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A Systematic Review to Determine an Evidence Based, Standardised Protocol for Measuring the Ankle: Brachial Pressure Index

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ABPI = Mean of Dorsalis Pedis & Posterior Tibial
Mean of Brachial

MATERIALS AND METHODS

The review was performed as follows:
• Literature Search of electronic databases using terms derived from research question
• Application of explicit inclusion/exclusion criteria derived from the research question and purpose and based on accepted methodological boundaries.
• Quality review of each included article using modified CASP tool (see Handout) and allocation of methodological quality score
• Identification of themes within the literature
• Cross comparison of papers in each theme to identify agreement
• Compilation of agreed findings to form protocol / recommendations

RESULTS

Three themes of variety from the traditional ABPI method were investigated in 8 papers:-
1. The position of the cuff
2. The use of automated devices
3. The mode of calculation

Recommendations were only possible for Theme 3 as there was considerable disagreement amongst papers in themes 1 and 2.

CONCLUSIONS

• Calculating ABPI based on Mean results was reported to reduce inter-rater and intra-rater variability and should be considered a realistic development to routine practice (accurate and repeatable)
• Further primary investigation is needed to determine the comparative reliability of doppler, oscilometric and photoplethysmographic methods of measuring ankle pressures
• The lack of consistency amongst papers and the low volume of research into all aspects of the test meant that it was not possible to generate a full evidence based protocol.

BIBLIOGRAPHY