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MEDIA RELEASE

SLEEP APNOEA DIAGNOSES BEING MISSED IN PRIMARY CARE

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CRITERIA allowing general practitioners to refer patients directly to a sleep study may be missing more than half of patients later found to have clinically relevant obstructive sleep apnoea, according to the authors of research published in the *Medical Journal of Australia*.

Obstructive sleep apnoea (OSA) affects 9–38% of adults, is associated with high morbidity and mortality, and its health-related and other costs are high. Until recently, OSA was predominantly managed by sleep specialists. Recent changes to the Medicare Benefits Schedule now allow primary care clinicians to directly refer patients for a sleep study if they have a positive result in at least two categories of the Berlin questionnaire (BQ), or an OSA-50 score of at least 5, or a score of at least 4 on the STOP-Bang questionnaire, if they also have an Epworth sleepiness score (ESS) of 8 or more.

However, according to research led by Professor Shyamali Dharmage, from the Allergy and Lung Health Unit at the University of Melbourne's School of Population and Global Health, a significant number of OSA patients are being missed.

Dharmage and colleagues analysed data from 424 randomly selected participants in the Tasmanian Longitudinal Health Study with OSA symptoms, who completed OSA screening questionnaires and underwent type 4 sleep studies.

They found that STOP-Bang and OSA-50 correctly identified most participants with clinically relevant OSA (sensitivity, 81% and 86% respectively), but with poor specificity (36% and 21% respectively); the specificity (59%) and sensitivity of the BQ (65%) were both low. When combined with the criterion $ESS \geq 8$, the specificity of each questionnaire was high (94–96%), but sensitivity was low (36–51%). Sensitivity and specificity could be adjusted according to specific needs by varying the STOP-Bang cut-off score together with the $ESS \geq 8$ criterion.

"If used to rule out OSA in primary care settings, the three screening questionnaires would exclude 14–35% of people with clinically relevant OSA," Dharmage and colleagues wrote.

"Although adding the second criterion of an ESS score of 8 or more for ruling in OSA increased the specificity of screening from 21–59% to 92–95%, this combination missed 49–64% of participants with clinically relevant OSA.

"For people likely to trigger OSA assessment in primary care, the STOP-Bang, BQ, and OSA-50 questionnaires, combined with the ESS, can be used to rule in, but not to rule out clinically relevant OSA," they wrote.

The researchers recommended that the "combined use of the STOP-Bang with different cut-off scores and the ESS facilitates a flexible balance between sensitivity and specificity".

"Our STOP-Bang/ESS-based decision support tool may assist primary care physicians make objective and uniform decisions regarding OSA assessment and referral."

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