TITLE: Tranexamic Acid for the Management of Bleeding in the Pre-Hospital Setting: Clinical Effectiveness and Guidelines

DATE: 1 October 2014

RESEARCH QUESTIONS

1. What is the clinical effectiveness of tranexamic acid for the management of bleeding in adult patients in the pre-hospital setting?

2. What are the evidence-based guidelines regarding the use of tranexamic acid for the management of bleeding in adult patients in the pre-hospital setting?

KEY FINDINGS

Two non-randomized studies regarding the use of tranexamic acid for the management of bleeding in adult patients in the pre-hospital setting were identified.

METHODS

A limited literature search was conducted on key resources including PubMed, Embase, The Cochrane Library (2014, Issue 9), 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. The search was also limited to English language documents published between January 1, 2009 and September 18, 2014. Internet links were provided, where available.

The summary of findings was prepared from the abstracts of the relevant information. Please note that data contained in abstracts may not always be an accurate reflection of the data contained within the full article.

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>Adult patients with acute hemorrhage (pre-hospital setting)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention</td>
<td>Tranexamic acid (intravenous or oral)</td>
</tr>
<tr>
<td>Comparator</td>
<td>No drug intervention, standard of care (e.g., other antifibrinolytic drugs)</td>
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<tr>
<td>Outcomes</td>
<td>Clinical effectiveness, harms, evidence-based guidelines</td>
</tr>
<tr>
<td>Study Designs</td>
<td>Health technology assessment reports, systematic review, meta-analyses, randomized controlled trials, non-randomized studies, evidence-based guidelines</td>
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</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.

Two non-randomized studies regarding the use of tranexamic acid for the management of bleeding in adult patients in the pre-hospital setting were identified. No relevant health technology assessment reports, systematic reviews, meta-analyses, randomized controlled trials, or evidence-based guidelines were identified.

Additional references of potential interest are provided in the appendix.

**OVERALL SUMMARY OF FINDINGS**

Two non-randomized studies\(^1\)\(^2\) regarding the use of tranexamic acid for the management of bleeding in adult patients in the pre-hospital setting were identified. No adverse outcomes attributable to tranexamic acid were observed when administered outside of hospital by advanced life support providers to casualties in a military field setting,\(^1\) and when administered by flight paramedics during helicopter air medical evacuation.\(^2\)

No relevant evidence-based guidelines were identified.
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


Guidelines and Recommendations
No literature identified.

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APPENDIX – FURTHER INFORMATION:

Health Technology Assessments – Hospital Setting


Non-Randomized Studies – Hospital Setting


Clinical Practice Guidelines


See: Section 8.7 Major Haemorrhage – Pre-flight and in-flight management, section 8 page 13.

Hospital Setting


See: Section 3.4.2 Tranexamic acid

Review Articles


Additional References