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**GUIDELINES
FOR USE OF
UNDESIGNATED
STOCK ALBUTEROL
IN SCHOOLS**

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Legislative Background

In 2021 the General Assembly passed [HB 2019](#) (Mc Quinn), which amended and reenacted §§ [8.01-225](#), [22.1-274.2](#), and [54.1-3408](#) of the *Code of Virginia*, relating to public elementary and secondary schools' possession and administration of undesignated stock albuterol inhalers and valved holding chambers. The provisions of the first enactment clause shall become effective on January 1, 2022.

Liability for persons rendering emergency care is addressed in the *Code of Virginia*, § [8.01-225.A.13](#), and states that any person who:

“Is a school nurse, an employee of a school board, an employee of a local governing body, or an employee of a local health department who is authorized by the local health director and trained in the administration of albuterol inhalers and valved holding chambers or nebulized albuterol and who provides, administers, or assists in the administration of an albuterol inhaler and a valved holding chamber or nebulized albuterol for a student believed in good faith to be in need of such medication, or is the prescriber of such medication, shall not be liable for any civil damages for ordinary negligence in acts or omissions resulting from the rendering of such treatment.”

Possession and self-administration of inhaled asthma medications and epinephrine by certain students or school board employees is addressed in the *Code of Virginia*, § [22.1-274.2.D](#), and states:

“Each local school board shall adopt and implement policies for the possession and administration of undesignated stock albuterol inhalers and valved holding chambers in every public school in the local school division, to be administered by any school nurse, employee of the school board, employee of a local governing body, or employee of a local health department who is authorized by the local health director and trained in the administration of albuterol inhalers and valved holding chambers for any student believed in good faith to be in need of such medication.”

Professional use by practitioners is addressed in the *Code of Virginia*, § [54.1-3408.D](#), and states:

“Pursuant to an order or standing protocol that shall be issued by the prescriber within the course of his professional practice, any school nurse, school board employee, employee of a local governing body, or employee of a local health department who is authorized by the local health director and trained in the administration of albuterol inhalers, and valved holding chambers or nebulized albuterol may possess or administer an albuterol inhaler and a valved holding chamber or nebulized albuterol to a student diagnosed with a condition requiring an albuterol inhaler or nebulized albuterol when the student is believed to be experiencing or about to experience an asthmatic crisis.”

HB 2019 legislation requires schools to possess albuterol metered dose inhalers (MDI), and valved holding chambers, and to administer undesignated stock albuterol to **any student** experiencing respiratory distress. The purpose of the administration of school undesignated stock emergency albuterol is to reduce the amount of time children spend away from the classroom and to make schools safer for all children.

After completion of training and with a standing order for undesignated stock albuterol from the local health department director, this legislation allows school nurses, unlicensed assistive personnel (UAP), and non-medical personnel to administer albuterol to any student experiencing respiratory distress.

In order to meet the requirements of the law, the following must occur:

- School personnel administering the medication must complete training to possess and administer undesignated stock albuterol. These include:
 - school nurses;

- local health department employees who are authorized by the local health department directors and the school board; and
- school board employees or individuals contracted by a school board to provide school health services.
- Schools must have a standing medical order signed by a local health department physician director.
- School must have in their possession an undesignated stock albuterol metered dose inhaler, and valved holding chamber, and **may** possess undesignated stock albuterol for nebulizer.

The *Code of Virginia*, § 54.1-3408, provides the framework for schools to develop a policy for albuterol possession and administration in the school setting. This legislation pertains to school nurses, health department personnel assigned to schools, and school board employees that provide health services. They are required to possess and administer undesignated stock albuterol and complete a training program pursuant to an oral, written, or standing order by the local health department director.

Local School Division Responsibility

The emergency response and procedures for a student experiencing an asthmatic crisis or respiratory distress in the school setting are part of the school division's [School Crisis, Emergency Management and Medical Emergency Response Plan](#). Information regarding the procedure to possess and administer undesignated stock albuterol in the school setting can be accessed on the Virginia Department of Education's [School Health Office webpage](#).

Local School Division Policy Considerations

School divisions will develop policies, procedures, and protocols for the use of emergency undesignated stock albuterol in schools. Schools should determine the number of staff that need to be trained, frequency of training, training options, and evaluation or competency measures.

Schools should address the following items in their local policy:

- Identification of two or more school employees to be trained to administer albuterol.
 - These individuals should also be Cardiopulmonary Resuscitation (CPR) certified.
- Frequency of training.
 - The VDOE recommends training on an annual basis. Designated school employees should be responsible for completing forms and maintaining records.
- Documentation of personnel trained to administer albuterol per local school policy.
- Local school division response to a student experiencing respiratory distress based on:
 - availability of staff and resources; and
 - need for follow-up care, including Emergency Medical Services (EMS) transport, contacting healthcare providers, parents/guardians, and student safe return to the classroom.
- Consideration of additional equipment needed such as albuterol metered dose inhaler, valved holding chamber, blood pressure cuff, stethoscope, self-inflating (commonly known as an Ambu®) bag, compressor with optional mask and tubing, and pulse oximeters.
- Procurement and replacement of undesignated stock albuterol.
- Procedures for proper cleaning of devices.
- Communication with parents.
 - Students who have a diagnosis of asthma should provide the school with an Asthma Action Plan written and authorized by their healthcare provider, and with parental consent.
 - Parents should supply to the school any prescribed medication needed to manage asthma during the school day.
- Community resources to assist families of students with a diagnosis of asthma.

- Address barriers and identify resources needed to optimize the management of asthma in the school setting.

Required Training of School Personnel

The *Code of Virginia*, § 54.1-3408, requires the training of designated school personnel in order to possess and administer undesignated stock albuterol to any student believed in good faith to be in need of such medication.

Training of school personnel, employees of a local governing body, or an employee of a local health department in the administration of albuterol should be conducted on an annual basis by a registered nurse and include the following:

- How to recognize signs and symptoms of a student experiencing an asthmatic crisis or respiratory distress.
- Providing and implementing policies and procedures for administration of the undesignated stock albuterol.
 - Ensure that the policies and procedures are appropriately implemented.
 - Develop a training plan and checklist for school personnel.
 - Procedures for obtaining a standing order from the health department and procurement of undesignated stock albuterol.
 - Provide steps for obtaining, restocking, and reordering as needed.
 - Schools may develop post-event documentation for follow up with local health directors, data collection, and the Virginia Department of Education's Single Sign-on for Web Systems (SSWS) reporting survey.
 - Policy and procedures for cleaning of albuterol metered dose inhalers or related equipment.
- Storage consideration. Albuterol must be stored according to the manufacturer's recommendations, in a secure location that is clearly marked, and accessible in an emergency.

Policies and procedures for the emergency treatment of respiratory distress using undesignated stock albuterol is not intended to replace the individual's Asthma Action Plan. Instead, it should be used when an Asthma Action Plan and/or prescribed short-acting bronchodilator Metered Dose Inhaler (MDI) with valved holding chamber (albuterol inhaler) are not available or easily accessible.

The administration of undesignated stock albuterol may be used in the following situations:

- If the student has a current Asthma Action Plan but does not have their prescribed medication available.
 - In this case, use the medical care plan provided by the healthcare provider for the student and the school's supply of undesignated stock albuterol inhaler with valved holding chamber.
- If there is no Asthma Action Plan and the student is having difficulty breathing.
 - In this case, use the school's standing order and the school's supply of undesignated stock albuterol inhaler with valved holding chamber.

Online Training Modules

In response to HB 2019, the Virginia Department of Education (VDOE) developed online training for school health staff on the use of undesignated stock albuterol in the school setting. Training of school personnel, employees of a local governing body, or an employee of a local health department in the administration of albuterol should be conducted on an annual basis.

Training requires participants to complete four, brief online training modules and pass the evaluation with a score of 80 percent. Certificates of training completion can be printed out for record-keeping purposes. The Virginia Department of Health, Central Pharmacy, will require schools to attest to training prior to ordering medications or supplies.

Information and links to training modules may be accessed on the VDOE School Health Office webpage.

Process for Obtaining Albuterol for School Use

The Virginia Department of Health (VDH) local health physician directors will issue a standing order for undesignated stock albuterol for school divisions. The standing order is good for one year. Training documentation will be made available to the local health directors upon request.

Each school division is responsible for obtaining albuterol and associated supplies on an annual basis:

- Schools will complete an online Albuterol Request Form available on the VDOE School Health Office webpage.
- Schools must attest to training of school staff prior to ordering medication or supplies.
- Once the form is submitted to VDH, applicants will be provided with a Memorandum of Agreement (MOA) between VDOE and the school division. Once VDH has received a signed MOA, schools will be provided a MOA number.
- VDH Central Pharmacy ships the medication and supplies with an invoice directly to the school address indicated on the order form. An additional invoice will be sent via email to the point of contact for the school.

Storage of Undesignated Stock Albuterol Medication

The undesignated stock albuterol medication should be stored according to the manufacturer's recommendations. Storage should be in a secure location with medication clearly marked and accessible in the health office during school hours and monitored under the direct supervision of the designated and trained personnel. The following should occur:

- A designated employee who has completed the required training should be responsible for the storage, maintenance, control, and administration of the undesignated stock albuterol metered dose inhalers and valved holding chambers acquired by the school. This may include albuterol medication for nebulizer treatments.
- If feasible, the valved holding chamber should be stored in the same location as the metered dose inhaler. **To allow for rapid retrieval and use, albuterol should be in a secure location during school hours.** Before or after regular school hours, the medication should be locked in a secure location.
- It is important to monitor the expiration date of the product and number of doses left in the device. Schools may choose to develop a daily tracking log for use of the undesignated stock albuterol inhaler.
- Develop a procedure for obtaining additional medication and supplies, as needed.

Administration of Undesignated Stock Albuterol in the School Setting

HB 2019 legislation requires schools to possess albuterol metered dose inhalers (MDI) and valved holding chambers and to administer undesignated stock albuterol to **any student** experiencing respiratory distress.

The purpose of the administration of school undesignated stock emergency albuterol is to reduce the amount of time children spend away from the classroom and to make schools safer for all children.

Schools **must** possess and administer albuterol metered dose inhaler with a valve-holding chamber to students experiencing respiratory distress. Schools may have policies and procedures currently in place to administer nebulized albuterol to students, and this may continue with a standing order.

The implementation of policies and procedures for the emergency treatment of respiratory distress using albuterol is not intended to replace the individual Asthma Action Plan of a person with asthma. Instead, it should be used when an Asthma Action Plan and/or prescribed short-acting bronchodilator Metered Dose Inhaler (MDI) with valved chamber inhaler (albuterol inhaler) are not available or easily accessible.

The administration of undesignated stock albuterol may be used in the following situations:

- **If the student has a current Asthma Action Plan but does not have their prescribed medication available.**
 - In this case, use the medical care plan provided by the healthcare provider for the student and the school's supply of undesignated stock albuterol inhaler with valved holding chamber.

- If there is no Asthma Action Plan and the student is having difficulty breathing.
 - In this case, use the school’s standing order and the school’s supply of undesignated stock albuterol inhaler with valved holding chamber.

Symptoms of Respiratory Distress

Respiratory distress can be the sudden appearance of signs and symptoms of difficulty breathing and may be categorized into “Mild to Moderate” or “Moderate to Severe.” Evaluation of the person’s level of distress is based on the signs and symptoms present and occurring upon presentation. Trained school personnel should begin the plan of care based on the symptoms the student is experiencing.

Mild to Moderate Respiratory Distress

Mild to Moderate symptoms of respiratory distress may include one or more of the following:

- Struggling to breathe
- Whistling in the chest
- Persistent coughing, chest pain, wheezing, chest tightness
- Noisy breathing
- Shallow breathing
- Decreased breath sounds
- Breathing hard or fast and/or shortness of breath

Medical Response to Mild to Moderate Respiratory Distress Symptoms

Determine if the student is experiencing respiratory distress based on the signs and symptoms present. Act quickly as it is safer to give albuterol than to delay treatment. Refer to the VDH algorithm for [Mild to Moderate Respiratory Distress](#) to determine next steps in the intervention process as indicated below:

- Never leave a student alone.
- Have the student sit in a chair, or on the ground, and restrict physical activity.
- Summon for help, notify parent and school administration, and follow your school division protocol.
- If available, a Registered Nurse/Licensed Practical Nurse should obtain and continue to monitor vital signs (pulse, respiratory rate, blood pressure, pulse oximetry) every five minutes or as needed.
- Administer albuterol per standing order from the local health director.
 - Administer **four puffs** of albuterol with valved holding chamber between 15 -30 seconds between puffs, or one unit or ampule dose albuterol via nebulizer per standing order.
 - If symptoms improve and the student has no tightness in chest, shortness of breath, and can walk and talk easily, continue to monitor.

- Keep the student in the health office until breathing returns to normal and the parent or guardian has been contacted.
- Refer the student to a healthcare provider for follow up care.
- **If there is no improvement in symptoms in ten to fifteen minutes.**
 - Repeat **four puffs** of albuterol with a valved holding chamber, 15-30 seconds between puffs or an additional one unit or ampule of albuterol via nebulizer.
 - **Call 911 and follow the actions for [Moderate to Severe Respiratory Distress](#).**

Moderate to Severe Respiratory Distress

Moderate to Severe symptoms of respiratory distress may include one or more of the following:

- Struggling to breath and or shortness of breath and or hunched over (tripod breathing)
- Coughing, wheezing, tightness in the chest
- Difficulty speaking (one word or short sentences)
- Blueness around the lips or fingernails (may look gray or “dusky”)
- Chest retractions (chest/neck are pulling in)
- Use of accessory muscles (stomach muscles are moving up and down)
- Fast pulse (tachycardia)
- Agitation
- Nasal flaring

Medical Response to Moderate to Severe Respiratory Distress Symptoms

The student may present with or progress to symptoms of severe respiratory distress. Based on symptoms, determine that respiratory distress appears to be occurring. Act quickly as it is safer to give albuterol than to delay treatment. **Refer to the VDH algorithm for Moderate to Severe Respiratory Distress to determine next steps in the intervention process listed below:**

- **Call 911 immediately.**
- Never leave a student alone.
- Have the student sit in a chair, or on the ground, and restrict physical activity. Encourage slow breaths.
- Summon for help, notify parent and school administration, and follow your school division protocol.
- If available, a registered nurse/licensed practical nurse should obtain and continue to monitor vital signs (pulse, respiratory rate, blood pressure, pulse oximetry) every five minutes or as needed.
- Administer albuterol per standing order from the local health director.
 - Administer **eight puffs** of albuterol MDI with a valved holding chamber, each 15-30 seconds apart between puffs, or one unit or ampule dose of albuterol via nebulizer per standing order.
 - If there is no improvement in symptoms: Repeat eight more puffs of albuterol MDI with a valved holding chamber, each 15-30 seconds apart between puffs, or an additional one unit or ampule of albuterol via nebulizer.
 - May give albuterol continuously until Emergency Medical Services (EMS) arrives.
 - If a student becomes unresponsive, check for pulse and initiate CPR with rescue breathing.
 - Monitor the student continuously. Registered nurse/licensed practical nurse should obtain and document vital signs (pulse, respiratory rate, blood pressure, pulse oximetry); repeat every five minutes or as needed.
 - Continue to monitor the student until EMS arrives.
- Schools may have policies and procedures currently in place to administer oxygen to students, and this may continue with a standing order.

Procedures for Proper Cleaning of Devices

General cleaning principles apply to all inhalers in order to keep them in good working order. If not cleaned properly, equipment such as an inhaler, mask, or mouthpiece can harbor bacteria or viruses and lead to increased risk of transmission for users. Clean devices after use following the manufacturer's recommendation for cleaning.

Clean all equipment after use following the manufacturer recommendations.

If the albuterol metered dose inhaler will be used for multiple students, thoroughly clean with an approved cleaner following the manufacturer recommendations. Allow the inhaler to completely dry before reuse or restocking of the inhaler. Clean multiuse-valved holding chamber according to manufacturer's recommendation and/or VDOE training modules, if utilized.

Items not shared between multiple students include:

- **disposable** valved holding chamber; and
- mask and tubing used for nebulizer treatments.

Post Event Procedures

- School health staff should document respiratory distress, intervention, and follow up care with the student and parent following administration of undesignated stock albuterol.
- The VDH recommends that any student who requires the use of undesignated stock albuterol for respiratory distress should be referred to their healthcare provider for follow up medical care and not remain in school. Local school policy may require an updated Asthma Action Plan, prescription medication for use during the school day, or a medical clearance letter to return to school or activities.
- Schools should assist families with any additional support services needed to effectively manage the student in the school setting.
- Reorder a supply of stock albuterol using the VDH online ordering system available on the VDOE School Health Office webpage.
- Document use of undesignated stock albuterol for end of year reporting purposes.
 - Local school divisions may develop a reporting form to be completed and returned to the supervisor of school health services after the administration of any undesignated stock albuterol.
 - Data will be collected on the number of doses administered of undesignated stock albuterol in school settings and submitted to the VDOE, via the Single Sign-on for Web Systems (SSWS) School Health Services Survey, at the end of each school year.

After the Administration of Undesignated Stock Albuterol

- Local school divisions may develop a reporting form to be completed and returned to the supervisor of school health services.
- Data will be collected on the number of doses administered of undesignated stock albuterol in school settings and submitted to the VDOE, via the SSWS School Health Services Survey, at the end of each school year.
- Refer the parent or guardian to their child's healthcare provider for additional follow-up medical care. Local school policy may require an updated Asthma Action Plan, prescription medication for use during the school day, or a medical clearance letter to return to school or activities.
- Assist families with any additional support services needed to effectively manage the student in the school setting.
- Make follow up contact with parent/guardian.
- Restock, reorder, or replace supplies and medication as needed.
- Medication should be stored in a secure location with medication clearly marked, accessible in the health office during school hours, and monitored under the direct supervision of designated and trained school or health department personnel.

Appendix A: Standing Order for Undesignated Stock of Albuterol

Date Issued: . Order must be renewed annually at the beginning of each school year.

This order authorizes the following individuals who have completed a training program in accordance with established policies and procedures to possess and administer undesignated stock albuterol inhalers and valved holding chambers to any student experiencing respiratory distress while in school as authorized in § 22.1-274.2.D:

- School nurse
- School board employee
- Employee of a local governing board
- Employee of a local health department

This order is in effect starting January 1, 2022, and will expire one (1) year from the date written or the beginning of the school year, whichever is earlier. The school should maintain a copy of the standing order, list of personnel trained, and policy procedures.

Administration of Albuterol (Inhalation Route)

Response to Mild to Moderate Respiratory Distress VDH Algorithm:

- Never leave the child unattended.
- Give **four puffs** of albuterol with a valved holding chamber, each 15-30 seconds apart.
- If available, registered nurse or licensed practical nurse to obtain vital signs (pulse, respiratory rate, blood pressure, pulse oximetry); repeat every five minutes or as needed.
- If there is no improvement in symptoms within 10-15 minutes, **repeat an additional four puffs** of albuterol with a valved holding chamber, each puff 15-30 seconds apart.
- If there is no improvement, **call 911**.
- **Proceed to emergency protocol for Severe Respiratory Distress.**

Response to Moderate to Severe Respiratory Distress VDH Algorithm:

- Call 911 immediately.
- Never leave the child unattended.
- Summon for help, notify parent and school administration (follow your school division protocol).
- Immediately give **eight puffs** of albuterol metered dose inhaler (MDI) with a valved holding chamber, each puff 15-30 seconds apart.
- **If no improvement, may give continuous albuterol MDI doses with valved holding chamber, each puff 15-30 seconds apart until EMS personnel arrive.**
- **If student becomes unresponsive, check for pulse and initiate CPR with rescue breathing.**
- If available, registered nurse or licensed practical nurse obtain vital signs (pulse, respiratory rate, blood pressure, pulse oximetry); repeat every five minutes or as necessary.
- Option: Oxygen usage in the school setting is optional and requires a separate doctor's order.
- Continue to monitor the student until EMS arrives.

Prescriber: (Name) Prescriber Signature Date:

Appendix B: Glossary of Terms

Terms used in this document include:

Asthma Action Plan: An Asthma Action Plan is the annual plan of care completed by a health care provider to manage a student's asthma while in school.

Bronchodilator: A bronchodilator is a drug such as albuterol or another short-acting bronchodilator that is approved by the United States Food and Drug Administration for the treatment of respiratory distress.

EMS: Emergency Medical Services, more commonly known as EMS, is a system that provides emergency medical care. Once it is activated by an incident such as a serious illness or injury, the focus of EMS is emergency medical care of the patient(s).

Inhaler: An inhaler is a device that delivers bronchodilator medication to alleviate symptoms of respiratory distress that is manufactured in the form of a metered-dose inhaler or dry-powder inhaler that includes a plastic tube with a facemask or mouthpiece (also called a spacer or valved-holding chamber) that the inhaler is inserted into facilitating the delivery of the bronchodilator medication to the airways.

LEA: Refers to a Local Educational Agency or school division.

MDI (Metered Dose Inhaler): Inhaled respiratory medications are often taken by using a device called a metered dose inhaler, or MDI. The MDI is a pressurized canister of medicine in a plastic holder with a mouthpiece. When sprayed, it gives a reliable, consistent dose of medication.

Nebulizer: A nebulizer is a piece of medical equipment that a person with asthma, or another respiratory condition, can use to administer medication directly and quickly to the lungs. A nebulizer turns liquid medicine into a very fine mist that a person can inhale through a facemask or mouthpiece. Taking medicine this way allows it to go straight into the lungs and the respiratory system where it is needed.

Respiratory distress: Respiratory distress describes a person's inability to breathe adequately and associates symptoms such as coughing, wheezing, or shortness of breath.

SSWS: Single Sign-on Web Service is the secure portal for data collection submitted to the Virginia Department of Education. Health staff submit a summary of school division data, such as vision and hearing and the delivery of school health services, on an annual basis.

Standing order: A standing order is a protocol or instructions issued by the chief medical officer of a local health department, licensed physician, or licensed nurse practitioner authorized to prescribe these products.

Valved holding chamber: A type of spacer that includes a one-way valve; the spacer is connected to the metered dose inhaler and facilitates the delivery of the bronchodilator medication to the airways.

Appendix C: Resources

Fortify Children's Health. (2021, January). *How to Use a Spacer (No mask)*. Retrieved from YouTube, 8/25/21: [How to Use a Spacer \(No mask\)](#)

Fortify Children's Health. (2021, January 4). *How to Use a Spacer with a Mask*. Retrieved from YouTube, 8/25/21: [How to Use a Spacer with a Mask](#)

School Health Office. (2020). Retrieved from Virginia Department of Education: [Guide for Managing Asthma in Schools](#)

Toolkit for the Emergency Administration of Albuterol in the School Setting for Respiratory Distress. (2017, October). Retrieved from Arizona Asthma Coalition, Asthma and Airway Disease Research Center, University of Arizona, Version 1: [Toolkit for the Emergency Administration of Albuterol in the School Setting for Respiratory Distress](#)

Virginia Asthma Action Plan. (2019, March). Retrieved from Virginia Department of Health: [Virginia Asthma Action Plan](#)

Why Schools Should Stock Asthma Inhalers. (2017, September 21). Retrieved from American Lung Association: [Why Schools Should Stock Asthma Inhalers](#)