

SAMPLE Naloxone Hydrochloride Administration Standard Operation Procedure

Prepared by Dennis Wolf, MTAS Fire Management Consultant

7/20/17

This is a sample policy to be used as a *template* for a fire department to create a specific policy for their fire department. Though Tennessee law allows a properly trained individual to administer naloxone for a suspected opioid overdose, the fire department should check with their medical director **BEFORE** implementing a naloxone administration SOP and should follow the medical director’s advice.

**Purpose:**

To establish guidelines governing the administration of naloxone hydrochloride (naloxone), also known as Narcan™, by fire department personnel as part of the fire department’s first responder program. The objective is to treat and reduce injuries and fatalities due to opioid-involved overdoses when a fire department first responder is the first to arrive on the scene of a suspected overdose.

**Policy:**

Tennessee Code Annotated (T.C.A.) § 63-1-152 provides immunity for certain individuals who have been trained in the proper administration of naloxone (Narcan**™**) as specified in T.C.A. § 63-1-152(e).

The fire department will carry at least one naloxone kit on every piece of fire department apparatus and in every fire department vehicle capable of making an emergency response. All fire department personnel shall be trained in the administration of naloxone.

Fire department personnel shall, when indicated, and while acting in good faith and with reasonable care, administer naloxone according to the policy below. T.C.A. § 63-1-152(h) provides limited immunity from disciplinary or adverse administrative actions under this portion of state law for acts or omissions during the administration, prescription, or dispensation of an opioid antagonist (such as naloxone) to an individual who is apparently experiencing an opioid-related overdose.

**Definitions:**

**Carfentanil**: Carfentanil, also known as carfentanyl and 4-carbomethoxyfentanyl, is an analog of the synthetic opioid analgesic Fentanyl. Carfentanil is 100 times more potent than fentanyl, meaning it is 10,000 times more potent than morphine. This drug is not approved for use in humans in any capacity, and it is typically used in veterinary medicine to sedate large animals, primarily elephants. A miniscule amount of Carfentanil can kill a human through inhalation or absorption through unprotected skin.

**Fentanyl:** Also known as fentanyl, Fentanyl is a potent, synthetic opioid pain medication with a rapid onset and short duration of action. Fentanyl is 50 to 100 times more potent than morphine, and some fentanyl analogues, which are designed to mimic the pharmacological effects of the original drug, may be as much as 10,000 times more potent than morphine.

**Heroin:** Heroin is an opioid drug that is synthesized from morphine, a naturally occurring substance extracted from the seed pod of the opium poppy plant. Heroin usually appears as a white or brown powder or as a black sticky substance, known as “black tar heroin.” Heroin chemically converts to morphine in the brain.

**Naloxone:** Also known as **Narcan™**, naloxone is narcotic antagonist, which means it counteracts the effect of narcotics. Naloxone is a synthetic drug, chemically similar to morphine, which blocks opioid receptors in the nervous system. First responder administration of naloxone is intended to restore adequate respiratory effort.

**Opioids:** Opioids are medications that are naturally or chemically related to heroin. They reduce the intensity of pain signals reaching the brain and affect those brain areas controlling emotion, which diminishes the effects of a painful stimulus. Common opioids include:

7-Hydroxymitragynine

Alphaprodine

Anileridine

Bromadol

Buprenorphine

Carfentanil

Codeine

Dextropropoxyphene

Diamorphine

Dihydroetorphine

Etorphine

Fentanyl

Heroin

Hydrocodone (Vicodin®)

Hydromorphone

Levorphanol

Methadone

Morphine

Oxycodone (OxyContin® and Percocet®)

Oxymorphone

Paracetamol/Acetaminophen

Pentazocine

Pethidine

Sufentanil

Tapentadol

Tramadol

Reversal of respiratory depression by partial agonists or mixed agonist/antagonists, such as buprenorphine and pentazocine, may require repeat doses of naloxone. Repeat doses of naloxone may be required for patients suffering from an overdose of a potent opioid, such as fentanyl and carfentanil, or very high dose of opioids.

**Initial and Annual Training:**

All fire department personnel shall receive initial training that will include, at minimum, the information contained in the Tennessee layperson’s training guide, which is available from the at these links: <http://www.tn.gov/health/article/naloxone-overdose-information-steps> and <http://www.tn.gov/assets/entities/health/attachments/Naloxone_Layperson_Training_Guide.pdf>. The fire department’s medical director may approve an equivalent training course.

All fire department personnel will repeat this training, or equivalent training as approved by the medical director, annually. All training shall be documented properly.

**Procedure:**

Ambulance Service Required

The fire department should ensure that a transport ambulance is en route to the scene.

Safety of Fire Department Personnel

Opioids are rapidly and easily absorbed through inhalation, oral ingestion, or skin contact. Improper handling by first responders can be fatal. When responding to an overdose, fire department personnel should take all precautions to protect themselves upon arrival and while on the scene. If law enforcement is not present, and fire department personnel believe through observation, or from information provided by dispatch or others, that the scene is not safe, personnel should stage at a safe distance and wait for law enforcement to arrive and secure the scene.

Patients occasionally become violent after naloxone administration, but fire department personnel do not have to wait for the arrival of law enforcement before administering naloxone.

Patients, particularly those on chronic opiate therapy, often need very small doses of naloxone in the event of an overdose. Personnel should be aware that multiple doses of naloxone may create more agitation and behavioral symptoms in the patient.

Universal Precautions

Because of the fact that the actual opioid taken or present may be unknown, fire department personnel shall use all appropriate universal precautions during the response. Drugs such as fentanyl and carfentanil may be absorbed through the skin or through inhalation and cause rapid onset of symptoms and, if not treated promptly, death. NIOSH recommends the use of non-powdered nitrile gloves instead of latex gloves, and encourages double-gloving when handling fentanyl related compounds.

Gloves should be of the appropriate size for the wearer. Gloves should be replaced every 30 to 60 minutes of use. Gloves should be removed when exiting a location where drugs may be present, and new gloves should be applied when re-entering same location. When double gloving, if sleeve cuffs are present, the inner gloves should be worn under the sleeves and the outer gloves should be placed over the sleeve cuff. The use of different colored gloves when double gloving can help expose outer glove holes and tears.

Drugs users are at high risk for communicable diseases such as Hepatitis C, Hepatitis B, and HIV. Blood, vomit, saliva, urine, and feces have the potential to transmit different diseases, so universal precautions are required for everyone engaged in, or who might be called upon to assist with, patient care.

When to Administer Naloxone

Naloxone may be used when an opioid overdose is reported or reasonably suspected and the patient is unconscious. This can include but is not limited to:

1. Where the person is found to be unresponsive, there is an absence of breathing or the patient has no pulse, the patient is unresponsive to a sternum rub and has bluish lips and nail beds, constricted pupils, or bluish general appearance.
2. Where the person is found to be unresponsive, but still has a pulse and breathing.
3. Other signs of opioid overdose to be aware of:
4. Breathing may be slow and shallow (less than 10 breaths per minute which equals 1 breath every 6 seconds), or may have stopped altogether.
5. Vomiting.
6. The face may be pale and clammy.
7. The pulse may be slow, erratic, or not present.
8. The patient may make choking or loud snoring noises
9. The patient may not respond to shaking or a sternum rub
10. The skin may turn gray, blue, or ashen
11. When advised by the dispatcher that a given person appears to be suffering an opioid overdose at a given location and meets the patient presentation examples described above.
12. When advised by a friend, family member, or other individual acquainted with the patient that the patient has taken opioids and the patient appears to be suffering an opioid overdose and meets the patient presentation examples described above.
13. When observing drugs, drug paraphernalia, any drug instrument associated with the individual, or needle marks on the skin and the patient meets the presentation examples above.

Contraindications for Naloxone Administration

If the patient is breathing normally and adequately do not administer naloxone. Monitor the patient’s condition and wait for the ambulance to arrive. If the patient’s condition deteriorates, administer naloxone if an opioid overdose is suspected.

If the patient is awake and coherent do not administer naloxone. Monitor the patient’s condition and wait for the ambulance to arrive. If the patient’s condition deteriorates, administer naloxone if an opioid overdose is suspected.

If the patient is semi-conscious and responding to verbal stimuli do not administer naloxone. Monitor the patient’s condition and wait for the ambulance to arrive. If the patient’s condition deteriorates, administer naloxone if an opioid overdose is suspected.

If the patient has a known allergy to naloxone (check for medical alert bracelet).

Naloxone does not reverse overdoses that are caused by non-opioid drugs, such as cocaine, benzodiazepines (e.g., Xanax®, Klonopin®, and Valium®), methamphetamines, or alcohol. Naloxone should not be used when evidence shows the overdose is caused by a non-opioid drug.

Mixed Overdose of Opioid and Non-Opioid Drugs

If a “mixed overdose” is suspected, where non-opioid and opioid based drugs are used together, follow the listed procedures for an opioid overdose.

Considerations

Naloxone is a short acting drug and opiates are longer acting drugs. Naloxone will leave body systems faster than the opiate, so respiratory depression may return in a short period of time. Continue to assess respiratory status until advanced life support arrives. Rescue breathing may be indicated if breathing is absent. CPR may be indicated if there is no pulse or breathing.

Naloxone may be administered to a patient of any age. However, pediatric patients require closer monitoring and may need airway management and support as well a rescue breaths or even CPR should they become pulseless.

Administration of Intranasal Naloxone

1. Set up naloxone kit as follows:
   1. Pull or pry yellow caps off of syringe
   2. Pry off red cap on naloxone
   3. Grip clear plastic wings of MAD (an acronym for mucosal atomizer device), and twist syringe onto it
   4. Gently Screw capsule of naloxone into barrel of syringe
2. Prepare patient for administration of naloxone by placing the patient into “recovery position” (either left or right side). This will aid in keeping the airway clear and prevent the patient from choking on vomit or other secretions. Be prepared to suction the airway if necessary.
3. Insert white cone into nostril; give a short vigorous push on end of capsule to spray naloxone into nose: one half into each nostril
4. If no reaction in 2-5 minutes, give a second dose if available
5. Document in writing any changes in the patient’s condition to tell the ambulance crew upon their arrival.
6. Continue to render first aid until the ambulance arrives.

Once the transport ambulance is on the scene, provide any pertinent information to them including:

1. Patient’s condition when found (appearance, responsiveness, breathing status, presence of drugs or drug paraphernalia, etc.)
2. Dose given (generally 2 mg)
3. Number of doses given
4. Who administered the naloxone
5. Time that the naloxone was administered
6. Response to naloxone, including the condition of the patient after administration describing any signs that naloxone may have been effective or ineffective.
7. Any complications that may have occurred
8. Time of arrival of the transport ambulance service

Documentation

Use of naloxone shall be documented by the fire department. After administering Naloxone, the fire department person in charge of the incident must submit a report detailing the nature of the incident, the care the patient received, and the fact that naloxone was administered. The report will be forwarded through the appropriate channels and become part of the fire department’s official records.

**Accountability, Maintenance, and Replacement**

A daily inspection of the nasal naloxone kit shall be the responsibility of the company officer in charge of each apparatus and the primary person who drives any other fire department vehicle. The inspection will include verification that the kit is present, that the kit has not been tampered with or damaged, and that the kit is in-date. The daily inspection will be documented in the appropriate manner.

Lost, missing, or damaged naloxone kit(s) will be reported in writing directly to the officer’s immediate supervisor.

If the daily inspection finds that a naloxone kit is within 90 days of the expiration date, the company officer or responsible person shall contact their supervisor and initiate a request for replacement naloxone kit.

When any condition necessitates that the naloxone kit be taken off an apparatus or vehicle, or be submitted for replacement, this shall be directed to the officer’s immediate supervisor.

**Storage of Naloxone Kits**

The shelf life of naloxone is approximately two years. Naloxone must be kept out of direct light and at room temperature (between 59 and 86 degrees Fahrenheit). Naloxone should not be left in a car for extended periods of time and must not be subjected to extreme heat or cold. Naloxone should not be frozen.

**Expired Naloxone Kits**

If permitted by the medical director, expired naloxone kits may be used for training purposes, otherwise, expired kits should be disposed of properly. Proper disposal options include placing the expired kit in the trash, or taking the expired kit to a safe medication disposal site, such as a participating police department, or pharmacy such as Walgreens, that offers a safe medication disposal repository. The disposal method used shall be documented.