

**Office of School Health Contract
Nursing Education
Part 2 of 3**

**ASTHMA
ALLERGIES
ANAPHYLAXIS**



OSH Central Office Nursing
Emergency Nurse Initiative, March 2020

Asthma

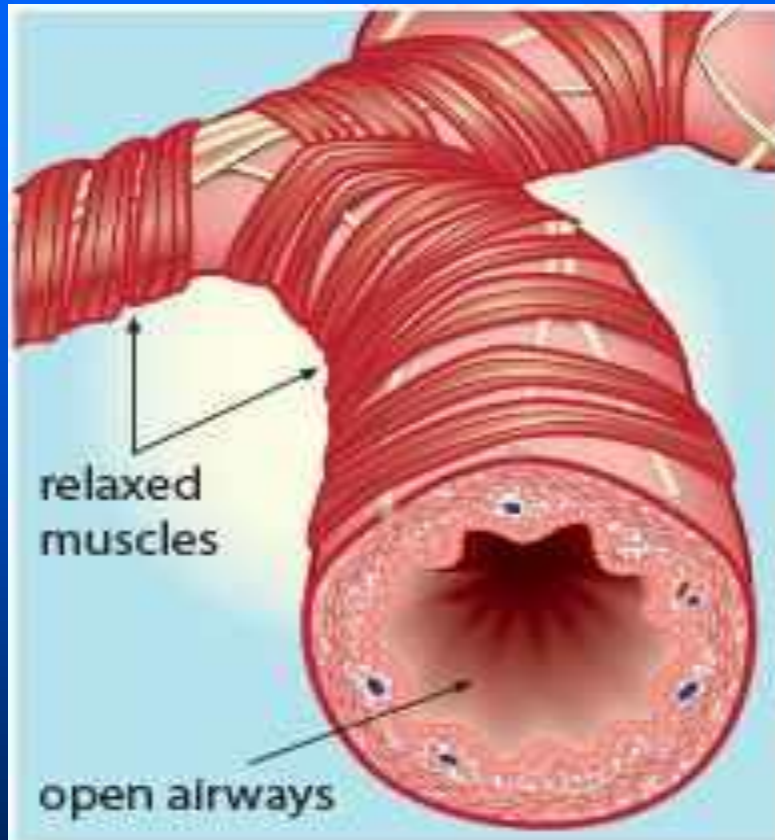
Asthma is a chronic disease that causes:

- ✓ Tightening of the muscles surrounding the airways :Bronchoconstriction/spasm
- ✓ Swelling of the small airways (bronchioles) : inflammation
- ✓ Over production of sticky mucus in the airways

Prevalence

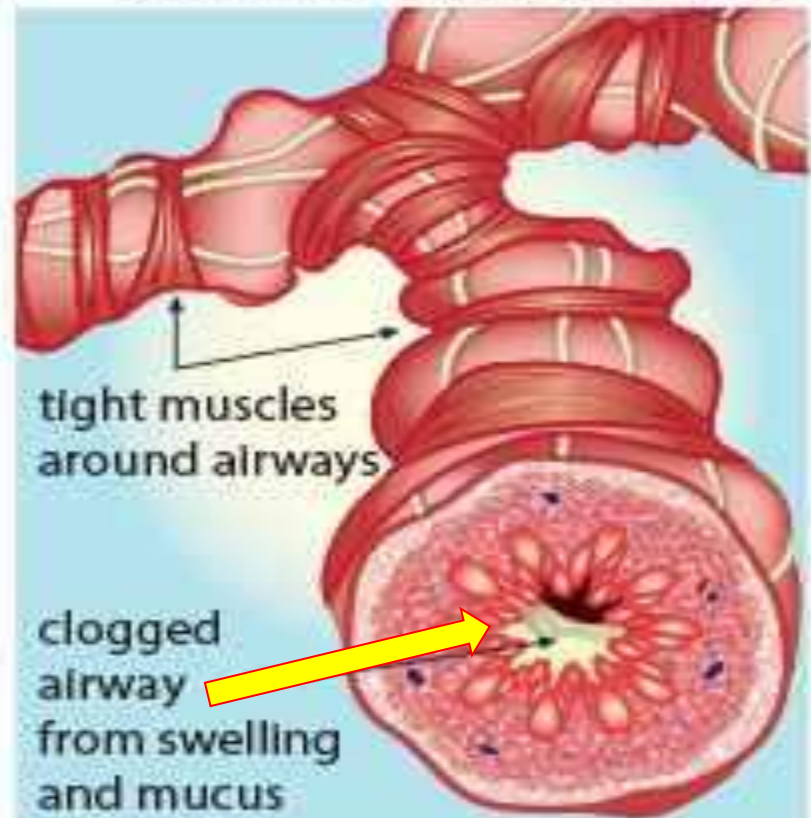
- ✓ Asthma remains one of the leading cause of hospitalizations of children and, emergency department visits, school absenteeism and asthma related deaths

Healthy Airway vs Asthmatic Airway



Normal Bronchiole

Asthmatic Bronchiole



Common Triggers (allergens)

- ✎ Seasonal pollens
- ✎ Animal dander /saliva/urine
- ✎ Dust mites
- ✎ Cockroaches/mice/rat droppings and urine
- ✎ Mold
- ✎ Some medications
- ✎ Some foods
- ✎ Strong emotional feelings
- ✎ Exercise
- ✎ Cold air
- ✎ Chalk dust
- ✎ Viral/upper respiratory infections
- ✎ Air pollution
- ✎ Tobacco smoke or secondhand smoke
- Diesel fuel
- Chemical irritants
- Change in weather

Exposure to allergens and irritants can trigger asthma symptoms

Asthma symptoms

- ✓ Of the 17 million asthma sufferers in the US, 10 Million (approx. 60%) have allergic asthma. 3 million of those are children¹
- ✓ Wheezing and coughing are the most common symptoms
- ✓ The absence of wheezing or decreased breath sounds in a student with asthma complaints indicates progressing respiratory distress.

 ¹ National Institute of Environmental Health Sciences

What Is Exercise Induced Asthma (EIA)?

✓ Tightening of the muscles around the airways (bronchospasm)

✎ Children with exercised induced asthma may also have allergic asthma

✎ Asthma symptoms can be triggered by exercise



Exercise Induced Asthma (EIA) Symptoms

- ✍ Signs/Symptoms may include coughing, wheezing, chest tightness, shortness of breath, respiratory distress and others
- ✍ Exercise may trigger asthma symptoms 5 to 15 minutes after exercise
- ✍ EIA can spontaneously resolve 20 to 30 minutes after starting
- ✍ Administer “Pre-exercise” Albuterol if prescribed for school use on the Medication Administration Form (MAF)

Preventing Exercise Induced Asthma (EIA)

- ✓ Assess lung sounds pre-exercise
- ✓ Review MAF on file to determine frequency of pre-exercise medication
- ✓ Administer or supervise pre-exercise medication as per MAF (usually 15 -30 minutes before exercise)
- ✓ Follow OSH “EASI” asthma protocol for symptomatic or respiratory distress

*Refer to OSH Enhanced Asthma School Interventions (EASI)

Two Categories Of Medications

✓ Reliever or Rescue Medications

- Taken when needed to relieve symptoms
- Or to prevent exercise induced asthma from developing (taken before strenuous exercise)

✓ Controller Medications (maintenance medications)

- Taken every day to prevent swelling in the lungs
- Has been shown to prevent asthma deaths
- Controller medications are not rescue medications and do not relieve acute symptoms

Rescue Or Reliever Medications

- ✓ Are taken when asthma symptoms are appearing (asthma episode or flare)
- ✓ Are taken 15-30 minutes before strenuous exercise/activity by children with EIA
- ✓ Do NOT reduce or prevent swelling from developing in the lungs
- ✓ Relaxes muscle constriction around airway
- ✓ May be carried in school by a student with an MAF on file.

TYPES OF ASTHMA MEDICATION

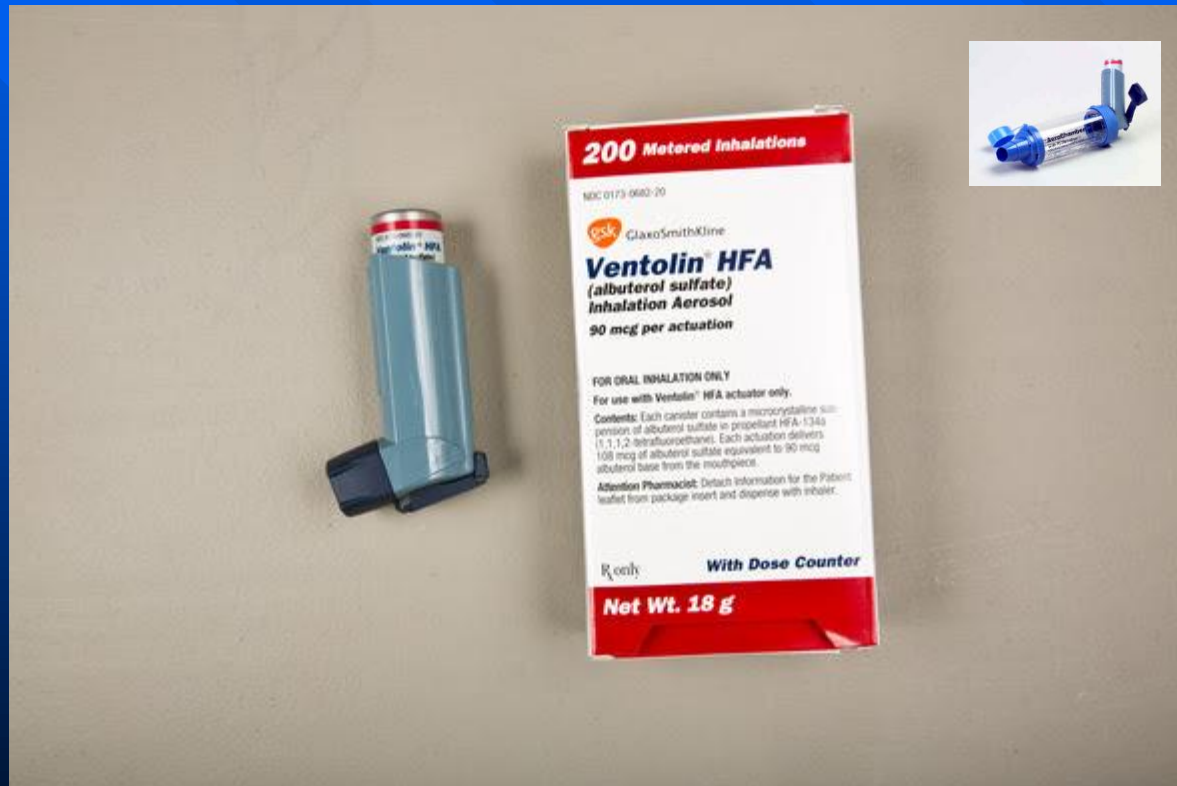
The 4 brands of HFA Rescue Metered Dose Inhalers (MDI)s:

Ventolin **ProAir** **Proventil** are all Albuterol
OSH supplies Albuterol if prescribed for school use

(**Xopenex** is **Levalbuterol Tartrate** and is not interchangeable with above brands).



Rescue Inhalers (short acting)



Controller Medications

- ✓ Inhaled corticosteroids (ICS's) are the most common and the most effective way to control asthma and prevent asthma deaths
- ✓ Prescribed by students' PCP or OSH MD to keep swelling and mucus from developing in the lungs
- ✓ Usually taken at home and school if deemed beneficial
- ✓ An MAF is needed in school if OSH staff are to administer controller medications
- ✓ Must be taken EVERY day even when the child is not having symptoms
- ✓ Help prevent asthma exacerbations from developing!

Spacers Or Holding Chambers

- ✓ Most (Metered dose inhalers) MDI's must be used with a spacer or holding chamber
 - This device attaches to the MDI and allows the user to breathe in more medication effectively
 - Dry powder inhalers Do NOT require spacers
 - Refer to OSH Stock Ventolin Post inhaler oral care

Typical Spacers/Holding Chambers



OSH Medication Process

- ✎ Provides a standard approach for nurses to assess, treat and refer students for emergency care
- ✎ Follows the Enhanced Asthma School Intervention (EASI) Protocol
- ✎ Permits a nurse to obtain orders (verbal and written) for emergency rescue medication in school (see specific EASI protocol)
- ✎ Encourages MAFs for asthma controller (maintenance) medication for students with “persistent” asthma
(mild persistent, moderate persistent, severe persistent)

(The general OSH Medication Form (MAF) process is reviewed in Module 1 in the OSH Nurse role)

<https://www.schools.nyc.gov/docs/default-source/default-document-library/asthma-medication-administration-form-2019-20>

- Review the Medication Administration Form (MAF) for Asthma in the above link.
- Standard Orders and respiratory distress EMS Ventolin dose orders Upper Respiratory Flares (URI) order
- Pre-exercise orders
- Risk assessment questionnaire on the MAF

Student Asthma Risk Assessment Questionnaire (Y = Yes, N = No, U = Unknown)

History of near-death asthma requiring mechanical ventilation	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> U	
History of life-threatening asthma (loss of consciousness or hypoxic seizure)	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> U	
History of asthma-related PICU admissions (ever)	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> U	
Received oral steroids within past 12 months	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> U	____ times last : ____ / ____ / ____
History of asthma-related ER visits within past 12 months	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> U	____ times
History of asthma-related hospitalizations within past 12 months	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> U	____ times
History of food allergy or eczema, specify: _____	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> U	

MAF INFORMATION:

ASTHMA SEVERITY and CONTROL

Severity is categorized as:

- Intermittent
- Mild Persistent
- Moderate Persistent
- Severe Persistent

Control is categorized as:

- Well-controlled
- Poorly Controlled(Includes not controlled category)

Review these on the MAF to help assess students' acuity

Asthma MAF: Review and Implementation

- Contract nurses review MAFs for asthma
- Implement them if the orders are complete and signed by the student's provider and parent
- Notify the OSH supervisor and send to them for electronic entry

MAF for ASTHMA: IMPLEMENTATION

The MAF for Asthma includes:

- 1a .Standard(STD) Prn doses (this generates a EMS 6 puffs automatically)
- 1b. Respiratory Distress doses after 911 is called for asthma
 - 1. Pre-exercise doses
 - 2. Doses for asthma flares or URI

IMPLEMENTATION

Each actuation/inhalation/puff is 30 seconds apart. Doses are repeated as per EASI protocol and MAF/Verbal Orders.

E.g. **A 2 puff dose** =

1st puff....30 sec....2nd puff . If no distress, monitor 20 minutes to determine if to 2 repeat the 2 puffs

A 6 puff dose EMS/respiratory distress dose is given while waiting for EMS =
1 puff...30 sec...2 puffs...30 sec.....3 puffs...30 sec...4 puffs...40sec...5 puffs...30 sec...6 puff

MAF Orders:

Review implementation on following slide

Some students may received controller medications at school: Flovent
Controller medication is provided by OSH if prescribed by a PCP or the OSH MD

Controller Medications for In-School Administration <i>(Recommended for Persistent Asthma, per NAEPP Guidelines)</i>	
<input type="checkbox"/> Fluticasone MDI [<i>Flovent® 110 mcg MDI can be provide by school for shared usage</i>]: [Parent must sign back] <input type="checkbox"/> MDI w/ spacer <input type="checkbox"/> DPI	<input type="checkbox"/> Standing Daily Dose: ___ puffs/1AMP ONCE a day at ___ AM or ___ PM Special Instructions:
<input type="checkbox"/> Other: Name: _____ Strength: _____ Dose: _____ Route: _____ Time Interval: <input type="checkbox"/> ___ hrs	

- MAF Cover sheets located in the medication binder after OSH electronic entry computerized and placed in front of the MAF order in the medication binder

Student: School: Utilities:

Log out

Search By:
 Student ID: 999999999 School: 01Z101 Registered to: 01Z101
 First Name: Last Name: Grade: Class: Search

The City of New York Department of Health and Mental Hygiene Office of School Health

Medication Profile (Medication At School)

Student Name: DEMO FIRST DEMO LAST 999999999 [Demo]

Date of Birth: 6/24/2001 (15 years 2 months) School No: 01Z101

School Year: 2016 2017

Approved Date: 8/5/2016 Status: Active

Medication: STD Albuterol Dx: Asthma

Dose: 2 Unit (Puffs) Frequency: PRN Q 4

Route: MDI with spacer Administer: Nurse

I attest student demonstrated the ability to self-administer the prescribed medication effectively for school field trips/school-sponsored events ☐

Add'l Order (1500 Chars): Administer 2 inhalations (wait 30 seconds between actuations); with spacer (masked if available) Q4hrs PRN for coughing, wheezing, tightness in chest, difficulty breathing or shortness of breath (Asthma Flare Symptoms).
 IF STUDENT NOT IN RESPIRATORY DISTRESS: may repeat in 20 mins x 1 if symptoms persist.
 IF STUDENT IN RESPIRATORY DISTRESS: if any of the following signs are present: breathlessness, color change (cyanosis, paleness), hunched forward, nasal flaring, use of accessory muscles of respiration (neck muscles & chest muscles, with supra-sternal notch pulling in with each breath), abdominal breathing, shallow rapid breathing, talks in words, not sentences, agitated or drowsy or confused or appears to be exceptionally quiet, breath sounds decreased or absent, wheeze throughout expiration and inspiration plus any of these symptoms: coughing, wheezing, shortness of breath, chest pain, post-tussive vomiting, tachypnea

Proceed to EMS order:

☐ Parent consents to use of stock albuterol

Home Medications Indicated: No

MAF Pilot: ☐

Student Asthma Risk Assessment Questionnaire

Severity: ☐ Intermittent ☐ Mild Persistent ☒ Moderate Persistent ☐ Severe PersistentControl: ☐ Well-controlled ☐ Poorly Controlled

History of near-death asthma requiring mechanical ventilation: Yes

History of life-threatening asthma (e.g. with loss of consciousness or with hypoxic seizure):

Received oral steroids within past 12 months: times:

Date last oral steroids received: History of food allergy, eczema, specify:

History of asthma-related:

PICU admissions (ever):

ER visits within past 12 months: times:

Hospitalizations within past 12 months: times:

■ Non-public school medication binder

MAF Cover sheets in Non- Public schools are manual (non-computerized) and placed in front of the MAF in the medication binder

OFFICE OF SCHOOL HEALTH REVIEW FOR SPECIAL SERVICES					
District _____	Date received _____				
School _____	Date approved _____				
Class _____	Date to Central _____				
STUDENT'S NAME _____		DOB _____ / _____ / _____	<input type="checkbox"/> M <input type="checkbox"/> F		
PARENT/GUARDIAN _____					
ADDRESS _____		PHONE _____			
MEDICAL PROVIDER _____		PHONE _____			
<p>ORDERS</p> <p style="font-style: italic; font-size: 1.2em;">Albuterol MDI 2 puffs every 4 hours for coughing, wheezing, shortness of breath....</p>					
<p>CLINICAL INFORMATION</p>					
DIAGNOSIS	CODE	SERVICE	FREQUENCY	SELF-ADMIN	
ASTHMA	<input type="checkbox"/> 493.9	PO medication <input type="checkbox"/> 99211 Nebulizer <input type="checkbox"/> 94664 Inhaler no spacer <input type="checkbox"/> 94640 Inhaler with spacer <input type="checkbox"/> 94640S	Daily <input type="checkbox"/> PRN <input type="checkbox"/> Daily <input type="checkbox"/> PRN <input type="checkbox"/> Daily <input type="checkbox"/> PRN <input type="checkbox"/> Daily <input type="checkbox"/> PRN <input type="checkbox"/>	YES <input type="checkbox"/> No <input type="checkbox"/> YES <input type="checkbox"/> No <input type="checkbox"/> YES <input type="checkbox"/> No <input type="checkbox"/> YES <input type="checkbox"/> No <input type="checkbox"/>	
ADHD ADD	<input type="checkbox"/> 314.01 <input type="checkbox"/> 314	PO Medication <input type="checkbox"/> 99211	Daily <input type="checkbox"/> PRN <input type="checkbox"/>	YES <input type="checkbox"/> No <input type="checkbox"/>	
FOOD ALLERGY ANAPHYLAXIS	<input type="checkbox"/> 693.1 <input type="checkbox"/> 995.3	Benadryl <input type="checkbox"/> 10490 Epi-Pen <input type="checkbox"/> W1325	Daily <input type="checkbox"/> PRN <input type="checkbox"/> Daily <input type="checkbox"/> PRN <input type="checkbox"/>	YES <input type="checkbox"/> No <input type="checkbox"/> YES <input type="checkbox"/> No <input type="checkbox"/>	
DIABETES	<input type="checkbox"/> 250	BG monitoring <input type="checkbox"/> 82947 Glucagon <input type="checkbox"/> 90782 Insulin <input type="checkbox"/> 90799 Ketones <input type="checkbox"/> 82010 Insulin pump <input type="checkbox"/> 96520	Daily <input type="checkbox"/> PRN <input type="checkbox"/> NA <input type="checkbox"/> PRN <input type="checkbox"/> Daily <input type="checkbox"/> PRN <input type="checkbox"/> Daily <input type="checkbox"/> PRN <input type="checkbox"/> Daily <input type="checkbox"/> PRN <input type="checkbox"/>	YES <input type="checkbox"/> No <input type="checkbox"/> YES <input type="checkbox"/> No <input type="checkbox"/> YES <input type="checkbox"/> No <input type="checkbox"/> YES <input type="checkbox"/> No <input type="checkbox"/> YES <input type="checkbox"/> No <input type="checkbox"/>	
OTHER _____ <input type="checkbox"/>		Catheterization <input type="checkbox"/> 53670	Daily <input type="checkbox"/> PRN <input type="checkbox"/>	YES <input type="checkbox"/> No <input type="checkbox"/>	
<p><u>Self Carry/Self-administer</u> Inhaler <input type="checkbox"/> Epi-pen <input type="checkbox"/> Other <input type="checkbox"/></p> <p>DATE PROVIDER CONTACTED _____ DATE PARENT CONTACTED _____</p> <p>SERVICES PROVIDED BY: DOHMH RN <input type="checkbox"/> DOE RN <input type="checkbox"/> PHADV <input type="checkbox"/></p> <p>DATE SERVICES DISCONTINUED: _____</p>					
BND/SN NAME _____		SIGNATURE _____	DATE _____	MD/SMD NAME _____	
				SIGNATURE _____	
				DATE _____	

Asthma Action Plan

Primary Care Providers (PCPs) may provide parents with Asthma Action Plans for asthma management. **It is not an MAF.**

Asthma Action Plan

[To be completed by Health Care Provider]

Medical Record #:

Updated On:

Name _____ Date of Birth _____
Address _____ Emergency Contact/Phone _____
Health Care Provider Name _____ Phone _____ Fax _____
Asthma Severity: ☐ Intermittent ☐ Mild Persistent ☐ Moderate Persistent ☐ Severe Persistent
Asthma Triggers: ☐ Colds ☐ Exercise ☐ Animals ☐ Dust ☐ Smoke ☐ Food ☐ Weather ☐ Other _____

If Feeling Well (Green Zone)

Take Every Day Long-Term Control Medicines

You have all of these:
• Breathing is good
• No cough or wheeze
• Can work / play
• Sleeps all night

Peak flow in this area:
_____ to _____

MEDICINE:	HOW MUCH:	WHEN TO TAKE IT:

5-15 minutes before exercise use this medicine

--	--	--

If Not Feeling Well (Yellow Zone)

Take Every Day Medicines and Add these Quick-Relief Medicines

You have any of these:
• Cough
• Wheeze
• Tight chest
• Coughing at night

Peak flow in this area:
_____ to _____

MEDICINE:	HOW MUCH:	WHEN TO TAKE IT:

Call doctor if these medicines are used more than two days a week.

If Feeling Very Sick (Red Zone)

Take These Medicines and Get help from a Doctor NOW!

Your asthma is getting worse fast:
• Medicine is not helping
• Breathing is hard and fast
• Nose opens wide
• Can't walk or talk well
• Ribs show

Peak flow reading below:

MEDICINE:	HOW MUCH:	WHEN TO TAKE IT:

SEEK EMERGENCY CARE or CALL 911 NOW if: Lips are bluish, Getting worse fast, Hard to breathe, Can't talk or cry because of hard breathing or has passed out

Make an appointment with your primary care provider within two days of an ER visit or hospitalization

Health Care Provider Signature _____

Date _____

Patient/Guardian Signature: [I have read and understood these instructions]

Date _____



New York City Department of Health and Mental Hygiene
Michael R. Bloomberg, Mayor
Thomas R. Frieden, M.D., M.P.H., Commissioner
nyc.gov/health

New York City Asthma Initiative
Adapted from Finger Lakes Asthma Action Plan and NHLBI
Revised 06/04

WHITE - PATIENT COPY
YELLOW - SCHOOL/DAY CARE COPY
PINK - PROVIDER COPY

OSH STOCK ALBUTEROL

■ Purpose:

- The HFA Ventolin Metered Dose Inhaler (MDI) available for students for school use with a written MAF or a verbal order by an OSH MD or PCP as per the Asthma EASI protocol.
- OSH delivers one “Stock” Ventolin (Albuterol) MDI canister to each OSH medical room
- OSH supplies spacers to attach to the Stock MDI for student’s individual use

OSH Stock Ventolin Policy

In accordance with the OSH “Enhanced Asthma School Interventions” (EASI) protocol :

- The Nurse calls the OSH MD or the student’s PCP for a verbal stat Ventolin dose (EMS/6 puffs dose) for asthma while awaiting EMS in the event of respiratory distress due to asthma
- A PCP can prescribe stat Ventolin for a student with asthma symptoms
- Consult OSH Supervisors as needed

OSH Stock Ventolin Policy

- The OSH “Stock” Ventolin (Albuterol) package is not to be opened until ready to use.
- An expiration date is written on the canister.
- The Stock Ventolin expires twelve (12) months after the package is opened
- Both dates are documented
- The earlier date of the 2 is used as the medication expiration date

OSH Stock Albuterol Policy

13. **School Trips:** Students and parents need to be reminded that the student's personal inhalers must be brought on school trips. Stock Ventolin is only provided within the school. A Trip Reminder Form will be sent home by the teacher and or nurse to remind the parents if student does not have an inhaler in the school medical room.

This Stock Albuterol is located in the medication cabinet

Parents provide Ventolin for trips

The OSH Stock Ventolin is for students during school use in accordance with

The EASI asthma protocol and MAFs

INHALER Maintenance

- Follow instructions on the OSH HFA placard to prime, clean and dry HFA inhalers
- Caution: MDI medication canisters should not be placed in water
- Document Metered Dose Inhaler (MDI) maintenance on the
 - HFA maintenance form for each student's inhaler
 - and on the Stock Albuterol maintenance form for the OSH inhaler

HFA INHALER CLEANING AND PRIMING INSTRUCTIONS

NEW HFA INHALER INSTRUCTIONS

1. All 3 steps must be completed for the new HFA Inhaler to function properly.
2. Inhaler may cease to deliver medication if not properly cleaned.
3. Never submerge the canister in water. The "float test" must not be used with the HFA Inhaler. Water can cause the new HFA canister to malfunction.

	Step 1: Priming Instructions		Step 2: Washing 1x a week	Step 3: Drying
	Upon Opening Package....	If not in use after.....	(ONLY mouthpiece not canister) (Do Not use soap)	
Ventolin	Test 4 sprays in the air	2 weeks – 4 test sprays in the air *if dropped must be reprimed	Flush warm running water from the top through the mouthpiece for 30 seconds Plus** Invert mouthpiece then repeat	Shake off excess water. Dry overnight then reassemble inhaler If buildup still visible then repeat step 2 & step 3.
Proventil	Test 4 sprays in the air	2 weeks – 4 test sprays in the air	Flush warm running water from the top through the mouthpiece for 30 seconds	Shake off excess water. Dry overnight then reassemble inhaler
Xopenex	Test 4 sprays in the air	<u>3 days</u> – 4 test sprays in the air	Same	Same
ProAir	Test 3 sprays in the air	2 weeks – 3 test sprays in the air	Same	Same

Spacer Maintenance

Aerochamber	Wash spacer weekly if used	Remove back end only. Do not Tamper with valve.	Rinse both parts in warm water with liquid soap	Rinse in clean water	Let air dry. Do not rub with any material	Replace back end
Optichamber	Completely dissemble	Wash with soap and warm water before use	Wash as needed	Let air dry. Do not rub with any material	Reassemble	

Differences/Similarities of CFC & HFA

	CFC	HFA
Differences	<ol style="list-style-type: none"> 1. Feels cold 2. Medication delivered in sharp burst 	<ol style="list-style-type: none"> 1. Feels warm 2. Medication delivered in a soft mist
Similarities	<ol style="list-style-type: none"> 1. Similar Size 2. Same medication dose 	

HFA MDI Maintenance Policy for Individual Students

HFA Maintenance Form

Student's Name

Class

CIRCLE THE INHALER THAT APPLIES.

Circumstances That Affect Expiration Date			
	Prime with	Priming Frequency	Expiration Date
Ventolin	4 sprays	Before 1 st use Prime before use if not used within 2 weeks. If dropped, must be reprimed.	*12 months after aluminum packet is opened or if unopened, the date on package, whichever date is sooner. Date Opened: _____ Date on Canister: _____
Proventil	4 sprays	Before 1 st use Prime before use if not used within 2 weeks.	Date on canister
Xopenex	4 sprays	Before 1 st use Prime before use if not used within 3 days.	Date on canister
ProAir	3 sprays	Before 1 st use. Prime before use if not used within 2 weeks.	Date on canister

Washing and Drying Instructions
Mouthpiece
 Minimum Once a week. Wash mouthpiece - only if used.
 Flush warm running water from both ends for 30sec. No Soap. Shake off excess water. Do not dry with towel. Air dry overnight.
 Visually inspect aperture to ensure no medication is present

****If reason for spraying is to administer medication, please also document in 4SHR/Medication Administration Record****

[illegible]

03/23/2010

OSH Enhanced Asthma School Interventions (EASI)

- EASI Protocol outlines respiratory assessment, intervention, treatment and follow up of students with respiratory complaints
- Assess Walk-in asthma symptoms
- Identify Acute Respiratory Distress
- Identify Symptomatic Episodes
- Manage students without MAFs on file
- Manage Students with MAFs on file
- Verbal emergency orders
- Identify Clinical Pathways for EMS Activation

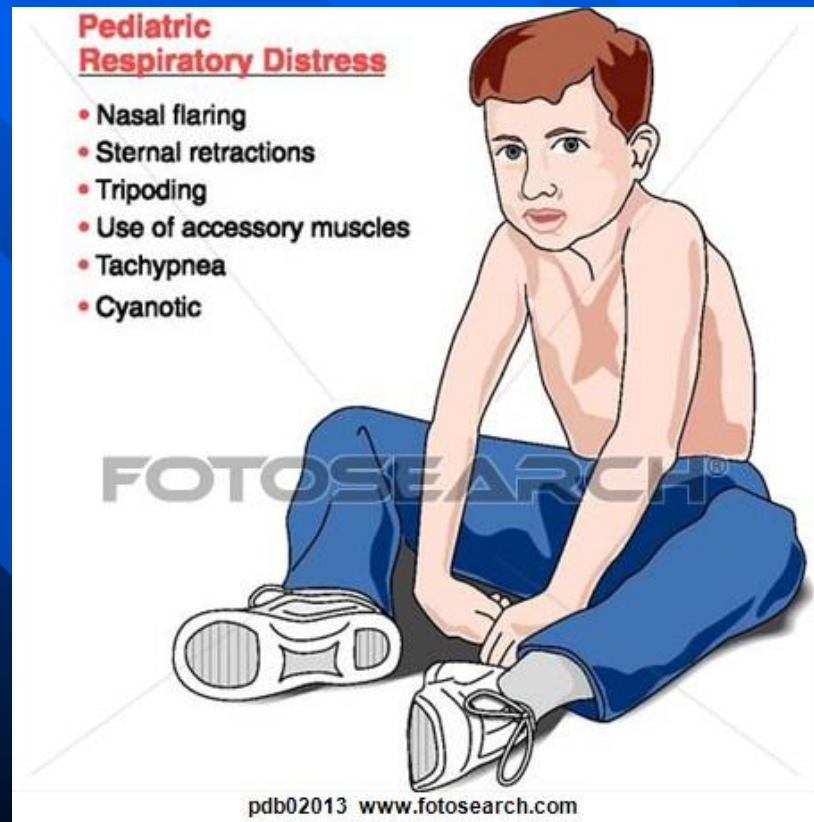
**Enhanced Asthma School Interventions: EASI
Clinical Protocol Pathways for Students Experiencing
an Acute Asthma Exacerbation While in School
Office of School Health**

11/17/2015
NYC Department of Health and Mental Hygiene

**Review the paper
copies at agencies
Version 2016-2017**

ASSESSMENT OF AN ASTHMA EPISODE

ASSESS WHETHER THE STUDENT IS SYMPTOMATIC
OR IN RESPIRATORY DISTRESS



ASSESSMENT OF RESPIRATORY DISTRESS

■ Are the vital signs abnormal?

- ☐ Temperature
- ☐ Respiratory Rate
- ☐ Heart Rate

■ Are any of the following findings found on lung auscultation?

- ☐ Breath sounds decreased or absent
- ☐ Diffuse wheezing

INITIAL EVALUATION OF STUDENT PRESENTING TO THE MEDICAL ROOM

STUDENT PRESENTS WITH ANY OF THE FOLLOWING:

- Coughing
- Wheezing
- Shortness of Breath
- Chest Pain
- Post-tussive vomiting
- Tachypnea

Assume student is in respiratory distress if any of the following signs are present

- Breathlessness
- Color Change: cyanosis, paleness
- Hunched forward
- Nasal Flaring
- Use of accessory muscles of respiration: neck muscles (sternocleidomastoid) & chest muscles (inter-costals), with supra-sternal notch pulling in with each breath
- Abdominal breathing
- Shallow rapid breathing
- Talks in words, not sentences
- Agitated, or drowsy or confused or appears to be exceptionally quiet
- On lung auscultation:
 - Breath sounds decreased or absent
 - Wheeze throughout expiration and inspiration **PLUS** any other symptom above

Obtain and document Vital signs. (Refer to Table of Normal Range of Vital Signs for Age on page 11)

Temperature

Respiratory rate

Heart Rate

After Nurse Assessment of Student to determine if Student is in Respiratory distress check ASHR/103s/medication binder:

- For asthma diagnosis
- If an MAF is on File for the Student

ASSESSMENT OF RESPIRATORY DISTRESS

- Are any signs of respiratory distress present? If any present assume respiratory distress
 - ☐ Breathlessness
 - ☐ Color Change : cyanosis, paleness
 - ☐ Hunched forward:
 - ☐ Nasal Flaring:
<https://www.youtube.com/watch?v=LJVfErMKRi8>
 - ☐ Use of accessory muscles of respiration: neck muscles (sternocleidomastoid) & chest muscles (intercostal muscles), with supra-sternal notch pulling in with each breath:
 - ☐ <http://youtu.be/aj7v1rxEpdk>
 - ☐ <https://www.youtube.com/watch?v=Ksl7Z3iwyL8>
 - ☐ <https://www.youtube.com/watch?v=U-RfbrnMJZE>
 - ☐ Talks in words, not sentences
 - ☐ Agitated, or drowsy or confused or appears to be exceptionally quiet

Do NOT Leave The Child Alone!

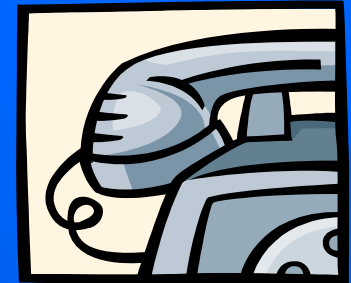


Ask School staff to help
with calls as needed

Anyone can call 911

The nurse would call
911 as per his/her clinical
judgment

Call 911 if..



- ✎ Lips or nail beds are bluish
- ✎ Child has difficulty talking, walking or drinking
- ✎ Quick relief or “rescue” meds (albuterol) is ineffective or not available
- ✎ Neck, throat, or chest muscles are pulling in (retracting)
- ✎ Nasal flaring occurs when inhaling
- ✎ Obvious distress
- ✎ Altered level of consciousness/confusion
- ✎ Rapidly deteriorating condition



There should not be any delay once a child tells you they are having trouble breathing

OR

You notice visible sign and symptoms of respiratory distress

Inhaled corticosteroids (ICS) Protocol

- Asthma is a significant cause of morbidity and mortality in school children in New York City. The Office of School Health (OSH) clinical team aims to prevent unnecessary asthma related deaths among school aged children.
- Actions:
 - Case manage each student at risk
 - Obtain ICS orders for medications in school and parent consent for at risk students
 - Request “Stock Flovent” from OSH if prescribed
 - Administer Flovent daily in school
 - Follow up for changes during encounters

ICS (inhaled corticosteroids steroids) Protocol

Students at Risk are identified by OSH:

- Facilitate MD Session
- SAQ on all students in MD session
- Send home all paper work (SAQ, Prefill MAF/ regular Asthma MAF)
- Order ICS if OSH MD orders stock Flovent for student
- Provide daily Flovent per OSH MAF order
- Complete physical assessment of student in med room for asthma symptoms and follow EASI
- Follow up via case management student progress in collaboration with PCP and or OSH MD

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Identifying at Risk Students

Nursing Actions

- Issue 12S to students to request updated medications and activity recommendations from PCP or OSH MD
- Refer students with “persistent” types of asthma to PCP and OSH MD for review
- Student Asthma Questionnaires (SAQ) may be performed by OSH team members
- Place in OSH Doctor sessions to facilitate ICS in school
- Encouraging parents to ensure students take their controller/maintenance medications at home as prescribed or in school if deemed helpful

Identified Poorly controlled students-

- Lists may be available for review and forwarded to nurses.
- Student with a reported asthma-related school absence within the past 1- 2 weeks
- Student with MAF on file sent home from school or EMS because of asthma exacerbation
- Medical room visit for acute asthma symptoms (cough, wheezing, chest pain, SOB, post-tussive vomiting)
- Asthma-related ED visit
- Asthma Control Test-Poorly Controlled
- Asthma-related hospital admissions
- Frequent school absences (Greater than 10/year)

MD Asthma Focused Session

- During the MD session, the OSH physician performs a focused history and examination of the student and document on the Asthma Targeted Session Encounter Form.
- The OSH physician should also attempt to contact both the parent and the PCP/Specialist, if possible, before, during, or after the session.
- If parent/guardian is not available during the MD session, contact the parent via phone to discuss all findings related to history, physical, and assessment.

During the MD Session

- If the student does not have an MAF on file:
 - If medication management involves only Albuterol : the OSH Physician will complete a pre-filled MAF. The MAF will be sent home with the student for a parent signature if the parent was not present for the examination or did not sign the form earlier.
 - If medication management includes ICS: the OSH Physician will need to complete a new MAF, which will need to be signed by the parent.
 - The MAF completed by the OSH physician must include Standard/EMS/URI Ventolin orders. The physician may also write for pre-gym Ventolin and Flovent if indicated.
- **MAFs require both a parent and physician signature.**

Ordering ICS for In-school ICS administration

- Request a stock Flovent for the first student prescribed Flovent 110 mcg MDI
- The OSH Stock Flovent is used with a spacer for subsequent students with a Flovent order
- Standing daily dose : 2 inhalations with spacer once a day : put time as an AM dose
- Obtain signature of parent/guardian in MAF with ICS order



This Photo by Unknown
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ICS Administration Protocol

- If the PCP/Specialist wishes to prescribe a different brand or dose of Flovent and they agree to in-school administration of ICS, the PCP/Specialist must complete and submit an MAF and the parent must provide the other medication.
 - » If the PCP/Specialist orders 220 mcg 1 puff, it is equivalent to 110 mcg 2 puffs.

ICS Administration Protocol

- Forward completed MAFs for Flovent to OSH Supervisors for electronic entry into the Automated Student Health Record (ASHR)
- The OSH nurse will then fax a request to Central Office to deliver a Flovent canister to the school, if order is for Flovent 110 mcg or 220mcg.
- The OSH nurse must monitor for side effects of Flovent (see Table C) and must notify the prescribing physician if any occur.
- OSH Nurse or case managers assigned to community schools will schedule a follow up appointment with OSH Physician for re-evaluation with SAQ in 1 month.

Successful Asthma Management Requires Everyone's Cooperation

 Teachers

 Parents

 Students

 Medical Providers

 Coaches

 All School Personnel

The school Nurse collaborates with the school community to help students and families manage asthma in school

Allergies and Anaphylaxis



Office of School
Health

Sources: Food Allergy Network
Office of School Health Anaphylaxis Training Tools
www.schools.nyc.gov

March 2020

FOOD ALLERGIES

- A food allergy involves an interaction between food proteins and the immune system
- In some individuals these food proteins are recognized by the immune system as foreign invaders
- Very small amounts of food can trigger an allergic reaction
- Peanuts and tree nuts are the most common cause of severe food allergy

Anaphylaxis

- The immune system responds by producing an antibody to the particular food protein
- The antibody circulates through the body
- The next time the individual eats, touches or inhales the offending food protein, the immune system protects the body from the dangerous invader by releasing chemicals
- The individual experiences an allergic reaction

ALLERGIES and ANAPHYLAXIS

- Anaphylaxis is a potentially life-threatening medical condition occurring in allergic individuals after exposure to specific allergens such as medications, foods or insect bites or stings.
- Anaphylaxis is a collection of symptoms affecting multiple systems in the body.

ANAPHYLAXIS

- Anaphylaxis is a general body reaction or “general shock” left untreated or under treated it can result in death.
- Anaphylaxis is commonly caused by **food allergies, stinging insects (including bees and fire ants) and medications**
- Food allergy is the most common cause of fatal anaphylaxis outside of the hospital
- The same food may cause different symptoms in different allergic individuals (e.g. hives in one and stomach cramps in another)

Anaphylaxis

- Foods that most often trigger an anaphylactic reaction
 - Peanuts
 - Nuts
 - Shellfish
 - Milk
 - Eggs

Severe Allergic Reaction (Anaphylaxis)

- A severe allergic reaction (Anaphylaxis) is a potentially life-threatening condition occurring in allergic individuals after exposure to specific substances (“allergens”) such as medications, foods or insect bites or stings.
- Symptoms appear in minutes to hours.
- The majority of reactions occur within one hour and can progress rapidly.

Anaphylaxis

- Common Signs and Symptoms of an Acute Food-Allergic Reaction
- Symptoms may be limited to one body system or appear in several systems
- Sudden complaints of : Itchy skin or eyes, runny or stuffy nose itching or swelling of the throat, wheezing, difficulty breathing, coughing, abdominal cramps, nausea, vomiting, or diarrhea
- If you see a child showing any of these symptoms, Act Fast!

Anaphylaxis

- Some reactions may be initially mild and disappear after medication is administered
- Others reactions grow from mild symptoms to anaphylaxis within a few minutes
- Still others improve with medication but return within minutes to hours
- This type is known as bi-phasic reactions can be quite dangerous because the patient is caught off guard and the late reaction can be more severe
- All symptoms, no matter how minor, need to be recognized and treated promptly

Anaphylaxis: Epinephrine Effects

- **The epi-pen is an auto-injector single-use dose of epinephrine, the treatment of choice for anaphylaxis.**
- Epinephrine constricts blood flow to skin and mucous membranes resulting in blanching of the skin at the injection site
- The effects of the epi-pen injection wear off after 10-20 minutes
- ☐ Some children will appear pale; others may vomit
- ☐ Epinephrine will increase cardiac rate
- ☐ Students may appear restless, apprehensive, complain of headache
- An “unnecessary” dose should have no prolonged or significant ill effects

Anaphylaxis: Epinephrine

- Epinephrine (adrenalin) is available by prescription only.
- □ Epi-Pen® and Epi-Pen Jr. are available by auto injector.
- A single dose of medication is contained in each auto injector
- □ Epi-Pen® 0.3mg is used for children 55 lbs. or greater
- □ Epi-Pen® Jr 0.15 mg is used for children less than 55 lbs.
- Epi-Pen® and Epi-Pen Jr. auto injectors are approximately the size of a permanent marker

EPI-Pen updates

Three (3) New Respective Checklists for:

- Epi pen/Mylan check list – To be used for both Epi-pen and Mylan
- Auvi Q
- Impax Epinephrine Auto-Injector

EPINEPHRINE DEVICE ADMINISTRATION TIMES:

- EPI PEN AUTO-INJECTOR- 3 seconds
- MYLAN & GENERICS - 3 seconds
- AUVI-Q - 5 seconds
- IMPAX– 10 seconds

How to use an Epi-Pen® or Epi-Pen New Device



1. Remove the Epi-Pen ® from the tube
2. Pull off the blue safety cap
3. Place orange tip about 2 inches from outer thigh
4. Hold at 90 degree angle
5. Jab into thigh
6. Hold for 3 seconds
7. Remove needle and massage thigh
8. In addition to giving the Epi pen, the affected person should lie down, if possible, with the lower extremities elevated to reduce shock
9. Keep head flat where possible
10. Dispose Epi pen appropriately

DIRECTIONS FOR USE

- **REMOVE AUTO-INJECTOR FROM CARRIER TUBE BEFORE USE.**
- **NEVER PUT THUMB, FINGERS OR HAND OVER ORANGE TIP.**
- **NEVER PRESS OR PUSH ORANGE TIP WITH THUMB, FINGERS OR HAND.**
- **THE NEEDLE COMES OUT OF ORANGE TIP.**
- **DO NOT REMOVE BLUE SAFETY RELEASE UNTIL READY TO USE.**
- **DO NOT USE IF SOLUTION IS DISCOLORED.**
- **DO NOT PLACE PATIENT INSERT OR ANY OTHER FOREIGN OBJECTS IN CARRIER WITH AUTO-INJECTOR, AS THIS MAY PREVENT YOU FROM REMOVING THE AUTO-INJECTOR FOR USE.**



TO REMOVE AUTO-INJECTOR FROM THE CARRIER TUBE:



1. Flip open the yellow cap of the EpiPen® or the green cap of the EpiPen® Jr Auto-Injector carrier tube.



2. Remove the EpiPen® or EpiPen® Jr Auto-Injector by tipping and sliding it out of the carrier tube.

TO USE AUTO-INJECTOR:

1. Grasp unit with the orange tip pointing downward.
2. Form fist around the unit (orange tip down).



3. With your other hand, pull off the blue safety release.



4. Hold orange tip near outer thigh.

DO NOT INJECT INTO BUTTOCK.



5. Swing and **firmly push** against outer thigh until it clicks so that unit is perpendicular (at 90° angle) to the thigh.

(Auto-injector is designed to work through clothing.)

6. Hold **firmly against thigh** for approximately 10 seconds to deliver drug. (The injection is now complete. The window on auto-injector will be obscured.)



7. Remove unit from thigh (the orange needle cover will extend to cover needle) and massage injection area for 10 seconds.

8. Call 911 and seek immediate medical attention.
9. Take the used auto-injector with you to the hospital emergency room.

Note: Most of the liquid (about 85%) stays in the auto-injector and cannot be reused. However, you have

! WARNING !

- **NEVER** put thumb, fingers or hand over orange tip. **NEVER** press or push orange tip with thumb, fingers or hand. The needle comes out of orange tip. Accidental injection into hands or feet may result in loss of blood flow to these areas. If this happens, go immediately to the nearest emergency room.
- EpiPen® and EpiPen® Jr Auto-Injector should be injected only into the outer thigh (see "Directions for Use"). **DO NOT INJECT INTO BUTTOCK.**
- Do NOT remove blue safety release until ready to use.

To dispose of expired units

- Expired auto-injectors must be disposed of properly.

Epinephrine Auto-Injectors

AllergyAsthmaNetwork.org • 800.878.4403

2017

Allergy & Asthma Network is a national nonprofit organization dedicated to ending needless death and suffering due to asthma, allergies and related conditions through outreach, education, advocacy and research.

	Auvi-Q®	EpiPen®	Generic Epinephrine Auto-Injector	Epinephrine Auto-Injector (Impax)
				
Pediatric Dosage	0.15 mg for 33 - 66 lbs.	0.15 mg for 33 - 66 lbs.	0.15 mg for 33 - 66 lbs.	0.15 mg for 33 - 66 lbs.
				
Adult Dosage	0.3 mg for over 66 lbs.	0.3 mg for over 66 lbs.	0.3 mg for over 66 lbs.	0.3 mg for over 66 lbs.
Storage Temperature	68 to 77 degrees F	68 to 77 degrees F	68 to 77 degrees F	68 to 77 degrees F
Administration	Outer middle of thigh	Outer middle of thigh	Outer middle of thigh	Outer middle of thigh
Hold Time	5 seconds	3 seconds	3 seconds	10 seconds
Does package include a trainer?	Yes	Yes	Yes	No
Twin-packs available?	Yes	Yes	Yes	Yes
Is needle fully retractable or covered inside device after injection?	Yes	Yes	Yes	No
Voice prompts	Yes	No	No	No
Stock School Program	Yes	Yes	No	No
Manufacturer	Kaléo	Mylan	Mylan	Impax Laboratories, Inc.
Website	www.auvi-q.com	www.epipen.com	www.my-generic-epinephrine-auto-injector.com	www.epinephrineautoinject.com
Patient assistance	877-302-8847 	800-395-3376 	800-395-3376 	800-934-6729 

School Allergy Reponse Plans for students with MAFs for Epinephrine



NEW YORK CITY DEPARTMENT OF
HEALTH AND MENTAL HYGIENE
Mary T. Bassett, MD, MPH
Commissioner

NEW YORK CITY DEPARTMENT OF
EDUCATION
Carmen Fariña
Chancellor

OFFICE OF
SCHOOL HEALTH

School Allergy Response Plan

Student's Name: _____

DOB: _____

Teacher/Class: _____ School _____

photo here

ALLERGY TO: _____

High risk for severe reaction (eg. Hx asthma) ____yes ____no

General Signs of Severe Allergic Reaction

Systems: Symptoms

Mouth: itching and swelling of lips, tongue or mouth

Throat: itching and/or a sense of tightness in throat, hoarseness, and hacking cough

Skin: hives, itchy rash, and/or swelling of face or extremities

Gut: nausea, abdominal cramps, vomiting and/or diarrhea

Lung: shortness of breath, repetitive coughing and/or wheezing

Heart: "thready pulse", "passing out"

Note: the severity of symptoms can change quickly.

*These symptoms can potentially progress to a life-threatening situation.

If exposure to allergen is suspected and/or symptoms are:

1. Give _____ IMMEDIATELY!
(medication/dose/route)
 2. Then call 911/EMS (ask for advanced life support) following school procedures for 911.
 3. Call parent/Guardian _____ or emergency contacts.
 4. Call Dr. _____ at _____.
- DO NOT HESITATE TO CALL 911!**

Trained School Staff:

- | | | |
|----------|-------------|------------|
| 1. _____ | Title _____ | Room _____ |
| 2. _____ | Title _____ | Room _____ |
| 3. _____ | Title _____ | Room _____ |

Emergency Contacts (other than parent/guardian):

1. _____ Phone: _____

Relationship : _____

2. _____ Phone: _____

Relationship : _____

Nurse signature _____ Date _____

Parent/guardian signature _____ Date _____

School Allergy Response Plan

(Adapted from the Food Allergy and Anaphylaxis Network)

Specific training on the Allergy Response Plan (including administration of epi-pen in an emergency if nurse is unavailable) to be given by school nurse to these school staff:

**SKILLS CHECKLIST
EPI-PEN™ and MYLAN GENERIC EPINEPHRINE AUTO-INJECTOR**

Name: _____ Date: _____

	Yes/No	Comments
1. Removes the device from the tube.		
2. Grasps the auto-injector in fist with the orange tip (needle end) pointing downward.		
3. With the other hand, remove the blue safety release by pulling straight up without bending or twisting.		
4. Place orange tip about 2 inches from the outer thigh. If administering to a young child, hold thigh firmly		
5. Swing and push the auto-injector firmly until it “clicks”. The click signals that the injection has started.		
6. Count slowly to 3 “one, two, three”		
7. Remove the auto-injector from the thigh		
8. Massage the injection area for 10 seconds		
9. Place discharged epinephrine auto-injector unit into carrying container to give to EMS personnel.		

SKILLS CHECKLIST
IMPAX EPINEPHRINE AUTOINJECTOR (EAI)

Name: _____ Date: _____

	Yes/No	Comments
1. Removes the device from the tube.		
2. Pull off blue end caps on both sides (note, trainer caps are tan)		
3. Grasp the EAI in your fist with red tip pointing downward (the needle comes out of the red tip).		
4. If administering to a young child, hold thigh firmly		
5. Put the red tip against the middle of the outer thigh at a 90 degree angle.		
6. Press down hard and hold firmly against the thigh for approximately 10 secs,		
7. Remove the auto-injector from the thigh		
8. Check that there is an exposed needle. If not, repeat injection. (Does not apply to trainer).		
9. Massage the injection area for 10 seconds		
10. Carefully place discharged EAI unit into carrying container : a. Lay the labeled half of the carrying case cover down on a flat surface. Use one hand to carefully slide the end of the EAI, needle first, into the labeled case cover. b. After the needle is inside the labeled cover, push the unlabeled half of the case cover firmly over the non-needle end of the EAI.		
11. Give the EAI, in its cover, to EMS when they arrive. If they do not accept it, dispose in sharps container.		

SKILLS CHECKLIST

Auvi Q

Name: _____ Date: _____

	Yes/No	Comments
1. Removes the Auvi-Q from the outer case.		
2. Follow oral prompt and pull off red safety guard.		
3. Follow oral prompt and place black end against the middle of the outer thigh (through clothing, if necessary), then press firmly.		
4. Hold in place as device counts down from 5, ending with "injection complete"		
5. Remove device and massage thigh.		
6. Replace the used Auvi-Q device into outer case and give to EMS (Emergency Medical Services) personnel upon		

Anaphylaxis: Treating Unknown Allergies

- The emergency administration of an epi-pen by a nurse or school health physician to any adult or non-student having a severe allergic reaction for which there is no current individual medical order at the school, while outside the scope of employment, would be covered under the Good Samaritan Law, NYS Public Health Law § 3000A.
- The Standing Order for the administration of epinephrine for nurses working in New York City schools to students without a student-specific medical order on file for epinephrine may be found by clicking the link below:
- <http://schools.nyc.gov/Offices/Health/SchoolHealthForms/default.htm>
- Source: www.schools.nyc.gov

ALLERGIES and ANAPHYLAXIS:

Epi pen Standing Order

- The OSH non-specific Standing Order for Epinephrine is renewed annually for Registered Nurses servicing OSH to administer an Epi pen to students without orders and to symptomatic adults on school premises .
- Epi pen (Epinephrine) is the only standing order medication in OSH the OSH /Contracted RN can administer without a specific, individual order.
- The OSH/Contracted RN carries the OSH Stock Epi pen auto-injector in the red fanny pack and administers the OSH Stock Epi pen to a child/adult when anaphylaxis is suspected on assessment
- **911 is called for ALL Epinephrine injections whether intentional or accidental.**

OSH Non-Specific Epinephrine Standing Order

Review 3-paged hard copies with agencies

This OSH Non-Specific Epi pen Standing order is renewed every Calendar year

It is maintained in the medication binder



Department of Health
and Mental Hygiene

Department of
Education

Office of School Health

Non-Patient Specific Standing Order and Protocol for Office of School Health Department of Health and Mental Hygiene/Department of Education Registered Nurses for treatment of Anaphylaxis in the school setting 1/1/2018 – 12/31/2018.

In accordance with New York State Department of Education regulations (8 NYCRR §64.7), I am prescribing this (non-patient specific) standing order and protocol. Registered Nurses employed by or under contract with the Office of School Health of the New York City Department of Health and Mental Hygiene (DOHMH) and the Department of Education (DOE) and assigned to the Department of Health and Mental Hygiene and Department of Education Office of School Health are authorized to administer anaphylaxis treatment agents, including epinephrine for the emergency treatment of anaphylaxis, as set forth below.

These nurses are authorized to administer the anaphylaxis treatment agents only in the course of their employment with the DOHMH/DOE and/or during their assignment to DOHMH/DOE school activities.

Non-Patient Specific Orders

- Administer epinephrine 0.3 mg/0.3ml SC/IM if 55lbs³ or greater, or epinephrine 0.15mg/0.3ml SC/IM if less than 55lbs if student /adult exhibit symptoms of a severe allergic reaction or anaphylactic reaction: hives, itching, difficulty breathing, nausea, abdominal pain, change in mental status, and drop in blood pressure.
- This order is in effect between 1/01/2018-12/31/2018. Call 911 immediately following administration of epinephrine. In addition to administering medication, the victim should lie down, if possible, with the lower extremities elevated to reduce shock. Do not elevate head. Keep head flat.

Signature

Date 12-28-17

Roger Platt, MD
Assistant Commissioner, Office of School Health
Department of Health and Mental Hygiene
NYS License 3: 109486

³ OSH is following expert consensus recommending that children be switched to the 0.3 mg dose auto-injector when they reach 25 kg, for the concern that children nearing 30 kg will be under-dosed with the 0.15 mg epinephrine auto-injector.

ALLERGIES / ANAPHYLAXIS

- OSH encourages families to obtain completed MAFs for allergies from their PCPs
- Students with completed MAFs for Epi pens supply Epi pens for school or independent use
- OSH trains designated staff in the building to administer Epi pen for students with MAFs in an emergency as per Chancellor's Regulations A-715
- <http://schools.nyc.gov/RulesPolicies/ChancellorsRegulations/default.htm>

MAF for Allergies and Anaphylaxis

- <https://cdn-blob-prd.azureedge.net/prd-pws/docs/default-source/default-document-library/allergies-anaphylaxis-medication-administration-form-2019-20.pdf>
- Review the risks on the front of the MAF
- Review if student with allergies has asthma, possibly increasing the severity of an episode

Allergies/Anaphylaxis

- Chancellor's Regulation A.715 requires that at least two non-nursing school staff personnel be trained to administer an EpiPen when a nurse is not available, in any school where there is a student who has an MAF on file for the administration of an EpiPen.
- Permits a student to carry an epi-pen, as prescribed by his or her medical provider, if that student is determined to be able to self-administer medication
- <https://www.schools.nyc.gov/docs/default-source/default-document-library/a-715-8-22-2012-final-remediated-wcag2-0>

***ALLERGIES/ ANAPHYLAXIS**

- The parent/guardians of students with MAFs provide the epinephrine for the student and replace it if expired or discolored
- Consult OSH if the parent provides another type of Epinephrine device that does not have a safety/retractable needle.
- As per the Chancellor's regulations, the student's Epi pen is available to all trained staff designated by the principal even when a student is away from the school building

ALLERGIES/ ANAPHYLAXIS

- An Allergy Response Plan is developed with the school staff for students with MAFs for Epi pens
- Students with independent skills levels on the MAFs can carry their epinephrine
- The dependent student's Epi pen is given to the trained staff after training them to use the Epi pen
- The student's epi-pen should remain accessible to trained school personnel selected by the principal who have contact with the student

ALLERGIES/ ANAPHYLAXIS

- Contract Nurses should review the medication binder for completed Allergy Response Plans for students with MAFs for allergies
- Contract nurses should consult OSH and their agencies to coordinate school trainings.

ALLERGIES/ ANAPHYLAXIS

- The student's Epi pen should be stored in a secure, yet accessible location that will allow for rapid, life saving administration by authorized personnel.
- All trained staff should be notified of where the medication is stored

Students' Epi pens should be kept in close proximity to the student whenever exposure to an allergen is likely (e.g. classroom, lunchroom, playground etc.)

Allergies/Anaphylaxis

- Injection of epinephrine is the treatment of choice for anaphylaxis. Because of the potential speed with which anaphylaxis can progress to death, timely administration of epinephrine is critical. The risk of death from untreated anaphylaxis far outweighs the risk of administering epinephrine,
- It can also be used by children themselves when their pediatrician or health care provider determines that they are ready for self-administration. Effects of epinephrine begin to wear off after 10-20 minutes; therefore, it is essential that 911 be contacted immediately.

Source: www.schools.nyc.gov

Anaphylaxis guidelines

- The parent provides the prescribed medications to school
- 3 Rs for Handling a Reaction
 - ☐ Recognize the symptoms
 - ☐ React Quickly
 - ☐ Review what caused the reaction and how well the emergency plan worked

EPINEPHRINE

ADMINISTRATION: ACTIONS

- Call 911 immediately after administering the Epi pen or Epi pen Junior. The effects of the Epi pen injection wear off after 10-20 minutes
- The victim should lie down, if possible, with the lower extremities elevated to reduce shock. Do not elevate head. Keep head flat.
- Continue to assess the person while awaiting EMS

EPINEPHRINE

ADMINISTRATION: ACTIONS

- Offer the used Epi pen to EMS. If they decline, discard the used unit in the red sharps container
- **Document** the event on the log book and the 103S
- Document on 911 form
- Call your OSH and Agency Nursing Supervisors
- Request an Epi pen replacement from OSH if this was a stock
- Request a replacement from the parent if this was a student-specific Epi pen order

ALLERGIES and ANAPHYLAXIS: NO MAF

MANAGING ANAPHYLAXIS

- Assess signs and symptoms of anaphylaxis
- Give the OSH STOCK Epi pen and CALL EMS/911
- Review students' 103S for history of allergies and asthma
- Students with co-morbidities such as asthma and allergies may be more prone to anaphylaxis
- Reminder- Registered Nurses servicing the OSH administer the OSH Stock epinephrine to a child or adult for suspected anaphylaxis while on duty

Anaphylaxis

Encourage Students

- Do not trade food with others
- Do not eat anything with unknown ingredients
- Notify an adult immediately if they eat something they believe may contain the food to which they are allergic

CONCLUSION

- ACT FAST!
- Recognize signs and symptoms of anaphylaxis
- Call 911
- Keep student laying flat where possible with legs elevated
- Monitor student while awaiting EMS

ACTION SAVES LIVES