Medication Shortage

☐ Medical Control Authorities choosing to adopt this Emergency Protocol may do so by selecting this check box. Per Administrative Rule 325.22206 Rule 207 (5) an emergency protocol shall remain in effect for 60 days unless approved by the department.

☐ Medical Control Authority adopting as a Medication Shortage Procedure.

Purpose: The purpose of this protocol is to address the National Shortage of specific medications. This protocol authorizes the substitution of the Zofran, Benzodiazepine & Fentanyl options previously selected by Medical Control Authority that are currently on file with the State of Michigan.

The Michigan Protocols for Adult & Pediatric Treatment call for the selection of one (1) Benzodiazepine medication. This protocol allows for selecting all options. The Patient Sedation Procedures allow for multiple selections, this protocol allows for an MCA to make further selections in the event the options selected are affected by the medication shortage. The Narcotic options in the state Pain Management Procedure also allow for multiple selections, this protocol allows for an MCA to make further selections in the event the options selected are affected by the medication shortage. This protocol allows for an MCA to make selection of Zofran ODT as an alternative to Zofran IV/IM in the event IV Zofran availability is affected by the medication shortage.

The following Michigan protocols are affected by the **Benzodiazepine** medication shortage:

ADULT PROTOCOLS:	**PEDIATRIC PROTOCOLS:**	**PROCEDURES:**
Obstetrical Emergencies	Seizures	Patient Sedation
Seizures		

ADULT TREATMENT (Seizure)

Medication Options:
(Selection Options)

☐ Midazolam 5 mg IV/IO

☐ Lorazepam - 4 mg IV/IO

☐ Diazepam - 10 mg IV/IO or rectally

PEDIATRIC TREATMENT (Seizure)

Medication Options:
(Selection Options)

☐ Midazolam 0.05 mg/kg IV/IO, maximum individual dose 5 mg

☐ Lorazepam - 0.1 mg/kg IV/IO, max single dose 4 mg, may repeat in 5 minutes if seizure activity continues; not to exceed 0.2 mg/kg total (maximum of 8 mg)

☐ Diazepam - 0.1 mg/kg IV/IO or 0.5 mg/kg rectally (maximum individual dose 10 mg)

PROCEDURES (Patient Sedation)

Adult Sedation: (Select Options)
(Titrate to minimum amount necessary)

- ☐ Midazolam 1-5 mg (0.05 mg/kg) IV/ IO titrated slowly, may repeat once in 5 minutes to a maximum of 0.1 mg/kg.
- ☐ Diazepam 5-10 mg (0.1 mg/kg) IV/ IO titrated slowly, may repeat every 5 minutes to a maximum of 0.3 mg/kg.
- ☐ Lorazepam 1-2 mg (0.1 mg/kg, max 4 mg/dose) IV/ IO titrated slowly, may repeat every 5 minutes to a maximum of 8 mg.
- ☐ Fentanyl 50-100 mcg (1 mcg/kg) IV/IO titrated slowly, may repeat every 5 minutes to a maximum of 3 mcg/kg.

Pediatric Sedation: (Select Options)
(Titrate to minimum amount necessary)

- ☐ Midazolam 0.05 mg/kg IV/ IO titrated slowly, may repeat once in 5 minutes to a maximum of 0.1 mg/kg.
- ☐ Diazepam 0.1 mg/kg IV/ IO titrated slowly, may repeat every 5 minutes to a maximum of 0.3 mg/kg.
- ☐ Lorazepam 0.1 mg/kg, max 4 mg/dose IV/ IO titrated slowly, may repeat every 5 minutes to a maximum of 8 mg.
- ☐ Fentanyl 1 mcg/kg IV/IO titrated slowly, may repeat every 5 minutes to a maximum of 3 mcg/kg.

The following Michigan protocols are affected by the **Fentanyl** medication shortage:

PROCEDURES:
Pain Management

ADULT NARCOTIC ANALGESIC OPTIONS

- ☐ Fentanyl 1 mcg/kg IV/IM/IO may repeat every 5 minutes until maximum of 3 mcg/kg
- ☐ Morphine Sulfate 2-5 mg (0.05 mg/kg) IV/IM/IO may repeat dose every 5 minutes until maximum of 20 mg.
- ☐ Hydromorphone 1 mg IV/IM/IO every 10 minutes for maximum of 3 mg.

IV/IO medication should be given slowly. IM administration should be limited to a single dose.

PEDIATRIC NARCOTIC ANALGESIC OPTIONS

- ☐ Fentanyl 1 mcg/kg IV/IM/IO may repeat every 5 minutes until maximum of 2 mcg/kg
- ☐ Morphine Sulfate - 0.05 mg/kg IV/IM/IO, may repeat dose every 5 minutes to a maximum of 0.2 mg/kg.
- ☐ Hydromorphone 0.01 mg/kg IV/IM/IO every 10 minutes for maximum of 0.03 mg/kg.

IV/IO medication should be given slowly. IM administration should be limited to a single dose.

MCA Pain Management Selections

Protocols		Medications	Pre-Medical Control	Post-Medical Control
Adult Abdominal Pain	☐	Fentanyl	☐	☐
	☐	Morphine	☐	☐
	☐	Hydromorphone	☐	☐
Adult Burns	☐	Fentanyl	☐	☐
	☐	Morphine Sulfate	☐	☐
	☐	Hydromorphone	☐	☐
Adult Soft Tissue& Orthopedic Injury	☐	Fentanyl	☐	☐
	☐	Morphine Sulfate	☐	☐
	☐	Hydromorphone	☐	☐
Adult Chest Pain/ACS	☐	Fentanyl	☐	☐
	☐	Morphine Sulfate	☐	☐
	☐	Hydromorphone	☐	☐
Pediatric Burns	☐	Fentanyl	☐	☐
	☐	Morphine Sulfate	☐	☐
	☐	Hydromorphone	☐	☐
Other indications not listed above	☐	Fentanyl	☐	☐
	☐	Morphine Sulfate	☐	☐
	☐	Hydromorphone	☐	☐

The following Michigan protocols are affected by the **Ondansetron (Zofran)** medication shortage. If Zofran IV/IM is not available, it may be replaced with Zofran ODT and the available medication may be administered per protocol if both boxes below are checked:

ADULT:
Nausea/Vomiting

PEDIATRIC:
Nausea/Vomiting

ADULT

ONDANSETRON (ZOFRAN) OPTIONS
(Select Options)

☐ Ondansetron (Zofran) 4mg IV/IM

☐ Ondansetron (Zofran) 4 mg ODT

PEDIATRIC

ONDANSETRON (ZOFRAN) OPTIONS
(Select Options)

☐ Ondansetron (Zofran) 0.1 mg/kg IV/IM, maximum dose of 4 mg

☐ Ondansetron (Zofran) 4mg ODT