

Stock Albuterol in Maryland Schools

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In recent years, there has been a paradigm shift in asthma treatment in the school setting. There is widespread support across the US for stock albuterol in schools. For several years, this legislation, which would benefit children with asthma in Maryland, has not passed. This paper describes the evidence supporting passage of legislation that would allow stock albuterol in Maryland schools.

I work as a pediatric nurse with the Division of Pediatric Pulmonology at Johns Hopkins Hospital with many years of experience caring for children with asthma. This paper expresses my own views.

Asthma is a chronic inflammatory condition of the lungs that affects many children in Maryland (Lowe, et al., 2022). Nationally, asthma affects 6.5% of children with higher prevalence and increased morbidity in low-income and minority groups (CDC, 2023; Volerman, et al., 2021). In Maryland, asthma prevalence is higher than the national average. Asthma affects 7.6% of Maryland children and approximately 20% of Baltimore City children (Maryland.gov; Papp, et al., 2019). Children with asthma are more likely to miss school and have breathing problems that prevent them from fully participating in school when they are present (Lowe, et al., 2022; Volerman, et al., 2021). My work has given me insight into the health disparities in our communities, especially in Baltimore City. There are many at-risk children both in Baltimore City and around the state of Maryland who would benefit from this legislation. Many of our patients do not have access to albuterol inhalers due to the financial cost of the medication and the burden of getting medication administration paperwork completed.

Current guidelines recommend that all children with asthma have access to rescue medications, like albuterol, while at school (Lowe, et al., 2022; Volerman et al., 2021). But

fewer than 12% of students have access to this life-saving medication while at school (Lowe, et al., 2022). Barriers to access to rescue medications include difficulty accessing medical care, difficulty obtaining asthma action plans, difficulty obtaining the medication and a valved holding chamber for administration, and lost or expired medications (Papp, et al, 2019; Volerman, et al., 2021). To help overcome these barriers and ensure access to albuterol at school, at least 18 other states have enacted legislation allowing the use of stock albuterol in school (Lowe, et al., 2022). The National Association of School Nurses (NASN), the American Thoracic Society (ATS), the Allergy and Asthma Network (AANMA), and the American Lung Association (ALA) recommend that states pass laws allowing stock albuterol in schools (Volerman, et al., 2021).

In other states, albuterol inhalers are stocked in schools for use in a breathing emergency (McCaughney, et al., 2022). Albuterol is a common bronchodilator, which comes in an easy-to-use metered dose inhaler (MDI), is used to treat bronchospasm in pediatric asthma (McCaughy, et al., 2022). Albuterol is safe; the benefit of using it for breathing problems outweighs the risks even in children who do not have an official asthma diagnosis (Papp, et al., 2019). The most common side effects are sore throat and jitteriness (Papp, et al., 2019). It can cause increased heart rate and blood pressure; these side effects are dose dependent, transient and rarely have serious consequences (Papp, et al., 2019).

Legislation allowing stock albuterol in schools in Maryland would benefit our students, many of whom have asthma. Increasing access to stock albuterol in schools in Arizona led to a 20% decrease in 911 calls and a 40% decrease in hospital transports (McCaughy, et al., 2022; Papp, et al., 2019). Access to stock albuterol allows school nurses and trained staff to manage asthma attacks quickly, safely and effectively (Papp, et al., 2019). Students are able to return to class rather than leaving school for the hospital (Papp, et al., 2019).

As the lead asthma nurse for my division, I teach children, adolescents and their caregivers when to use albuterol. Many of our patients have both asthma and food allergies; they have both albuterol and epinephrine on hand. Our practice is enriched for this dual diagnosis. In my experience, there is no confusion about recognizing the signs of food allergy reaction versus the signs of an asthma attack. I am also the parent of children with asthma and food allergies; my own children, both school-age and college-age, have no confusion about whether they're having an allergic reaction or asthma symptoms.

Nurses in Maryland, especially pediatric nurses and school nurses, should support legislation for adoption of stock albuterol in schools. This legislation benefits children in Maryland, especially those from low-income or minority groups. This policy makes good sense and should provide peace of mind both for school nurses and to parents.

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