Table of Contents
Section 1 – General Treatment Protocols

General Pre-Hospital Care

Patient care should be initiated at the patient's side prior to patient movement or transport for most medical conditions. EVERY PATIENT CONTACT BEGINS WITH THIS PROTOCOL

1. Pediatric patients (≤ 14 years of age or up to 36 kg) are treated under pediatric protocols when applicable.
    a. Refer to MI MEDIC cards for medication dosing and equipment sizes.
2. Assess scene safety and use appropriate personal protective equipment.
3. For trauma refer to **2.2 General Trauma-Treatment Protocol**
4. A patient exhibiting any signs of a life-threatening illness or injury shall not be required to move on their own. This includes patients with illnesses of unknown etiology.
5. If applicable, refer to **3.7 Adult or 4.9 Pediatric Crashing Patient/Impending Arrest-Treatment Protocol**.
6. Complete primary survey.
7. When indicated, implement airway intervention per the **7.9 Airway Management-Procedure Protocol.**
8. When indicated, administer oxygen, and assist ventilations per the **7.12 Oxygen Administration-Procedure Protocol.**
9. Assess and treat other life-threatening conditions per appropriate protocol.
10. Obtain vital signs including pulse oximetry if available or required, approximately every 15 minutes, or more frequently as necessary to monitor the patient's condition (A minimum of 2 sets are required for all patient transports. Two sets are suggested for patient refusals and treat and release patients.)
11. Perform a secondary survey consistent with patient condition.
12. Follow specific protocol for patient condition.
13. Document patient care according to the **7.15 Documentation and Patient Care Records Protocol**.
14. Establish vascular access per **7.23 Vascular Access & IV Fluid Therapy-Procedure Protocol** when fluid or medication administration may be necessary.
15. Apply cardiac monitor and treat rhythm according to appropriate protocol.
16. If applicable, obtain 12-lead ECG (Per MCA selection, may be a BLS or Specialist procedure) see **7.1 12 Lead ECG-Procedure Protocol**. Provide a copy of the rhythm strip or 12-lead ECG to the receiving facility, be sure to place patient identifiers on strip.
17. Use capnography/capnometry as directed per **7.24 End Tidal Carbon Dioxide Monitoring-Procedure Protocol**

NOTE: When possible, provide a list of the patient's medications or bring the medications to the hospital.

Protocol Source/Reference: Michigan 1.1 General Pre-Hospital Care; Version 5/8/23.

Abdominal Pain (Non-traumatic)

1. Follow **1.1 General Pre-hospital Care-Treatment Protocol**.
2. Conduct physical exam of abdomen including assessment of central and bilateral distal pulses.
3. If symptoms of shock present refer to **1.5 Shock-Treatment Protocol**.
4. Position patient in a position of comfort if pain is non-traumatic. If trauma related, refer to **2.2 General Trauma-Treatment Protocol**
5. Do not allow patient to drink or eat anything (does not include ODT medications)
6. If patient is experiencing nausea and vomiting refer to **1.3 Nausea and Vomiting-Treatment Protocol**.
7. Treat pain per **7.13 Pain Management-Procedure Protocol**.
8. Consider 12 Lead (Per MCA selection, may be a BLS or Specialist procedure) follow **7.1 12 Lead ECG-Procedure Protocol**.

Protocol Source/Reference: Michigan 1-2 Abdominal Pain; Version 5/3/23.

Initial Date: 8/31/2023
Revised Date:

Section 1-3

Nausea & Vomiting

1. Follow **1.1 General Pre-hospital Care-Treatment Protocol**.
2. Consider underlying causes of nausea and vomiting (i.e., stroke, trauma, cardiac, diabetes etc.) and further evaluate according to appropriate protocol.
3. Pediatric patients (≤ 14 years of age) utilize MI MEDIC cards for appropriate medication dosage. When unavailable utilize pediatric dosing listed within protocol.
4. Isopropyl alcohol – Consider allowing patient to inhale vapor from isopropyl alcohol wipe 3 times every 15 minutes as tolerated
5. For patients ≥ 30 kg that are not actively vomiting, administer **ondansetron** (i.e., Zofran) 4mg ODT (availability and licensure level per MCA selection).
   a. Contraindications: Patients with Phenylketonuria (PKU)

ODT **ondansetron** included?
☒YES ☐NO

Per MCA Selection
☐EMT
☐Specialist

6. For signs of dehydration, administer **NS** or **LR** IV/IO fluid bolus (refer to **7.23 Vascular Access and IV Fluid Therapy-Procedure Protocol**).
   a. Adults: up to 1 liter.
   b. Pediatrics: up to 20 ml/kg
7. Hypotensive patients should receive additional IV/IO fluid boluses, as indicated by hemodynamic state.
   a. Adults: repeat IV/IO fluid bolus to a maximum of 2 liters.
   b. Pediatrics: repeat dose of 20 ml/kg to a maximum of 40 ml/kg
   c. Monitor for pulmonary edema.
   d. If pulmonary edema presents, stop fluids and contact Medical Control for direction.
8. Administer **ondansetron** IV/IM if ODT not already administered or if patient vomited post ODT administration. (Per MCA selection, may be a Specialist skill)

Ondansetron IV/IM
☐Specialist

   a. Adults 4mg IV/IM
   b. Pediatrics refer to MI MEDIC cards.
   c. i. If MI MEDIC cards are not available administer 0.1 mg/kg IV/IM, maximum dose of 4 mg

9. Repeat **ondansetron** (may be Specialist skill if selected above)
   a. Adults: 4mg IV/IM
   b. Pediatrics: 0.1 mg/kg IV/IM, maximum dose of 4 mg
   c. Total maximum dose **ondansetron** (all/any route) for pediatrics or adults 8 mg
10. Consider **diphenhydramine** when previous medications have been ineffective or are contraindicated.
   a. Adult: 12.5-25 mg IV/IM. Maximum dose 25 mg.
   b. Pediatric (>2 years of age AND > 12 kg): 1.0 mg/kg IV. Maximum dose 25 mg.

Medication Reference
Diphenhydramine
Ondansetron

Protocol Source/Reference: Michigan 1.3 Nausea and Vomiting; Version 7/19/23

Syncope

1. Assess for mechanism of injury, if trauma sustained, refer to **2.2 General Trauma-Treatment Protocol.**
2. Follow **1.1 General Pre-Hospital Care-Treatment Protocol.**
3. Pediatric patients (≤ 14 years of age) utilize MI MEDIC cards for appropriate medication dosage. When unavailable utilize pediatric dosing listed within protocol.
4. Position patient
   A. If third trimester pregnancy, position patient left lateral recumbent.
   B. Supine for all other patients
5. Check blood glucose (may be MFR skill, see **7.21 Blood Glucose Testing-Procedure Protocol**)
6. If altered mental status perform stroke assessment and evaluate for stroke per **3.2 Stroke/Suspected Stroke-Treatment Protocol**
7. If altered mental status, refer to **3.1 Adult or 4.4 Pediatric Altered Mental Status-Treatment Protocol**.
8. For signs of dehydration or hypotension, administer **NS** or **LR** IV/IO fluid bolus (refer to **7.23 Vascular Access and IV Fluid Therapy-Procedure Protocol**).
   A. Adults: up to 1 liter
   B. Pediatrics: up to 20 mL/kg
9. Hypotensive/dehydrated patients should receive additional IV/IO fluid boluses, as indicated by hemodynamic state.
   a. Adults: repeat IV/IO fluid bolus to a maximum of 2 liters.
   b. Pediatrics: repeat dose of 20 ml/kg to a maximum of 40 ml/kg
   c. Monitor for pulmonary edema.
   d. If pulmonary edema presents, stop fluids and contact Medical Control for direction.
10. Obtain 12-lead ECG (Per MCA selection, may be a BLS or Specialist procedure) follow **7.1 12 Lead ECG-Procedure Protocol**. If ECG indicates cardiac event or dysrhythmia, refer to appropriate Cardiac Protocol.
11. Contact medical control for additional IV fluids.

Protocol Source/Reference: Michigan 1.4 Syncope; Version 5/8/23

Shock

1. Assessment: Consider etiologies of shock and refer to specific types of shock/injury first if known: **1.6 Anaphylaxis/Allergic Reaction-Treatment Protocol, 2.14 Hemorrhagic Shock-Treatment Protocol, 5.4 Pulmonary Edema/Cardiogenic Shock-Treatment Protocol**
2. Follow **1.1 General Pre-hospital Care-Treatment Protocol**.
3. Pediatric patients (≤ 14 years of age) utilize MI MEDIC cards for appropriate medication dosage. When unavailable utilize pediatric dosing listed within protocol.
4. Control major bleeding per **2.13 Bleeding Control (BCON)-Procedure Protocol**.
5. Remove all transdermal patches using gloves.
6. Prompt transport per MCA Transport Protocol.
7. Special consideration
   a. If 3rd trimester pregnancy, position patient left lateral recumbent.
8. Obtain vascular access (in a manner that will not delay transport).
9. Administer **NS** or **LR** fluid bolus IV/IO (refer to **7.23 Vascular Access and IV Fluid Therapy-Procedure Protocol**).
   a. Adults: up to 1 liter wide open,
   b. Pediatrics: up to 20 ml/kg based on signs and symptoms of shock
   c. Fluid should be slowed to TKO when SBP greater than 90 mmHg.
10. Consider establishing a second large bore IV of **NS** or **LR** enroute to the hospital.
11. Obtain 12-lead ECG, if suspected cardiac etiology. (Per MCA selection, may be a BLS or Specialist procedure) follow **7.1 12 Lead ECG-Procedure Protocol**.
12. If accompanying head injury, refer to **2.12 Head Injury-Treatment Protocol**.
    a. Maintain SpO2 ≥ 90%
    b. Maintain SBP > 90 mmHg < 140 mmHg
    c. Do NOT hyperventilate.
13. Hypotensive patients should receive additional IV/IO fluid boluses, as indicated by hemodynamic state (consider preparing **epi** push dose while administering second bolus)
    a. Adults: repeat IV/IO fluid bolus to a maximum of 2 liters.
    b. Pediatrics: repeat dose of 20 ml/kg to a maximum of 40 ml/kg
    c. Monitor for pulmonary edema.
    d. If pulmonary edema presents, stop fluids and contact Medical Control for direction.
14. If hypotension persists after IV/IO fluid bolus, administer **epinephrine** IV/IO by push dose (dilute boluses) while administering second fluid bolus.
    a. Prepare (**epinephrine** 10 mcg/mL) by combining 1mL of 1mg/10mL **epinephrine** in 9mL **NS**, then
       a. Adults:
          i. Administer 10-20 mcg (1-2 mL **epinephrine** 10 mcg/mL) IV/IO
          ii. Repeat every 3 to 5 minutes
          iii. Titrate SBP greater than 90 mm/Hg.

b. Pediatrics:
   i. Administer 1 mcg/kg (0.1 mL **epinephrine** 10 mcg/mL) IV/IO
   ii. Maximum dose 10 mcg (1 mL)
   iii. Repeat every 3-5 minutes

Medication Reference
Epinephrine

Protocol Source/Reference: Michigan 1-5 Shock; Version 6/1/23.

Anaphylaxis/Allergic Reaction

A. Initial
   a. Follow **1.1 General Pre-Hospital Care-Treatment Protocol**.
   b. Pediatric patients (< 14 years of age) utilize MI MEDIC cards for appropriate medication dosage. When unavailable utilize pediatric dosing listed within protocol.
   c. Ensure ALS response.
   d. Determine if anaphylaxis/severe allergic reaction (wheezing and/or hypotension) or an allergic reaction (itching, hives).
   e. Determine substance or source of exposure, remove patient from source if known and able.

B. Anaphylaxis/Severe Allergic reaction
   a. Assist patient in use of their own prescribed **epinephrine** auto-injector, if available.
   b. Administer **epinephrine** auto-Injector IM.

MCA Approval of **epinephrine** auto-injector IM
☒ MFR

MCAs will be responsible for maintaining a roster of the agencies choosing to participate and will submit roster to MDHHS

1. Contact Medical Control if child appears to weigh less than 10 kg (approx. 20 lbs.), prior to epinephrine administration, if possible .
2. Administer pediatric **epinephrine** dose auto-injector IM if child weighs between 10-30 kg (approximately 20-60 lbs.).
3. Administer **epinephrine** auto-injector IM for adults and children weighing greater than 30 kg (approximately 60 lbs.).
4. May repeat **epinephrine** auto-injector IM one time after 3-5 minutes if the patient remains hypotensive, and auto-injector available.

   c. Administer **epinephrine** IM (per MCA selection may be BLS or MFR skill)
   NOTE: BLS not carrying epinephrine auto-injector MUST participate in draw up epinephrine.

MCA Approval of draw up **epinephrine.**
☒ MFR
☒ BLS
Personnel must complete MCA approved training prior to participating in draw up **epinephrine.**

MCAs will be responsible for maintaining a roster of the agencies choosing to participate and will submit roster to MDHHS.

1. Contact Medical Control if child appears to weigh less than 10 kg (approx. 20 lbs.), prior to **epinephrine** administration, if possible.
2. Administer 0.15 mg (0.15 mL) of **epinephrine** IM (1mg/mL) if child weighs between 10-30 kg (approx. 20-60 lbs.)
3. Administer 0.3 mg (0.3 mL) of **epinephrine** IM (1mg/mL) for child weighing over 30 kg (approx. 60 lbs.) or adult patients.
4. May repeat **epinephrine** IM administration one time after 3-5 minutes if the patient remains hypotensive.
5. Maxiumum of 2 doses total of epinephrine (prescribed auto-injector, EMS supplied auto-injector, draw up epinephrine combined).

d. If wheezing and/or airway constriction, administer **albuterol** 2.5 mg/3mL **NS** nebulized (Per MCA selection may be EMT skill) per **9.1 Medication Administration-Medication Protocol.**

Nebulized **albuterol** administration per MCA selection
☐ EMT

1. If wheezing and/or airway constriction continues, administer nebulized **albuterol** 2.5 mg/3 ml **NS** nebulized and **ipratropium** 500 mcg/2.5 mL **NS** per **9.1 Medication Administration-Medication Protocol** (Per MCA selection may be Specialist skill).

Nebulized **albuterol/ipratropium** administration per MCA selection
☐ Specialist

e. For patients with hypotension administer **NS** or **LR** IV/IO fluid bolus (refer to **7.23 Vascular Access and IV Fluid Therapy-Procedure Protocol**) refer to **1.5 Shock-Treatment Protocol**.
1. Adults: up to 1 liter, wide open.
2. Pediatrics: 20 mL/kg, based on signs/symptoms of shock.
3. Fluid should be slowed to KVO when SBP greater than 90 mm/Hg.

f. Hypotensive patients should receive additional IV/IO fluid boluses, as indicated by hemodynamic state. (Consider preparing **epi** push dose while administering second bolus).
1. Adults: repeat IV/IO fluid bolus to a maximum of 2 liters.
2. Pediatrics: repeat dose of 20 mL/kg to a maximum of 40 ml/kg
3. Monitor for pulmonary edema.
4. If pulmonary edema presents, stop fluids and contact Medical Control for direction.

g. If hypotension persists/is unresponsive to fluid bolus, or severe respiratory distress is unresponsive to nebulized treatment, administer push dose **epinephrine** IV/IO.
Prepare (**epinephrine** 10 mcg/mL) by combining 1mL of 1mg/10mL **epinephrine** in 9mL **NS**

1. Adults:
   i. Administer 20 mcg (2 mL e**pinephrine** 10 mcg/mL) IV/IO
   ii. Repeat every 3-5 minutes
   iii. Titrate SBP greater than 90 mm/Hg.
2. Pediatrics:
   i. Administer 1 mcg/kg (0.1 mL **epinephrine** 10 mcg/mL) IV/IO
   ii. Maximum dose 10 mcg (1 mL)
   iii. Repeat every 3-5 minutes

C. If patient is symptomatic of an allergic reaction but not in a severe allergic reaction or anaphylaxis **OR** after **epinephrine** administration:

a. Administer **diphenhydramine**.
1. Adult 50 mg IM or IV/IO
2. Pediatric 1 mg/kg IM/IV/IO (maximum dose 50 mg).

b. If wheezing, and **albuterol** not already administered, administer **albuterol** 2.5 mg/3mL **NS** nebulized (Per MCA selection may be EMT skill) per **9.1 Medication Administration-Medication Protocol.**

Nebulized **albuterol** administration per MCA Selection
☐ EMT

1. If wheezing continues, administer nebulized **albuterol** 2.5 mg/3 mL **NS** and **ipratropium** 500 mcg/2.5 mL **NS** per **9.1 Medication Administration-Medication Protocol** (Per MCA selection may be Specialist skill).

Nebulized **albuterol/ipratropium** administration per MCA selection
☐ Specialist

c. Administer **prednisone** tablet 50 mg PO to adults and children > 6 years of age (if available per MCA selection).

Additional Medication Option:

☒ **Prednisone** 50 mg tablet PO
(Adults and Children > 6 y/o)

i. If **prednisone** is not available, patient is ≤ 6 years of age, or patient is unable to receive medication PO, administer **methylprednisolone** IV/IO/IM:
   a. Adults: 125 mg
   b. Pediatrics: 2mg/kg (max 125 mg)

D. Patients unresponsive to treatment, contact Medical Control.

Medication Reference
Albuterol
Diphenhydramine
Epinephrine
Ipratropium
Methylprednisolone
Prednisone

Protocol Source/Reference: Michigan 1.6 Anaphylaxis/Allergic Reaction; Version 8/11/23.

Initial Date: 8/31/2023
Revised Date:

Adrenal Crisis

Purpose: This protocol is intended for the management of patients with a known history of adrenal insufficiency, experiencing signs of crisis.

Indications:

1. Patient has a known history of adrenal insufficiency or Addison's disease.
2. Presents with signs and symptoms of adrenal crisis including:
    a. Pallor, headache, weakness, dizziness, nausea and vomiting, hypotension, hypoglycemia, heart failure, decreased mental status, or abdominal pain.

Treatment:

1. Follow **1.1 General Pre-hospital Care-Treatment Protocol.**
2. Pediatric patients (≤ 14 years of age) utilize MI MEDIC cards for appropriate medication dosage. When unavailable utilize pediatric dosing listed within protocol.

Contact Medical Control for all adrenal crisis patients prior to treatment:

1. Administer fluid bolus **NS** or **LR** IV/IO (refer to **7.23 Vascular Access and IV Fluid Therapy-Procedure Protocol**)
    a. Adults: up to 1 liter.
    b. Pediatrics: up to 20 ml/kg
2. Assist with administration of patient's own hydrocortisone sodium succinate (Solu-Cortef)
    a. Adult: 100 mg IV/IM
    b. Pediatric: 1-2 mg/kg IV/IM
3. If patient does not have their own hydrocortisone, administer **prednisone** tablet 50 mg PO to adults and children > 6 years of age (if available per MCA selection)

Additional Medication Option:
☒ **Prednisone** 50 mg tablet PO (Adults and Children > 6 y/o)

    a. If **prednisone** is not available, patient is ≤ 6 years of age, or patient is unable to receive medication PO, administer **methylprednisolone** IV/IO/IM:
        i. Adults: 125 mg
        ii. Pediatrics: 2mg/kg (max 125 mg)
4. Transport
5. Notify Medical Control of patient's medical history.
6. Refer to Adult or Pediatric **3.1 Altered Mental Status-Treatment Protocol.**

Medication Reference
Methylprednisolone
Prednisone

Protocol Source/Reference: Michigan 1.7 Adrenal Crisis; Version 5/8/23

Behavioral Health Emergencies

Definition:
A patient with a psychiatric emergency is solely related to the effects of their mental illness and not an acute medical emergency requiring life-supporting intervention. The patient may have risk for harm of self and/or others, which can include an inability to care for their own activities of daily life.

Procedure:
Transport all adult and pediatric psychiatric patients to the closest OCMCA hospital for medical clearance.

- If EMS personnel witness an act, or acts, or hear significant threats made by the patient that leads them to believe that the patient can reasonably be expected within the near future to intentionally or unintentionally seriously physically injure self or others, EMS personnel may complete a **Petition for Mental Health Treatment (PM201)**.
    - Petitions should be obtained from a hospital ED representative.
    - The Petition for Mental Health Treatment MUST be:
        - Completed in black ink only.
        - Completely free of errors.
- Patients may **only** refuse transport if they meet the criteria outlined in the **7.19 Refusal of Care Protocol.**
    - If care is refused, per Refusal of Care Protocol, EMS providers may consider referring patients experiencing crisis to Common Ground's 24/7 Resource and Crisis Center hotline at: 1-800-231-1127.

NOTE: If the psychiatric patient, his/her family, or other patient advocate requests transport to a specific OCMCA hospital, and that request requires bypassing a closer OCMCA hospital, the transporting crew must obtain online approval from the requested hospital prior to initiating transport.

1. Assure scene is secure.
2. Follow **1.1 General Pre-hospital Care-Treatment Protocol.**
3. Respect the dignity of the patient.
4. Treat known conditions such as hypoglycemia, hypoxia, or poisoning. Refer to appropriate protocol.
5. Patients experiencing behavioral health emergencies should be transported for treatment if they have any of the following:
    a. Can be reasonably expected to intentionally or unintentionally physically injure themselves or others or has engaged in acts or made threats to support the expectation.
    b. Are unable to attend to basic physical needs.
    c. Have judgement that is so impaired that he or she is unable to understand the need for treatment and whose behavior will cause significant physical harm.

   d. Have weakened mental processes because of age, epilepsy, alcohol or drug dependence which impairs their ability to make treatment decisions.
6. Communicate in a calm and nonthreatening manner. Be conscious of personal body language and tone of voice.
7. Keep contacts to a minimum; when prudent, utilize a single rescuer for assessment.
8. Offer your assistance to the patient.
9. Constantly monitor and observe patient to prevent injury or harm.
10. Control environmental factors; attempt to move patient to a private area. Maintain escape route.
11. Attempt de-escalation, utilize an empathetic approach. Avoid confrontation.
12. If patient becomes violent or actions present a threat to patient's safety or that of others, restraint may be necessary. Refer to **7.16 Patient Restraint- Procedure Protocol**.
13. If the patient is severely agitated, combative/aggressive, and shows signs of sweating, delirium, elevated temperature, and lack of fatiguing, refer to **3.6 Hyperactive Delirium Syndrome with Severe Agitation-Treatment Protocol**.

Legal Statutes:

1. **Protective Custody** - The temporary custody of an individual by a law enforcement officer with or without the individual's consent for the purpose of protecting that individual's health and safety, or the health and safety of the public and for the purpose of transporting the individual if the individual appears, in the judgment of the law enforcement officer, to be a person requiring treatment. Protective custody is civil in nature and is not to be construed as an arrest. (330.1100c (7), Sec. 100c, Michigan Mental Health Code)

2. **Authority to Restrain** - EMS personnel are able to restrain and treat and transport an individual under authority of Sec 20969 of Public Act 368 which states: "This part and the rules promulgated under this part do not authorize medical treatment for or transportation to a hospital of an individual who objects to the treatment or transportation. However, if emergency medical services personnel, exercising professional judgment, determine that the individual's condition makes the individual incapable of competently objecting to treatment or transportation, emergency medical services may provide treatment or transportation despite the individual's objections unless the objection is expressly based on the individual's religious beliefs."

3. **Patient Destination** – R 325.22112 An ambulance operation, both ground and rotary, shall transport an emergency patient only to an organized emergency department located in and operated by one of the following:

   a. A licensed hospital
   b. A freestanding surgical outpatient facility
   c. Provider-based ED

4. **"Emergency Patient"** – Sec 333.20904 of Public Act 368 defines an emergency patient as an individual with a physical or mental condition that manifests itself by acute symptoms of sufficient severity, including, but not limited to, pain such that a prudent layperson possessing average knowledge of health and medicine, could reasonably expect to result in one or all of the following:
    a. Placing the health of the individual or, in the case of a pregnant woman, the health of the patient or the unborn child, or both, in serious jeopardy.
    b. Serious impairment of bodily function.
    c. Serious dysfunction of a body organ or part.

Protocol Source/Reference: Michigan 1-8 Behavioral Health Emergencies; Version 10/19/22

Opioid Overdose Treatment and Prevention

Aliases: OD, Naloxone administration, Naloxone leave behind, Accidental overdose

Indications: Decreased level of consciousness associated with respiratory depression from Opioid Overdose, signs of opioid use, scenes with indications of opioid use. For critically ill patients see **3.7 Adult or 4.9 Pediatric Crashing Patient/Impending Arrest-Treatment Protocol**.

Procedure:

1. Follow **1.1 General Pre-hospital Care-Treatment Protocol**.
2. Pediatric patients (≤ 14 years of age) utilize MI MEDIC cards for appropriate medication dosage. When unavailable utilize pediatric dosing listed within protocol.
3. If patient has respiratory depression, provide oxygenation and support ventilations. Treatment goal is to restore effective respirations; the patient need not be completely awakened.

a. Administer **naloxone** when (may be an MFR skill based on MCA selection):
   i. Ventilations have been established and patient has not regained consciousness.
   ii. There is more than 1 rescuer on scene for personnel safety precautions.

MCA Selection for

☒ MFR **naloxone** administration

MCAs will be responsible for maintaining a roster of the MFR agencies choosing to participate and will submit roster to MDHHS

b. Per MCA Selection (below), administer **naloxone** intranasal May repeat one time in 3-5 minutes if effective respirations not restored.

MCA selection for intranasal **naloxone** (MUST SELECT AT LEAST ONE):

☒**Narcan® Nasal Spray** 4 mg (Adults Only). Entire dose in one nostril. Additional dose in opposite nostril.

☒**Naloxone** Prefilled 2 mg/2 ml IN via Atomizer (Half dose in each nostril)

- Adult and child over 3 years: 2 ml
- Pediatric Dosing:
  - Up to 3 months: 0.5 ml
  - 3 months up to 18 months: 1 ml
  - Children 19-35 months: 1.5 ml

c. Administer **naloxone** IM, IN or slowly IV, titrating to restore effective respirations.
   i. Adult: 2 mg IM or IN via atomizer.
      1. IN max of two doses total.

ii. Adult: Up to 2 mg IV slowly, titrating to improvement in respiratory status. Repeat as needed every 3-5 minutes.
iii. Pediatric: 0.1mg/kg IM/IN/IV

d. Patients not responding to **naloxone** should have continued airway and ventilatory support.
e. Transport according to MCA Transport Protocol

4. For patients with signs and symptoms or reporting opioid withdrawal (tremors, chills, nausea/vomiting, hallucinations, muscle cramps, etc.)
   a. Establish IV and administer **NS** or **LR** IV/IO per **7.23 Vascular Access & IV Fluid Therapy-Procedure Protocol**
   b. For signs of dehydration,
      i. Adults: up to 1 liter, wide open.
      ii. Pediatrics: 20 ml/kg based on signs and symptoms
   c. Hypotensive patients should receive additional IV/IO fluid boluses, as indicated by hemodynamic state.
      i. Adults: repeat IV/IO fluid bolus to a maximum of 2 liters.
      ii. Pediatrics: repeat dose of 20 ml/kg to a maximum of 40 ml/kg
      iii. Monitor for pulmonary edema
      iv. If pulmonary edema presents, stop fluids and contact Medical Control.
   d. For nausea/vomiting, refer to **1.3 Nausea & Vomiting–Treatment Protocol**
   e. Transport according to MCA Transport Protocol
5. For patients who have naloxone administered and refuse transportation to the emergency department, contact Medical Control.
      i. Patient may not:
         1. Have current/sustained altered mental status.
         2. Have intentionally overdosed (for self-harm).
         3. Have any suicidal/homicidal ideations or thoughts of self-harm.
      ii. After contacting Medical Control for consultation, complete the patient refusal per **7.19 Refusal of Care Adult and Minor Protocol**, document the name of the facility and physician in the PCR
6. Leave Behind Naloxone

MCA Selection for Naloxone Leave Behind
Providers must be part of an MCA designated Leave Behind Naloxone agency
☐ Not Included
☒ MFR ☒ EMT ☒ AEMT ☒ Paramedic
MCA will submit roster to MDHHS

   a. Indications
      i. Patients ≥ 15 years old who received **naloxone** with symptom improvement.
      ii. Patients ≥ 15 years old who report substance use disorder.

iii. Scenes where there are signs of opioid use and an individual ≥ 15 years old available to receive the Naloxone.

b. For patients who are transported, **naloxone kits** may either be provided to
   i. family and friends on scene (≥ 15 years old) OR
   ii. to the patient when arriving at the hospital, if the patient is awake
c. Provide a **naloxone kit** to patient or family/friends on scene, if accepted
d. Document in PCR administration of kit (in procedure section)
e. Other possible offerings when administering a kit:
   i. Offer to properly dispose of any used needles following your agency policy.
   ii. Refer to a community peer support team, if available
   iii. Provide literature outlining resources for opioid use disorder or substance use disorder treatment programs in the community.
   iv. For patients who have not suffered an acute overdose AND are willing to accept treatment for opioid use disorder or substance use disorder, the following may be offered if available:
      1. Alternate destination according to MCA approval (including inpatient or outpatient treatment facilities)
      2. Mobile crisis teams
      3. Other local treatment options

<u>Medication Reference</u>
Naloxone

Protocol Source/Reference: Michigan 1.9 Opioid Overdose Treatment and Prevention; Version 7/19/23

Foreign Body Airway Obstruction

***Alias**: Choking, Airway Obstruction, FBAO*

This procedure is intended for situations in which a severe foreign body airway obstruction (FBAO) has occurred. EMS personnel must be able to rapidly initiate treatment in such cases. EMS personnel should consider these cases to be potential cardiac arrests.

FOREIGN BODY AIRWAY OBSTRUCTION

This procedure is intended for situations in which a severe foreign body airway obstruction (FBAO) has occurred. EMS personnel must be able to rapidly initiate treatment in such cases. Note: Sudden cardiac arrest that occurs while a person is eating is frequently dispatched as "choking." EMS personnel should consider these cases to be potential cardiac arrests.

1. In conscious (responsive) adults and children >1 year of age, deliver abdominal thrusts in rapid sequence until the obstruction is relieved.
2. Administer chest thrusts in conscious patients in place of abdominal thrusts when:
    a. Abdominal thrusts are ineffective (optional consideration)
    b. Patient is obese and rescuer is unable to encircle the patient's abdomen
    c. Patient is in the later stages of pregnancy (e.g., greater than 20 weeks)
    d. Patient is under 1 year of age
    e. Wheelchair bound patients
3. For conscious infants (under 1 year old) with evidence of severe FBAO:
    a. Deliver repeated cycles of 5 back blows followed by 5 chest compressions until the object is expelled or the patient becomes unresponsive.
    b. Note: Abdominal thrusts are not recommended for infants because they may damage the infant's relatively large and unprotected liver.
4. If any patient becomes unresponsive or is found unresponsive and is unable to be ventilated using the 2-person bag-valve-mask technique with oropharyngeal airway start CPR
5. For unconscious patients, while chest compressions are being provided, perform direct laryngoscopy. If foreign body is visible, remove using adult or pediatric Magill forceps.
6. If unsuccessful in visualizing foreign body, continue chest compressions and repeat direct laryngoscopy while alternating with attempts to ventilate.
7. Once FBAO is relieved, if spontaneous respiration does not return, refer to **7.9 Airway Management-Procedure Protocol**

Protocol Source/Reference: Michigan 1-10 Foreign Body Airway Obstruction; Version 5/8/23

Diabetic Emergencies

The purpose of this protocol is to provide for the assessment and treatment of patients suffering from a diabetic emergency.

MFR Agencies may carry glucometers and oral glucose paste (optional).

1. Follow **1.1 General Pre-Hospital Care Protocol**.
2. Obtain blood glucose level if equipment is available.
    a. Awake and with a gag reflex
        i. If blood glucose is:
            1. below 40mg/dl for patients less than or equal to 60 days old;
            2. below 60mg/dl for adults and pediatric patients over 60 days old;
                a. Administer 15 grams of oral glucose, for infants contact medical direction if IV not available.
                b. Re-evaluate after 10 minutes and if the blood sugar does not improve or only improves slightly repeat the oral glucose or,
            c. Establish an IV and,
            d. Consider administration of IV Dextrose.

            Note: At the provider discretion, if available IV Dextrose may be given without attempting oral glucose first.
                i. Adults IV Dextrose 50% (25g)
                ii. Pediatric refer to MIMEDIC cards
        ii. If the blood glucose is normal follow specific protocol for patient condition.
        iii. For adult if the blood glucose is above 250mg/dl with symptoms of hyperglycemia.
            1. Start an IV and administer **NS** or **LR** IV bolus, up to 1 L.
                a. For patients with renal failure or heart failure, decrease volume to 500 mL.
            2. Monitor EKG.
        iv. For pediatrics if the blood glucose is above 250mg/dl with symptoms of hyperglycemia
            1. Contact medical control
    b. Altered Mental Status
        i. If blood glucose is:
            1. below 40mg/dl for patients less or equal to than 60 days old;
            2. below 60mg/dl for adults and pediatric patients over 60 days old;
                a. Establish an IV
                    i. If unable to establish IV contact Medical Control.
                b. Administer IV Dextrose 50% (25g) or small amounts of oral glucose.
                c. For Pediatrics follow MIMEDIC
        ii. If blood glucose is normal and the patient's mental status is altered refer to **3.1 Altered Mental Status.**
        iii. For adults, if the blood glucose is above 250mg/dl with symptoms of

hyperglycemia.

1. Start an IV and administer **NS** or **LR** IV bolus, up to 1 L.
    a. For patients with renal failure or heart failure, decrease volume to 500 mL.
2. Monitor EKG.
3. Consider 12-Lead per **7.1 12-Lead ECG Protocol**

iv. For pediatrics if the blood glucose is above 250 mg/dl with symptoms of hyperglycemia

1. Contact medical control

c. If blood glucose level if equipment is not available administer oral glucose if the patient is awake with a gag reflex.

Medication Reference:
Dextrose

Citizen Assist/Lift Assist

This protocol should be used when dispatched to a citizen assist or lift assist patient.

Treatment

1. Follow **1.1 General Pre-Hospital Care Protocol**.
2. Perform a patient assessment, follow **7.14 Patient Assessment.**
3. Obtain a full set of vital signs.
4. Lift or move the patient as appropriate.
5. Treat any injuries or illness per the appropriate protocol.
6. If the patient requires or requests transport to the hospital transport per **8.33 Transportation Protocol**.
7. If the patient does not wish to have any further treatment or feels no treatment is necessary follow **7.19 Refusal of Care Adult and Minor.**

Documentation

1. All Citizen Assist/Lift Assist incidents shall be documented in an ePCR.
2. If the patient refuses any treatment or transport, document in the ePCR and on the patient refusal of care form.