



NEBULIZER GUIDANCE FOR SCHOOL NURSES

Asthma is a chronic health condition affecting an estimated 65,365 students PreK-12 based on reporting from Missouri school nurses for the 21-22 school year. School districts must be prepared to offer health care coordination as well as emergency care.

Planning for this care begins with the school nurse reviewing previous health records for the student (if available), recent asthma action plans and then speaking with the parent/guardian. Consider using [SN CHAT](#) (School Nurse Chronic Health Assessment tool) as a framework for your discussion with the parent/guardian. Include the student in your discussion as much as possible.

Beginning in 2020, attention has been heightened on procedures that have the potential to spread infectious disease by aerosols generated by nebulizers. More information on this can be found by visiting the Centers for Disease Control and Prevention's website [here](#). As you review orders and plans for this student, determine the delivery method of the emergency medication.

If you find the albuterol via nebulizer is the order for the school setting, explore the reason. Explain that we now know that a metered dose inhaler (MDI) used with a valved holding chamber (VHC) is preferred in the school clinic. MDI with a VHC or mask have been shown to be as good as or better than nebulizers for the management of children with asthma exacerbation.¹

Here are two publications that may be helpful for families to share with healthcare providers:

- [Metered-Dose Inhaler versus nebulizer for the treatment of acute asthma exacerbation in preschool children by Dr. Ronly Har-even Cohn](#)
- [Parental perceptions about the use of Metered dose inhaler vs Nebulizer in children with acute asthma exacerbation](#)

If nebulizer use is deemed absolutely necessary, the procedure should be as follows:

1. Use a room separate from where other children are receiving care (if possible) or one that has limited other use, with nearby sink. If there is a ventilation fan, turn

it on.

2. Staff at a minimum should wear a surgical mask and eye protection. Gown and gloves are at the nurse's discretion.
3. During the treatment, staff should be only as close as necessary, taking care to keep their face as far away from and above the nebulizer as possible.
4. If child is old enough to hold nebulizer, the nurse may step out of room and allow student to self-administer, but should continue to wear minimum of gloves, mask and eye protection in case child needs assistance.
5. Remove any PPE carefully, caring for the child first. Take care not to shake any pieces. Dispose of properly in trash.
6. Both the adult and child should their wash hands.
7. Close door to treatment room and let it remain unused for at least 60 minutes to allow for droplets to fall prior to cleaning.
8. Return child to classroom.
9. Wear gloves and mask while disinfecting surfaces in the room.
10. Clean nebulizer according to machine protocol. See additional sheet: Care of Nebulizer Machine.

References:

- Operational Guidance for K-12 Schools and Early Care and Education Programs to Support Safe In-Person Learning <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/index.html>
- Back to School with Asthma Toolkit for schools: <https://www.lung.org/lung-health-diseases/lung-disease-lookup/asthma/living-with-asthma/creating-asthma-friendly-environments/back-to-school-with-asthma-toolkit>
- Asthma + Respiratory Foundation NZ: <https://www.asthmafoundation.org.nz/your-health/living-with-asthma/asthma-medication/children>
- Parental perceptions about the use of metered dose inhaler vs. nebulizer in children with acute asthma: <https://pediatrics.aappublications.org/content/142/1/MeetingAbstract/582>
- ¹ Efficacy of metered-dose inhalers for children with acute asthma exacerbations: <https://pubmed.ncbi.nlm.nih.gov/21194171/>