breathing and we offer the facility to insert PICC lines and use surefusers. Our aim was to demonstrate the benefits of managing patients with infective exacerbations of bronchiectasis in the community.

Method We performed a retrospective analysis of 51 patient records. We looked at a number of clinical outcomes including length of stay, infection rates, culture rates and potential cost implications.

Results Patients managed through AHAH had shorter lengths of inpatient stays; 2.5 days compared to 9.1. The cost of an AHAH bed is £100/day and an acute medical bed is £280/day which Results in a saving of £1140 per patient per admission. Patients managed in the community were more likely to have their sputum cultured in accordance with BTS guidelines. We proved equivalence in rates of hospital acquired infections, readmissions and death. Patient satisfaction was significantly better in those managed in the community, 98% would recommend the service to family or friends compared to 83% of patients managed on an inpatient ward.

Conclusion Our Results demonstrate clear benefits of managing patients with exacerbations of bronchiectasis in the community, not only in terms of a reduction in hospital bed days and cost but also improved patient satisfaction. We believe that our AHAH service is a safe and beneficial clinical service which could be applied to other clinical conditions.

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P60

OUTCOMES OF PREGNANCY IN WOMEN WITH BRONCHIECTASIS

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Introduction The impact and outcomes of pregnancy in women with non-cystic fibrosis bronchiectasis are largely unknown.

Methods We performed a retrospective cohort study of pregnancy in women with bronchiectasis attending our centre between 2007–2017. In all cases the mother had been diagnosed with bronchiectasis prior to conception and was under close monitoring throughout the pregnancy. Baseline

descriptive statistics recorded included: maternal age at delivery, body mass index (BMI), disease aetiology, previous pregnancy, and baseline percentage predictive values for respiratory function 6 months prior to conception assessed using forced expiratory volume in 1 s (FEV₁) and forced vital capacity (FVC). Longitudinal statistics were recorded for outcome of pregnancy, mode of delivery, infection status, obstetric cholestasis and haemoptysis during pregnancy, and respiratory function at baseline (6 months prior to gestation), conception, delivery and 6 months postpartum. Statistical analysis was made using the Pearson's two-tailed correlations, with p-values of <0.05 considered as statistically significant.

Results There were 11 successful pregnancies in 10 women with bronchiectasis during the study period. In all cases pregnancy was well tolerated with no significant adverse events. Mean age was 33.9 (range 23.9–43.5). Evidence of negative investigations for cystic fibrosis was found in 9/10 patients. Mean baseline FEV₁ prior to pregnancy was 70.2%-predicted (SD 19.6) compared with 66.5% (SD 20) at delivery (p≥0.05) and 66.2% (SD 20.7) at 6 months after delivery (p≥0.05). FEV₁/FVC ratio at conception, delivery and at 6 months after delivery was 0.77 (SD 0.1), 0.75 (SD 0.1) and 0.73 (SD 0.1) respectively (p≥0.05). 60% of women had positive sputum cultures during pregnancy: *Pseudomonas aeruginosa* in 27.3%, *Haemophilus influenzae* 45.5%, *Staphylococcus aureus* 18.2%, *Streptococcus pneumoniae* 9.09% and coliforms 9.09%. Positive sputum microbiology was not correlated with any change in respiratory function or pregnancy outcomes.

Conclusion Pregnancy in women with non-CF bronchiectasis was largely well tolerated in our cohort. Larger studies are needed to determine the true impact of pregnancy on lung function in this population.

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SELF-MANAGEMENT FOR NON-CYSTIC FIBROSIS BRONCHIECTASIS: COCHRANE SYSTEMATIC REVIEW

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Background The aims of therapeutic management for non-cystic fibrosis (non-CF) bronchiectasis are: preservation of lung

Abstract P60 Figure 1 Pulmonary function in pregnant women with non-CF bronchiectasis.

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.

P62

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 ≥ 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/m², 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 ≥ 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.¹ 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.

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