

Rostrum

Asthma and allergies at school – a Swedish national position paper

The marked rise in allergies during the past decade has been increasingly perceptible for school personnel. A quarter of Swedish parents of children with allergies are unsatisfied with the school environment and how the schools are organized around their children. The Association of School Physicians has, together with six other medical, teaching and patient organizations, developed written guidelines for the management of asthma and allergies in Swedish schools. The aim was to regulate the responsibility of the school and its personnel for students with asthma and allergies, and to strengthen safety arrangements within schools. A secondary aim was to describe how the curriculum, teaching equipment, excursions, and other school activities, could be arranged appropriately and safely for students with asthma and allergies. Five-hundred copies of the document were circulated to all of Sweden's municipalities, county councils and pediatric departments. There was general agreement regarding the schools' responsibility that no child should risk becoming ill or having exacerbation of symptoms due to conditions at school. Recommendations regarding smoking on school premises and the use of perfumes were criticised. The strength of this document is that all organizations actively involved with schools have agreed upon these recommendations. This document serves to suggest a minimum level of activities thus ensuring that even students with asthma and allergies will receive appropriate schooling.

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In a short space of time asthma and allergies have become the most prevalent chronic diseases among children and young people. The marked rise in allergies during the past decade has been increasingly perceptible by school personnel and efforts have been made to adapt activities to address this (1, 2).

Large numbers of children with asthma and allergies are more likely to have learning disabilities due to difficulties in concentration, tiredness and absenteeism (3–5). Due to improved medical treatment, absenteeism seems to have decreased in the group with asthma and allergies as a whole (6), but the problem still exists for a subgroup of children from low socioeconomic conditions (7).

There are many situations and activities at school that can provoke an asthma attack for an allergic child, such as physical education, damp buildings, allergenic food, etc. Special schools for allergic students have been established in order to enforce maximum safety arrangements for this group of students. As many as a quarter of parents of children with allergies are unsatisfied with their child's school environment and its organization (8).

In order to improve this situation some countries have attempted to write guidelines which deal with specific problems within schools. The American Academy of Allergy, Asthma and Immunology has issued guidelines

for the management of anaphylaxis in schools (9, 10). The Thoracic Society of Australia and New Zealand has published asthma management guidelines for Australian schools (11). These American and Australian guidelines were initiated, written and implemented by medical organizations with little or no involvement of organizations representing the school, or patients or parents. In Europe, France has also registered a need for similar guidelines (12).

In 1996, the Association of School Physicians took the initiative to write guidelines for management of asthma and allergies in Swedish schools together with six other medical, teaching and patient organizations involved with schools. It is, to our knowledge, the first time a broad national group has formulated such guidelines. The aim of this document was to regulate the responsibility of the school, and its personnel, for the students with asthma and allergies, and to strengthen safety arrangements in all schools. A secondary aim was to describe how the curriculum, teaching equipment, excursions and other school activities could be arranged in an appropriate and safe way for all students with asthma and allergies.

This position paper is a working document that may be modified as future research dictates. This article is a summary of the document, focusing on the parts of interest to medical professionals.

Responsibility of the school for students with asthma and allergy

Students shall not exhibit symptoms, nor need to increase their intake of medicine due to conditions at school.

Substances that trigger allergic reactions and cause respiratory irritation are to be kept to a minimum on school premises.

Schools must plan the foundation of a favourable learning situation also for students with asthma and allergies.

Students are to be provided with the opportunity to participate regularly in ordinary sports activities.

Students are to be provided with study and vocational counselling that takes asthma and allergies into consideration.

Preventive measures at school

Do not allow smoking in the school, not even in special smoking rooms.

Do not permit live furred animals or birds on school premises. This applies also to evenings, weekends and holidays. Staffs on duty at the school are not permitted to wear perfume or use strongly scented skin- or haircare products. This should also apply to students during school hours.

Do not permit the numbers of students in a given teaching premise to exceed recommended numbers because of the ventilation capacity; the recommended number of students permitted in each separate teaching area should be clearly posted.

Students should be encouraged in every way possible to spend their breaks outdoors.

Food at school

It is of utmost importance to establish and apply procedures for preparation and serving of special food in schools. The students' parents, with support from school nurses, have an important role in informing relevant staff of the need for special food, as well as any changes in such needs. Since parents have extensive knowledge of their own child's food hypersensitivity there should be no need to obtain a doctor's certificate. The Swedish National Food Administration has issued recommendations that school meals are not to contain nuts, almonds or peanuts given the risk of serious allergic reactions. Furthermore, no nuts, almonds or peanuts are to be brought into the school by students, parents or staff.

In a few newly built schools in Sweden it was decided to refrain from building separate dining areas for financial and educational reasons. In these schools lunch is eaten in the classrooms, which causes a special

problem: students with pronounced fish allergy are unable to be in the classroom during lunchtime and for the rest of the day.

Physical education at school

Today, most children and young people with asthma take medication that is so effective that the affliction does not stop them participating in physical activity. Individually set dosages of medicine and slow warm-ups are necessary before beginning training. Interval training, with rest periods of several minutes, is an appropriate method for these students. Physical education teachers have an important duty to support and guide students with asthma, with the aim that students can participate throughout the lesson. Sustained exemption from sporting activities due to asthma and allergies should only be permitted after consultation with the school nurse, school physician and/or the attending physician. The granting of a lengthy exemption should result in a special action plan for the student concerned.

Responsibility of school health personnel

To have good knowledge about allergic diseases in general, and in particular about the students' specific symptoms and medication.

To follow up the school situation, absentee rates, and treatment for all students with asthma and allergy, and if necessary to contact the responsible physician.

To know and try to eliminate health hazards in the school environment that affect students with asthma and allergy.

To know how to treat acute attacks of asthma and allergy in an appropriate way.

To engage in teaching school staff about asthma and allergy in general, and to inform (together with the parents) specifically about the students with severe asthma and allergy.

To cooperate with teachers in physical education in order to find students with undiagnosed asthma.

To cooperate with teachers in vocational guidance to ensure that students with asthma and allergy receive adequate knowledge.

Other categories of staff

All staff at the school should have a degree of knowledge about asthma, allergies and the factors that trigger distress, about symptoms of asthma attacks and severe allergic reactions, and the school's action plan for students with asthma and allergies.

The school leader bears employer liability and is therefore ultimately responsible for the working environment at the school. It is incumbent upon the school leader to ensure that a sound indoor environ-

ment is maintained on school premises and that all staff have fundamental knowledge of asthma and allergies. He/she must ensure that there are secure procedures for serving school meals concerning students who are hypersensitive to food, and that there is an up-to-date action plan for students with asthma and allergies at the school.

The class teacher should assist the student, as necessary, in taking medication at school. Help of this type is to be provided upon agreement with the student's parents. The teacher should observe and follow up absence due to illness, and learning difficulties that can be linked to a student's allergy or medication. The sports and health teachers should guide and support students with asthma to counteract distress arising from physical exertion.

The school meal staff should ensure that students who are hypersensitive to food receive a good diet with nutritious food, and should provide them with the opportunity to enjoy food and eating.

The study and vocational counsellors should provide students with asthma, eczema and allergies, and their parents, with thorough and correct vocational counselling given the student's specific affliction. This should, after approval from the student and parents, be undertaken in co-operation with the school nurse/school physician.

The caretaker should collaborate with other school staff in the early identification of any building problems such as moisture damage or poorly functioning ventilation, and report any faults to the school leader.

Medical readiness

Student's own medication

Students with asthma, or who have been assessed by a physician to be at risk of severe allergic reaction, should be urged to keep their own emergency medicine with them at all times, including at school. Taking into consideration the student's age and maturity, teachers should be aware of the student's medication, if any, and be prepared to assist in administering them if necessary. The parent should provide authorization, preferably written, for this involvement on the part of the teacher. If the student has been prescribed an epinephrine autoinjection device (Epipen) for use in an acute allergic reaction, it can be appropriate for the parent to seek assistance of a medically trained person, e.g. the school nurse, to aid in informing the teacher. The teacher is to assure that a student suffering an acute asthma attack receives immediate medical attention should the medicine fail to alleviate the attack. The same applies in cases of suspected severe allergic reaction. A student suffering distress from an asthma attack or a more serious allergy is not to be left alone, nor to be sent home without an escort or in a taxi.

School health service

The school nurse is to have access to emergency medication to be able to, as required, independently administer treatment for an asthma attack or suspected severe allergic reaction. The school physician or senior school physician should provide the school nurse with written authorization to administer the medication by means of a general directive. The emergency medication that should be available at the school for use by the school nurse and/or school physician includes epinephrine in injection form, cortisone tablets, beta-2-agonists inhalers, and nonsedative antihistamine tablets.

School activities away from school premises

During school activities away from the school, e.g. excursions and short school trips, it is appropriate for the individual student to bring along and look after his/her own medicine(s). On camping excursions, it is appropriate for the teacher to look after the student's medicine if the parents approve. Planning of excursions and camp activities should bring about consultation between the teacher(s) and the allergic student's parents well in advance of the activity. The teacher should take the initiative for this consultation. It is desirable that a cellular telephone be available to the teacher during school activities away from the school.

Principal regulatory documents

All school personnel, parents and students should be aware of the principal regulatory documents regulating school activities and each student's right to receive appropriate education.

Article 23 of the UN Convention on the Rights of the Child has been one of the starting points for this document. According to the Convention, disabled children have the right to the best possible health and special care.

In Sweden, the Education Act of 1985 stipulates that all children and young people shall have equal access to education.

The Environmental code of 1998 is basic legislation that protects the individual from physical and mental damage, and the municipalities are to pay special attention to, for example teaching premises and safeguards.

The Work Environment Act covers not only all employees, but also all school students from the first grade upwards, since 1990. Consequently, the law regards these students in the same light as employees. The aim of the Act is to prevent ill health and accidents in the workplace and to achieve a good working environment in general. A number of other acts and regulations stipulate the responsibility for the school environment in general and for the students with asthma and allergy in particular.

Discussion

This position paper is intended to support the work making schools a safe and healthy environment for students with asthma and allergies. In addition, it aims to create an informed and considerate atmosphere at school for these students. Further, it encourages a close working relationship between the physician, the parents and the school officials for the best management of the asthmatic and allergic child. School personnel have an important role to play but generally have rather limited knowledge of asthma and allergies (13–16).

We know today that allergy symptoms are largely triggered by factors in the person's surroundings. The environmental measures implemented to counteract asthma and allergy symptoms generally have a positive impact. This national position paper was circulated to all of Sweden's municipalities, county councils and pediatric departments, amounting to almost 500 papers in total. More than 100 responses were received and many of these gave valuable comments and suggestions. In general, the document was well accepted and welcomed. It seemed from the responses that it is crucial for people working in schools, and the relevant authorities, to be made aware of the problems of students with asthma and allergy, and that the national position paper strengthens this awareness. All respondents agreed upon the responsibility that no child should risk becoming ill or having exacerbation of symptoms due to condi-

tions at school. The recommendations regarding smoking in the school premises and the use of perfume were especially criticised; this is understandable as the recommendations conflict with the employee's integrity and personal freedom.

Some groups representing health personnel, e.g. nurses, had difficulties in accepting the number and type of drugs available in schools, particularly the use of beta-2-agonist inhalers, because many school nurses are not used to such devices. However, it is vitally important that school nurses have this drug available for students with acute asthma attacks as it may stop symptom development. Administration of this drug requires continuous training of school nurses in inhalation techniques. Noncompliant students with inhalation devices may benefit from a school health personnel with knowledge of inhalation techniques, as Storr et al. have shown that most schoolchildren with pressurized inhalers cannot use them satisfactorily (17). The school nurse can perform regular health check-ups to make sure that students with asthma know the correct technique and, if not, can help to improve their technique.

In summary, it is important that this national position paper on how schools deal with asthma and allergies is implemented in the schools of Sweden. The strength of this document is that all organizations active within schools have agreed upon these recommendations.

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