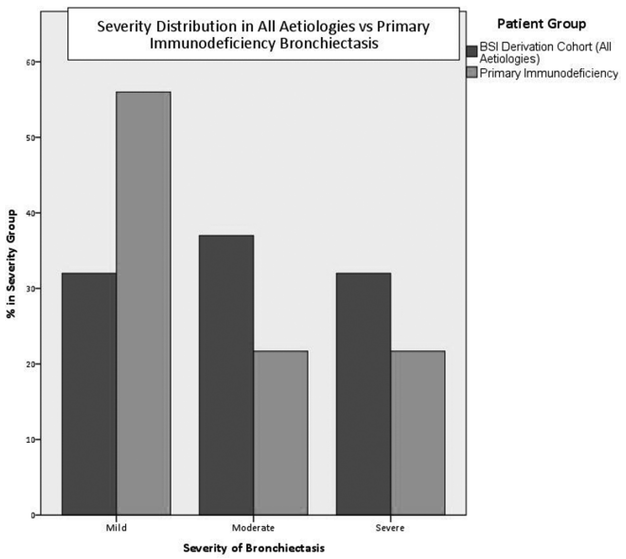

Abstract P79 Figure 1 Severity Distribution in all aetiologies vs primary immunodeficiency bronchiectasis

REFERENCE

1 Hurst JR *et al*. Activity, severity and impact of respiratory disease in primary antibody deficiency syndromes. J C Immunol 2014;34:68–75
2 Chalmers JD *et al*. The bronchiectasis severity index. An international derivation and validation study. Am J RCCM 2014;189:576–585

P80 CHARACTERISATION OF THE EQ-5D-5L AND EXERCISE PERFORMANCE IN BRONCHIECTASIS

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Introduction and objectives NHS England have been looking at using the EQ-5D-5L as a measure of health outcome across the NHS. It is a simple measure which patients complete at the start and end of treatment to evaluate quality and effectiveness of interventions. To date there is no evidence on its use in Bronchiectasis (Bx). Moreover, evaluation of exercise performance is also vital as this can be associated with increased dyspnoea, reduced lung function or increased malaise. Sit to stand (5STS) and six minute walk test (6MWT) can be used to evaluate exercise performance but there is limited guidance on responsiveness and feasibility in Bx. This abstract provides novel data for these outcome measures (OM) in Bx patients during a routine inpatient stay.

Methods 20 Bx inpatients (Male: Female 20:20, Median age: 63 (29–74) Median FEV_1: 1.26 (0.51–2.9) were assessed. 6MWT, 5STS and EQ-5D-5L were completed on all patients during their initial and final assessment.

Results Median length of stay was 10 days. Data is presented as median difference and comparisons were made using Wilcoxon Signed Rank tests.

Conclusion The EQ-5D-5L improved but did not show a significant difference, moreover there is currently no reported MCID for this OM. Significant differences were seen in both the 6MWT and 5STS. The 5STS is quick and feasible to complete and therefore maybe more preferable to use than the 6MWT. More understanding is needed on the utility of the EQ-5D-5L in this population.

Abstract P80 Table 1 Outcome measures completed on Bx inpatients on admission and discharge

	Pre	Post	Median difference (MD)	Significance level	MCID
6MWT (m)	310	360	50	0.028	35
STS (seconds)	12.53	10.40	-2.13	0.019	-1.7
EQ-5D-5L	65.9%	75.8%	9.8%	0.508	Not known

Minimal clinically important difference (MCID)

REFERENCES

1 Pasteur *et al*. 2010 'BTS Guidelines for non-CF Bronchiectasis'
2 EQ-5D-5L (www.euroquol.org)

P81 THE INCREASING SECONDARY CARE BURDEN OF BRONCHIECTASIS IN ENGLAND

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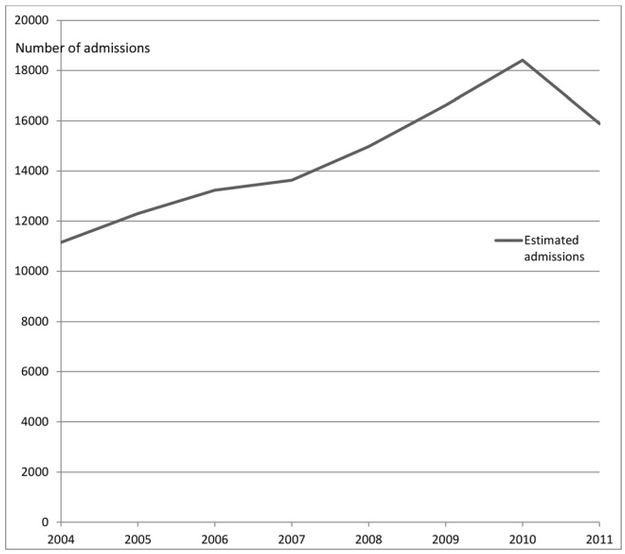
Background A recent study suggested that the bronchiectasis is now a relatively common condition in the UK.[1] The healthcare burden of bronchiectasis on secondary care, in terms of hospital admissions is also unknown, yet is essential for allocation of healthcare resources and planning of service pathways. We used data from Hospital Episode Statistics (HES) to determine age standardised annual hospital admission rates in England.

Methods We obtained annual number of hospital admissions (finished consultant episodes), total number of bed days and mean age at time of admission where bronchiectasis was the primary reason for admission for all hospital trusts in England. The ONS mid-year England population for 2011 was used as the standard population. Age specific admission rates for bronchiectasis were calculated for each year and these rates were applied to the 2011 population in order to generate annual standardised estimated number of admissions. An estimate of the average



Abstract P81 Figure 1 Hospital admissions from bronchiectasis in England from 2004–2011

length of stay was calculated by dividing the total number of bed days by the total number of admissions for each calendar period. Linear regression was used to test for changes over time in mean age at admission and average length of stay.

Results In 2004 the total number of admissions was 8611 (11,147 after standardisation) and this increased progressively up to 2011 when the number was 15,885 (see Figure 1). The overall annual increase was 9% (Rate Ratio [RR] 1.09, 95% Confidence Interval [CI] 1.08 to 1.10; $p < 0.0001$). During the study period, the mean age at admission increased from 62 years to 65 years and the average length of stay decreased from 6.5 days to 4.7 days ($p = 0.001$). 60% of admissions were in women and admissions were more common in individuals over 60 years.

Conclusions Data on hospital admissions from bronchiectasis suggest that the disease burden is increasing. The cost of inpatient care, combined with outpatient disease monitoring and prescription of antibiotics pose a large burden on healthcare services.

REFERENCE

1 Quint J, Millett E, Hurst J, *et al*. P172 Time Trends in incidence and prevalence of bronchiectasis in the UK. *Thorax* 2012; 67:A138

P82 EFFECT OF A STANDARDISED CHEST CLEARANCE PATHWAY ON QUALITY OF LIFE AND HOSPITAL ADMISSIONS IN PATIENTS WITH NON CYSTIC FIBROSIS BRONCHIECTASIS

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British Thoracic Society guidelines for non-cystic fibrosis bronchiectasis (NCFB) recommend airway clearance taught by a physiotherapist for patients with chronic sputum production or mucus plugging on CT. Various techniques and adjuncts are available and the evidence for the effectiveness of these is inconsistent. We designed a stepwise chest clearance pathway for use in a specialist NCFB clinic in a large district general hospital trust. Patients were taught and commenced on active cycle breathing technique with postural drainage, positive expiratory pressure device, mucolytic and nebulised hypertonic saline, progressing to each step until chest clearance was felt to be optimised. Quality of life was assessed using Leicester cough questionnaire (LCQ) at baseline and after each intervention including the point of optimisation. Hospital admission and general practice antibiotic prescription data were retrospectively collected for 12 months pre and post initiation of the pathway. Data were compared using Wilcoxon signed rank test.

105 patients (mean age 67, 53 female, mean FEV1 1.62l) were included although data were incomplete. Total LCQ score significantly improved at the point where chest clearance was felt to be optimised, compared to baseline, with a median difference of 1.3. Subgroup analysis revealed that patients with lower baseline LCQ showed greater improvement. Further analysis revealed that all steps in the pathway resulted in significant improvements in LCQ with the exception of mucolytics. Hospital admissions for NCFB were significantly reduced in the 12 months following initiation of the pathway. There was no significant difference in antibiotic usage according to GP prescriptions.

This retrospective study suggests that the use of a standardised chest clearance pathway may result in improved quality of life and reduction in hospital admissions in patients with NCFB.

P83 NON-TUBERCULOUS MYCOBACTERIA IN PATIENTS WITH COPD – FREQUENTLY POOR OUTCOMES DESPITE TREATMENT

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Introduction Non-tuberculous mycobacteria (NTM) are often isolated in patients with chronic obstructive pulmonary disease (COPD). We sought to analyse the spectrum of NTM isolates, presentations and outcomes seen in COPD patients with NTM.

Methods All NTM isolates between 09/2010 and 10/2013 were identified from a prospective database of mycobacterial isolates. The electronic patient record was used to identify COPD patients. Information regarding radiology, bacteriology, spirometry, management, co-morbidity and outcomes was extracted.

Results Of 211 patients with NTM isolates, 59 (28%) had diagnosed COPD with a median FEV1 of 1.05L (range 0.59–2.94L). Forty-two (71%) were male and 21 (36%) current smokers. 21 had a known malignancy, 11 of which were lung cancer.

From the 59 patients, 118 samples were obtained. 50 patients isolated one NTM species with 9 isolating more than one species in the same or a subsequent sample. Isolated species are shown in Table 1.

Bacteria were isolated in 41 (69%), with Pseudomonas aeruginosa in 12 (20%). Eight patients (14%) had evidence of co-infection with aspergillus fumigatus. Radiological features varied, including predominant cavitation in 19 (32%), multiple nodules in 14 (17%), solitary nodules in 5 (8%) (all FDG-PET avid and diagnosed at resection for suspected lung cancer).

26 of 59 (44%) were commenced on anti-mycobacterial therapy, of which two (8%) remain on treatment. 15 (58%) commenced treatment but were unable to complete the prescribed course. Of these, 7 (47%) subsequently died while 8 (53%) remain stable off treatment. Of the 9 patients who completed treatment, 6 (67%) relapsed, of which 5 subsequently died. Of the 3 that did not relapse, 1 died. In total, 21 of 59 (36%) have died; 13 of 26 (50%) who commenced treatment and 8 of 33 (24%) who did not. Median time from first NTM presentation to death was 8 months (range 0–36).

Conclusions These data demonstrate often poor outcomes for COPD patients in whom NTM are isolated. The frequent presence of advanced COPD, co-existing infections and malignancy suggest the need for a holistic approach to therapeutic decision making including the need for palliative and end-of-life care.

Abstract P83 Table 1

NTM species	Number of positive NTM samples	% number of positive NTM samples
M kansasii	43	36%
M xenopi	20	17%
M intracellulare	15	13%
M gordonae	9	8%
M fortuitum	8	7%
M avium	8	7%
M peregrinum	5	4%
M abscessus	5	4%
M malmoense	3	3%
M chelonae	2	2%
Total	**118**	**100%**