

Committee to Evaluate Drugs (CED)

Recommendations and Reasons

Document Posted: January 2016

Aclidinium

Product: acclidinium (Tudorza® Genuair®)

Class of Drugs: long-acting muscarinic receptor antagonist (LAMA)

Reason for Use: chronic obstructive pulmonary disease (COPD)

Manufacturer: Astrazeneca

Date of Review: May 14, 2014

CED Recommendation

The CED recommended acclidinium (Tudorza® Genuair®) be funded. Aclidinium appears to be similar in efficacy, safety and cost as comparator treatments for chronic obstructive pulmonary disease (COPD).

Executive Officer Decision*

Based on the CED's recommendation and an agreement with the manufacturer, the Executive Officer decided to fund acclidinium (Tudorza® Genuair®).

Funding Status*

Funded on the Ontario Drug Benefit Formulary as a General Benefit.

* This information is current as of the posting date of the document. For the most up-to-date information on Executive Officer decision and funding status, see: www.health.gov.on.ca/en/pro/programs/drugs/status_single_source_subm.aspx.

Highlights of Recommendation:

- Six randomized controlled trials showed aclidinium was better than placebo at improving measures of lung function in patients with moderate to severe chronic obstructive pulmonary disease (COPD).
- Available evidence suggests aclidinium is similar in effectiveness as comparator COPD drugs of the same class.
- Patients may find the aclidinium inhaler device easier to use than some of the other inhaler devices.
- Aclidinium costs \$53.10 per month, similar to or less expensive than listed long-acting muscarinic receptor antagonists.

Background:

Chronic obstructive pulmonary disease (COPD) is one of the most common lung diseases. Smoking is the main cause of COPD. At first, COPD may cause no symptoms or only mild symptoms. As the disease gets worse, symptoms usually become more severe. These include cough, fatigue, susceptibility to respiratory infections, shortness of breath, and wheezing.

Treatment focuses on symptom management, smoking cessation, maintenance of fitness and prevention of exacerbations (flare-ups). Pulmonary rehabilitation for moderate to severe COPD is also effective.

Drug treatment follows a stepwise approach, depending on disease severity. For patients with mild disease, short-acting bronchodilators are usually used. As the disease progresses and lung function declines, treatment with one or more long-acting bronchodilators—such as a long-acting muscarinic receptor antagonist (LAMA) or long-acting β_2 -agonist (LABA)—is generally introduced. In Canada, a LAMA is often the initial long-acting bronchodilator used.

Aclidinium is a LAMA administered via a dry powder inhaler device. Other LAMA products include tiotropium and glycopyrronium.

Detailed Discussions:

- For this evaluation, the CED considered:
 - Findings from the Common Drug Review (CDR) and the recommendation of the Canadian Drug Expert Committee (CDEC);
 - Information in the manufacturer's submission;
 - Two patient group submissions.
- The CED evaluated six randomized controlled trials in patients with moderate to severe COPD. All six trials included placebo controls; three were exclusively placebo-controlled and three had active drug controls. All trials used spirometry results (i.e., FEV1, a measure of lung function) as primary outcomes.
- The studies showed that aclidinium was significantly better than placebo at improving FEV1, as well as improving the scores on two separate patient questionnaires (St. George's Respiratory Questionnaire and Transition Dyspnea Index, which measure quality of life and symptoms relief respectively).

- For the three trials with active drug controls, tiotropium was used in two trials and formoterol in one trial. Results suggested aclidinium was similar to tiotropium with respect to FEV1 improvement. Patients preferred the aclidinium inhaler device and there were fewer critical usage errors with aclidinium (i.e., errors using the device that could negatively impact drug effects).
- The CED noted the average age of patients in the trials ranged from 61–65 years, and the majority of them had only moderate disease according to baseline FEV1. This demographic is not reflective of the population served by the Ontario Drug Benefit Program. Furthermore, the trials that included active drug controls were generally very short in duration.
- Adverse events observed in the studies were similar between aclidinium and placebo. The studies did not reveal a lower rate of anticholinergic events (e.g., dry mouth, blurred vision, constipation) with aclidinium compared to tiotropium.
- Two manufacturer-sponsored network meta-analyses of placebo-controlled trials for aclidinium, tiotropium, and glycopyrronium found no significant differences among treatments in exacerbation rates, symptoms, functional questionnaire scores, or spirometry outcomes.
- The monthly cost of aclidinium is \$53.10, which is same cost as of glycopyrronium and less expensive than tiotropium.
- Two patient group submissions highlighted patients' wishes to have access to more treatments that are easy to use. The CED noted that some patients may find the aclidinium device easier to use. On the other hand, aclidinium is dosed twice daily, whereas tiotropium and glycopyrronium are dosed once a day.
- Overall, aclidinium has been shown to improve FEV1 compared with placebo in the treatment of moderate to severe COPD, and its efficacy and safety appear comparable to that of other LAMA drugs. Aclidinium costs the same as glycopyrronium and is less expensive than tiotropium.

Committee to Evaluate Drugs (CED)

The Committee to Evaluate Drugs (CED) is comprised of practicing physicians, pharmacists, health economists, and patient representatives. In conducting its review, the CED considers data contained in the drug manufacturer's submission, input provided by patient groups, findings from the national Common Drug Review and the pan-Canadian Oncology Drug Review, and other scientific information as necessary.

For more information, please contact:

Ministry of Health and Long-Term Care

Ontario Public Drug Programs

Hepburn Block, 9th Floor

80 Grosvenor Street, Queen's Park

Toronto, Ontario M7A 1R3

www.health.gov.on.ca/en/pro/programs/drugs/