TITLE: N-Acetylcysteine for Acute Acetaminophen Overdose in the Pre-Hospital Setting: Guidelines

DATE: 23 June 2015

RESEARCH QUESTION

What are the evidence-based guidelines regarding the administration of intravenous n-acetylcysteine for patients with acute acetaminophen overdose in the pre-hospital setting?

KEY FINDINGS

One evidence-based guideline was identified regarding the administration of intravenous n-acetylcysteine for patients with acute acetaminophen overdose in the pre-hospital setting.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library, ECRI, 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 limited to English language documents published between Jan 1, 2010 and Jun 12, 2015. 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>Adults patients in the pre-hospital setting with acute acetaminophen overdose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention</td>
<td>N-acetylcysteine infusion</td>
</tr>
<tr>
<td>Comparator</td>
<td>No comparator</td>
</tr>
<tr>
<td>Outcomes</td>
<td>Evidence-based guidelines and best practices for administration and monitoring</td>
</tr>
<tr>
<td>Study Designs</td>
<td>Health technology assessments, systematic reviews, meta-analyses, 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 evidence-based guidelines.

One evidence-based guideline was identified regarding the administration of intravenous N-acetylcysteine for patients with acute acetaminophen overdose in the pre-hospital setting. No relevant health technology assessments, systematic reviews, or meta-analyses were identified.

Additional references of potential interest are provided in the appendix.

OVERALL SUMMARY OF FINDINGS

One evidence-based guideline was identified regarding N-acetylcysteine infusion for acetaminophen overdose in the pre-hospital setting. The guideline recommends the use of activated charcoal if the patient is alert, acetaminophen has previously been ingested within two hours, and if N-acetylcysteine cannot be administered within an eight hour window of acetaminophen ingestion. The guideline also recommends all patients experiencing acetaminophen overdose who are at risk of hepatotoxicity should receive N-acetylcysteine; however, no recommendations specific to pre-hospital administration were made.
REFERENCES SUMMARIZED

Health Technology Assessments
No literature identified.

Systematic Reviews and Meta-analyses
No literature identified.

Guidelines and Recommendations

   See: Management of Paracetamol Poisoning, pages 14, 110-112

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APPENDIX – FURTHER INFORMATION:

Clinical Practice Guidelines – Pre-Hospital Setting Not Specified


Additional References