McLean County
Area EMS System
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www.mcleancountyems.org

To: All Agencies

From: Kris Newcomb, System Coordinator

Date: 5/31/2022

Subject: Temporary Protocol changes to address Ativan Shortage

Agencies,

Drug Shortages:

There is a national drug shortage of Lorazepam (Ativan). It is unlikely to be available for the next 2-3 months.
Due to the inability for the hospitals to exchange or replace Lorazepam, we will be restocking all Lorazepam with Midazolam as it is used or expired. **You may continue to keep and use any Lorazepam that you have available on your apparatus as stated in the current protocols. Once you no longer have Lorazepam available, please follow protocol with updated changes below:**

Should you need to replace or exchange Lorazepam, both CBMC and SJMC pharmacy will be exchanging Lorazepam 2 mg/1 ml vial for replacement with Midazolam 5 mg/5 ml vial.

Current requirements on each ALS/ILS apparatus are for:

Lorazepam 2mg/ 1ml (2 vials)
Midazolam 5 mg/5ml (4 vials)

As supplies are used, the rigs will eventually have 6 vials of Midazolam and no Ativan.

The following protocols have been amended.
Please see updates in Red.

Acute Pulmonary Edema

ILS

1. Routine Medical Care.
2. Apply and obtain 12-lead ECG.

3. If systolic blood pressure is greater than 100 mmHg, **NITROGLYCERIN** 0.4 mg SL. After 5 minutes and if systolic blood pressure is greater than 100 mmHg, apply **NITROGLYCERIN PASTE** (1").
4. Apply **CPAP** at 5 cm H_2O pressure. Contact **MEDICAL CONTROL** prior to initiating CPAP if systolic blood pressure is less than 100 mmHg. If respiratory distress does not improve within 5 minutes and the patient is tolerating CPAP, increase CPAP pressure up to 10 cm H_2O.
5. Initiate saline lock.
6. Consider **LORAZEPAM** 1 mg IV OR 2 mg IN (1 mg each nare) with **MEDICAL CONTROL** order. If Lorazepam is not available, call medical control for orders for Midazolam. Do not administer if systolic blood pressure is less than 100 mmHg.

ALS

1. Routine Medical Care.
2. Apply and obtain 12-lead ECG.
3. If systolic blood pressure is greater than 100 mmHg, **NITROGLYCERIN** 0.4 mg SL.
4. Apply **CPAP** at 5 cm H_2O pressure. Contact **MEDICAL CONTROL** prior to initiating CPAP if systolic blood pressure is less than 100 mmHg. If the respiratory distress does not improve within 5 minutes and the patient is tolerating CPAP, increase CPAP pressure up to 10 cm H_2O.
5. Consider administering **LORAZEPAM** 1 mg IV OR 2 mg IN (1 mg each nare) if patient is experiencing anxiety. If Lorazepam is not available, call medical control for orders for Midazolam.
6. Initiate saline lock.
7.

If systolic blood pressure is greater than 100mmHg, apply **NITROGLYCERIN PASTE** (1") OR if available, administer **NITROGLYCERIN** infusion starting at 50mcg/min IV. Increase by 10mcg/min every 5 minutes

Once you have only Midazolam available, you may call medical control for direction and orders if patient is intolerant of CPAP.

Asthma/COPD

ILS

1. Routine Medical Care
2. **ALBUTEROL SULFATE**, 2.5 mg in 3 ml normal saline**,** mixed with **IPRATROPIUM** 0.5 mg via nebulizer. Albuterol/Ipratropium (Duo-Neb) may be repeated every 5 minutes if respiratory distress persists.
3. Initiate IV **LACTATED RINGERS** TKO (20ml/hr) OR IV lock.
4. If no relief after one (1) EMS-administered nebulizer treatments apply CPAP at 5 cm H_20 pressure along with continuous **ALBUTEROL SULFATE/IPRATROPIUM** nebulizer therapy.
    a. If the distress does not improve and the patient is tolerating CPAP, increase CPAP pressure to 10 cm H_2O. Continue to give nebulized treatments through CPAP.
    b. Contact **MEDICAL CONTROL** prior to initiating CPAP if systolic blood pressure is less than 100 mmHg.
    c. Consider **LORAZEPAM** 1 mg IV OR 2 mg intranasal (1 mg each nare) prior to CPAP for anxiety. If Lorazepam is not available, call medical control for orders for Midazolam.

   d. Once three (3) doses (1.5mg) of ipratropium have been administered, then switch to continuous **ALBUTEROL SULFATE** nebulizer therapy.
5. Continuous cardiac monitoring.
6. *SUSPECTED ASTHMA ONLY*: If no relief with nebulizer treatments and CPAP, **EPINEPHRINE 1:1000** 0.3 mg IM.

ALS

1. Routine Medical Care.
2. **ALBUTEROL SULFATE**, 2.5 mg in 3 ml normal saline**,** mixed with **IPRATROPIUM** 0.5 mg via nebulizer. Albuterol/Ipratropium (Duo-Neb) may be repeated every 5 minutes if respiratory distress persists.
3. Initiate IV **LACTATED RINGERS** TKO (20ml/hr) OR IV lock.
4. **METHYLPREDNISOLONE**, 125 mg IV.
5. If no relief, apply CPAP at 5 cm H_20 pressure along with continuous **ALBUTEROL SULFATE/IPRATROPIUM** nebulizer therapy.
   a. If the distress does not improve and the patient is tolerating CPAP, increase CPAP pressure up to 10 cm H_2O. Continue to give nebulized treatments through CPAP.
   b. Contact **MEDICAL CONTROL** prior to initiating CPAP if systolic blood pressure is less than 100 mmHg.
   c. Consider **LORAZEPAM** 1 mg IV OR 2 mg intranasal (1 mg each nare) prior to CPAP for anxiety. If Lorazepam is not available, call medical control for orders for Midazolam.
   d. Once three (3) doses (1.5mg) of ipratropium have been administered, then switch to **ALBUTEROL SULFATE** nebulizer therapy.
6. Continuous cardiac monitoring.
7. If no significant improvement following 5 minutes of CPAP, administer **MAGNESIUM SULFATE,** 2 grams in 250 mL **NORMAL SALINE** bag and infuse IV piggyback over 6 – 10 minutes (60 gtt tubing at wide open). Contact **MEDICAL CONTROL** prior to administration if patient has a history of renal disease.
8. *SUSPECTED ASTHMA ONLY*: If no relief with nebulizer treatments, CPAP, magnesium sulfate, and methylprednisolone, **EPINEPHRINE 1:1000** 0.3 mg IM.

Once you have only Midazolam available, you may call medical control for direction and orders if patient is intolerant of CPAP.

SEIZURES

ILS

1. Routine Medical Care.
2. Establish saline lock or IV of **LACTATED RINGERS.**
3. Administer **LORAZEPAM** 2 mg IV OR **MIDAZOLAM** 2 mg IV. If unable to establish an IV, administer **LORAZEPAM** intranasal, 4 mg (2 mg in each nare) or 2 mg IM OR **MIDAZOLAM** intranasal, 4 mg (2 mg each nare) or 2mg IM.

4. May repeat **LORAZEPAM** 2mg IV/IO or 4mg IN every 3-5 minutes (Max 4mg) or **MIDAZOLAM** 2mg IV/IO or 4mg IN every 3-5 minutes (Max 10mg)
5. Continuous cardiac monitoring.

ALS

1. Routine Medical Care.
2. Establish saline lock or IV of **LACTATED RINGERS.**
3. Administer **LORAZEPAM** 2 mg IV/IO OR **MIDAZOLAM** 2 mg IV/IO. If unable to establish an IV, administer **LORAZEPAM** intranasal, 4 mg (2 mg in each nare) or 2 mg IM OR **MIDAZOLAM** intranasal, 4 mg (2 mg each nare) or 2mg IM.
4. May repeat **LORAZEPAM** 2mg IV/IO or 4mg IN every 3-5 minutes (Max 4mg) or **MIDAZOLAM** 2mg IV/IO or 4mg IN every 3-5 minutes (Max 10mg)
5. Continuous cardiac monitoring.

Protocol will not change. You may use Ativan if you have available or use Midazolam when you run out of Ativan.

CHEMICAL RESTRAINT

ILS

1. Routine Medical Care.
2. Work with law enforcement to safely restrain patient, if necessary. Refer to *Patient Restraint* procedure.
3. Administer **LORAZEPAM**, 2mg IV/IM/IN (1 mg each nare) Or Midazolam 5 mg IM
4. Continuous cardiac monitoring, pulse oximetry, and waveform capnography (if available) must be initiated once patient's demeanor allows.
5. Contact **MEDICAL CONTROL** as soon as possible.

ALS

1. Routine Medical Care.
2. Work with law enforcement to safely restrain patient, if necessary. Refer to *Patient Restraint* procedure.
3. Administer **LORAZEPAM**, 2mg IV/IM/IN (1 mg each nare) Or Midazolam 5 mg IM.
4. If after 5 minutes there is no decrease in combativeness, Administer **KETAMINE**, 2 mg/kg IV –OR– 4 mg/kg IM. If patient is exhibiting signs of Excited Delirium (extreme agitation, delirium, hyperthermia, acute onset) administer **KETAMINE** as first line medication (use above listed doses).
5. Continuous cardiac monitoring, pulse oximetry, and waveform capnography (if available) must be initiated once patient's demeanor allows.
6. Contact **MEDICAL CONTROL** as soon as possible. Additionally, Contact **MEDICAL CONTROL** for repeat doses of Ketamine.

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If Lorazepam is unavailable, you may administer Midazolam 5 mg IM instead of Lorazepam.

PEDIATRIC SEIZURE

ILS

1. Routine Medical Care
2. Position the patient to protect from injury
3. Support ABC's
4. Vomiting and aspiration precautions
5. **Assess Blood Glucose**
6. If febrile seizure is suspected
    a. Assess Core Temperature
    b. Attempt to cool by removing excess clothing layers
7. Consider drug administration by alternate routes prior to establishing vascular access if still seizing.
8. **LORAZEPAM** 0.1mg/kg IV/IO/IM/IN (max dose 2.0mg)

    --OR--
9. **MIDAZOLAM** 0.1mg/kg IV/IO/IM (max dose 2.0 mg) or 0.2mg/kg IN (max dose 4.0 mg)

ALS

1. Routine Medical Care
2. Position the patient to protect from injury
3. Support ABC's
4. Vomiting and aspiration precautions
5. **Assess Blood Glucose**
6. If febrile seizure is suspected
    a. Assess Core Temperature
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7. Consider drug administration by alternate routes prior to establishing vascular access if still seizing.
8. **LORAZEPAM** 0.1mg/kg IV/IO/IM/IN (max dose 2.0mg)

    --OR--
9. **MIDAZOLAM** 0.1mg/kg IV/IO/IM (max dose 2.0mg) or 0.2mg/kg IN (max dose of 4.0 mg)

Protocol will not change. You may use Ativan if you have available or use Midazolam when you run out of Ativan.

Thank you for all that you do for our communities,
Kris