The conventional method for measuring the ankle-brachial index (ABI) requires a vascular Doppler machine and a trained professional, which is a barrier to the examination becoming more widely adopted across health services. For this reason, the possibility of substituting Doppler monitors for other types of device has been investigated. The objective of this study was to assess the validity, reliability and accuracy of taking ABI measurement using oscillometric devices and compare them to vascular Doppler.

Methods: This is an integrative literature review of four articles. Results: There was very little uniformity between the four studies in terms of ample populations or the methodological procedures used to measure systolic pressures. The results for sensitivity, specificity and positive and negative predictive values varied and so did measures of reliability. Conclusions: The results of these studies do not provide a basis from which conclusions can be drawn on the validity, reliability or accuracy of employing oscillometric devices as a substitute for Doppler for determination of ABI.

Keywords
Ankle-brachial index; peripheral arterial disease; arterial blood pressure measurement.