



National Asthma Education and Prevention Program

MANAGEMENT OF ASTHMA EXACERBATIONS: *School Treatment*

Suggested Emergency Nursing Protocol for Students with Asthma Symptoms Who Don't Have a Personal Asthma Action Plan

A student with asthma symptoms should be placed in an area where he/she can be closely observed. Never send a student to the health room alone or leave a student alone. Limit moving a student who is in severe distress. Go to the student instead.

See list of Possible Observations/Symptoms on back.

IMMEDIATE ASSESSMENT

Is the exacerbation severe?

- Marked breathlessness, inability to speak more than short phrases, use of accessory muscles, or drowsiness OR

Is the student at High Risk of a fatal attack?

- Risk factors for a fatal attack (see back) *.

YES

TAKE IMMEDIATE ACTIONS

- Treat with inhaled SABA.
- **Call 911** (student to ED).
- Contact parent/guardian.

NO RESPONSE

If available, measure PEF: Is PEF < 50% of predicted or personal best?

YES

Consider epinephrine for life-threatening attack only (see back) **.

NO

Check and record respirations, pulse, and PEF rate.

INITIAL TREATMENT

- **Inhaled SABA:** Up to two treatments 20 minutes apart of 2–6 puffs by MDI or nebulizer treatments. (Note: medication must be authorized by a personal physician order or standing protocol signed by the school physician or public health physician).
- Restrict physical activity, allow student to rest.
- Administer oxygen (if appropriate and available).
- Contact parent/guardian.
- Assess response after 10 minutes.

With parental permission, send a copy of the health room encounter report to the student's physician. Obtain a personal asthma action

GOOD RESPONSE

(PEF \geq 80% and no wheezing or dyspnea)

- Reassess after 3-4 hours
- Follow school protocol for returning to class.

INCOMPLETE RESPONSE

(PEF 50–79% or persistent wheezing or dyspnea)

- Repeat inhaled SABA.
- Reassess after 10 minutes.
- Call parent immediately if response remains incomplete.

POOR RESPONSE

(PEF <50% or marked wheezing and dyspnea)

- Repeat inhaled SABA.
- Call 911 (Student to ED).
- Contact parent/guardian.
- Consider epinephrine for life-threatening attack only** (see back).

ED: emergency department
PEF: peak expiratory flow

MDI: metered-dose inhaler
SABA: short-acting beta2-agonist (quick-relief inhaler)

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Possible Observations/Symptoms (May include one or more of the following):

- Coughing, wheezing, noisy breathing, whistling in the chest.
- Difficulty or discomfort when breathing, tightness in chest, shortness of breath, chest pain, breathing hard and/ or fast.
- Nasal flaring (nostril opens wide to get in more air).
- Can only speak in short phrases or not able to speak.
- Blueness around the lips or fingernails.

***Risk Factors for Death from Asthma**

Asthma history

- Previous severe exacerbation (e.g., intubation or ICU admission for asthma).
- Two or more hospitalizations for asthma in the past year.
- Three or more ED visits for asthma in the past year.
- Hospitalization or ED visit for asthma in the past month.
- Using >2 canisters of SABA per month.
- Difficulty perceiving asthma symptoms or severity of exacerbations.
- Other risk factors: lack of a written asthma action plan, sensitivity to Alternaria.

Social history

- Low socioeconomic status or inner-city residence.
- Illicit drug use.
- Major psychosocial problems.

Comorbidities

- Cardiovascular disease.
- Other chronic lung disease.
- Chronic psychiatric disease.

**** Consider administering epinephrine** if the student is unable to use SABA because respiratory distress or agitation prevents adequate inhalation from the SABA inhaler device and nebulized albuterol is not available and the exacerbation is **life-threatening**. Administer epinephrine auto-injector in lateral thigh as per local or state epinephrine protocol. Epinephrine is NOT first line treatment for asthma. Albuterol is the treatment of choice.

Administration of epinephrine should be rare and is intended to prevent a death at school from a severe asthma attack. Most school nurses will never need to administer epinephrine.

