

## **Intranasal Administration of Seizure Emergency Medication**

### **Things to Consider:**

- Given that the medication can be dispensed in different formats and dosages, the school nurse should always review the medication and order upon receiving it at the school
- Given that when a child is having a seizure, and can be a stressful situation, it is highly recommended that you familiarize yourself with that child's seizure emergency care plan beforehand
- Store the seizure emergency plan in a location that is easily accessible during a seizure
- Be sure to check expiration date on the medication bottle
- Midazolam can be stored at room temperature and there is no specific expiration date once the medication has been opened
- Secured but accessible storage of the medication should be considered in your medication administration plan
- Be sure to ensure the child's privacy and confidentiality when calling for assistance. Do not say the child's name over the PA system or walkie-talkie
- If possible, have someone assist with removing onlookers and other students to provide the child with privacy
- The medication can be very irritating to the nasal membranes and create a burning sensation, additional adult assistance may be required to administer the medication
- NOTE: The Food and Drug Administration (FDA) has not approved lorazepam or midazolam for administration via this medication route. Since healthcare providers are currently prescribing the medications via this route, if you have questions or concerns, discuss this with the prescribing healthcare provider or the pharmacist

Needed Supplies: Seizure emergency action plan Documentation log Syringe Needle Atomizer Prescribed medication Gloves Bulb syringe Sharps container

### **First aid for a seizure:**

1. Call for assistance if someone else is present.
2. Place the child on a flat surface such as the floor being sure not to move the child any more than is necessary
3. Turn the child onto his/her side to allow vomit/phlegm to be expelled rather than inhaled
4. Place something soft under the child's head to protect them from injury
5. Ensure the child's airway is not obstructed
6. Loosen tight clothing around the child's neck
7. Do not restrict the child's arms or legs
8. Ensure there is no furniture or objects close to the child that could injure him/her
9. Review the child's emergency care plan
10. Gather the emergency medication and needed supplies in case seizure lasts longer than designated time frame

### **Procedure:**

1. If possible, wash your hands
2. Assemble the needed supplies
3. Put on gloves
4. Check the vial of medication to ensure that it is: a. For the right child b. The right medication c. The right dose d. Being given at the right time e. Being given by the right route, and f. Not expired
5. Ensure that the proper amount of time has passed prior to administering the student's seizure medication
6. If there is another adult present, have them call EMS/911 as you administer the medication
7. Twist or place the needle onto the syringe

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8. Remove the cap from the vial of medication
9. Insert the needle into the vial and withdraw prescribed amount of medication
10. Pull the needle and syringe out of the vial and verify the dose of the medication
11. Twist off or remove the syringe from the needle
12. Attach the atomizer tip to the syringe and twist into place
13. Discard the needle in a sharps container
14. Look into the child's nostrils to determine if there is fluid or mucous in the nostrils.
15. If drainage or mucous is present, use a bulb syringe to remove it
16. Using your free hand to hold the crown of the head stable, place the tip of the atomizer snugly against the nostril aiming slightly up and outward
17. Quickly compress the syringe plunger to deliver half of the medication into the nostril
18. Move the device over to the opposite nostril and administer the remaining medication into that nostril
19. The child may grimace or appear more restless momentarily after the medication is given
20. Remove gloves
21. If EMS/911 has not been called yet, call 911 or EMS services
22. Stay with the child, monitoring breathing
23. If breathing stops, begin rescue breaths
24. If breathing and heartbeat stop, begin CPR
25. Once rescue squad arrives, inform them of medication administered, including type of medication, dose and time
26. Remember to dispose of all used equipment and bottles of medicine safely out of the reach of children
27. Wash hands
28. Document the date, time and dose of medication given in addition to what was observed during the seizure on the documentation log
29. Follow up with the parent or guardian and healthcare provider, as needed

### References:

- Bowden, V. R., & Greenberg, C. S. (2012). *Pediatric nursing procedures*. Chapter 64: Medication Administration: Nasal (Third Edition). Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins.
- Holsti, M., Sill, B.L., Firth, S.D., Filloux, F.M., Joyce, S.M., Furnival, R.A. (2007). Prehospital IN Midazolam for the Treatment of Pediatric Seizures. *Pediatric Emergency Care*, 23(3).
- Ice Epilepsy Alliance. (2014). *Emergency Administration of Rescue Medications*. Available at: <http://www.ice-epilepsy.org/emergency-administration-of-rescue-medications.html>
- Therapeutic Intranasal Drug Delivery. Available at: <http://intranasal.net/Treatmentprotocols/default.htm>
- Wolfe, T.A., Braude, D.A. (2010). Intranasal Medication Delivery for Children: A Brief Review and Update. *Pediatrics*, 126, 532-37.
- Wolfe, T.A., Macfarlane, T.C. (2006). Intranasal Midazolam Therapy for Pediatric Status Epilepticus. *American Journal of Emergency Medicine*, 24, 343–46.

### Resources:

- [http://www.lmana.com/files/lma\\_623\\_mad\\_nasal\\_procedure\\_guide.pdf](http://www.lmana.com/files/lma_623_mad_nasal_procedure_guide.pdf)
- <http://www.lmana.com/pwpcontrol.php?wpID=6359>