit)	80-320 mcg bid		251.60
Flunisolide – Aerospan HFA (Meda)	80 mcg/inh	HFA MDI (60, 120 inh/unit)	160-320 mcg bid		196.10
Fluticasone furoate – Arnuity Ellipta (GSK)	100, 200 mcg/inh	DPI (14, 30 inh/unit)	100-200 mcg once/d		168.50
Fluticasone propionate – Flovent Diskus (GSK) Flovent HFA (GSK) ArmonAir Respiclick (Teva)	50, 100, 250 mcg/blister	DPI (28, 60 inh/unit)	100-1000 mcg bid		181.70
	44, 110, 220 mcg/inh	HFA MDI (120 inh/unit)	88-880 mcg bid	181.70	
	55, 113, 232 mcg/inh	DPI (60 inh/unit)	55-232 mcg bid	169.30	
Mometasone furoate – Asmanex HFA (Merck) Asmanex Twisthaler (Merck)	100, 200 mcg/inh	HFA MDI (120 inh/unit)	200-400 mcg bid	224.90	
	110, 220 mcg/inh	DPI (30, 60, 120 inh/unit)	220-880 mcg once/d in evening or 220 mcg bid		191.60
Inhaled Corticosteroid/Long-Acting Beta₂-Agonist Combinations (ICS/LABA Combinations)					
Fluticasone propionate/salmeterol – Advair Diskus ⁸ (GSK) Advair HFA ⁵ (GSK) AirDuo Respiclick ⁵ (Teva)	100, 250, 500 mcg/50 mcg/blister	DPI (28, 60 inh/unit)	250/50 mcg bid	<ul style="list-style-type: none"> ▶ An ICS plus a LABA improves lung function and reduces exacerbations ▶ In patients who are at risk of exacerbation, a LAMA/LABA combination appears to be more effective than an ICS/LABA combination in reducing exacerbations 	393.90
	45, 115, 230 mcg/21 mcg/inh	HFA MDI (60, 120 inh/unit)	2 inh bid		317.10
	55, 113, 232 mcg/14 mcg/inh	DPI (60 inh/unit)	1 inh bid		302.10
Fluticasone furoate/vilanterol – Breo Ellipta ⁹ (GSK)	100, 200 mcg/25 mcg/inh	DPI (14, 30 inh/unit)	1 inh once/d	<ul style="list-style-type: none"> ▶ Rinse mouth after inhalation ▶ HFA MDIs require hand-breath coordination 	341.00
Budesonide/formoterol – Symbicort ¹⁰ (AstraZeneca)	80, 160 mcg/4.5 mcg/inh	HFA MDI (60, 120 inh/unit)	2 inh bid	<ul style="list-style-type: none"> ▶ DPIs require ability to perform rapid, deep inhalation ▶ Doses may be wasted if <i>Ellipta</i> inhaler is opened/closed accidentally 	286.30

Some Inhaled Corticosteroids for Treatment of COPD (continued)					
Drug	Some Formulations	Delivery Device ¹	Usual Adult Dosage	Comments ^{2,3}	Cost ⁴
Inhaled Corticosteroid/Long-Acting Antimuscarinic Agent/Long-Acting Beta₂-Agonist Combination (ICS/LAMA/LABA Combination)					
Fluticasone furoate/umeclidinium/vilanterol – <i>Trelegy Ellipta</i> (GSK)	100 mcg/62.5 mcg/25 mcg/inh	DPI (14, 30 inh/unit)	1 inh once/d	<ul style="list-style-type: none"> ▶ Addition of a LAMA to a LABA/ICS regimen can reduce exacerbations and improve lung function, symptoms, and quality of life ▶ Rinse mouth after inhalation ▶ DPIs require ability to perform rapid, deep inhalation ▶ Doses may be wasted if <i>Ellipta</i> inhaler is opened/closed accidentally 	\$530.00
<p>DPI = dry powder inhaler; HFA = hydrofluoroalkane; ICS = inhaled corticosteroid; inh = inhalation; LABA = long-acting beta₂-agonist; LAMA = long-acting antimuscarinic agent; MDI = metered-dose inhaler</p> <p>1. All patients should be assessed for proper inhalation technique. 2. Drugs for COPD. Med Lett Drugs Ther 2017; 59:57. 3. GOLD 2017 global strategy for the diagnosis, management and prevention of COPD. Available at www.goldcopd.org. Accessed February 14, 2018. 4. Approximate WAC for 30 days' treatment at the lowest usual adult dosage. WAC = wholesaler acquisition cost or manufacturer's published price to wholesalers; WAC represents a published catalogue or list price and may not represent an actual transactional price. Source: AnalySource® Monthly. February 5, 2018. Reprinted with permission by First Databank, Inc. All rights reserved. ©2018. www.fdbhealth.com/policies/drug-pricing-policy. 5. Not FDA-approved for treatment of COPD. Inhaled corticosteroid monotherapy is not recommended for COPD. 6. The <i>Redihaler</i> is a breath-actuated MDI that does not require coordination of inhalation with hand-actuation. 7. Budesonide is also available as a suspension for nebulization (<i>Pulmicort Respules</i>, and generics) that is FDA-approved only for treatment of asthma in children 1-8 years old. 8. Only the 250/50 mcg dose is FDA-approved for use in COPD. 9. Only the 100/25 mcg dose is FDA-approved for use in COPD. 10. Only the 160/4.5 mcg dose is FDA-approved for use in COPD.</p>					