TITLE: Normal Saline versus Ringer’s Lactate for Large Volume Infusion: Comparative Clinical Effectiveness

DATE: 02 September 2015

RESEARCH QUESTION

What is the comparative clinical effectiveness of administering large volumes of normal saline versus Ringer's lactate to patients experiencing trauma or in emergent situations?

KEY FINDINGS

No relevant studies were identified regarding the comparative clinical effectiveness of administering large volumes of normal saline versus Ringer's lactate to patients experiencing trauma or in emergent situations.

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, 2010 and August 27, 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>Adults requiring fluid resuscitation or large amounts of volume infusion; Adults in septic shock (pre-hospital, emergency department, or intensive care unit settings)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention</td>
<td>Large volume normal saline (large volume defined as: 30-40 mL/kg or 2000-3000 ccs)</td>
</tr>
<tr>
<td>Comparator</td>
<td>Large volume Ringer’s Lactate</td>
</tr>
<tr>
<td>Outcomes</td>
<td>Clinical effectiveness (e.g., impact on survival); Adverse events (including kidney injury)</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

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, and non-randomized studies.

No relevant health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, or non-randomized studies were identified regarding the comparative clinical effectiveness of administering large volumes of normal saline versus Ringer’s lactate to patients experiencing trauma or in emergent situations.

References of potential interest are provided in the appendix.

## OVERALL SUMMARY OF FINDINGS

No relevant literature was identified; therefore, no summary can be provided regarding the comparative clinical effectiveness of administering large volumes of normal saline versus Ringer’s lactate to patients experiencing trauma or in emergent situations.
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:

Non-Randomized Studies

Volume of Fluid Not Specified


Non-Comparative


Laboratory Studies


Review Articles


Additional References
