TITLE: Plerixafor for Patients Failing Stem Cell Mobilization: Clinical and Cost-Effectiveness and Guidelines

DATE: 19 November 2015

RESEARCH QUESTIONS

1. What is the clinical effectiveness of plerixafor for the treatment of patients who are failing or who have failed stem cell mobilization?

2. What is the cost-effectiveness of plerixafor for the treatment of patients who are failing or who have failed stem cell mobilization?

3. What are the evidence-based guidelines regarding the use of plerixafor for the treatment of patients who are failing or who have failed stem cell mobilization?

KEY FINDINGS

Thirty-five non-randomized studies, five economic evaluations, and two evidence-based guidelines were identified regarding the use of plerixafor for the treatment of patients who are failing stem or who have failed cell mobilization.

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 applied to limit retrieval to health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, and economic studies. A second guidelines search was conducted expanding to include stem cell terms. Methodological filters were applied to limit retrieval to guidelines. Both searches were combined and limited to English-language documents, for the human population where possible, and published between January 1, 2010 and November 14, 2015. 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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<tbody>
<tr>
<td><strong>Population</strong></td>
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<tr>
<td>Patients (adult and pediatric) who are failing or who have failed stem cell mobilization regardless of type of disease</td>
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<tr>
<td><strong>Intervention</strong></td>
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<tr>
<td>Plerixafor (brand name Mozobil)</td>
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<tr>
<td><strong>Comparator</strong></td>
</tr>
<tr>
<td>• Not administering plerixafor;</td>
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<tr>
<td>• Standard of care;</td>
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<tr>
<td>• No comparator</td>
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<tr>
<td><strong>Outcomes</strong></td>
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<tr>
<td>• Clinical effectiveness (e.g. ability to mobilize stem cells, safety; patient harms);</td>
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<tr>
<td>• Cost-effectiveness;</td>
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<tr>
<td>• Guidelines</td>
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<tr>
<td><strong>Study Designs</strong></td>
</tr>
<tr>
<td>Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, economic evaluations, evidence-based guidelines</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, economic evaluations, and evidence-based guidelines.

Thirty-five non-randomized studies, five economic evaluations, and two evidence-based guidelines were identified regarding the use of plerixafor for the treatment of patients who are failing or who have failed stem cell mobilization. No relevant health technology assessments, systematic reviews, meta-analyses, or randomized controlled trials 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**


Pediatric Population


Economic Evaluations


Guidelines and Recommendations

See: Recommendation 3, page 4

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APPENDIX – FURTHER INFORMATION:

Clinical Practice Guidelines - Unspecified Methodology


Review Articles


