



Patient Safety Considerations

1. Trained personnel should be able to give medication without contacting medical direction, however, more than two doses of benzodiazepines are associated with high-risk of airway compromise
 - a. Use caution, weigh risks/benefits of deferring treatment until hospital, and/or consider consultation with medical direction if patient has received two doses of benzodiazepines by bystanders and/or prehospital clinicians
2. Hypoglycemic patients who are treated in the field for seizure should be transported to hospital, regardless of whether they return to baseline mental status after treatment

Notes/Educational Pearls

Key Considerations

1. Many airway/breathing issues in seizing patients can be managed without intubation or placement of an advanced airway. Reserve these measures for patients that fail less invasive maneuvers as noted above
2. For children with convulsive status epilepticus requiring medication management in the prehospital setting, trained EMS personnel should be allowed to administer medication without medical direction
3. For new onset seizures or seizures that are refractory to treatment, consider other potential causes including, but not limited to, trauma, stroke, electrolyte abnormality, toxic ingestion, pregnancy with eclampsia, hyperthermia
4. A variety of safe and efficacious doses for benzodiazepines have been noted in the literature for seizures
 - a. The doses for anticonvulsant treatment noted above are those that are common to the forms and routes of benzodiazepines noted in this guideline
 - b. One dose, rather than a range, has been suggested to standardize a common dose in situations when an EMS agency may need to switch from one type of benzodiazepine to another due to cost or resource limitations
5. Recent evidence supports the use of midazolam IM as an intervention that is at least as safe and effective as intravenous lorazepam for prehospital seizure cessation

Pertinent Assessment Findings

The presence of fever with seizure in children less than 6 months old and greater than 6 years old is not consistent with a simple febrile seizure, and should prompt evaluation for meningitis, encephalitis, or other cause

Quality Improvement

Associated NEMSIS Protocol(s) (eProtocol.01) (for additional information, go to www.nemsis.org)

- 9914141 – Medical - Seizure

Key Documentation Elements

- Actively seizing during transport and time of seizure onset/cessation
- Onset, focality, direction of eye deviation
- Concurrent symptoms of apnea, cyanosis, vomiting, bowel/bladder incontinence, or fever
- Medication amounts/routes given by bystanders or prehospital clinicians