

Parent Consent and Authorized Healthcare Provider Authorization for use of Nebulizer at School and School-sponsored Events					
Student:		DOB:		Date:	
School:		Teacher:		Grade:	
Medication Needed:	<input type="checkbox"/> No <input type="checkbox"/> Yes <i>(complete appropriate medication section below)</i>	Nebulizer Administration Route:		<input type="checkbox"/> Mouth with Mask <input type="checkbox"/> Mouth with Mouthpiece <input type="checkbox"/> Tracheostomy with Mask	
Nebulizer Treatment Preparation					
Position:	<input type="checkbox"/> Reclined <input type="checkbox"/> Sitting <input type="checkbox"/> Standing		Diagnosis:	<input type="checkbox"/> Asthma <input type="checkbox"/> Tracheostomy <input type="checkbox"/> Other:	
Frequency:	<input type="checkbox"/> PRN <i>(see physician medication order section below)</i> <input type="checkbox"/> Scheduled <i>(see physician medication order section below)</i> <input type="checkbox"/> Other:				
Mask and Nebulizer Cup cleaned & reused after treatment		<input type="checkbox"/> No <input type="checkbox"/> Yes, with mild soap and water: _____ Number of days			
Physician Medication Orders Section: (for physician)					
As Needed Medication (PRN)					
Quick Relief (Rescue) Medication Name:					
Dose		Common Side Effects:			
GREEN ZONE: No symptoms Pretreat	* No current symptoms * Doing usual activities	Pretreat before exercise: <input type="checkbox"/> Not required <input type="checkbox"/> Routine <input type="checkbox"/> Parent/Student request Give QUICK RELIEF MED 10-15 minutes before activity: <input type="checkbox"/> 1 vial <input type="checkbox"/> Other: _____ <input type="checkbox"/> Repeat in 4 hours, if needed for additional physical activity. <i>If child is currently experiencing symptoms, follow YELLOW ZONE.</i>			
YELLOW ZONE: Mild symptoms	* Trouble breathing * Wheezing * Frequent cough * Not able to do activities, but talking in complete sentences	1. Stop physical activity. 2. Give QUICK RELIEF MED: <input type="checkbox"/> 1 vial <input type="checkbox"/> Other: _____ 3. Stay with child and maintain sitting position. 4. REPEAT QUICK RELIEF MED if not improving in 15 minutes: <input type="checkbox"/> 1 vial <input type="checkbox"/> Other: _____ 5. Child may go back to normal activities, once symptoms are relieved. 6. Notify parent/guardian and school nurse. <i>If symptoms do not improve or worsen, follow RED ZONE</i>			
RED ZONE: EMERGENCY Severe symptoms	* Coughs constantly * Struggles to breathe * Trouble talking (only speaks 3-4 words) * Skin of chest and/or neck pull in with breathing * Lips/nails gray or blue * Level of consciousness	1. Give QUICK RELIEF MED: <input type="checkbox"/> 1 vial <input type="checkbox"/> Other: _____ 2. Refer to anaphylaxis plan, if child has life-threatening allergy. 3. Call 911 4. Stay with child. Remain calm. Encourage slower, deeper breaths. 5. Notify parent/guardian and school nurse. 6. If symptoms do not improve, REPEAT QUICK RELIEF MED: <input type="checkbox"/> 1 vial <input type="checkbox"/> Other: _____			
Scheduled Routine Medication:					
Medication Name:		Dose:		Reason:	
Frequency/Time:		Side Effects:			
Authorized Healthcare Provider Authorization for Management of Nebulizer In School Setting					
My signature below provides authorization for the above written orders. I understand that all procedures will be implemented in accordance with state laws and regulations. I understand that specialized physical healthcare services may be performed by unlicensed designated school personnel under the training and supervision provided by the school nurse. This authorization is for a maximum of one year. If changes are indicated, I will provide new written authorization. Authorizations may be faxed.					
MD/DO/PA Name :				Stamp: (or address and phone)	
MD/DO/PA Signature:			Date:		
Parent Consent for Authorization and Management of Nebulizer in School Setting					
I (we) the undersigned, the parent(s)/guardian(s) of the above named pupil, request that the specialized physical healthcare service, nebulizer, be administered to my (our) child in accordance with state laws and regulations. I (we) will: <ol style="list-style-type: none"> provide the necessary supplies and equipment; notify the school nurse if there is a change in child's health status or attending authorized healthcare provider; and notify the school nurse immediately and provide new written consent/authorization for any changes in the above authorization. I (we) give consent for the school nurse to communicate with the authorized healthcare provider when necessary. I (we) understand that I (we) will be provided a copy of my child's completed Individualized Healthcare Plan (IHP).					
Parent/Guardian Signature:				Date:	

Mechanical Nebulizer Standard Healthcare Procedure

General Nebulizer Information

A nebulizer delivery system consists of a nebulizer cup (small plastic bowl with a screw-top lid) and a source of compressed air. The mechanical nebulizer operates with either compressed air or oxygen to convert liquid medication into a fine mist that is inhaled into the lungs through either a mask or mouthpiece.

However, the standard procedure remains the same. Consult manufacturer's instructions for information about the operation, cleaning and maintenance of the nebulizer brand and model.

Children five years of age and younger usually need a mask. Young children may refuse to wear the mask and may become upset. If necessary, the mist can be directed towards the child's nose, even if the child is crying. In this situation, the designated staff member assisting the child should consult the school nurse for direction.

Nebulizers may be the device of choice for infants, small children and others who lack the breath coordination needed to correctly use an inhaler. A nebulizer treatment takes 10–30 minutes, continuing until all the liquid medication in the nebulizer cup is gone. Both quick-relief and controller asthma medications are available in liquid form for nebulization and are packaged in unit-dose vials. A pupil's healthcare provider authorization may require that the pupil's heart rate be monitored before, during and after treatment with a bronchodilator. Medications such as mucolytics for treatment of other respiratory conditions may also be delivered to the lungs by nebulizer.

In the school setting, the licensed credentialed school nurse, licensed registered or vocational nurse or designated trained school staff may assist the pupil in administering medication by nebulizer, based on school nurse's health assessment of the pupil. The procedure is implemented according to state laws and the district's policies and procedures for providing medications to pupils.

Nebulizers should be kept in a safe, clean and secure location at the school site. The area used for treatment should have a comfortable place for sitting and a stable surface for the air compressor near a power source. The nebulizer cup, mouthpiece and tubing must be cleaned after each use and stored in a location that is dust-free. The parent is responsible for more thorough cleaning and maintenance of the nebulizer according to the manufacturer's recommended schedule. The plastic nebulizer cup/mouthpiece units and tubing will break down over time. Staff assisting with the nebulizer treatment should observe for evidence of equipment deterioration.

RESOURCES:

- Using a Nebulizer for Asthma Medications, National Jewish Health, 2009; instructions and video
<http://www.nationaljewish.org/healthinfo/medications/lung-diseases/devices/nebulizers/instructions.aspx>
- Nebulizers—When Only the Mist Will Do, Allergy & Asthma Network Mothers of Asthmatics, 2009
<http://www.aanma.org/2009/06/nebulizers-mis/>

Websites accessed January 30, 2011

Mechanical Nebulizer Standard Healthcare Procedure

Purpose	<ol style="list-style-type: none"> 1. To deliver bronchodilators, mucolytics or other medications directly into the lungs by means of aerosol instillation. 2. To provide high humidity to facilitate the removal of pulmonary and bronchial secretions. 	
Equipment & Supplies	<ol style="list-style-type: none"> 1. Medication in unit-dose vials 2. Air compressor 3. Connection tubing 	<ol style="list-style-type: none"> 4. Nebulizer cup 5. Mouthpiece or mask
PROCEDURE		
Essential Steps		Key Points and Precautions
1. Review pupil's Asthma Action Plan /IHP/medication authorization to determine authorized healthcare provider's orders regarding use of nebulizer at school.		1. Pupil-specific notes:
2. If ordered by healthcare provider, count pupil's pulse and respirations. Record rates on treatment log.		2. Bronchodilators may produce rapid heartbeat, palpitation, dizziness, nausea and excessive perspiration. Call school nurse immediately if pupil has any of these signs and symptoms.
3. Wash hands.		3. STANDARD PRECAUTIONS. Germs or foreign material must not contaminate nebulizer cup.
4. Assemble equipment and medication near pupil.		4. Air compressor must sit on a stable surface near a power source.
5. Explain procedure to pupil.		5. Use language and demonstration methods appropriate for pupil's level of development. Effectiveness of treatment depends on pupil's efforts.
6. Check expiration date on vial. Inspect vial for damage or discolored medication. If a problem is observed, contact parent or school nurse immediately for direction. <ul style="list-style-type: none"> • Open vial carefully and pour medication into nebulizer cup. 		6. Do not exceed amount of medication ordered.
7. Place the pupil in a comfortable sitting position or position specified by healthcare provider.		7. Expansion of the lungs and movement of the diaphragm are maximized in this position, allowing the medication to reach the basilar areas of the lungs.
8. Connect air tubing from air compressor to nebulizer and turn it on. A fine mist should be visible flowing from the mouthpiece/mask.		8. If nebulizer is not misting or output appears decreased, check all connections. Unplug device and check manufacturer's instructions for trouble shooting. If nebulizer does not mist, contact school nurse or parent immediately.
9. MOUTHPIECE: Have pupil place mouthpiece in his/her mouth between the teeth and close lips around it. <ol style="list-style-type: none"> a. Hold nebulizer in an upright position to prevent spilling and promote nebulization. b. Instruct pupil to breathe deeply in and out through mouth. MASK: Place mask over nose and mouth and adjust elastic strap around the back of head. Mask should fit snugly, covering nose and mouth.		9. If pupil has difficulty doing mouth breathing, turn off compressor. Demonstrate procedure if needed, have pupil practice and then proceed with treatment. <ul style="list-style-type: none"> • Mouth breathing allows medication to remain in lungs longer and facilitates dispersion of the particles. • Some nebulizers have a finger valve that controls misting. Cover hole in finger valve with finger to start misting. Have pupil breathe in and out slowly for 3–5 seconds. At end of deep breath, uncover valve hole and hold breath for up to 10 seconds. Repeat steps.

<p>10. Monitor pupil during the treatment.</p> <ul style="list-style-type: none"> ● Observe for expansion of pupil's chest. ● Every 2 minutes or as ordered, have pupil take an extra deep breath or two, hold breath briefly, and then exhale as slowly as possible. Resume normal breathing until time for next deep breaths. ● Remove mouthpiece or mask if coughing occurs during treatment. Allow pupil to clear secretions completely, and then continue treatment. ● Tap the nebulizer cup occasionally to help solution drop to bottom of cup so it can be misted. ● Observe for adverse reactions such as wheezing (bronchospasm) and excessive fluid deposition which can cause suffocation, rapid heart rate, nausea and/or dizziness. <p>IF THESE SIGNS OCCUR, STOP TREATMENT, CALL FOR HELP. STAY WITH PUPIL. HAVE HELPER CALL SCHOOL NURSE AND/OR 911 EMERGENCY SERVICES.</p> <ul style="list-style-type: none"> ● Continue procedure until all fluid has been nebulized, indicating that pupil has received a complete dose. 	<p>10. Monitoring treatment</p> <ul style="list-style-type: none"> ● Deep breaths ensure that the medication is deposited deep into lungs. If pupil has difficulty breathing only through mouth, nose clips may be used if ordered by healthcare provider. ● Give pupil time to rest during procedure if needed. Turn off compressor while pupil rests. ● <u>If ordered</u>, count pulse and respirations during treatment <ul style="list-style-type: none"> ● Wheezing may be due to increased or loosened secretions. If pupil is unable to expectorate the loosened secretions, suffocation can occur. ● Wheezing may also indicate improvement of air exchange if minimal air movement occurred before treatment. <ul style="list-style-type: none"> ● No mist will be emitted and/or nebulizer will sputter.
<p>12. Upon completion of treatment, have pupil take several deep breaths, cough and spit out secretions.</p> <ul style="list-style-type: none"> ● Observe pupil for 10 minutes. If pupil is breathing more easily and pulse/respirations are within normal range, he/she may return to classroom after observation time. 	<p>12. Instruct and demonstrate technique as needed.</p> <ul style="list-style-type: none"> ● Have pupil cover cough. ● Obtain and record pulse and respirations if ordered. ● Pupil-specific notes:
<p>13. IF PUPIL HAS HARD BREATHING, SKIN PULLED IN OVER STOMACH OR RIBS WITH BREATH, IS UNABLE TO WALK OR TALK, LIPS OR FINGERNAIL BEDS TURN BLUE</p> <p><u>CALL FOR HELP. CALL 911 EMERGENCY SERVICES</u></p> <ul style="list-style-type: none"> ● REPEAT QUICK-RELIEF MEDICATION AS AUTHORIZED ● STAY WITH PUPIL; BE PREPARED TO DO CPR 	<p>13. Have helper notify site administrator, school nurse and parent. Complete Emergency Response Report in collaboration with school nurse.</p> <p>Pupil-specific notes:</p>
<p>14. Have pupil wash hands before returning to class. Wash your hands.</p>	<p>14. STANDARD PRECAUTIONS</p>
<p>15. Document treatment on Asthma Management Log (Form J) or other IHP log. Record medication, duration of treatment, respiratory effort, description of secretions expectorated, observation time, time returned to class, and any other actions/observations.</p>	<p>15. Report any unusual observations to school nurse.</p> <ul style="list-style-type: none"> ● Record respiratory rate and pulse readings/times if ordered.
<p>16. After each treatment, put on gloves: (a) rinse nebulizer cup, mouthpiece/mask under hot, running water; (b) shake off excess water; (c) lay parts on paper towels to dry; (d) cover parts with paper towels; (f) store parts when dry in a clean, sealed plastic bag; (g) store machine and parts in safe, easily accessible location; and (h) wash sink and spray with approved disinfectant. Remove and discard gloves; wash hands.</p>	<p>16. Thorough cleaning and maintenance of nebulizer is done by parents according to schedule recommended by manufacturer.</p> <ul style="list-style-type: none"> ● Tubing is not rinsed; store it in same bag with other parts.