

Results are expressed as mean (SD). Both groups were well matched at baseline, with no significant difference between age 58.1 years (10.6) therapeutic CPAP group vs. 55.6 (6.9) placebo CPAP group, BMI 36.4 kg/m² (5.0) vs. 35.6 (3.6), HbA1c 8.5% (1.8) vs. 8.1% (1.6), or ODI 33.9/hour (21.9) vs. 35.7/hour (21.1). There was also no significant difference in therapeutic or placebo CPAP usage 3.7h/night (3.2) vs. 3.7 (2.6) $p=0.8$. There was no significant difference in SUA levels at baseline 362 $\mu\text{mol/l}$ (96) vs. 413 $\mu\text{mol/l}$ (91), or at 3 months 354 $\mu\text{mol/l}$ (83) vs. 406 $\mu\text{mol/l}$ (101). Baseline SUA did not correlate with Apnoea-Hypopnoea Index ($r=-0.2$, $p=0.5$), ODI ($r=0.1$, $p=0.6$), BMI ($r=0.1$, $p=0.4$), or HbA1c ($r=-0.3$, $p=0.9$). The mean change in SUA at 3 months did not differ significantly between treatment groups ($-7.6 \mu\text{mol/l}$ (35.9) vs. $-6.2 \mu\text{mol/l}$ (46.2); $p=0.9$, 95% CI -28.7 to 25.9).

This RCT using therapeutic and placebo CPAP has shown no evidence of a significant reduction in serum uric acid following three months treatment. This is in contrast to previously published uncontrolled data. This study was not however powered to detect a difference in SUA levels and may be therefore underpowered. Further RCTs are needed to explore this effect further.

1. West SD, et al. *Thorax*. 2007; 62:969–974.

Asthma outcomes

P270 REDUCING ASTHMA ADMISSIONS BY IMPROVING ASTHMA MANAGEMENT

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Introduction There were 79,794 emergency hospital admissions for asthma in the UK in 2008–09 - an estimated 75% were avoidable [1]. Asthma admissions from Bristol GP practices contributed to this; over 600 people were admitted to hospital in this year because of their asthma. NHS Bristol set out to improve asthma management and reduce asthma hospital admissions across the Primary Care Trust

Method Previous audits identified variations in asthma management across Bristol GP practices. Initial data searches identified some practices provided annual asthma reviews to 73.3% of their asthma register, others only 36.4%. Inhaler technique was checked in 60.8% of patients in some practices, in others only 16.9%. NHS Bristol commissioned NSHI Ltd* to run the IMPACT* service across Bristol GP practices to reduce these variations.

The IMPACT service provided a therapeutic review, modular education and detailed clinical review by diploma trained asthma nurses, according to agreed practice protocols. Asthmatic patients were invited to attend a structured clinical review of their asthma. Patients were given a self-management plan and educated in better managing their condition. Practice staff were also provided with enhanced respiratory training.

Results There has been a 19.5% reduction in asthma admissions in the period from February 2011–January 2012 in Bristol ($n=37$) compared to the previous year. There were 90 admissions in IMPACT practices ($n=13$) and 303 admissions in non-IMPACT practices ($n=43$) during this period. The IMPACT practices have observed a reduction of 35.6%, and the non-IMPACT practices have observed a reduction of 12.4%. Overall, 13 IMPACT practices accounted for 54.7% of the reduction.

Conclusion A structured approach to asthma management (including the provision of education to health care professionals in line with national asthma guidelines) and increasing patient awareness of asthma (including knowledge of how to manage their

symptoms) can reduce variations in asthma care and hospital admissions.

Reference

1. Asthma UK for Journalists: Key facts and stats: www.asthma.uk.org (Viewed July 2012).

*NSHI Ltd (National Services for Health Improvement).

*Improving the Management of Patients Asthma and COPD Treatment. (IMPACT) is an independent nurse service sponsored by TEVA UK Limited.

P271 IMPLEMENTING AN ACUTE ASTHMA CARE BUNDLE

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Background In 2010/11 NHS Wakefield District had the highest rate of admissions for acute exacerbation, in adults, within Yorkshire and Humber. The 2009 BTS adult asthma audit highlighted readmission rates within one month to be 19% compared to the national average of 8%. Furthermore, the same audit demonstrated that Pinderfields and Pontefract hospitals (part of Mid Yorkshire NHS Trust) were markedly underperforming, compared to national average, in terms of asthma review, patient education and follow up according to BTS/SIGN guidance.

Aims and objectives As part of a new asthma service we introduced an adult acute asthma 'care bundle' to improve the frequency of asthma review, patient education and improve post admission follow up. We also aimed to reduce 28 day readmission rates by 20% compared to 2010/11.

Methods In February 2011 Pinderfields General Hospital merged its acute inpatient medical services with Pontefract General Infirmary enabling a restructuring of the respiratory team and creation of a Mid Yorkshire Asthma service. Following a programme of staff education the acute asthma care bundle was introduced for all adult patients attending the Emergency Department and Acute Medical Unit with an exacerbation of asthma. Data were collected prospectively following the introduction of the care bundle and is compared against the 2009 BTS audit data. Data presented is from the first 46 patients.

Outcomes Following the introduction of the care bundle, inhaler technique assessment was performed in 75.6% of patients, compared to 38% previously. Asthma reviews (including self management plan and asthma education) were performed in 88.9% of patients, compared to 16% previously. Patients were recommended primary care follow up and had arranged secondary care follow up in 80 and 93.3% of admissions, compared to 19 and 37% previously. Furthermore, compared to 2010/11 there was a 66% reduction in 28 day readmissions, mean monthly average reduced from 5.0 to 1.67.

Conclusion As part of a restructured respiratory and asthma service the introduction of an acute asthma care bundle led to marked improvements of patient management and 28 day readmission rates.

P272 INFLUENCE OF BMI ON ASTHMA CONTROL QUESTIONNAIRE SCORES

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Background Asthma has been associated with obesity. However, the mechanisms of this association are not yet clear. It has been suggested that quality of life is influenced more strongly by BMI rather than other objective measures of severity in an obese population

1. We wished to explore the influence of BMI on asthma control