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.

REFERENCES
1   Warburton DE, Nicol CW, Bredin SS. Health benefits of physical activity: the evidence. *CMAJ* 2006;**174**:801–809
2   National Voices. *Policy position on coordinated care* [Online]. Available at: http://www.nationalvoices.org.uk/sites/www.nationalvoices.org.uk/files/policy_position_coordinated_care_v.final_.pdf, 2012

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).
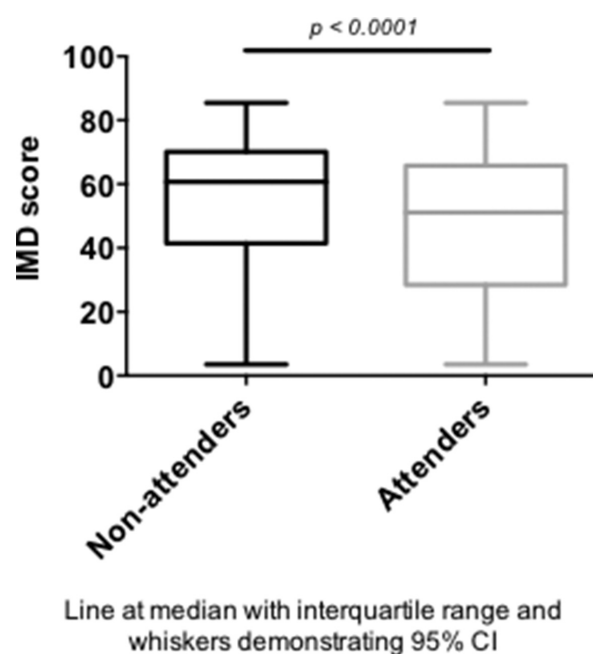
Abstract P250 Figure 1 Indices of multiple deprivation Non-attenders and Attenders at a Difficult Asthma Clinic between 2011–2014

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