TITLE: Ertapenem for Multi-Drug Resistant Bacteria: Risk of Carbapenem-Resistant *Pseudomonas aeruginosa* Infection

DATE: 28 June 2016

RESEARCH QUESTION

What is the clinical evidence regarding the risk of carbapenem-resistant *Pseudomonas aeruginosa* infection associated with the use of ertapenem in the hospital setting?

KEY FINDINGS

No relevant literature was identified regarding the risk of carbapenem-resistant *Pseudomonas aeruginosa* infection associated with the use of ertapenem in the hospital setting.

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, 2006 and June 22, 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 1: Selection Criteria

<table>
<thead>
<tr>
<th>Population</th>
<th>Patients of any age in a hospital setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention</td>
<td>Ertapenem</td>
</tr>
<tr>
<td>Comparator</td>
<td>Restricted or lower dose ertapenem; No ertapenem use (alternative antibiotic or no treatment)</td>
</tr>
<tr>
<td>Outcomes</td>
<td>Carbapenem-resistant <em>Pseudomonas aeruginosa</em> infection or infection-related morbidity/mortality</td>
</tr>
<tr>
<td>Study Designs</td>
<td>Health technology assessments, systematic reviews/meta-analyses, randomized controlled trials, non-randomized studies</td>
</tr>
</tbody>
</table>

RESULTS

No health technology assessment reports, systematic reviews, meta-analyses, randomized controlled trials, or non-randomized studies were identified regarding the risk of carbapenem-resistant *Pseudomonas aeruginosa* infection associated with the use of ertapenem in the hospital setting.

References of potential interest are provided in the appendix.

OVERALL SUMMARY OF FINDINGS

No relevant literature was identified regarding the risk of carbapenem-resistant *Pseudomonas aeruginosa* infection associated with the use of ertapenem in the hospital setting; 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

PREPARED BY:
Canadian Agency for Drugs and Technologies in Health
Tel: 1-866-898-8439
www.cadth.ca
APPENDIX – FURTHER INFORMATION:

Systematic Reviews – No Direct Patient Outcomes


Non-Randomized Studies – No Direct Patient Outcomes

Specific Use of Ertapenem


Unspecified Treatment


