

Nebulizer Administration

Things to consider:

Attempt to provide the student with as much privacy as possible, given the urgency of the situation

Equipment:

Medication

Nebulizer machine (air compressor)

Connecting tubing

Facemask, or a mouthpiece held in the mouth

Individualized Health Plan (IHP) and/or Healthcare provider's orders

Procedure:

1. Position student
2. Explain the procedure to the student at his/her level of understanding
3. Encourage the student to assist in the procedure as much as she is able to help student learn self-care skills
4. Review IHP and/or orders
5. Wash hands
6. Set up and plug in the nebulizer machine in a location where the power source is close to a comfortable location for the medication to be administered
7. Follow the directions for the specific brand of nebulizer machine and cup
8. Unscrew top of nebulizer cup
9. Add medication into the bottom half of the nebulizer cup
10. Screw the top of the cup back on
11. Attach the tubing from the cup to the nebulizer machine and the cup onto the facemask or mouthpiece
12. Place either the facemask on the student or the mouthpiece in his or her mouth and turn on the machine
 - a. A mist of medication should rapidly appear
13. Instruct the student to take relatively normal slow deep breaths
14. Keep the nebulizer cup in an upright position
15. The cup may require some tapping on the sides toward the end of the treatment to optimize the completion of the dose
16. The treatment is complete when there is no more mist from the cup (usually 10–15 minutes)
17. Turn off the machine
18. Remove the mask or mouthpiece
19. Rinse nebulizer cup, mouthpiece or mask under warm water
20. Shake off excess water
21. Place on paper towel to dry
22. Reassess respiratory status
23. Wash hands
24. Document assessment, intervention and outcome in student's healthcare record

25. Update parents/guardian and healthcare provider, if needed

Cleaning and storing:

1. Take the nebulizer apart
2. Set tubing aside
3. Do not soak, wash or rinse tubing
 - a. Replace it if it becomes cloudy, discolored or wet inside
4. Wash the medicine cup and mask with warm, soapy water
5. Rinse the medicine cup and mask in warm water
6. Let all pieces air dry on a paper towel
7. When dry, put pieces in a plastic bag or container

Disinfect weekly

1. Soak medicine cup and mask in half strength vinegar for at least 10 minutes or overnight
2. Rinse with water
3. Let all pieces air dry on a paper towel
4. When dry, put pieces in a plastic bag or container

Care of the machine

1. Wipe with a damp cloth
2. Check the filter monthly
 - a. Change it every six months or sooner if discolored
3. The machine should be serviced every five years

Resources:

American School Health Association: [Asthma Resource Portal](#)

Asthma and Allergy Foundation of America: [Success of the Asthma Management and Education Online Program](#)

Asthma and Allergy Foundation of America: [Validated Programs for Children, Parents and Caregivers](#)

Children's Hospital: University of Missouri Health Care
[School Nurse Online Module](#)

Merck Childhood Asthma Network and The National Association of School Nurses: [The Evolving Role of the School Nurse in Treating and Managing Childhood Asthma – At School and Home](#)

National Heart, Lung and Blood Institute: [Asthma Basics for Schools](#)

National Heart, Lung and Blood Institute: [Management of Asthma Exacerbations: School Treatment Steps to Follow for an Asthma Episode in the School Setting When a Nurse is Not Available](#)

National Heart, Lung and Blood Institute: [Management of Asthma Exacerbations: School Treatment Suggested Emergency Nursing Protocol for Students with Asthma Who Don't Have a Personal Asthma Action Plan](#)

National Heart, Lung and Blood Institute: [Asthma Action Plan](#)

References:

Children's Hospital of Wisconsin. (2010). *Using a Nebulizer with Mask*.
<http://www.chw.org/applications/TeachingSheets/5010EN.pdf>

Connecticut State Department of Education. (2012). *Clinical Procedure Guidelines for Connecticut School Nurses*. Available at:
http://www.sde.ct.gov/sde/lib/sde/pdf/publications/clinical_guidelines/clinical_guidelines.pdf

Porter, S., Haynie M.D., Bierle, T., Caldwell, T. & Palfrey, J. (1997). *Children and Youth Assisted by Medical Technology in Educational Settings. Guidelines for Care. Second Edition*. Paul H. Brookes Publishing Co., P.O. Box 10624, Baltimore, MD 21285-0624

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