State of Maryland

Maryland Institute for Emergency Medical Services Systems

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Larry Hogan
Governor

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To: Highest EMS Officials
EMS Medical Directors
Regional Administrators

From: Richard Alcorta, MD FACEP
State EMS Medical Director
Acting Co-Executive Director

Date: September 26, 2017

Re: Emergency Protocol Change: Naloxone administration by Maryland-certified Emergency Medical Responders (EMR)

In 2017, Governor Hogan declared a State of Emergency Executive Order 01.01.2017.02, currently in effect, related to the Opioid Overdose Crisis for Maryland. Local health departments have been training lay persons in the use of naloxone for over a year, and naloxone is available through health departments and pharmacies for application by lay persons. Naloxone is the reversal agent for an opioid overdose.

In certain areas of Maryland, an Emergency Medical Responder (EMR) can be the first EMS/Fire responder to arrive on scene in response to a 9-1-1 call for an overdose. Currently, the Maryland Medical Protocols for EMS Providers limit EMR administration of naloxone to a small number of jurisdictions that are participating in an Optional Supplemental Protocol. As a result, EMRs have not be trained or authorized to administer naloxone elsewhere in Maryland.

This attached Emergency Protocol change will authorize EMRs throughout Maryland to administer naloxone. EMR providers must complete approved training before administering naloxone in the clinical environment. This protocol change is effective October 1, 2017. The Protocol Review Committee and the Maryland State Firemen's Association support authorizing Maryland-certified EMRs to administer naloxone.

Jurisdictions that have not trained EMR personnel to administer naloxone will need to arrange for such training and treatment. Local health departments often provide such training at no cost and will be recognized as meeting the EMR training requirements. MIEMSS Office of the Medical Director also has an approved power point with skills check off that will meet the training requirements for EMRs which shall be completed as soon as operationally feasible .

Attached:

EMR naloxone emergency approval letter
Naloxone EMR Protocol Page Changes

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Effective October 1, 2017:

Pursuant to COMAR 30.03.05.02 I, it appearing that a delay would pose a threat to the health and welfare of patients and with the concurrence of the Chair of the State Emergency Medical Services Board, the following emergency protocol revision is hereby issued effective immediately to remain in effect until the next meeting of the State Emergency Medical Services Board when further action shall be taken:

Naloxone administration by public safety Maryland certified Emergency Medical Responders (EMR):

B. Procedures, Medical Devices and Medications for EMS and Commercial Services (page 184)

7. Naloxone (NARCAN) Public Safety and EMR (page 193)

Optional Supplemental Program – Intranasal Naloxone for Commercial Service BLS Providers – C. Intranasal Naloxone for BLS Providers (page 373)

Optional Supplemental Program – Intranasal Naloxone for Commercial Service BLS Providers – Naloxone (Narcan) (page 378)

(Attached)

Richard Alcorta, MD
Acting Co-Executive Director

Patricia Gainer, JD
Acting Co-Executive Director

Cc: Donald L. DeVries, Jr., Esq.
Chair, State Emergency Medical Services Board

B. PROCEDURES, MEDICAL DEVICES, AND MEDICATIONS FOR EMS AND COMMERCIAL SERVICES (Continued)

MEDICATIONS	EMR	EMT	CRT-(I)	PM
Acetaminophen	–	SO	SO	SO
Activated Charcoal (Without Sorbitol)	–	MC	MC	MC
Adenosine	–	–	SO	SO
Albuterol/Fast-acting bronchodilator MDI (patient's prescribed)	–	SO/MC	SO/MC	SO/MC
Albuterol Sulfate Nebulizer	–	–	SO/MC	SO/MC
Amiodarone	–	–	SO/MC	SO/MC
Antimicrobial (Pre-established interfacility only)	–	–	–	OSP
Aspirin	–	SO	SO	SO
Atropine Sulfate	–	–	SO/MC	SO/MC
Atrovent	–	–	SO	SO
Calcium Chloride (10% Solution)	–	–	MC	MC
Dexamethasone	–	–	SO	SO
Dextrose	–	–	SO	SO
Diazepam	–	–	MC	SO/MC
Diltiazem	–	–	MC	MC
Diluent D5W, NS, LR **(NEW '17)**	–	–	SO	SO
Diphenhydramine Hydrochloride	–	–	SO/MC	SO/MC
Dopamine Hydrochloride	–	–	MC	MC
Epinephrine Auto-Injector	OSP	SO/MC	SO	SO
Epinephrine Nebulizer	–	–	MC	MC
Epinephrine (1:1,000) Vial or Syringe	–	OSP	SO	SO
Epinephrine 1:10,000	–	–	SO	SO
Etomidate (Amidate)	–	–	–	PP
Fentanyl	–	–	OSP	OSP
Glucagon	–	–	SO/MC	SO/MC
Glycoprotein IIb/IIIa	–	–	–	OSP
Haldol	–	–	SO	SO
Hemophilia Blood Factor (VIII or IX)	–	–	SO	SO
Heparin (Interfacility transport only)	–	–	–	OSP
Hydroxocobalamin	–	–	OSP	OSP
Lidocaine	–	–	SO	SO
Magnesium Sulfate	–	–	SO/MC	SO/MC
MARK I/DuoDote (Atropine & 2 PAM)	OSP	OSP	OSP	OSP
Midazolam (Versed)	–	–	SO/MC	SO/MC
Morphine Sulfate	–	–	SO/MC	SO/MC
Morphine Sulfate (Infusion)	–	–	–	MC
Naloxone (IN) Public Safety	SO	SO	SO	SO
Naloxone (IV, IM, ET)	–	–	SO	SO
Nitroglycerin Paste	–	–	SO	SO
Nitroglycerin (tablet /spray) (patient's prescribed)	–	SO	SO	SO

SO Standing Order — **MC** Medical Consultation Required
OSP Optional Supplemental Program — **PP** Pilot Program — **REA** Research

7. NALOXONE (NARCAN) PUBLIC SAFETY AND EMR

a) **Pharmacology**

Reverses all effects due to opioid (morphine-like) agents. This drug will reverse the respiratory depression and all central and peripheral nervous system effects.

b) **Pharmacokinetics**

(1) Onset of action is within a few minutes with intranasal (IN) administration.
(2) Patients responding to naloxone may require additional doses and transportation to the hospital since most opioids/narcotics last longer than naloxone.
(3) Has no effect in the absence of opioid/narcotic.

c) **Indications**

To reverse respiratory depression induced by opioid/narcotic agent.

d) **Contraindications**

Patients under 28 days of age

e) **Adverse Effects**

Opioid withdrawal

f) **Precautions**

(1) Naloxone may induce opiate withdrawal in patients who are physically dependent on opioids.
(2) Certain drugs may require much higher doses of naloxone for reversal than are currently used.
(3) Should be administered and titrated so respiratory efforts return, but not intended to restore full consciousness.
(4) Intranasal naloxone must be administered via nasal atomizer.
(5) Naloxone has a duration of action of 40 minutes; the effect of the opioid/narcotic may last longer than naloxone and patients should be encouraged to be transported.

PROVIDERS MUST CONTACT A BASE STATION PHYSICIAN FOR PATIENTS WISHING TO REFUSE TRANSPORT AFTER BLS ADMINISTRATION OF NALOXONE.

g) **Dosage**

(1) Adult: Administer 2 mg IN. Divide administration of the dose equally between the nares to a maximum of 1 mL per nare.
(2) Pediatric:
   (a) Child 5 years of age to adult:
   Administer 2 mg IN. Divide administration of the dose equally between the nares to a maximum of 1 mL per nare.
   (b) Child 28 days of age to 4 years of age:
   Administer 0.8–1 mg IN. Divide administration of the dose equally between the nares to a maximum of 1 mL per nare.

July 2014: Naloxone is required for Public Safety EMTand EMR (September 2017) and remains Optional Supplemental Program for BLS Commercial Services (initially implemented September '13).

C. INTRANASAL NALOXONE FOR BLS PROVIDERS (COMMERCIAL EMT)

1. PURPOSE
When encountered with a patient exhibiting respiratory depression with a confirmed or suspected opioid/narcotic overdose, an EMT and EMR may administer intranasal naloxone provided the following criteria have been met.

2. INDICATIONS
A patient suffering respiratory depression caused by a known or suspected opioid/narcotic overdose

3. CONTRAINDICATIONS
a) None clinically significant in the adult patient
b) Patients less than 28 days old

4. PROCEDURE
a) Ensure that naloxone is indicated and the medication is not expired.
b) Inject volume of air into vial that is equal to desired volume of medication to be removed using a needle (blunt tip preferred) and 2 mL or 3 mL syringe.
c) Pull back on syringe plunger to remove desired volume of medication.
d) Use gradations on syringe to measure volume of medication to nearest 0.10 mL.
e) Safely remove needle from syringe and dispose of in sharps container.
f) Attach mucosal atomization device to luer-lock of syringe.
g) Place tip of mucosal atomization device in the nare and briskly push the plunger forward, administering half of the total volume of medication (up to a MAXIMUM of 1 mL per nare).
h) Repeat previous step in the other nare, delivering the remaining half of the medication.
i) Monitor patient for response and continue supportive care.

IF EMS OPERATIONAL PROGRAM USES A DIFFERENT FORMULARY/CONCENTRATION OR MEDICATION PACKAGING (E.G., PRE-FILLED SYRINGE OR AMPULE), PROVIDERS MUST RECEIVE PROPER TRAINING REGARDING SAFETY, PREPARATION, AND CONVERSION TO INTRANASAL ATOMIZATION OF THE MEDICATION.

OPTIONAL SUPPLEMENTAL PROGRAM
INTRANASAL NALOXONE FOR COMMERCIAL SERVICE BLS PROVIDERS
BLS ONLY

July 2014: Naloxone is required for Public Safety EMTand EMR (September 2017) and remains Optional Supplemental Program for BLS Commercial Services (initially implemented September '13).

Naloxone (Narcan)

1. **Pharmacology**
   Reverses all effects due to opioid (morphine-like) agents. This drug will reverse the respiratory depression and all central and peripheral nervous system effects.

2. **Pharmacokinetics**
   a) Onset of action is within a few minutes with intranasal (IN) administration.
   b) Patients responding to naloxone may require additional doses and transportation to the hospital since most opioids/narcotics last longer than naloxone.
   c) Has no effect in the absence of opioid/narcotic.

3. **Indications**
   To reverse respiratory depression induced by opioid/narcotic agent

4. **Contraindications**
   Patients under 28 days of age

5. **Adverse Effects**
   Opioid withdrawal

6. **Precautions**
   a) Naloxone may induce opiate withdrawal in patients who are physically dependent on opioids.
   b) Certain drugs may require much higher doses of naloxone for reversal than are currently used.
   c) Should be administered and titrated so respiratory efforts return, but not intended to restore full consciousness.
   d) Intranasal naloxone must be administered via nasal atomizer.
   e) Naloxone has a duration of action of 40 minutes; the effect of the opioid/narcotic may last longer than naloxone and patients should be encouraged to be transported.

PROVIDERS MUST CONTACT A BASE STATION PHYSICIAN FOR PATIENTS WISHING TO REFUSE TRANSPORT AFTER BLS ADMINISTRATION OF NALOXONE.

7. **Dosage**
   a) Adult: Administer 2 mg IN. Divide administration of the dose equally between the nares to a maximum of 1 mL per nare.
   b) Pediatric:
      (1) **Child 5 years of age to adult:**
      Administer 2 mg IN. Divide administration of the dose equally between the nares to a maximum of 1 mL per nare.
      (2) **Child 28 days to less than 4 years of age:**
      Administer 0.8–1 mg IN; Divide administration of the dose equally between the nares to a maximum of 1 mL per nare.
      (3) **Child less than 28 days:**
      Not indicated

   Repeat as necessary to maintain respiratory activity.