Reducing Asthma Admissions by Improving Asthma Management

Introduction

Emergency hospital admissions attributed to asthma are rising every year in Bristol. During 2009/10, Bristol hospitals admitted 6,496 patients who were treated in hospital mainly with oral corticosteroids and other asthma medications, and more than 2,000 of these patients died. This contributed to the 75,759 emergency hospital admissions for asthma in the UK during 2008-2009. Of these, 67% were patients aged 40 years and over. Two-thirds of these patients had previous asthma hospital admissions. There are variations in asthma management across different GP practices in Bristol. This is demonstrated by a variation in asthma hospital admissions between 0.2% and 6.9% of the asthma register. Practice size has had little effect on variation, only 0.5% of asthma patients have been provided with an asthma self-management plan (SMP). If patients were better informed on how to manage their asthma symptoms, it is likely that many of these hospital admissions could have been prevented. However, excepting reporting data to Quality and Outcome Framework Asthma & COPD highlights that, in some practices, as much as 36% of asthma patients had not had their asthma reviewed or been reviewed more than once. This highlighted the fact that the Bristol NHS Trust wanted to develop a strategy for addressing the knowledge of both patients and practice nurses, and increase the number of patients who attend annual asthma review clinics in primary care.

Aims

- To optimise respiratory health and quality of life for asthma in Bristol
- To reduce emergency hospital admissions attributed to asthma
- To increase patient knowledge and confidence in self-managing their asthma, through education and the provision of an asthma SMP
- To improve the knowledge of practice staff around the optimisation of asthmas through education
- To improve delivery of asthma care by developing a high quality, patient-centred approach to asthma management

Method

In September 2010, NHS Bristol commissioned NSHI Ltd to run the IMPACT (Improving the Management of Patients’ Asthma and COPD) service in areas of high deprivation, high asthma hospital admissions and higher exception reporting for asthma. IMPACT supports a high quality, patient-centred service which includes therapeutic review, modular education and detailed clinical review by dedicated diploma trained asthma nurses, according to national and local guidelines (BNSSG Guidelines; BTS/SIGN British Thoracic Society, Scottish Intercollegiate Guidelines Network; BTS/SIGN (British Thoracic Society, Scottish Intercollegiate Guidelines Network) guidelines and working to agreed practice protocols. In primary care practices, IMPACT audits were linked to the service.

A list of asthma patients was generated by the NSHI Nurse Advisor in discussions with the practice nurse. IMPACT nurse advisors were engaged in providing education programmes, including details in patients data base who had not had an asthma review or an inhaler check in the previous 12 months, poor compliance and concordance with medication and an emergency admission to hospital in the previous 12 months. This practice then identified which patients they wished to review and an invitation was sent to patients to attend a structured asthma review which included a review of their asthma control, compliance and understanding with their asthma therapy, and an assessment of their inhaler technique as recommended in the BTS/BSAC Guidelines. Inhaler technique education was provided after testing if appropriate.

There is evidence that care planning is an effective part of asthma care to help better understand their condition, patients were given a written self-management plan having received education in the ongoing management of their asthma. A questionnaire was developed to evaluate patient feedback of the service.

Following clinic assessment all patients were discussed in detail by the nurse with the GP who decided on their treatment management. Any changes authorised by the GP were implemented by the nurses according to the agreed protocol. All questionnaires were sent to the IMPACT service for analysis. The questionnaire included a series of questions relating to the IMPACT asthma review clinic. The questionnaire had a response rate of 98%.

Conclusion

There has been a 10.5% reduction in asthma admissions in the period from February 2011 to January 2012 in Bristol (n=13) compared to the previous year. There were 30 admissions in IMPACT practices (n=13) and 363 admissions in non-IMPACT practices (n=13) during this period. The IMPACT practices have observed a reduction of 36.6%. Overall, 13 IMPACT practices accounted for 54.7% of the total reduction.

Results from the IMPACT service patient evaluation questionnaire showed that patients felt more confident in managing their asthma and that they were new confident in using their inhaled corticosteroids following a structured asthma review

Results from IMPACT service patient evaluation questionnaire

<table>
<thead>
<tr>
<th>Question ('Strongly Agree' or 'Agree')</th>
<th>Results from IMPACT service patient evaluation questionnaire</th>
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</thead>
<tbody>
<tr>
<td>Do you feel confident in using your inhalers now?</td>
<td>98%</td>
</tr>
<tr>
<td>Do you feel more confident in managing your asthma?</td>
<td>96%</td>
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<tr>
<td>Do you feel more confident managing your asthma?</td>
<td>96%</td>
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<tr>
<td>Do you feel better informed about your asthma?</td>
<td>95%</td>
</tr>
<tr>
<td>Do you feel more knowledgeable about your asthma?</td>
<td>96%</td>
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</tbody>
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For further information contact: Jenny Gibbs, Jenny.gibbs@bristol.nhs.uk

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