every year. Ending smoking could be the greatest single contribution to increasing healthy years of life, while narrowing the gap between the rich and poor.

**Background** KCRS provides a pharmacist-led specialised smoking cessation service. The service was initially trialled as a pilot in 2018 after rates of smoking in Knowsley had remained static in the preceding 8 years at around 40%. Considering there was a council run Smoking Cessation service, it was felt that a more enhanced and specialised service was required to improve smoking quit rates. Following the success of the pilot, the service was commissioned by Knowsley council.

**The Service** The following components of the service provide:

- Access to clinical records, allowing the safe use of NRT and Varenicline
- NRT and Varenicline PGDs; allowing clients to have access to medications without delays
- In-house counsellor to address social barriers to stop smoking
- Weekly contact by smoking champions for 12 -16 weeks
- The opportunity for clients to contact the service directly for support

**Data Collection and Feedback** For 183 clients we supported in the last 12 months, 73 were smoke free by 4 weeks. The most satisfying aspect though was that 69 of the 73 then remained smoke free at 12 weeks. Feedback from patients was overwhelmingly positive for the service.

**Discussion** Aside from the data demonstrating our ability to keep clients smoke-free, we have also found excellent patient satisfaction and engagement in the service. Feedback from clients highlighted the importance of continuity of care and trust in the service. We continue to listen to clients in our aim to provide a service that is valued, respected and effective for both clients and professionals alike.

**REFERENCE**


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**P81** AN AHP-LED, QUALITY IMPROVEMENT PROJECT TO REDUCE THE HOSPITALISATION RATE OF PATIENTS WITH ACUTE EXACERBATION OF COPD

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10.1136/thorax-2021-BTSabstracts.191

**Introduction** COPD is the second most common cause for unscheduled hospital presentation in the UK.1 With each admission costing the NHS an average of £3,700, innovation is essential to improve patient care and healthcare service delivery.

The aims of this AHP-led intervention were: reduce admission rates to hospital for patients presenting with an acute exacerbation of COPD to ED (Emergency Department) and AAU (Acute Admissions Unit), by 20%. For those patients who did require admission to hospital, the aim was to reduce their length of stay (LOS) by 20%.

**Methods** A quality improvement approach was taken to the investigation, which was conducted in a large, city centre, teaching hospital with approximately 1000 beds. By sampling locally collected data a baseline discharge rate of 12% for COPD patients was established; the baseline average LOS was 8 days. We also measured readmission rate, staff and patient satisfaction.

**Results** The project showed successful outcomes: discharge rate was 28% (an improvement of 16%) and LOS for patients admitted was on average 6 days (a 25% improvement). Patient experience was positive, with the majority rating the service as 'Excellent'. 54% staff rated the project as implemented Well or Very Well. Only one patient was readmitted within 7 days due to COPD.

These results suggest a saving of approximately 272 bed days over the 12-week period, which equates to £135,000.

**Conclusions** Significant learning was gained regarding system barriers to patient discharge from acute hospital sites and the accuracy of centrally collected data on COPD patient hospital attendance, which will help inform future work.

The project demonstrates marked improvements can be achieved over short time periods by initiating Specialist AHP presence in healthcare settings traditionally staffed solely by medical and nursing staff, and potentially substantial cost savings can be achieved.

**REFERENCE**


Please refer to page A193 for declarations of interest related to this abstract.
hospitalisation. This real world study aimed to determine the use of COPD patients on long-term azithromycin.

Methods
This retrospective review of 42 COPD patients with a minimum of 12 months of follow up for each patient. While previous studies have shown daily use due to side effects and tolerability issues we commenced all patients on 250mg three times a week. Patients with co-existing asthma, bronchiectasis, with non-tuberculosis bacteria, on nebulised antibiotics were excluded.

Results and Discussion
42 patients (19 males, 23 females), 8 ex-smokers, 24 smokers, 1 non-smoker and 9 unclassified. The mean age of 74 years (59–97) and mean BMI of 31.3. 10 of these patients were immunosuppressed and dose of azithromycin prescribed to patients was 250mg three times a week (97%) and 500mg three times a week (4%). 47.6% (20) had to discontinue azithromycin use to various reasons.

The average infections in the pre-treatment group was 7 (±2.77) versus 2 (± 1.94) in the subsequent 12 months with a statistically significance (p<0.05), and a decrease in difference was seen in the number of hospitalisations. 14 (33%) patients saw a 100% reduction in the infection rate following azithromycin use. As this was a retrospective study, the number of infections depended on reporting from the patient and may be influenced by recall bias.

Conclusion
The number of infective exacerbations was significantly decreased with the introduction of azithromycin therapy. It is important that an ECG to measure QT changes before and after commencing therapy to monitor the harmful effects of the macrolide. Hearing loss is the major side effect faced by patients, and this must be stressed to patients as it happens more frequently than originally thought. The dosage of 250mg three times a week seems to be work as well as daily azithromycin as suggested in the subsequent BTS guideline 2020.

Results
There were 88 survey respondents, from 40 institutions. 74% were Doctors, 11% Nurse Specialists/Consultants, 3% Physiotherapists and 3% Clinical Scientists. Only 8% reported their COPD service routinely screened all patients for OSA. In the clinical vignettes with a PaCO2 below <7kPa, most respondents selected CPAP as first line therapy: Case 1 = 91% (PaCO2 6.2), Case 3 = 80% (PaCO2 6.7). Case 4 had a history of AHRF and 84% selected NIV as first line treatment. In cases 2 and 5 the PaCO2 was >7 kPa and there was no history of AHRF. In these cases, there was clinical equipoise. In case 2: 69% selected NIV and 26% CPAP. In case 5: 48% selected CPAP and 52% NIV.

Conclusions
Our study shows that in patients with COPD-OSA with a PaCO2 below 7 kPa, most respondents would treat with CPAP first line. However, in those patients with no history of AHRF who have a PaCO2 >7 kPa, there was clinical equipoise amongst NHS specialists with regards to first line therapy. There are currently no RCTs in this area and further research is required.

P83
CHRONIC OBSTRUCTIVE PULMONARY DISEASE – OBSTRUCTIVE SLEEP APNOEA OVERLAP SYNDROME – A NATIONAL SURVEY

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Introduction
When chronic obstructive pulmonary disease (COPD) and obstructive sleep apnoea syndrome (OSA) occur together it is known as the COPD-OSA Overlap Syndrome. Studies show a prevalence of 1–4% but as high as 66% in people with moderate-severe COPD. As it is not routine practice to screen COPD patients for OSA, it is likely underdiagnosed. Expert opinion suggests those with severe hypercapnia should be considered for non-invasive ventilation (NIV) and those without for continuous positive airway pressure (CPAP). This is based upon existing randomised controlled trials (RCT) in COPD and obesity hypoventilation. There are no RCTs to determine the clinical efficacy of CPAP in comparison to NIV in COPD-OSA. The aim of this study was to gauge current national practice via an electronic survey.

Methods
An electronic survey was sent via national email networks to assess respondents management of COPD-OSA. This contained case vignettes with varying severities of OSA, COPD, hypercapnia and the presence or absence of a history of acute hypercapnic respiratory failure (AHRF).

Abstract P84 Table 1

<table>
<thead>
<tr>
<th>BMI</th>
<th>Prevalence of OSA within BMI ranges</th>
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<tr>
<td>&lt;18.5</td>
<td>(n=24)</td>
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<tr>
<td>OSA</td>
<td>Prevalence</td>
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P84
IDENTIFYING CHRONIC OBSTRUCTIVE PULMONARY DISEASE – OBSTRUCTIVE SLEEP APNOEA OVERLAP SYNDROME – DOES IT MATTER?

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10.1136/thorax-2021-BTSabstracts.194

Introduction
The prevalence of Chronic Obstructive Pulmonary Disease - Obstructive Sleep Apnoea Overlap Syndrome (COPD-OSA) is 1–4% in the general population but is higher in those with severe airways obstruction. It has a higher rate of hospitalisation, exacerbation frequency and mortality than in either condition alone, yet there are no randomised control trials (RCT) to guide management. Our aim was to assess the prevalence of obesity and OSA within a COPD home ventilation cohort as we hypothesise that COPD-OSA is under recognised.

Methods
A retrospective analysis was performed of active patients in a regional Home Ventilation Service. 221 patients were identified who were initiated on non-invasive ventilation (NIV) between 2009–2021 and whose documented cause of respiratory failure was COPD. Using electronic healthcare records, we collected the body mass index (BMI), diagnosis of OSA, PaCO2 at time of referral and route of referral.

Results
217 patients had a BMI recorded; in 50% it was >30, 49% had OSA (table 1). 53% of those with a BMI of ≥30, 49% had OSA (table 1). 53% of those with OSA had a previous trial of continuous positive airway pressure (CPAP). 58% of referrals were made as outpatients. None had a documented formal diagnosis of ‘COPD-OSA Overlap Syndrome’.

Abstract P84 Table 1

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