

<b>Title:</b>	<b>Peripheral arterial tonometry with ascending aortic waveform analysis using the SphygmoCor system – February/March 2006</b>
<b>Agency:</b>	Medical Services Advisory Committee (MSAC) Commonwealth Department of Health and Ageing GPO Box 9848 Canberra ACT 2601 Australia <a href="http://www.msac.gov.au">http://www.msac.gov.au</a>
<b>Reference:</b>	<b>MSAC Application 1079. Assessment report ISBN 1 74186 032 6</b>

### **Aim**

To evaluate the safety, effectiveness and cost-effectiveness of peripheral arterial tonometry with ascending aortic waveform analysis using the SphygmoCor system for the assessment of stable angina pectoris, hypertension and heart failure, and under what circumstances this test should be supported with public funding.

### **Conclusions and results**

#### *Safety*

The SphygmoCor system is a non-invasive test. There are no adverse events associated with its use.

#### *Effectiveness*

On the basis of available evidence, the augmentation index measure as determined by the SphygmoCor system was recognised as having limited value for the diagnosis of coronary artery disease. No studies providing evidence for the accuracy of the SphygmoCor system for the diagnosis of hypertension, white coat hypertension or spurious systolic hypertension of youth were identified. A more detailed analysis of the spurious systolic hypertension of youth data did not yield persuasive evidence to support the ability of the SphygmoCor system to accurately diagnose spurious systolic hypertension of youth. No studies providing evidence for the diagnostic accuracy of the SphygmoCor system for the diagnosis of heart failure were identified.

No studies providing evidence for the effect of SphygmoCor system on patient management were identified.

#### *Cost-effectiveness*

In the absence of evidence supporting the effectiveness of SphygmoCor, a cost-effectiveness analysis was not undertaken.

### **Recommendation**

Since there is currently insufficient evidence pertaining to peripheral arterial tonometry with ascending aortic waveform analysis using the SphygmoCor system, MSAC recommended that public funding should not be supported at this time for this procedure. The Minister for Health and Ageing endorsed this report on 6 June 2006.

### **Method**

MSAC conducted a systematic review of the medical literature pertaining to the SphygmoCor system. A thorough search of the medical literature was carried out via electronic databases and health technology assessment websites. Those citations that met predefined inclusion criteria were included in the review of evidence.

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