REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
EMT – Basic

SMO: Stroke

Overview: Stroke (also known as cerebrovascular accident [CVA]) is a sudden interruption in blood flow to the brain that results in neurological deficit. This interruption can be caused by ischemia (blockage) or hemorrhage (bleeding). It is the third leading cause of death in the United States and frequently leaves its survivors severely debilitated.

INFORMATION NEEDED

__ Presence of any of the stroke signs and symptoms
__ Time of onset of symptoms

OBJECTIVE FINDINGS

__ Numbness or paralysis on one side of the body
__ Aphasia or slurred speech
__ Confusion or coma
__ Convulsions
__ Incontinence
__ Diplopia (double vision)
__ Headache
__ Dizziness or vertigo
__ Ataxia

TREATMENT

__ RMC
__ Protect airway, suction as necessary. Seizure and vomiting precautions.
__ Maintain head and neck in neutral alignment. Do NOT flex the neck.
__ If BP > 90 mmHg, elevate head of bed 15 - 30°.
__ If altered sensorium, seizure, or focal neurological deficit, obtain and record blood sugar level.
If blood sugar < 60, administer **GLUCAGON 1 MG IM** and note response.
__ If seizure activity, notify Medical Control. Protect patient from harming self.
__ Monitor and record neurological status and any changes. Protect paralyzed limbs from injury.
__ RAPID transport. Consider ALS transport.

Documentation of adherence to protocol:

__ Level of Consciousness
__ Status of gag reflex
__ Blood Glucose level
__ Results of treatment provided

Medical Control Contact Criteria
__ Contact Medical Control for any questions regarding best treatment option for patient __ Contact EARLY to ready hospital for arrival of patient and of suspicions of CVA.

PRECAUTIONS AND COMMENTS

- Caution should be exercised in patients with acute CVA's and associated hypertension. Lowering of their blood pressure should be done gradually over several hours not minutes.
- Whenever possible, the EMT should establish the time of onset of stroke signs and symptoms.

THE CINCINNATI PREHOSPITAL STROKE SCALE

Facial Droop (have patient show teeth or smile):

- Normal—both sides of face move equally well
- Abnormal—one side of face does not move as well as the other side

Arm Drift (patient closes eyes and holds both arms out):

- Normal—both arms move the same or both arms do not move at all
- Abnormal—one arm does not move or one arm drifts down compared with the other

Speech (have the patient say "you can't teach an old dog new tricks")

- Normal—patient uses correct words with no slurring
- Abnormal—patient slurs words, uses inappropriate words, or is unable to speak

REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
EMT – Intermediate

SMO: Stroke

Overview: Stroke (also known as cerebrovascular accident [CVA]) is a sudden interruption in blood flow to the brain that results in neurological deficit. This interruption can be caused by ischemia (blockage) or hemorrhage (bleeding). It is the third leading cause of death in the United States and frequently leaves its survivors severely debilitated.

INFORMATION NEEDED

__ Presence of any of the stroke signs and symptoms
__ Time of onset of symptoms

OBJECTIVE FINDINGS

__ Numbness or paralysis on one side of the body
__ Aphasia or slurred speech
__ Confusion or coma
__ Convulsions
__ Incontinence
__ Diplopia (double vision)
__ Headache
__ Dizziness or vertigo
__ Ataxia

TREATMENT

__ RMC
__ Protect airway, suction as necessary. Seizure and vomiting precautions.
__ Maintain head and neck in neutral alignment. Do NOT flex the neck.
__ If BP > 90 mmHg, elevate head of bed 15 - 30°.
__ If altered sensorium, seizure, or focal neurological deficit, obtain and record blood sugar level. If blood sugar < 60, administer **DEXTROSE 50% 50 cc IVP** and note response.
__ If seizure activity 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.**
__ Protect patient from harming self.
__ Monitor and record neurological status and any changes. Protect paralyzed limbs from injury.
__ RAPID transport

Documentation of adherence to protocol:

__ Level of Consciousness
__ Status of gag reflex
__ Blood Glucose level
__ Results of treatment provided

Medical Control Contact Criteria
__ Contact EARLY to ready hospital for arrival of patient and of suspicions of CVA. __ For permission to administer Versed or Valium for seizure activity.

PRECAUTIONS AND COMMENTS

- Caution should be exercised in patients with acute CVA's and associated hypertension. Lowering of their blood pressure should be done gradually over several hours not minutes.
- Whenever possible, the EMT should establish the time of onset of stroke signs and symptoms.

THE CINCINNATI PREHOSPITAL STROKE SCALE

Facial Droop (have patient show teeth or smile):

- Normal—both sides of face move equally well
- Abnormal—one side of face does not move as well as the other side

Arm Drift (patient closes eyes and holds both arms out):

- Normal—both arms move the same or both arms do not move at all
- Abnormal—one arm does not move or one arm drifts down compared with the other

Speech (have the patient say "you can't teach an old dog new tricks")

- Normal—patient uses correct words with no slurring
- Abnormal—patient slurs words, uses inappropriate words, or is unable to speak

REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
EMT – Paramedic

SMO: Stroke

Overview: Stroke (also known as cerebrovascular accident [CVA]) is a sudden interruption in blood flow to the brain that results in neurological deficit. This interruption can be caused by ischemia (blockage) or hemorrhage (bleeding). It is the third leading cause of death in the United States and frequently leaves its survivors severely debilitated.

INFORMATION NEEDED

__ Presence of any of the stroke signs and symptoms
__ Time of onset of symptoms

OBJECTIVE FINDINGS

__ Numbness or paralysis on one side of the body
__ Aphasia or slurred speech
__ Confusion or coma
__ Convulsions
__ Incontinence
__ Diplopia (double vision)
__ Headache
__ Dizziness or vertigo
__ Ataxia

TREATMENT

__ RMC
__ Protect airway, suction as necessary. Seizure and vomiting precautions.
__ Maintain head and neck in neutral alignment. Do NOT flex the neck.
__ If BP > 90 mmHg, elevate head of bed 15 - 30°.
__ If altered sensorium, seizure, or focal neurological deficit, obtain and record blood sugar level.
If blood sugar < 60, administer **DEXTROSE 50% 50 cc IVP** and note response.
__ If seizure activity, **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—contact Medical Control for subsequent doses). If unable to secure IV, give **Valium 10 mg IM (or rectally)** OR **Versed 5mg IM.** Protect patient from harming self.
__ Monitor and record neurological status and any changes. Protect paralyzed limbs from injury.
__ RAPID transport

Documentation of adherence to protocol:

__ Level of Consciousness
__ Status of gag reflex
__ Blood Glucose level
__ Results of treatment provided

Medical Control Contact Criteria
__ Contact Medical Control for any questions regarding best treatment option for patient __ Contact EARLY to ready hospital for arrival of patient and of suspicions of CVA. __ For subsequent doses of Valium or Versed for seizure activity.

PRECAUTIONS AND COMMENTS

- Caution should be exercised in patients with acute CVA's and associated hypertension. Lowering of their blood pressure should be done gradually over several hours not minutes.
- Whenever possible, the EMT should establish the time of onset of stroke signs and symptoms.

THE CINCINNATI PREHOSPITAL STROKE SCALE

Facial Droop (have patient show teeth or smile):

- Normal—both sides of face move equally well
- Abnormal—one side of face does not move as well as the other side

Arm Drift (patient closes eyes and holds both arms out):

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