4.5.10.3 ASTHMA

Students with asthma have sensitive airways in their lungs. When exposed to certain triggers the airways narrow, making it hard for the student to breathe. Symptoms of asthma commonly include cough, tightness in the chest, shortness of breath/rapid breathing, wheeze (a whistling noise from the chest). Many students have mild asthma with very minor problems and rarely need medication. However, some will need medication on a daily basis and frequently require additional medication at school (particularly before or after vigorous exercise). Most students can control their asthma by taking regular medication.

**Medication**

**Reliever medication** provides relief from asthma symptoms within minutes. They are nominally blue in colour and common brands include Ventolin and Bricanyl. They should be easily accessible to students at all times, preferably carried by the student with asthma.

**Preventer medications** are used on a regular basis, mostly take twice a day at home, to prevent asthma symptoms. They are usually brown, orange and yellow in colour.

**Symptom controller medication** is used in conjunction with preventer medication (they are often combined in one device) and usually taken twice a day at home.

**Combination medication**—students on the combination medication Symbicort (which is red and white in colour) can use this medication as a reliever medication as well as maintenance therapy. Teachers may see children over the age of 12 years using their Symbicort as a reliever, during school times. Teachers should refer to the student’s asthma action plan if the child’s doctor would like them to use this medication in an asthma emergency.

**Devices**

It is recommended that a puffer (hand-held inhaler device) be used in conjunction with a spacer device to assist with fast and more effective delivery of medication.

### 4.5.10.3.1 The student at school

**Possible effects of asthma**

Students who have mild asthma with very minor problems rarely need medication and have minimal restrictions of their school life. However, some students have moderate to severe asthma and will require additional support and consideration. Each student is unique and not everything listed below will be relevant to each student.

**Student learning and wellbeing at school**

Some students will need medication on a daily basis and frequently require additional medication at school, particularly before or after vigorous exercise.

Students who have asthma, especially those with moderate to severe asthma may experience difficulties at school in relation to attendance, concentration and participation in school-based activities.

Most students with asthma are able to control their asthma by taking regular medication. Students with asthma are to provide their own medication for their usual asthma management. They are able to use the spacer device from the school’s Asthma Emergency Kit with their own medication.
Physical activity, camps and special events

Students with asthma should be encouraged to participate in sporting and physical activities as well as camps and special events. The only form of exercise that is not recommended for students with asthma is SCUBA diving (see 4.4.4). However, exercise, particularly strenuous and endurance exercise such as cross county running can trigger an asthma attack in many children with asthma.

Exercise Induced Asthma (EIA) may vary considerably from day to day and can be particularly troublesome when a student has a cold or flu or is recovering from a recent flare-up, it may be suitable for the student to abstain from activities until they recover.

In many instances, EIA comes on soon after completion of the activity when the student is ‘cooling down’, rather than during activity. Frequent EIA is likely to occur when inadequate preventer medication is being used and if this is occurring, the parent/carer should be advised to seek medical guidance about their child's asthma.

EIA can often be prevented by a simple warm-up period and pre-medicating with a blue reliever puffer and/or other medication as recommended by the treating doctor, at least 5-20 minutes before exercise. A simple cool down period is recommended after exercise. Obtaining better overall control of the student's asthma with long-term preventative treatment also reduces the likelihood of EIA. If the student's asthma has been unstable or they have been unwell it is recommended that they avoid exercise until their asthma stabilises.

If students develop EIA, they should immediately cease exercise, rest and take reliever medication. If all symptoms disappear they may be able to resume their exercise program. However, if symptoms persist, worsen or reappear, the asthma attack needs to be managed (as outlined in the Asthma First Aid section in this resource), and the student must not return to exercise. Even if the student responds the second time to the reliever medication, he/she should not resume exercise that day.

With good planning and communication, most students with asthma should be able to attend school camps and special events. The school should receive extra information about the student's asthma management, for example, via the completion of the Asthma Foundation's School Camps Asthma Action Plan (see 4.5.3.1) and the Department’s Confidential Medical Information for School Council Approved School Excursion form (see 4.4.2.5).

If the student is going away overnight the school should ensure that the parent/carer provides enough medication for the student including preventer medication if required. The school should also ensure that the appropriate numbers of Asthma Emergency Kits are available on the camp.

4.5.10.3.2 Strategies for schools

Medical Advice

Every student with asthma attending the school should have a written Asthma Action Plan, ideally completed by their medical/health practitioner, in consultation with the student’s parent/carer. The Asthma Foundation provides a School Asthma Action Plan.

The Asthma Action Plan will include:

Usual medical treatment (medication taken on a regular basis when the student is ‘well’ or as premedication prior to exercise).

Details on what to do and details of medications to be used in cases of deteriorating asthma. This should include how to recognise worsening symptoms and what to do during an acute asthma attack. The Asthma First Aid section of the Asthma Action Plan must have no less than 4 separate puffs of blue reliever medication every 4 minutes. If the Asthma Action Plan is returned with less than the required number of puffs per minute the plan must be sent back to the parent/carer and doctor for review.
Name, address and telephone number of an emergency contact.

Name, address and telephone number (including an after-hours number) of the student’s doctor.

A School Asthma Action Plan should be offered annually to parents/carers whose children have asthma. It is the parent/carer’s responsibility to convey clear instructions from the doctor to the school about the student’s asthma medication requirements.

Student Health Support Plan

Schools must plan for and support a student with an identified health care need within a school environment. All students with Asthma must have a Student Health Support Plan in place (see 4.5.3.1).

Communication

The impact of asthma on a student and their family cannot be underestimated. Schools should ensure open communication between the school and the student’s parents/carers. Regular sharing of information about the student’s successes, development and changes, as well as any health and education concerns, is important.

Knowing and reducing asthma triggers as much as possible is a significant way to help control asthma. Some measures that schools can undertake to contribute to this are:

Consider out of hours mowing of the school grounds
Consider planting a low allergen garden (the Asthma Foundation on Victoria has a brochure on this)
Consider ways to limit dust, for example having the carpets and curtains cleaned regularly
Examine the cleaning products used in the school and their potential impact on students with asthma

Asthma First Aid

It is important to remember that anyone with asthma can have a severe attack, even those with mild asthma. All school staff should be aware of the importance of daily asthma management and know how to assess and manage an asthma emergency. The Asthma Foundation has an Asthma First Aid poster which should be displayed in the staff room, and can also be displayed in the sick room or wherever asthma attacks are treated. Asthma first aid instructions should be written on a card in the Asthma Emergency Kit.

It is recommended that all school staff with a duty of care responsibility for the wellbeing of students are trained to be able to manage an asthma emergency appropriately. The Asthma Foundation of Victoria provides a free one-hour training session for school staff, for more information visit www.asthma.org.au

Schools should provide equipment for managing an asthma emergency in their First Aid kit. Asthma Emergency Kits should be located strategically around the campus including the use of mobile Asthma Emergency Kits for yard duty, excursions and camps (see 4.5.7.4.1).

If the students own blue reliever puffer is not readily available one should be obtained from the Asthma Emergency Kit or borrowed from another student or staff member and given without delay. It does not matter if a different brand of reliever medication is used. Blue reliever puffers are safe. An overdose cannot be given by following the instructions outlined. However, it is important to note that the student may experience harmless side effects such as shakiness, tremor or a ‘racing’ heart.
The Asthma Emergency kit must include:

- A blue reliever puffer (for example Airomir, Asmol, or Ventolin). Blue reliever puffers in the Asthma Emergency kit are for First Aid use only. Students should provide their own medication for their usual asthma management although the spacer device from the Asthma Emergency kit can be used with the student's own medication.

- A spacer device to assist with effective inhalation of the blue reliever medication, for example a Volumatic, Able Spacer or Breath-a-Tech. Consult a pharmacist about matching the spacer with the reliever puffer.

- Clear, written instructions on how to use these medications and devices, plus the steps to be taken in treating an acute asthma attack as described in Section 4.5.10.3.2 Asthma First Aid.

- 70% alcohol swabs e.g. Medi-Swab™ to clean devices after use (see Cleaning spacers and puffers in section 4.5.10.3.2).

Schools can legally purchase a blue reliever puffer for First Aid purposes from a pharmacist on written authority of the Principal.

A staff member needs to be given the responsibility of regularly checking the expiry date on the canister of the reliever puffer and the amount of medication left in the puffer.

Nebulisers are no longer in common use and schools are not required to provide a nebuliser for students. If a student is prescribed a nebuliser and wants to bring their own nebuliser to school, the school can contact the Asthma Foundation of Victoria for information on nebulisers.

A Bricanyl Turbuhaler may be used in First Aid treatment if a puffer and spacer is unavailable.

Assessment and first aid treatment of an asthma attack

<table>
<thead>
<tr>
<th>Type of Asthma Attack</th>
<th>Symptoms</th>
<th>First Aid Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild</td>
<td>Coughing, a soft wheeze, minor difficulty in breathing and no difficulty in speaking in sentences</td>
<td>Immediately follow the First Aid procedures on the student's Asthma Action Plan, or if no plan is in place follow the 4 Step Asthma First Aid Plan. Delay in treatment may increase the severity of the attack and ultimately risk the student's life.</td>
</tr>
<tr>
<td>Moderate</td>
<td>Persistent cough, loud wheeze, obvious difficulty in breathing and ability to speak only in short sentences</td>
<td></td>
</tr>
<tr>
<td>Severe</td>
<td>The student is often very distressed and anxious, gasping for breath, unable to speak more than a few words, pale and sweaty and may have blue lips</td>
<td>Call an ambulance (dial 000), notify the student's emergency contact and follow the 4 step Asthma First Aid Plan while waiting for the ambulance to arrive.</td>
</tr>
</tbody>
</table>
The 4 Step Asthma First Aid Plan

1. Sit the person upright, be calm and reassuring. Do not leave them alone.
2. Give 4 separate puffs of a blue reliever. The medication is best given one puff at a time via a spacer device. Ask the person to take 4 breaths from the spacer after each puff of medication. If a spacer is not available, use the blue reliever puffer on its own.
3. Wait 4 minutes.
4. If there is little or no improvement repeat steps 2 and 3. If there is still little or no improvement call an ambulance immediately (DIAL 000).

If a person has difficulty breathing and is not known to have asthma, call an ambulance immediately and follow the Asthma First Aid Plan. No harm is likely to result from giving a blue reliever puffer.
First Attack of Asthma

A problem that may be encountered is when a student is having difficulty breathing at school and is not known to have pre-existing asthma. In this situation administer 4 separate puffs of a blue reliever puffer via a spacer and call an ambulance immediately. Keep giving 4 separate puffs of a blue reliever puffer via a spacer every 4 minutes until the ambulance arrives.

This treatment could be life saving for a student whose asthma has not been previously recognised and it will not be harmful if the breathing difficulty was not due to asthma.

Blue reliever puffers are extremely safe even if the student does not have asthma.

Cleaning spacers and puffers

Devices for example puffers and spacers that are used by more than one person must be cleaned thoroughly after each use to prevent cross-infection. The Asthma Foundation’s Asthma at school for school staff notes the following:

Spacers should be washed after each use:

Wash in warm soapy water – do not rinse
Air dry – do not wipe dry
When dry, wipe the mouthpiece thoroughly with 70% alcohol wipes, e.g. Medi-Swab™
Puffers should be washed after each use
Remove the metal canister from the puffer (do not wash the canister)
Wash the plastic casing only
Rinse the mouthpiece through the top and bottom under running water for at least 30 seconds. Wash mouthpiece cover
Air dry and then re-assemble
Test the puffer to make sure that isn’t any water remaining in it.

If any of the devices are contaminated with blood, discard and replace. Ensure that they are stored in a dustproof container.

4.5.10.3.3 Further Information

The Asthma Foundation Victoria
Asthma, Chronic Illness Alliance
Asthma First Aid

1. Sit the person upright, be calm and reassuring. Do not leave them alone.

2. Give 4 separate puffs of a blue reliever*
   The medication is best given one puff at a time via a spacer device.
   Ask the person to take 4 breaths from the spacer after each puff of medication.
   If a spacer is not available, use the blue reliever puffer on its own.

3. Wait 4 minutes.

4. If there is little or no improvement repeat steps 2 and 3.
   If there is still no improvement call an ambulance immediately (DIAL 000).
   Continue to repeat steps 2 and 3 while waiting for the ambulance.

* A Bricanyl Turbuhaler may be used in first aid treatment if a puffer and spacer is unavailable.

If the person’s condition suddenly deteriorates or you are concerned at any time call an ambulance immediately (DIAL 000).

For further information:
1800 645 130 (office hours)
www.asthmaaustralia.org.au

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