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A clinical evaluation of a computer-guided consultation to support the diagnosis and management of suspected Obstructive Sleep Apnoea Syndrome in comparison with a Sleep Specialist opinion

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Introduction: Obstructive Sleep Apnoea Syndrome (OSAS) is increasing in prevalence, carrying a negative health and economic societal impact. The majority of OSAS cases remain undiagnosed.

Aims and objectives: This study seeks to evaluate outcomes of a computer-guided consultation in diagnosing and prompting management in people with suspected OSAS referred into a regional sleep service.

Methodology: Subjects referred with suspected OSAS were initially evaluated by a single medical practitioner, using the Guided Consultation (GC) and blinded to any Sleep Study results. The GC takes a history, prompts an examination and investigation followed by a management plan. The diagnosis and management plan reached by the GC for each subject was subsequently referenced by an independent researcher to the final diagnosis based on the sleep study results. This was compared with the diagnosis and management plan reached by an experienced specialist sleep physician supported by sleep studies.

Results: 90 subjects (mean age 52 (12) years; 63% male; ESS 10 (6); BMI 36 (10); 93%) with suspected OSA/OSAS were studied. A diagnosis of OSA/OSAS was made in 87% (78/90). The "final diagnosis" made by the GC was concordant with the Physician "final diagnosis" in 94% (85/90) of cases.

Conclusions: There was good concordance between the GC and the specialist sleep clinician. An intelligent system such as the computer-guided consultation may standardise the approach to the assessment of

people with suspected OSA. The GC has the potential to increase healthcare systems ability to assess for OSA if used in more general settings.