TITLE: ArtAssist® and Other Pneumatic Compression Devices for Patients with Arterial Blood Flow Disorders: Clinical and Cost-Effectiveness and Guidelines

DATE: 06 October 2008

RESEARCH QUESTION:

1. What is the clinical effectiveness of ArtAssist® or other pneumatic compression devices for treatment of patients with arterial blood flow problems?

2. What is the cost-effectiveness of ArtAssist® or other pneumatic compression devices for treatment of patients with arterial blood flow problems?

3. What are the guidelines for use of ArtAssist® or other pneumatic compression devices, including treatment time?

METHODS:

A limited literature search was conducted on key health technology assessment resources, including PubMed, the Cochrane Library (Issue 3, 2008, University of York Centre for Reviews and Dissemination (CRD) databases, ECRI, EuroScan, international health technology agencies, and a focused Internet search. Results include articles published between 2003 and September, 2008, and are limited to English language publications. Filters were applied to limit the retrieval to systematic reviews, health technology assessments, meta-analysis, guidelines, economic, randomized controlled trials, controlled clinical trials, and observational studies. The exception to this methodology is that articles specifically on the ArtAssist® device were reviewed despite their date or study type. Internet links are provided, where available.

RESULTS:

HTIS 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 economic evaluations, randomized controlled trials (RCTs), controlled clinical trials, observational studies, and evidence-based guidelines.
Three RCTs and seven observational studies were identified pertaining to the clinical effectiveness of pneumatic compression devices for treatment of patients with arterial blood flow problems; 3 of these studies specifically named the ArtAssist® device (8-10). No relevant health technology assessments, economic information, controlled clinical trials, or evidence-based guidelines were identified. Additional information that may be of interest, including several references specific to the ArtAssist® device, has been included in the appendix.

**Health technology assessments**
No literature identified.

**Systematic reviews and meta-analyses**
No literature identified.

**Economic analyses and cost information**
No literature identified.

**Randomized controlled trials**


**Controlled clinical trials**
No literature identified.

**Observational studies**


**Guidelines and recommendations**
No literature identified.

**PREPARED BY:**
Kristen Moulton, B.A., Research Assistant
Raymond Banks, AB, MA, MLS, Information Specialist
Health Technology Inquiry Service
Email: [htis@cadth.ca](mailto:htis@cadth.ca)
Tel: 1-866-898-8439
APPENDIX – FURTHER INFORMATION:

Case studies and case series


Review articles


Additional references


