Efficacy of the RESPeRATE Device for Lowering Blood Pressure

Statement from the British Hypertension Society
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The BHS has received a number of queries regarding this device since it appeared on the NHS Drug Tariff [£132]. A systematic review by Mahtani and Colleagues to be published in the Journal of Hypertension (May 2012, 30(5):852-860,) found eight trials of the Resperate device, consisting of 494 adult patients (click here to read the abstract, summary below). Use of this device resulted in significantly reduced systolic BP of 3.67mmHg (95% CI [-5.99, -1.39] p=0.002) and decreased diastolic BP of 2.51mmHg (95% CI [-4.15, -0.87] p=0.003). However, the maximum trial duration was only nine weeks and no overall effect was seen on heart rate or quality of life using the device. ***In the opinion of the BHS, such small effects over very short durations of time do not provide sufficient evidence for this equipment to be recommended.***

Mahtani KR., Nunan D. and Heneghan CJ. Device-guided breathing exercises in the control of human blood pressure: systematic review and meta-analysis. Journal of Hypertension (2012), 30:000-000

Summary
The Resperate device is currently being marketed as a non-pharmacological treatment to lower blood pressure on the basis of a number of published clinical trials. This is the first systematic review and meta-analysis to evaluate its effectiveness in lowering blood pressure in hypertensive patients. We included eight trials of the Resperate device consisting of 494 adult patients. Although we found a significant lowering of both systolic bp (-3.67mmHg [95% confidence interval (CI) - 5.99 to -1.39; P=0.002]) and diastolic bp (-2.51mmHg [95% CI= -4.15 to -0.87; P=0.003]) the effect was fairly small. In addition the trials were generally of short duration with little evidence for any long term benefit. We also had concerns over the quality of some of the published trials. We concluded that although Resperate may show some effect in lowering blood pressure, longer, independent, high-quality trials are needed before this device can be validated.