

An evaluation of Long Acting Muscarinic Antagonists (LAMAs) products for the management of patients with chronic obstructive pulmonary disease (COPD) was undertaken to provide recommendations for funding of these products in Ontario. There are three LAMAs currently available in Canada (Spiriva, Seebri Breezhaler, and Tudorza) and all are indicated for the management of patients with COPD.

## What did we find?

### EFFICACY + SAFETY

Long Acting Muscarinic Antagonist (LAMA) products are more efficacious than long-acting beta2-agonists (LABA) for reducing exacerbations in patients with moderate COPD. However, LAMA products were found to be less efficacious than inhaled corticosteroid and long-acting beta-agonist (ICS+LABA) products. There was no significant difference in efficacy between individual LAMA products.

As a class, LAMAs are generally safe to use, and are safer than other similar drugs. Patients also have a lower risk of pneumonia when using LAMAs compared to ICS+LABA.

### ACCESSIBILITY

No accessibility issues were identified as LAMAs are available as a General Benefit in Ontario for patients eligible for public drug coverage (including those 65 and older). However for those under 65 and without drug coverage, these medications could be expensive.

### COST

Total spending by the Ontario public drug program on COPD therapy between April 2012 and March 2013 was \$149 million, with LAMAs accounting for \$50 million (34%) of the cost. LAMAs are currently listed as General Benefit; approximately 88% of users had a diagnosis for COPD, and only 4% had a diagnosis of asthma only. Moving them to a Limited Use listing for COPD only may result in a 12% decrease in expenditures for LAMAs.

## What do we recommend?

### Moving all LAMA products to Limited Use on the ODB formulary for COPD

This option is more “restrictive” than the current General Benefit listing; however it may help guide physicians to appropriately prescribe these medications for COPD, and the potential impact of moving the products to Limited Use on patient access is minimal.

OR

### Keeping LAMAs under the General Benefit listing.

As they are currently listed as a General Benefit there would be no impact on costs. All patients who need these products would have access; however the lack of clinical criteria may result in increased use for LAMAs for non-COPD indications.

## 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).