

Guidelines for Medication Administration: An Instructional Program for Training Unlicensed Personnel to Give Medications in Out-of-Home Child Care, Schools and Camp Settings

Asthma/Inhaled Medications Module

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First Edition



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GUIDELINES FOR MEDICATION ADMINISTRATION: AN INSTRUCTIONAL PROGRAM FOR TRAINING UNLICENSED PERSONNEL TO GIVE MEDICATIONS IN SCHOOLS, CHILD CARE AND CAMP SETTINGS

Asthma/Inhaled Medications Module

The Asthma Module should be a part of **every** medication administration training. If used as a part of the complete training there will be sections such as documentation and self-carry information that is part of the main manual and may be skipped when doing this module since the information will have been covered. This section of the curriculum can be completed in about 10-20 minutes. The return demo for the trainees will take additional training time.

This module has been separated from the remainder of the medication administration training manual so, if necessary, it can be utilized as a separate training module to train staff that will only provide the medications required for children identified with asthma or the need for inhaled medications with individualized health care plans.

If the module is used in this way, the instructor should provide a copy of the student manual to the trainee to be used as a reference. It is also important to include a review of the completed health care plan/s for the child/ren that the staff is being trained to care for. In addition, staff will want to examine the medications provided for the child/ren to ensure medications are current and being stored in a manner that is safe for the medications, accessible to properly trained staff, and yet inaccessible to children.

This module includes training for a variety of delivery methods for inhaled medications, including metered dose inhalers and nebulizers.

Objectives for the Asthma Module:

- Recognize common causes, symptoms and treatment for asthma
- Describe proper care and storage of asthma medications
- Review template for asthma care plan
- Demonstrate the correct technique for administration of inhaled medications
- Acknowledge when emergency care may be required for children suffering from an acute asthma episode

In addition to the above objectives if this is a training/delegation for a specific child or group of children with individualized health care plans the students must also:

- Identify specific interventions required for the individualized health care plan including: child specific triggers, medications and correct dosages, emergency contact information.
- Demonstrate the proper technique for providing medications via a metered dose inhaler, nebulizer or other inhaled medication delivery system if the information has not been covered in another part of this training.

The information in the instructor and student section of the curriculum was revised and updated by members of the Colorado Asthma Coalition,

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Special thanks to all of the above for their time and their willingness to assist with the revisions.

**Asthma Management/Inhaled Medication Delegation in School and Child Care
Instructional Module
RN Instructor Guide**

CONTENT	Type of Activity	Materials	Time
Introduction Describe delegation of asthma management plan and responsibilities of delegatee		Asthma Delegation Record/Procedure Guidelines if doing this module as a separate training and not part of the complete medication administration training curriculum	2 minutes
What is Asthma? Early Warning Signs/Asthma Triggers	Lecture		3-5 minutes
Asthma Health Care Plan Must have HCP & Parent authorization	Guided Review	Review sample plans and/or child specific for each student	1-2 minutes, longer if reviewing child specific plans
Medications for Asthma Management Types of Medications Care and Storage of Inhaled Medications Disposal of Inhaled Medications Documentation of Administration Medication Incident Report	Lecture	Specifics in HCP	3-4 minutes
Administering Asthma Medications Metered Dose Inhaler Nebulizer	Guided Review Return Demo	Nebulizer Tx Permission Nebulizer Tx Procedure Nebulizer Tx Log	
Self-Carry – Rights and Responsibilities Contract District or agency specific	Guided Review	<u>Colorado School Children's Asthma and Anaphylaxis Health Management Act guidelines</u> Sample Contract	3 minutes
Steps to Follow during an Asthma Episode	Facilitated Discussion	Sample Health Care plans, Child specific HCP	2 minutes
Other Inhaled Medications	Lecture		2 minutes
Document Training and Delegation	Guided Review	Appropriate Inhaled Medication Delegation Record/Procedure Guidelines	
Resources	Guided Review	Asthma Web Resources	2 minutes
Handouts for Inhaled Medications Delegation Health care plan for each student Self carry contract for each student, if applicable Delegation Record/Procedure Guidelines AV resources (Optional) http://www.lungcolorado.org/Asthma_ResourceBox.htm			

Asthma is a chronic lung condition characterized by ongoing inflammation of the airways or bronchial tubes. The inflammation of asthma causes the lining of the airways to swell and produce more mucus. The airways then narrow and obstruct the flow of air out of the lungs.

Asthma is the most common childhood chronic disease, and is a leading cause of hospitalizations and missed school days. Asthma signs and symptoms can range from mild to severe and can vary from episode to episode. Severity can depend on how well asthma is managed by medications and exposure to irritants. While there is no cure and children do not outgrow asthma, this chronic disease is controllable with effective use of anti-inflammatory medicines. (www.lungusa.org)

Early Warning Signs

Often a person will have early warning signs that they are beginning to have difficulty breathing. These warning signs are different for each person and may include:

- ◆ Watery eyes
- ◆ Stuffy or runny nose
- ◆ Itchy throat or chin
- ◆ Funny feeling in chest
- ◆ Feeling anxious
- ◆ Fatigue
- ◆ Headache
- ◆ Dark circles under the eye
- ◆ Behavioral changes

Asthma Triggers

When airways are sensitive, asthma symptoms develop or become worse when exposed to certain triggers. The most common triggers are:

- ◆ Exercise
- ◆ Colds/illness
- ◆ Allergies: pollens, animal dander, molds, dust
- ◆ Weather changes: humidity, barometric pressure, and temperature
- ◆ Irritants: pollution, dust, strong odors, perfumes
- ◆ Emotions: anxiety, excitement, laughing

Asthma Health Care Plan

Always treat the following symptoms according to the child's health care plan:

- ◆ Coughing (continual)
- ◆ Shortness of breath
- ◆ Rapid and difficult breathing
- ◆ Tightness in the chest
- ◆ Wheezing

Review all materials in the sample form section and the appendix section of this module.

*Distribute the most appropriate handouts to the student participants. * Know your audience."*

See "Asthma Web Resources" in the Appendix section of this module for a wide variety of available resources

Refer to Sample Forms Section for the several different versions of Asthma and Respiratory Health Care Plans.

Student participants should practice

Normal Respiratory Rates in Infants and Young Children

- ◆ 30-60 breaths/minute for a newborn
- ◆ 20-40 breaths/minute for an infant < one year
- ◆ 18-30 breaths/minute for a toddler
- ◆ 16-25 breaths/minute for a school age child

Recognizing asthma symptoms in an infant or toddler may require more careful observations. Identification of these symptoms is important so that early treatment can be started. This information should be included in the infant or toddler's health care plan. The following symptoms can indicate a worsening and possibly serious asthma episode:

- ◆ Noisy breathing or breathing rate increased 50% above normal. For example, a toddler engaged in a quiet activity with a breathing rate of 45.
- ◆ Wheezing or panting with normal activities
- ◆ Lethargy, disinterest in normal or favorite activities
- ◆ Difficulty sucking or eating
- ◆ Crying sounds softer, different

Important note: School or child care personnel may not use nursing judgment. They may only report and record their observations, document pulse, respiration and temperature.

A physical assessment, such as the use of a stethoscope is the responsibility of the trained health professional.

Medications for Asthma Management

Quick Relief (Bronchodilators)

- ◆ Short-acting medications, commonly used as a quick relief of symptoms
- ◆ Act quickly to open constricted airways, relaxing smooth bronchial muscles
- ◆ Improvement is usually seen within 5-10 minutes
- ◆ Given by metered-dose or dry-powder inhaler or nebulizer
- ◆ Most effective when used with anti-inflammatory medications

Quick relief inhalers (bronchodilators) have traditionally used CFCs (chlorofluorocarbons) to propel the medication into the lungs. Although CFCs are safe to inhale, they are harmful to the environment and are being phased out to help protect the ozone layer. The FDA is requiring that manufacturers of these inhalers use HFA (hydrofluoroalkane) in place of CFCs to propel the medicine out of the inhaler, in an effort to protect the environment. No CFC inhalers will be sold after December 31, 2008.

With the transition to HFA propelled inhalers, it is important to note the following:

- ◆ HFA inhalers may taste and feel different than the CFC inhalers. Notably, the force of the spray of an HFA propelled inhaler may feel softer than that of a CFC propelled inhaler.
- ◆ The HFA actuator must be cleaned under warm running water once a week; if it is not kept clean, it can become clogged and the albuterol will not be delivered to the lungs. Each HFA inhaler has different cleaning and drying instructions. Therefore, it is important to read and understand the instructions that come with each of the HFA inhalers before using.

counting "breathing rates"

- ◆ The HFA inhaler needs to be “primed” before initial use. Each time a patient receives a new HFA inhaler, he/she should press down at least 3 to 4 times to prime the device. Each HFA propelled inhaler has different priming instructions. Therefore, it is important to read and understand the instructions that come with each of the HFA inhalers before using.
- ◆ Reassure patients of the drug’s effectiveness, even though the spray may taste different or not feel as strong as that from a CFC inhaler.

Additional information, including a podcast, consumer article, and public service announcement can be found on FDA’s website at <http://www.fda.gov/cder/mdi/albuterol.htm>. To learn more about the transition and get answers to many frequently asked questions, visit the Environmental Protection Agency (EPA) website at <http://www.epa.gov/ozone/title6/exemptions/inhalers.html>.

Reference: Letter from the Department of Human Services FDA, dated June 19, 2008

HFA Inhalers vs. CFC Inhalers

Similarities

Safe and effective for asthma
 Shape is similar
 Size is similar
 Convenient to use

How HFA is Different

Ozone friendly to the environment
 May be slightly different in smell & taste
 Mist is less forceful and warmer
 May need to be cleaned and cared for differently

http://www.breatherville.org/pdf/HFA_side_by_side.pdf

Common Medicines

- Ventolin® HFA, Proventil® HFA, ProAir™ HFA (albuterol sulfate)
- Xopenex® HFA (levalbuterol)
- Tornalate® (bitolterol mesylate)
- Combivent®, DuoNeb® (ipratropium bromide plus albuterol)
- Alupent®, Metaprel® (metaproterenol sulfate)
- Maxair® (pirbuterol acetate)

Common Side Effects: fast heart rate, muscle tremors, and shakiness

Long-term Controllers

Anti-inflammatories

- ◆ Most effective asthma control treatment
- ◆ Take daily to gain and maintain “control” of persistent asthma
- ◆ DO NOT take for quick relief of acute symptoms
- ◆ Reduce inflammation leading to reduced symptoms

Common Medications

- QVAR® (beclomethasone dipropionate)
- Pulmicort® (budesonide)
- AeroBid® (flunisolide)
- Flovent® (fluticasone propionate)
- Advair® (fluticasone propionate and salmeterol)
- Azmacort® (triamcinolone acetonide)
- Asmanex® (mometasone furoate)

Common side effects: *horseness, oral thrush, headache.*

Other Anti-inflammatories

- ◆ Helps prevent asthma symptoms caused by exercise
- ◆ Blocks asthma response to triggers
- ◆ Often used with inhaled corticosteroids

Common Medicines

- Intal® (cromolyn)
- Accolate® (zafirlukast)
- Singulair® (montelukast sodium)

Common side effects: *rare with Intal, but has unpleasant taste; oral medications may cause headache, dizziness or nausea.*

Long- Acting Bronchodilators

- ◆ Relaxes muscles that tighten around airways
- ◆ Helps inhaled corticosteroids work better without increasing dose.
- ◆ Should be used with inhaled corticosteroid treatment to prevent adverse risks to severe asthma attacks.
- ◆ Should not be used as a quick relief medication.

Short-term/Anti-inflammatory Drugs

- ◆ Swallowed corticosteroid
- ◆ Used only for asthma flare-ups
- ◆ Usually prescribed for 3-10 days

Common Medicines

- Deltasone®, Liquid Pred® (prednisone)
- Prelone®, Pediapred I®, Orapred (prednisolone sodium phosphate)
- Medrol® (methylprednisolone)

Common side effects: *increase of appetite, weight gain, nausea, vomiting, insomnia, irritability.*

Care and Storage of Inhaled Medications

- ◆ Keep the medications at room temperature
- ◆ Store these medications in the original container, in a clean storage area inaccessible to children
- ◆ The decision to lock these medications should be made according to center policy in consultation with the nurse consultant taking into consideration that these medications MUST be IMMEDIATELY available to staff trained and delegated the use of the medications for children in their care
- ◆ Check expiration dates often and provide parents time to obtain a prescription renewal
- ◆ Return expired inhalers or other expired inhaled medications to the parents for disposal

Disposal of Inhaled Medications

Try to give all expired or unused medications to parents for disposal, but if you

must dispose of them, follow the procedure below:

- ◆ Make sure the inhaler is empty, if not; you should go to a well ventilated area (outside) and dispel what's left inside. Double wrap in a bag or newspaper, place in regular trash.
- ◆ Be sure the trash containing the disposed medications is out of reach of children

Documentation of Inhaled Medications

- ◆ The medication log is a legal document. It becomes a permanent record and provides legal protection to those administering medication as well as a safety check to assure that a child does not receive multiple doses of the medication.
- ◆ Complete a medication log for each child receiving medication.
- ◆ Complete a medication log for **each** medication.
For example, if a child has 2 different inhalers for the management of asthma, complete 2 individual logs.

Note: Complete a new log whenever there is a change in the child's medication or dosage.

Medication Log Directions

Complete the log as soon as the medication is received from the parent. Attach a picture of the child to the medication log, whenever possible.

1. Complete the medication log *in ink*. This is a legal document.
2. Have another trained person review the completed log for accuracy.
3. **The medication log includes:**
 - Child's name
 - Name of medication
 - Date
 - Dosage
 - How the medication is to be given (route)
 - Time the medication needs to be given while in school/child care
 - Start date and end date
 - Special instructions or storage information
 - For "as needed" medications, be sure you include instructions, such as "every 4 hours as needed for repeated coughing or wheezing)"
 - "Comment" section
 - Signature line, including initials, for the person documenting each dose of the medication
4. Compare the information on the log with the medication label before the medication is given.
5. Document in ink immediately after the medication is given.
 - Date and Time the medication was given.
 - Initials of the person giving the medication. Initial only for the medications you administered.
 - If an error is made, draw a single line through the error and write the word "error". Record the right information, sign and date the corrected information. Initial the correction. ***Do not use an eraser or white out.***
6. The "Comment" section is used for special or unusual situations, *e.g., medicine dropped on the floor, child refuses/vomits medicine, parent does not bring the medicine, or document the number of pills received*
Note "A" if a child is absent.
Note "X", any dates the program is closed or not in session.

Refer to the Sample Forms Section for the "Medication Incident Report"

Refer to the "Sample Forms" section of

7. Write the date a medication has been discontinued on the log.
8. If a child does not receive his medicine, it is considered a medication incident. Circle the time the dose was to be given and write in the comment section: *medication not given and why and include your signature.*
Complete a medication incident report.

Remember: IF IT IS NOT WRITTEN, IT DID NOT HAPPEN!

Note: File completed or discontinued medication logs in the child's file. Health records such as medication logs, health care plans and other health-related information are kept in the child's permanent record.

Medication Incident: "a Violation of the "Five Rights"

A medication incident is any situation that involves any of the following:

- ◆ Forgetting to give a dose of medication.
- ◆ Giving more than one dose of the medication.
- ◆ Giving the medication at the wrong time.
- ◆ Giving the wrong dose.
- ◆ Giving the wrong medication.
- ◆ Giving the medication to the wrong child.
- ◆ Giving the medication by the wrong route.
- ◆ Forgetting to document the medication.

Note: Medication must be given within the time frame of 30 minutes before or 30 minutes after the prescribed time, more than that is considered an incident.

Medication Incident Report

1. **CALL Poison Control immediately when a medication is given to the wrong child or if an overdose of medication is suspected.**
2. Document the medication incident on a *"Medication Incident Report" form*. The person responsible for the incident completes the report. If that is not possible, the person who discovered the incident completes the written report.
3. Record the incident and observations on the child's medication log.
Remember that the medication incident report is a record for the program and not intended for the child's permanent record. Program policy should specify where this form should be filed.
 - a) **Report medication incident immediately** to the RN consultant or school nurse, child's health care provider, the parent and the program administrator, as appropriate.
 - b) Observe the child, record and report any changes.

**DO NOT INDUCE VOMITING
 UNLESS INSTRUCTED BY POISON CONTROL.
 POISON CONTROL NUMBER 1-800-222-1222**

Administering Asthma Medications

Asthma medications are prescribed for long term use and their use may change when a child has an exacerbation or severe asthma episode. Always wash hands before and after giving any medications to a child.

Note: The school-aged child in a school or child care program may carry their inhaler, based on the recommendation of the health care provider, parent request and the RN assessment.

*this module for
 sample Delegation
 Record and
 Procedure
 Guidelines for an
 Inhaler*

*Discuss the
 differences in
 spacers, e.g., mask
 and mouthpieces*

*If there are other
 delivery devices
 encountered for
 inhaled medications,
 please contact a
 pharmacist, your
 school nurse or
 nurse consultant*

How to Use a Metered-Dose Inhaler

1. Check the written orders from the health care provider.
2. Check for written permission from the child's parent /guardian to administer the medication at school/child care.
Be sure to know the last time the medication was given by the parent.
3. Remove the cap and hold inhaler upright.
4. Shake the inhaler. (Note: at least four (4) shakes.)
5. Tilt the head back slightly and ask child to breathe out.
6. Position the inhaler in one of the following ways:
 - Open mouth with inhaler 1 ½ -2 inches away (2-3 three fingers width)
 - OR
 - Use a spacer, This is recommended by most health care providers,
 - Types of Spacers:
 - Aerochamber or Optichamber– hard, plastic cylinder
 - Inspirease or E-Z spacer – soft, plastic, collapsing bag
7. Press down once on inhaler to release medication as the child starts to breathe in slowly (3-5 seconds).
Note: If the spacer “whistles” or “hums” the inhalation was too fast.
8. Hold breath for 10 seconds to allow medicine to reach deeply into lungs. (young children may have difficulty with the full 10 sec)
9. Repeat puffs as directed. WAIT 1-2 MINUTES BETWEEN PUFFS.
10. If using inhaled steroids, rinse mouth with water after use. Note: This removes any “bad taste” and prevents the growth of thrush in the mouth
11. HFA inhalers require “priming sprays” if using new canister. Priming sprays are also recommended if inhaler has not been used for 2 weeks. See specific manufacturer recommendations.
12. The mouthpiece of the HFA inhalers should be rinsed weekly.

Refer to instructions for each device. If instructions are not available, contact a pharmacist, school nurse or nurse consultant to ensure proper administration of the inhaled medication, and proper care of the device.

<http://www.medscape.com/druginfo/patienthandout?cid=med&drugid=144702&drugname=ProAir+HFA+Inhl&monotype=patienthandout>

How to Use a Diskus – medication delivered into the lungs by breathing a fine powder

The **dose indicator** on the top of the DISKUS tells you how many doses are left. The dose indicator number will decrease each time you use the DISKUS. After you have used 55 doses from the DISKUS, the numbers 5 to 0 will appear in **red** to warn you that there are only a few doses left. If you are using a “sample” DISKUS, the numbers 5 to 0 will appear in red after 23 doses.

Taking a dose from the DISKUS requires the following 3 simple steps: Open, Click, Inhale.

Procedure

Wash hands

Have child sit upright

1. OPEN

Hold the DISKUS in one hand and put the thumb of your other hand on the **thumbgrip**. Push your thumb away from you as far as it will go until the mouthpiece appears and snaps into position.

2. CLICK

Hold the DISKUS in a level, flat position with the mouthpiece toward you. Slide the **lever** away from you as far as it will go until it **clicks**. The DISKUS is now ready to use.

Every time the **lever** is pushed back, a dose is ready to be inhaled. This is shown by a decrease in numbers on the dose counter. **To avoid releasing or wasting doses once the DISKUS is ready:**

- Do not close the DISKUS.
- Do not tilt the DISKUS.
- Do not play with the lever.

Do not move the lever more than once.

3. INHALE

Before inhaling your dose from the DISKUS, breathe out (exhale) fully while, holding the DISKUS level and away from your mouth. **Remember, never breathe out into the DISKUS mouthpiece.**

Put the mouthpiece to your lips. Breathe in quickly and deeply through the DISKUS. Do not breathe in through your nose.

Remove the DISKUS from your mouth. Hold your breath for about 10 seconds, or for as long as is comfortable. Breathe out slowly.

The DISKUS delivers your dose of medicine as a very fine powder. Most patients can taste or feel the powder. Do not use another dose from the DISKUS if you do not feel or taste the medicine.

Rinse your mouth with water after breathing-in the medicine. Spit the water out. Do not swallow.

4. CLOSE the DISKUS when you are finished taking a dose so that the DISKUS will be ready for you to take your next dose. Put your thumb on the thumbgrip and slide the thumbgrip back toward you as far as it will go. The DISKUS will click shut. The lever will automatically return to its original position. The DISKUS is now ready for you to take your next scheduled dose, due in about 12 hours. (Repeat the steps 1 to 4)

REMEMBER:

- Never breathe into the DISKUS.
- Never take the DISKUS apart.
- Always ready and use the DISKUS in a level, flat position.
- Do not use the DISKUS with a spacer device.
- After each dose, rinse your mouth with water and spit the water out. Do not swallow.
- Never wash the mouthpiece or any part of the DISKUS. **Keep it dry.**
- Always keep the DISKUS in a dry place.
- Never take an extra dose, even if you did not taste or feel the medicine.

http://www.advair.com/asthma_inhaler_instructions.html

How to Administer a Nebulizer Treatment

This procedure is delegated by a registered nurse to a specific individual (or individuals) for a specific child.

Refer to the "Sample Forms" section of this module for sample Delegation Record and Procedure Guidelines for Nebulizers

Refer to the Sample Forms Section for a Nebulizer Treatment Authorization

Refer to the Sample Forms Section for Nebulizer Treatment Procedure

An individualized health care plan or instructions must include 1.) How often the treatment needs to be given. and 2.) Describe specific measurable symptoms to observe. A blanket permission that states “give nebulizer treatment as needed per parent request” is unacceptable.

These two examples provide clear instructions: 1.) Give nebulizer treatment every 4 hours for a period of 5 days. If coughing becomes more frequent or there is wheezing present, contact the parent immediately for follow-up with the health care provider. OR 2.) Give nebulizer treatment, as needed every 4 hours, for persistent frequent coughing, wheezing or respiratory rate greater than 40. Notify parent when treatment is given.

The caregiver is not responsible for making “judgments” regarding when and if a treatment should be given.

Important Note: Training for this procedure does NOT constitute “nursing delegation”. Ongoing supervision of school/childcare personnel and a communication plan is a necessary part of delegation.

Definition: To nebulize means to convert a liquid into a fine spray. The use of a mechanical nebulizer assists in the improvement of breathing by administering bronchodilators and/or anti-inflammatory medication directly into the lungs.

Equipment needed

- ◆ Nebulizer machine (an air compressor)
- ◆ Connection tubing
- ◆ Nebulizer “cup” with mouth piece or mask
- ◆ Medication, normal saline or other pre-measured medication
- ◆ Clock or watch with a second hand to count respirations

Procedure

1. Check the written orders from the health care provider.
2. Check for written permission from the child’s parent /guardian to administer the medication at school/child care.
Find out what time the treatment was given by the parent.
3. Observe, count, and document the child’s breathing before treatment.
Normal breathing rate at rest:
 - 30-60 breaths/minute for a newborn
 - 20-40 breaths/minute for an infant < one year
 - 18-30 breaths/minute for a toddler
 - 16-25 breaths/minute for a school age child
4. Wash your hands.
5. Assemble the equipment near the child and a power source.
6. Measure and pour the medicine then add the saline (or other diluent, ordered by health care provider) into the nebulizer cup. **Note:** some medicines are packaged in a “unit dose”
7. Have the child sit upright in a comfortable position.
8. Attach the nebulizer tubing to the air compressor and turn it on. A fine mist should be visible.

Note: If the output from the nebulizer appears decreased or the mist is not visible, unplug the machine. Check the tiny opening in the lower half of the

Refer to the Sample Forms section for a Nebulizer Treatment Log

Note: *This information on Peak Flow Meters is not included in the student handbook.*

nebulizer cup to see if it is clogged. If necessary, carefully run a clean safety pin through the opening a couple of times and rinse well.

9. Ask the child to place the mouthpiece into his mouth and breathe in and out through his mouth. An infant or toddler may use a mask instead.

Note: Sometimes a health care provider will recommend a “blow by” technique. This technique is done by placing the mist very close to the child’s nose and mouth, usually while they are being still with an activity, e.g. coloring or looking at a book or while they are napping.

10. About every two minutes, have the child take an extra deep breath, hold his breath briefly, and then exhale. Resume normal breathing for a few more minutes before doing again. This allows the medicine to remain in the lungs longer.

11. Observe the child for any adverse reactions such as wheezing (bronchospasm). If the child coughs during the treatment, remove the mouthpiece or mask, and allow the child finish coughing.

12. Continue the procedure until all the medication fluid is nebulized.

13. The treatment is finished when the fine mist is no longer visible and the fluid is gone from the nebulizer cup. This usually takes 8-10 minutes.

14. Turn off the machine. Observe, count, and document the child’s respiratory rate (Review Step #3 above for normal breathing rates).

15. Ask child to wash their hands and rinse out their mouth with water.

16. Wash your hands.

17. **DOCUMENT:** Date and time administered, breathing rate before and after the treatment, any observations, e.g., cough, secretions, skin color, activity, etc., and initial on the log.

Note: Some children cough up mucous after breathing treatments. Observe color and thickness of the mucous. Normal secretions are usually white/clear and thin. Thick and sticky mucous that is yellow or green color may indicate infection. Report this to the parent.

18. After each treatment, rinse the nebulizer cup, mouthpiece or mask under hot running water. Allow the pieces to air –dry on a clean paper towel or cloth. When dry, store in a clean plastic bag that can be closed. A more complete cleaning is needed if 3-4 treatments are given per day. Do not clean or rinse tubing. Store it with the nebulizer cup and mouthpiece.

19. Send the nebulizer machine home with parent/guardian for regular cleaning and maintenance.

Other Inhaled Medication

Nasal Spray - medication delivered into the nose via a spray

Procedure

1. Wash hands
2. Have child sit upright
3. Have tissues handy
4. Occlude one nostril and gently squeeze spray bottle in open nostril
5. Wipe any discharge
6. Repeat based on number of sprays ordered
7. Repeat procedure in other nostril

Peak Flow Meter

The peak flow meter measures how fast the child can blow air out through the airways. It is an objective measure of how the child is managing their asthma and lets the child and supervising adult know how much airway narrowing is present at a given time. There are many different types of peak flow meters, but they all perform the same function.

The Peak Flow Meter Can

- ◆ Tell how much airway narrowing is present.
- ◆ Give early warning of an asthma episode, sometimes before symptoms develop.
- ◆ Signal when medication can prevent asthma from getting worse.
- ◆ Measure how well the child's asthma medications are working.
- ◆ Help identify asthma as the cause of shortness of breath, chest tightness, coughing, or fatigue during physical activities.
- ◆ Help adults share information about the child's asthma.

Note: The peak flow meter is generally not used for very young children. Measuring respiratory rates in infants and young children is a more objective measure of respiratory function.

Procedure

"Ask" the child to:

- ◆ Stand up straight. Make sure the pointer is at "zero" on the meter.
 - ◆ Clean their mouth of gum, food, etc.
 - ◆ Take a deep breath; put the mouthpiece past the teeth and close lips around it, making sure the tongue is away from the opening.
 - ◆ Blow as hard and fast as he can.
 - ◆ The moveable indicator will move up the scale to give you the "peak flow".
 - ◆ Repeat 2 more times and write down the highest peak flow of the 3 blows.
- Note: If the peak flow readings start high and decrease, this may be an indication that the airway is beginning to narrow.

When is a Peak Flow Meter used?

- ◆ Before P.E. or physical activity e.g., recess, field day, etc.
- ◆ On or before field trips.
- ◆ During asthma episodes. A peak flow measure will help to guide asthma care.
- ◆ When there is a question about chest symptoms or asthma control.

What does a Peak Flow reading mean?

The peak flow reading should be compared to the child's "personal best" peak flow value: The child can blow his/her "personal best" when asthma is well controlled. The child's health care provider, the parent/guardian or the school nurse should determine the child's "personal best" peak flow value, while the child is well and symptom free. This personal best value is recorded in the Asthma Health Care Plan and used to make objective asthma management decisions.

Factors to be considered when determining the student's ability to self carry are found in the Colorado Self Carry Guidelines, available in the Appendix Section of this module

If applicable, review the "Contract for Students..." form in the Forms Section of this module.

Peak Flow Zones

Green Zone- Good Control

- 80-100% of the child's personal best.
- Asthma is under good control.

Yellow Zone- Caution

- 50-80% of the child's personal best.
- Asthma is not under good control. Additional steps need to be taken.

Red Zone- DANGER

- LESS THAN 50% of the child's personal best.
Immediate action is needed.
- Give treatment as directed by the child's health care provider.
See Asthma Health Care Plan.
- CALL 911 or the emergency medical services in your area.
The child should be taken urgently to the emergency room.
- CALL THE PARENT/GUARDIAN.

How are Peak Flow Zones Set?

- ◆ Peak flow readings should be tested two times per day; morning is best and can be around medication time, but not after exercise.
- ◆ The child blows on the peak flow meter three times; record the best number. Remind the child to blow as hard as possible.
- ◆ If the child takes an inhaled bronchodilator, repeat the peak flow about five to ten minutes after the medication. Record this best peak flow value.
- ◆ Repeat this for two consecutive weeks. The child's asthma needs to be stable and well controlled during this time.
- ◆ A narrow range of peak flow values will be recorded. This information is shared with the child's health care provider for determining the child's personal best value and Green-Yellow-Red zones. These values will allow for better assessment of the child.
- ◆ Age, height, race, sex, and asthma history affect peak flow values and as a child grows the personal best is likely to increase.

Self-Carry – Rights and Responsibilities:

According to state law (C.R.S. 05-156) in Colorado, children may be allowed to self carry asthma and anaphylaxis medications in school as well as some group care settings. Self administration in these settings refers to situations in which students carry their medication on their person and administer the medication to themselves. There are orders from their healthcare provider, authorization from their parent, and the administration is done in accordance with school district or program policy. Typically this medication is not handled by school or child care personnel nor stored in the program's medication storage area.

According to Colorado Schoolchildren's Asthma and Anaphylaxis Health Management Act Guidelines a variety of "factors should be assessed *by the school nurse* or nurse consultant in determining when a student should self carry and self-administer life-saving medications." These factors include, but are not limited to:

Student Factors:

- Desire to carry and self administer
- Appropriate age, maturity and/or developmental level
- Ability to use correct technique in administering the medication
- Willingness to comply with school/program rules about the use of the

medication while in the setting

Parent/Guardian Factors:

- Desire for student to self carry and self-administer
- Awareness of program policies and parent responsibilities
- Commitment to ensuring that the child has the medication, medications are refilled when needed, medications are not expired
- Provision of back-up medication for emergencies.

School/Program Factors:

- Availability of trained staff while children are in the program setting
- Availability of trained staff in case of loss or inability to administer medication
- Ability to disseminate information about medication use to all staff who need to know
- Communication system to contact appropriate staff in case of a medical emergency
- Opportunity for school nurse to assess child's status and technique
- Availability of the school nurse to provide oversight and support

Open communication is the key and this communication should include healthcare providers, families, and school personnel especially the school nurse. In addition, a contract with all students who self carry is recommended so that the proper safeguards can be in place.

Reference:

Hootman, J., Schwab, N., Gelfman, M.H.B., Gregory, E., and Pohlman, K., (2001). School Nursing Practice: Clinical Performance. In N. Schwab and M Gelfman (Eds.), *Legal issues in school health services*. North Branch, MN: Sunrise River Press.

Steps to Follow During An Asthma Episode

1. Give medication indicated in Asthma Health Care Plan.
2. Encourage child to relax with slow deep breaths.
3. Offer sips of warm water to relax and refocus the child's attention.
4. Contact parent if no improvement is seen in 15-20 minutes.
5. If indicated on health plan, inhaler dose may be repeated if no improvement in a specified time
6. **Seek emergency care or call 911 if the child has any of the following:**
 - No improvement 15-20 minutes after initial treatment with medication and an emergency contact person cannot be reached
 - Difficulty breathing with:
 - ▶ Chest and neck "pulling in" with breathing
 - ▶ Child is hunched over
 - ▶ Child is struggling to breathe
 - ▶ Trouble walking or talking
 - ▶ Stops playing and can't start activity again due to breathing difficulties
 - ▶ Unable to complete a sentence due to breathing difficulties
 - ▶ Lips or fingernails turn gray or blue
 - ▶ Decreasing or loss of consciousness

Please review the Caring for Children with Asthma Power Point Presentation that is available in the Appendix section of this module

There is also a demonstration DVD from the Colorado Allergy and Asthma Centers P.C. that is available on the Qualistar web site for trainers to download. This DVD demonstrates the use of MDIs, Diskus and Spacer and Peak Flow Monitoring

Documentation of Student Training and Delegation:

If this training is part of the complete medication administration training

- document competency “Medication Skills Check List” that is part of the Forms section in the main curriculum.

If this training is being offered for individuals not trained in the complete curriculum,

- document training and delegation on the specific care plans for children with asthma
- use the Delegation/Procedure Guidelines form in the Forms section of this module for inhaler and nebulizer training and delegation

**Guidelines for
Medication Administration:
An Instructional Program for
Training Unlicensed Personnel to
Give Medications in
Out-of-Home Child Care,
Schools and Camp Settings**

STUDENT HANDBOOK

Asthma/Inhaled Medications Module

2008
First Edition



Funding resource provided by the Department of Human Services, Division of Child Care and the Health Systems Development in Child Care Grant Healthy Child Care Colorado Initiative (#5 H24 MC 00021-05)

Asthma is a chronic lung condition characterized by ongoing inflammation of the airways, or “bronchial tubes”. Asthma is the leading serious chronic illness among children. It is the number one cause of hospitalization among children under the age of 15.

Early Warning Signs

- | | |
|----------------------------|------------------------|
| Watery eyes | Stuffy or runny nose |
| Itchy throat or chin | Funny feeling in chest |
| Feeling anxious | Fatigue |
| Headache | Hyperactivity |
| Dark circles under the eye | Behavioral changes |

Asthma Triggers

- ◆ Exercise
- ◆ Colds/illness
- ◆ Allergies: pollens, animal dander, molds, dust
- ◆ Weather changes: humidity, barometric pressure, and temperature
- ◆ Irritants: pollution, dust, strong odors, perfumes
- ◆ Emotions: anxiety, excitement, laughing

Medications used for Asthma Management

- ◆ Quick relief bronchodilator
- ◆ Long term controller
- ◆ Long acting bronchodilator
- ◆ Short acting anti-inflammatory

Care and Storage of Inhaled Medications

- ◆ Keep the medications at room temperature
- ◆ Store these medications in the original container, in a clean storage area inaccessible to children
- ◆ The decision to lock these medications should be made according to center policy in consultation with the nurse consultant taking into consideration that these medications MUST be IMMEDIATELY available to staff trained and delegated the use of the medications for children in their care
- ◆ Check expiration dates often and provide parents time to obtain a prescription renewal
- ◆ Return expired inhalers or other expired inhaled medications to the parents for disposal

Disposal of Inhaled Medications

Try to give all expired or unused medications to parents for disposal, but if you must dispose of them, follow the procedure below:

- ◆ Make sure the inhaler is empty, if not, you should go to a well ventilated area (outside) and dispel what's left inside. Double wrap in a bag or newspaper, place in regular trash.

*Refer to the Sample
"Asthma Health
Care Plan"*

- ◆ Be sure the trash containing the disposed medications is out of reach of children

Student Notes

Documentation of Inhaled Medications

- ◆ The medication log is a legal document. It becomes a permanent record and provides legal protection to those administering medication as well as a safety check to assure that a child does not receive multiple doses of the medication.
- ◆ Complete a medication log for each child receiving medication.
- ◆ Complete a medication log for **each** medication.
For example, if a child has 2 different inhalers for the management of asthma, complete 2 individual logs.

Note: Complete a new log whenever there is a change in the child's medication or dosage.

Medication Log Directions

Complete the log as soon as the medication is received from the parent. Attach a picture of the child to the medication log, whenever possible.

1. Complete the medication log *in ink*. This is a legal document.
2. Have another trained person review the completed log for accuracy.
3. **The medication log includes:**
 - Child's name
 - Name of medication
 - Date
 - Dosage
 - How the medication is to be given (route)
 - Time the medication needs to be given while in school/child care
 - Start date and end date
 - Special instructions or storage information
 - For "as needed" medications, be sure you include instructions, such as "every 4 hours as needed for repeated coughing or wheezing)"
 - "Comment" section
 - Signature line, including initials, for the person documenting each dose of the medication
4. Compare the information on the log with the medication label before the medication is given.
5. Document in ink immediately after the medication is given.
 - Date and Time the medication was given.
 - Initials of the person giving the medication. Initial only for the medications you administered.
 - If an error is made, draw a single line through the error and write the word "error". Record the right information, sign and date the corrected information. Initial the correction. ***Do not use an eraser or white out.***
6. The "Comment" section is used for special or unusual situations, *e.g., medicine dropped on the floor, child refuses/vomits medicine, parent does not bring the medicine, or document the number of pills received*
Note "A" if a child is absent.
Note "X", any dates the program is closed or not in session.

7. Write the date a medication has been discontinued on the log.
8. If a child does not receive his medicine, it is considered a medication incident. Circle the time the dose was to be given and write in the comment section: *medication not given and why and include your signature*.
Complete a medication incident report.

Remember: IF IT IS NOT WRITTEN, IT DID NOT HAPPEN!

Note: File completed or discontinued medication logs in the child's file. Health records such as medication logs, health care plans and other health-related information are kept in the child's permanent record.

Medication Incident: "a Violation of the "Five Rights"

A medication incident is any situation that involves any of the following:

- ◆ Forgetting to give a dose of medication.
- ◆ Giving more than one dose of the medication.
- ◆ Giving the medication at the wrong time.
- ◆ Giving the wrong dose.
- ◆ Giving the wrong medication.
- ◆ Giving the medication to the wrong child.
- ◆ Giving the medication by the wrong route.
- ◆ Forgetting to document the medication.

Note: Medication must be given within the time frame of 30 minutes before or 30 minutes after the prescribed time, more than that is considered an incident.

Medication Incident Report

1. **CALL Poison Control immediately** when a medication is given to the wrong child or if an overdose of medication is suspected.
 2. Document the medication incident on a "*Medication Incident Report*" form. The person responsible for the incident completes the report. If that is not possible, the person who discovered the incident completes the written report.
 3. Record the incident and observations on the child's medication log.
Remember that the medication incident report is a record for the program and not intended for the child's permanent record. Program policy should specify where this form should be filed.
1. **Report medication incident immediately** to the RN consultant or school nurse, child's health care provider, the parent and the program administrator, as appropriate.
 2. Observe the child, record and report any changes.

**DO NOT INDUCE VOMITING
UNLESS INSTRUCTED BY POISON CONTROL.
POISON CONTROL NUMBER 1-800-222-1222**

Self-Carry – Rights and Responsibilities:

According to state law children have the right to self-carry their own asthma medications while at school or in some group care settings. As a staff member in these settings you must be aware which children have asthma care plans and self-carry their emergency medications in case you need to provide them with emergency care during an asthma incident.

Administering Asthma Medications

Asthma medications are prescribed and their use may change when a child becomes ill or experiences an asthma episode.

Steps for the correct use of a metered-dose inhaler

1. Remove the cap and hold inhaler upright.
 2. Shake the inhaler.
 3. Tilt the head back slightly and ask child to breathe out.
 4. Position the inhaler in one of the following ways:
 - Open mouth with inhaler 1 ½ -2 inches away (2-3 three fingers width)
 - OR**
 - Use a spacer. This is recommended by most health care providers.
- Types of Spacers:**
- Aerochamber – hard plastic cylinder with either a mask attached, for use in very young children or mouthpiece attached for use in older children and adults.
 - Inspirease – soft, plastic, collapsing bag with a mouthpiece.
5. Press down once on inhaler to release medication as the child starts to breathe in slowly (3-5 seconds).
Note: If the spacer “whistles” or “hums” the inhalation was too fast.
 6. **Hold** breath for 10 seconds to allow medicine to reach deeply into lungs. Young children may have difficulty with the full 10 seconds.
 7. Repeat puffs as directed by the child’s health care provider (usually 2 puffs).
WAIT 1-2 MINUTES BETWEEN PUFFS.
 8. When recommended, rinse mouth with water after use (should always be done with inhaled steroids).

Steps to Administer a Nebulizer Treatment

The nebulizer treatment procedure is delegated by the RN to a specific individual (or individuals) for a specific child. An individualized health care plan or instructions describes how often the treatment needs to be given.

The caregiver is not responsible for deciding or making “judgments” regarding when and if a treatment should be given.

Equipment

- ◆ Nebulizer machine (an air compressor)
- ◆ Connection tubing
- ◆ Nebulizer “cup” with mouth piece or mask
- ◆ Medication, normal saline or other pre-measured medication
- ◆ Clock or watch with a second hand

Refer to the Sample Nebulizer Treatment Authorization” form

<u>Procedure</u>	<u>Student Notes</u>
<ol style="list-style-type: none"> 1. Check the written orders from the child's health care provider. 2. Check for written permission from the child's parent/guardian to administer the medication at school/child care. <i>Find out what time the last treatment was given by the parent/guardian.</i> 3. Observe, count, and document the child's breathing before treatment. Count the breathing rate for 1 minute. Normal breathing rate at rest <ul style="list-style-type: none"> ▪ 30-60 breaths/minute for a newborn ▪ 20-40 breaths/minute for an infant < one year ▪ 18-30 breaths/minute for a toddler ▪ 16-25 breaths/minute for a school age child 4. Wash your hands. 5. Assemble the equipment near the child and a power source. 6. Measure and pour the medicine then add the saline (if appropriate) into the nebulizer cup. <i>Note: medications may come in a "unit dose" meaning the saline and medication are premixed.</i> 7. Have the child sit upright in a comfortable position. 8. Attach the nebulizer tubing to the air compressor and turn it on. A fine mist should be visible. 9. Ask the child to place the mouthpiece into his mouth and breathe in and out through his mouth. If the child is an infant or toddler, a mask may be used instead. 10. About every two minutes, have the child take an extra deep breath or two, hold his breath briefly, and then exhale. Resume normal breathing for a few more minutes before doing again. 11. Observe the child for any adverse reactions such as wheezing. If the child coughs during the treatment, remove the mouthpiece or mask, and allow the child to finish coughing. 12. Continue the procedure until all the medication is nebulized. 13. The treatment is done when the fine mist is no longer visible and the fluid is gone from the nebulizer cup. This usually takes 8-10 minutes. 14. Turn off the machine. Observe, count, and document the child's breathing rate (Review #3 above for normal breathing rates). 15. Ask child to wash their hands and drink water to rinse out their mouth. 16. Wash your hands. 17. DOCUMENT: Date and time administered breathing rate before and after the treatment, any observations e.g., cough, secretions, skin color, activity, etc., and initial the log. <i>Note: Some children cough up mucous after breathing treatments. Observe the color and thickness. Normal secretions are usually white/clear and thin. Thick and sticky mucous that is yellow or green color may indicate infection. Report this to the parent.</i> 18. After each treatment, rinse the nebulizer, mouthpiece or mask under hot running water. Allow the pieces to air-dry on a clean paper towel or cloth. When dry, store in a clean plastic bag that can be closed. A more complete cleaning is needed if more than 3-4 treatments are given per 	<p><i>Refer to the Sample "Nebulizer Treatment Log"</i></p>

day.

Note: Do not clean tubing. Store it with the nebulizer cup and mouthpiece.

19. Send the nebulizer machine home with parent/guardian for regular maintenance.

Steps to Follow During An Asthma Episode

1. Give medication as indicated in Asthma Health Care Plan
2. Encourage child to relax with slow deep breaths
3. Offer sips of warm water to relax and refocus the child's attention
4. Contact parent if no improvement is seen in 15-20 minutes
5. If indicated on health care plan, inhaler dose may be repeated if no improvement seen in the specified time
6. **Seek emergency care or call 911 if the child has any of the following:**
 - No improvement 15-20 minutes after initial treatment with medication and an emergency contact person cannot be reached
 - Difficulty breathing with:
 - ▶ Chest and neck "pulling in" with breathing
 - ▶ Child is hunched over
 - ▶ Child is struggling to breathe
 - ▶ Trouble walking or talking
 - ▶ Stops playing and can't start activity again due to breathing difficulties
 - ▶ Unable to complete a sentence due to breathing difficulties
 - ▶ Lips or fingernails turn gray or blue
 - ▶ Decreasing or loss of consciousness

Medication Administration Instructional Program

Asthma/Inhaled Medications Module

SAMPLE FORMS Table of Contents

These forms are provided as a resource to the RN instructor for use during the Medication Administration training. Forms may be copied. Please note: the format of these forms may be modified to fit the needs of schools, child care programs and camps as long as the information included on the forms meets the basic requirements outlined in the Instructor Manual.

Asthma Health Care Plan – ALA Sample 1

Respiratory Health Care Plan –Infants through Preschoolers –Sample 2

Respiratory Health Car Plan – School Age without peak flow meter –Sample 3

Respiratory Health Care Plan - Sample 4

Asthma HCP from CDE Web site – Sample 5

Medication Incident Report

Delegation Record/Procedure Guidelines for Inhaler

Delegation Record/Procedure Guidelines for Nebulizer

Nebulizer Treatment Permission Form

Nebulizer Treatment Log

Contract for Students' Self-Carry of Inhalers

Asthma Action Plan

American Lung Association

Severity Classification

- Mild Intermittent
- Mild Persistent
- Moderate Persistent
- Severe Persistent

Triggers

- Colds
- Exercise
- Animals
- Other
- Smoke
- Dust
- Food
- Weather
- Air pollution

Exercise

1. Pre-medication (how much and when) _____
2. Exercise modifications _____

Green Zone: Doing Well

Symptoms

- Breathing is good
- No cough or wheeze
- Can work and play
- Sleeps all night

Peak Flow Meter

More than 80% of personal best
or _____

Peak Flow Meter Personal Best =

Control Medications

Medicine	How Much to Take	When To Take It
_____	_____	_____
_____	_____	_____
_____	_____	_____

Yellow Zone: Getting Worse

Symptoms

- Some problems breathing
- Cough, wheeze or chest tight
- Problems working or playing
- Wake at night

Peak Flow Meter

Between 50 to 80% of personal best
or _____ to _____

Contact Physician if using quick relief more than 2 times per week.

Continue control medicines and add:

Medicine	How Much to Take	When To Take It
_____	_____	_____
_____	_____	_____
_____	_____	_____

IF your symptoms (and peak flow, if used) return to Green Zone after one hour of the quick relief treatment, THEN

- Take quick-relief medication every 4 hours for 1 to 2 days
- Change your long-term control medicines by _____
- Contact your physician for follow-up care

IF your symptoms (and peak flow, if used) DO NOT return to the GREEN ZONE after 1 hour of the quick relief treatment, THEN

- Take quick-relief treatment again
- Change your long-term control medicines by _____
- Call your physician/Health Care Provider within _____ hours of modifying your medication routine

Red Zone: Medical Alert

Symptoms

- Lots of problems breathing
- Cannot work or play
- Getting worse instead of better
- Medicine is not helping

Peak Flow Meter

Between 0 to 50% of personal best
or _____ to _____

Ambulance/Emergency Phone Number:

Continue control medicines and add:

Medicine	How Much to Take	When To Take It
_____	_____	_____
_____	_____	_____
_____	_____	_____

Go to the hospital or call for an ambulance if

- Still in the red zone after 15 minutes
- If you have not been able to reach your physician/health care provider for help
- _____

Call an ambulance immediately if the following danger signs are present

- Trouble walking/talking due to shortness of breath.
- Lips or fingernails are blue



RESPIRATORY HEALTH CARE PLAN
Infants through preschool age

Child's Name _____ DOB _____

School/Center _____

Triggers: (check those which apply to this child)

- Weather changes Colds Cold air Exercise
 Pollens (trees, weeds) Molds Animal dander- Type _____
 Dust and dust mites Strong odors Other: _____

List all routine daily meds (Name, Dose, Time)*: include all meds taken at home

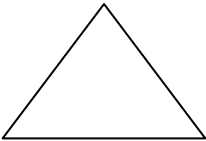
Health Care Provider circle:	
Baseline breaths per minute(circle)	
18-30	20-40

Staff will be trained in taking accurate respiratory rate by nurse.

Steps to Take During an Asthma Episode:

- Count breaths per minute.
- Observe for:
 - Frequent cough, runny nose, stuffy nose.
 - Increased cough with rapid breathing.
 - Some decrease in play and/or appetite.
 - Occasional wheeze you can hear.
 - Other: _____

Health Care Provider circle/ fill in:		
Greater than		
30	40	_____ breaths/min



Yellow Zone
Warning

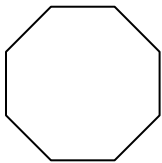
Treatment @ child care:

- Give medicine: _____ Dose: _____ Time: _____ End Date: _____
Special instructions: _____
- Encourage child to sit up right, relax and take deep even breaths.
- Give sips of warm water.
- Notify guardian if: _____
- Stay with child and recheck breaths per minute 15 minutes after treatment.
- If no improvement with medication, call parents to pick up child for further evaluation.
- Notify nurse consultant and document.

Seek Emergency care if :

- Continuous coughing, wheezing,
- Shallow rapid breathing
- Pale or blueness of fingernails and/or lips
- Loss of consciousness
- Pulling in of skin around neck muscles, above collar bone, between ribs and under breast bone
- For infants: extremely fussy and /or difficulty sucking or eating.

Health Care Provider circle/ fill in:		
Greater than:		
50	60	_____ breaths/min



RED ZONE
DANGER

Treatment @ child care/school:

- Call 911**
- Call Parent and nurse consultant.
- Other: _____

Health Care Provider's Signature _____ **Start date** _____ **End date** _____

Please attach completed medication authorization: _____ yes _____ not needed.

RESPIRATORY HEALTH CARE PLAN (Page 2)

Child's Name: _____ **School/Center:** _____

Emergency Contact Information

Guardians' names: _____

Guardians' daytime phone numbers: _____

Guardians' address: _____

Alternative person if unable to contact guardians: _____

Alternative persons' relationship to the child: _____

Alternative persons' phone number(s): _____

Health care provider who should be called regarding emergency care due to a severe asthma episode:

Name: _____

Phone: _____

Fax: _____

Hospital Preference: _____

Field Trips: Medication must accompany student on all field trips. (spacer if at school/center)

A copy of this health care plan and current phone numbers must be with a staff member.

Teacher must be instructed on the correct use of the medication.

Parent's signature indicates permission to contact child's health care provider(s) listed above as needed. I understand that the School Nurse Consultant may delegate this care plan to unlicensed school personnel. I also understand this plan may be shared with school personnel if it is determined that the information may impact the student's educational experience and/or safety.

Health Care Providers signature: _____ **Date:** _____

Parent signature: _____ **Date:** _____

Nurse's signature: _____ **Date:** _____

Administrator's signature: _____ **Date:** _____



**RESPIRATORY HEALTH CARE PLAN
FOR
SCHOOL AGE (no peak flow meter)**

Child's Name _____ DOB _____
School/Center _____

Triggers: (check those which apply to this child)

- Weather changes Colds Cold air Exercise
 Pollens (trees, weeds) Molds Animal dander-Type _____
 Dust and dust mites Strong odors Other: _____

List all routine daily meds (Name, Dose, Time)*
include all meds taken at home: _____

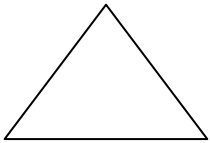
Health Care Provider to circle/fill in:		
Baseline breaths per minute		
16-25	25-30	_____

Staff will be trained in taking accurate respiratory rate by nurse.

Steps to Take During An Asthma Episode:

- Count breaths per minute.
- Observe for:
 - Frequent cough, runny nose, stuffy nose.
 - Increased cough with rapid breathing.
 - Some decrease in play and/or appetite.
 - Occasional wheeze you can hear.
 - Other: _____

Health Care Provider to circle/fill in:		
Greater than:		
25	30	_____ breaths/min



Yellow Zone

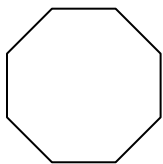
Treatment @ child care/school:

- Give medicine: _____ Dose: _____ Time: _____ End date: _____
Special instructions: _____
- Encourage child to sit up right, relax and take deep even breaths.
- Give sips of warm water.
- Notify guardian if: _____
- Stay with child and recheck breaths per minute 15 minutes after treatment.
- If no improvement with medication, call parents to pick up child for further evaluation.
- Notify school nurse and document.

Seek Emergency care if:

- Continuous coughing, wheezing,
- Shallow rapid breathing
- Extremely agitated
- Pale or blueness of fingernails and/or lips
- Loss of consciousness
- Pulling in of skin around neck muscles, above collar bone, between ribs and under breast bone
- difficulty speaking or walking

Health Care Provider to circle/fill in:		
Greater than:		
40	50	60 _____ breaths/min



RED ZONE

DANGER

Treatment @ child care/school:

- Call 911**
- Call Parent and nurse consultant.
- Other: _____

Health Care Provider's Signature _____ **Start date:** _____ **End date:** _____

Please attach completed medication authorization: _____ yes _____ not needed.

Child's Name: _____ **School/Center:** _____

Emergency Contact Information

Guardians' names: _____

Guardians' daytime phone numbers: _____

Guardians' address: _____

Alternative person if unable to contact guardians: _____

Alternative persons' relationship to the child: _____

Alternative persons' phone number(s): _____

Health care provider who should be called regarding emergency care due to a severe asthma episode:

Name: _____

Phone: _____

Fax: _____

Hospital Preference: _____

Field Trips: Medication must accompany student on all field trips. (spacer if at school/center)

A copy of this health care plan and current phone numbers must be with a staff member.

Teacher must be instructed on the correct use of the medication.

Parent's signature indicates permission to contact child's health care provider(s) listed above as needed. I understand that the School Nurse Consultant may delegate this care plan to unlicensed school personnel. I also understand this plan may be shared with school personnel if it is determined that the information may impact the student's educational experience and/or safety.

Health Care Providers signature: _____ **Date:** _____

Parent signature: _____ **Date:** _____

Nurse's signature: _____ **Date:** _____

Administrator's signature: _____ **Date:** _____

Teacher's signature: _____ **Date:** _____

Para's signature: _____ **Date:** _____

RESPIRATORY HEALTH CARE PLAN

Child's Name: _____

Birth Date: _____

Medication Allergies: _____

Known Triggers to respiratory symptoms:

Furry/feathered animals Weather changes Illness, colds
 Pollens Odors, fumes Exercise
 Other _____

GREEN ZONE (Peak Flow: _____)

Description: Child's asthma is adequately managed.

No coughing, difficulty breathing, wheezing. Usual activity level

Medications used on a daily basis:

- Name of medication _____
Give _____ puffs/inhalations/tablet, _____ times per day _____
To be taken at home / school _____
- Name of medication _____
Give _____ puffs/inhalations/tablet, _____ times per day _____
To be taken at home / school / _____ .

Pretreat before exercise with

- Inhaler: Albuterol / Maxair / _____
Give _____ puff(s)/inhalation(s)
Time: 10-15 minutes before exercise/play.
End date: _____ / end of school year.

- Albuterol nebulizer treatment
____ 0.5 cc of 0.5% solution in 2 cc bronchosaline
____ 1 vial of premixed albuterol nebulizer solution
Time: 10-15 minutes before exercise/play.
End date: _____ / end of school year

YELLOW ZONE (Peak Flow: _____)

If any of the following symptoms occur:

some coughing some decrease in play and/or appetite
 some shortness of breath occasional wheeze you may hear
 some chest tightness _____

Give:

- Albuterol /Maxair / _____, _____ puff(s)/inhalation(s)
Time: every 4-6 hours
End date: _____ / end of school year.
 - Albuterol nebulizer treatment
____ 0.5 cc of 0.5% solution in 2 cc bronchosaline
____ 1 vial of premixed albuterol nebulizer solution
Time: every 4-6 hours
End date: _____ / end of school year
-

1. Encourage child to relax and take deep even breaths.
2. Watch for worsening symptoms.
3. If symptoms continue repeat medicine in 20 minutes.
4. If not improvement with medication, call parents to pick up child for further evaluation.
5. Notify school nurse and document.

RED ZONE (Peak Flow:)

If the following symptoms occur and are not relieved with Yellow Zone treatment:

- persistent coughing
- persistent wheezing
- struggling to breath
- pulling in of skin around neck muscles, above collar bone, between ribs with each breath
- difficulty walking or talking due to shortness of breath
- pale or blueness of lips and/or finger nails

Treatment

- Repeat Albuterol /Maxair / _____, _____ puff(s) every 15 minutes, as needed, up to 3 times
- Repeat Albuterol nebulizer treatment every 15 minutes, as needed, up to 3 times.
 - _____ 0.5 cc of 0.5% solution in 2 cc bronchosaline
 - _____ 1 vial of premixed albuterol nebulizer solution
- Other _____
- Contact parent and school nurse consultant

Call 911 if symptoms don't improve or become worse!

It is understood by the parent/guardian(s) that this plan may be carried out by school personnel other than the school nurse. A registered nurse is to be responsible for delegation of this health care plan to an unlicensed person.

Health Care Provider's Signature: _____

Date: _____

Parent/Guardian Signature: _____

Date: _____

ASTHMA HEALTH CARE PLAN

Student's Name: _____

Date of Birth: _____

School/Grade: _____

ID #: _____

Age when asthma diagnosed: _____

List all routine daily medications (name of medication, dose, and times given):

TRIGGERS: (Check those which apply to this student)

- | | | |
|---|---|---|
| <input type="checkbox"/> Exercise | <input type="checkbox"/> Emotions (when upset) | <input type="checkbox"/> cigarette smoke, smog, strong odors (paint, markers, perfumes, sprays) |
| <input type="checkbox"/> Colds (viral illness) | <input type="checkbox"/> Irritants: Chalk dust, dust, | <input type="checkbox"/> Pollens (trees, grasses, and weeds) |
| <input type="checkbox"/> Weather changes | <input type="checkbox"/> Molds | <input type="checkbox"/> Dust and dust mites |
| <input type="checkbox"/> Cold air weather changes | <input type="checkbox"/> Animal dander -Type: _____ | |
| <input type="checkbox"/> Other _____ | | |

SYMPTOMS OF RESPIRATORY DIFFICULTY: any or all of the following

INTERVENTION: Always treat symptoms even if peak flow is not available.

- Coughing • Chest Tightness • Shortness of Breath • Turning Blue • Wheezing • Rapid, labored breathing
- Pulling in of skin around neck muscles, above collar bone, between ribs and under breast bone
- Difficulty carrying on a conversation due to difficulty breathing • Difficulty walking due to breathing problems
- Shallow, rapid breathing • Blueness (cyanosis) of fingernails and lips • Decreasing or loss of consciousness
- Other _____

Peak flow meter: Yes ___ No ___

Spacer: Yes ___ No ___

CALL 911 IF THE FOLLOWING OCCUR /PERSIST AFTER IMPLEMENTING INTERVENTIONS AS STATED ON THIS ASTHMA HEALTH PLAN

Instructions for Staff:

- Have student stop whatever they are doing
- Send the student to the clinic when experiencing respiratory difficulty as described above

If student has been given permission to self-medicate with their inhaler, allow student to use inhaler according to the following directions:

Directions for self-medication:

____ (initial if applicable). Signatures of the parent/guardian and the physician(see reverse side) indicate that both agree the above named student has been instructed on proper use of his/her inhaler and is capable of assuming responsibility for using this medication at his/her discretion. Irresponsible or inappropriate use of the inhaler and/or failure to follow the Health Care Plan by the student will require a reassessment of the permission to self medicate.

Field Trips:

- Medications and peak flow meter MUST accompany student on all field trips.
- A copy of this Health Care Plan and current phone numbers MUST be with staff member
- Teacher Must be instructed on correct use of asthma medications

(Emergency contact information and Peak Flow Meter Guidelines on reverse side)

Medication Incident Report

*This form is to be completed whenever any one of the "Rights" of Medication Administration is not in place.

Student's Name: _____ Grade: _____ School: _____

Name of Medication/Dose _____ Time: _____ Route _____

Date and Time Incident Discovered: _____

Person Completing this Form: _____

Please describe the INCIDENT below. Always inform the school nurse or nurse consultant of this situation. If the student was injured during this incident, further documentation and reporting will be required.

	Describe the Exceptional Situation	Describe Action/Follow-Up Taken
Right Student?		
Right Medication?		
Right Dose:		
Right route:		
Right time:		
Right written orders signed and dated by parent and doctor?		
Right procedure? Other: _____ _____ _____		___ Parent Notified - date _____ time _____ ___ Nurse Notified - date _____ time _____ ___ Principal or Director Notified -date _____ time _____ ___ 911 or Poison Control

Nurses Comments/Corrective Action Taken:

Signature of School Nurse: _____ Date: _____

PROCEDURE GUIDELINE AND COMPETENCY CHECKLIST FOR INHALER

Name
Student/child

Birth
Date:

School/
Center:

Delegatee:

PROCEDURE GUIDELINE	Training Date/ RN Initials	Training Date/ UAP Initials	Return Demonstrations		
			Date/ RN + UAP Initials	Date/ RN + UAP Initials	Date/ RN + UAP Initials
A. States name purpose of procedure 1. Verifies parent authorization, health care provider authorization, and health care plan.					
B. Preparation: 1. Reviews universal precautions 2. Identifies equipment and supplies needed • inhaler • spacer • mask adapter or mouthpiece					
C. Procedure:					
1. Washes hands					
2. Gathers supplies/equipment near child					
3. Positions child in an upright comfortable position and explains procedure					
4. Checks written instructions/authorizations					
5. Checks when last treatment given					
6. Observes, counts and documents the child's respiration rate.					
7. Attaches mask or mouthpiece to spacer					
8. Attaches inhaler to spacer and mask or mouthpiece.					
9. Places mask over child's mouth and nose or mouthpiece into child's mouth and dispense medication.					
10. Observes child for reactions to treatment					
11. Observes, counts, and documents child's respiration rate.					
12. Documents procedure and observations					
13. Reports any changes to family					
14. Rinses spacer, mask under hot running water. Allows pieces to air dry on clean paper towel or cloth. Stores in clean plastic bag when dry.					
Competency Statement: Describes understanding of the need for inhaled medication for an infant, demonstrates proper use of inhaler, spacer and mask and identifies problem-solving ability in the event of child/equipment difficulties. Delegatee Signature _____ Initials _____ Training RN Signature: _____ Initials _____					

DELEGATION AUTHORIZATION I have read the care/medication plan, been trained and am competent in the described procedures for _____. I understand the need to maintain skills and will be observed on an ongoing basis by a Registered Nurse. I have had the opportunity to ask questions and received satisfactory answers.

Delegatee Signature: _____
 Delegating RN Signature: _____
 Delegation Decision Grid Score _____ Initials _____ Date _____

RE-DELEGATION AUTHORIZATION I have read the care/medication plan, been trained and am competent in the described procedures for _____. I understand the need to maintain skills and will be observed on an ongoing basis by a Registered Nurse. I have had the opportunity to ask questions and received satisfactory answers.

Delegatee Signature: _____
 Delegating RN Signature: _____
 Delegation Decision Grid Score _____ Initials _____ Date _____

RE-DELEGATION AUTHORIZATION I have read the care/medication plan, been trained and am competent in the described procedures for _____. I understand the need to maintain skills and will be observed on an ongoing basis by a Registered Nurse. I have had the opportunity to ask questions and received satisfactory answers.

Delegatee Signature: _____
 Delegating RN Signature: _____
 Delegation Decision Grid Score _____ Initials _____ Date _____



PROCEDURE GUIDELINE AND COMPETENCY CHECKLIST FOR NEBULIZER

Name _____
Student/child _____

Birth _____
Date: _____

School/ _____
Center: _____

Delegatee: _____

PROCEDURE GUIDELINE NEBULIZER	Training Date/ RN Initials	Training Date/ UAP Initials	Return Demonstrations		
			Date/ RN + UAP Initials	Date/ RN + UAP Initials	Date/ RN + UAP Initials
A. States name purpose of procedure					
B. Preparation:					
1. Reviews universal precautions 2. Identifies equipment and supplies needed ▪ nebulizer machine • nebulizer cup ▪ connection tubing • mouth piece or mask ▪ medication and normal saline or pre-measured medicine					
C. Procedure:					
1. Washes hands					
2. Gathers supplies/equipment near child and power source					
3. Positions child in an upright comfortable position and explains procedure					
4. Checks written instructions/authorizations					
5. Checks when last treatment given					
6. Observes, counts and documents the child's respiration rate.					
7. <input type="checkbox"/> Measures ____ of ____ and ____ cc of saline into the nebulizer cup. <input type="checkbox"/> Empties premixed unit dose into nebulizer cup.					
8. Attaches <input type="checkbox"/> mouthpiece or <input type="checkbox"/> mask to nebulizer cup.					
9. Attaches nebulizer tubing to the air compressor and the nebulizer cup.					
10. Turns nebulizer on and checks for mist.					
11. <input type="checkbox"/> Places mouthpiece in child's mouth and instructs child to breathe in and out through mask <input type="checkbox"/> Places mask over child's mouth and nose.					
12. Observes child for reactions to treatment and encourages slow deep breaths.					
13. Checks nebulizer cup to ensure that all medicine is given.					
14. Turns machine off when treatment is finished.					
15. Observes, counts, and documents child's respiration rate.					
16. Instructs or assists child with hand washing and drinking water to rinse mouth.					
17. Documents procedure and observations					
18. Reports any changes to family					
19. Rinses cup, mouthpiece/mask under hot running water. Allows pieces to air dry on clean paper towel or cloth. Stores in clean plastic bag when dry.					

Competency Statement: Describes understanding of the need for nebulized medication, demonstrates proper use of nebulizer and identifies problem-solving ability in the event of student/equipment difficulties.

Delegatee Signature _____ Initials _____

Training RN Signature: _____ Initials _____

DELEGATION AUTHORIZATION I have read the care/medication plan, been trained and am competent in the described procedures for _____. I understand the need to maintain skills and will be observed on an ongoing basis by a Registered Nurse. I have had the opportunity to ask questions and received satisfactory answers.

Delegatee Signature: _____ Date _____

Delegating RN Signature: _____ Initials _____ Date _____

Delegation
Decision
Grid
Score
Initials

RE-DELEGATION AUTHORIZATION I have read the care/medication plan, been trained and am competent in the described procedures for _____. I understand the need to maintain skills and will be observed on an ongoing basis by a Registered Nurse. I have had the opportunity to ask questions and received satisfactory answers.

Delegatee Signature: _____ Date _____

Delegation
Decision
Grid
Score

**Medication Administration in School or Child Care
Nebulizer treatments or inhaled medications**

Parent or Guardian Permission

The parent/guardian of _____ ask that school/child care staff give the
(Child's name)
following medication _____ at _____
(Name of medicine and dosage) (Time)

to my child, according to the Health Care Provider's signed instructions on the lower part of this form.

- ◆ The Program agrees to administer medication prescribed by a licensed health care provider.
- ◆ It is the parent's responsibility to furnish the medication and equipment and to keep daily emergency contact information up to date.

By signing this document, I give permission for my child's health care provider/clinic to share necessary information regarding the care of my child's health condition with Program staff.

Parent/Legal Guardian's Name

Parent/Legal Guardian Signature

Date

Home Phone

Work Phone

Health Care Provider Authorization

Child's Name _____ Birthdate: _____

Name of inhaled medication: _____

Dosage: _____

To be given in school/child care at the following time(s): _____

Note to health care provider: Specific time and/or interval must be indicated on this form in order for non-medical persons in school/child care to administer medication

Start Date: _____ End Date: _____

Usual (baseline) respiratory rate for this child: _____

Comments: _____

Seek Emergency Medical Care if the child has any of the following:

- ◆ Respiratory rate greater than _____
- ◆ Coughs constantly
- ◆ Hard time breathing with:
 - ✓ Chest and neck pulled in with each breath
 - ✓ Struggling or gasping for breath
- ◆ Trouble walking or talking
- ◆ Lips or fingernails are grey or blue
- ◆ Other _____

Signature of Health Care Provider with Prescriptive Authority

Phone

NEBULIZER TREATMENT LOG

Child's Name _____

Classroom: _____

Medication & dosage 1. _____
2. _____

Time(s) to be given: _____

Start date: _____ End date: _____

Special Instructions: _____

Daily reminder: Ask the parent/guardian the time of the last treatment.

Nebulizer treatments should not be given more often than every 4-6 hours. Be sure to follow written medical instructions.

Date	Time of last neb Given at home	Time	Breath rate per minute: before	Breath rate per minute: after	Observations: (Cough, skin color, secretions, any discomfort, activity level, etc.)	Staff initials

Comments:

Staff signature: _____
and initials _____

Normal breathing rate at rest:

Infant < one year 20-40 breaths/minute

Toddler: 18-30 breaths/minute

School age child: 16-25 breaths/minute

NEBULIZER TREATMENT PROCEDURE

Equipment includes:

- nebulizer machine nebulizer “cup” with mouth piece or mask
- medication and normal saline (or pre-measured medicine)
- nebulizer machine
- connection tubing

- ▶ Check written instructions from the primary health care provider.
- ▶ Check written permission from the child’s parent/guardian
- ▶ ***Find out what time the last treatment was given by the parent. Ask the parent “how the child is feeling, sleeping, eating and activity level”.***
- ▶ Perform a “daily health check” of the child when the child arrives in the classroom.
- ▶ Notify the RN consultant if this is a new nebulizer treatment and review child’s plan of care.
- ▶ Observe, count, and document the child’s breathing before treatment.

1. Wash your hands.
2. Observe, count, and document the child’s breathing rate.
3. Assemble the equipment near the child and a power source.
4. Measure and pour the medicine into the nebulizer cup.
Note: medications may come in a “unit dose” (saline and medication are premixed)
5. Have the child sit in an upright comfortable position.
6. Attach the nebulizer tubing to the air compressor and turn it on.
7. Place the mouthpiece into his mouth. The child needs to breathe in and out through his mouth. A mask may be used for infants and young children.

8. Observe the child for any reactions such as wheezing. If the child coughs during the treatment, remove the mouthpiece or mask, and allow the child to finish coughing.
9. When the treatment is finished, turn off the machine.
10. Observe, count, and document the child’s breathing rate
11. Report to the parent if the child’s breathing rate is above their normal rate. See the health care plan or written instructions from the health care provider.
12. Ask child to wash their hands and drink water to rinse out their mouth.
13. Wash your hands.
14. **DOCUMENT:** Date, time, number of breaths per minute before and after the treatment, any observations (i.e. cough, secretions, skin color, activity, etc.). Initial and sign the log.
Note: Some children cough up mucous after breathing treatments. Observe the color and thickness. Normal secretions are usually white/clear and thin. Thick and sticky mucous that is yellow or green color may indicate infection. Report this to the parent.
15. **CLEANING:** rinse the “cup”, mouthpiece/mask under hot running water. Allow the pieces to air –dry on a clean paper towel or cloth. When dry, store in a clean plastic bag that can be closed. A more complete cleaning is needed if more than 3-4 treatments are given per day. Note: Do not clean tubing.

Send the nebulizer machine/equipment home with parent for regular maintenance.

Normal breathing rate at rest:

Infant < one year 20-40 breaths/minute

Toddler: 18-30 breaths/minute

School age child: 16-25 breaths/minute

CONTRACT FOR STUDENTS CARRYING INHALERS WITH THEM WHILE AT SCHOOL

STUDENT

- I plan to keep my rescue inhaler with me at school rather than in the school health office.
- I agree to use my rescue inhaler in a responsible manner, in accordance with my physician's orders.
- I will notify the school health office if I am having more difficulty than usual with my asthma.
- I will not allow any other person to use my inhaler.

Student's Signature _____ Date _____

PARENT/GUARDIAN

This contract is in effect for the current school year unless revoked by the physician or the student fails to meet the above safety contingencies.

- I agree to see that my child carries his/her medication as prescribed, that the device contains medication, and the date is current.
- It has been recommended to me that a back-up rescue inhaler be provided to the Health Office for emergencies.
- I will review the status of the student's asthma with the student on a regular basis as agreed in the treatment plan.

Parent's Signature _____ Date _____

SCHOOL NURSE

- The above student has demonstrated correct technique for inhaler use, an understanding of the physician order for time and dosages, and an understanding of the concept of pretreatment with an inhaler prior to exercise.
- School staff that has the need to know about the student's condition and the need to carry medication has been notified.

Registered Nurse's Signature _____ Date _____

Medication Administration Instructional Program

Asthma/Inhaled Medications Module

INSTRUCTOR MANUAL

APPENDIX

Table of Contents

Asthma Web Resources

Colorado School Children's Asthma and Anaphylaxis Health Management Act Guidelines (C.R.S. 05-156)

Caring for Kids with Asthma Power point Presentation created by the CAC

Asthma Web Resources

Allergy and Asthma Network, Mothers of Asthmatics

www.aanma.org

A reliable educational resource for patients and families

They have a quarterly publication and sell useful products on their web site.

Allies Against Asthma

www.asthma.umich.edu

Initiative to improve efforts to control pediatric asthma

Largest resource bank of asthma information resources

American Academy of Allergy, Asthma and Immunology

<http://www.aaaai.org/>

American Lung Association: Asthma

<http://www.lungusa.org/asthma/>

Asthma Action America

<http://www.asthmaactionamerica.org>

National asthma education campaign supported by leading organizations committed to improving healthcare.

Resource for brochures “Putting your Asthma to the Test” and “Asthma Control Made Simple”

Asthma and Allergy Foundation of America

<http://www.aafa.org>

Asthma in the Schools Resource Box

This toolkit contains up-to-date-information on asthma for parents, teachers, administrators and school nurses in both English and Spanish. Ordering information is available at this web site:

http://www.lungcolorado.org/Asthma_ResourceBox.htm

Asthma Busters

www.asthmabusters.org

School nurses can use this program to encourage students to learn more about their asthma and complete a school asthma management plan. Students can earn asthma bucks to spend on available prizes. Appropriate for 7-14 year olds. Sponsored by ALA

Association of Asthma Educators

<http://asthmaeducators.org>

Asthma and Allergy Foundation of America

<http://www.aafa.org>

Centers for Disease Control and Prevention

www.cdc.gov

Provides resource of information relating to asthma, allergies, and current statistic

Colorado Asthma Coalition

<http://asthmacolorado.org>

Provides resources and information about the state coalition for asthma

Colorado Department of Public Health and Environment, State Tobacco Education and Prevention Partnership (STEPP)

(303) 692-2509 or contact Debbie.Montgomery @state.co.us

Resource materials for reducing children's exposure to secondhand smoke

Environmental Protection Agency

www.epa.gov

Resources for schools and the public on environmental factors that contribute to asthma

Can order an "Indoor Air Quality , Tools for Schools Kit" through this site

Global Initiative for Asthma

www.ginasthma.com

Worldwide initiatives for improvement of asthma diagnosis and treatment

*** National Heart, Lung, Blood Institute – National Asthma Education and Prevention Program**

This is the "bible" of asthma management.

www.nhlbi.nih.gov/guidelines/asthma/

National Jewish Medical and Research Center

www.nationaljewish.org

Expert information on asthma, allergies, immunological and respiratory illnesses

Links to the Asthma Wizard

National Association of School Nurses

www.nasn.org

Guidelines relating to asthma management in the school setting with many tools and resources

No Puff Daddy

www.nopuffdaddy.com

A health educator who uses rapping to teach youth to stay healthy and tobacco free

Starbright Foundation

www.starbright.org

Order a free CD-ROM game Quest for the Code. Educational game with great graphics, developed by Steven Spielberg

Support programs for obtaining asthma medications for those who have financial limitations, no health care coverage, or no pharmaceutical benefits.
(Person needs a sponsoring health care provider)

Needy meds.com

This site is designed to provide information about patient assistance programs which provide no cost prescription medications to eligible participants.

www.needymeds.com

GlaxoSmithKline, Bridges to Access

Provides Serevent, Flovent, Advair, and Flonase to qualifying patients

1-800-722-9294

<http://bridgestoaccess.gsk.com>

For parents and families

Kids Health

<http://kidshealth.org>

Kids Health is the largest and most visited site on the Web providing doctor-approved health information about children from before birth through adolescence. Created by The Nemours Foundation's Center for Children's Health Media, the [award-winning](#) Kids Health provides families with accurate, up-to-date, and jargon-free health information they can use. Kids Health has been on the Web since 1995, and has been accessed by more than 170,000,000 visitors. On a typical weekday, more than 250,000 people access Kids Health's reliable information.

Colorado Schoolchildren's Asthma and Anaphylaxis Health Management Act Guidelines (C.R.S. 05-156)

Many students can manage their asthma or allergies better and can more safely respond to symptoms if they carry and self-administer their life-saving medications at school. Each student should have an individual asthma/allergy plan on file at school that addresses carrying and self-administering emergency medications. All schools need to abide by the Colorado School Children's Asthma and Anaphylaxis Health Management Act that authorizes students with asthma or severe allergies to possess and self-administer prescribed medications during school, while at school-sponsored activities, or while in transit to and from school-sponsored activities.

Student, family, and community factors should be assessed in determining when a student should carry and self-administer life-saving medications. Open communication must be maintained between healthcare providers, families, and school personnel, especially the school nurse. Healthcare providers, parents and school nurses, should consider the factors listed below in determining when to entrust and encourage a student with diagnosed asthma and/or anaphylaxis to carry and self-administer prescribed emergency medication in school. Assessment of the factors below should help to establish a profile that guides the decision.

Factors to Consider when Determining if a Student Should Carry & Self-Administer Life-Saving Medications

Although past asthma history is not a sure indicator of future asthma episodes, those children with a history of asthma symptoms and episodes might benefit most from carrying and self-administering emergency and preventative medications in school. In addition to the student's maturity, accountability, and mastery of technique, it may be useful to consider the following:

- Frequency and location of past sudden onsets
- Presence of triggers at school
- Frequency of past hospitalizations or emergency room visits due to asthma

The goal is for all students to eventually be responsible for their medications. However, on one hand, if a school has adequate resources and adheres to policies that promote safe and appropriate administration of life-saving medications by staff, there may be less relative benefit for younger, less mature students in a particular school to carry and self-administer their medication. On the other hand, if sufficient resources and supportive policies are not in place at school, it may be prudent to assign greater weight to student and family factors in determining when a student should self carry.

Colorado Schoolchildren's Asthma and Anaphylaxis Health Management Act Guidelines (C.R.S. 05-156)

Student Factors	Parent/Guardian Factors	School/Community Factors
<ul style="list-style-type: none"> • Desire to carry and self-administer • Appropriate age, maturity, or developmental level • Ability to identify signs and symptoms of asthma and/or anaphylaxis • Knowledge of proper medication to use in response to signs/symptoms • Ability to use correct technique in administering medication • Knowledge about medication side effects and what to report • Willingness to comply with school's rules about use of medicine in school, for example: <ul style="list-style-type: none"> ○ Keeping one's medications with him/her at all times; ○ Notifying a responsible adult during the day when an inhaler is used more than indicated by provider orders and immediately when epinephrine is used; ○ Not sharing medication with other students or leaving it unattended; ○ Not using the medication for any other use than what is intended. • Responsible carrying and self-administering medicine in school in the past (i.e. while attending another school or during an after school program). 	<ul style="list-style-type: none"> • Desire for the student to carry and self-administer • Awareness of school medication policies and parental responsibilities • Commitment to making sure: <ul style="list-style-type: none"> ○ the student has the needed medication with them, ○ medications are refilled when needed, ○ medication used at school is monitored through collaborative effort between the parent/guardian and the school team, and ○ Medications have not expired. • It is recommended that a back-up inhaler be provided in the health office for emergencies 	<p>In making the assessment of when a student should carry and self-administer emergency and preventative medicines, it can be useful to factor in available school resources and adherence to policies aimed at providing students with a safe environment for taking medications. Such factors include:</p> <ul style="list-style-type: none"> • Whether or not a school nurse or trained health aide is present in the school all day every day • Availability of trained staff to administer medications to students who do not self-carry. (Presence of a trained individual may reduce the need for students to self-carry.) • Availability of trained staff to assist those who do self-carry in case of loss or inability to take the medication, and to monitor administration of medications by students. • Provision of safe storage and easy, immediate access to students' medications for both those who do self carry and need access to back-up medications and for those who do not self-carry and have medications in the health office. • Proximity of stored medications in relation to students' classrooms and playing fields • Availability of medication and trained staff for off-campus activities • Ability to disseminate information about medication use to all staff that might be involved in the process • Communication system in school to contact appropriate staff in case of a medical emergency • Past history of appropriately dealing with asthma and/or anaphylaxis episodes by school staff • Provision of opportunities for training for school staff (including coaches and bus drivers)

Colorado Schoolchildren's Asthma and Anaphylaxis Health Management Act Guidelines (C.R.S. 05-156)

Guidelines for Implementation of an Asthma Treatment Plan	
Treatment Plan	<ul style="list-style-type: none"> • Jointly developed in writing by the student, parent(s), school nurse, and student's health care provider. • Students whose asthma is well-controlled may benefit from a standardized asthma care plan (see example) • Must include: <ul style="list-style-type: none"> ○ Written prescription from the health care practitioner who is licensed to prescribe that includes the name, purpose, prescribed dosage, frequency, and length of time between dosages. ○ Written authorization from the parent to administer the medication. ○ List of indications for use of the medication. ○ Directions for self-administration. ○ Confirmation from the health care provider and school nurse that the student has been instructed and is capable of self-administering the medication • The treatment plan shall be effective only for the year in which it is approved or more often if changes occur to the student's health or prescribed treatment.
Demonstration of Skill Level Necessary to Use the Medication	<ul style="list-style-type: none"> • The student must be able to state: <ul style="list-style-type: none"> ○ What medication should be taken ○ Indications for taking the medication ○ The dose of the medication ○ How often the medication may be administered ○ What might happen if the medication is not taken ○ When to seek additional help • The student must be able to demonstrate the correct use of any device that is necessary to administer the medication.
Release from Liability	<ul style="list-style-type: none"> • The school district, school employee, or volunteer is not liable for damages if there is an act or omission related to a student's use of their own medication contained in a treatment plan unless the damages were caused by willful or wanton conduct or disregard of the criteria of the treatment plan (C.R.S. 13-21-108). • The school may request a written statement from the student's parent or legal guardian releasing the school, school district, any associated entity, and employees and volunteers from liability as a result of an act or omission related to a student's own use of any medication contained in an approved treatment plan. • Permission may be revoked for any reason, at the discretion of the school nurse or upon request of the parent or healthcare provider.

Colorado Schoolchildren's Asthma and Anaphylaxis Health Management Act Guidelines (C.R.S. 05-156)

Contract	A written contract between the school nurse, the student, and the student's parents or legal guardian will be established assigning levels of responsibility for each individual. This contract will accompany orders for the medication from a healthcare provider. Agreement by all parties that noncompliance with the contract may result in withdrawal of the privilege.
Student will:	<ul style="list-style-type: none"> • Demonstrate competency in taking his/her medication safely. • Demonstrate appropriate asthma management and self-care skills. • Keep the medication with him/her while at school. • Agree to use the inhaler or Epi-pen in a responsible manner, according to health care provider's orders. • Notify school health office when having more difficulty than usual with asthma or when exposed to an allergen that requires the use of an Epi-Pen • Not allow any other person to use the medication. • Complete and sign the Contract for Students Carrying Inhaler/Epi-pen While at School • Follow-up as agreed in the health care plan
Parent/Guardian will:	<ul style="list-style-type: none"> • Provide a written order by a health care provider • Provide written authorization by the parent/guardian • Assure that the student carries the medication. • Demonstrate knowledge about the medications and their correct use • Assure that the container is appropriately labeled by a pharmacist or health care provider, that the medication device has medication in it, and has not expired. • Review the status of the student's asthma/allergy with the student on a regular basis as agreed in the treatment plan.
School Nurse will:	<ul style="list-style-type: none"> • Recommend that back-up medication be available in the health office. • Review the correct technique for use of the medication device(s), an understanding of the order for time and dosages, and an understanding of the appropriate use of the medication. • Review the status of the student's asthma/allergy with the student on a regular basis as agreed in the treatment plan. • Delegate responsibility to monitor the use of emergency/preventative medications to an appropriate person who will be in the school while the student is there • Notify school staff that needs to know that the student has asthma and has permission to carry and self-administer the medication. • Assign a designee to make a 911 emergency call if the student has an exposure that results in the need to use epinephrine (Epi-pen).
Healthcare Provider will:	<ul style="list-style-type: none"> • Instruct student in the correct and responsible use of the medication. • Provide the following: prescribed medication for use by the student during school hours, at school-sponsored activities, and while in transit to and from school-sponsored activities; confirmation that the student has been instructed and is capable of self-administration of the prescribed medications; written medical authorization that includes the signature for the medication prescribed; the name, purpose, prescribed dosage, frequency, and length of time between dosages of the medications to be self-administered. • Collaborate with the school nurse to formulate a written treatment plan for managing asthma or anaphylaxis episodes of the student and for medication use. • Some schools or school districts will require healthcare provider signature in order for the student to carry his/her medication.