Seizure Activity

30 Second review
RN, LPN
DEF: Paroxysmal episodes in which there is sudden involuntary contractions of a group of skeletal muscles and disturbances in consciousness, behavior, sensation and autonomic functioning.
S/S: Body stiffening or shaking with rhythmic muscle contractions or muscle spasms, sudden/rapid eye movements, abrupt loss of consciousness, biting of tongue.
RX: 1) Assess for level of consciousness and obtain information from witnesses
2) Maintain airway and keep SPO2 >94% by nasal cannula or mask during seizure activity if possible.
3) If generalized seizure is witnessed/sustained (more than 10 minutes) or additional seizures without recovery from previous seizure, activate EMS, then administer Midazolam 2.5 mg IM, monitor closely for side effects of midazolam, may repeat 2.5 mg IM in 5 minutes, not to exceed 5mg IM total. If midazolam is unavailable, give lorazepam 2mg IM, if no response in 5 mins, may repeat lorazepam 2mg IM. Prepare for transport to ER room, then contact provider.

SKILL LEVEL: RN, LPN
DEFINITION: Paroxysmal episodes in which there is sudden involuntary contractions of a group of skeletal muscles and disturbances in consciousness, behavior, sensation and autonomic functioning
DATA BASE:
Subjective:
- May describe a brief period of loss of consciousness with or without generalized motor activity.
- Patient may describe an aura.
- “I bit my tongue.”
- “I wet myself.”
- There may be information described by those witnessing the episode:
  - Duration
  - Character
  - Activity pre-episode
  - Trauma sustained during episode
  - Incontinent post-episode activity

Objective:
- Patient has a history of a seizure disorder.
- Not the first time patient has ever had an episode similar to this.
- Episode may be witnessed or un-witnessed (document).
- There may be injuries present (document).
- Patient may have been incontinent of urine or stool.
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• No persistent focal neurological findings.
• Patient may or may not be taking medication properly.
• Patient may be drowsy and/or disoriented for hours after a seizure (postictal).
• Sometimes odd behavior can occur before, during or after the episode.
• Seizure may be partial (focal), non-convulsive, or generalized convulsive (“grand mal”).

Plan:

1. Document information obtained by witnesses.
2. Maintain airway.
3. Check blood glucose and treat as needed (refer to hypoglycemia or DKA protocols if indicated).
4. May administer O2 as needed to maintain SPO2 >94% by nasal cannula or mask during any seizure if possible.
5. If generalized seizure is witnessed/sustained (more than 10 minutes) or additional seizures without recovery from previous seizure, activate EMS, then administer midazolam 2.5 mg IM, monitor closely for side effects of midazolam, may repeat in 5 minutes 1 more time, not exceed 5 mg IM total. If midazolam is unavailable, may use lorazepam. Give lorazepam 2mg IM, if no response in 5 mins, may repeat lorazepam 2mg IM. Prepare for transport to ER room, and contact provider.
6. If new onset or change in type of seizure activity, consider transport to an emergency facility. If medical provider is readily available, discuss case first.
7. Supportive measures such as cushioning the head or moving items in the area to help protect from injury during episode.
8. Evaluate patient medication adherence. Check MARs to establish consistency of medication adherence. If prescriptions are KOP, acquire the blister packs, comparing the “last filled” date on CIPS with the number of tablets remaining. Educate patient regarding medication adherence.
9. After episode, reorient patient to environment to minimize sensory-perceptual alteration.
10. Consider CMP, CBC, prolactin level, and serum drug levels as soon as possible following the seizure (e.g. Phenytoin, Carbamazepine, Divalproex sodium or Valproic Acid levels).
11. Always consider emergency protocol for poisoning/overdose.
12. If breakthrough seizure in a patient with known epilepsy, provider chart review or appointment at next available time unless orders or individualized treatment plan calls for a different course of action.

Nursing Education:

1. Patients who have no history of a seizure disorder and have a witnessed grand mal seizure require a more thorough physical and laboratory evaluation. Call the provider or arrange transport to an emergency facility. Possible causes of new onset seizure include an extensive list including:
   • Metabolic abnormality such as Diabetes or Thyroid Problems
   • Head trauma and stroke
   • Drug overdose or withdrawal (including prescription medications)
   • Brain tumor
2. Prolactin level, while a non-specific indicator, can sometimes help to distinguish epileptic seizures from non-epileptic movement episodes.
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3. Usually, patients who have had a grand mal seizure will be disoriented and confused, and will have poor memory for the details of the event.

APPROVED:

Medical Services Manager ___________________________ Date

Chief Medical Officer ___________________________ Date

Clinical Medical Director ___________________________ 9/5/2018 Date

Effective Date: ___________________________
Revised: September 2018
Supersedes: January 2018
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MIDAZOLAM (VERSED®)

PLACE IN THERAPY:

Excited Delirium - In general, benzodiazepines are preferred when sedating agitated patients from an unknown cause. Midazolam and lorazepam are used most often; however, lorazepam injectable requires refrigeration so it is not a feasible option for our emergency boxes (“E-boxes”). Midazolam is an effective sedative with a more rapid onset than lorazepam but a shorter duration of action (1 to 2 hours).

Status Epilepticus – Benzodiazepines are considered first-line treatment for convulsive status epilepticus because they control seizures rapidly. Midazolam is the preferred benzodiazepine for IM administration. It is very effective at terminating seizures rapidly (often in less than 1 minute), but it has a short half-life (1.8 to 6.4 hrs, mean= 3 hrs).

DOSE: 2.5 mg IM per both the excited delirium and seizure nursing protocols

ADMINISTRATION: Should be injected undiluted deep into a large muscle mass. Do NOT administer intraarterially.

ADVERSE EFFECTS: Respiratory depression, excessive somnolence, hypotension, tachyphylaxis (diminished response with successive doses), and less commonly, paradoxical disinhibition

MONITORING: Respiratory rate, heart rate, blood pressure, pulse oximetry (when possible)

HOW SUPPLIED: Will be supplied as 10 mL multi-dose vials (MDVs) with 5mg/mL

STORAGE: Controlled room temperature between 20 and 25 degrees C (68 to 77 degrees F)

IMPORTANT: In an effort to avoid the challenges associated with monitoring inventory with a MDV, please treat vial as a single-dose vial (SDV) and destroy after use as outlined in Policy and Procedure # P- D-02.12 (DISPOSAL OF DISCONTINUED, DAMAGED OR EXPIRED DEA CONTROLLED AND STAFF CONTROLLED MEDICATIONS).


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