Ankle Brachial Pressure Index Assessment Prior to Compression Treatment: Clinical Evidence and Guidelines
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Acknowledgments:

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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.
Research Questions

1. What is the clinical evidence regarding the assessment of the ankle brachial pressure index (ABPI) before the initiation of compression therapy?

2. What are the evidence-based guidelines regarding the assessment of the ankle brachial pressure index (ABPI) before the initiation of compression therapy?

Key Findings

One evidence-based guideline was identified regarding the assessment of the ankle brachial pressure index (ABPI) before the initiation of compression therapy.

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 retrieval by publication type. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2012 and October 10, 2017. 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>Adult patients with compromised circulation, without wounds to the extremities</th>
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<tr>
<td>Intervention</td>
<td>Assessment of ankle brachial pressure index before compression therapy</td>
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</table>
| Comparator | Q1: No assessment  
Q2: No comparator |
| Outcomes | Q1: Changes in circulation and healing, safety  
Q2: Guidelines and best practice |
| Study Designs | Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, evidence-based guidelines |
**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.

One evidence-based guideline was identified regarding the assessment of the ankle brachial pressure index (ABPI) before the initiation of compression therapy. No relevant health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, or non-randomized studies were identified.

Additional references of potential interest are provided in the appendix.

**Overall Summary of Findings**

One evidence-based guideline published by The National Institute for Health and Care Excellence (NICE) did not explicitly state any specific guidance with regard to the timing of ankle brachial pressure index (ABPI) with compression therapy. However, this guideline did recommend that for individuals who need to use compression hosiery, they should be assessed for peripheral artery disease (PAD). The guideline also recommends that ABPI should be measured for the diagnosis of individuals with PAD. Therefore it is likely that, in a patient who needs to use compression hosiery, the ABPI will be measured; however, whether that would always occur prior to initiation of compression therapy is unknown.

**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.

**Guidelines and Recommendations**


See: Diagnosis (Page 8)
Appendix — Further Information

Previous CADTH Reports


Clinical Practice Guidelines – Uncertain Methodology

See: Background, bullet 6, page 1


See: Indications for ABI, page S22