TITLE: Comparison of the Ankle Brachial Pressure Index (ABI) Doppler with the Pocket Doppler with Plethysmography Probe in the Assessment of Arterial Disease in Diabetic Patients: Clinical and Cost-Effectiveness

DATE: 13 November 2013

RESEARCH QUESTIONS

1. What is the comparative clinical effectiveness of using the Ankle Brachial Pressure Index (ABI) Doppler (on the limbs) and the pocket Doppler with plethysmography probe (on the toe) when assessing arterial disease in the diabetic patient?

2. What is the comparative cost-effectiveness of using the ABI Doppler (on the limbs) and the pocket Doppler with plethysmography probe (on the toe) when assessing arterial disease in the diabetic patient?

KEY MESSAGE

No literature was identified regarding the comparative clinical effectiveness or cost-effectiveness of using the ankle brachial pressure index Doppler on the limbs versus using a pocket Doppler with plethysmography unit on the toe when assessing arterial disease in diabetic patients.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library (2013, Issue 10), 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. The search was limited to English language documents published between January 1, 2008 and November 7, 2013.

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 economic evaluations.

No health technology assessments, systematic reviews, randomized controlled trials, non-randomized studies, or economic evaluations were found regarding the comparative effectiveness or cost-effectiveness of using the ankle brachial pressure index Doppler on the limbs versus using a pocket Doppler with plethysmography unit on the toe when assessing arterial disease in diabetic patients.

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.

**Economic Evaluations**
No literature identified.

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APPENDIX – FURTHER INFORMATION:

Randomized Studies – Patients not specified as having diabetes


Non-Randomized Studies

Unspecified or Non-Pocket Doppler Unit Used


Patients not specified as having diabetes


No Ankle Brachial Pressure Comparator Group


PubMed: PM22285350

PubMed: PM20736862

PubMed: PM21176166

No Toe Pressure Comparator Group

PubMed: PM20951569

Guidelines Including Assessment of Vascular Supply in People with Diabetes

See section 1.3 and Appendix I.

See section: Risk Assessment

Review Articles

Toe Pressure for Diagnosing Arterial Disease

PubMed: PM23688630

PubMed: PM22068431

PubMed: PM21095144
Ankle Brachial Index for Diagnosing Peripheral Artery Disease