TITLE: Postprandial Glucose Measurements in Patients with Diabetes: Clinical Effectiveness and Guidelines

DATE: 04 February 2015

RESEARCH QUESTIONS

1. What is the clinical effectiveness of using postprandial glucose measurements in patients with diabetes in the home setting?

2. What are the guidelines associated with the use of postprandial glucose measurements in patients with diabetes in the home setting?

KEY FINDINGS

One randomized controlled trial and four non-randomized studies were identified regarding postprandial glucose measurements in patients with diabetes.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library (2015, Issue 1), 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, 2010 and January 29, 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 1: Selection Criteria

<table>
<thead>
<tr>
<th>Population</th>
<th>Patients with type 1 and 2 diabetes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention</td>
<td>Self-monitored postprandial blood glucose measurement or value using a blood glucose monitor</td>
</tr>
<tr>
<td>Comparator</td>
<td>HbA1C</td>
</tr>
<tr>
<td></td>
<td>No comparator</td>
</tr>
<tr>
<td>Outcomes</td>
<td>Clinical effectiveness and relevance (i.e., validity)</td>
</tr>
<tr>
<td></td>
<td>Clinical benefit (safety, harms)</td>
</tr>
<tr>
<td>Study Designs</td>
<td>Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, evidence-based guidelines</td>
</tr>
</tbody>
</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 evidence-based guidelines.

One randomized controlled trial and four non-randomized studies were identified regarding postprandial glucose measurements in patients with diabetes. No health technology assessments, systematic reviews, meta-analyses, 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


Non-Randomized Studies


Guidelines and Recommendations
No literature identified.

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APPENDIX – FURTHER INFORMATION:

Systematic Reviews – Alternate Comparator


Non-Randomized Studies

Alternate Comparator, Unclear Setting


Alternate Outcome


Guidelines and Recommendations

Unclear Setting


Clinical Practice Guidelines – Unclear Methodology

