

An evaluation of inhaled corticosteroids plus long-acting beta2- agonists (ICS+LABA) combination products for the management of patients with asthma and chronic obstructive pulmonary disease (COPD) was undertaken to provide recommendations for funding of these products in Ontario.

## What did we find?

### EFFICACY + SAFETY

As a class, ICS+LABA combination products have been shown to reduce exacerbation rates and improve lung function and quality of life in patients with COPD relative to other available therapies including LABAs, long-acting muscarinic antagonists (LAMAs) and inhaled corticosteroids (ICSs). For patients with asthma, ICS+LABA combination products decreased the risk of exacerbations compared to other long-acting agents such as ICSs, LABAs and leukotriene receptor antagonists.

The balance between the risks and benefits of ICS+LABA combination products must be carefully considered. There is an increased risk of pneumonia in patients COPD when using ICS, either alone or in combination with LABA, relative to other drugs.

### ACCESSIBILITY

No accessibility issues were identified regarding use of ICS+LABA combination products for either asthma or COPD management. The current Limited Use (LU) listing allows eligible patients with asthma to receive these drugs and physicians have used the same LU code to prescribe them to patients with COPD. However it should be noted these medications can pose a financial burden to individuals less than 65 years of age and without drug coverage.

### COST

Total spending by the Ontario public drug program on asthma therapy between April 2012 and March 2013 was \$113 million, with ICS+LABA products accounting for \$72.5 million (64%). Total spending for COPD therapy was \$149 million, and ICS+LABA products accounted for \$85.5 million (57%) of that cost. These costs are not mutually exclusive, as some patients may have a diagnosis of both asthma and COPD. Therapy with ICS + LABA is more cost-effective as a combination product as opposed to two separate products. Listing ICS+LABA combination products as Limited Use for asthma and COPD will have minimal impact on expenditures (approximately 0.03% decrease for total COPD and no change for asthma).

## What do we recommend?

**We recommend listing ICS+LABA products as Limited Use for asthma (i.e., Zenhale, Advair, Symbicort) and COPD (i.e., Advair, Symbicort, Breo Ellipta).**

Currently, these products are listed for asthma only but evidence suggests that they are similarly safe and effective for patients with COPD. Expanding the listing will have minimal impact on the budget as physicians currently use the LU code for asthma to access these drugs for patients with COPD.

## How did we conduct our studies?

The ODPRN conducted a drug class review consisting of multiple studies: a qualitative study to discover the experiences of use and prescribing; a systematic review to evaluate efficacy and safety; a pharmacoepidemiological analysis to determine patterns of use in Ontario and across Canada; an environmental scan to gather national and international guidelines and public drug coverage models; and pharmacoeconomic analyses to determine the cost of public drug funding under different coverage policies. Detailed descriptions of each of these studies are available at the ODPRN website: [www.odprn.ca](http://www.odprn.ca).