Managing the transition to CFC-free inhalers: Case studies fro the SMART nurse projec

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Ai
To review methods used by general practitioners to transfer patient to CFC-free inhalers and to obtain the views of practices on th impact of the SMART project, a managed transition programme fo primary care

Metho
An audit (in the latter part of 2000) of transition methods employe by two primary care practices to change eligible patients over t CFC-free devices was carried out. Questionnaires were distribute to all practices who had participated in the transition programme

Result
The audit of the two practices showed that a significant proportio (87%) of eligible patients transferred to CFC-free devices.

Review of responses from 80 participating practices who ha completed the questionnaire indicated that 90% felt a manage transition is beneficial for patients

Conclusion
A managed changeover to CFC-free devices enables practices t assess patient treatment plans and to ensure that patients ar adequately informed about issues surrounding the changeover. I also has the potential to improve patient compliance with treatment While the transfer of patients does have time and resourc implications for practices, a plan that is well organised an implemented delivers more effective and improved patient care

Introductio

Concerns about the depletion of the ozone layer brought about by the widespread use of chemical such as chlorofluorocarbons (CFCs), led to th development of the 1987 Montreal Protocol o Substances that Deplete the Ozone Layer [1] Governments of countries who signed up to th Protocol agreed to restrict CFCs to essential use onl (which includes inhaler use) and to phase out CFC altogether once alternative technologies becam available. By 2005 it is expected that CFCs will hav been withdrawn completely [2]

Hydrofluoroalkanes (HFAs) have now been identifie as acceptable alternative propellants for inhale devices. New inhalation technology developed to us HFAs has required the reformulation of compound and resulted in differences in taste and delivery While the reformulated products and delivery device are as safe and effective as the previous CF versions, these changes may affect patients Acceptance of the new CFC-free inhalers. Many U general practices are currently transferring patient from CFC inhalers to CFC-free devices. The switc to CFC-free devices could present a number o opportunities for the primary care team to improve th management of asthma patients. Not least of these i the chance to educate and/or re-educate patients abou their condition and review its management. Thi paper aims to explore some of the methods used b primary care practitioners to undertake this transition.

Managed transition programmes

Guidance and models to assist practices in the transfe of patients to CFC-free metered dose inhalers (MDIs have been publishe [3-] and programmes to facilitat the changeover have also been established. One suc programme is the Strategic Management of Asthm and Respiratory Transition (SMART) project. Funde by the pharmaceutical industry but managed by a independent healthcare services organisation, Venti Health, a team of specially trained SMART nurses ha been set up to facilitate and support practice transitio to CFC-free inhalers. The project operates on regional basis. General practitioners who indicate tha they would like to switch appropriate patients to CFC free inhalers and wish to participate in a planne transition programme receive a referral to th independent healthcare organisation, managing th SMART project. A SMART nurse operating in th region in which the practice is located then makes a appointment with the surgery to discuss the level o support the surgery requires and to present models o how the transition might be undertaken. Thes models have been developed from research conducte by the Department of Primary Care at the Universit of Liverpool [5] The parties involved (which ma include practice partners, the practice manager nurses, reception staff, the local pharmacist an Primary Care Group) then agree a Transition Pla appropriate to the practice needs; this details th specific course of action for the switch to CFC-fre devices. As each practice has different patien populations and management systems, the criteria fo switching patients and the methods used are no uniform but tailored to individual practic circumstances. Once the changeover is complete, th practice partners are asked to complete a G Transition Questionnaire about the transition process The SMART nurse as part of the process provide each practice with the questionnaire. These are the forwarded to a designated SMART Nurse who i responsible for analysing the results. Th questionnaire helps the practice to evaluate th SMART programme and possibly use the experienc gained to improve practice procedures and patien

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management in other areas. Through an audit-base approach, the experiences of two of the many primar care practices that have transferred patients to CFC free devices are reviewed here. We also present th results from the GP Transition Questionnaire whic has been completed by 80 practices who hav participated in the programme

Practice One

Interventions Prescription label; letter and leafle requesting patient make a surgery appointment telephone follow-up questionnaire.

Practice One is located in a large UK city and has patient population of mixed socio-economic status There are approximately 7,000 registered patients o whom around 800 have asthma. Patients whose us of inhaled β–2-agonists was considered excessive (i.e using ≥ β–2-agonist inhaler per month, equivalent t approximately 6 puffs/day), non-inhaled steroid user or patients with asthma who had not been seen at th surgery during the previous 12 months were identifie from the practice's computer records. The initia Transition Plan aimed to target patients currentl using salbutamol (n=135, identified from compute records), change these patients over to salbutamo delivered using a CFC-free MDI and, on review o treatment, step up some patients to a CFC-free steroi MDI if considered necessary. It was agreed that th practice would send letters to patients explaining th transition and set up individual appointments. Shortl into the programme, this plan was changed on th request of one of the practice partners. Rather tha booking individual patient appointments, which wa considered a time-consuming process, a labe informing patients of the changeover was to be adde to scripts. The potential drawbacks of this 'wholesale method of switching patients has been highlighte previously [6]

Table 1. Results of telephone questionnaire administered 3 months afte transition by Practice On

	No.	(%)
Participants in telephone questionnair	53	(100
Remaining on CFC-free prescriptio	47	(89
Transferred to alternative treatmen	6	(11
Reasons for transfe		
Recurring sore throat	1	(1.8
Disliked CFC-free devic	2	(3.7
Unknown reason	3	(5.6
Satisfied with CFC-free device	40	(85
*Differences noted with CFC-free inhaler		
Change in tast	28	(53
e Positive featur	4	
e Negative featur	6	
l Neutra	8	
Change in sensation on the throa	10	(19
e Positive featur	5	
e Negative featur	5	
l Neutra	0	
No differences noted	17	(32

*Some patients cited >1 differenc

The prescription label approach was not well receive by some patients who felt ill-informed about th changeover. As a result, patients used routin appointment times to ask their practice GPs question about the new inhalers. Consequently, the programm reverted to the original appointments system an letters, accompanied by information leaflets on CFC-free devices explaining about the need to switc to CFC-free MDIs, were mailed to patients requestin attendance at the surgery for treatment review wit the transition nurse.

Patient follow-up questionnair

Given that some patients had been unhappy with th prescription label method initially employed t transfer patients, and felt that they had receive insufficient or inadequate information, Practice On developed a follow-up questionnaire to assess overal patient satisfaction with the switch to CFC-fre inhalers. The questionnaire, which was administere to patients by telephone, was jointly designed by th SMART nurse and one of the practice GPs. Al questions required either a Yes/No answer but patient also had opportunity to provide other comment, fo example if they were dissatisfied with the transfe process or had experienced problems with the ne inhaler. This meant that the questionnaire had a 'anecdotal element and the analysis of patients additional comments was therefore somewha subjective in nature. The main results from th questionnaire are detailed in Table 1. Although th number of participants at 53 was lower tha anticipated (118 patients had transferred to CFC-fre devices), some patients either had no number listed o surgery records or could not be contacted at the tim the survey was undertaken

After the initial problems with the prescription labe approach were resolved, once switched to the CFC free device the majority of patients (85%) who ha switched were happy with the new device and ha few concerns. This finding is in line with othe reports of patients' generally positive attitudes toward CFC-free inhalers [8,

Practice Tw

Intervention Explanatory letter; Invitation t transition clinic; therapy reviewed on computer an appropriate patients changed; delivery devic assessment

Practice Two is situated in an urban area in the nort west of England and has a total patient population o 12,000 with approximately 10% of patients listed o the asthma/respiratory register. The transitio programme to change patients over to CFC-fre inhalers was carried out over a period of 6 months beginning in January 2000. As well as managing th transition of CFC free inhalers, the practice wanted t review their patients using Dry Powder Inhaler (DPIs) as they felt they wished to offer th opportunity to patients using these inhalers to chang to a CFC free breath actuated device at a reduce dose of inhaled steroid. This could reduce the cost o

prescribing within the surgery as well as optimisin patient's treatment following respiratory review Before transfers to CFC-free devices could b recommended, patients who were >12 years of ag and currently receiving a prescription for one of th following were identified from the patient list fo treatment review: budesonide DPI fluticasone DPI, o beclomethasone breath-actuated device. The patient (n=250) each received a letter inviting them to attend specified appointment at one of the five asthma clinic scheduled for a review of their asthma treatment. Th letter stressed the importance of regular treatmen reviews. At the clinics, patients underwent a ful respiratory assessment, were told about the new CFC free inhaler that was available and asked if they wer happy to try it. They were informed that if they wer not happy with the new inhaler then their medicatio would be changed back to a DPI

Those patients who were currently usin beclomethasone MDIs were automatically switched t CFC-free MDIs via notation on computer records an were sent a detailed, explanatory letter about th change, offering them the opportunity to make a appointment at the respiratory clinic if they had an concerns regarding the change to their inhalers

Results from the transition clinic

Table 2 lists findings from the clinics, which wer attended by 119 patients who underwent respirator function tests and had their treatment reviewed Nearly one-third of the 92 patients who wer previously prescribed Turbohalers were found to b unsuited to the device due to low inspiratory flo rates. The large size of the practice and limite practice nurse resources had meant that it had bee some time since these patients had last received a assessment. During clinic visits, the reasons fo patients' willingness or unwillingness to transfer to different device were also ascertained. A number o patients cited satisfaction with their current treatmen as the reason for being reluctant to switch and on patient was willing to accept only a G recommendation to transfer. However, the audit o clinic records showed that, of 102 patients given th option to change to CFC-free inhalers followin attendance at the clinic, 89 (87%) decided to transfer These clinics also identified patients with poor inhale technique and patients that were not complying wit their inhaled therapy and these issues were addressed Practices may be concerned about the amount of tim that switching patients to CFC-free devices wil require. At Practice Two a total of five asthma clinics comprising 12 sessions each, were conducted by tw nurses. Each session consisted of 21 appointments with an average appointment time of 10-15 minute per patient. This schedule allowed for all 250 patient identified from the respiratory register to be offered clinic appointment (although not all patients attende the clinics). It also should be noted that a further 35 patients were changed to to a CFC free medication i the same device via an administered switch an detailed letter and accepted this without taking up th opportunity to be seen at clinic

Table 2. Findings from asthma clinics - Practice

	No.	%
Attendees at asthma clinic	91	
Patients no longer requiring asthma medicatio	10	8
Poorly compliant patient	14	1
Inadequate inhaler technique identifie	4	3
Patients offered transfer to CFC-free device	20	
Patients accepting transfer optio	89	8

General Practice Questionnair

To determine whether a managed transitio programme meets the needs of practices and to dra attention to any gaps in the current management o asthma, all participating practices were asked t complete a GP Transition Questionnaire 3 month after finishing the programme. Questions related t practice structure, the changeover method(s) used, an the practices' views on patient responses to th transition were included. 80 practices completed an returned the questionnaire

Results

Review of data available from 80 practices who hav completed the questionnaire provides useful insight into attitudes towards the transition (Tables 3 and 4) Most doctors felt confident that they and members o their primary care team were well-prepared for dealin with the changeover: responses indicated that 97% o reception staff, 95% of practice nurses and 86% o pharmacists were adequately prepared.

The most common patient 'complaint' identified b questionnaire respondents was that, of those patient voicing concerns, 54% felt that the CFC-free MDI wa less effective than their previous medication. Half o the patients who expressed negative views to thei practice disliked the taste associated with the CFC-fre device (Table 4). These two problems may highligh deficiencies in the education of asthma patients prio to the switch. The need to present patients with ke facts that stress the positive points of transferring t CFC-free inhalers and informing patients of th differences they will likely encounter has been noted [6]

Despite these patient concerns, 90% of practice considered that the managed transition had benefite patients in several ways and had been useful i highlighting areas of asthma care that could b improved. Specifically, the nurse-led clinics ha prompted the development of an asthma register a some practices where none existed previously. Th clinics also enabled patients whose treatment wa inappropriate to be identified: individuals who wer either overusing β–2-agonists or prescribed an inhale device for which they lacked the necessary dexterit or inspiratory flow, or were otherwise unsuited to thei

Table 3. Practice demographics and response to transitio

Practice	No.	(%)
Completing questionnaire	80	100
Pre-existing asthma clinic	48	60
Asthma population 401-800 patient	63	79
Reporting transition problems with		
≤10% of patient	71	89
10-20% of patient	8	10
21-40% of patient	1	1
Considering managed transition beneficial to patient	72	90
Viewing transition process		
Positively (chance to review treatment, chec compliance, demonstrate new treatments		97
Negatively (increased workload, stressful, achieved little		1
Neither positively nor negativel		2

Table 4. GP reporting of patient response to CFC-free devic switc

	% of practice (n=80
Reporting positive comments from patient	42
Of this 42%, practices reported the following comments	
Positive patient comments	
Preferred new devic	32
Preferred taste to previous devic	23
Less spray in mouth and throa	19
New medication as effective as ol	52
New medication more effective than ol	65
Reporting negative comments from patient	32
Of this 32 %, practices reported the following comments:	
Negative patient comments	
Preferred CFC devic	34
Did not like the tast	30
Lack of impact at back of throa	17
Felt less effective than previous medicatio	34
Difficulty using the devic	6

requirements. I addition to th opportunity t review an improve patien care, practice observed othe positiv outcomes i terms o practic organisation an administration The changeove to CFC-fre inhalers ha pointed to th need for regula auditing t combat complacency the need to se aside an 'protect' time fo nurse-le clinics, and th usefulness of patient registers in different diseas areas. One practice believed that similar schemes fo other diseases, such as diabetes, would be helpful

Discussio

The two case studies discussed and the results fro the GP Transition Questionnaire highlight a number o issues in relation to the transition to CFC-free inhalers A managed changeover to CFC-free devices provide a valuable opportunity for the GP team to review th care plans of their asthma patients. Reassurin patients and alleviating concerns about the efficac and safety of new treatments are key elements in an transition process

The experience of Practice 1 demonstrates th importance of clear lines of communication, bot within the primary care team and to the patient. Th change from the initial appointment plan t prescription labels was made without full consultatio and proved unpopular. This underlines the value o group decision-making to ensure that all involved ar informed of and satisfied with the procedures tha have been established for transition to CFC-fre products. The commitment of the entire primary car team is required if a successful programme is to b executed.

From the patient's point of view, the dissatisfactio experienced by some patients who felt that they wer not sufficiently appraised of the changeover by the us of a prescription label stresses how vital it is to giv patients as much information as possible regardin changes to their medication and to offer a rationale fo the change. Ideally, this process should be undertake in a structured manner, before, during and after th transition to achieve the desired result of a satisfied compliant patient who fully understands the reason for the changeover. It is also important to ensure tha any information provided is in a form appropriate t the patients' needs. One Canadian study found that brochure specifically developed to explain to patient why their MDI would be changing was poorl understood by many recipients and had the negativ effect of producing new concerns about the switch i one-third of patients [9]

A number of useful learning points were derived fro the experience of Practice Two. The establishment o asthma clinics for the transition proved successful The value of using a combined approach, i.e. one-on one appointments with a nurse or doctor together wit printed information has been noted elsewhere [10] Equally, it has been shown that patients are mor receptive to changing to a CFC-free inhaler if thei doctor recommends the switch [6,11] From the practice' point of view, transferring patients to CFC-fre devices need not be an onerous procedure if manage properly. Establishing a clear structure and timefram for the plan is vital for a successful programme. A the figures show, the vast majority of patient experienced few problems and the practice felt that th managed transition was beneficial to both patients an to the practice.

While providing insights into managing the transitio process itself, these case reports and GP survey result highlight several areas where improvements in th clinical management of asthma patients generall could be made. Regular checks of inhaler techniqu and of the patient's physical ability to use the inhale are required. Annual checks to ensure that the patien is being prescribed the correct drug dosage would als be useful. Additionally, routine audits could be use to identify patients using large quantities of β–2 agonists but whose asthma may be sub-optimall controlled. As part of the NHS move to clinica Governance, guidance and advice from the NH National Institute for Clinical Excellence on managin asthma and the establishment of local clinical audi systems or arrangements may be formalised, whic should assist in improving asthma care at the loca level

Whatever approach practices adopt to switch patients to CFC-free devices, the introduction of a more environmentally acceptable propellant for the delivery of respiratory drugs means that all primary (and secondary) care teams will need to act soon. CFC-free inhalers are here to stay; armed with this knowledge, practices should ensure that they use this opportunity to assess practice procedures so that they can optimise the management of asthma patients and patient compliance with treatment. ■

Editors Note
The practices decided in this audit, where the decision to switch from a CFC device was made, to prescribe a 3M inhaler device (Qvar MDI or Autohaler).

Editors Note
In this audit inspiratory flow was measured using the IN-Check® device

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