Kentucky Department for Public Health

Clinical Protocol for Bronchodilator Rescue Inhaler and Nebulizer Use in the School Setting

Our mission is to improve the health and safety of people in Kentucky through prevention, promotion and protection.

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CABINET FOR HEALTH AND FAMILY SERVICES

Kentucky Public Health

Prevent. Promote. Protect.

Revised: 2026

Kentucky regulations state that the Kentucky Department for Public Health (KDPH) shall develop clinical protocols in the school health section of the Clinical Service Guide maintained in the local health department to address bronchodilator rescue inhalers and/or a nebulizer kept by the schools and to advise on the clinical administration of the bronchodilator rescue inhalers and nebulizers. The protocols shall be developed in collaboration with local health departments, local clinical providers, local schools and local school districts.

Each school electing to keep bronchodilator rescue inhalers or a nebulizer shall implement policies and procedures for managing a student's life-threatening asthma, developed and approved by the local school board.

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Public Health Authority for School Health

KDPH serves as Kentucky's statewide public health authority for school health, providing expertise, standards and clinical guidance to help schools deliver safe, consistent and medically sound services to students. Its work spans several core areas.

Public health leadership in school health

KDPH develops and shares evidence-based health guidance that supports schools in managing everyday student health needs and responding to emergencies. This includes shaping clinical expectations for managing chronic conditions, addressing communicable disease concerns and promoting preventive health practices that reduce risks for students and staff.

Partnership with the education system

KDPH works closely with the Kentucky Department of Education to align school health practices with public health principles. This collaboration ensures that school districts have access to medically accurate standards, training expectations and resources that support safe delivery of health services by nurses and trained school personnel.

Emergency preparedness and response

KDPH provides the clinical direction schools rely on during health emergencies, including anaphylaxis, asthma attacks, severe hypoglycemia and suspected opioid overdoses. By offering medically grounded protocols and training support, the department helps ensure that school staff can respond quickly and appropriately while maintaining student safety.

Support for healthier school environments

KDPH contributes to statewide efforts to promote healthier school environments, including initiatives in disease prevention, environmental health and student wellness. Its guidance helps schools adopt practices that support attendance, learning and overall well-being.

Statewide consistency and public-health alignment

Through its expertise, KDPH helps create uniform expectations for school health across Kentucky, reducing variation among districts and ensuring that student health services reflect current public health knowledge. While schools and the education system manage day-to-day operations, KDPH provides the medical foundation that underpins safe and effective school-health practice.

Purpose

This protocol establishes standardized procedures for the emergency administration of bronchodilator rescue inhaler (BRI) and nebulizers by trained school personnel in the school setting. It also provides guidance on recognizing and responding to a student believed to be experiencing respiratory distress and on safely administering or assisting in administering these medications to any student believed in good faith to be experiencing asthma-like symptoms or respiratory distress, regardless of diagnosis. The goal is to reduce morbidity and mortality by making sure schools have access to this potentially lifesaving emergency treatment, enabling trained school personnel to respond rapidly and safely during a medical emergency.

This protocol was developed in collaboration with the Kentucky Department of Education (KDE), local health departments, local clinical providers and local schools and school districts to provide guidance on the clinical administration of BRI and nebulizers kept at schools and to address their use in the school setting and is available for download on our website.

Scope

This protocol applies to:

- All schools that maintain a BRI or a nebulizer.
- Trained school personnel are authorized to administer a BRI or a nebulizer under a district standing order.
- Any individual on school property or at a school-sponsored event who is reasonably believed to be experiencing respiratory distress, regardless of known asthma diagnosis or possession of a personal inhaler.

Definitions

- Standing Order: Written authorization from a licensed healthcare practitioner permitting trained personnel to administer a bronchodilator rescue inhaler or a nebulizer.
- Bronchodilator Rescue Inhaler (BRI): A quick-relief medication (e.g., albuterol) used to relax airway muscles and relieve acute bronchospasm.
- Nebulizer: a drug-delivery device that turns liquid medication into a fine mist so it can be inhaled directly into the lungs.
- Spacer/Valved Holding Chamber: A device used with a metered-dose inhaler to improve medication delivery.
- Respiratory Distress: Difficulty breathing characterized by symptoms such as wheezing, coughing, shortness of breath, or chest tightness.
- Trained School Personnel: Employees who have completed district-approved training and are authorized to administer medication under KRS 156.502.

Legal Authority

This protocol is developed in accordance with state laws that permit schools to maintain and administer emergency medication under a standing order from a licensed healthcare provider and states that the KDPH shall develop clinical protocols to address the supply of emergency medication, including BRI or a nebulizer kept by schools. These laws provide civil and criminal immunity for good-faith administration during emergency administration.

KRS 160.290 General powers and duties of the board, in summary, gives each local board of education broad authority to manage and oversee all public schools within its district. This includes the power to:

- Establish schools, courses and services that support education, student health and student welfare, if they align with Kentucky Board of Education regulations.

About Local Board Policies

- District policies created under this authority:
- Explain how the district will carry out state laws and regulations.
- Provide guidance, protocols and procedures for staff and schools.
- Help protect students, employees and the district by ensuring consistent practices.
- May be developed with support from the Kentucky School Boards Association (KSBA), which offers a policy-writing service to districts.

Each school electing to keep undesignated BRI or a nebulizer shall implement policies and procedures for managing a student's life-threatening asthma episode, or respiratory distress, developed and approved by the local school board.

KRS 156.502 Health services in the school setting, in summary, states that school employees may perform certain health services only when properly trained, formally delegated and documented in writing by a qualified health professional.

KRS 158.836 Possession and use of asthma or anaphylaxis medications -- Students with documented life-threatening allergies -- Schools electing to keep epinephrine on premises-Limitation of Liability allows students who have asthma or are at risk for anaphylaxis to carry and use their prescribed medications—such as inhalers or epinephrine—while at school, during school-sponsored activities, under school staff supervision and on school property before or after school, including programs like childcare or after-school activities. The law ensures these students can access lifesaving treatment when needed.

KRS 311.646 Prescription injectable epinephrine auto-injectors and bronchodilator rescue inhalers allows trained individuals and authorized entities (such as schools, businesses, or organizations) to obtain, store and use prescription epinephrine auto-injectors and

bronchodilator rescue inhalers for emergency treatment of severe allergic reactions, asthma symptoms, or respiratory distress.

KRS 311.647 Immunity from civil liability for rendering emergency care or treatment provides civil immunity to people or organizations that in good faith administer emergency treatment using an epinephrine auto-injector or a bronchodilator rescue inhaler.

Delegation

- KRS 314.021 Policy states that "all individuals licensed or privileged under provisions of this chapter and administrative regulations of the board shall be responsible and accountable for making decisions that are based upon the individuals' educational preparation and experience and shall practice with reasonable skill and safety."
- Nurses who make delegatory decisions regarding the performance of acts/tasks by others are governed by 201 KAR 20:400 Delegation of nursing tasks.
- Kentucky Board of Nursing RN Supervision and Delegation - KBN.
    - AOS #15 Supervision and Delegation.
    - AOS #30 School Nursing Practice.

KDPH recommends that school staff be familiar with the laws governing medication administration in schools.

Training Requirements

School staff must complete the approved Medication Administration Training Program prior to administering medication to students as required per KRS 156.502. The training must be provided annually, documented and retained for one 1 year.

Staff should review manufacturer instructions for the BRI and nebulizer as source material and, to the extent possible, utilize manufacturer instructions for training, including available visuals and videos, with clarifications specific to the situation.

All school personnel authorized to administer epinephrine, including those in extracurricular programs, should receive annual training that provides:

- Basic understanding of respiratory distress.
- How to recognize symptoms and how to distinguish respiratory distress from anaphylaxis.
- How to respond to an emergency involving respiratory distress.
- Understanding BRI and nebulizer's purpose and limitations.
- Safe administration techniques.
- Emergency response procedures, including calling 911.

- Identification of the appropriate staff person(s) to contact immediately in case of an emergency.
- Post event monitoring and documentation.
- A test demonstrating competency of the knowledge required to recognize respiratory distress and administer asthma medication.

Procedure

Required Supplies

- Stock BRI or liquid medication.
- Nebulizer machine (compressor that creates airflow).
    - A medication cup for liquid medicine
    - Tubing connecting the compressor to the cup
    - A mouthpiece or mask for inhalation
- Disposable spacers/valved holding chambers.
- Personal protective equipment — gloves, face shields and other barrier devices to support safe response.
- Emergency response materials — items such as a CPR mask (if available), disposable wipes and a small trash bag for contaminated materials.
- Incident documentation forms — district-approved forms for recording stock emergency medication administration and emergency response details.
- Copies of the standing order and this protocol — kept with the emergency medication kit or in an immediately accessible location.
- Optional supportive supplies — such as a pocket pulse oximeter or rescue breathing mask, if the district chooses to include them.

Storage, Security and Maintenance

- Store BRIs or nebulizers in a secure, accessible, but unlocked location for rapid emergency access.
- Maintain temperature-appropriate storage.
- Store the emergency medication in a secure but readily accessible location for emergency use.
- Ensure medications are not expired and have functioning dose counters.
    - Conduct monthly checks for:
        - Expiration dates
        - Package integrity
- Replace emergency medication immediately if used, expired, or damaged.
- School staff should be familiar with the type of medication maintained by their school and its use.

School staff should refer to the package insert for the specific stock emergency medication used in their facility and store it according to the individual manufacturer's directions.

Indications for Use

Students without a diagnosis of asthma or students diagnosed with asthma whose bronchodilator is unavailable who are experiencing respiratory distress shall be able to receive an emergency dose from a BRI or a nebulizer under the following conditions:

- The student is experiencing asthma symptoms, an asthma episode (e.g., asthma attack) or respiratory distress without a diagnosis of asthma.
- The trained individual in good faith believes a person is experiencing asthma symptoms or respiratory distress, regardless of whether the person has a prescription for a BRI or a nebulizer or has previously been diagnosed with asthma.

Signs that Asthma is starting to be an issue, you may notice before respiratory distress:

- Fatigue.
- Some coughing while exercising.
- Feeling flushed.
- Feeling lightheaded.
- Feeling anxious.

What are the signs of respiratory distress?

- Uncontrollable coughing, noisy breathing.
- Wheezing: a high-pitched, whistling sound while breathing out.
- Rapid breathing.
- Flaring (widening) of nostrils.
- Feeling tightness in the chest.
- Not able to speak in full sentences.
- Increased use of stomach and chest muscles during breathing.
- Blueness around the lips or fingernails.

*It is important to note that not all signs and symptoms may be present.

Contraindications

There are no absolute contraindications in an emergency when respiratory distress is present. Note: If the student has their own prescribed inhaler or a nebulizer, use that first when available.

Some common reasons to avoid or pause giving an inhaler dose might include:

- Known allergy to the medication.
- Severe breathing distress where the person cannot inhale effectively.
- Symptoms suggesting a heart-related problem (such as chest pain).
- Uncertainty about whether the inhaler is the correct medication for the situation.

- Recent excessive use of the same inhaler.
- Inability to use the device correctly due to confusion or poor coordination.
- If the student is unconscious.
- Damaged, empty, expired, or malfunctioning inhaler or nebulizer machine.
- Medication-specific restrictions (for example, long-acting inhalers not meant for sudden symptoms).

If any of these apply, a healthcare professional should guide the next steps because breathing issues can worsen quickly.

Administration

Students with a documented diagnosis of asthma

- In the event a student does have a documented asthma diagnosis or prescribed inhaler on file and exhibits signs of respiratory distress, school personnel may administer or assist with the administration of the bronchodilator medication in accordance with state law and district policy.
    - Use should follow the student's individualized asthma action plan and district medication policies.
- Students who have a current asthma action plan and written authorization signed by a parent/guardian and healthcare provider may carry their bronchodilator medication and self-administer.

Students experiencing respiratory distress without a prior diagnosis of asthma

- In the event a student exhibits signs of respiratory distress and does not have a documented asthma diagnosis or prescribed inhaler on file, school personnel may administer a BRI in accordance with state law and district policy.
    - Administration should be limited to emergency situations in which the student is demonstrating significant breathing difficulty and EMS should be activated per emergency response procedures. For students without specific orders on file, use the school policies and procedures to administer BRI or a nebulizer provided by the medical director.

To administer and store the bronchodilator rescue medication, the following procedures shall be followed:

- Only school nurses and designated personnel who have completed appropriate training, as designated in protocol, shall administer the BRI or nebulizer.
- Each school should appoint other personnel to administer the BRI or nebulizer when the nurse is not available.
- All who will be administering the BRI or nebulizer are required to complete the appropriate training.

- To minimize the spread of disease, the BRI should be used with a disposable spacer (plastic or cardboard models), one per student and discarded at the end of the school year.
- Each school should implement a reporting system to notify the parent/guardian and if applicable, the student's healthcare provider when the BRI has been used by a student.

Act Fast!! Always go with a distressed individual. Never send the individual to the health room/school nurse alone or leave them alone. Do not move an individual who is in severe distress.

1. **Quickly assess the situation.**
2. **Call 911** or your local emergency services right away if the student is struggling to breathe, talk, or stay awake, has blue lips or fingernails, or asks for an ambulance.
3. **Get help** but never leave the student alone. Have an adult accompany the student to the health room or send for help from the school nurse or designee. Do not wait.
4. **Stop activity.** Help the student stay calm and comfortable.
5. If the asthma attack began after exposure to an allergen or irritant (such as furry animals, fresh cut grass, strong odors, or pollen) remove the student from the allergen or irritant, if possible.
6. **Treat symptoms.** Help the student locate and use his or her BRI with a spacer or holding chamber (if available) or use the stock bronchodilator rescue medication.
7. Many students carry their medicine and can self-manage asthma attacks. They should follow their health care provider's instructions. For students without specific orders on file, school policies and procedures can be used to administer the BRI or a nebulizer provided by the medical director.
8. **Call the parent or guardian.**
9. **Repeat use of the bronchodilator rescue medication per health care provider order/policy or if—**
    - Symptoms continue or return.
    - The student still has trouble breathing.

Monitoring

- Stay with the individual until EMS arrives.
- If breathing improves, place the person in the recovery position.
- Be aware that symptoms may return as the stock emergency medication wears off.

Bronchodilator via inhaler (with a spacer or valved-holding chamber)

1. Gather needed supplies and place them on a clean surface.
2. Position the student to provide as much privacy as possible.
3. Explain the procedure to the student at their level of understanding.
4. Encourage the student to assist in the procedure as much as they are able, to help the student learn self-care skills.

5. Wash hands.
6. If the student is administering medication, have the student wash their hands.
7. Check the medication expiration date.
8. Shake the inhaler for 5 seconds to mix the medicine.
9. Remove the cap from the mouthpiece.
10. Prime the inhaler if indicated (if the inhaler is new or has not been used in the past 7 days or if it has been dropped) to ensure the dose administered will contain the labeled amount of medication.
11. Place the inhaler mouthpiece onto the end of the spacer.
12. Remove the cap from the spacer.
13. Hold the inhaler between your index finger and thumb.
    a. Have the student stand up (if applicable) and take a deep breath in and out.
    b. Have the student tip their head back slightly towards the ceiling.
    c. Have the student put the end of the spacer into their mouth, between their teeth and above their tongue.
    d. Have the student close their lips around the spacer.
14. Press down on the top of the inhaler once.
    a. Instruct the student to breathe in very slowly until they have taken a full breath.
        i. If you hear a whistle sound, instruct the student to breathe slower—the breath in should take at least 3-5 seconds.
    b. Instruct the student to remove the spacer from their mouth.
    c. Instruct the student to hold their breath for 10 seconds.
    d. Instruct the student to breathe out slowly through their mouth.
15. Wait 1 minute before having the student take a second puff, if ordered.
16. Repeat previous steps if taking a second puff.
17. Wash hands.
18. Document medication administration in the student's medication administration log.
19. Follow up, as needed, with parents/guardians and healthcare provider.

Cleaning the Spacer:

1. It is recommended to clean the spacer every 1 to 2 weeks, or more often if needed.
2. Remove the mouthpiece and the rubber piece that holds the inhaler.
3. Soak the mouthpiece, rubber piece and plastic chamber in warm water and a small amount of dish soap.
4. Rinse with clean water.
5. Shake off excess water and dry on a clean surface in a vertical position, with the mouthpiece side up.
6. Do not dry with a cloth or paper towel.
7. Once dry, store it in a clean container or bag.

Cleaning the Inhaler:

1. Remove the canister from the actuator.

2. Run warm water through the top and bottom of the plastic actuator (do not boil or place the actuator in the dishwasher).
3. Shake off the excess water.
4. Allow the actuator to air dry on a clean surface prior to putting the canister back in.

Bronchodilator via inhaler (without a spacer or valved holding chamber)

1. Gather needed supplies and place them on a clean surface.
2. Position the student to provide as much privacy as possible.
3. Explain the procedure to the student at their level of understanding.
4. Encourage the student to assist in the procedure as much as they are able, to help the student learn self-care skills.
5. Wash hands.
6. If the student is administering medication, have the student wash their hands.
7. Check the medication expiration date.
8. Shake the inhaler for 5 seconds to mix the medicine.
9. Remove the cap from the mouthpiece.
10. Prime the inhaler if indicated (if the inhaler is new or has not been used in the past 7 days or if it has been dropped) ensures the next dose will contain the labeled amount of medication.
11. Hold the inhaler between your index finger and thumb.
    a. Have the student stand up and take a deep breath in and breathe out.
    b. Have the student tip their head back slightly toward the ceiling.
    c. Have the student put the inhaler in their mouth, between teeth and above tongue.
    d. Have the student close their lips around the inhaler.
12. Press down on the top of the inhaler once as the student breathes in very slowly until they have taken a full breath.
13. Instruct the student to remove the inhaler from their mouth.
14. Instruct the student to hold their breath for 10 seconds.
15. Instruct the student to breathe out slowly through their mouth.
16. Wait 1 minute before having the student take a second puff, if ordered.
17. Repeat previous steps if taking a second puff.
18. Wash hands.
19. Document medication administration in the student's medication administration log.
20. Follow up, as needed, with parents/guardians and healthcare provider.

Cleaning the Actuator:

1. Remove the canister from the actuator.
2. Run warm water through the top and bottom of the plastic actuator (do not boil or place the actuator in the dishwasher).
3. Shake off the excess water.

4. Allow the actuator to air dry on a clean surface prior to putting the canister back in.

Bronchodilator via nebulizer

1. Position the student.
2. Use a room separate from where other students are receiving care (if possible) or one that has limited use by others.
3. Explain the procedure to the student at their level of understanding.
4. Encourage the student to assist in the procedure as much as they are able, to help the student learn self-care skills.
5. If the student will be assisting, have the student wash their hands.
6. Check the medication expiration date.
7. Wash hands.
8. Set up and plug in the nebulizer machine in a location where the power source is close to a comfortable location for the medication to be administered.
9. Follow the directions for the specific brand of nebulizer machine and cup.
10. Unscrew the top of the nebulizer cup.
11. Add medication into the bottom half of the nebulizer cup.
12. Screw the top of the cup back on.
13. Attach the tubing from the cup to the nebulizer machine.
14. Attach the cup to the facemask or mouthpiece.
15. Place either the facemask on the student or the mouthpiece in his or her mouth.
16. Turn on the machine.
    a. A mist of medication should rapidly appear.
17. Instruct the student to take relatively normal, slow, deep breaths.
18. Keep the nebulizer cup in an upright position.
    - The cup may require some tapping on the sides toward the end of the treatment to optimize the completion of the dose.
19. The treatment is complete when there is no more medication in the cup (usually 10–15 minutes).
20. Turn off the machine.
21. Remove the mask or mouthpiece.
22. Rinse nebulizer cup, mouthpiece or mask under warm water.
23. Shake off excess water.
24. Place on a paper towel to dry.
25. Monitor the student's heart rate and respiratory rate.
26. Wash hands.
27. Have the student wash their hands.
28. Document medication administration in the student's healthcare record.
29. Update parents/guardian and healthcare provider, if needed.

Cleaning the Spacer:

1. Take the nebulizer apart.

2. Set tubing aside.
3. Do not soak, wash or rinse tubing.
4. Replace it if it becomes cloudy, discolored or wet inside.
5. Wash the medicine cup and mask with warm, soapy water.
6. Rinse the medicine cup and mask in warm water.
7. Let all the pieces of equipment air dry on a paper towel.
8. When dry, put pieces in a plastic bag or container.

Disinfect Weekly:

1. Soak the medicine cup and mask in half-strength vinegar for 30-60 minutes.
2. Rinse with water.
3. Let all pieces of the equipment air dry on a paper towel.
4. When dry, put pieces in a plastic bag or container.

Care of the Machine:

1. Wipe with a damp cloth.
2. Check the filter monthly.
3. Change it every 6 months or sooner if discolored.
4. The machine should be serviced every 5 years.

Post-Event

- Notify school administration and the school nurse.
- Notify parent/guardian if the individual is a student.
- Replace used stock emergency medication promptly.
- Complete required documentation within 24 hours.

Documentation Requirements

Documentation must include:

- Date, time and location of the incident.
- Observed symptoms and circumstances.
- Emergency medication administration details.
- Response to emergency medication.
- EMS involvement.
- Names of staff involved.
- Parent/guardian notification (if applicable).
- Name, date, time and route the medication was administered.
  - Give this information was given to EMS so that the information would accompany the individual to the hospital's emergency department.
  - All documentation must be submitted to the school nurse or designated administrator.
  - Complete the school incident report.
  - Replace stock emergency medication as soon as possible.

Quality Assurance

The district will:

- Review all BRI and nebulizer administration reports annually.
- Maintain inventory and expiration logs.
- Monitor staff training compliance.
- Update this protocol annually in collaboration with the prescribing healthcare provider.

Integration with Individual Health Plans (IHPs)

- Clarify that students with known asthma should have an IHP and personal bronchodilator medication.
- Stock BRI or nebulizer may be used for:
    - Emergencies when a student's medication is unavailable, or
    - Students without a known diagnosis.

Resources

Training and Program Implementation

For School Nurses

5 Things to Know about Anaphylaxis Management in the School Setting-Allergy and Asthma Network (YouTube video 1.00)

Program Training

- Asthma Medication in Schools | American Lung Association (ALA)
- Stock Asthma Medication: Implementation Guidance for Schools (ALA)
- Responding to Asthma Emergencies in Schools

Schools Guidance Documents

- Funding and Sustaining an Emergency Stock Asthma Medication Program
- Obtaining Standing Orders, Quick-Relief Inhalers and Valved-Holding Chambers for Emergency Stock Asthma Medication Programs
- Model-Policy-on-Stock-Bronchodilators_revDEC23.pdf

Program Implementation

- Training School Personnel to Implement Emergency Stock Asthma Medication
- Purchase of Albuterol Sulfate Inhaler, 90mcg, 200 Metered Dose | School Health
- Implementation Guidance for Quick-Relief Stock Asthma Medication

Understanding and How to

- Understanding Asthma: https://youtu.be/Zg4OwPdbvFE?si=Cd7IxgN0zzCadMLR
- Asthma Basics https://youtu.be/batzSytA1Y0?si=_DCLpemDjWn3XKQt
- How to Use Asthma Inhalers and Medication Devices | American Lung Association
    - Inhaler
        - How to Use a Metered-Dose Inhaler with a Valved Holding Chamber (Spacer) and Mask | American Lung Association
        - How to Use a Metered-Dose Inhaler with a Valved Holding Chamber (Spacer) | American Lung Association
    - Nebulizer
        - ABCs of Using a Nebulizer
        - How to Use a Nebulizer | American Lung Association
        - How to Properly Clean a Nebulizer

Toolkits

American Lung Association

The American Lung Association's Stock Asthma Medication: Implementation Guidance for Schools Toolkit includes templates and forms that you can modify for use while implementing an emergency stock asthma medication program at your school.

In this toolkit, you will:

- Get access to an Implementation Checklist
- School Staff Tracking Form

- Standing Medical Order
- Prescription templates
- Usage Event Log

Learn more about how to use the tools in this toolkit by taking the course, Stock Asthma Medication: Implementation guidance for schools.

American Academy of Allergy Asthma Immunology
In 2023, the American Academy of Allergy Asthma Immunology, in partnership with the American Academy of Pediatrics, released the Stock Inhaler Toolkit for Schools. The American Lung Association reviewed this document and is pleased to make this available to you.
In this toolkit, you will:

- Understand why stock inhalers are important for your campus - for those with and without diagnosed asthma.
- Learn about stock inhaler laws in your state and develop a compliant school program.
- Streamline the process of finding the right devices and finding evidence-based training materials for staff.
- Save both time and money by utilizing our example documents and guidelines.

National Association of School Nurses
NASN's School Nursing Evidence-Based Clinical Practice Guideline: Students with Asthma documents provide evidence-based recommendations to assist the school nurse in their role of improving the health and safety of the school-age child with asthma. The Clinical Practice Guideline Implementation Toolkit: Students with Asthma is designed to help school nurses implement those recommendations.

In this toolkit, you will get access to:

- Asthma Training for All School Staff
- An algorithm for Medical management of Asthma, Wheezing, Breathing Difficulties
- Use of Stock Medication Reporting Form
- Model Policies

Other Resources

American Academy of Allergy Asthma & Immunology (AAAAI)

- School stock inhaler program
- Asthma Symptoms, Diagnosis, Management & Treatment

Asthma and Allergy Foundation of America

- Albuterol in Schools for Students with Asthma

Allergy & Asthma Network

- Resources for Healthcare Professionals

American Lung Association:

- Why Schools Should Stock Asthma Inhalers
- Valved Holding Chambers and Spacers | American Lung Association
- What Is Asthma? | American Lung Association
- Asthma Symptoms | American Lung Association
- Reduce Asthma Triggers | American Lung Association
- Asthma-Friendly Schools Initiative Resources and Tools | American Lung Association

American Academy of Pediatrics

- Asthma

Centers for Disease Control and Prevention (CDC)

- Asthma | CDC
- CDC - Asthma - School and Childcare Providers
- CDC - Asthma - Using an Asthma Inhaler Videos

Kentucky Department of Education (KDE)

- Health Services Reference Guide - Kentucky Department of Education
- Medication Administration Training Program - Kentucky Department of Education

National Association for School Nurses (NASN) ASTHMA Resources

- Asthma - National Association of School Nurses (nasn.org)
- Clinical Practice Guideline Implementation Toolkit: Students with Asthma
- Improving Care Coordination for Students with Chronic Health Conditions Toolkit
- School Nursing Evidence-Based Clinical Practice Guideline: Medication Administration in Schools Implementation Toolkit

National Institutes of Health (NIH) 2020 Focused Updates to the Asthma Management Guidelines

- Ensuring Access to Albuterol in Schools: From Policy to Implementation. An Official ATS/AANMA/ALA/NASN Policy Statement - PMC (nih.gov)
- 2020 Focused Updates to the Asthma Management Guidelines: A Report from the National Asthma Education and Prevention Program Coordinating Committee Expert Panel Working Group | NHLBI, NIH
- Managing Asthma: A Guide for Schools (nih.gov)

U.S. Department of Health and Human Services National Institutes of Health

- Managing Asthma: A Guide for Schools (nih.gov)

U.S. Environmental Protection Agency (EPA)

- Managing Asthma in the School Environment | US EPA

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Infographics for printing

Response to Respiratory Distress
Response to Respiratory Distress – short version
Recognizing the Signs

RESPONSE TO RESPIRATORY DISTRESS

Mild to Moderate Respiratory Distress Symptoms

If student exhibits any of the following mild to moderate signs:

- wheezing,
- coughing,
- shortness of breath,
- chest tightness,
- difficulty breathing

- Student report of "needing my inhaler"
- Notify school nurse of student's condition regardless of severity of symptoms and report findings (if non-nurse is assisting student).

Give/assist with giving bronchodilator inhaler

Severe Respiratory Distress

If student has one or more of the following severe asthma episode symptoms:

- Very fast or hard breathing
- Nasal flaring
- Skin retracting/sucking over child's neck, stomach, or ribs with breaths
- Breathing so hard they cannot walk or speak
- Lips or fingernail beds turn blue

Do the following in this order:

- **CALL 911 IMMEDIATELY**
- **CALL SCHOOL NURSE (RN) IF NOT ALREADY PRESENT**
- **CALL PARENT/GUARDIAN**

Administer the Bronchodilator Medication

Give/assist with giving:

<u>Prescribed bronchodilator</u>

(with delivery device) as authorized by student's Asthma Action Plan or medical orders.

Give/assist with giving:

<u>Undesignated bronchodilator</u>

(with delivery device) as authorized by protocol per standing order.

Stay with the student and observe for improvement.
Stay calm, speak softly, encourage student to take slow, deep breaths.
Seat student comfortably, indoors if possible.
Remove outerwear, if present, and loosen clothing, if needed.
Do not permit student to lie down or fall asleep.

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Continue to follow asthma action plan or emergency protocol

RESPONSE TO RESPIRATORY DISTRESS

If individual has excessive coughing, wheezing, shortness of breath, or chest tightness:

ACTIVATE

- Activate medical emergency protocol
- Call for help
- Call 911

- Get bronchodilator

SIT UP

- Have student sit upright
- Encourage to remain as calm as possible

- Notify parent/guardian

Never leave the student alone

INHALE

- Administer rescue bronchodilator as soon as it is available per protocol and standing order

TRANSPORT

- Transport to ER via EMS

Kentucky Public Health

Prevent. Promote. Protect.

Recognizing the Signs

Severe Asthma Attack Symptoms

- Excessive coughing
- Wheezing
- Shortness of Breath
- Increased respiratory rate
- Increased heart rate
- Hunched shoulders
- Change in skin color
- Chest pain
- Sweating
- Confusion or drowsiness

An attack can be a life-threatening emergency

Kentucky Public Health

Prevent. Promote. Protect.

District Policy: Emergency Medication Standing Orders, Procedures, and Protocols

Standing orders

The district shall maintain current standing orders issued by a licensed healthcare provider authorizing the purchase, storage, and emergency administration of epinephrine, bronchodilator rescue inhalers, nebulizers, glucagon, and any other approved emergency medications. Standing orders shall define the medical authority under which designated school personnel may administer these medications during a suspected emergency.

Policies and Procedures

The district shall develop and implement written policies and procedures to support the safe execution of these standing orders. These procedures shall include requirements for staff training, delegation, documentation, storage, monitoring, and emergency response actions. Designated personnel must complete annual training approved by the Kentucky Department of Education, the Kentucky Department for Public Health, and the Kentucky Board of Nursing.

Protocols

All standing orders and district procedures shall be carried out in accordance with the clinical protocols developed by the Kentucky Department for Public Health. These protocols, located in the School Health section of the Clinical Service Guide, provide the standardized clinical guidance for recognizing emergencies, administering the authorized medications, and ensuring appropriate follow-up care.

Approval Signatures

School District Superintendent:

Name: _____

_____

Signature Date

District School Health Coordinator:

Name: _____

_____

Signature Date

Health Care Provider:

Name: _____

_____

Signature Date