

## Seizure Protocol

A seizure is a temporary, abnormal electrical activity of the brain that results in loss of consciousness, loss of organized muscle tone and presence of convulsions. The patient will usually regain consciousness within 1 to 3 minutes followed by a period of confusion and fatigue (*post-ictal state*).

Multiple seizures in a brief time span or seizures lasting more than 5 minutes may constitute status epilepticus and require EMS intervention to stop the seizure. Causes of seizures include: epilepsy, stroke, head trauma, hypoglycemia, hypoxia, infection, a rapid change in core body temperature (*e.g.* febrile seizure), eclampsia, alcohol withdraw and overdose.

### First Responder Care

First Responder Care should be focused on assessing the situation and initiating routine patient care to assure that the patient has a patent airway, is breathing and has a perfusing pulse as well as beginning treatment for shock.

1. Render initial care in accordance with the *Universal Patient Care Protocol*.
2. **Oxygen:** 15 L/min via non-rebreather mask or 6 L/min via nasal cannula if the patient cannot tolerate a mask.

### BLS Care

BLS Care should be directed at conducting a thorough patient assessment, initiating routine patient care to assure that the patient has a patent airway, is breathing and has a perfusing pulse as well as beginning treatment for shock and preparing the patient for or providing transport.

1. Render initial care in accordance with the *Universal Patient Care Protocol*.
2. **Oxygen:** 15 L/min via non-rebreather mask or 6 L/min via nasal cannula if the patient does not tolerate a mask. Be prepared to support the patient's respirations with BVM if necessary and have suction readily available.
3. Perform **blood glucose level test**.
4. **Oral Glucose:** 15g PO if the patient's blood sugar is < 60mg/dL, the patient is alert to verbal stimuli, is able to sit in an upright position, has good airway control and has an intact gag reflex.
5. **Glucagon:** 1mg IM or (if available) 2mg IN if blood sugar is < 60mg/dL, the patient is unresponsive and/or has questionable airway control or absent gag reflex.

## Seizure Protocol

### BLS Care (continued)

6. Initiate ALS intercept and **transport without delay**.

### ILS Care

ILS Care should be directed at continuing or establishing care, conducting a thorough patient assessment, stabilizing the patient's perfusion and preparing for or providing patient transport.

1. Render initial care in accordance with the *Universal Patient Care Protocol*.
2. **Oxygen**: 15 L/min via non-rebreather mask or 6 L/min via nasal cannula if the patient does not tolerate a mask. Be prepared to support the patient's respirations with BVM if necessary and have suction readily available.
3. Perform **blood glucose level test**.
4. **Oral Glucose**: 15g PO if the patient's blood sugar is < 60mg/dL, the patient is alert to verbal stimuli, is able to sit in an upright position, has good airway control and has an intact gag reflex.

**Dextrose 50%**: 25g IV if blood sugar is < 60mg/dL.

**Glucagon**: 1mg IM or (if available) 2mg IN if blood sugar is less than 60mg/dL, the patient is unresponsive and/or has questionable airway control or absent gag reflex.

5. Perform a 2<sup>nd</sup> **blood glucose level test** to re-evaluate blood sugar 5 minutes after administration of Dextrose or Glucagon. Repeat Dextrose if BS is < 60mg/dL.
6. **Narcan**: 2mg IV/IM if no response to Dextrose or Glucagon within 2 minutes and narcotic overdose is suspected. May repeat 2mg IV or IM if no response in **5 minutes (with Medical Control order)**.

**Narcan**: 2mg Intranasal if unable to obtain IV access.

7. **Midazolam (Versed)**: 2mg IV over 1 minute for seizure activity. May repeat Midazolam (Versed) 2mg IV every **5 minutes** as needed to a total of 10mg.

**Midazolam (Versed)**: 5mg IM *if the patient is seizing and attempts at IV access have been unsuccessful*. May repeat dose one time in **15 minutes** if the patient is still seizing.

## Seizure Protocol

### ILS Care (continued)

**Midazolam (Versed):** Intranasal if unable to obtain IV access. (See intranasal dosing sheet).

8. Initiate ALS intercept if needed and transport as soon as possible.
9. **Contact Medical Control** as soon as possible.

### ALS Care

ALS Care should be directed at continuing or establishing care, conducting a thorough patient assessment, stabilizing the patient's perfusion and preparing for or providing patient transport.

1. Render initial care in accordance with the *Universal Patient Care Protocol*.
2. **Oxygen:** 15 L/min via non-rebreather mask or 6 L/min via nasal cannula if the patient does not tolerate a mask. Be prepared to support the patient's respirations with BVM (and intubate) if necessary and have suction readily available.
3. Perform **blood glucose level test**.
4. **Oral Glucose:** 15g PO if the patient's blood sugar is < 60mg/dL, the patient is alert to verbal stimuli, is able to sit in an upright position, has good airway control and has an intact gag reflex.

**Dextrose 50%:** 25g IV if blood sugar is < 60mg/dL.

**Glucagon:** 1mg IM or (if available) 2mg IN if blood sugar is less than 60mg/dL, the patient is unresponsive and/or has questionable airway control or absent gag reflex.

5. Perform a 2<sup>nd</sup> **blood glucose level test** to re-evaluate blood sugar 5 minutes after administration of Dextrose or Glucagon. Repeat Dextrose if BS is < 60mg/dL.
6. **Narcan:** 2mg IV/IM if no response to Dextrose or Glucagon within 2 minutes and narcotic overdose is suspected. May repeat 2mg IV or IM if no response in **5 minutes (with Medical Control order)**.

**Narcan:** 2mg Intranasal if unable to obtain IV access.

## Seizure Protocol

### ALS Care (continued)

- 7. Midazolam (Versed):** 2mg IV over 1 minute for seizure activity. May repeat Midazolam (Versed) 2mg IV every **5 minutes** as needed to a total of 10mg.

**Midazolam (Versed):** 5mg IM *if the patient is seizing and attempts at IV access have been unsuccessful*. May repeat dose one time in **15 minutes** if the patient is still seizing to a total of 10mg.

**Midazolam (Versed):** Intranasal if unable to obtain IV access. (See **Versed Intranasal Dosing Sheet**).

**Ativan (Lorazepam)** 1mg IV push, titrating 1mg at a time until the seizure stops; or until 4mg is given.

**Ativan (Lorazepam):** 2 mg IM every 5 min for total of 4 mg.

- 8.** Transport as soon as possible.
- 9.** Contact the receiving hospital as soon as possible.