Peripherally Inserted Central Catheter Removal: Clinical Effectiveness and Guidelines
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About CADTH: CADTH is an independent, not-for-profit organization responsible for providing Canada’s health care decision-makers with objective evidence to help make informed decisions about the optimal use of drugs, medical devices, diagnostics, and procedures in our health care system.

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Research Questions

1. What is the clinical effectiveness regarding occlusive dressings to cover the site after peripherally inserted central catheter (PICC) removal?
2. What is the clinical effectiveness of patient remaining in supine position for thirty minutes after PICC removal?
3. What are the evidence-based guidelines regarding dressings to cover the site after PICC removal?
4. What are the evidence-based guidelines regarding patient positions after PICC removal?

Key Findings

No relevant literature or guidelines were identified regarding the clinical effectiveness or use of occlusive dressings and body positioning after PICC removal in adult patients.

Methods

A limited literature search was conducted on key resources including Medline, 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. The search comprised two approaches for identifying relevant literature:

In the first approach, two concepts (“peripherally inserted central catheters” AND “removal”) were combined in order to identify randomized and non-randomized studies, as well as health technology assessments, systematic reviews, and meta-analyses.

In the second approach, a methodological filter was added to the “peripherally inserted central catheter” concept in order to limit results to relevant guidelines.

Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2014 and February 22, 2019. 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>
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<th>Population</th>
<th>Adult patients with PICC inserted in all care settings</th>
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| Intervention | Q1: Occlusive dressings  
               Q2: Patient remaining in supine position for thirty minutes  
               Q3: Dressings (eg., occlusive dressing, adhesive bandage or other dressing)  
               Q4: Patient positions after PICC removal |
| Comparator | Q1: Non-occlusive dressings (eg., adhesive bandage or other dressing)  
            Q2: Sitting up, raising head of bed, other length of time  
            Q3-4: No comparator |
| Outcomes | Q1-2: Clinical effectiveness (eg., air embolism)  
          Q3-4: Guidelines |
| Study Designs | Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, evidence-based guidelines |

PICC = peripherally inserted central catheter.

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.

No relevant literature and guidelines were identified regarding the effectiveness of occlusive dressings or supine body positioning after PICC removal in adult patients.

Additional references of potential interest are provided in the appendix.

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.

Guidelines and Recommendations

No literature identified.
Appendix — Further Information

Guidelines – Methodology Not Specified


