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APTA Security and Emergency
Management Working Group

Recognizing Fentanyl Use, and Considerations for Equipping Employees with Naloxone (Narcan)

Abstract: This recommended practice provides information and recommendations to help transit agencies develop materials and policies to help mitigate the use and impact of fentanyl in public transportation.

Keywords: drug use, fentanyl, naloxone, Narcan

Summary: This recommended practice provides information and recommendations to help transit agencies respond to the growing challenge and public danger of fentanyl use in mass transit. This document provides peer-validated information to help transit agency personnel recognize the use of fentanyl and symptoms associated with opioid overdoses. This document also describes considerations related to equipping transit employees and contractors with Narcan. Transit agencies should consult local public health experts, first responders, legal advisers and other transit partners to develop tailored policies and procedures to best address each jurisdiction's needs.



Foreword

The American Public Transportation Association is a standards development organization in North America. The process of developing standards is managed by the APTA Standards Program's Standards Development Oversight Council (SDOC). These activities are carried out through several standards policy and planning committees that have been established to address specific transportation modes, safety and security requirements, interoperability, and other topics.

APTA used a consensus-based process to develop this document, which is detailed in the [manual for the APTA Standards Program](#). This document was drafted in accordance with the approval criteria and editorial policy as described. Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

This document was prepared by the APTA Security and Emergency Management Working Group (SEMWG) as directed by the APTA Security Standards Policy and Planning (SSPP) Committee.

This document represents a common viewpoint of those parties concerned with its provisions, namely transit operating/planning agencies, manufacturers, consultants, engineers, and general interest groups. The application of any recommended practices or guidelines contained herein is voluntary. APTA standards are mandatory to the extent incorporated by an applicable statute or regulation. In some cases, federal and/or state regulations govern portions of a transit system's operations. In cases where there is a conflict or contradiction between an applicable law or regulation and this document, consult with a legal adviser to determine which document takes precedence.

This is a new document.



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Introduction

This introduction is not part of APTA SS-SEM-RP-018-24, “Recognizing Fentanyl Use, and Considerations for Equipping Employees with Naloxone (Narcan).”

APTA recommends the use of this document by:

- individuals or organizations that operate public transit systems;
- individuals or organizations that contract with others for the operation of public transit systems; and
- individuals or organizations that influence how public transit systems are operated (including but not limited to consultants, designers and contractors).

Scope and purpose

The primary goal of this document is to provide clear and straightforward information and recommendations about occupational exposure, recognizing fentanyl use, and considerations for issuing naloxone (i.e., Narcan) to employees.

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1. Introduction: fentanyl

Fentanyl is a powerful synthetic opioid 50 to 100 times more potent than morphine. As little as 2 milligrams, about the size of five grains of salt, can cause negative health effects, including trouble breathing, dizziness, and possible overdose and death.

There are 42 known illicitly manufactured fentanyl analogs on the market. Fentanyl has been detected in counterfeit pills, powder, blotter paper, heroin, cocaine, crack cocaine, and crystal methamphetamine. Fentanyl can be swallowed, snorted, injected or absorbed in the mouth with a blotter paper. While some users may seek fentanyl products, some users and sellers may not be aware that their substances contain fentanyl.

Drug use and overdose deaths in the U.S. reached record levels during the COVID-19 pandemic. By 2021, approximately two-thirds of all overdose deaths involved fentanyl. Transit agencies are also experiencing the impact of illicit fentanyl across the public transit system.

1.1 Trends and public transit challenges

Rates of overdose deaths involving synthetic opioids other than methadone increased over 56% from 2019 to 2020. The number of overdose deaths involving synthetic opioids in 2020 was more than 18 times the number in 2013. More than 56,000 people died from overdoses involving synthetic opioids in 2020. Fentanyl was the most common drug involved in fatal overdoses across age groups, race and ethnicity groups, and genders in 2021.

Transit authorities have been impacted by the increase in fentanyl use, including increases in fentanyl use and overdoses occurring in transit vehicles and stations; increases in code of conduct violations, loitering and crime; decreases in ridership; closures to address safety/maintenance concerns; operating delays to clear smoke from vehicles; and possible operator exposure to fentanyl fumes. Some agencies have invested in additional personnel, such as in-house transit officers, social workers and ambassadors, to address these issues.

1.2 Fentanyl occupational exposure

Because of fentanyl's strength and increasing prevalence, there is growing concern about fentanyl occupational exposure for transit operators, staff and contractors, and others (e.g., first responders) who might be potentially exposed. The University of Washington Department of Environmental and Occupational Health Sciences is working with select transit agencies to conduct research that examines how drug smoke circulates within transit vehicles and toward transit drivers.

First responders and transit employees have expressed concerns about experiencing fentanyl effects and overdoses via occupational exposure, such as by smelling smoke. However, symptoms such as feeling nervous, restless or tense; having a sense of impending danger, panic or doom; having an increased heart rate; breathing rapidly (hyperventilation); sweating; or trembling are commonly associated with anxiety and may

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not be caused by fentanyl exposure. In other words, individuals may experience symptoms of anxiety simply because they smell a substance or smoke, even if they have not been exposed to fentanyl.

Simply smelling or being around fentanyl is not a route to be considered exposed, as fentanyl does not linger in secondhand smoke. Similarly, powdered fentanyl does not easily become airborne particles, and in the event that there are airborne particles, they are very small and would require hours of presence without respiratory protection to accumulate a detectable amount in the body.

Fentanyl is absorbed most efficiently through mucous membranes such as the eyes, nose and mouth. It must enter the bloodstream to cause effects. Fentanyl is not highly water soluble and does not pass through the skin easily. While all exposure should be minimized via proper precautions, it is effectively impossible to overdose from touching fentanyl.

2. Recognizing fentanyl use

Fentanyl offers certain signs and symptoms to indicate an individual's use and overdose.

2.1 Recognizing active fentanyl use

Fentanyl has no odor or taste and can be undetectable without chemical testing. Fentanyl can be snorted/sniffed; smoked; injected; ingested through pills, tablets or candies; and absorbed through patches, nasal sprays or eye drops. When smoked, fentanyl emits a light aroma of sugar and may be accompanied by the smell of burnt aluminum foil, which is the typical smoking medium for fentanyl. The smell can be detectable for up to an hour.

Like heroin, morphine and other opioid drugs, fentanyl binds to the body's opioid receptors in the areas of the brain that control pain and emotions. Signs and symptoms of fentanyl use include extreme happiness, euphoria, sedation, drowsiness, nausea, vomiting, confusion, constipation, breathing problems and unconsciousness.

2.2 Recognizing symptoms of overdose

Overdose is an acute, potentially fatal, condition due to excessive opioids in the body. The presence of multiple symptoms such as coma, pinpoint pupils and respiratory depression are strong indications of opioid poisoning. Signs and symptoms of opioid overdose include the following:

- small, constricted pinpoint pupils
- falling asleep or losing consciousness
- slow, weak or no breathing
- choking or gurgling sounds
- limp body
- cold and/or clammy skin
- discolored skin (especially in lips and nails)

3. Reversing overdoses: naloxone

Naloxone, often referred to by the brand name Narcan, is a lifesaving medication that blocks the effects of opioids, including fentanyl. Naloxone can restore normal breathing within two to three minutes in a person whose breathing has slowed, or even stopped, because of an opioid overdose.

Naloxone is approved by the U.S. Food and Drug Administration and is available as a nasal spray or injectable. In March 2023, the FDA approved Narcan nasal spray for over-the-counter, nonprescription use. Other formulations and dosages of naloxone remain available by prescription.

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Naloxone should be administered to a person with signs of fentanyl overdose, such as a person whose breathing has slowed or stopped, or a person losing consciousness. Naloxone is a temporary treatment. Due to the potency of fentanyl, a person may need multiple doses of naloxone until their breathing has returned to normal.

It may be difficult to tell whether a person is high or experiencing an overdose. If unsure, the situation should be treated like an overdose. Respondents should call 911 or request medical assistance before administering naloxone. The use of naloxone spray in individuals who are opioid dependent may result in opioid withdrawal symptoms such as body aches, diarrhea, increased heart rate, fever, runny nose, sneezing, yawning, nervousness, restlessness, irritability, nausea, vomiting, shivering or abdominal cramps.

Naloxone is safe and can be administered to people of all ages. Naloxone will not cause harm if administered to someone who is not overdosing on an opioid.

4. Considerations for equipping staff with naloxone

Transit agencies are increasingly considering equipping staff with naloxone to aid individuals experiencing fentanyl overdoses. Prior to deploying naloxone to employees, transit agencies should work with stakeholders to develop a program that ensures thorough, safe and effective planning, execution and monitoring. A naloxone program should address establishing and maintaining a program; training personnel; purchasing, storing and maintaining a naloxone supply; administering naloxone to overdosing individuals; and reporting.

4.1 Establishing and managing a program

Prior to equipping employees, partners and/or contractors with naloxone, transit agencies should develop a program that addresses the full programmatic life cycle, including initial and ongoing costs. Features associated with building a naloxone program include identifying stakeholders, identifying designated personnel, developing policies and procedures, and evaluating and updating the program.

4.1.1 Identifying stakeholders

Transit agencies should assign a naloxone project manager or coordinator to supervise and manage the naloxone program. Program staff should identify key stakeholders to assist with program planning, execution and assessment. Stakeholders may include transit agency staff from all relevant departments (e.g., safety, security, legal); contractor and/or union representatives; and external partners, such as first responder, mental health, and public health or medical officials. Public safety and health partners may be able to provide transit agencies expertise, resources and training to help develop the transit agency's program. Transit agencies should leverage medical and scientific expertise whenever possible.

4.1.2 Identifying designated personnel

During the initial phases of developing a naloxone program, transit agencies should identify personnel designated to carry and administer naloxone to individuals experiencing overdoses. To assist with identifying designated personnel, transit agencies should consider formal and informal staff responsibilities and position descriptions, safety and security circumstances, employee interest or disinterest in carrying naloxone, liabilities, authorities, and other considerations. In some cases, personnel occupying certain positions can be directed to carry naloxone; in other cases, transit agencies may need to make requests on a volunteer basis.

Transit agencies are currently exploring providing naloxone to the following types of agency or contracted positions:

- law enforcement personnel
- security personnel

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- safety personnel
- managers
- operators and frontline staff

4.1.3 Developing policies and procedures

Before deploying naloxone to personnel, transit agencies should develop policies and procedures that address core components of their program. Related policies and procedures may include the following:

- Program purpose, scope and policy
- Administrative and program management requirements, to include program roles and responsibilities, identification of positions that will carry naloxone, relevant authorities and references and risk management
- Training requirements (see Section 4.2 for additional details)
- Safety requirements and procedures, to include naloxone inspection and storage considerations
- Staff (e.g., operators) instructions when responding to potential fentanyl use and/or exposure (e.g., reporting, opening windows)
- Naloxone administration procedures, to include step-by-step instructions for responding to individuals who are experiencing a suspected fentanyl overdose and administering naloxone
- Reporting procedures, to include processes for reporting naloxone administration, missing or damaged naloxone kits, and related incidents
- Monitoring and assessment procedures, to include efforts to evaluate and report data, trends and observations to improve the program

4.1.4 Evaluating and updating the program

Transit agencies should require reporting involving naloxone administration and incidents to facilitate program evaluation and updates. Transit agencies should collect and assess relevant programmatic data, information and observations to identify trends and changes to sustain and improve the naloxone program. Transit agencies should also regularly seek feedback and best practices from designated employees, relevant local partners and industry peers.

4.2 Training personnel

In order to effectively manage a naloxone program and safely administer naloxone, transit agencies should deliver training to designated personnel prior to deploying naloxone. Transit agencies should engage federal, state and local public safety and health partners and other external partners and contractors to both explore existing training resources that may be leveraged and to validate new transit agency–developed training. Specific state and local training recommendations and requirements may vary across jurisdictions. Transit agencies should maintain records related to training designated personnel.

Initial and/or refresher training associated with naloxone programs may include the following topics:

- laws, regulations and requirements that govern naloxone administration
- information on drug abuse and addiction
- symptoms of opioid overdoses
- requirements for receiving, inspecting and storing naloxone
- scene safety and universal precautions to prevent and respond to fentanyl exposure
- step-by-step procedures for seeking medical care, including typical response times
- step-by-step procedures for administering naloxone
- CPR, AED and rescue breathing
- post-naloxone care

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- reporting requirements

4.3 Purchasing, storing and maintaining a naloxone supply

A transit agency naloxone program should address steps to purchase, store and maintain a naloxone supply, as naloxone requires special attention to obtain, store and dispose of. Furthermore, to maintain full efficacy, naloxone requires inspection and storage considerations that should govern the overall and individual management of naloxone supplies. For example, naloxone should not be exposed to extreme heat or cold for extended periods of time and therefore should not be stored in vehicles.

Transit agency programs and processes should address the following considerations related to purchasing, storing and maintaining naloxone supplies:

- Ordering, dispensing and resupplying naloxone (and related equipment such as gloves and face masks)
- Maintaining inventory control, to include both the overall supply, as well as individual containers deployed to personnel
- Conducting regular inspections for expired or damaged containers, to include both the overall supply, as well as individual containers deployed to personnel
- Disposing of used, expired and damaged containers

4.4 Administering naloxone

Transit agencies should develop and share step-by-step instructions for responding to individuals experiencing overdoses and administering naloxone, confirming these procedures with first responder and public health officials.

Procedures for administering naloxone may include confirming overdose symptoms, preparing naloxone, administering single or multiple doses of naloxone, checking breathing and providing CPR (if trained), reporting naloxone administration to responding medical personnel, and disposing of naloxone properly. The program should also include post-incident procedures for reporting the administration of naloxone and restoring an individual's naloxone kit.

Additionally, processes for administering naloxone should incorporate measures to prevent responders' accidental exposure to fentanyl and other drugs. Transit agencies should review and incorporate the National Institute for Occupational Safety and Health recommendations described in "Fentanyl: Emergency Responders at Risk" (see References).

While naloxone has been approved for use by all populations, including children and the elderly, transit agencies may want to identify additional response requirements associated with incidents involving juveniles.

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Document history

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