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- ⁵ Silverman M, Conolly NM, Balfour-Lynn L, Godfrey S. Long term trial of disodium cromoglycate and isoprenaline in children with asthma. *Br Med J* 1972;iii:378-81.

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Management of asthma in schools

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SUMMARY A questionnaire on asthma in schools was circulated to 291 Nottingham schools. The response rate was 91%. Three areas of concern were identified: are schools aware of all their asthmatic pupils; should children have more access to their medications in school; and do teachers need more guidance in supervising illnesses.

Asthma is the most common chronic disease of childhood. It is associated with school absenteeism¹⁻³ and reduced participation in school activities and games.^{1,2} Modern treatment of asthma is based on inhaled drugs administered from pressurised aerosols and dry powder inhalers. These can be safely self administered by virtually all children of school age,⁴ and when used appropriately symptoms of asthma and absences from school are reduced.³

The management of asthma in schools and the role that teachers assume in this has not been described previously, despite the fact that children spend much of their time in school. We have looked into the awareness of asthma in schools and the policies adopted towards medications used to treat asthma to see whether there are specific problems for either teachers or children.

Methods and results

A questionnaire was posted to headteachers of 245 primary and 46 secondary state schools in the Nottingham area. The questionnaire asked how many pupils had asthma and how the schools were notified of this. Headteachers were questioned on their policy towards the administration and supervision of asthma medications and whether teachers had received instruction in the supervision of asthma or other childhood illnesses. Teachers were asked if they had experienced any particular problems when teaching children with asthma. Permission for the

survey was granted by the local director of education and the city hospital ethical committee.

The questionnaire was returned by 92% of primary and 87% of secondary schools. The number of pupils known to have asthma ranged from 0 to 12% (mean 3.6%) in primary schools and from 1 to 6% (mean 2.9%) in secondary schools. The reported prevalence of asthma did not vary according to the size of the schools.

The majority of both primary and secondary schools were alerted to the fact that pupils had asthma by their parents (Table), usually verbally—

Table Results of questionnaire on asthma management in Nottingham schools

Question	Response	School (response as a %)	
		Primary	Secondary
How would you be informed if a child had asthma when he first joins the school?	Verbal report from parent	73	61
	Questionnaire to parent	22	34
	Previous school records	19	73
	School health service	5	22
How would you be informed if a child developed asthma later?	Parents	91	88
	School health service	31	42
	Pupil	1	15
	General practitioner/hospital	3	11
Who is responsible for supervising the needs of children with asthma?	Class teacher	80	35
	Head teacher	36	2
	Senior teacher	NA	39
	Pastoral staff	NA	15
	School nurse	5	59
	Nursery nurse	14	NA
Management of inhalers	Children keep	10	51
	Children hand in	65	10
	Children keep or hand in according to child	25	39

NA = Not applicable.

for example, during parent's evenings. Roughly one quarter of schools asked parents for details of any health problems on an admission form. Secondary schools also used records from the child's previous school.

The responsibility for supervising children with asthma lay predominantly with the teaching staff in primary schools, while in secondary schools the school nurse provided an additional source of support. The policy on whether inhalers should be handed in or not varied considerably. In most primary (65%) and some secondary schools (10%) children were required to hand in their inhalers to the school office or class teacher and then to use them under supervision when necessary or at specific times during the day. Children were allowed to keep and administer their inhalers themselves in 10% of primary and 50% of secondary schools. The remaining schools had a flexible approach and adapted to the individual child.

Only 8% of primary and 15% of secondary schools reported that teachers had received any instruction in the management of health problems. This information was often gained from voluntary first aid or health education courses and so was not necessarily specific to children. Many schools (40%) said that teachers were worried about their lack of preparation to cope with an attack of asthma and in some instances about the lack of suitable facilities for such an event. They also thought that they were not always aware if a child had asthma. Primary schoolteachers were concerned about the extra time needed to ensure that children took their medications. Loss of schooling and reduced participation in sport were mentioned as problems by 17% of schools. Most schools said that children with asthma were encouraged to take part in sports as normally as their condition allowed.

Discussion

The number of children known to have asthma by the schools in this survey varied from 0 to 12%. The mean figures of 3.6% in primary and 2.9% in secondary schoolchildren are similar to the number of children diagnosed as having asthma in previous community surveys²⁻⁵ but almost certainly underestimate the prevalence of recurrent wheeze that would respond to treatment for asthma.³ In Nottingham there is no systematic method by which schools are informed if a child has asthma. Most schools depend on parents to volunteer this information, but

we do not know how reliable this system is. A substantial number of children were not allowed to keep their inhalers with them during school hours and had either to request them or rely on their teachers to supply them when necessary. Children may feel inhibited in having to approach a teacher for their medication, and as teachers had received no training in this area and were unsure when treatment should be given it is unlikely that inhalers were being used optimally.

This survey has identified certain questions about the management of asthma in schools that need more detailed investigation. Firstly, how well are schools informed about pupils with asthma? Should a more formal means of communication be established between family practitioners and the school health service, so that the latter can ensure that teachers are made aware of medical problems? Secondly, how much access should children have to their inhalers? There are strong arguments for allowing children to keep bronchodilators required for symptomatic relief, although teachers may need more reassurance about their safety. If prophylactic inhalers are needed in school they could be more justifiably handed over to the teachers. Thirdly, should teachers be given instruction in the management of childhood illnesses, either in teacher training or later in their career, so they feel better equipped to supervise children with common health problems? The school medical service is available for advice but perhaps could play a larger role in educating teachers and in the supervision of children with asthma.

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