Asthma Management in Schools: Update 2017

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Asthma in Georgia’s Children

- Prevalence of asthma:
  - 12% of elementary school children
  - 14% of middle school children
  - 13% of high school children
  - 19% of children living in households with annual incomes <$15,000

- 58% of school-aged children reported missing one or more missed days due to asthma in the past year

(Georgia Asthma Surveillance Report 2012, DPH)

Impact of Uncontrolled Asthma on Student Learning

- 470,000 missed school days annually due to asthma

- Missed class time due to frequent visits to the school clinic

- Student fatigue due to night time symptoms
What Is Asthma?

A disease of the lungs where:

- Airway becomes swollen and inflamed
- Airway is super-sensitive
- Airway narrows in response to a trigger
- A chronic disease

Asthma Symptoms

Early signs

- Coughing
- Wheezing or whistling in the chest
- Feeling short of breath
- Tightness in the chest
- Waking at night with symptoms*

Late Signs

- Can’t stop coughing or wheezing
- Blue/grey color of lips or fingernails
- Hard to breathe, fast or short of breath
- Skin on chest ‘sucking in’
- Hunched over, with shoulders lifted, and straining to breathe
- Difficulty completing a sentence without pausing for breath

*If in distress…. GET HELP

Asthma Action Plan

www.choa.org/asthma
Common Asthma Triggers

- Viruses & URIs
- Dust mites
- Pets/Animals
- Pollen
- Molds
- Cockroaches
- Weather changes
- Emotions
- Smoke
- Exercise
- Strong odors
- Poor air quality
- Stress/Exposure to Violence

New Medication Devices
Stress, Exposure to Violence and Emotions

- Help children to feel safe in home/community
- Keep predictable schedule
- Help children to prepare for changes and new experiences
- Encourage children to express feelings and spend time together as a family

National Domestic Violence Hotline: 1-800-799-SAFE
Georgia School Safety Hotline: 1-877-SAY-STOP

Obesity and Asthma

- Obesity reduces lung function thereby causing the airway to narrow
- Obesity increases the inflammatory response, which increases airway hyperresponsiveness
- Asthma can decrease physical activity by self-limitation or limitation by others
- Multiple use of oral steroids can increase appetite
- Fatty foods may reduce the effectiveness of bronchodilators
- www.strong4life.com

High Risk Asthmatics

- Previous severe exacerbation (intubation or ICU admit)
- > 2 hospitalizations for asthma in the past year
- > 3 ED visits for asthma in the past year
- Use of >2 canisters per month of quick relief meds
- Poor perception of asthma symptoms or severity
- Current use of or recent withdrawal from systemic corticosteroids
- Low economic status and urban residence
- Lack of written asthma plan

(NIH, NHLBI, NAEPPI: Guidelines for the Diagnosis and Management of Asthma, 2007)
Asthma and Food Allergy

- Almost 1 in 4 inner-city asthmatic school children also have food allergy
- Teenagers and young adults, especially those with asthma, are at the highest risk of severe and fatal food allergy reactions
- The two strongest associations of death from food allergy are failure to recognize the severity of the reaction and DELAY in the administration of epinephrine

(Friedlander et al, 2013)

The Student with Uncontrolled Asthma

- Frequent use of albuterol
- Use of albuterol for pretreatment, as well as after exercise
- Frequent colds
- Frequent absences due to asthma
- Persistent cough
- Self-limitation of physical activities
- Fatigue due to nighttime symptoms

Consequences of Uncontrolled Asthma

- Missed school days
- Poor academic performance
- Poor behavior
- Decrease lung function and airway remodeling
- Increased risk for obesity due to inactivity
- Risk for severe exacerbations, hospitalizations and death
Impact of Missed School Days

- Increased parental stress due to missed work and financial impact
- Because students reared in poverty benefit the most from being in school, one of the most effective strategies for providing pathways out of poverty is to do what it takes to get these students in school every day.
- For 8th graders who were absent 15 or more days, their 4-year graduation rate dropped from 78.73% to 30.89%
  (Ginsburg, Jordan, & Chang, 2014)

Senate Bill 472 (SB 472)

Self-administration of Asthma Medication by Minor Children at School
- Also known as the “Kellen Bolden Act”
- Effective on July 1, 2002
A policy for a student who is authorized for self-administration of asthma medication:
1. while in school
2. at a school sponsored activity
3. while under supervision of school personnel
4. while in before-school or after-school care on school property

House Bill 227 (HB 227)

School may stock epinephrine for use for identified anaphylaxis

School personnel may administer epinephrine to a student or staff member with anaphylactic adverse reaction regardless of prescription

Any school personnel who does this in good faith is immune from civil liability

www.epipen4schools.com
**House Bill 362 (HB 362)**

Amendment to HB 227

School may stock albuterol for use for identified respiratory distress

School personnel may administer albuterol to a student or staff member with respiratory distress regardless of prescription

Any school personnel who does this in good faith is immune from civil liability

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**Asthma Friendly Schools**

- Maximize School Health Services
- Build Asthma Education
- Provide a Healthy School Environment
- Improve/onitor Indoor-Outdoor Air Quality
- Manage Physical Education and Activity


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**Resources—Medication and Care**

- For medication assistance:
  - www.needymeds.org
  - www.gskforyou.com
  - www.auvi-q.com
  - www.epipen.com
- Children’s Medical Services
  - a service of the Georgia Department of Public Health that can help children with chronic illness, including asthma, diabetes, congenital cardiac conditions, and epilepsy, get access to care and medications
  - dph.georgia.gov/cms-parents-caregivers
Resources—Asthma Education

References