

Regardless of stigma and access to inhalers, this research suggests that in a substantial percentage of cases the medication will still not be used.

Jill Lee

Asthma medication: What about the 70% who forget?

In a small study of children with asthma which I carried out in a Hampshire secondary school, about half the respondents declared that they did not comply with their preventer or reliever medication schedule. This was not entirely due to school factors, as 70% stated that they forgot to use their preventative inhaler if they were not reminded to do so by their parents!

There has rightly been considerable concern about the difficulties faced by children that need to use their asthma medication at school. However, I feel it is important to realise that locked cupboards and embarrassment are only part of the problem. Even if every asthmatic child had total charge of its inhaler, and there was no stigma attached to its use, my research suggests that in a substantial percentage of cases the medication will still not be used.

The problem

I carried out this research as part of a BSc (Hons) degree in Nursing Studies at the University of Portsmouth. As a School Nursing Sister I

have come to realise the important part we can play in the management of asthma. Children spend a large part of their lives at school, and school nurses are ideally placed to ensure that their education is not hindered by asthma.

Studies have shown that asthma is often associated with school absence, and poorly-controlled asthma can lead to poor performance in the classroom as well as during sporting activities (1, 2). Failure to comply with asthma therapy is the most common cause of poor asthma control (3), and many authors agree that compliance with asthma therapy can become a problem during the teenage years (2, 4, 5).

In the course of my work in a secondary school, I have encountered pupils presenting with asthma symptoms because of non-compliance. These youngsters were managed individually. However, to design more dynamic strategies I felt the need for more information about why teenagers do not comply with their asthma treatment. Although teenage non-compliance is acknowledged in the literature, no

About half the group surveyed did not self-medicate adequately.

British studies investigating the reasons why could be found. Indeed, in a private communication, Sean Hilton, Professor of General Practice at St George's Hospital Medical School, stated it to be an area 'wide open' for investigation.

The study

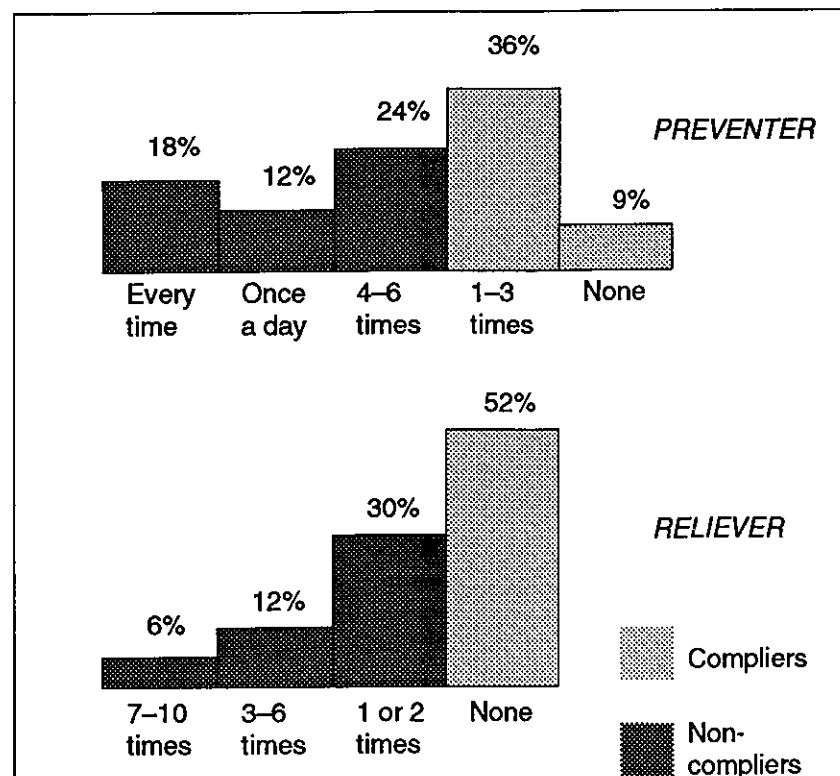
The objectives of the study were to investigate reasons for non-compliance, and the factors and morbidity associated with it.

The survey was carried out among a group of 33 pupils aged from 13 to 16. The criterion for inclusion was that the youngsters had been prescribed regular preventative medication. They had the option of not taking part, and parental permission was obtained beforehand.

The self-completed questionnaire was designed to test the validity of various theories to explain teenage non-compliance, which have been discussed in the literature. These theories include the following.

- Developmental issues, including family influences.
- Peer-group influences.
- Knowledge.
- Drug regimen.
- Factors at school.
- Smoking.

Fig. 1. The number of missed doses of preventer and reliever medication during the previous week, as recorded by pupils in the author's survey.



I should point out that this school has a completely open-access policy towards inhalers, and pupils can carry them around freely.

Compliers and non-compliers

One of the first tasks was to divide the group into 'compliers' and 'non-compliers'. A non-complier was defined as:

- Missing more than 3 doses of preventative medication a week.
- Missing any dose of reliever medication.

As shown in Fig. 1, over half the group (54%) came into the 'preventative non-complier' category, and 48% into the 'reliever non-complier' category. These figures are similar to those found by other authors (6, 7, 8).

Reasons for non-medication

The preventative non-compliers were asked to list, in order of importance, their reasons for not using their inhaler. Out of a total of 144 respondents, the 'top three' reasons were as shown below.

Preventative non-compliers (144)
 I forgot (72%).
 I didn't think I needed it (63%).
 I couldn't be bothered (53%).

This shows that the most frequent reason was forgetfulness. Embarrassment was not an important factor in the nine categories of response.

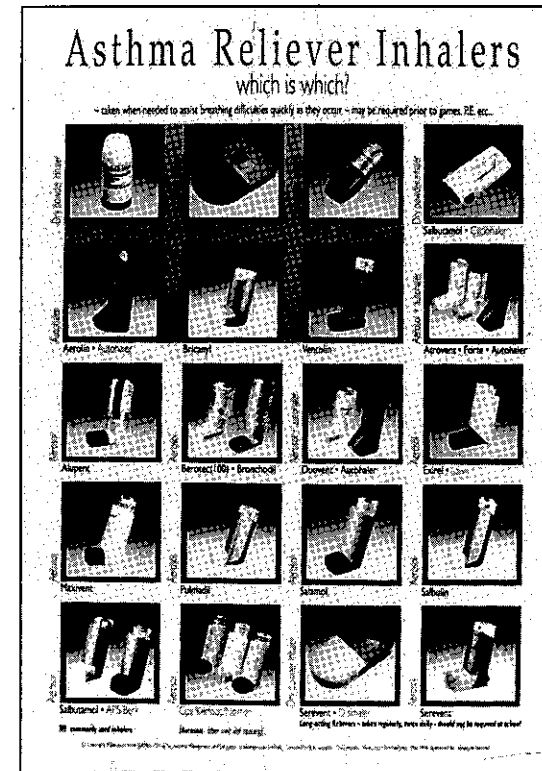
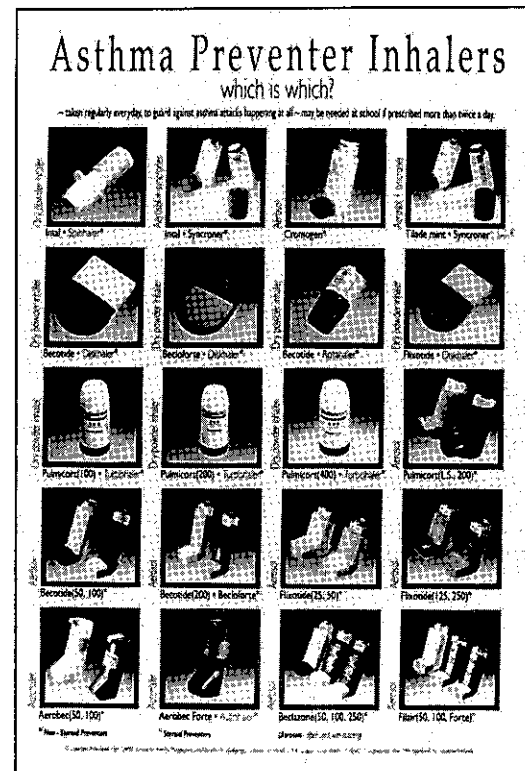
Since preventative medication is often taken twice a day, before leaving for school and after returning home, this could explain the low 'embarrassment' rating.

For the reliever non-compliers, the 'top three' reasons were as follows.

Reliever non-compliers (96)
 I didn't have it with me (73%).
 I was embarrassed (56%).
 I thought I'd get better on my own (54%).

This shows that embarrassment was an important factor, but the most significant one was, again, forgetfulness! It does raise some questions about the level of discomfort at which a young person feels the need to take reliever medication, and yet can manage to carry on without doing so.

These and other posters and visual aids are available from the National Asthma Campaign, Providence House, Providence Place, London N1 0NT (071 226 2260).



Teasing

Although only 27% stated that they were teased about their asthma, there was a relationship between this and non-compliance with reliever medication. The fact that many of the respondents gave 'embarrassment' as a reason for not using their inhaler suggests that only a few were teased simply because they did not make themselves vulnerable in the first place.

However, by increasing their self-esteem or confidence they may become less vulnerable and feel able to keep their inhaler with them. Moreover, if the youngster's compliance with preventative medication is improved, then this may lead to a decreased need for reliever medication.

'Owning their asthma'

Most of the respondents (85%) visited the doctor with a parent and seemed content to do so. Only a very few, 21%, had been asked by the doctor or nurse how they felt about having to use an inhaler every day. They seemed to be passive recipients of care and did not 'own' their asthma. Although 42% had a self-management plan, there appeared to be no relationship between this and compliance.

Perhaps teenagers should be given the opportunity of visiting the doctor on their own, of being consulted over the treatment choices, and of voicing their own concerns. Many of the

teenagers in the study have had asthma for several years, and probably have their own ideas about appropriate management. Acknowledging this, and working in partnership, can increase the self-esteem of the individual and thus promote efficient self-management. To form a productive relationship, Primhak (9) recommends that the health professional should draw up contracts and make written plans, and gain and keep the trust of the patient by being consistent, reasonable, and realistic.

I believe that all health professionals should be aware of these factors, as should teachers, parents, and the teenagers themselves. This is where, I suggest, the school nurse's role lies. Promotion of health is the primary role of the school nurse, who works with pupils, parents, and school staff, and has the opportunity of providing information about all aspects of asthma management. She can also help the school to develop an effective asthma policy. Non-compliance should always be considered when problems arise, and the school nurse can work out strategies with the teenager, liaising with other carers to ensure that the 'messages' are the same.

The parents of asthmatic children can also be encouraged to give their child more autonomy in this matter. Although it is understandable that they may be concerned at possible loss of con-

Teenagers should be encouraged to see the doctor on their own.

trol, they need to be shown that the results may well be beneficial.

Education about asthma can be directed at all pupils. The National Asthma Training Centre has designed resources to be used with both primary and secondary pupils. If education begins early, asthma can be understood and accepted, with a possible reduction of teasing.

Autonomy

It is unreasonable to expect total compliance, but the school nurse must ensure that the youngster has all the necessary information, so that the decision not to comply is an informed one. It is interesting that Cameron & Gregor (10), when discussing compliance and chronic illness, suggest that patients understand the medical regimen in terms of the way it will affect their *life*, whereas health professionals understand it in terms of the way it will affect their *health*. It is possible that some teenagers, despite knowing the effect on their health, decide that the adverse effect on their way of life is too high a price to pay.

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Too high a price to pay for health?

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