

Caring for Students with Asthma in School

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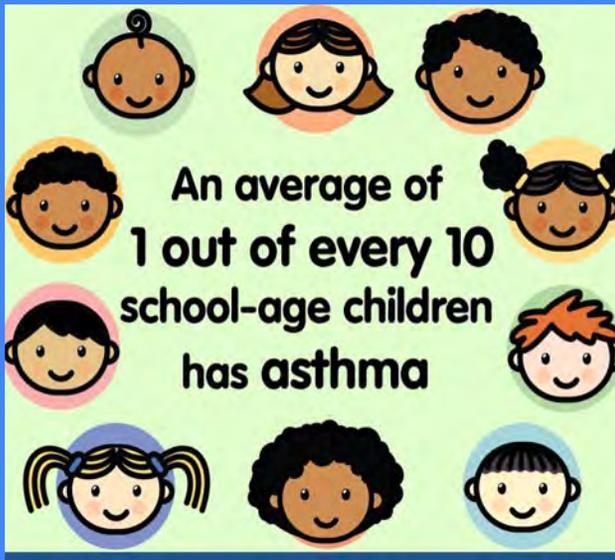




Objectives

1. Increase awareness of Asthma Management of school aged children within Jefferson County Public Schools (JCPS)
2. Review the protocol for Stock Albuterol in JCPS
3. Discuss how Stock Albuterol protocols can be implemented in schools.

Prevalence



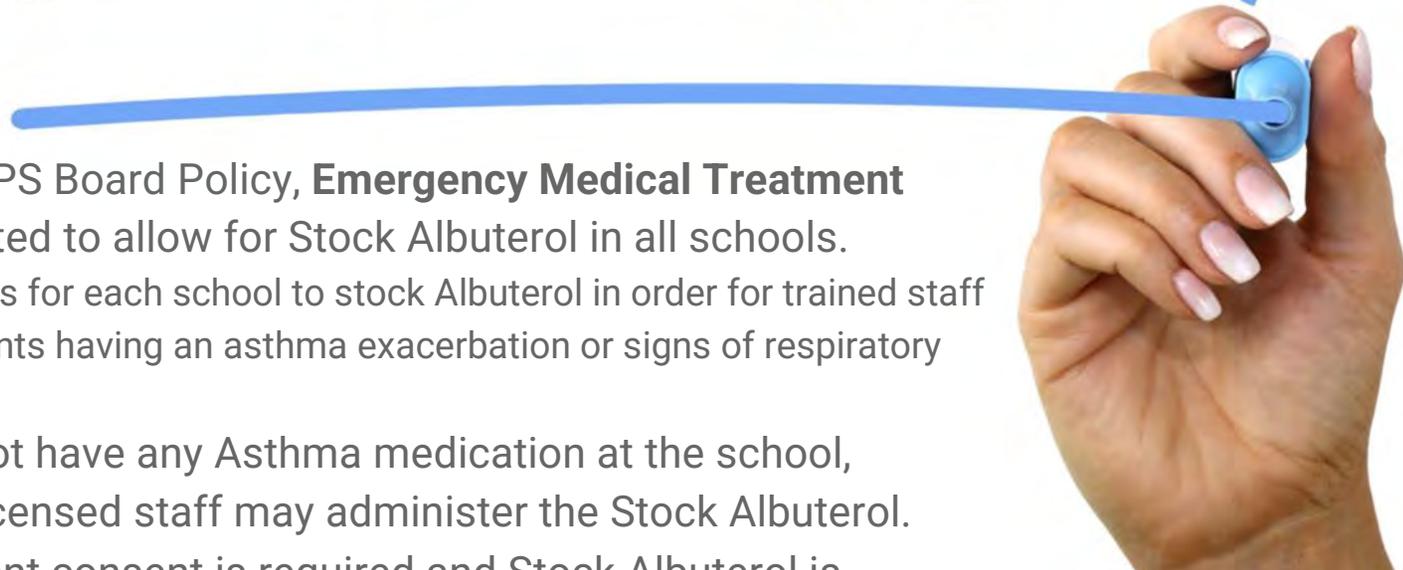
- ❖ According to the CDC approximately 9% of children ages 5-17 had a diagnosis of Asthma in 2018 (<https://www.cdc.gov/nchs/data/abus/2019/fig10-508.pdf>)
- ❖ There are approximately 96,000 students (K-12) enrolled in JCPS for the 21-22 school year
- ❖ Of those 96,000, around 6600 students have reported being diagnosed with Asthma (less than 7%)
- ❖ 40.6% of those JCPS students reported to have Asthma are Chronically Absent for the 21-22 school year, meaning that they have missed more than 10% of days of school this school year.

Managing Asthma in School



- ❖ KRS 158.834 allows students to self carry and self administer Asthma Medications in school
 - Must have a Written Authorization Form on file that is signed by the healthcare provider stating that the student is trained and able to self administer their inhaler.
 - The Written Authorization Form must also be signed by the parent/guardian.
 - The Authorization form must be signed and submitted every school year
- ❖ If the student is not trained and able to self carry and self administer their Asthma Medication the parent/guardian must complete the Written Authorization Form
 - Asthma inhaler will be kept in the school office/nurse's office/classroom and administered by trained school staff
 - The inhaler is administered per prescription instructions
 - The Authorization Form must be signed and submitted every school year

POLICY



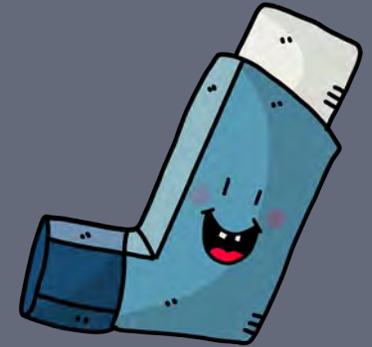
- In August 2020, JCPS Board Policy, **Emergency Medical Treatment (09.224)** was updated to allow for Stock Albuterol in all schools.
 - The policy allows for each school to stock Albuterol in order for trained staff to use for students having an asthma exacerbation or signs of respiratory distress.
- If a student does not have any Asthma medication at the school, school nurses/unlicensed staff may administer the Stock Albuterol.
- No additional student consent is required and Stock Albuterol is available for all students.

SB 127

- ❖ March 24, 2021 Governor Beshear signed [SB 127](#), encouraging schools to keep rescue bronchodilators onsite.
- ❖ Kentucky Department of Public Health developed a [Clinical Protocol for Bronchodilator Rescue Inhaler](#) in the School Setting



Stock Albuterol within JCPS



- ❖ Beginning in August 2021, all JCPS schools were able to order Rescue Bronchodilators to have available in the school.
- ❖ Schools were encouraged to order 1-2 inhalers with 10 spacers.
- ❖ Cost for each item:
 - MDI-\$65.00
 - Box of 10 spacers-\$70.00
 - Box of 10 spacers with face mask-\$187.00
- ❖ Each school has a nebulizer with tubing, but was encouraged to use inhalers due to the increased risk of COVID transmission with nebulizer use.



Expected Outcomes

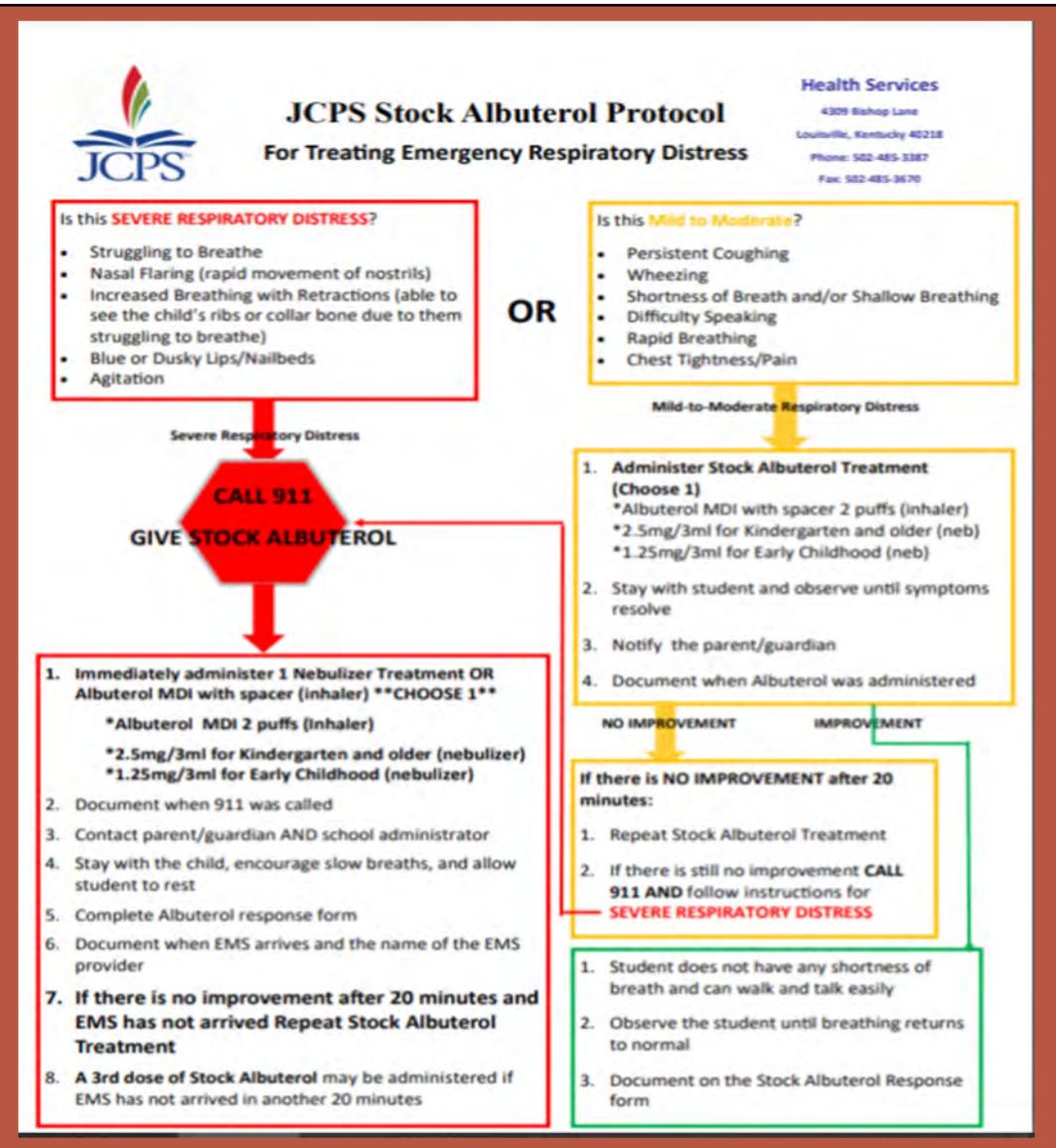
- Stock Albuterol will benefit all students.
- Stock Albuterol will improve student attendance and readiness to learn.
- Stock Albuterol will increase the amount of time that students are in the classroom.
- Stock Albuterol will decrease the number of students sent home due to Asthma.
- Stock Albuterol will decrease the number of ER visits for students with Asthma.
- Students with Asthma symptoms will be identified and connected with a Healthcare Provider to manage Asthma.
- Education will be provided to students/families regarding Asthma Management.

Training

- JCPS Nurse Practitioners developed Stock Albuterol protocols for all JCPS schools.
- All School Nurses and CNA's are trained annually on the protocol.
- Unlicensed School Staff are trained on how to administer Nebulizers and Metered Dose Inhalers when completing the Annual Medication Training for Unlicensed Staff.
- Unlicensed School Staff are trained on the Stock Albuterol Protocols annually when completing the Medication Training for Unlicensed Staff.
- Trainings for school nurses and unlicensed school staff are conducted by JCPS Nurse Practitioners and Registered Nurses.

JCPS Stock Albuterol Protocol

- Protocol is written for nebulizer treatment or MDI.
- MDI's are being encouraged at this time due to COVID and the risk of aerosolization with the nebulizer.
- Each school will have 1-2 MDI and multiple disposable spacers.
- The MDI will be cleaned between uses and each student will be issued a spacer as needed.





JCPS Stock Albuterol Protocol For Treating Emergency Respiratory Distress

Health Services
8099 Bishop Lane
Louisville, Kentucky 40218
Phone: 502-486-6187
Fax: 502-486-6179

Is this **SEVERE RESPIRATORY DISTRESS**?

- Struggling to Breathe
- Nasal Flaring (rapid movement of nostrils)
- Increased Breathing with Retractions (able to see the child's ribs or collar bone due to them struggling to breathe)
- Blue or Dusky Lips/Nailbeds
- Agitation

OR

Is this **Mild to Moderate**?

- Persistent Coughing
- Wheezing
- Shortness of Breath and/or Shallow Breathing
- Difficulty Speaking
- Rapid Breathing
- Chest Tightness/Pain

Mild-to-Moderate Respiratory Distress

Severe Respiratory Distress

CALL 911

GIVE STOCK ALBUTEROL

1. Immediately administer 1 Nebulizer Treatment OR Albuterol MDI with spacer (inhaler) ****CHOOSE 1****
 - *Albuterol MDI 2 puffs (inhaler)
 - *2.5mg/3ml for Kindergarten and older (nebulizer)
 - *1.25mg/3ml for Early Childhood (nebulizer)
2. Document when 911 was called
3. Contact parent/guardian AND school administrator
4. Stay with the child, encourage slow breaths, and allow student to rest
5. Complete Albuterol response form
6. Document when EMS arrives and the name of the EMS provider
7. If there is no improvement after 20 minutes and EMS has not arrived Repeat Stock Albuterol Treatment
8. A 3rd dose of Stock Albuterol may be administered if EMS has not arrived in another 20 minutes

1. Administer Stock Albuterol Treatment (Choose 1)
 - *Albuterol MDI with spacer 2 puffs (inhaler)
 - *2.5mg/3ml for Kindergarten and older (neb)
 - *1.25mg/3ml for Early Childhood (neb)
2. Stay with student and observe until symptoms resolve
3. Notify the parent/guardian
4. Document when Albuterol was administered

NO IMPROVEMENT IMPROVEMENT

If there is **NO IMPROVEMENT** after 20 minutes:

1. Repeat Stock Albuterol Treatment
 2. If there is still no improvement **CALL 911 AND** follow instructions for **SEVERE RESPIRATORY DISTRESS**
1. Student does not have any shortness of breath and can walk and talk easily
 2. Observe the student until breathing returns to normal
 3. Document on the Stock Albuterol Response form

- ❖ The protocol is color coded in Red, Yellow, and Green
- ❖ If **SEVERE** (examples given), Stock Albuterol is still administered, but EMS is called
- ❖ If **Mild-Moderate**, instructions are given to administer Stock Albuterol 1-2 times.
- ❖ If condition **improves**, student sent back to class
- ❖ If condition is **worse/not improved**, EMS is called
- ❖ Parent is always notified and documentation is completed.

Documentation

- Staff will document each time that Stock Albuterol is administered.
- Documentation will be in the Electronic Health System and a google document will be completed.
- JCPS will be able to collect data regarding Stock Albuterol use.



JEFFERSON COUNTY PUBLIC SCHOOLS
STOCK ALBUTEROL/EPINEPHRINE RESPONSE FORM

Student Name: _____ Date of Birth: _____
 School: _____ Grade/Teacher: _____
 Date/Time of Incident: _____ Location: _____

Medication Trained Personnel Notified _____ Notify CPR Personnel _____
 EMS/911 Called @ _____ EMS arrived at school @ _____
 Parent/Guardian Notified _____
 District Nurse Practitioner Notified (Health Services 485 3387) _____

- Emergency Medication Administered, number of doses, and time administered?

a. Albuterol MDI with spacer (inhaler)	_____ Dose(s)	_____ Time(s)
b. Albuterol Nebulizer	_____ Dose(s)	_____ Time(s)
c. Epinephrine Auto Injector (EpiPen)	_____ Dose(s)	_____ Time(s)
- Description of person receiving emergency medication (circle only 1)
 - Student _____
 - Staff Member _____
 - Visitor/Other (please specify) _____
- Was there any previously known diagnosis of a severe allergy or asthma?
 - Yes _____
 - No _____
- Symptoms (Circle all that apply)

a. Shortness of Breath/Difficulty Breathing	e. Persistent Cough
b. Persistent Cough	f. Wheezing
c. Chest tightness	g. Rash
d. Swelling of tongue/lips	h. Other: _____
- Location of where symptoms developed (Circle all that apply)
 - Within School Building (where in school) _____
 - On school grounds (where) _____
 - Other _____
- If **EPINEPHRINE** was administered, document trigger that precipitated allergic episode (Circle all that apply)
 - Food (specific food if known) _____
 - Insect (specific insect if known) _____
 - Other (please specify) _____
 - Unknown _____
- Name of person who administered the emergency medication: (Circle all that apply)
 - School Nurse _____
 - Trained School Staff _____
 - Other: _____
- Discharge to and time:
 - Class _____
 - Home _____
 - EMS _____

Response form completed by: _____

***Please Fax Response Form to Health Services 485-3670 or email to your Nurse Practitioner**

Additional room for documentation on back of form

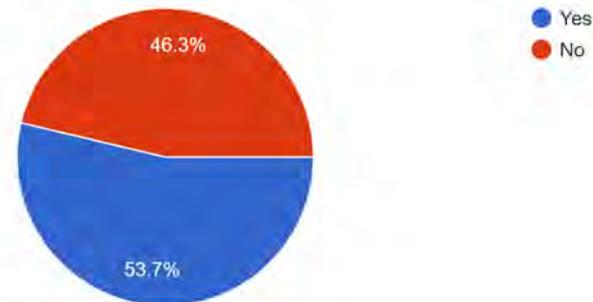
Implementation

- ❖ There are 7 Nurse Practitioners hired by JCPS and approximately 150 school sites.
- ❖ Each school is assigned a Nurse Practitioner.
- ❖ The Nurse Practitioner works with the school nurse/school staff to order the MDI or nebulizer solution through an approved vendor.
- ❖ The Nurse Practitioner is able to prescribe the medication and the medication sent directly to the school site.
- ❖ The school nurse/staff also orders additional supplies through an approved vendor (spacers, nebulizer tubing, etc).

JCPS School Nurse Survey

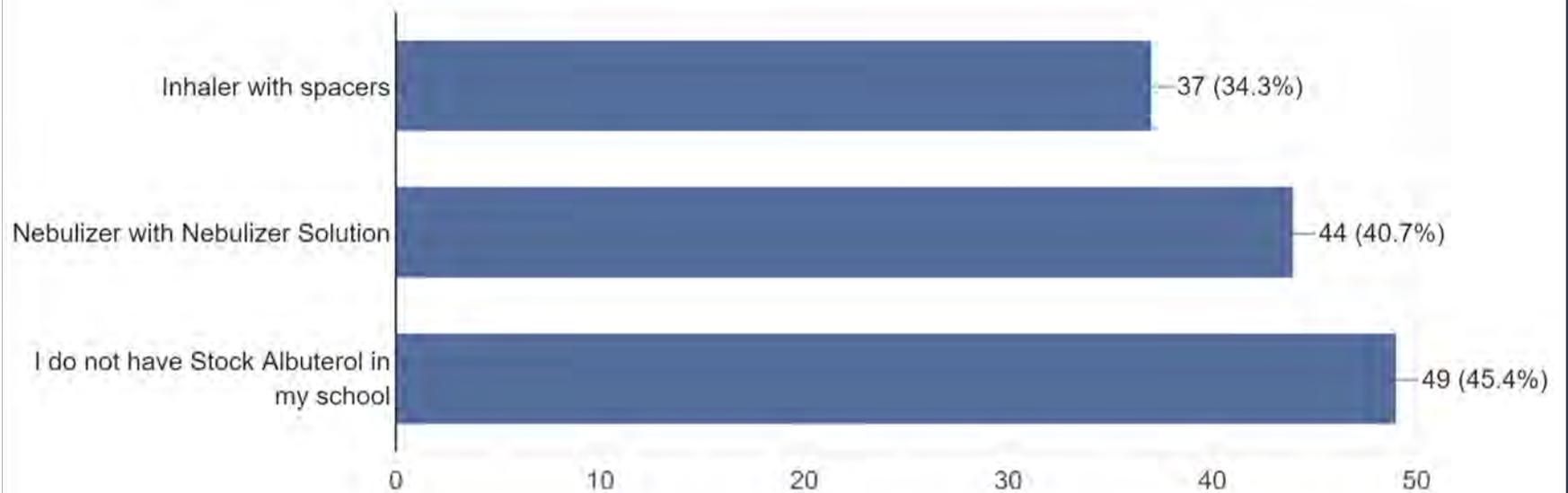
- ❖ 108 out of 150 nurses responded
- ❖ The number of schools with Stock Albuterol onsite has increased from 38% in May 2022 to 53.7% in October 2022

Do you have Stock Albuterol in your school?
108 responses



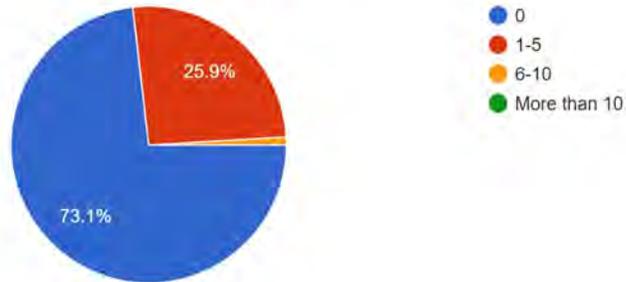
Which type of Albuterol medication do you have?

108 responses



How many times have you administered Stock Albuterol this school year?

108 responses



- ❖ School Nurses have documented administering Stock Albuterol 59 times since school started on August 10th, 2022.
- ❖ MDI's were administered 67.8% of the time versus Nebulizers that were administered in the other 32.2%
- ❖ Of the 59 individuals that the Stock Albuterol was administered to, 49 (or 83%) of those individuals had a known diagnosis of Asthma, but no medication at the school.
- ❖ 50 students returned to class after receiving the Stock Albuterol and EMS only had to be called for 9 students.

Challenges

- ❖ Implementing Stock Albuterol during a pandemic
- ❖ Purchasing/Supply Chain: Many nurses responded that the MDI and/or nebulizer solution has been ordered but they have not received it yet.
- ❖ Decreased awareness of individual school administrators about the need for Stock Albuterol.
- ❖ Each school has to order medication individually and have an account with the vendor
- ❖ Funding

Next Steps

- ❖ Continue to train and educate school nurses on the importance of Stock Albuterol
- ❖ Continue to train and educate unlicensed school staff on Stock Albuterol
- ❖ Continue to educate school administrators on the importance of and need for Stock Albuterol and how this can help to decrease chronic absenteeism
- ❖ Collect data
- ❖ Connect students with a Primary Care Provider to improve Asthma Management
- ❖ Provide education to students/families on Asthma Medication and Management
- ❖ Continue to look for additional funding to assist with purchasing medication(s) and supplies so that Stock Albuterol is available in all schools
- ❖ Continue to work on ordering Stock Albuterol and supplies at a district level so that medication and supplies are readily available and easily accessible for all schools

Thank You

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