Purpose: **To provide the process for the assessment and management of the seizure patient.**

M B S P **I. Assessment Information**

A. History:
1. Past Medical History: especially head trauma, diabetes, headache, drugs, alcohol, medications, and pregnancy.
2. Current History: seizure onset, time interval, previous seizures, type of seizure, and/or exposure to hazardous materials (HAZMAT)*.

B. Specific Objective Findings:
1. Vital Signs, level of consciousness
2. Description of seizure activity
3. Head and mouth trauma
4 Incontinence
5. Air temperature; patient temperature
6. If pregnant, go to Obstetrical Emergencies Protocol.
7. Specific symptoms of HAZMAT exposure*

II. Management

A. Utilize universal precautions.

B. Evaluate and maintain the airway, provide oxygenation and support ventilation as needed.
1. Do not force anything between teeth.
2. Do not use ETDLA.

C. **IF, UPON ARRIVAL PATIENT IS ACTIVELY SEIZING:**

1. Protect patient from injury.

S P 2. Obtain vascular access.

P 3. **If IV is successful:**

a. Administer **midazolam** 0.05 mg/kg, max of 5mg IVP titrated (adult or peds).
1) Done simultaneously while measuring blood glucose if blood glucose measuring device available.
2) Patient's respiratory status is to be continually monitored and adequate ventilatory status maintained.

S P b. If approved blood glucose measuring device is available, test for blood glucose level.
1) If blood glucose is less than 70 mg/dl, administer **dextrose** 50% 25 grams (50 cc) IVP (0.5gm/kg of D25 % in peds). If, 5 minutes post administration, the patient's Glasgow Coma Score is <15, or if there are signs of alcoholism or malnutrition, administer **thiamine** 100 mg IVP (NOT IN PEDS).

S a) If no ALS intercept is available, administer **dextrose 20% infusion,** max of 250cc (50gms) IVPB

S P 2) If blood glucose is greater than or equal to 70 mg/dl, CONTACT MEDICAL CONTROL for permission to administer thiamine and dextrose.

P c. If a blood glucose measuring device is not available, administer **dextrose** 50% 25 grams (50 cc) IVP (0.5gm/kg of D25 % in peds). If, 5 minutes post administration, the patient's Glasgow Coma Score is <15, or if there are signs of alcoholism or malnutrition, administer **thiamine** 100 mg IVP (NOT IN PEDS)

S 1) If no ALS intercept is available, administer **dextrose 20 %** IVPB to max. 50gm/250cc.

P d. If no response to the 50% dextrose, or 50% dextrose not indicated, and respiratory depression is present, give **naloxone** 2 mg IVP (0.1 mg/kg with max of 2 mg in peds)

P 4. **If IV is unsuccessful:**
- a. Administer **midazolam** 0.1 mg/kg (max 10mg) IM (adults or peds)
  - 1) May be administered rectally
- b. If blood glucose measuring device is available, test blood glucose, and if glucose is < 70 mg/dl:
  - 1) Administer **glucagon** 1 mg IM (adult or peds).
- c. If blood glucose measuring device is not available:
  - 1) Administer **glucagon** 1 mg IM (adult or peds).
- d. If, 5 minutes post administration of glucagon, the patient's Glasgow Coma Score is <15, or if there are signs of alcoholism or malnutrition, administer **thiamine** 100 mg IM (NOT IN PEDS).
- e. If respiratory depression is present give **naloxone** 2 mg IM (0.1 mg/kg with max of 2 mg in peds).

5. Monitor EKG.

B S P 6. Transport

CONTACT MEDICAL CONTROL

7. **Possible orders post radio contact:**

P
- a. Additional **dextrose**
- b. Additional **midazolam**
  - 1) May be administered rectally
- c. Additional **naloxone**
- d. Possibly **diazepam** 2-10mg IVP, rectal

D. **IF, UPON ARRIVAL, PATIENT IS NOT SEIZING, BUT IS NOT ALERT OR HAS DECLINING LEVEL OF CONSCIOUSNESS**

P 1. Monitor EKG.

S P 2. Obtain vascular access.

P 3. **If IV is successful:**
- a. If approved blood glucose measuring device is available, test for blood glucose level.
  - 1) If blood glucose is less than 70 mg/dl, administer **dextrose** 50% 25 grams (50 cc) IVP (0.5gm/kg of D25 % in peds). If, 5 minutes post administration, the patient's Glasgow Coma Score is <15, or if there are signs of alcoholism or malnutrition, administer **thiamine** 100 mg IVP (NOT IN PEDS)

S
    - a) If no ALS intercept is available, administer **dextrose 20% infusion,** max of 250cc (50gms) IVPB**.**

S P
  - 2) If blood glucose is greater than or equal to 70 mg/dl, CONTACT MEDICAL CONTROL for permission to administer thiamine and dextrose.

S P
- b. If a blood glucose measuring device is not available, administer **dextrose** 50% 25 grams (50 cc) IVP (0.5gm/kg of D25 % in peds). If, 5 minutes post administration, the patient's Glasgow Coma Score is <15, or if there are signs of alcoholism or malnutrition, administer **thiamine** 100 mg IVP (NOT IN PEDS)

S
  - 1) If no ALS intercept is available, administer **dextrose 20%** IVPB to max 50/gm/250cc.

P 4. **If IV is unsuccessful:**
- a. If blood glucose measuring device is available, test for blood glucose level, and if glucose is < 70 mg/dl:
  - 1) Administer **glucagon** 1 mg IM (adult or peds).
- b. If blood glucose measuring device is not available:
  - 1) Administer **glucagon** 1 mg IM (adult or peds).
- c. If, 5 minutes post administration of glucagon, the patient's Glasgow Coma Score is <15, or if there are signs of alcoholism or malnutrition, administer **thiamine** 100 mg IM (NOT IN PEDS).
- d. If respiratory depression is present give **naloxone** 2 mg IM (0.1 mg/kg with max of 2 mg in peds)

B S P 5. Transport patient

CONTACT MEDICAL CONTROL

P 6. **Possible orders post-radio contact:**
- a. Additional **dextrose**
- b. Additional **naloxone**

F. **IF, UPON ARRIVAL, PATIENT IS ALERT**

S P 1. Obtain vascular access.
- a. **EXCEPTION** - Children under 5 years, **history of fever**, seizing less than 10 minutes and are now alert or rapidly improving do not require an IV. Use appropriate cooling procedures.

B S P 2. Transport patient

CONTACT MEDICAL CONTROL

*** NOTE:** **In situations, in which a chemical exposure is suspected as the cause of seizure activity, ensure that proper decontamination of the patient takes place. For ACTIVE seizure activity resulting from exposure to nerve agents or organophosphates, refer to the NERVE AGENT/ORGANOPHOSPHATE PESTICIDE EXPOSURE TREATMENT PROTOCOL (II.F.2.B).**

6/10/98
12/28/99
9/25/01
11/2004