Conclusion This data suggests the main barrier to increasing physical exercise in severe asthma was fear/anxiety of worsening asthma symptoms particularly breathlessness. More research is required to investigate the relationship between this fear of exercise and objective measures of asthma worsening.

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P249 | LONGITUDINAL EVALUATION OF PHYSICAL ACTIVITY IMPAIRMENT USING THE ASTHMA CONTROL QUESTIONNAIRE (ACQ) IN SEVERE ASTHMA

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Background and objective Patients with severe asthma remain highly symptomatic despite high dose anti-inflammatory treatment. Level of asthma control is often assessed in the clinical setting with the asthma control questionnaire (ACQ). Separate components of the ACQ focus on different aspects of control. A high score on the third question (Q3) demonstrates activity limitations and may be caused by factors other than asthma such as physical deconditioning, concomitant cardiac disease and dysfunctional breathing patterns, leading to a overestimation of the severity of asthma. This could potentially lead to overtreatment. The aim of this study was to determine whether patients with severe asthma had a continuously high ACQ score, predominated by the third question despite treatment.

Methods In a group of severe asthma patients, referred to the Royal Brompton hospital in London, UK, an evaluation of ACQ as monitoring tool was performed from May to July 2015, at an index clinic (v3) and two previous attendances (v1–2). The patients suffered from severe asthma (step 4 or 5 BTS/SIGN guideline treatment) and change in ACQ score over time (total and Q3) was compared with other measures of asthma severity such as medication burden and lung function.

Results Forty three patients (n = 27 females, 61.4%) of mean (SD) age: 56 (11) years were included. The total ACQ score (median (range)) at index was 2.67 (0.17–5.50), the ACQ score on Q3 was 3.00 (0.00–6.00) and mean (SD) FEV_1 percent of predicted was 61.9 (±23.78). The total ACQ score was lower at index visit than the first visit (-0.17 (-1.83–1.50; p = 0.041). A change in ACQ score in Q5 was found (p = 0.019), whereas Q3 was unchanged. A change in FEV_1 percent predicted was -0.62 (±12.11). A correlation between FEV_1 percent predicted and both total ACQ score (p < 0.01) and Q3 ACQ score (p < 0.01) was found. There was no correlation between the changes in these three parameters.

Conclusion In patients with severe asthma there is a significant improvement in total ACQ score over three visits, but no improvement in exercise induced symptoms (Q3). This can be correlated with the fact that Q3 can reflect other symptoms than asthma.

P250 | CORRELATION BETWEEN ATTENDANCE RATES AND SOCIOECONOMIC DEPRIVATION AT A DIFFICULT ASTHMA CLINIC IN A LARGE INNER CITY TEACHING HOSPITAL

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Introduction and objectives Missed clinic appointments are a huge financial burden on the NHS, with an average of 6.9 million outpatient appointments being missed each year.[1] The difficult asthma clinic at our inner city hospital is no exception to this trend. Many factors are likely to contribute to missed appointments, which can be summarised in with in socioeconomic deprivation indices. We wanted to confirm whether there is an association between missed appointments and socio-economic deprivation. We hypothesised that non-attenders lived in areas with worse deprivation scores.

Method We compared deprivation scores of English postcodes of clinic attenders and non-attenders of a 'difficult asthma clinic' between 2011–2014 inclusive. Indices of multiple deprivation scores were using census related data and Townsend Index via UK data service ©University of Essex and University of Manchester. This provides a validated, relative measure of deprivation across small localities in England to enable comparison. A higher score represents an area with worse socio-economic deprivation, maximum score = 100. Mann-Whitney two-tailed tests to compare non-paired non-parametric data were performed in Prism version 6 (GraphPad).
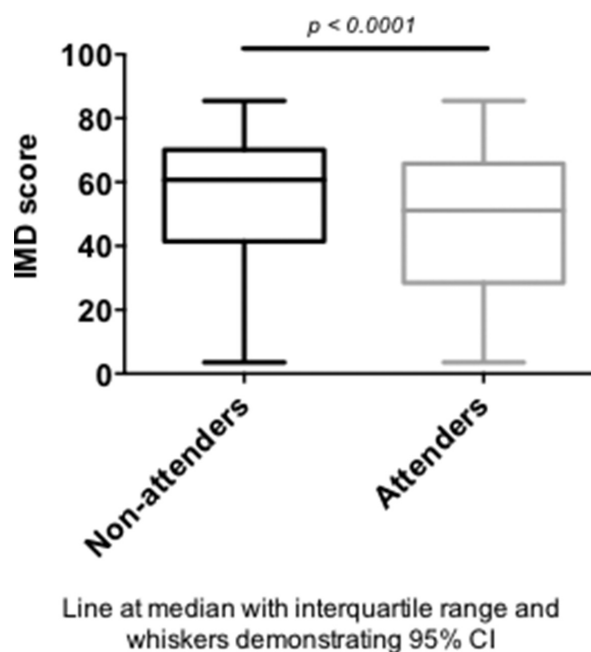
Abstract P250 Figure 1 Indices of multiple deprivation Non-attenders and Attenders at a Difficult Asthma Clinic between 2011–2014

Results The median deprivation score of postcodes of non-attenders (n = 458) was 60.69, whereas for attenders it was 51.12 (n = 505), with a p value of <0.0001.

Conclusion These results strongly suggest socioeconomic deprivation has a negative impact on attendance rates at this specific

clinic. Challenging socio-economic conditions are detrimental to healthcare in multiple ways and it can be difficult for patients to access resources needed to manage their healthcare need effectively. However, we hope to assess the effect of deprivation in a control medical clinic to explore the specificity of this result to asthma clinics. It would also be valuable to investigate if these DNA rates are reflected in community clinics, as this may be an alternative way to deliver this service in order to reduce overall DNA rates in deprived areas.

REFERENCE
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Improving outcomes in TB

TUBERCULOSIS IN OLDER VERSUS YOUNGER ADULT PATIENTS: A RETROSPECTIVE COMPARISON OF PATIENT CHARACTERISTICS AND TREATMENT OUTCOMES AT A MAJOR UK REFERRAL CENTRE

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Introduction and objectives Tuberculosis (TB) in older persons presents challenges related to diagnosis, management, comorbidities and polypharmacy potentially contributing to increased morbidity and mortality. This retrospective cohort review compares the baseline characteristics, diagnosis, management and outcome between older patients (OPs) (over 65 years) and younger patients (YPs) (25–35 years.)

Method All patients ≥65 years treated at Northwick Park Hospital during 2002–2014 were identified from London TB register; a comparison group of patients aged 25–35 years were randomly selected. Clinical, microbiological, radiological and biochemical parameters together with management and outcomes were obtained from electronic records. Characteristics of patients were compared between the two groups using Chi-squared and Kruskal-Wallis tests; analyses were performed using Stata (Stata Corp. 2013).

Results The comparison groups comprised 313 patients aged ≥65 years and 339 patients aged 25–35. Demographics, site of disease, TB culture, treatment regimens and outcomes are recorded in Table 1. 35.6% of OPs and 29.6% of YPs were symptomatic for >2 months at review in secondary care. Median duration to starting treatment from review was 17 days (IQR: 4–57) in OPs compared to 2 (IQR: 1–19) in YPs (p = 0.001). 44.8% of OPs experienced drug toxicity compared to 27.3% of YPs (p = <0.001.) Gastrointestinal symptoms affected 24.8% and 9.6% of OPs and YPs respectively (p < 0.001). There was no difference in prevalence of rash (4.8% in OPs,) arthralgia (2.4% of OPs,) or drug induced liver injury (6.4% of OPs, p = 0.32.) Comorbidities were higher in OPs, with diabetes present in 34.5%, hypertension in 52.6% and renal failure in 17.9% compared to 1.5%, 1.2% and 1.8% in YPs (all p = 0.001). 58.8% of ≥65 and 37.9% of YPs had inpatient admissions, with 30% of OPs admitted for >10 days (p = <0.001). Completion was 78.7% and mortality 16.0% amongst OPs, versus 91.2% with no deaths amongst YPs (both p = <0.001).

Conclusion These data characterise the delays in presentation and treatment initiation in older patients who also experience a more complicated treatment course with an increased side effect profile, more variation from standard quadruple therapy, lower completion rates and poorer outcomes. This, together with longer inpatient stays impacts patients, but also has financial implications for services.

A RETROSPECTIVE EVALUATION OF THE DIAGNOSTIC UTILITY OF ADENOSINE DEAMINASE IN PLEURAL TUBERCULOSIS IN A LOW-PREVALENCE AREA

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Introduction and objectives Pleural fluid adenosine deaminase (pfADA) is a validated diagnostic marker for pleural tuberculosis (TB) in high prevalence areas, with good sensitivity and specificity reported at a threshold of 40 U/L. However, in north-west Europe pfADA is not routinely measured, due to a lack of evidence as to its diagnostic utility in areas of low TB prevalence. The aim of this study is to assess the sensitivity and specificity of pfADA in a low-prevalence area, evaluating its diagnostic value for pleural TB.

Methods A retrospective analysis considered all pfADA-tested suspected pleural TB patients within one hospital trust from 2009–2015. This cohort was then divided into two groups: those with a confirmed diagnosis of pleural TB and those without pleural TB. Those without pleural TB were used as a control group, to determine the sensitivity and specificity of pfADA at various thresholds.

Results Of 156 patients tested for pfADA, 25 had confirmed pleural TB and 131 did not, with mean pfADA levels of 71.7 (±25.2) and 19.8 (±22.4), respectively. On a Receiver Operating Characteristic (ROC) curve (Figure 1), pfADA of 30 U/L has a sensitivity of 100%, specificity 83%, positive and negative predictive values of 53% and 100% respectively. At a threshold of 40 U/L, sensitivity was 88% with a specificity of 88%. The calculated area under ROC curve is 0.949 (95% CI 0.91–0.982).
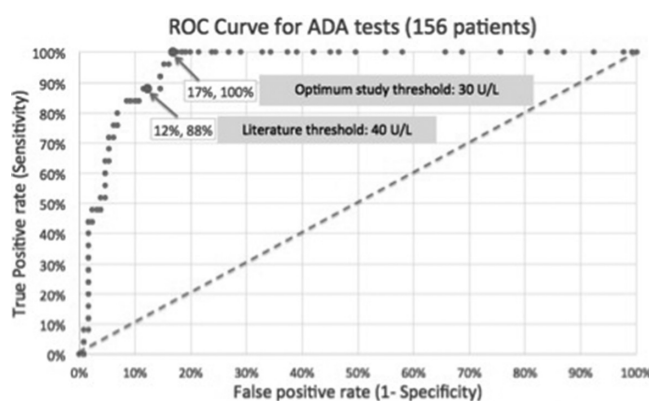
Abstract P252 Figure 1

Conclusion Although the positive predictive value of pfADA may be lower in areas of low TB prevalence, its negative predictive value is unaffected, retaining its value as a worthy screening test to exclude pleural TB, allowing focus on obtaining adequate culture samples and biopsies in suspected pleural TB.