**Seizure**

**History**
- Reported or witnessed seizure
- Previous seizure history
- Medical alert tag
- Seizure medications
- History of trauma
- History of diabetes
- History of pregnancy
- Time of seizure onset
- Document number of seizures
- Alcohol use, abuse, or abrupt cessation
- Fever

**Signs and Symptoms**
- Altered mental status
- Sleepiness
- Incontinence
- Observed seizure activity
- Evidence of trauma
- Unconscious
- Incontinence

**Differential**
- Head trauma
- Metabolic, hepatic or renal failure
- Tumor
- Hypoxia
- Electrolyte abnormality
- Drugs or medication non-compliance
- Infection or sepsis
- Alcohol withdrawal
- Eclampsia
- Stroke
- Hyperthermia
- Hypoglycemia

**Flowchart**

- Actively seizing?
  - Yes
    - Diabetic TG if indicated
    - Spinal immobilization procedure if indicated
    - Consider IV/O
    - Cardiac monitor
    - Blood glucose analysis
    - Loosen any constrictive clothing and protect airway
  - No
    - Monitor and reassess

- Awake, alert, normal mental status?
  - Yes
    - Notify receiving facility.
    - Contact Base Hospital for medical direction
  - No
    - Status Epilepticus?
      - Yes
        - Midazolam
        - Contact Base Hospital Physician for additional order
      - No
        - Consider Altered Mental Status TG if indicated
          OR if postictal state monitor and reassess

- If patient begins seizing in the presence of EMS and treatment is indicated, give Midazolam 5mg IV/IM/IO/IN
  - May repeat every 3 to 5 minutes for continued seizure activity
  - Maximum 10mg

- If patient is seizing upon EMS arrival, give Midazolam 5mg IM/IN; do not wait to obtain IV or IO access
  - Consider IV/O procedure
  - Blood glucose analysis
  - Cardiac monitor
  - EtCO₂ monitoring
  - Spinal immobilization procedure if indicated


**Contra Costa County Emergency Medical Services**

**Treatment Guideline A16**

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**Effective Jan. 2019**
Seizure

Pearls

• Midazolam 5-10mg IM is effective in the termination of seizures. Do not delay IM administration to obtain IV or IO access in an actively seizing patient.
• For a seizure that begins in the presence of EMS, if the patient was previously conscious, alert and oriented, take the time to assess and protect the patient and providers and CONSIDER THE CAUSE. The seizure may stop, especially in patients who have prior history of self-limiting seizures. However, do not hesitate to treat recurrent or prolonged (> 1 minute) seizure activity.
• Limit IN administrations to ½ dose in each nare.
• Status Epilepticus is defined as two or more successive seizures without a period of consciousness or recovery, or one prolonged seizure lasting longer than 5 minutes. This is a true emergency requiring rapid airway control, treatment, and transport.
• Grand Mal seizures (generalized) are associated with a loss of consciousness, incontinence, and oral trauma.
• Focal seizures (Petit Mal) affect only a part of the body and are not associated with a loss of consciousness.
• Be prepared for airway problems and continued seizures.
• Assess the possibility of occult trauma and substance abuse.
• Be prepared to assist ventilations or manage the airway, especially if Midazolam is used.