TITLE: Topical Nitroglycerin for Peripheral Circulation and Wound Healing in the Elderly: Clinical Effectiveness and Guidelines

DATE: 18 February 2015

RESEARCH QUESTIONS

1. What is the clinical effectiveness of topical nitroglycerin for promoting peripheral circulation and wound healing in elderly patients with peripheral vascular disease?

2. What are the evidence-based guidelines regarding the use of topical nitroglycerin in elderly patients with peripheral vascular disease?

KEY FINDINGS

No relevant literature was identified regarding the clinical effectiveness or guidelines for the use of topical nitroglycerin for promoting peripheral circulation and wound healing in elderly patients with peripheral vascular disease.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library (2015, Issue 2), 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 before February 10, 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>Elderly patients with peripheral vascular disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention</td>
<td>Topical nitroglycerin (e.g., ointment, paste, patches)</td>
</tr>
<tr>
<td>Comparator</td>
<td>• Placebo or no treatment</td>
</tr>
<tr>
<td></td>
<td>• No comparator</td>
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<tr>
<td>Outcomes</td>
<td>Q1: Clinical effectiveness:</td>
</tr>
<tr>
<td></td>
<td>• Benefits (e.g., increased circulation, wound healing)</td>
</tr>
<tr>
<td></td>
<td>• Harms (e.g., hypotension, falls, localized skin sensitivity)</td>
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<td></td>
<td>Q2: Evidence-based guidelines</td>
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<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.

No relevant health technology assessment reports, systematic reviews, meta-analyses, randomized controlled trials, or non-randomized studies were identified regarding the clinical effectiveness of topical nitroglycerin for promoting peripheral circulation and wound healing in elderly patients with peripheral vascular disease. In addition, no evidence-based guidelines regarding the use of topical nitroglycerin in elderly patients with peripheral vascular disease were identified.

References of potential interest are provided in the appendix.

OVERALL SUMMARY OF FINDINGS

No relevant literature was identified regarding the clinical effectiveness or guidelines for the use of topical nitroglycerin for promoting peripheral circulation and wound healing in elderly patients with peripheral vascular disease; 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.

Guidelines and Recommendations
No literature identified.

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APPENDIX – FURTHER INFORMATION:

Systematic Reviews and Meta-analyses – Unclear Population Age

   PubMed: PM19445801

Randomized Controlled Trials – Unclear Population Age or Not Limited to Elderly

   PubMed: PM23268365

   PubMed: PM19248104

   PubMed: PM7670782

   PubMed: PM8172381

   PubMed: PM3925656

   PubMed: PM6119495

Non-Randomized Studies

Unclear Population Age

   PubMed: PM11934971

Alternate Population


Case Reports


Clinical Practice Guideline – Unclear Methodology


Review Articles


