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Asthma Cycle of Care attendance

Overcoming therapeutic inertia using an asthma clinic

Background

The prevalence of asthma is high in Australia. Despite national guidelines recommending the use of an Asthma Action Plan only 22.5% of people with asthma had a plan in 2004–2005.

Methods

To ascertain the effect on attendance for an annual Asthma Cycle of Care resulting in an Asthma Action Plan, a retrospective audit was conducted looking at the 4 years commencing July 2005 of an asthma clinic in a group general practice in Bundaberg, Queensland, of 1 year of active recruitment (via telephone) from a database, and subsequent 3 years of opportunistic recruitment using a 'no asthma plan – no repeat script' policy in conjunction with recall. The practice population in 2005 was 2941 standardised whole patient equivalents including 243 asthmatics on preventers. The main outcome measure was the number of patients completing an annual Asthma Cycle of Care.

Results

Completion of an annual Asthma Cycle of Care increased from a baseline of 30% (preclinic starting) to 38% at year 1, 64% at year 2, fell back to 45% at year 3, and rose to 59% at end year 4, with nearly all cycles of care being completed via the asthma clinic.

Discussion

Opportunistic recruitment addressing therapeutic inertia combined with recall may be more effective than active recruitment via telephone.

Keywords: asthma; general practice; health services; quality of health care



The prevalence of asthma is high in Australia compared with other countries, affecting 14–16% of children and 10–12% of adults.¹ Rates of hospitalisations over the past 10 years have decreased.¹ Since the 1990s, mortality due to asthma has also decreased by 50%.¹ Attendance at hospital emergency departments however, did not alter from 1999 to 2004.¹

A systematic review of 24 randomised controlled trials found that optimal self management education, consisting of self monitoring, regular medical review and an individualised written action plan, leads to significant reductions in hospitalisations, emergency department visits and unscheduled doctor visits.² Despite national guidelines recommending the use of an Asthma Action Plan since 1989,¹ only 22.5% of asthmatics had a plan in 2004–2005.³

The Asthma Cycle of Care '3+ Plan' was an initiative introduced by Medicare Australia in November 2001. This plan for general practice promoted a structured framework incorporating the National Asthma Council (NAC) 'six steps' into a three visit cycle of care for asthma patients. It required an individual Asthma Action Plan to be completed. In 2006, in response to low utilisation (14.1%) and feedback from general practitioners on the difficulty of persuading asthmatics to attend for three visits,⁴ it was reduced to two visits (the 2+ plan). Medicare statistics from July 2007 to June 2009 demonstrate that this change has not resulted in an increase in Asthma Cycle of Care claims; in July 2007 there were 974 per 100 000 people and in June 2009, 808 per 100 000 people.⁵

Asthma clinics of nurse/doctor teams have functioned in the United Kingdom for many years.⁶ In 2005 we decided to introduce this type of asthma clinic framework to provide annual

asthma cycles of care, including the provision of an Asthma Action Plan.

'Call' and 'recall' are the active process by which patients are sought and invited to attend. When patients attend for another reason and are recruited, the process is described as 'opportunistic' or 'passive recruitment'.⁷ We postulated that active recruitment of asthma patients by letter, and then telephone follow up, would result in improved attendance for the annual Asthma Cycle of Care. We had used this successfully for our cardiovascular clinics.⁸

Accessibility, doctor time and patient cost are among the most reported barriers to good quality, well organised asthma care.⁹ We attempted to overcome these barriers in designing our asthma care framework. We initiated a 'nurse first/GP second' protocol driven asthma clinic to save doctor time. Patients attending this asthma clinic were charged at 'rebate' so that the patient was fully reimbursed by Medicare. This Medicare Benefits Schedule (MBS) item number triggered the Asthma Cycle of Care Service Incentive Payment (SIP) for the practice. Although the usual clinic was all day Wednesday, if patients were unable to attend, an appropriate appointment on another day was arranged, improving accessibility.

Methods

We performed a retrospective audit looking at 4 years of data for the Asthma Cycle of Care, from July 2005 to June 2009, in our group general practice in Bundaberg, Queensland. The practice population in 2005 was 2941 standardised whole patient equivalents.

In 2005, we started with 'call' recruitment to increase attendance for an annual Asthma Cycle of Care. However, as the increase in recruitment was less than anticipated by the end of year 1, we substituted opportunistic recruitment using a 'no

asthma plan – no repeat script’ policy in conjunction with recall over the subsequent 3 years.

Design and setting

- A morbidity database search for asthmatics was performed on clinical software (Best Practice), and then a billing database search for ‘3+ plan’ item numbers in the previous 12 months
- In the first year, a recruitment letter was sent, and then one follow up telephone call was made if there was no response
- Practice policy was changed to requiring all asthma cycles of care and all Asthma Action Plans to be done via the clinic in years 1–4
- Control was assessed by combination of GINA score,¹⁰ patient score sheet,¹¹ and spirometry
- The clinic consisted of nurse first/GP second, following a protocol Asthma Cycle of Care
- We abandoned ‘call’ and retained ‘recall’ in years 2, 3, and 4
- A ‘no asthma plan – no repeat script’ policy was implemented in years 2, 3 and 4. This policy meant patients asking for asthma preventer and treatment medications without an asthma management plan having been devised within the previous 12 months were given prescriptions, but no repeats, and a personal referral was given to the asthma clinic
- ‘Script only’ clinics run every week day in our practice, with no appointment needed and charged at rebate only, ensuring that no patient need run out of medications.

We initially identified 243 of our 611 asthmatics patients as having moderate to severe asthma using the criteria of use of preventer inhalers

(budesonide, beclomethasone, ciclesonide, sodium cromoglycate, fluticasone), or combination inhalers including a preventer, or montelukast.

Patients using only short acting beta-agonists intermittently are categorised as mild, are not eligible for the Asthma Cycle of Care SIP and were excluded.

The 243 patients included those with chronic obstructive pulmonary disease (COPD) classified as having some reversibility, that is, asthma/COPD mixed picture, but not patients with COPD alone.

Results

The numbers listed for years 1–4 were obtained from records of attendance at the asthma clinic and cross checked with an item number search (*Table 1*).

- Mean doctor time 19 minutes per patient and mean nurse time 39 minutes
- We did not look for asthma plans performed at consultations where a cycle of care item number was not charged (such as in ‘mild’ asthmatics) so our Asthma Action Plan rate may have been higher.

Discussion

Our baseline rate of Asthma Action Plan at 30% was better than the 22.5% national rate.³ We initially regarded asthma as a chronic disease (like hypertension) and used the same active recruitment of one letter and one telephone call that had been successful for our cardiovascular clinics.⁸ However, our year 1 attendance of 38% in the asthma clinic compared adversely to the 79% uptake of cardiovascular clinics.⁸ We postulated that this might reflect asthma

patients regarding their asthma differently from the chronic disease paradigm of diabetes and hypertension and that strategies that had been successful for these clinics might not be appropriate or effective for asthmatics.

Although evidence suggests regular review and development of a personalised written action plan may reduce exacerbations,² patients appear not to see regular review as a necessity and can regard it as ‘over servicing’.⁹ This may explain our initial experience of recruitment.

Year 2 attendance improved to 65%, after exerting therapeutic pressure by our strategy of ‘no asthma plan – no repeat script’. In year 3 of the study there was a decrease in attendance so we again looked at the possibility of ‘therapeutic inertia’ by GPs. There was anecdotal evidence for this phenomenon from our GPs, but it was too difficult to collect the data of repeat prescriptions given with or without an asthma plan outside the clinic setting, or failure to charge the ‘2+ plan’ item number. However, after year 3 statistics were collated we re-emphasised to all doctors the practice policy and in year 4 our attendance figures increased to 59%.

We did not measure the number of totally compliant patients, ie. those who attended every year for the 4 years. We did not survey patients for their acceptance of our model.

Therapeutic inertia is an important barrier to adequate patient management¹² and health professionals have a duty of care to address this. Three subtypes of failure of a clinician to initiate or intensify therapy when indicated have been described:¹²

Table 1. Patients on asthma preventers who had an Asthma Cycle of Care claimed (including an asthma plan)

Year	Asthma clinic	% total	Nonclinic	Left	New	Downgrade	Total
Baseline	0	0	74	0	0	0	243
2005/2006	93	38	2	0	0	1	242
2006/2007	156	65	4	3	1	1	239
2007/2008	110	46	0	2	6	6	237
2008/2009	139	59	0	2	2	0	237

Asthma clinic = attended clinic and cycle of care claimed

% total = % total of practice patients on asthma preventers having cycle of care claim

Nonclinic = cycle of care claimed based on appointments not in specific asthma clinic

Left = patient left practice

New = new patient to practice with moderate to severe asthma or patient with previously mild asthma who now has moderate or severe asthma

Downgrade = patient’s asthma now mild

Total = total number of patients on asthma preventers

- doctors overestimate the care they give (eg. assuming a recent asthma plan)
- doctors use ‘soft’ reasons to avoid therapy (eg. ‘I will catch him next time’)
- doctors lack the organisation to achieve therapeutic goals (eg. ‘I’d like an asthma clinic to refer to’).

The ethics of exerting pressure on the doctor and the patient by ‘no asthma plan – no repeat script’ could be questioned. Refusing to give patients the treatment they request may be interpreted as refusing to allow patients to ‘accept or reject treatment, and to make their own decisions about treatment’.¹³ We argue however, that to prescribe medication without an Asthma Action Plan is unethical as ‘assessment, planning of management and ensuring effective care’ is the core of good medical practice.¹⁴

Asthma patients were not refused preventer or reliever medications. They could choose to attend ‘script only clinics’ any week day to obtain a prescription but would not be given repeat prescriptions until attendance at the asthma clinic. Doctors were free to exercise judgment in waiving the policy and to complete the Asthma Action Plan without referring to the clinic or using the 2+ plan item number. Doctors initially reported difficulty in being assertive with the policy but as time progressed it became much easier.

Outcomes

Doctor time was minimised because the nurse completed the full assessment first.

We found that chronic asthmatics respond to recruitment differently from patients with other chronic diseases, and overcoming therapeutic inertia proved more effective than active recruitment from a database.

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