CADTH RAPID RESPONSE REPORT: REFERENCE LIST

Somatropin for Adults with Growth Hormone Deficiency: Clinical and Cost-Effectiveness and Guidelines
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Acknowledgments:

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About CADTH: CADTH is an independent, not-for-profit organization responsible for providing Canada’s health care decision-makers with objective evidence to help make informed decisions about the optimal use of drugs, medical devices, diagnostics, and procedures in our health care system.
Research Questions

1. What is the clinical effectiveness of somatropin in the treatment of growth hormone deficiency in adult patients?

2. What is the cost-effectiveness of somatropin in the treatment of growth hormone deficiency in adult patients?

3. What are the evidence-based guidelines regarding the use of somatropin in the treatment of growth hormone deficiency in adult patients?

Key Findings

One economic evaluation was identified regarding the cost-effectiveness of somatropin in the treatment of growth hormone deficiency in adult patients.

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 filters were applied to limit the retrieval by study type. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2013 and May 24, 2018. 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 1: Selection Criteria

<table>
<thead>
<tr>
<th>Population</th>
<th>Adults with growth hormone deficiency</th>
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<tr>
<td>Intervention</td>
<td>Human growth hormone Somatropin (Genotropin)</td>
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| Comparators                       | Q-2: Any other active treatment  
 |                                   | No treatment  
 |                                   | Q3: No comparator |
| Outcomes                          | Q1. Clinical effectiveness, safety  
 |                                   | Q2. Cost-effectiveness  
 |                                   | Q3. Guidelines |
| Study Designs                     | Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, economic evaluations, evidence-based guidelines |
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, economic evaluations, and evidence-based guidelines.

One economic evaluation was identified regarding the cost-effectiveness of somatropin for the treatment of adults with growth hormone deficiency. No relevant health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, or evidence-based guidelines were identified.

Additional references of potential interest are provided in the appendix.

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.

Economic Evaluations

Guidelines and Recommendations
No literature identified.
Appendix — Further Information

Previous CADTH Reports


Systematic Reviews and Meta-Analyses - Alternative Intervention (Somatropin [Genotropin] Not Specified)

Hypopituitarism and Pan-Hypopituitarism


Adult Growth Hormone Deficiency – Cause Not Specified


Pituitary Tumour or Consequences of Treating the Tumour


Randomized Controlled Trials - Alternative Intervention (Somatropin [Genotropin] Not Specified)

Hypopituitarism and Pan-Hypopituitarism


Adult Growth Hormone Deficiency – Cause Not Specified


Non-Randomized Studies - Alternative Intervention (Somatropin [Genotropin] Not Specified)

Childhood-Onset, Previously Treated with Growth Hormone


**Hypopituitarism and Pan-Hypopituitarism**


**Adult Growth Hormone Deficiency – Cause Not Specified**


Pituitary Tumour or Consequences of Treating the Tumour


Guidelines and Recommendations


This reference was published outside of the date range specified for this literature review; however, the evidence was reviewed to ensure it is up-to-date in 2014 (https://www.nice.org.uk/guidance/ta64) and therefore it has been included in the appendix of this report. Details regarding the consideration to revise the guidance document are available through the following link:
Alternative Intervention (Somatropin [Genotropin] Not Specified)


Review Articles - Alternative Intervention (Somatropin [Genotropin] Not Specified)

Childhood-Onset Growth Hormone Deficiency