St Helens and Knowsley NHS trust (STHK) have re designed the acute pathway for medical admissions. Investment in Consultant numbers has allowed the Acute Medical Admissions (MAU) team and the speciality teams to provide robust Consultant input to their areas Monday to Sunday. Speciality Consultants have been released from the acute medical take and traditional Physician of the day (POD) activities. Advantages of a Consultant led seven day service include: Greater parity of service across seven days a week; high level of clinical competence ensuring rapid and appropriate decision making; improved outcomes for patients; skilled judgement and performance leading to the most effective working and more efficient use of resources; and GP access to the opinion of a fully trained doctor.

Respiratory Consultant numbers have increased from 5 to 8 (7.5 WTE). 90 PA's have been invested in the service. The inpatient service is resourced with 64 inpatient beds. General principles have been applied to the inpatient service. These include: Each Consultant provides daily review, in the form of 3 ward rounds and 2 board rounds, to their allocated patients; rounds are performed in the first half of the day to aid patient flows and discharges; Consultants provide cross cover during leave; and weekends are covered on a 1 in 8 basis. Alteration to outpatient and elective services has also occurred.

Results 160% increase in weekend Respiratory discharges and 48% increase in overall Respiratory discharges, with no increase in bed base. Significant fall in Respiratory length of stay. 50% improvement in MET calls per discharge reflecting improved quality of care. Significant fall in readmissions. Positive feedback from patients, relatives and staff. Additional benefits include improved elective and outpatient productivity due to less clinic cancellations enforced by the traditional POD model of acute medical activity. Outpatient activity has increased by 50% and elective (Bronchoscopy) activity by 35%. Improved junior doctor support and education are also achieved. Significant decrease in departmental complaints.

Discussion The "slow drift" model presented here offers significant advantages over traditional working practices for both efficiency and outcome. The return on investment contributes to cost improvement programs.

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## "... NO CLEANING, NO STAIRS, NO SEX...EVERYTHING JUST STOPS": UNDERSTANDING LIVING WITH SEVERE ASTHMA TO INFORM EFFECTIVE SELF-MANAGEMENT

<sup>1</sup>LD Apps, <sup>1</sup>S Hewitt, <sup>1</sup>R Green, <sup>1</sup>P Bradding, <sup>1</sup>A Murphy, <sup>1</sup>N Martin, <sup>1</sup>SJ Singh, <sup>2</sup>SJ Singh, <sup>3</sup>N Hudson, <sup>1</sup>R Evans. <sup>1</sup>University Hospitals of Leicester NHS Trust, Leicester, UK; <sup>2</sup>Loughborough University, Loughborough, UK; <sup>3</sup>DeMontfort University, Leicester, UK

10.1136/thoraxjnl-2015-207770.381

Introduction and objectives Despite the large socioeconomic burden of severe asthma, few studies have focused specifically on the patient experience of living with and managing severe asthma. Patient-related factors including behavioural, psychological and social factors complicate the management of the condition.

This study aimed to explore these experiences in individuals with severe asthma to understand how to support effective self-management.

Method Semi-structured interviews were conducted with participants recruited from a difficult asthma service at Step 4–5 of the BTS/SIGN guidelines. Recruitment occurred until theoretical saturation was achieved. Interviews were transcribed verbatim and

coded, supported by NVivo software (Version 10). Thematic analysis was performed.<sup>1</sup>

Results 29 interviews were completed (44% male, mean age 49.45 (13.64) years, BMI 31.65 (5.48) kg/m², 4 smokers). Five themes describe the experience of living with and managing severe asthma:

Impact of asthma. Debilitating breathlessness was described impacting on many areas of participants lives, including relationships, work and family life.

Day to day management of asthma. Self-regulatory behaviours were described such as monitoring peak flow and pacing. However, these behaviours and the implied restrictions could induce distress and dissatisfaction. This limited self-management behaviours in-between the acute phases of illness.

Confidence to manage symptoms. Participants reported confidence to manage acute events, but the unpredictability of symptoms and fear of inducing symptoms appeared to undermine their confidence to manage symptoms.

Challenges to effective self-management. There were further multiple challenges to effective self-management, such as: understanding of disease; perceptions of asthma by others; reluctance to accept hospitalisation and the unpredictability of symptoms.

Beliefs about medication. There was conflict around long term oral steroids. Most participants resolved this by balancing the necessity of the medication versus the concerns they held about the long term effects of maintenance. There was little comment regarding inhaled medications.

Conclusion Strategies are needed to enhance acceptance and confidence to engage in self-management behaviours. This should encompass all aspects of the disease, not solely the acute phases, to minimise daily distress and increase effective self-management to improve the health status for this severe population.

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# SHOULD WE TELEPHONE MISSED ASTHMA APPOINTMENTS? A FOLLOW-UP EVALUATION OF FOUR YEARS OF PRACTICE

Y Narang, B McDonough, M Ahmad, S Mault, C Dillon, H Burhan, NER Beveridge. *Royal University Hospital Liverpool, Liverpool, UK* 

10.1136/thoraxjnl-2015-207770.382

Introduction We have previously shown that telephone contact following missed asthma clinic appointments is a resource-intensive method of improving compliance in a relatively small group of patients. Poor adherence to treatment leads to increased admissions and reduced quality of life. Reducing rates of missed appointments is a key efficiency target for service delivery for the hospital.

Aim To evaluate the outcome of telephone contact following missed asthma clinic appointments in a larger data set.

Methods We reviewed the outcomes of telephone contact with patients following a missed appointment at a difficult asthma clinic at an inner city hospital between 2011 and 2014. Difficult asthma is defined as ongoing symptoms despite level 4–5 treatment. Successful contact was defined as speaking to the patient or receiving a message. Unsuccessful contact describes when messages were left for patents but no response achieved.

Results Between 2012 and 2014 (inclusive) 457 patients missed an appointment. We attempted to contact 324 patients.

A200 Thorax 2015;**70**(suppl 3):A1–A25A

Successful contact was made with 112 patients; 50 then attended clinic. Contact was unsuccessful for 212 patients; 59 then attended clinic. Due to a lack of contact details, no contact was attempted in 133 patients; 31 then attended clinic subsequently. The relative increase in clinic attendance following contact was 1.95 when compared to the no contact group, and 1.6 compared to the unsuccessful contact group. Unsuccessful contact produced a relative increase of 1.2 compared to no attempted contact.

Group	Number of patients	Number who attended clinic subsequently	Percent of group that attended clinic subsequently
Total DNAs	457	140	31%
No contact	133	31	23%
Unsuccessful contact (attempted)	212	59	28%
Successful contact	112	50	45%

Conclusion Telephoning patients following a missed asthma clinic appointment is relatively resource intensive method of doubling clinic attendance. In the unsuccessful contact group, telephone calls were frequently not answered or were voicemail messages were not responded to. Yet there does appear to be a small benefit in attendance rates in this group compared to the no contact group. Because the groups were not randomised confounding factors may be present. Services that provide prospective reminders and perhaps use a free text service may be more effective and less labour intensive.

#### **REFERENCE**

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### THE PREVALENCE OF ASTHMA AND LEVEL OF TREATMENT IN CURRENT OR FORMER HEROIN SMOKERS

BH Vlies, N Lewis-Burke, L Davies, PP Walker. Aintree University Hospital, Liverpool, UK

10.1136/thoraxjnl-2015-207770.383

Introduction We have reported an association between heroin smoking and early onset severe COPD/emphysema and from this screening study reported a COPD prevalence of approximately one third in heroin smokers attending a community drug centre. However, respiratory symptoms were common in people who did not have COPD and a previous report showed a high level of wheeze and bronchial hyper-responsiveness in opiate smokers/insufflators. Therefore, we examined our cohort to determine asthma prevalence and level of symptoms and treatment in this group.

Methods Current and former heroin smokers were recruited from a community-based drug service in Merseyside and completed spirometry with reversibility testing, MRC and CAT score and smoking, drug use, health and treatment questionnaires. They were not selected because of the presence of symptoms. Asthma was defined by either airflow obstruction that normalised with bronchodilation or airflow obstruction with an FEV1 that improved by  $\geq 9\%$  with bronchodilation (7 subjects), or a

diagnosis of asthma before age 25 or before the subject had smoked heroin for 2 years (28 subjects).

Results 107 heroin smokers completed the study, the majority of whom had also smoked cigarettes, cannabis and crack. 35/107 (33%) met our diagnosis of asthma and we compared them with 42 heroin smokers with neither COPD nor asthma. The asthma subjects had a significantly lower mean FEV1 (3.26 L vs 3.73 L and 83% vs 97% predicted) and FEV1/FVC (0.71 vs 0.81). Mean age was 42 years and duration of cigarette, cannabis and crack smoking was similar as were MRC and CAT scores. Symptoms were very common in the asthma group – cough 23 (66%), wheeze 23 (66%) and breathlessness 26 (74%) but this was similar to the non-asthmatics. Only 11 (31%) were prescribed short-acting beta-agonists and/or inhaled steroids and only 2 (6%) a long-acting beta agonist despite 32 (92%) having a prior diagnosis of asthma.

Conclusions In an unselected group of current/former heroin smokers the prevalence of asthma was high at 33% and similar to the number diagnosed with COPD. Further detailed assessment of this cohort may be valuable and different methods of engaging with this undertreated and hard-to-reach group worthy of examination.

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### SELF-REPORTED ACTIVITY LEVELS, BARRIERS AND FACILITATORS TO EXERCISE IN SEVERE ASTHMA

A Clarke, AH Mansur. Heart of England NHS Foundation Trust, Birmingham, UK

10.1136/thoraxjnl-2015-207770.384

Introduction and aim The association between physical inactivity and increased morbidity is well documented. It is widely recognised that patients with respiratory disease often have decreased exercise capacity, and therefore may be at increased risk of comorbidities such as cardiovascular disease, depression and obesity. The latter have been found to be highly prevalent within severe asthma populations.

In recent years there has been a greater emphasis placed on co-production and service user involvement in shaping interventions for patients with chronic diseases.<sup>2</sup> The aim of this study was to gather self-reported activity levels of severe asthma patients and to determine barriers and facilitators to exercise, in order to focus future interventions.

Method Fifty two patients (40 females) aged 18 to 65 years with a confirmed diagnosis of severe asthma following systematic multidisciplinary assessment took part in this study. Patients completed an activity questionnaire anonymously during their clinic visits. The questionnaire included a mixture of open and closed questions that assessed the level and attitudes to physical activities and exercise.

Results 48/51 (94%) of respondents rated themselves as less active than their peers, and 21/49 (43%) did not participate in any exercise. There was a strong theme of fear of exercise induced exacerbation and breathlessness in 21/52 (40%) of patients, with 21/52 (40%) reporting feeling unsafe to exercise, and 33/52 (63%) reporting exercise induced worsening of their asthma symptoms. 45/52 (87%) wanted to become more active. Patients reported a strong preference for exercising alone or with a health professional present as opposed to group activities or classes. Swimming and walking were the activities patients were most likely to show an interest in.