



LONG-ACTING BETA₂-AGONIST AND INHALED CORTICOSTEROID COMBINATION THERAPY FOR ADULT PERSISTENT ASTHMA

TECHNOLOGIES AND CONDITION

Long-acting beta₂-agonist (LABA) and inhaled corticosteroid (ICS) combination therapies (formoterol-budesonide and salmeterol-fluticasone) for adult persistent asthma.

ISSUE

The use of LABA-ICS combination therapy in treating adult persistent asthma is an established clinical practice. Although public drug programs fund these treatments, there is variation in the criteria for reimbursement. Uncertainty exists about the clinical efficacy, safety, and cost-effectiveness of LABA-ICS combination therapy for treatment of adult persistent asthma.

METHODS

To assess LABA-ICS combination therapy, a systematic review and analysis of clinical and economic literature was performed. A primary economic evaluation was carried out to determine the cost-effectiveness of these therapies.

RESULTS

The clinical review found that there are statistically important but not clinically meaningful benefits from switching to combination therapy for the management of most asthma not controlled by ICS. The review confirmed that for most patients with persistent asthma, the initial and only therapy that is needed is ICS.

A primary economic analysis from a Canadian perspective found that the later LABA is introduced into therapy, the more cost-effective the treatment strategy becomes. The analysis suggests that introducing LABA before patients have tried high-dose ICS therapy is not justified.

IMPLICATIONS FOR DECISION-MAKING

- **The report findings support the current Canadian clinical practice guidelines.** The clinical and cost-effectiveness analysis confirmed that LABA-ICS combination therapy is optimal for adult persistent asthma patients who remain poorly controlled despite using ICS. No clinically meaningful difference between LABA-ICS combination therapies was found.
- **Changes in clinical practice could lead to cost savings without compromising health outcomes.** Expenditure on asthma medications continues to increase. Substantial savings to provincial drug formularies would be realized if even a portion of those patients on a low- or medium-dose LABA-ICS is switched to a higher-dose ICS, and patients on single-inhaler LABA are given an increased dose of ICS without compromising population health.
- **LABAs may be justified only after patients have not responded to other treatment options.** The cost-effectiveness analysis found that introducing LABAs to patients with asthma that is uncontrolled by high doses of ICS is the optimum treatment strategy.

This summary is based on a comprehensive health technology assessment available from CADTH's website (www.cadth.ca): Bond K, Coyle D, O'Gorman K, Coyle K, Spooner C, Lemière C, Vandermeer B, Tjosvold L, Rowe BH. *Long-Acting Beta₂-Agonist and Inhaled Corticosteroid Combination Therapy for Adult Persistent Asthma: Systematic Review of Clinical Outcomes and Economic Evaluation*. [Technology report number 122].

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