TITLE: Heparin for Maintaining Patency of Peripherally Inserted Central Catheters in Neonates: Evidence-Based Guidelines

DATE: 24 November 2015

RESEARCH QUESTION

What are the evidence-based guidelines regarding the appropriate dose of heparin required to maintain patency of peripherally inserted central catheters (PICC) for neonatal patients?

KEY FINDINGS

No relevant literature was identified regarding the appropriate dose of heparin required to maintain patency of peripherally inserted central catheters for neonatal patients.

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. Methodological filters were applied to limit retrieval to health technology assessments, systematic reviews, and meta-analyses, and guidelines. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2010 and November 12, 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>Neonates requiring peripherally inserted central catheters (PICC) (Subgroup of interest: neonates weighing 10 kg or less)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention</td>
<td>Heparin flush</td>
</tr>
<tr>
<td>Comparator</td>
<td>Saline; No comparator</td>
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<tr>
<td>Outcomes</td>
<td>Evidence-based guidelines and best practice; Safety; Optimal dosing</td>
</tr>
<tr>
<td>Study Designs</td>
<td>Health technology assessments, systematic reviews, meta-analyses, 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 evidence-based guidelines.

No relevant health technology assessments, systematic reviews, meta-analyses, or evidence-based guidelines were identified regarding the appropriate dose of heparin required to maintain patency of peripherally inserted central catheters for neonatal patients.

References of potential interest are provided in the appendix.

OVERALL SUMMARY OF FINDINGS

No relevant literature was identified regarding the appropriate dose of heparin required to maintain patency of peripherally inserted central catheters for neonatal patients; therefore, no summary can be provided.

REFERENCES SUMMARIZED

Health Technology Assessments
No literature identified.

Systematic Reviews and Meta-analyses
No literature identified.

Guidelines and Recommendations
No literature identified.

PREPARED BY:
Canadian Agency for Drugs and Technologies in Health
Tel: 1-866-898-8439
www.cadth.ca
APPENDIX – FURTHER INFORMATION:

Previous CADTH Reports

1. CADTH. Peripherally inserted central catheters (PICCs) for adult and pediatric patients [Internet]. Ottawa (ON): CADTH; 2013 [cited 2015 Nov 23]. Available from: https://www.cadth.ca/media/pdf/htis/may-2013/RC0442%20PICCs%20for%20Adults%20and%20Pediatrics%20Final.pdf


Systematic Reviews – Neonates Not Specified in Abstract


Randomized Controlled Trials


Non-Randomized Studies


Clinical Practice Guidelines – Methodology Not Specified

Review Articles


Additional References

