General practitioner views on barriers and facilitators to implementation of the Asthma 3+ Visit Plan

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ABSTRACT

Aim: The Asthma 3+ Visit Plan is an initiative to promote organised asthma care in general practice. This study aimed to identify factors associated with uptake of the plan by general practitioners, and their views on barriers and facilitators to implementation of the plan.

Design: Postal survey sent to a random sample of GPs.

Participants and setting: 315 GPs in five Divisions of General Practice in metropolitan Sydney, surveyed sequentially between 1 October 2002 and 31 May 2003.

Outcome measures: Awareness and use of the Asthma 3+ Visit Plan; GP and practice factors associated with use of the plan; and GP views on barriers and facilitators to implementing the plan.

Results: The response rate was 55.7%, and 72.1% of participants were male; participants' mean age was 50.5 years. Most GPs (91.2%) were aware of the plan and and 44.9% had used it. GP and practice factors associated with use of the plan were use of the six-step Australian Asthma Management Plan, confidence in aspects of asthma care, practice accreditation, sign-up for asthma incentives, and computerisation. Major barriers to implementing the plan were workload/paperwork and administrative complexities. Patient factors that influenced completion of the plan were their concept of the severity of their asthma, compliance with follow-up, and patient attitudes towards asthma care.

Conclusion: The perceived workload and administrative complexity of the asthma incentives are barriers to uptake. Factors relating to the illness rather than social factors are seen as the most important influences on completion of the plan by patients.

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Australia has a high prevalence of asthma by international standards. The most recent national data are that 14%–16% of children and 10%–12% of adults have a diagnosis of asthma that remains a current problem.[1] There has been a focus on asthma care through the six-step Australian Asthma Management Plan, first published more than a decade ago,[2] and widely disseminated to general practitioners through the work of the National Asthma Council (NAC). This work has included publishing the *Asthma management handbook*[3] and proformas for written asthma action plans.

Funding was announced in the 2001 federal budget for a general practice asthma initiative through the Practice Incentives Program (PIP) to support improved asthma care and use of the Australian Asthma Management Plan. The funding ($22.7 million over 4 years for general practice aspects) supports GPs implementing the Asthma 3+ Visit Plan developed by the NAC's General Practitioners Asthma Group.[4] The Asthma 3+ Visit Plan introduces a "contract for care" between GPs and patients with asthma, which includes plans for regular review of asthma symptoms and treatment.

The PIP asthma incentive payments are restricted to supporting better management of moderate to severe asthma. Starting from November 2001, the incentives include a sign-on component and a Service Incentive Payment (SIP). For a GP to claim the Asthma 3+ Visit Plan SIP (SIP-asthma), a patient must have at least three asthma-related consultations over 4 weeks to 4 months. These consultations need to cover diagnosis and assessment of severity, review of asthma-related medication, provision of a written asthma action plan, and education of the patient.

Figures from the Health Insurance Commission (HIC) show that in November 2001, around 60% of the PIP-registered general practices in Australia had signed on for the asthma incentive. This had increased to about 90% of practices by November 2004.

The proportion of practices signed up for diabetes and cervical screening incentives has followed a very similar pattern. However, claims for the SIP-asthma have been declining compared with cervical screening and diabetes SIP claims (Box 1).

For the Asthma 3+ Visit Plan to be effective and achieve the desired outcomes, the practitioner, practice and patient all need to participate. We aimed to examine GP and practice factors associated with uptake of the Asthma 3+ Visit Plan, and to examine GPs' views on the barriers and facilitators to implementing the plan.

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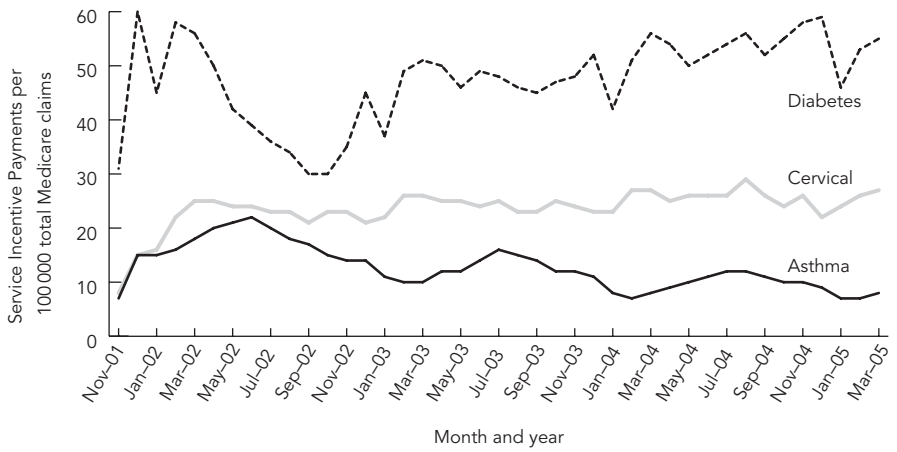
METHODS

A questionnaire for GPs on the Asthma 3+ Visit Plan was developed with input from GP members of the Primary Health Care Research Network (PHReNet). The survey was piloted with 10 GPs who were members of PHReNet, but had not been part of the development group.

GPs were surveyed sequentially in five Divisions of General Practice in metropolitan Sydney (Fairfield, Bankstown, Western Sydney, Liverpool and St George) commencing with Fairfield in October 2002 and concluding with St George in May 2003. The sequential process was necessary to fit in with other activities being conducted by the Divisions. Of the 1341 GPs on the databases held by these Divisions, 315 were randomly selected to be sent the survey. The initial mail-out was followed by three mailed reminders sent at 2-week intervals. Non-respondents were then telephoned by members of the research team and sent the questionnaire by facsimile if they agreed to participate.

1 Service Incentive Payment claims made by general practitioners in Australia for Asthma 3+, diabetes and cervical screening from November 2001 to March 2005



Source: Health Insurance Commission online data.[5] ◆

Ethical approval

Ethical approval for the study was obtained from the University of New South Wales Human Research Ethics Committee.

Statistical analysis

SPSS version 12.0.1 (SPSS Inc, Chicago, Ill, USA) was used for data entry and analysis of the study. Descriptive analytical methods were used to analyse demographic characteristics of participating GPs and their practice characteristics. Similar methods were used to analyse what the respondents thought to be important barriers to implementing the Asthma 3+ Visit Plan and the patient factors that influenced their participation in the plan. Cross-tabulations (2 × 2) were conducted to compare GPs who were users and non-users of the Asthma 3+ Visit Plan, and Pearson χ^2 tests were performed to examine the statistical significance of the differences of the appropriate measures.

RESULTS

Of the 315 GPs selected, 51 were not contactable or not currently in general practice. Of the remaining 264, 147 (55.7%) responded. Respondents were predominately male (106; 72.1%) and their mean age was 50.5 years (range, 30–80 years). Mean duration of experience in general practice was 20.1 years (range, 3–56 years). Most (112; 76.2%) were vocationally registered, but only 48 (32.7%) held a RACGP fellowship. Most respondents (115; 78.2%) worked full-time in the practice at which they were contacted, and 89 (60.5%) were in group practice.

The GPs came from 133 different practices; 95 practices (71.4%) were accredited and 38 (28.6%) employed a practice nurse. Seventy-seven practices (57.9%) had signed on for the asthma incentive. Most practices used a computer system for clinical care (99; 74.4%), but only 39 (29.3%) had a chronic disease register for asthma. One hundred and 10 practices (82.7%) provided educational materials for their patients with asthma, but only 35 (26.3%) had multilingual materials available.

GP factors associated with use of the Asthma 3+ Visit Plan

Of the 147 responding GPs, 134 (91.2%) were aware of the Asthma 3+ Visit Plan and 66 (44.9%) had used the plan in their practice. Younger GPs, vocationally registered GPs, those in group versus solo practice, and those in practices with a nurse more frequently reported having used the Asthma 3+ Visit Plan, but the impact of none of these factors was statistically significant. There was a direct relationship between use of the six-step Australian Asthma Management Plan and use of the Asthma 3+ Visit Plan. Of the GPs who used the six-step plan, 55 (54.5%) had used Asthma 3+ compared with 8 (20.0%) who had never used the six-step plan ($\chi^2_1 = 13.8$; $P < 0.05$).

A high level of confidence in certain aspects of asthma care was associated with use of the Asthma 3+ Visit Plan (Box 2).

2 Use of the Asthma 3+ Visit Plan by general practitioners confident or extremely confident in aspects of asthma care

Aspect of asthma care	Asthma 3+ users	Asthma 3+ non-users	Total	Significance*
Assessing the severity of asthma	60 (90.9%)	70 (87.5%)	130 (89.0%)	$\chi^2_1 = 0.43$ $P > 0.05$
Assessing asthma in patients with chronic obstructive pulmonary disease	44 (66.7%)	53 (66.3%)	97 (66.4%)	$\chi^2_1 = 0.003$ $P > 0.05$
Implementing the six-step Australian Asthma Management Plan	45 (68.2%)	28 (36.8%)	73 (51.4%)	$\chi^2_1 = 13.89$ $P < 0.05$
Providing patients with a self-management action plan	55 (83.3%)	50 (63.3%)	105 (72.4%)	$\chi^2_1 = 7.23$ $P < 0.05$
Implementing the Asthma 3+ Visit Plan	49 (74.2%)	14 (19.4%)	63 (45.7%)	$\chi^2_1 = 41.68$ $P < 0.05$
Using spirometry to assess patients	45 (71.4%)	44 (59.5%)	89 (65.0%)	$\chi^2_1 = 2.14$ $P > 0.05$
Using a peak flow meter to assess patients	57 (87.7%)	68 (85.0%)	125 (86.2%)	$\chi^2_1 = 0.22$ $P > 0.05$
Providing asthma prevention education to patients	57 (86.4%)	62 (78.5%)	119 (82.1%)	$\chi^2_1 = 1.52$ $P > 0.05$
Knowing when to use EPC and when to use the Asthma 3+ Visit Plan	33 (52.4%)	11 (14.9%)	44 (32.1%)	$\chi^2_1 = 21.97$ $P < 0.05$
The practice's ability to recall patients for follow-up	32 (48.5%)	21 (26.9%)	53 (36.8%)	$\chi^2_1 = 7.15$ $P < 0.05$

EPC = Enhanced Primary Care items for care planning.
Missing responses have been excluded from analysis. Percentages refer to total in the category (ie, user or non-user of the Asthma 3+ Visit Plan).
* Significance tests compare proportions of GPs who were users and non-users of the Asthma 3+ Visit Plan. ◆

3 Practice factors and use of the Asthma 3+ Visit Plan

Practice factor		GPs who used Asthma 3+ Visit Plan	GPs who did not use Asthma 3+ Visit Plan	Significance
Practice type	Solo	22 (44.0%)	28 (56.0%)	$\chi^2_1 = 0.86$
	Group	41 (46.6%)	47 (53.4%)	$P > 0.05$
Nurse employed	Yes	24 (51.1%)	23 (48.9%)	$\chi^2_1 = 1.02$
	No	40 (42.1%)	55 (57.9%)	$P > 0.05$
Practice accreditation	Yes	56 (52.8%)	50 (47.2%)	$\chi^2_1 = 10.17$
	No	8 (22.2%)	28 (77.8%)	$P < 0.05$
Signed up for asthma Practice Incentives Program/Service Incentive Payment	Yes	55 (63.2%)	32 (36.8%)	$\chi^2_1 = 30.82$
	No	8 (15.1%)	45 (84.9%)	$P < 0.05$
Provides asthma education materials	Yes	61 (51.3%)	58 (48.7%)	$\chi^2_1 = 9.52$
	No	5 (18.5%)	22 (81.5%)	$P < 0.05$
Practice computerised	Yes	59 (52.7%)	53 (47.3%)	$\chi^2_1 = 10.84$
	No	7 (20.6%)	27 (79.4%)	$P < 0.05$
Practice uses chronic disease register for asthma	Yes	29 (65.9%)	15 (34.1%)	$\chi^2_1 = 11.18$
	No	35 (35.7%)	63 (64.3%)	$P < 0.05$

Missing responses have been excluded from analysis. Percentages are of the group in question (eg, solo practice or practice not accredited). ◆

4 Factors rated as important or extremely important barriers to implementing, and influences on completing the Asthma 3+ Visit Plan

Factor	No. of GPs
Barriers to implementation	
Paperwork	114 (80.3%*)
Complexity of Health Insurance Commission requirements and payments	108 (76.1%*)
Patients failing to complete the planned visits	100 (73.5%*)
Extra workload involved	102 (72.3%*)
Patient willingness to participate	90 (64.7%*)
Need for practice staff (eg, nurse) to assist	79 (57.7%*)
Cost to practice of implementing the Asthma 3+ initiative	73 (52.9%*)
Difficulty in organising patient recall	65 (47.4%*)
Practice Incentives Program/Service Incentive Payments	55 (39.3%*)
Accreditation	42 (30.2%*)
Influences on completion	
Patients' concept of the severity of their asthma	122 (89.1%*)
Patients' adherence to follow-up/medication	115 (85.2%*)
Patients' attitude to planned versus episodic asthma care	108 (80.0%*)
Family support	101 (74.3%*)
Co-morbid conditions	100 (73.5%*)
Literacy	91 (66.9%*)
English language proficiency	87 (63.5%*)
Age	87 (63.0%*)
Cultural background	84 (63.1%*)
Socioeconomic status	72 (52.2%*)

* Percentage of total respondents to question. ◆

Practice factors associated with use of the Asthma 3+ Visit Plan

Certain characteristics of the practices where GPs worked had some bearing on their use of the Asthma 3+ Visit Plan, as shown in Box 3.

GP views on barriers to implementation of the Asthma 3+ Visit Plan

Box 4 shows the frequency of factors rated as important or extremely important barriers to implementing the Asthma 3+ Visit Plan.

GP views on patient factors and completion of the Asthma 3+ Visit Plan

Box 4 also shows the frequency of factors rated as important or extremely important in influencing whether patients with asthma return for the series of visits required for completing the Asthma 3+ Visit Plan.

DISCUSSION

There is evidence that proactive care, combined with written asthma action plans and training in self-management, improves outcomes for adults with asthma.[6] The Asthma 3+ Visit Plan has not been the subject of controlled evaluation in adults, but the impact of the plan has been examined in a cluster randomised trial in children.[7] This study found an increase in asthma-related consultations, written asthma action plans and completed Asthma 3+ Visit Plans in the intervention group. The study also provided evidence of better asthma control, with smaller reductions in FEV_1 (forced expiratory volume in 1 second) after cold air challenge, fewer emergency department attendances for asthma, and less speech-limiting wheeze in the intervention compared with the control group. Furthermore, the study reported that the delivery of interventions was variable, with only 28% of children in the intervention group actually completing the Asthma 3+ Visit Plan and another 20% partially completing it.

Thus, the Asthma 3+ Visit Plan can improve asthma care, but completing the plan is problematic, even in a clinical trial setting. For the plan and the incentives that support it to be effective, there needs to be participation all round, with the practitioner and practice needing to adapt to this organised approach, and patients needing to be willing to complete the contracted visits and make the necessary self-management changes to improve control of their asthma. The HIC data shown in Box 1 suggest that

achieving all this is proving difficult, with a lower and declining number of claims for the GP asthma incentive compared with the diabetes and cervical screening incentives.

Our findings shows that there are characteristics of practitioners and practices that are associated with use of the Asthma 3+ Visit Plan. For practitioners, these include use of and confidence in implementing the six-step Australian Asthma Management Plan. This makes sense, as the Asthma 3+ Visit Plan is essentially a way of translating the six-step plan into a series of general practice consultations, and it builds on GPs' pre-existing knowledge of the six-step plan. The association between uptake and practice accreditation is not surprising, as accreditation is a prerequisite for enrolment in PIP, and thus for access to the incentive payment. Computerisation may be a marker of practices which are more likely to have the organisational capacity to take up incentives such as the Asthma 3+ Visit Plan.

Our study shows that although there is a high level of awareness and a substantial number of GPs have used the Asthma 3+ Visit Plan, the workload and paperwork, and the perceived administrative burden of the incentive are seen as major barriers to implementation. This appears to be an example of where "red tape" associated with an incentive payment is detracting from the value of the program, and raises the question of whether there is a limit to the number of single-condition incentive programs that can be sustained in general practice. The administrative burden of incentive programs has been the subject of debate,[8] and our findings provide further evidence that administrative bureaucracy is a barrier to the success of such programs. Simplifying the administrative requirements, and having a more integrated chronic disease incentive program that includes a number of conditions, should be considered.

Our study also shows that GPs believe illness severity and illness behaviour and attitudes are important determinants of whether people with asthma complete the Asthma 3+ Visit Plan. The factors most frequently rated as important or extremely important (by more than 75% of GPs surveyed) were the patient's concept of the severity of their asthma, adherence to follow-up and medication, and attitude to planned versus episodic care of asthma. Information and education about the Asthma 3+ initiative has been aimed predominantly at health professionals, especially GPs, and through them to people with asthma. Whether this is enough, or whether other strategies (such as more intensive individual education or a marketing campaign for the public) are needed, deserves consideration.

We did not evaluate whether the barriers to uptake can be overcome through education or other support from the NAC or Divisions of General Practice. Nor did we examine whether GPs or patients perceive the Asthma 3+ Visit Plan and the incentive payment as beneficial for asthma care. Further work is needed to answer these questions. However, it is clear that review and modification of the asthma incentive or the Asthma 3+ Visit Plan will be needed if structured care for asthma is to be widely implemented in general practice in Australia.

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COMPETING INTERESTS

None identified.

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