Background Advanced glycation endproducts (AGE) in patients with chronic obstructive pulmonary disease (COPD) has been considered in the pathology of the disease and as a biomarker of emphysema severity. In addition, AGE has been implicated in cardiovascular (CV) disease, a common comorbidity in COPD. Whether the soluble receptor for AGE (sRAGE) predicts CV status in COPD is unclear.

Objective The aim of this study was to assess the associations between sRAGE and measures of both lung and CV function in patients with COPD from the ERICA cohort.

Methods Patients with confirmed COPD performed spirometry, blood pressure, aortic pulse wave velocity (PWV), carotid intima media thickness (CMT) at clinical stability. Blood for sRAGE was taken.

Results Of the 729 subjects in ERICA, 677 patients had a sRAGE result. 417 patients were male; mean (SD) age was 67.4 (7.8) years and 31% were current smokers. There was a weak association of sRAGE with age ($r=0.16$, $p<0.001$), FEV₁% predicted ($r=0.12$, $p<0.05$) and FEV₁/FVC ($r=0.15$, $p<0.001$). There was no difference in sRAGE in current or ex-smokers. In multiple linear regression, a lower sRAGE was associated with more severe lung function: FEV₁% predicted, (B 4.3 [95% CI 1.6, 6.8, $p=0.0012$]). No significant relationship was observed between sRAGE and cardiovascular variables: aortic PWV ($p=0.418$) and CMT ($p=0.596$) in the multivariate models. sRAGE in those with concurrent presence of CV disease, diabetes or cerebrovascular disease or not was not different ($p=0.579$).

Conclusion Despite literature supporting the role of AGE in both lung and CV disease, there was no apparent association of sRAGE with CV status in patients with COPD in the ERICA cohort. There were associations with spirometry variables of FEV₁% predicted and FEV₁/FVC.

Respiratory medicine: common problems, new insights

P58 A QUALITATIVE AND QUANTITATIVE ASSESSMENT OF PATIENTS' ATTITUDES TO PULMONARY TARGETED ANTIBIOTICS IN BRONCHIECTASIS

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Background Bronchiectasis is a chronic lung condition commonly affecting adults in middle to later years. Quality of life can be poor with a chronic, productive cough, dyspnoea and significant fatigue. Treatments aim to reduce symptoms, exacerbation frequency and severity, preserve lung function and improve health related quality of life. Regular, often twice daily nebulised antibiotics are commonly used in managing bronchiectasis. This patient population typically has severe bronchiectasis requiring multiple other medications. Little is known on patients' views and preferences for such therapies. We aimed to assess this and define patient preferences and experiences.

Methods We conducted three focus groups and three single interviews to define patients' experience of nebulised antibiotics. 19 patients and/or carers attended focus groups providing in-depth information of lived experience using inhaled

Abstract P58 Figure 1 I would prefer an inhaler to a nebuliser.

antibiotics. Thematic data analysis (TA) was used to derive a patient experience survey and a further 120 adult bronchiectasis patients completed surveys.

Results Thematic analysis of the focus group data identified that many patients found nebulised therapy an imposition on their daily routine and this impaired adherence. Reducing treatment burden/time administering therapy was important. Others reported that nebulisation time was a period of rest, often incorporated into daily routines. The survey data showed although 70% of those currently taking nebulised antibiotics found them easy/very easy to administer, 10% found these hard/very hard to administer. 20% found taking the nebuliser in front of others "uncomfortable". When nebulising, 47% excluded themselves in a separate room on a daily basis. 53% stopped nebulised therapy during vacations. If an inhaler that was as effective as nebulised therapy at preventing exacerbations was available 76% strongly agreed/agreed that they preferred an antibiotic delivered by an inhaler over a nebuliser if it was as effective at preventing exacerbations. 16% stated a preference for nebulised. Notably, only 10% wished to remain on nebulised therapy.

Conclusions Bronchiectasis patients do not fully adhere with current treatments based upon treatment burden, life experience and lay knowledge. Inhaled antibiotics via dry power devices are quicker and easier to use and preferred by patients providing they were at least as effective as current nebulised treatments.

P59 HOME BRONCHIECTASIS SERVICE: A SAFE AND CLINICALLY EFFECTIVE MODEL FOR MANAGING INFECTIVE EXACERBATIONS OF BRONCHIECTASIS IN THE COMMUNITY

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Introduction The British Thoracic Society states that services for people with bronchiectasis should include the provision of home intravenous antibiotic therapy for exacerbations in selected patients.¹ This fits with the National objective of managing patients in the community. This should result in financial gains and improved patient outcomes. Our 'Acute Hospital at Home' (AHAH) service, is managed by a multidisciplinary team including Medical Consultants, Microbiologists, Nurses and Physiotherapists. There is regular Consultant review of patients via virtual ward rounds, and patients can be visited at home if required. Our service has the added benefit of home physiotherapy to reinforce the active cycle of

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.

REFERENCE

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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.