

## CONSIDERATIONS FOR PRACTICE

***In Michigan, the Public Health Code is the primary statute that defines regulations for nurses and other health care professionals. School nursing practice is also influenced by federal, state, local laws and in some instances the Michigan School Code. School Nursing: Scope and Standards of Practice are “expectations that guide the practice of school nursing” (2017, preface, ix). This document contains important information that is not all inclusive or a substitute for a nurse’s decision making or judgement. It is intended as a broad direction for school nurse practice. This document was researched April, 2021.***

## OVERVIEW

Without the presence of a school nurse, managing students with seizures can be challenging for school staff (Hartman & Devore, 2016).

Seizures in children vary by cause, severity, and impact affecting children and adolescents aged 6–17 years (CDC, 2015). Most seizures self-terminate within five minutes, but for seizures lasting longer, medication administration is warranted for seizure cessation. Seizures lasting more than 5 minutes are considered an emergency (Mayo Clinic, 2021).

Rescue medications do not take the place of routine medication treatment for seizures:

- They are used to prevent emergencies by stopping seizures that otherwise, last longer than normal, cluster, or fluctuate from the typical pattern.
- They can also be used to prevent breakthrough seizures during periods of high risk, and emergencies (Epilepsy Foundation, 2020).

Rescue medication is given as needed. Routes include rectal, nasal, oral, sublingual and buccal. The ideal rescue medicine is simple to use, acts fast, is safe with minimal to no side effects, and works well. Three (3) seizure rescue medications are approved by the Food and Drug Administration (FDA), [Diastat AcuDial](#) (rectal diazepam), [Nayzilam](#) (intranasal midazolam) and [Valtoco](#) (intranasal diazepam). These are meant to be administered outside the hospital environment. There are additional seizure rescue medications available that are not FDA approved, at this time. Studies have found intranasal midazolam and diazepam are effective, consistently faster at stopping seizure activity than rectal diazepam, and a safe option for use outside of the hospital setting (Maglalang, et.al, 2018). These medications do not work instantaneously (chart below).

Route of Administration	How Quick to React
Intranasal	3-5 minutes, but up to 10 minutes
Rectal	5-30 minutes

# MICHIGAN SCHOOL HEALTH: SEIZURE RESCUE MEDICATIONS

Another treatment option for drug resistant or refractory seizures is a [Vagus Nerve Stimulator](#) (VNS). The FDA approved VNS therapy in patients 4 years and older with focal (partial) seizures refractory to antiseizure medication. The VNS is implanted under the left chest wall and is programmed to give pulses at regular intervals to help prevent seizures. When a seizure occurs, a magnet is swiped over the device adding increased stimulation.

## NATIONAL INFORMATION

National Association of School Nurses (NASN)

- [Implementing NASN’s School Nursing Evidence Based Practice Seizures and Epilepsy Clinical Guideline](#) (free to MASN members thru 10/21)
- [NASN's Emergency Medication Toolkit](#) (MASN members free thru 11-23)

Epilepsy Foundation

- [Seizure Rescue Therapies](#)

Center for Disease Control & Prevention (CDC)

- [Epilepsy](#)

## Federal Law

<a href="#">Americans with Disabilities Act of 1990 (ADA)</a>	Disability discrimination prohibited.
<a href="#">Section 504, Rehabilitation Act of 1973</a>	Protects the rights of children with special health-care needs (CSHCN) by providing related services, including health services, to those not eligible for special education.
<a href="#">Civil Rights Act of 1991</a>	Prohibits discrimination on basis of disability.
<a href="#">34 CFR Part 300 Individuals with Disabilities Act of 1997 (IDEA)</a>	Guarantees access to education and related services to assist children with disabilities benefit from special education. <a href="#">Reauthorization of 2004, Sec. 602 (26)</a> list school nurse services as a related service.

## MICHIGAN SPECIFIC INFORMATION

- Michigan Department of Education (MDE) [Model Policy for Administering Medication](#)
- [Epilepsy Foundation of Michigan](#) Seizure Training for School Nurses: Caring for Students [Seizure Management in School](#) (2.75 CEU’s)

# MICHIGAN SCHOOL HEALTH: SEIZURE RESCUE MEDICATIONS

## Michigan Laws

<p><a href="#">333.17201</a>  <a href="#">PUBLIC HEALTH CODE</a>  <a href="#">(EXCERPT)</a>  <a href="#">Act 368 of 1978</a></p>	<p>Defines nursing scope of practice. The RN’s scope of practice includes the teaching, direction, and supervision of less skilled personnel in the performance of delegated nursing activities. Public Health Code, 1978 PA 368, as amended, recognizes registered nurses as fully licensed health professionals.</p>
<p><a href="#">333.16109</a></p>	<p>Supervision requires continuous availability of direct communication in person or by radio, telephone, or telecommunication between the supervised individual and a licensed health professional, the availability of the licensed health professional to review the practice of the supervised individual, to provide consultation to the supervised individual, to review records, and to further educate the supervised individual in the performance of the individual’s functions.</p>
<p><a href="#">Public Act No. 12</a></p>	<p>The governing body of a school that operates K-12 shall adopt and implement a cardiac emergency response plan for the school. The plan must include at least: 1) Use and regular maintenance of the auto external defibrillator, 2) Activation of a cardiac emergency response team during an identified cardiac emergency, 3) A plan for effective communication, and 4) If a school is grades 9-12 a training plan for use of an auto external defibrillator in CPR rescue techniques.</p>
<p><a href="#">THE REVISED SCHOOL CODE</a>  <a href="#">(EXCERPT)</a>  <a href="#">Act 451 of 1976</a></p>	<p><b>380.1252 Professional nursing services; rules; reports; section inapplicable to certain nursing services.</b>          Sec. 1252.          1. The board of a school district may employ registered nurses necessary to provide professional nursing services. The services shall be operated under rules promulgated by the state board which shall establish the certification requirements for registered nurses in the services.          2. The state board may require reports and information from school districts offering nursing services.          3. This section does not apply to nursing services provided by a county or district health department.</p>

# MICHIGAN SCHOOL HEALTH: SEIZURE RESCUE MEDICATIONS

<p><b><u>THE REVISED SCHOOL CODE</u></b> <b><u>(EXCERPT)</u></b> <b><u>Act 451 of 1976</u></b></p>	<p><b>380.1178 Administration of medication or epinephrine auto-injector to pupil; liability; school employee as licensed registered professional nurse.</b> Sec. 1178. 1. Subject to subsection (2), a school administrator, teacher, or other school employee designated by the school administrator, who in good faith administers medication to a pupil in the presence of another adult or in an emergency that threatens the life or health of the pupil, pursuant to written permission of the pupil's parent or guardian, and in compliance with the instructions of a physician, physician's assistant, or certified nurse practitioner, or a school employee who in good faith administers an epinephrine auto-injector to an individual consistent with the policies under section 1179a, is not liable in a criminal action or for civil damages as a result of an act or omission in the administration of the medication or epinephrine auto-injector, except for an act or omission amounting to gross negligence or willful and wanton misconduct.</p>
	<p>2. If a school employee is a licensed registered professional nurse, subsection (1) applies to that school employee regardless of whether the medication or epinephrine auto-injector is administered in the presences of another adult. 3. A school district, nonpublic school, member of a school board, or director or officer of a nonpublic school is not liable for damages in a civil action for injury, death, or loss to person or property allegedly arising from a person action under this section.</p>

## **SCHOOL NURSE CONSIDERATIONS**

School nurses are the experts in medication administration and chronic health conditions in the school setting. The role of the school nurse in seizure management is essential in improving education and health goals in students with seizure disorders (Quinn & Lepkowski, 2019).

It is important for school nurses to be knowledgeable of state and federal laws in addition to the implications of their current administration policy as they apply to the school nurse to provide safe care to students (Patrick & Reiner, 2017). The school nurse must also understand

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the actions, dosing, active ingredients, and side effects of medication administered (Quinn & Lepkowski, 2019).

Seizure emergencies differ in individual students and should be outlined in an Emergency Care Plan (ECP) which addresses the specific individual student's needs (Taliaferro & Resha, 2020). The Seizure Action Plan (SAP) includes parameters for emergency care in the event of a prolonged seizure as well as prescribed rescue medications. The school nurse often uses the SAP to develop an individualized and/or emergency care plan (Lepkowski, 2019).

## Approved Food & Drug Administration (FDA) Seizure Rescue Medications

### Rectal Diastat (rectal diazepam)

- Common rescue therapy in children
- Used for prolonged seizure activity, seizure clusters, or breakthrough seizures
- Pre-packaged syringe: dose should be locked in place by pharmacist
- Begins to work within 15 minutes
- Can be used ages 2 years and older
- Usually tolerated well
- Student may fatigue after administered

### Nayzilam – (intranasal midazolam)

- Indicated for acute treatment of intermittent stereotypic episodes of frequent seizure activity (seizure clusters, acute repetitive seizures)
- Approved for use in people 12 years and older
- Intended to be given by patient or caregiver
- Each spray for one-time use, 5mg/0.1ml spray in one nostril
- Second spray used in opposite nostril if seizure continues after 10 minutes

### Valtoco (intranasal diazepam)

- Indicated for acute treatment of intermittent stereotypic episodes of frequent seizure activity (seizure clusters, acute repetitive)
- Approved for children age 6 >, adults with epilepsy
- Intended to be given by patient or caregiver
- Each spray for one-time use (5 mg, 7.5 mg, 10 mg 0.1ml)
- Second spray used if needed in 4 hours after first dose

## Important Points

\*DO NOT give a second dose of Nayzilam if there is concern about the person's breathing or if they are very sleepy.

\*Contact the HCP about how often to use a nasal rescue spray. In general, Nayzilam is used for one seizure cluster every 3 days. Valtoco is used for 1 seizure cluster episode every 5 days. This may vary for each person so please check with the HCP.

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\*DO NOT use nasal rescue medicines more than 5 times a month, unless directed by your prescribing health care provider (Epilepsy Foundation, 2020).

\*Seizure(s) must be timed.

\*When seizure rescue medication is administered, respiratory status is monitored.

\*Follow the SAP.

The first dose of any new prescription or over-the-counter medication should be given by the parent/guardian except for “as needed” emergency medications (MDE/MDHHS, 2013).

The school nurse has a responsibility to provide tier training to all school staff (including custodians and building aides) on a need-to-know basis. Tier training includes recognizing seizure activity, seizure first aid, and student specific training for staff providing direct care to the students (Lepkowski, 2019).

According to the NASN Tiered Training Model for Teachers and School Personnel, training should be facilitated by the school nurse or another licensed healthcare professional that works with the school. There are three levels of training:

- Tier 1: provides basic information for all school personnel about the most common signs and symptoms of seizures that could indicate the student is experiencing a medical emergency, and who to contact for help while appropriate basic or immediate care is provided.
- Tier 2: building on Tier 1, provides additional seizure information that is student-specific for school personnel responsible for the student throughout the school day (e.g., teachers, lunch staff, coaches, bus drivers) and how to activate emergency medical services and the school’s medical emergency response team, often called a “MERT” (Medical Emergency Response Team).
- Tier 3: building on Tiers 1 and 2, provides instruction on student-specific nursing care tasks for school personnel who will perform care tasks or assist the student. These designated school personnel will be chosen, trained, and supervised by the school nurse.
- Tier 3 training:
  - Requires the expertise of a nurse or healthcare professional and must follow the appropriate steps of nursing delegation and other state laws regarding care of students in schools.
  - Is not appropriate for all students, all nursing tasks, or in all school nurse practice settings.
  - Key factors guiding determination for training include state law, rules, and regulations; whether steps of “nursing delegation” are followed; safety issues; individual student healthcare needs; and the capacity and competence of the designed school personnel.

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- The decision to conduct Tier 3 training is the sole responsibility of the school nurse (NASN, 2020).

### References:

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Center for Disease Control, (2015). Seizures in children and adolescents aged 6 – 17 years – United States, 2010 2014. *Morbidity and Mortality Weekly Report (MMWR)*, 64(43), 1209 - 1214.

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National Association of School Nurses. (2020). *Improving care coordination for students with chronic health conditions: Tiered training model for teachers and school personnel*. [fkNryWHR4Qp60tNDIJETq \(pathlms.com\)](#)

Taliaferro & Resha. (2019). *Anaphylaxis*. School Nurse Resource Manual Evidence Based Guide to Practice. pp. 30-35.

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Zack MM & Kobau R. National and state estimates of the numbers of adults and children with active epilepsy — United States, 2015. *MMWR*. 2017;66:821–825. 10.15585/mmwr.mm6631a1

### **Additional Resources:**

[Utah Guidelines for Seizures in School](#) (training guidelines and sample forms)

Brook, H., Hiltz, C., Kopplin, V. (2015). Increasing Epilepsy Awareness in Schools: A Seizure Smart Schools Project. *Journal of School Nursing*. <https://doi.org/10.1177/1059840514563761>

CDC [Epilepsy Evidenced Based Resources](#)

Galemore, C. (2016). Rescue Medicine for Epilepsy: New Options for Education Settings. *NASN School Nurse*. (31) (6) p, 339-41.

Lepkowski, A, & Maughan, E. (2018). Introducing NASN’s New Evidenced Based Clinical Guidelines: Students With Seizures. *NASN School Nurse*. <https://doi.org/10.1177/1942602X18806824>

[Michigan Association of School Nurses](#)