TITLE: Linaclotide for Constipation: Clinical and Cost-Effectiveness

DATE: 21 June 2016

RESEARCH QUESTIONS

1. What is the clinical effectiveness of linaclotide for the treatment of patients with chronic idiopathic constipation?

2. What is the clinical effectiveness of linaclotide for the treatment of patients with irritable bowel syndrome with constipation?

3. What is the cost-effectiveness of linaclotide for the treatment of patients with chronic idiopathic constipation

4. What is the cost-effectiveness of linaclotide for the treatment of patients with irritable bowel syndrome with constipation?

KEY FINDINGS

Eight systematic reviews, three randomized controlled trials, six non-randomized studies, and three economic evaluations were identified regarding the clinical and cost-effectiveness of linaclotide for the treatment of patients with chronic idiopathic constipation or irritable bowel syndrome with constipation.

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. No methodological filters were applied to limit retrieval. 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 13, 2016. Internet links were provided, where available.
SELECTION CRITERIA

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

<table>
<thead>
<tr>
<th>Table 1: Selection Criteria</th>
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<tr>
<td><strong>Population</strong></td>
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<tr>
<td>Q1, Q3: Patients with chronic idiopathic constipation (refractory to all alternatives)</td>
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<tr>
<td>Q2, Q4: Patients with irritable bowel syndrome with constipation</td>
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<tr>
<td><strong>Intervention</strong></td>
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<tr>
<td>Linaclotide (Linzess or Constella)</td>
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<td><strong>Comparator</strong></td>
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<td>Other constipation treatments (e.g., laxatives, lifestyle changes); Placebo</td>
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<td><strong>Outcomes</strong></td>
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<tr>
<td>Q1 and 2: Clinical effectiveness; Safety</td>
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<tr>
<td>Q3 and 4: Cost-effectiveness</td>
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<tr>
<td><strong>Study Designs</strong></td>
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<tr>
<td>Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, economic evaluations</td>
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</table>

RESULTS

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials, non-randomized studies, and economic evaluations.

Eight systematic reviews, three randomized controlled trials, and six non-randomized studies were identified regarding the clinical effectiveness of linaclotide for the treatment of patients with chronic idiopathic constipation or irritable bowel syndrome with constipation. Three economic evaluations were identified regarding the cost-effectiveness of linaclotide for these patient populations. No relevant health technology assessments were identified.

Additional references of potential interest are provided in the appendix.

Health Technology Assessments

No literature identified.

Systematic Reviews and Meta-analyses


Linaclotide for Constipation


Randomized Controlled Trials


Non-Randomized Studies


Economic Evaluations


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APPENDIX – FURTHER INFORMATION:

Previous CADTH Reports


Systematic Reviews - Unclear Comparator


Randomized Controlled Trials – Causes of Constipation Unclear


Review Articles

Unclear Methodology


Non-Systematic Narrative Reviews
