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CONTEXT AND POLICY ISSUES

Peripherally inserted central catheters (PICCs) are central venous infusion catheters designed for insertion in the peripheral veins of the arm, typically the basilic, brachial or cephalic vein.\(^1,2\) They are long enough to locate their distal tip in a central vein, usually the superior or inferior vena cava, and are commonly made of silicone or polyurethane.\(^1\) They are widely used for central venous access, including delivery of antibiotics, chemotherapy, and parenteral nutrition.\(^3\) Intravenous catheters can cause endothelial trauma and inflammation leading to venous thrombosis.\(^4\) In cases of deep vein thrombosis (DVT) there is a key treatment choice regarding the removal or maintenance of the PICC line. Therefore, there is a need to identify guidelines for the maintenance of PICC lines in adult hospitalized patients who develop upper extremity DVT.

RESEARCH QUESTION

What are the evidence-based guidelines and best practice for the maintenance of peripherally inserted central catheters after the development of upper extremity deep vein thrombosis?

KEY MESSAGE

There is a lack of evidence on the maintenance of peripherally inserted central catheters after the development of upper extremity deep vein thrombosis.

METHODS

A limited literature search was conducted on key resources including PubMed, EBSCO CINAHL, The Cochrane Library (2011, Issue 1), 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, 2001 and February 15, 2011.

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SUMMARY OF FINDINGS

The literature search did not identify any health technology assessments, systematic reviews, meta-analyses, randomized controlled trials or evidence-based guidelines on the maintenance of peripherally inserted central catheters after the development of upper extremity deep vein thrombosis. Articles of potential interest are listed in the appendix.

CONCLUSIONS AND IMPLICATIONS FOR DECISION OR POLICY MAKING:

Because of the lack of relevant published literature, no conclusions can be drawn concerning the maintenance of peripherally inserted central catheters after the development of upper extremity deep vein thrombosis.

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REFERENCES:


APPENDIX

Non-randomized studies


Technical report


Survey article