

function, reduction of symptoms and exacerbations and to improve quality of life. Self-management interventions are beneficial in the management of other airway diseases and are a research priority for bronchiectasis.

**Objectives** To assess the efficacy, cost-effectiveness and adverse effects of self-management interventions for adults and children with non-CF bronchiectasis.

**Methods** Cochrane Airways Group's Specialised Register, ClinicalTrials.gov and the World Health Organisation trials portal were searched. We included all parallel and cluster-randomised controlled trials which included adults and children with non-CF bronchiectasis and assessed self-management interventions delivered in any form (e.g., mobile device, face-to-face) compared with usual care or alternate form of self-management. Two reviewers independently assessed studies for eligibility and quality, and extracted data.

**Results** We identified 53 records and included 2 studies: one RCT of early rehabilitation in adults in two centres in England and one proof-of-concept RCT of an expert patient programme in adults in a single regional respiratory centre in Northern Ireland. A total of 84 adult patients with bronchiectasis were randomised. Data aggregation was not possible. For primary outcomes, health-related quality of life was reported in both studies but showed no significant benefit. One study reported more deaths in the intervention group compared to the control group, (Intervention: 4 of 8, Control: 2 of 12), although small numbers limit interpretation. Neither study reported data on exacerbations requiring antibiotic therapy. For secondary outcomes, frequency of hospital admissions was reported in one study but was not significantly different between groups. Both studies reported lung function in terms of FEV1 and there were no significant differences between groups. One study reported data on self-efficacy and showed evidence of benefit. Neither study reported data on respiratory symptoms, economic costs or adverse events. Using GRADE guidelines, the outcomes included were judged as very low quality.

**Conclusions** There is insufficient evidence to determine whether self-management has benefits in adults and children with non-CF bronchiectasis. Future studies should more clearly define self-management interventions, control for sources of variability, be adequately powered, measure clinically important outcomes, and include children.

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### OXYGEN DESATURATION INDEX FOR DIAGNOSING OBSTRUCTIVE SLEEP APNOEA IN PATIENTS WITH MORBID OBESITY

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**Introduction and Objectives** Obstructive sleep apnoea (OSA) is often undiagnosed and hence untreated. Its prevalence is ever increasing given the escalating obesity of the population. Apnoea/hypopnoea index (AHI) is commonly used to diagnose and classify the severity of OSA. The overnight oximetry, which measures oxygen desaturation index (ODI), is far simpler to measure than a full respiratory polysomnography, but its diagnostic accuracy at predicting OSA has not been formally established. We proposed that in patients with morbid

obesity (BMI  $\geq 40$ ), the diagnostic accuracy for establishing an OSA diagnosis using ODI is as effective as AHI.

**Methods** The data from the respiratory polysomnography of those individuals with a BMI greater than 40 kg/m<sup>2</sup>, who were referred between January to December 2015 to the sleep service at St Peter's Hospital, were reviewed and measures of AHI and ODI were compared.

**Results** 79 individuals with a BMI greater than 40 who underwent respiratory polysomnography were identified.

Mean age 52 (Age range 21–78)

Mean BMI 47.4 (BMI range 40–66.2)

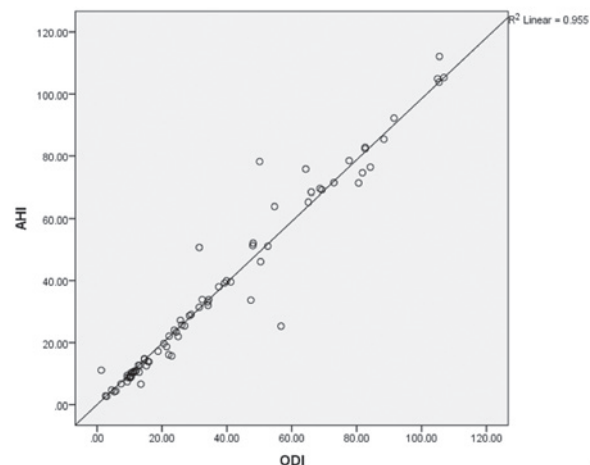
Mean AHI 36 (AHI range 2.7–112.1)

Mean ODI 36.6 (ODI range 3–105.5)

For BMI's  $\geq 40$ , ODI is as effective as AHI in diagnosing OSA with a strong positive correlation ( $R^2=0.955$ ). For those at the more severe end of the spectrum, the correlation is deeper.

**Abstract P62 Table 1** Positive correlation for AHI and ODI at BMI >40

	Normal (AHI <5)	Mild (AHI 5-14.9)	Moderate (AHI 15-29.9)	Severe (AHI >30)
AHI	5	24	14	36
ODI	4	22	17	36



**Discussion** The data provided by a respiratory polysomnography test provides a range of parameters, but polysomnography is resource intensive and requires significant time and expertise to assess properly. SIGN guidance states that oximetry can positively diagnose OSA but cannot exclude it.<sup>1</sup> There are multiple benefits to having a simple tool that can identify high-risk individuals that may suffer with OSA including early diagnosis and reduced cost as well as resource utilisation. This is likely to improve patient care with earlier diagnosis and treatment of OSA. Overnight oximetry can safely diagnose OSA in morbidly obese patients. This has the potential to optimise efficiency and reduce cost without impacting patient care.

#### REFERENCES

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