REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
EMT – Basic

SMO: Seizures / Status Epilepticus

Overview: Seizure activity is a temporary alteration in behavior or consciousness caused by an abnormal electrical activity in the brain. Status epilepticus is defined as continuous seizure activity lasting > 30 minutes OR multiple seizures without regaining consciousness between seizures. Generalized (tonic-clonic) seizure usually involves the entire body and usual loss of consciousness as well as bowel and/or bladder incontinence and oral trauma such as biting of the tongue. Partial (focal) seizure usually involves one part of the body or a particular sense such as taste or smell. Patients usually do not lose consciousness and can maintain a normal mental status but may lead to a generalized seizure.

INFORMATION NEEDED

__ Medical history: psychiatric and medical problems including previous seizures, alcohol use, medications, allergies; antecedent symptoms such as headache, trauma, fever, history of stiff neck, history of loss of motor sensory or speech.
__ Onset, duration, description of seizure.
__ Consider stroke as a possible etiology.
__ Consider drug overdose (e.g. tricyclic antidepressants or cocaine).

OBJECTIVE FINDINGS

__ Surroundings: syringes, medications, blood glucose monitoring supplies, insulin, etc.
__ LOC and neurological assessment
__ Bowel and bladder incontinence
__ oral trauma such as biting of tongue
__ Signs of trauma: witnessed onset?
__ History or description of seizure from bystanders or family
__ Pupil size and reactivity
__ Needle tracks
__Medical information tags, bracelets or medallions
__ Blood glucose level

TREATMENT

__ RMC
__ Assure patency of airway, be prepared with suction.
__ Oxygen 2-5 L/min by nasal cannula. Oxygen at 100% by NRB mask if tolerated; if indicated, assist ventilations with BVM.
__ C-spine immobilization if any suspicion of head/ spinal trauma.
__ Comfort and reassure patient if conscious.
__ Restrain only as necessary for patient and provider protection.
__ Obtain blood glucose level. If glucose level < 60, administer **Oral Glucose** if patient conscious or **Glucagon 1 mg IM** if concern of inadequate gag reflex.
__ Transport in left lateral recumbent position if no C-spine injury is suspected.
__ ALS intercept

Documentation of adherence to protocol:

__ Airway patency/ interventions
__ Administration of O2
__ If suspicions of trauma-- immobilization performed
__ Blood glucose level check performed/ results/ administration of Oral Glucose/Glucagon.

PRECAUTIONS AND COMMENTS

- Always consider treatable etiologies (hypoglycemia, hypoxia, narcotic overdose).
- Be attentive for excessive oral secretions, vomiting, and inadequate tidal volume.
- Treatment of seizures should be based on the severity and length of the seizure activity.
- Focal seizures without mental status changes may not require prehospital pharmacological intervention.

REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
EMT – Intermediate

SMO: Seizures / Status Epilepticus

Overview: Seizure activity is a temporary alteration in behavior or consciousness caused by an abnormal electrical activity in the brain. Status epilepticus is defined as continuous seizure activity lasting > 30 minutes OR multiple seizures without regaining consciousness between seizures. Generalized (tonic-clonic) seizure usually involves the entire body and usual loss of consciousness as well as bowel and/or bladder incontinence and oral trauma such as biting of the tongue. Partial (focal) seizure usually involves one part of the body or a particular sense such as taste or smell. Patients usually do not lose consciousness and can maintain a normal mental status but may lead to a generalized seizure.

INFORMATION NEEDED

__ Medical history: psychiatric and medical problems including previous seizures, alcohol use, medications, allergies; antecedent symptoms such as headache, trauma, fever, history of stiff neck, history of loss of motor sensory or speech.
__ Onset, duration, description of seizure.
__ Consider stroke as a possible etiology.
__ Consider drug overdose (e.g. tricyclic antidepressants or cocaine).

OBJECTIVE FINDINGS

__ Surroundings: syringes, medications, blood glucose monitoring supplies, insulin, etc.
__ LOC and neurological assessment
__ Bowel and bladder incontinence
__ Oral trauma such as biting of tongue
__ Signs of trauma: witnessed onset?
__ History or description of seizure from bystanders or family
__ Pupil size and reactivity
__ Needle tracks
__Medical information tags, bracelets or medallions
__ Blood glucose level

TREATMENT

__ RMC
__ Assure patency of airway, be prepared with suction.
__ Oxygen 2-5 L/min by nasal cannula. Oxygen at 100% by NRB mask if tolerated; if indicated, assist ventilations with BVM.
__ C-spine immobilization if any suspicion of head/ spinal trauma.
__ Comfort and reassure patient if conscious.
__ Restrain only as necessary for patient and provider protection.
__ Obtain blood glucose level. If glucose level < 60, administer **Oral Glucose** if patient conscious or **Dextrose 50% 25 grams IVP** if patient has altered mental status.
__ If concern of inadequate gag reflex or unable to secure IV, administer **Glucagon 1 mg IM.**
__ Transport in left lateral recumbent position if no C-spine injury is suspected.
__ Obtain IV access.
__ If opiate overdose is a possibility, give **Narcan (naloxone) 2 mg IVP or IM** Additional doses may be needed—contact Medical Control for additional doses.
__ For generalized convulsive (tonic-clonic) seizure, contact Medical Control for permission to give **Valium (diazepam) 5 mg** IVP slow (over 1-2 minutes—consult Medical Control to repeat X1 for maximum of 10 mg) OR **Versed (midazolam) 2 mg** IVP slowly (over 1-2 minutes—contact Medical Control for subsequent doses).
__ If unable to secure IV, consult Medical Control for permission to give **Valium 10 mg IM (or rectally)** OR **Versed 5 mg IM.**

Documentation of adherence to protocol:

__ Airway patency/ interventions
__ Administration of O2
__ If suspicions of trauma-- immobilization performed
__ Blood glucose level check performed/ results/ administration of Oral Glucose/Glucagon.

Medical Control Contact Criteria

__ For permission to administer Valium or Versed doses.
__ If status epilepticus continues after administration of initial doses of medications.

PRECAUTIONS AND COMMENTS

- Always consider treatable etiologies (hypoglycemia, hypoxia, narcotic overdose).
- Be attentive for excessive oral secretions, vomiting, and inadequate tidal volume.
- Treatment of seizures should be based on the severity and length of the seizure activity.
- Focal seizures without mental status changes may not require prehospital pharmacological intervention.

REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
EMT – Paramedic

SMO: Seizures / Status Epilepticus

Overview: Seizure activity is a temporary alteration in behavior or consciousness caused by an abnormal electrical activity in the brain. Status epilepticus is defined as continuous seizure activity lasting > 30 minutes OR multiple seizures without regaining consciousness between seizures. Generalized (tonic-clonic) seizure usually involves the entire body and usual loss of consciousness as well as bowel and/or bladder incontinence and oral trauma such as biting of the tongue. Partial (focal) seizure usually involves one part of the body or a particular sense such as taste or smell. Patients usually do not lose consciousness and can maintain a normal mental status but may lead to a generalized seizure.

INFORMATION NEEDED

__ Medical history: psychiatric and medical problems including previous seizures, alcohol use, medications, allergies; antecedent symptoms such as headache, trauma, fever, history of stiff neck, history of loss of motor sensory or speech.
__ Onset, duration, description of seizure.
__ Consider stroke as a possible etiology.
__ Consider drug overdose (e.g. tricyclic antidepressants or cocaine).

OBJECTIVE FINDINGS

__ Surroundings: syringes, medications, blood glucose monitoring supplies, insulin, etc.
__ LOC and neurological assessment
__ Bowel and bladder incontinence
__ Oral trauma such as biting of tongue
__ Signs of trauma: witnessed onset?
__ History or description of seizure from bystanders or family
__ Pupil size and reactivity
__ Needle tracks
__Medical information tags, bracelets or medallions
__ Blood glucose level

TREATMENT

__ RMC
__ Assure patency of airway, be prepared with suction.
__ Oxygen 2-5 L/min by nasal cannula. Oxygen at 100% by NRB mask if tolerated; if indicated, assist ventilations with BVM.
__ C-spine immobilization if any suspicion of head/ spinal trauma.
__ Comfort and reassure patient if conscious.
__ Restrain only as necessary for patient and provider protection.
__ Obtain blood glucose level. If glucose level < 60, administer **Oral Glucose** if patient conscious or **Dextrose 50% 25 grams IVP** if patient has altered mental status.
__ If concern of inadequate gag reflex or unable to secure IV, administer **Glucagon 1 mg IM.**
__ Transport in left lateral recumbent position if no C-spine injury is suspected.
__ Obtain IV access.
__ If opiate overdose is a possibility, give **Narcan (naloxone) 2 mg IVP or IM** Additional doses may be needed—contact Medical Control for additional doses.
__ For generalized convulsive (tonic-clonic) seizure, **Valium (diazepam) 5 mg** IVP slow (over 1-2 minutes—may repeat X1 for maximum of 10 mg) OR **Versed (midazolam) 2 mg** IVP slowly (over 1-2 minutes—may repeat dose for maximum of 10 mg).
__ If unable to secure IV, give **Valium 10 mg IM (or rectally)** OR **Versed 5mg IM.**

Documentation of adherence to protocol:

__ Airway patency/ interventions
__ Administration of O2
__ If suspicions of trauma-- immobilization performed
__ Blood glucose level check performed/ results/ administration of Oral Glucose/Glucagon.

Medical Control Contact Criteria
__ If status epilepticus continues after administration of initial doses of medications.

PRECAUTIONS AND COMMENTS

- Always consider treatable etiologies (hypoglycemia, hypoxia, narcotic overdose).
- Be attentive for excessive oral secretions, vomiting, and inadequate tidal volume.
- Treatment of seizures should be based on the severity and length of the seizure activity.
- Focal seizures without mental status changes may not require prehospital pharmacological intervention.