

Emergency response for lifethreatening conditions in schools: Asthma

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Asthma guidelines

Introduction

There are times when students in school may need medication to help with their chronic health condition. Many students with asthma take a controller medication at home to help manage their chronic condition, but some will also need rescue medication to use during an asthma emergency. Students should have their own rescue medication (typically an albuterol inhaler) available at school to use when necessary. This requires a medication authorization form (which may be combined with an asthma action plan) signed by a parent and healthcare provider and submitted every year to the student's school.

The Utah State Legislature passed House Bill 344 during the 2019 general legislative session which allows schools to stock albuterol to use for students who:

- 1. Have a diagnosis of asthma by a healthcare professional.
- 2. Have a current asthma action plan on file with the school.
- 3. Are showing symptoms of an asthma emergency as described in their asthma action plan.

If a student meets all of the requirements listed above, and the school has chosen to carry stock albuterol, the student may be given the medication.

The intent is to have medication available for students whose own medication has run out, or for the student who accidentally left their medication at home. This statute is not meant to replace a student's own rescue medication. The choice made by the school to make stock albuterol available should "not be interpreted to relieve a student's parent or guardian of providing a student's medication or create an expectation that a school will have stock albuterol available" (UCA 26B-4-406).

These guidelines have been developed to instruct school staff on how to use stock albuterol since the goal is to help keep students in class and ready to learn.

What is asthma?

Asthma is a chronic disease of the lungs and airways that may make it difficult to breathe and can be life threatening. Asthma causes inflammation or swelling, production of excess mucus, and tightening of the muscles (bronchospasm) that surround the airway. Together the bronchospasm and inflammation make it harder to move air through the airways.

Asthma may cause respiratory distress that may include symptoms such as wheezing, shortness of breath, coughing, chest tightness, color change in skin or lips, retractions, or

Health-related forms

All students with a chronic health condition should have a healthcare plan on file if there is a chance the condition might result in a health crisis while at school. This can be an individualized healthcare plan or an emergency action plan. A healthcare plan is written by the school nurse on daily management of students with a chronic health condition. Additionally, if a student requires medication to be available at school, a medication authorization must be on file with the school and signed by a parent and provider every year.

A student with asthma may have the following forms:

- Individualized healthcare plan (IHP): The IHP is written by the school nurse with input from the family. The IHP outlines the plan of care necessary to keep the student safe at school (National Association of School Nurses [NASN], 2020). The student must have a confirmed medical diagnosis by a licensed healthcare provider before an IHP can be written (DOPL 2023).
- Emergency action plan (EAP): an EAP is a type of individualized healthcare plan that instructs school staff how to manage a specific student's medical emergency. The EAP is written by the school nurse with input from the family but is designed for staff without any medical training. The EAP is usually in an "if you see this do this" format.
 Medication authorization: This form must be submitted to the school if emergency medication may be required at school. It should be submitted to the school every year and must be signed by a parent and the student's healthcare provider. This can be a separate document or may be combined with the EAP (for example, an allergy and anaphylaxis IHP/EAP).
- Section 504 of the Rehabilitation Act of 1973 (Section 504 Plan): A written plan to direct the
 team on accommodations necessary for the student to have free and appropriate public
 education (regular education students). The Section 504 plan does not replace an
 individualized healthcare plan but should be used together with an individualized
 healthcare plan if the student requires certain accommodations for their chronic health
 condition.
- Individualized education plan (IEP): A written plan for students in special education who are
 protected by the Individuals with Disabilities Education Act (IDEA, 2004). Accommodations
 for students with health conditions who are served by special education can be outlined in
 an IEP but may also require a separate individualized healthcare plan or emergency action
 plan.

The Utah Department of Health and Human Services (DHHS) has created a combination form that includes the AAP/EAP and the medication form. This form can be found at heal.utah.gov.

Possible warning signs and symptoms

Early warning signs may progress to an asthma emergency. Not all students will experience all of these symptoms during an asthma emergency. Symptoms may include:

- Coughing
- Itchy throat or chin (tickle in the throat)
- Stomachache
- Feeling funny in the chest
- Dark circles under eyes
- Behavior changes

Late-stage asthma episode signs and symptoms may include:

- Becoming anxious or scared
- Shortness of breath
- Rapid labored breathing
- Persistent coughing
- Tightness in chest
- Wheezing while breathing in/out
- Unable to talk in full sentences
- Shoulders hunched over
- Sweaty, clammy skin
- Changes to skin color, and dark lips or fingernails
- Pallor
- Retractions

Student-specific information should be listed in the student's AAP/EAP or IHP.

Asthma medication

Asthma medications generally fall into two categories: quick relief medication and long-term control medications.

- Quick relief medications (bronchodilators) open the airways by relaxing the muscles around the bronchial tubes. Bronchodilators are taken when symptoms begin to occur or when they are likely to occur (prior to recess, physical education classes, or sports events). Albuterol is a bronchodilator.
- Long-term control medications generally are anti-inflammatory medications and taken daily on a long-term basis to gain and maintain control of persistent asthma, even in the absence of symptoms.

Student-specific albuterol

Students may possess or possess and self-administer asthma medication if an authorization form is signed every year by a parent and provider. If the student is not able to possess or self-administer their medication, the medication should be kept in an unlocked, but secure location. All student-specific medication (including inhalers) must have a signed medication authorization (or AAP/EAP) on file that is updated every year.

Stock albuterol

The Utah State Legislature passed House Bill 344 during the 2019 general legislative session which allows any public or private school to stock albuterol for use in students who:

- Have a known diagnosis of asthma by a healthcare provider.
- Have a current AAP/EAP on file with the school.
- Are showing symptoms of an asthma emergency as shown in that student's AAP/EAP.

Qualified adults

Only qualified adults can administer stock albuterol to students. To qualify, a person must:

- Be the school nurse, or
- Be 18 years of age or older, and
- Be a school employee, and
- Volunteer to administer the medication, and
- Have completed the training program from the school nurse (or other designated healthcare professional if there is no school nurse).

Stock albuterol training

The training program will be developed by the Utah Department of Health and Human Services (DHHS). It will include the following:

- An initial and refresher training program.
- Techniques for recognizing symptoms of an asthma emergency.
- Standards and procedures for the storage and emergency use of stock albuterol.
- Emergency follow-up procedures, and contacting, if possible, the student's parent.
- Written materials covering the information presented.

If the school has a school nurse, the nurse should be the one who makes sure the training has been completed, and that the volunteer is competent to provide the service as required by the Utah Nurse Practice Act/Rules for any medication being administered

in the school. If there is not a school nurse, the training may be done by a nationally recognized organization experienced in training laypersons in emergency health treatment. Additional authorized trainers include physicians, advanced practice registered nurses, physician assistants, respiratory therapists, pharmacists, paramedic, or certified asthma educators. Regardless of who administers the training, it must include the stock albuterol training program developed by the DHHS (https://usbe.instructure.com/enroll/H8KRLR).

Procedures to follow after stock albuterol administration

A student must be observed by a responsible adult after stock albuterol is administered until:

- The respiratory distress is resolved.
- The parent takes the student home.
- 911 arrives.

The student may return to class once the student's breathing has improved (breathing is smooth and easy, no coughing or wheezing).

The student should not return to class if 911 has been called. The student should go home with a parent for observation if 911 determines the student doesn't need to be transported to the hospital.

Prescription

The qualified entity may obtain a prescription for stock albuterol from the school medical director, the medical director of the local health department, the local emergency medical services director, or other person or entity authorized to prescribe or dispense prescription drugs.

Beginning August 1, 2024 a physician from DHHS will be able to write a prescription for stock albuterol for any school who is not able to obtain the prescription through any other source.

Obtaining stock albuterol and supplies

The recommended device is a metered-dose inhaler with either a plastic one-way valve or cardboard spacer. To prevent the spread of disease a disposable spacer or mask should be used whenever administering stock albuterol.

Each school may also obtain a prescription from their medical consultant for the inhaler

and then fill that prescription at the pharmacy of their choice (at their cost).

Sanitation of stock albuterol devices

Disposable products should be used to prevent the spread of disease. This may include disposable spacers (used with inhalers) or disposable supplies including tubing, mask, or mouthpieces (used with nebulizer). These should all be thrown away after the student is finished with them. Nebulizers shall be cleaned and sanitized properly to avoid spreading infection (American Lung Association (ALA), n.d.).

Storage of stock albuterol

The stock albuterol shall be stored in a secure and easily accessible, unlocked location known to the school nurse and all school staff designated to administer the albuterol in case of the nurse's absence (ALA).

Disposal

Expired or empty stock albuterol should be disposed of following manufacturer's instructions.

Documentation

The school's written policy should include documentation of medication given at school and the practice for administering medications. Each dose of medication administered or witnessed by school staff should be documented on a medication log on paper or electronically. This log becomes a permanent health record for parents and health care providers and provides legal protection to those who assist with medications at school. It also helps make sure students receive medications as prescribed, and can help reduce medication errors (DHHS, 2024).

The medication log should contain the following information:

- Student name
- Prescribed medication and dosage
- Schedule for medication administration
- Name(s) and signature(s)/initial(s) or electronic identification of individual(s) authorized and trained to supervise administration of medications
- Whether the medication administered was the student's own albuterol or stock albuterol.

Reporting

Schools should report aggregate asthma rescue medication data every year to the Utah Department of Health and Human Services (DHHS). This should be done in the School Health Workload Report submitted to the DHHS at the end of the school year. Aggregate data to be submitted may include but is not limited to:

- The number of staff trained to administer the stock albuterol.
- The number of times the stock albuterol was administered by school staff (non-nurse) and school nurse.
- The number of nurses who are familiar with the stock albuterol law.
- The disposition of students who received the stock albuterol (returned to class, went home, 911 called).

Medication errors

A medication incident or error report form should be used to report medication errors and must be filled out every time a medication error occurs.

Routine errors include the following:

- Wrong student
- Wrong medication
- Wrong dosage
- Wrong time
- Wrong route

All medication incident or error reports should be shared between the school nurse, the parent or guardian, and other appropriate school and health care personnel according to school policy. The school should retain all medication error forms.

The Utah Poison Control Center may need to be consulted for medication errors. Call 800-222-1222 for help 24 hours a day, 7 days a week.

Definitions

Albuterol: a bronchodilator used to open the airways by relaxing the muscles around the bronchial tubes.

Asthma emergency: an episode of respiratory distress that may include symptoms such as wheezing, shortness of breath, coughing, chest tightness, or breathing difficulty.

Healthcare provider: a medical/health practitioner who has a current license in the state of Utah with a scope of practice that includes prescribing medication. These include a physician, an advanced practice registered nurse, or a physician assistant.

Inhaler: a device for the delivery of prescribed asthma medication which is inhaled. This includes metered dose inhalers (MDI), dry powder inhalers, soft mist inhalers, and nebulizers.

Local education agency (LEA): the school district, charter or private school.

Medication: prescribed drugs and medical devices controlled by the U.S. Food and Drug Administration and ordered by a healthcare provider. It includes over-the-counter medications prescribed through a standing order by the school physician or prescribed by the student's healthcare provider.

Medication authorization Form: a form required before medication can be stored, administered, or carried by a student. This form must be submitted to the school every year, and must be signed by a parent and healthcare provider. This form can be the form designed by DHHS, or a form created by the LEA.

Medication error: occurs when a medication is not administered as prescribed. This includes when the medication prescribed is not given to the correct student, at the correct time, in the dosage prescribed, by the correct route, or when the wrong medication is administered.

Medication log: a form that provides required documentation when any medication is administered to a student. This form can be the form designed by DHHS, or a form created by the LEA.

Nebulizer: a compressor device used for the delivery of an inhaled mist containing medication to help relieve respiratory distress.

Parent: a natural or adoptive parent, a guardian, or person acting as a parent of a child with legal responsibility for the child's welfare.

School nurse: a registered professional nurse with a current nursing license who practices in a school setting.

Self-administration: when the student administers medication independently to themselves.

Spacer: a mouthpiece that attaches to the inhaler allowing for improved medication delivery by slowing the speed of the medication propelled from the inhaler allowing the medication particles to reach deeper into the lungs.

Stock albuterol: a bronchodilator medication in the form of a metered-dose inhaler or albuterol solution for a nebulizer that is ordered by a healthcare provider. Stock albuterol should be stored in the school to be used by a qualified adult for a student who has a current AAP, EAP, or IHP and does not have their personal albuterol available or easily accessible to use during an asthma attack.

References

American Lung Association, (n.d.). Model policy on stock bronchodilators. Retrieved from https://www.lung.org/getmedia/92bd8d3f-c5ca-46c0-9063-9d5719ec690b/model-policy- for-school.pdf.pdf.

Individuals with Disabilities Education Act. (2004). 20 U.S.C. 1400 § 602 (26) [Definitions]. Code Federal Regulations (CFR), part 300.

Section 504 of Rehabilitation Act of 1973 (P.L. 102-569. 199229 U.S.C.A – 794;34 C.F.R., Part 104). U.S. Department of Labor.

Utah Department of Health. (2024). Guidelines for medication administration in schools.

Retrieved from http://choosehealth.utah.gov/prek-12/school-nurses/laws-and-policies/medication.php.

Model policy: Stock albuterol in schools

The [insert name of LEA] Board of Education recognizes asthma is a chronic, life-threatening condition. Students with a diagnosis of asthma who are prescribed albuterol are strongly encouraged to self-carry and self-administer their medication, if appropriate. Students who are unable to self-carry and self-administer their medication should bring their inhaler to school and follow the asthma action plan written by the school nurse, student's parent/guardian, and healthcare provider.

Under this policy, the school board may allow the school to provide stock albuterol to students with asthma in the event the student is experiencing an asthma emergency and does not have access to their own inhaler.

Conditions for administering stock albuterol

Students diagnosed with asthma whose personal albuterol is empty or temporarily unavailable may receive an emergency dose of schoolstocked albuterol under the following conditions:

- 1. Have a diagnosis of asthma, and
- 2. Have a current asthma action plan (IHP/EAP) signed by a healthcare provider and parent on file with the school, and
- 3. Are experiencing symptoms of an asthma emergency as described in the student's asthma action plan

For students experiencing respiratory distress without a diagnosis of asthma or without a current asthma action plan on file with the school, school personnel should call 911 immediately.

The LEA and its employees and agents, including authorized licensed prescriber providing the standing prescription of stock albuterol are to incur no liability, with the exception of gross negligence, as a result of injury arising from the administration of stock albuterol.

This policy should not be interpreted to relieve a student's parent or guardian of providing a student's medication or create an expectation that a school will have stock albuterol available.

Administering and storing stock albuterol

To administer and store the stock albuterol the following procedures shall be followed:

Only the school nurse and designated personnel who have completed appropriate training shall administer the stock albuterol.

Each school may find volunteer school employees to administer the stock albuterol when the nurse is not available.

All who administer stock albuterol, including the nurse and other designated personnel, are required to complete the appropriate training.

The stock albuterol shall be stored in an unlocked, but secure and easily accessible location known to the school nurse and all school staff designated to administer the stock albuterol in case of the nurse's absence.

To minimize the spread of disease:

- Inhalers shall be used with disposable spacers or disposable mouth-pieces.
- Disposable tubing with mask or mouthpieces may be used with nebulizers and discarded after the student is finished with it.
- Nebulizers shall be cleaned and sanitized properly to avoid spreading infection.

Each school shall document each time the stock albuterol is used, by which student, and make a note of parent or guardian notification.

Obtaining stock albuterol

The stock albuterol and appropriate medical devices needed for proper medication delivery shall be prescribed by the school's medical director.

A provider may prescribe stock albuterol in the name of (insert school district or school) to be maintained for use when deemed necessary based on the provisions of this section.

All stock albuterol, devices, and device components needed to appropriately administer the medication must be obtained from a licensed pharmacy, manufacturer, or national asthma organization. No stock albuterol, devices, or device components can be accepted from private individuals.

All expired medication shall be discarded in accordance with proper procedure.

Effective date

This policy shall take effect in full on [insert date].

Reference

American Lung Association, (n.d.). Model policy on stock bronchodilators. Retrieved from https://www.lung.org/getmedia/92bd8d3f-c5ca-46c0-9063-9d5719ec690b/model-policy-for- school.pdf.pdf