TITLE: Combination Inhaled Corticosteroids and Long-Acting Beta2-Agonists for Acute Respiratory Tract Infections and Cough: Clinical Effectiveness

DATE: 15 June 2016

RESEARCH QUESTIONS

1. What is the clinical effectiveness of combination inhaled corticosteroids and long-acting beta2-agonists for patients with acute bacterial upper respiratory tract infections?

2. What is the clinical effectiveness of combination inhaled corticosteroids and long-acting beta2-agonists for patients with acute viral upper respiratory tract infection?

3. What is the clinical effectiveness of combination inhaled corticosteroids and long-acting beta2-agonists for patients with post-infectious or subacute cough?

4. What is the clinical effectiveness of combination inhaled corticosteroids and long-acting beta2-agonists for patients with chronic cough?

5. What is the clinical effectiveness of combination inhaled corticosteroids and long-acting beta2-agonists for patients with cough in sarcoidosis?

KEY FINDINGS

No relevant literature was identified regarding the clinical effectiveness of combination inhaled corticosteroids and long-acting beta2-agonists for patients with respiratory tract infections, post-infectious or subacute cough, chronic cough, or cough in sarcoidosis.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library, University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. Methodological filters were not applied. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2011 and June 3, 2016.

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SELECTION CRITERIA

One reviewer screened citations and selected studies based on the inclusion criteria presented in Table 1.

Table 1: Selection Criteria

<table>
<thead>
<tr>
<th>Population</th>
<th>Adult and pediatric patients with:</th>
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<tbody>
<tr>
<td></td>
<td>Q1: Acute bacterial URTIs</td>
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<td></td>
<td>Q2: Acute viral URTIs</td>
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<td></td>
<td>Q3: Post-infectious or sub-acute cough (3 to 8 weeks)</td>
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<td></td>
<td>Q4: Chronic cough (&gt; 8 weeks)</td>
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<td></td>
<td>Q5: Cough in sarcoidosis</td>
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<tr>
<td>Intervention</td>
<td>Combination inhaled corticosteroids (ICSs) and long-acting beta2-agonists (LABAs) with or without antibiotics</td>
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<tr>
<td>Comparators</td>
<td>Any active comparator, for example:</td>
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<tr>
<td></td>
<td>• ICSs alone</td>
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<tr>
<td></td>
<td>• Antihistamines</td>
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<td></td>
<td>• Antitussives</td>
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<tr>
<td></td>
<td>• Oral and topical decongestants</td>
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<tr>
<td></td>
<td>• Short-acting anticholinergics (e.g., Ipratropium)</td>
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<tr>
<td></td>
<td>• Short-acting beta2-agonists (e.g., Salbutamol)</td>
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<tr>
<td></td>
<td>• Leukotriene antagonists</td>
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<td></td>
<td>• Oral steroids (e.g., Prednisone)</td>
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<td></td>
<td>• Antibiotics alone</td>
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<tr>
<td>Outcomes</td>
<td>• Clinical effectiveness (e.g., symptom resolution, symptom scores, exacerbation duration and frequency, lung function [FEV1 or FVC], quality of life, hospitalizations, length of hospital stay, mortality);</td>
</tr>
<tr>
<td></td>
<td>• Harms (e.g., headache, thrush, local irritation, adrenal insufficiency, cataracts, linear growth)</td>
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<tr>
<td>Study Designs</td>
<td>Health technology assessment, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies</td>
</tr>
</tbody>
</table>

FEV1 = forced expiratory volume in one second; FVC = forced vital capacity; URTI = upper respiratory tract infection.

RESULTS

No relevant health technology assessments, systematic review, meta-analyses, randomized controlled trials, or non-randomized studies were identified regarding the clinical effectiveness of combination inhaled corticosteroids and long-acting beta2-agonists for patients with respiratory tract infections, post-infectious or subacute cough, chronic cough, or cough in sarcoidosis.

References of potential interest are provided in the appendix.

OVERALL SUMMARY OF FINDINGS

No relevant literature was identified regarding the clinical effectiveness of combination inhaled corticosteroids and long-acting beta2-agonists for patients with respiratory tract infections, post-infectious or subacute cough, chronic cough, or cough in sarcoidosis; therefore, no summary can be provided.
REFERENCES SUMMARIZED

Health Technology Assessments
No literature identified.

Systematic Reviews and Meta-analyses
No literature identified.

Randomized Controlled Trials
No literature identified.

Non-Randomized Studies
No literature identified.

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APPENDIX – FURTHER INFORMATION:

Systematic Review and Meta-Analyses

Corticosteroids Only


Unspecified Indication


Non-Randomized Studies

Alternate Outcome


Unspecified Indication


Pulmonary Resection


Airway Obstruction