NALOXONE ADMINISTRATION

Report to the Legislative Oversight Commission on Health and Human Resources Accountability

2016

WEST VIRGINIA Department of Health & Human Resources
BUREAU FOR PUBLIC HEALTH

Office of Emergency Medical Services
350 Capitol Street, Room 425
Charleston, West Virginia 25301

Melissa Raynes, Director

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INTRODUCTION

On March 9, 2015, Governor Earl Ray Tomblin signed the Opioid Antagonist Act (Senate Bill 335) into law. The bill allows initial responders, medical personnel and family and friends of persons who are likely to suffer the effects of an opioid overdose to possess and administer Naloxone (also known under the trade name of Narcan) to counteract the effects of opioid overdose. The Office of Emergency Medical Services (OEMS) was tasked with the production of training materials for administering the drug and providing training sessions, in addition to collecting and reporting specifically required data related to the use of Naloxone to the Legislative Oversight Commission on Health and Human Resources Accountability (LOCHHRA) and the West Virginia Department of Health and Human Resources, Bureau for Behavioral Health and Health Facilities (BBHHF).

The OEMS provides this report for Naloxone Training and Administration that presents findings from retrospective reports, Emergency Medical Services (EMS) agency ambulance run sheets and training records maintained by authorized training institutes and/or centers.

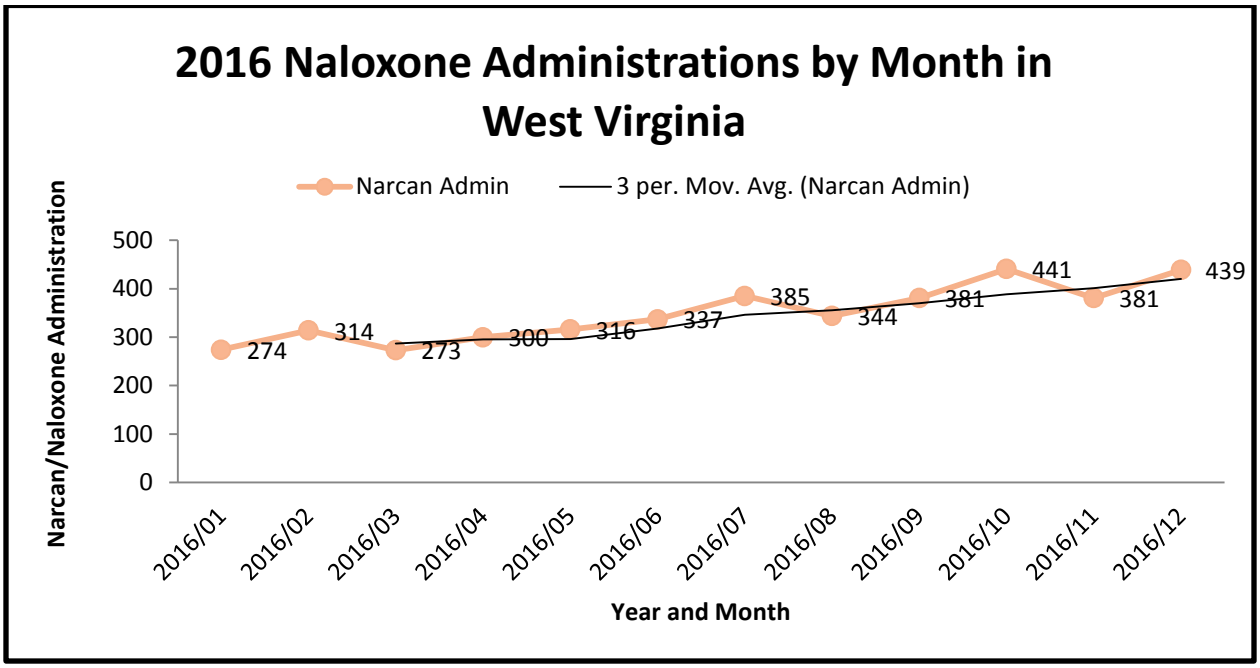
West Virginia has one of the highest rates for overdose deaths in the nation. Consequently, the administration of Naloxone has increased significantly each year since 2012.

These findings may be useful in establishing policies to ensure the safety of all West Virginia citizens and the communities in which they live.

EXECUTIVE SUMMARY

The problem of drug overdose deaths is affecting the entire country. Unfortunately, West Virginia is leading the nation in drug overdose deaths. Initial responders are typically the first on the scene to treat patients suffering from drug overdoses. West Virginia EMS providers administered Naloxone more than 4,000 times in 2016. As indicated in Figure 1, the number of Naloxone administrations has steadily increased. In response to Senate Bill 335, OEMS started providing Naloxone treatment and training programs in 2015. More than 2,300 individuals have been trained by various approved training centers. (See Appendix A and C)

Figure 1: 2016 Naloxone Administrations by Month in West Virginia



Source: Data information is compiled from detailed EMS run data analysis.

OVERVIEW

West Virginia currently leads the nation in opioid overdose deaths. In 2014, West Virginia experienced the highest rate of death in the country at 35.5 deaths per 100,000.[1] This number increased in 2015 to 41.5 deaths per 100,000.[2] In West Virginia, about 46,000 individuals aged 12 or older (2.9% of all individuals in this age group) were dependent on or abused illicit drugs within the year prior to being surveyed. This percentage did not significantly change from 2010-2011 to 2013-2014.[3]

Overdose deaths can be prevented and lives can be saved by timely administration of Naloxone, which is classified as an opioid antagonist. Naloxone displaces the opiate at the receptors, effectively reversing the fatal opiate effects within a few minutes.[4] Naloxone is not a controlled substance and does not have potential for abuse or overdose nor does it cause harm in the absence of opioids or other opioid antagonists. As of November 2015, the National Conference of State Legislators (NCSL) reported that all but six of the 50 states had passed legislation providing broad access to opioid antagonist medication.

In 2001, there were 212 drug-related overdose deaths in West Virginia.[5] In 2011, there were 656 drug-related overdose deaths, three times as many than in 2001.[6] The vast majority of drug overdose deaths were ruled as accidental deaths – as opposed to suicides, homicides and those deaths in which the manner could not be determined. According to the West Virginia Department of Health and Human Resources, Bureau for Public Health, Health Statistics Center, drug overdose deaths are due to polypharmacy – the ingestion of multiple drugs. In 2011, West Virginia had the highest age-adjusted death rate in the nation, twice the national rate and over a third higher than the next highest state, Kentucky.[7] The average age at death, for both men and women, was in the 41 to 42 year old range.[8]

In response to the increasing number of deaths from opioid overdose, the West Virginia Legislature enacted Senate Bill 335 in 2015 creating the Access to Opioid Antagonist Act. The purpose of the Act is to prevent deaths in circumstances involving individuals who have overdosed on opiates. The Legislature found that permitting healthcare providers to prescribe opioid antagonists to individuals at-risk for an overdose to relatives, friends, or caregivers may prevent accidental deaths. In 2016, the Legislature expanded access to Naloxone through passage of Senate Bill 431. Senate Bill 431 permits a pharmacist or pharmacy intern to dispense the opioid antagonist without a prescription; however, it requires patient counseling and educational materials to be provided.

The administration of Naloxone is not new to the OEMS. Naloxone administration has been a part of the statewide protocols, which give guidance and direction to EMS providers in the field, for a number of years.

The OEMS collects data regarding each administration of an opioid antagonist by an initial responder. Senate Bill 335 requires OEMS to report the following information to the LOCHHRA and BBHHF:

- Number of training programs;
- Number of individuals who have been trained; and
- Number of individuals who were revived or not revived and cause of death for the latter.

Naloxone administration training is an important component of ensuring that a person who is experiencing an opioid overdose receives not only the administration of the opioid antagonist, but also emergency medical care from trained professionals. The training presented assists an individual in understanding the correct method for administration, the importance of calling 911 if the administration is by someone other than a responding emergency medical technician or paramedic, and the anticipated physical response of the victim as they are revived from the effects of the opioid. An example of training materials may be found in Appendix B.

Following passage of Senate Bill 335 in March 2015, OEMS developed the training materials and began conducting trainings in May 2015. OEMS also began reviewing and approving training materials and certifying training centers shortly thereafter. Since that time, 59 training centers have applied and been approved to conduct trainings. Although training centers are not located in every county, they are located geographically throughout the state to allow anyone an opportunity to participate. The OEMS can help facilitate the scheduling of classes anywhere within the state. The geographical locations of the training centers as well as the categories of training centers can be found in Appendix A and C.

OEMS conducted training for many partners including the West Virginia State Police. The 59 centers have trained 107 individuals in a variety of organizations and agencies such as county day report centers, law enforcement officials, fire departments and others. The centers have also trained 155 citizens in less than one year since training was implemented.

OEMS maintains information regarding the administration of Naloxone. The number of individuals in West Virginia who received an opioid antagonist administered by an initial responder in 2015 was 3,330. Figure 2 illustrates the level or specific type of EMS provider that administered Naloxone.

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1 CDC. Increases in Drug and Opioid Overdose Deaths — United States, 2000–2014; January 1, 2016 / 64(50);1378-82.

2 CDC. Increases in Drug and Opioid Overdose Deaths — United States, 2010–2015

3 Substance Abuse and Mental Health Services Administration. *Behavioral Health Barometer: West Virginia, 2015*. HHS Publication No. SMA–16–Baro–2015–WV. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2015.

4 Kim D, Irwin KS, Khoshnood K. Expanded Access to Naloxone: Options for Critical Response to the Epidemic of Opioid Overdose Mortality. *American Journal of Public Health*. 2009;99(3):402-407. doi:10.2105/AJPH.2008.136937.

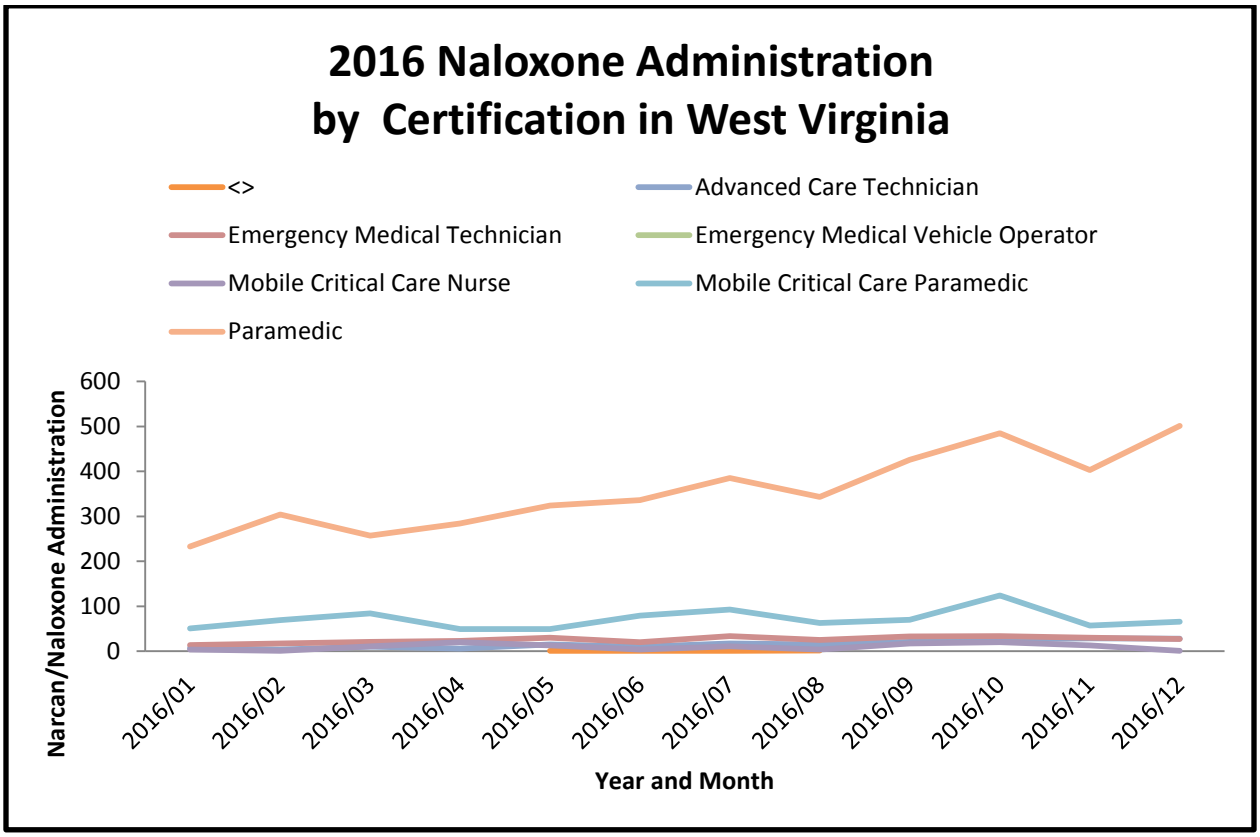
5 Tonya A. Yablonsky, Epidemiologist, Health Statistics Center; Gary L. Thompson, State Registrar, Health Statistics Center; Overdose Deaths in West Virginia – West Virginia Bureau for Public Health News; WV Medical Journal-March/April 2016

6 Tonya A. Yablonsky, Epidemiologist, Health Statistics Center; Gary L. Thompson, State Registrar, Health Statistics Center; Overdose Deaths in West Virginia – West Virginia Bureau for Public Health News; WV Medical Journal-March/April 2016

7 (MLA 7th Edition) Thompson, Gary L., and Tonya Yablonsky. "Overdose Deaths in West Virginia". *West Virginia Medical Journal* 110.6 (2014): 40. Academic OneFile. Web. 25 Aug. 2016.

8 Tonya A. Yablonsky, Epidemiologist, Health Statistics Center; Gary L. Thompson, State Registrar, Health Statistics Center; Overdose Deaths in West Virginia – West Virginia Bureau for Public Health News; WV Medical Journal-March/April 2016

Figure 2: 2016 Naloxone Administrations by Certification in West Virginia



Source: Data information is compiled from detailed EMS run data analysis.

Throughout the state, most counties are maintaining or exceeding the number of administrations of Naloxone from previous years. In some of the more highly populated areas of the state, there are significant increases (i.e., Kanawha County, Cabell County, Harrison County, Wood County and Raleigh County). (See Appendix E)

LIMITATIONS

Currently, OEMS is unable to provide information related to patient outcome following administration of Naloxone, including whether the patient was revived or not revived, and the cause of death. The OEMS information is limited to whether the patient was better or worse upon arriving at the hospital as indicated in Figure 3.

The information contained within this report is a snapshot in time and has limitations as to what information is provided. Due to the Health Insurance Portability and Accountability Act (HIPAA) regulations, the OEMS does not have access to hospital ecords that would indicate the final disposition of these patients. Therefore, OEMS cannot report on which patients expired or survived.

There is a gap in the data as to what is being administered in the field. Police and other first responders have been requested to report administrations of Naloxone to the West

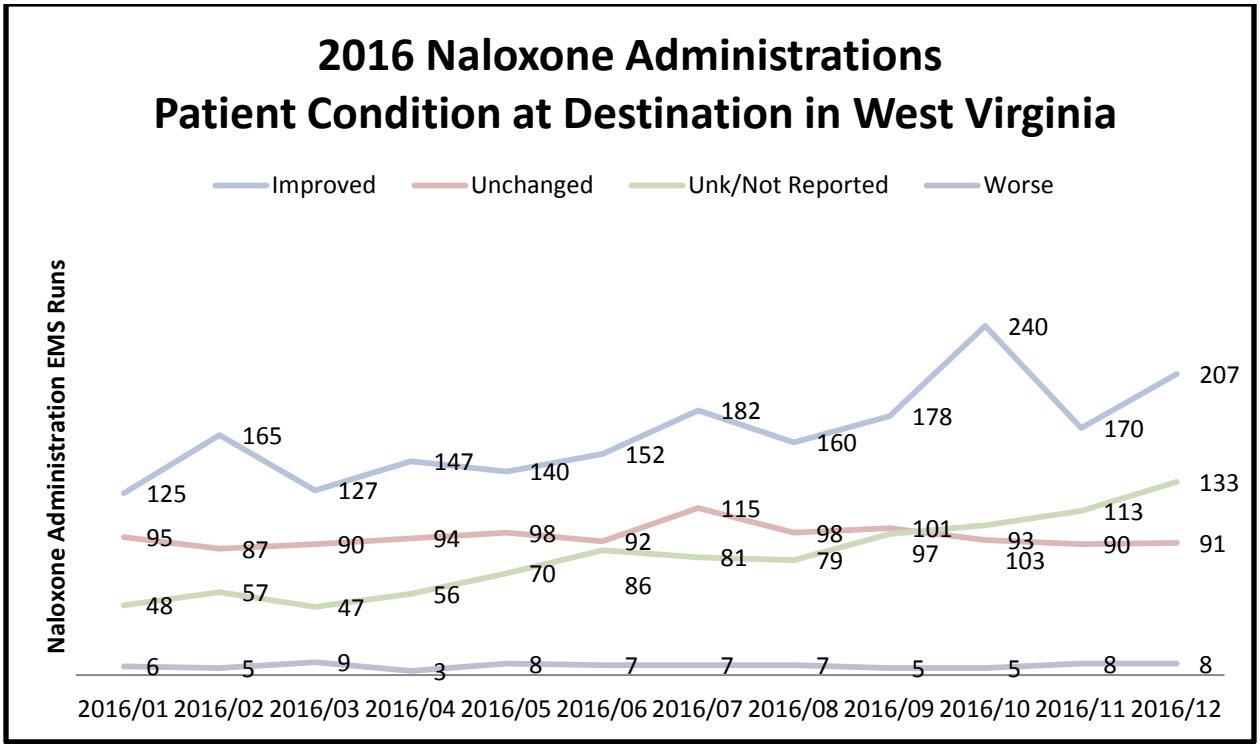
Virginia Poison Center. However, this is not a mandatory requirement and cannot be enforced.

Not all Naloxone training programs are approved/certified by OEMS. There are a number of programs that provide information to the public on a regular basis. This information is not reported to OEMS as there is no regulation/law compelling entities to share this information with OEMS. As new legislation is enacted, it is possible that compulsory reporting mechanisms and data may change. The West Virginia Poison Center and the Board of Pharmacy currently collect data from partners on the administration and distribution of Naloxone. (This may cause an unexpected double reporting of data at the state level.)

CONCLUSION

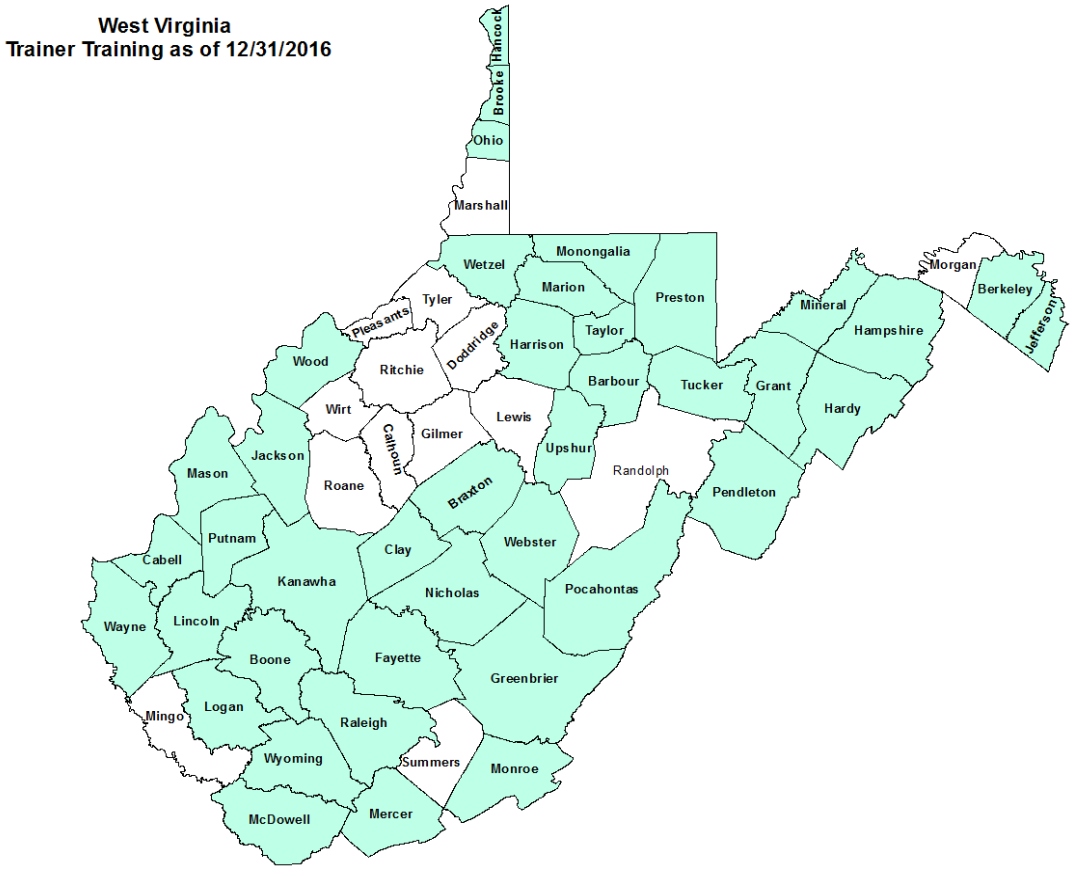
The findings contained in this report will be useful in establishing policies to ensure the safety of all West Virginia citizens and the communities in which they live by expanding attention to these issues and increasing awareness of the problems and efforts to lessen opioid overdoses and deaths.

Figure 3: 2016 Naloxone Administrations Patient Condition at Destination in West Virginia



Source: Data information is compiled from detailed EMS run data analysis.

APPENDIX A
West Virginia Training Centers



West Virginia Counties with Naloxone Trainer Training Locations

APPENDIX B
Naloxone Training

Opioid Antagonist Act

Intranasal Naloxone Administration Training Module for Initial Responders

Public Service Training Session
Public Training Session
Provided By:
West Virginia Office of EMS Endorsed Educational Institutions
EMS Agency Personnel

Objectives

By the end of this course, the participants will learn about intranasal (auto-injector where applicable) Naloxone and be able to:

- Recognize the signs and symptoms of a narcotic overdose
- Understand how to use intranasal Naloxone
- Identify the possible responses to intranasal Naloxone
- Prepare and administer intranasal Naloxone
- Describe how continued support should be provided to the overdose victim

What does Naloxone do?

When is Intranasal Naloxone Used?

- With the unconscious patient suspected of overdose.
- Bystanders should have contacted EMS (dialed 911) or sent for help.
- Bystanders may have provided respiratory support (rescue breathing) to the limit of their skill, but reversal of the cause of failed breathing is the real treatment.
- Use of intranasal Naloxone is indicated when the person is not responsive (shouting, sternal rub, etc.).

When is Intranasal Naloxone Used?

- Intranasal Naloxone temporarily blocks opiate effects and can reduce the duration of low oxygen in the blood preventing injury or death.
- Prolonged reduced breathing can result in injury to the brain.
- Lung injury can occur because stomach contents get into the lungs. This causes lung damage and can contribute to death.
- Reversing the overdose quickly saves lives!

Opiates and Opioids

Chemicals that act in the brain to:

- Decrease feeling of pain.
- Decrease reaction to the pain.
- Provide comfort.

- May be used to reduce pain from injury, or after having procedures done (surgery), or as part of long-term care for cancer or other painful diseases that cause constant pain and are expected to not go away.
- Both opiate and opioids are often misused, resulting in danger.

Opiates vs. Opioids

- **Opiates** are concentrated from the poppy plant and are not made, but purified, from the plant fluids like maple sugar.
- **Opioids** are manufactured and do not come from the plants.
- Opiates and Opioids act the same in the brain.
- Examples of opiates are Morphine, Codeine and Heroin.

Opiates & Opioids

- **After prolonged use of these substances, increasing amounts are needed for the same effects.**
- **Common side effects include:**
  - Nausea and vomiting
  - Drowsiness
  - Itching
  - Dry mouth
  - Small pupils
  - Constipation or difficulty having bowel movements

Opiates & Opioids May Include:

- **Heroin**
- **Buprenorphine (Suboxone)**
- **Butorphanol (Stadol)**
- **Codeine**
- **Fentanyl (Duragesic patch)**
- **Hydrocodone (Vicoden)**
- **Hydromorphone (Dilaudid)**
- **Meperidine (Demerol)**
- **Morphine**
- **Nalbuphine (Nubain)**
- **Oxycodone (Percocet/Percodan)**
- **Oxymorphone**
- **Pentazocine (Talwin)**
- **Paregoric**
- **Propoxyphene (Darvon)**

Heroin

Heroin is an opiate which may be injected, snorted (inhaled), or smoked. It has many street names.

Naloxone is Only Used for Opiate Overdose

Remember, the following common street drugs are not Opioids/Opiates and therefore not addressed by this portion of the protocol: cocaine, LSD, ecstasy (Molly) sedatives/tranquilizers and marijuana.

Who is at High Risk for Overdose?

- Individuals seeking care from multiple doctors and are not following instructions about prescription use.
- Users of prescriptions that belong to others.
- Users who inject drugs for greater effects.
- Former users who are recently released from prison or entering/exiting from drug treatment programs.

Who Else is at Risk?

- Elderly patients who take opiates or opioids for pain.
- Patients using pain-relieving patches incorrectly.
- Children who accidentally ingest painkillers found in their homes or the homes of others.

Naloxone Auto-Injector

Evzio (naloxone hydrochloride injection) rapidly delivers a single dose of the drug naloxone via a hand-held auto-injector that can be carried in a pocket, glove box or stored in a medicine cabinet.

The auto-injector is designed to be a simple and easy-to-deploy alternative to intranasal Naloxone. There are several things to remember when selecting this option.

Naloxone Auto-Injector Continued

- The approved device has step by step audible directions.
- Auto-injection requires a line of site for injection (should not be deployed through clothing).
- Auto-injection does deploy a spring loaded needle to deliver the medication.
- Universal precautions should always be used as blood and body fluid exposure is likely.
- Auto-injection delivers a metered dose of Naloxone and cannot be adjusted for younger victims.
- There is a training device available for this product.

Narcan Brand Intranasal Spray

Narcan is a brand name of Naloxone and is produced by Adapt Pharma Inc. The Naloxone comes in a convenient spray device designed to deliver a 4mg solution into a single nostril.

This product can not be adjusted for use in infants or children.

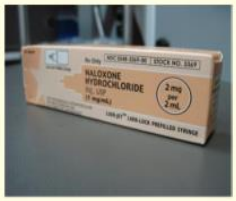
Narcan Brand Intranasal Spray Continued

The 4mg solution is a high concentration of Naloxone that is delivered with a single plunge into one nostril.

Too administer the product you simply peel back the label, hold the device with your thumb on the bottom and your index and middle finger on the top, press the plunger firmly and remove the device.

Intranasal Naloxone

- Naloxone (Narcan) is an antidote that can temporarily reverse the overdose effect of opiates and opioids.
- Naloxone is **NOT** effective against respiratory depression due to non-opioid drugs (or other causes).

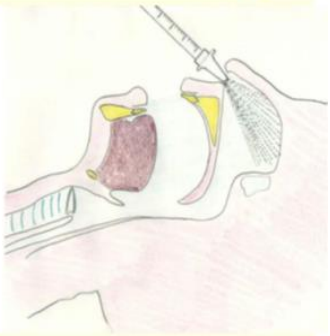


Why Intranasal Naloxone?

- Very low-risk of exposure to blood (no needle).
- Can be administered quickly and with little training.
- Onset of action is quick.
- Very effective when used.

Why Intranasal Naloxone?

Works quickly since the nose has a large area for absorbing drugs directly into the blood stream.



Why is it used with an Atomizer?

Squirting the liquid drug creates a fine mist covering more surface of the nasal cavity tissue increasing entry into the blood stream. Examples of similar effects are spray paint and hairspray. The mist covers more surface area.

What Does Opiate/Opioid Overdose Look Like?

The person is:

- Not responsive when shaken.
- Possibly not breathing well, or not breathing at all.
- Possibly breathing less than 6 breaths per minute.
- Possibly having a bluish color to the skin, nails or lips.
- Small pupils.

When to Use Intranasal Naloxone

- If a person is not responding to you.
- If bystanders report suspected drug use and the person is not responding to you.
- If there are drug bottles, or signs of injection of drugs on the skin ("track marks") and the person is not responding to you.

- **Call 911 to activate Emergency Services.**
- **Even if illegal activity was going on, the call provides some protection from criminal charges.**

Law Enforcement Requirement

Law Enforcement and Fire Departments have a different reporting requirement!

Law Enforcement and Fire Departments must report all administrations of Naloxone to the West Virginia Poison Control Center at:

1-800-222-1222

The Law Protects Whoever Calls for Emergency Help

But, only if they call for help. *GET HELP, DIAL 911*

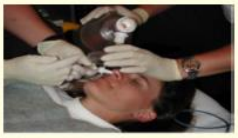
Any person who administers an opioid antagonist in good faith to someone they believe to be suffering from an opioid-related overdose is not subject to criminal prosecution arising from the possession of an opioid antagonist or subject to any civil liability with respect to the administration of or failure to administer the opioid antagonist unless the act or failure to act was the result of gross negligence or willful misconduct.

The Law Protects Whoever Calls for Emergency Help

Any person who administers an opioid antagonist to a person they believe to be suffering from an opioid-related overdose is required to seek additional medical treatment at a medical facility for that person immediately following the administration of the opioid antagonist to avoid further complications as a result of the suspected opioid related overdose.

Adult Nasal Atomizer Use

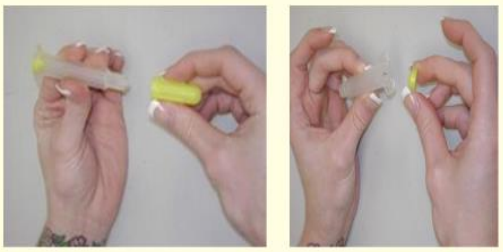
- Administer Naloxone 2.0mg Nasal via atomizer (half in each side of the nose).
- If you know how, you may continue supporting the breathing of the person (rescue breathing).
- Consider calling poison control if other poisons are suspected: (800) 222-1222.



Nasal Atomizer Use

Preparation: Step 1

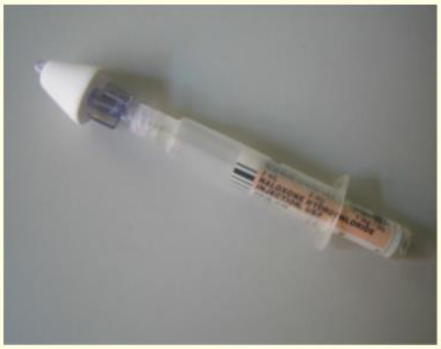
Preparation: Step 2



Preparation: Step 3


Preparation: Step 4


Luer Jet with Attached Atomizer

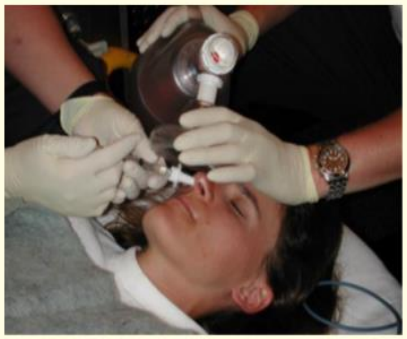


Lets watch a quick video

Administration

- Perform rescue breathing if you know how.
- Look to see if the nose cavity is free from blood or mucous (mucous in the nose is normal and small amounts of blood may be present). You will still administer the Naloxone.
- Assemble the kit.
- Gently, but firmly, place the atomizer in one side of the nose and spray half the medication.
- Repeat on the other side.
- If only one side of the nose is available, put all of the medication in that side.

Administration



Adverse Reactions

- **When used, intranasal Naloxone can cause:**
  - Runny nose
  - Sweating
  - Fast heart rate
  - Shakes
  - High blood pressure
  - Low blood pressure

- **Fear of causing withdrawal should not prevent use when the person is unresponsive.**

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Children Can Also Overdose

- **When an opioid overdose is suspected in a child, use less of the liquid and repeat if needed.**
  - Very small child: Use one-quarter in each side of the nose and consider using the other half in 5 minutes if the ambulance has not arrived and the child is still unresponsive.

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Children

- Remember, just as in adults, children (smaller noses) may have some of the drug run out of their nose and down the back of their throat. This will not do any harm.

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Course Summary

- **What we have learned:**
  - Why intranasal Naloxone is available as an option for bystanders who witness an overdose.
  - What an opioid overdose looks like.
  - The reasons that justify the use of intranasal Naloxone.
  - Legal protections if you dial 911.
  - How to prepare an intranasal Atomizer.
  - How and when to use the intranasal Atomizer.

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Contact

For more information
Visit – www.wvoems.org
Or contact:
Office of Emergency Medical Services
350 Capitol Street, Room 425
Charleston, West Virginia 25301
Phone: (304) 558-3956
Fax: (304) 356-8379

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OEMS | OFFICE OF EMERGENCY MEDICAL SERVICES

Bureau for Public Health
West Virginia Department of Health and Human Resources

APPENDIX C

Naloxone Trainers (TT = Authorized to Train the Trainer; T = Trainer)

Agency/Institution	Trainer	WV Number	County*	Status TT / T
Air Evac	Willard J Spence	WV040277	Logan	TT
Barbour County Emergency Squad	Rodney Lee Kimble	WV028537	Barbour	TT
Barbour County Emergency Squad	Brian E Murphy	WV034087	Barbour	TT
Bartow-Frank-Durbin Volunteer Fire County	Michael O'Brien	WV042786	Pocahontas	TT
Beckley Fire Dept.	Bryan Wayne Trump	WV025919	Raleigh	TT
Best Transports Ambulance Service	Teresa Dee Dickens	WV033017	Raleigh	TT
Blue Ridge CTC	Donald L Weigel	WV070022	Berkeley	TT
Boone County Ambulance Authority	Bryan S Justice	WV027529	Boone	TT
Boone County Ambulance Authority	Charles E Tucker, Jr	WV063978	Boone	TT
Bridge Valley Community & Technical	John Allen Blount	WV028176	Kanawha	TT
Cabell County Emergency Medical Services	Marsha Kay Knight	WV026391	Cabell	TT
Charleston Fire Dept.	Alisha Dawn Samples	WV026751	Clay	TT
Charleston Fire Dept.	David A Hodges	WV038799	Boone	TT
Health Net Aeromedical Services	Mark S Brooks	WV036968	Wyoming	TT
Health Net Aeromedical Services	Veronica A Neale	WV037112	Cabell	TT
Jackson County Emergency Medical Service	Brent A. Ritchie	WV072438	Jackson	TT
Jefferson County Emergency Services Agency	Elizabeth A Jeffries	WV011900	Hampshire	TT
Jefferson County Emergency Services Agency	Robert L Burner	WV057431	Jefferson	TT
Kanawha County Emergency Ambulance Authority	Thomas Edens Bibb	WV014530	Kanawha	TT
Kanawha County Emergency Ambulance Authority	Charles David Perry	WV017524	Kanawha	TT
Kanawha County Emergency Ambulance Authority	Jeff Glenn Broyles	WV034748	Putnam	TT
Kanawha County Emergency Ambulance Authority	Gregory Adam Parsons	WV076046	Kanawha	TT
Kanawha County Emergency Ambulance Authority	Logan A Mitchem	WV076557	Kanawha	TT
Kanawha County Emergency Ambulance Authority	Barbara M Estes	WV076719	Kanawha	TT
Kanawha County Emergency Ambulance Authority	William C Moyers	WV077477	Kanawha	TT
Kanawha County Emergency Ambulance Authority	Carolyn J Charnock	WV078157	Kanawha	TT
Kanawha County Emergency Ambulance Authority	Melissa Lynne Phillips	WV078243	Kanawha	TT
Kanawha County Emergency Ambulance Authority	Stephanie C Sanders	WV078317	Kanawha	TT
Kanawha County Emergency Ambulance Authority	Eric Lilly	WV078327	Kanawha	TT
Kanawha County Emergency Ambulance Authority	Kayla Grounds	WV079308	Kanawha	TT
Kanawha County Emergency Ambulance Authority	Makayla B Grounds	WV079463	Kanawha	TT
Lincoln Emergency Medical Services	Edana L Williamson	WV036749	Lincoln	TT
Peterstown Volunteer Fire & Rescue Inc.	Vicki Lynn Conner	WV030961	Monroe	TT
Pierpont Community & Technical College	Benjamin Tacy	WV070741	Marion	TT
Pocohontas Memorial Hospital	Travis L Copenhaver	WV033797	Pocahontas	TT
Pocohontas Memorial Hospital	Nicholas P Cooper	WV070640	Pocahontas	TT
Princeton Rescue Squad	Peter M Formato, Jr	WV030788	Mercer	TT
Princeton Rescue Squad	David E Johnston	WV040215	Mercer	TT
Putnam County Emergency Medical Services	Michael Henkins Wiedeman	WV000681	Putnam	TT
Putnam County Emergency Medical Services	Christopher Lee Bailey	WV034777	Kanawha	TT
Putnam County Emergency Medical Services	Maryjo G Woodford	WV050389	Kanawha	TT
Putnam County Emergency Medical Services	Bradley R Hughes	WV057473	Wayne	TT
RESA 1	Billie L Trump	WV027810	Raleigh	TT
RESA 3	Mark Preston Kerns	WV021460	Putnam	TT
RESA 3	Brent Allen Burger	WV023383	Cabell	TT
RESA 3	Timothy J Barnett	WV026614	Kanawha	TT
RESA 5	Richard Howard Gobble, II	WV020190	Jackson	TT
RESA 5	Roderick L Armstrong	WV041295	Wood	TT
RESA 6	Andrew G Lucas, Jr	WV010755	Hancock	TT
RESA 6	Ralph Anthony Kosar	WV011903	Ohio	TT
RESA 6	James Allen Blazier	WV022979	Ohio	TT
RESA 7	James Michael Freeman	WV018665	Harrison	TT
RESA 7	Patrick Ryan SanJulian	WV036859	Harrison	TT
RESA 8	David James Weller, II	WV029927	Berkeley	TT
RESA 8	Michael Paul Alt	WV032642	Pendleton	TT
RESA 8	Stephen Craig Cox, Jr	WV035208	Mineral	TT

Agency/Institution	Trainer	WV Number	County*	Status TT / T
RESA 8	Patricia Megan Goldizen	WV052949	Grant	TT
RESA 8	David A Pratt	WV053128	Hardy	TT
RESA 8	Jenna L Mulligan	WV053735	Berkeley	TT
Shirley M Kimble Training Center	Steven Douglas McDonald	WV013310	Monongalia	TT
WV EMS TSN	Allisynne M. Dunlap	WV004991	Ohio	TT
WV EMS TSN	James H Donathan	WV007865	Cabell	TT
WV EMS TSN	Arisba L. Fink	WV017273	Wayne	TT
WV EMS TSN	Laura Mae Forren	WV025634	Raleigh	TT
WV EMS TSN	Paula Rocalee Louden	WV028125	Wood	TT
WV EMS TSN	Gail M. Dragoo	WV049102	Marion	TT
WV EMS TSN	Marsha J Myers	WV049108	Marion	TT
United Health	Darlene Annette Scott	WV017736	Harrison	TT
US Customs & Border Protection	Edward M Fowler	WV069818	Jefferson	TT
US Customs & Border Protection	Gustavo Renteria, Sr	WV077820	Jefferson	TT
Valley Medical Transport	Robert Craig Horn	WV028638	Jefferson	TT
Valley Medical Transport	David A Miles	WV075536	Frederick, VA	TT
Wayne Emergency Medical Services	Kimberly K Mills	WV057470	Wayne	TT
Wheeling Health Dept..	Wayland Harris	WV040031	Ohio	TT
White Sulphur Springs Emergency Medical Services	Kimberly J Snedegar	WV028464	Greenbrier	TT
White Sulphur Springs Emergency Medical Services	Pamela Michelle Wilson	WV028747	Monroe	TT
WV Office of Emergency Medical Services	John R Thomas	WV016402	Cabell	TT
WV Office of Emergency Medical Services	Vicki L Hildreth	WV063827	Kanawha	TT
WV Office of Emergency Medical Services	Timothy J Priddy	WV079178	Putnam	TT
WV RETI	Shirley J Morrison	WV038159	Braxton	TT
WV STEP	Russell Glenn Doerr, Jr	WV016186	Monongalia	TT
Bridgeport Police Dept.	Brian E. Kemmerer	Non-EMS	Harrison	T
Bridgeport Police Dept.	Michael P Hammond	Non-EMS	Harrison	T
Bridgeport Police Dept.	Gregory T. Collins	Non-EMS	Harrison	T
Bridgeport Police Dept.	Brian P. Hyde	Non-EMS	Harrison	T
Brooke Health Dept..	Snady Rogers	Non-EMS	Brooke	TT
Cabell County 911	Corey Joe Carter	Non-EMS	Cabell	T
Cabell Huntington Health Dept.	Amanda Coleman	Non-EMS	Cabell	T
Cabell Huntington Health Dept.	Kathleen Napier	Non-EMS	Cabell	T
Chapmanville Pharmacy	Maria Hattfield	Non-EMS	Kanawha	T
Choice Rx LLC	Diane Fitzsimmons - Mercer	Non-EMS	Putnam	T
City of Martinsburg	Dana Knowles	Non-EMS	Berkeley	T
City of Martinsburg	Kevin Knowles	Non-EMS	Berkeley	T
Clay County Health Dept.	Angela Brown	Non-EMS	Clay	TT
Community Connections	Erica Ellis-Bartling	Non-EMS	McDowell	TT
Community Connections	Erica Ellis-Bartling	Non-EMS	Mercer	TT
Community Connections	Erica Ellis-Bartling	Non-EMS	Wyoming	TT
DHHR BHHF	Beverly Campbell	Non-EMS	Kanawha	T
Fairmont Police Dept.	Tyler Hall	Non-EMS	Marion	T
Fairmont Police Dept.	David McGlone	Non-EMS	Marion	T
Fairmont Police Dept.	Sarra Dawn Corbin	Non-EMS	Marion	T
Fairmont State Uni Police	Charles Funk	Non-EMS	Marion	T
Fairmont State Uni Police	John C Nigh	Non-EMS	Marion	T
Fayette County Health Dept.	Jason Favor	Non-EMS	Fayette	T
Fayette County OEM	Kevin Walker	Non-EMS	Fayette	T
Fayette County Schools	Andrew Hudson	Non-EMS	Fayette	T
Fayette County Schools	Tillman N. Mooney	Non-EMS	Fayette	T
Fayette County Schools	Jess R. McMullens	Non-EMS	Fayette	T
Fayette County Schools	Shawn L. Campbell	Non-EMS	Fayette	T
Fayette County Schools	William Willis	Non-EMS	Fayette	T
Fayetteville Police Dept.	Chad E. Davis	Non-EMS	Fayette	T
Fayetteville Police Dept.	Harley Vest	Non-EMS	Fayette	T
Granville Police Dept.	Ryan White	Non-EMS	Monongalia	T
Granville Police Dept.	Michael Teets	Non-EMS	Monongalia	T
Granville Police Dept.	Susie Mullins	Non-EMS	Monongalia	T

Agency/Institution	Trainer	WV Number	County*	Status TT / T
Hancock Health Dept..	Michele R. Truax	Non-EMS	Hancock	TT
Hancock Health Dept..	Jackie Huff	Non-EMS	Hancock	TT
Hancock Health Dept..	Donna Gialluco	Non-EMS	Hancock	TT
H-C Health Dept.	Joseph Bundy	Non-EMS	Harrison	T
H-C Health Dept.	Nancy Joseph	Non-EMS	Harrison	T
H-C Health Dept.	Margaret Howe-White	Non-EMS	Harrison	T
Huntington Fire Dept..	Jan Rader	Non-EMS	Cabell	T
Kanawha County Health Dept.	Janet Brisco	Non-EMS	Kanawha	T
Kanawha County Health Dept.	Canday Nanly	Non-EMS	Kanawha	T
Kanawha County Health Dept.	Nancy Parsons	Non-EMS	Kanawha	T
Kanawha County Health Dept.	Stephanie DeWees	Non-EMS	Kanawha	T
Kanawha County Health Dept.	Mike Braumager	Non-EMS	Kanawha	T
Kanawha County Health Dept.	Amy Hoyer	Non-EMS	Kanawha	T
Kroger	Hillary Hicks	Non-EMS	Monongalia	T
Kroger	Julie Rumbach	Non-EMS	Taylor	T
Kroger	Shannon Gooden	Non-EMS	Putnam	T
Midland Meadows	Della M. Priestley	Non-EMS	Cabell	T
MU School of Pharmacy	Christopher Booth	Non-EMS	Cabell	T
MU School of Pharmacy	Charles Babcock	Non-EMS	Cabell	TT
MU School of Pharmacy	Megan Peterson	Non-EMS	Cabell	T
MU School of Pharmacy	Tonia Hall-Wade	Non-EMS	Boyd, KY	T
MU School of Pharmacy	Demetria Lewis	Non-EMS	Cabell	T
MU School of Pharmacy	Ashley Brown	Non-EMS	Cabell	T
MU School of Pharmacy	Courtney Atzinger	Non-EMS	Cabell	T
MU School of Pharmacy	Lindsey McKinney	Non-EMS	Cabell	T
MU School of Pharmacy	Nichole Miller	Non-EMS	Cabell	T
MU School of Pharmacy	Coty Conley	Non-EMS	Cabell	T
MU School of Pharmacy	Chad Butler	Non-EMS	Cabell	T
MU School of Pharmacy	Gene Arole	Non-EMS	Cabell	T
MU School of Pharmacy	Binh Le	Non-EMS	Wayne	T
MU School of Pharmacy	Eric Morris	Non-EMS	Cabell	T
MU School of Pharmacy	Herbert Butterbaugh	Non-EMS	Lawrence, OH	T
MU School of Pharmacy	Heather Carico	Non-EMS	Wayne	T
MU School of Pharmacy	Ben Fredrick	Non-EMS	Cabell	T
MU School of Pharmacy	Matthew Hicks	Non-EMS	Cabell	T
MU School of Pharmacy	Raice Stevens	Non-EMS	Cabell	T
MU School of Pharmacy	Jonah Moore	Non-EMS	Raleigh	T
MU School of Pharmacy	Dustin Baum	Non-EMS	Cabell	T
MU School of Pharmacy	Nicole Miller	Non-EMS	Cabell	T
MU School of Pharmacy	Gary Hatfield	Non-EMS	Kanawha	T
MU School of Pharmacy	Adam Mareske	Non-EMS	Logan	T
MU School of Pharmacy	Seth Baisden	Non-EMS	Cabell	T
MU School of Pharmacy	Eric Staton	Non-EMS	Cabell	T
MU School of Pharmacy	Ellen Watts	Non-EMS	Boyd, KY	T
MU School of Pharmacy	Kendra Endicott	Non-EMS	Cabell	T
MU School of Pharmacy	Ben Merk	Non-EMS	Putnam	T
MU School of Pharmacy	Timothy Deab	Non-EMS	Cabell	T
MU School of Pharmacy	Joel Turley	Non-EMS	Cabell	T
MU School of Pharmacy	John Kessinger	Non-EMS	Putnam	T
MU School of Pharmacy	Tyler Smith	Non-EMS	Cabell	T
MU School of Pharmacy	Irma Jacques	Non-EMS	Cabell	T
MU School of Pharmacy	Aabha Patel	Non-EMS	Cabell	T
MU School of Pharmacy	Liz Torey	Non-EMS	Cabell	T
MU School of Pharmacy	Alex Howden	Non-EMS	Putnam	T
MU School of Pharmacy	Jane Jang	Non-EMS	Cabell	T
MU School of Pharmacy	Savannah Fugate	Non-EMS	Lawrence, KY	T
MU School of Pharmacy	Marissa Bellot	Non-EMS	Cabell	T
MU School of Pharmacy	Damioh Rajab	Non-EMS	Cabell	T
MU School of Pharmacy	Stora Mureamejsa	Non-EMS	Cabell	T
MU School of Pharmacy	Kazeimi Khamar	Non-EMS	Cabell	T
MU School of Pharmacy	Bead Sprague	Non-EMS	Cabell	T

Agency/Institution	Trainer	WV Number	County*	Status TT / T
MU School of Pharmacy	Shayne San Agustin	Non-EMS	Cabell	T
MU School of Pharmacy	Jason Nguyen	Non-EMS	Cabell	T
MU School of Pharmacy	Colleen Heffner	Non-EMS	Cabell	T
MU School of Pharmacy	Nathalie Nguedia	Non-EMS	Cabell	T
MU School of Pharmacy	Melody Edwards	Non-EMS	Boyd, KY	T
MU School of Pharmacy	Jillian Clark	Non-EMS	Cabell	T
MU School of Pharmacy	Seth Thacker	Non-EMS	Cabell	T
MU School of Pharmacy	Shawn Adkins	Non-EMS	Wayne	T
MU School of Pharmacy	Danielle Blankinship	Non-EMS	Cabell	T
MU School of Pharmacy	Charles Seel	Non-EMS	Cabell	T
MU School of Pharmacy	Christina Whittaker	Non-EMS	Cabell	T
MU School of Pharmacy	Jordan Ware	Non-EMS	Boyd, KY	T
MU School of Pharmacy	Joshua Nelson	Non-EMS	Cabell	T
MU School of Pharmacy	Casey Frulla	Non-EMS	Cabell	T
MU School of Pharmacy	Allison Morris	Non-EMS	Cabell	T
MU School of Pharmacy	Aikansh Maheshwari	Non-EMS	Lawrence, OH	T
MU School of Pharmacy	Victoria Heaberlin	Non-EMS	Cabell	T
MU School of Pharmacy	Monique Catalan	Non-EMS	Cabell	T
MU School of Pharmacy	Noah Allen	Non-EMS	Putnam	T
MU School of Pharmacy	Carson Terwilliger	Non-EMS	Cabell	T
MU School of Pharmacy	JoBeth Kuhn	Non-EMS	Cabell	T
MU School of Pharmacy	Justin Powell	Non-EMS	Cabell	T
MU School of Pharmacy	Derek Yoho	Non-EMS	Cabell	T
MU School of Pharmacy	Megan Aronckes	Non-EMS	Cabell	T
MU School of Pharmacy	Jessica Blake	Non-EMS	Cabell	T
MU School of Pharmacy	Mikayla Simpson	Non-EMS	Lawrence, OH	T
MU School of Pharmacy	James Kincaid	Non-EMS	Cabell	T
MU School of Pharmacy	Hilary Bauder	Non-EMS	Cabell	T
MU School of Pharmacy	Alyssa Green	Non-EMS	Lawrence, OH	T
MU School of Pharmacy	Tyler Flaugher	Non-EMS	Carter, KY	T
MU School of Pharmacy	Garrett Myers	Non-EMS	Lawrence, OH	T
MU School of Pharmacy	Allison Cronin	Non-EMS	Cabell	T
MU School of Pharmacy	Alexis Townsend	Non-EMS	Cabell	T
MU School of Pharmacy	Allicia Woods	Non-EMS	Cabell	T
MU School of Pharmacy	Jasmine Jenkins	Non-EMS	Cabell	T
MU School of Pharmacy	Bryce Shelton	Non-EMS	Cabell	T
MU School of Pharmacy	Cathrine Butcher	Non-EMS	Gilmer	T
MU School of Pharmacy	Jessica Anderson	Non-EMS	Fairfield, OH	T
MU School of Pharmacy	Brady Kovalski	Non-EMS	Ohio	T
MU School of Pharmacy	Ral Nwangwh	Non-EMS	Cabell	T
MU School of Pharmacy	Jeanette Pinkerman	Non-EMS	Boyd, KY	T
MU School of Pharmacy	Brandon Allman	Non-EMS	Cabell	T
MU School of Pharmacy	Tenzin Norzin	Non-EMS	Cabell	T
MU School of Pharmacy	Minh Thu Tran	Non-EMS	Cabell	T
MU School of Pharmacy	Mary Yang	Non-EMS	Cabell	T
MU School of Pharmacy	Charles Alex Noble	Non-EMS	Cabell	T
MU School of Pharmacy	Alex Mareshe	Non-EMS	Cabell	T
MU School of Pharmacy	LueAnne Paige Miller	Non-EMS	Perry, KY	T
MU School of Pharmacy	Samanghafary	Non-EMS	Cabell	T
MU School of Pharmacy	Roubir Moawas	Non-EMS	Cabell	T
MU School of Pharmacy	Motha Sanson	Non-EMS	Cabell	T
MU School of Pharmacy	Ashley Deaton	Non-EMS	Cabell	T
MU School of Pharmacy	Carol Simmons	Non-EMS	Cabell	T
MU School of Pharmacy	Chad Butler	Non-EMS	Putnam	T
MU School of Pharmacy	Charles Craighton	Non-EMS	Wayne	T
MU School of Pharmacy	Laura Hensley	Non-EMS	Cabell	T
Northwood Health Systems	Ed Nolan	Non-EMS	Ohio	TT
Oak Hill Police Dept.	Christopher A. Young	Non-EMS	Fayette	T
Oak Hill Police Dept.	J. Grant Hoover	Non-EMS	Fayette	T
Ohio County Resource	Claudia Raymer	Non-EMS	Ohio	TT

Agency/Institution	Trainer	WV Number	County*	Status TT / T
Ohio County Resource	Jami Robinson	Non-EMS	Ohio	TT
Physician	John Aldis	Non-EMS	Jefferson	T
Prestera Center	Kathleen Maynard	Non-EMS	Cabell	T
Prestera Center	Mary E. Smith	Non-EMS	Cabell	T
Putnam County Health Dept.	Vickie Klennert	Non-EMS	Kanawha	T
Rite Aid	Tiffany Hunter	Non-EMS	Wayne	T
Rite Aid	Candice Slate	Non-EMS	Kanawha	T
SMMC	Trey Blake	Non-EMS	Cabell	T
SMMC	Shawn Maynard	Non-EMS	Cabell	T
SMMC	Sybil Parsley	Non-EMS	Cabell	T
SMMC	Valerie Smith	Non-EMS	Cabell	T
SMMC	Robin Rowe	Non-EMS	Cabell	T
SMMC	Greg Creasey	Non-EMS	Cabell	T
SMMC	Lynn Patterson	Non-EMS	Cabell	T
SMMC	Bob Hogsett	Non-EMS	Cabell	T
SMMC	Imam Shaik	Non-EMS	Cabell	T
SMMC	Robin Garrett	Non-EMS	Cabell	T
Star City Police Dept.	Ron Snyder	Non-EMS	Monongalia	T
Star City Police Dept.	Ian Frisk	Non-EMS	Monongalia	T
Taylor County Drug Court	Jennifer Smith	Non-EMS	Taylor	T
Taylor County FRN	Ernest Moyer	Non-EMS	Taylor	T
Taylor County FRN	Brooke Russell	Non-EMS	Taylor	T
Taylor County FRN	Robert Jennings	Non-EMS	Taylor	T
Taylor County FRN	Walesca Marrero	Non-EMS	Taylor	T
Taylor County FRN	Arletta Aleshive	Non-EMS	Taylor	T
Taylor County FRN	Joseph Solberg	Non-EMS	Taylor	T
Taylor County FRN	Lisa Wotring	Non-EMS	Taylor	T
Taylor County FRN	Linda Watson	Non-EMS	Taylor	T
Taylor County FRN	Mary Cox	Non-EMS	Taylor	T
Taylor County FRN	Linda Pratt-Lilly	Non-EMS	Taylor	T
Taylor County FRN	Rick Parks	Non-EMS	Taylor	T
Taylor County FRN	Martha Johnston	Non-EMS	Taylor	T
Taylor County FRN	Tara Tighe	Non-EMS	Taylor	TT
Taylor County FRN	Mike Many Penny	Non-EMS	Taylor	T
Taylor County FRN	Bryan Smith	Non-EMS	Taylor	T
Taylor County FRN	Laykin Arrick	Non-EMS	Taylor	T
Taylor County FRN	Kit Ford	Non-EMS	Taylor	T
Taylor County FRN	Blaine Porter	Non-EMS	Taylor	T
Taylor County FRN	Linda Moran	Non-EMS	Taylor	T
The Unity Center	Phil Hammond	Non-EMS	Ohio	TT
UCSOP	Lindsey Acree	Non-EMS	Kanawha	T
UCSOP	Alice Gahbauer	Non-EMS	Kanawha	T
UCSOP	Kinsey Lucas	Non-EMS	Kanawha	T
UCSOP	Jane Candee	Non-EMS	Kanawha	T
UCSOP	Leah Hall	Non-EMS	Kanawha	T
UCSOP	Karrie Juengel	Non-EMS	Kanawha	T
UCSOP	Sarah Embrey	Non-EMS	Kanawha	T
UCSOP	Phat Do	Non-EMS	Kanawha	T
UCSOP	Ashley Rife	Non-EMS	Kanawha	T
UCSOP	Emily Jarrett	Non-EMS	Kanawha	T
Valley Health Pharmacy	Ashley Houvouros	Non-EMS	Lawrence, OH	T
Valley Health Pharmacy	Christopher Branan	Non-EMS	Cabell	T
Walgreens Hurricane	Robert Abrahams	Non-EMS	Putnam	T
Wayne Health Dept.	Tracey Sehastian	Non-EMS	Wayne	T
Wayne Health Dept.	J.K. Fife	Non-EMS	Wayne	T
Westover Police Dept.	Dana Cowell	Non-EMS	Monongalia	T
Westover Police Dept.	Isaiah Harmon	Non-EMS	Monongalia	T
Wheeling Health Dept.	Lee Ann Speare	Non-EMS	Ohio	TT
Wheeling Health Dept.	Laughlin H. Johnson	Non-EMS	Ohio	TT
Wheeling Health Dept.	Garen B. Rhome	Non-EMS	Ohio	TT

Agency/Institution	Trainer	WV Number	County*	Status TT / T
Wheeling Health Dept.	Howard Gamble	Non-EMS	Ohio	TT
Wheeling Health Dept.	William Mercer	Non-EMS	Ohio	TT
Wheeling Police Dept.	Ronald Faldowski	Non-EMS	Ohio	TT
WV Poison Control	Elizabeth J Scharman	Non-EMS	Kanawha	T
WV Veterans Home	Beverly Crews	Non-EMS	Cabell	T
WVSP	Karlina VanCamp	Non-EMS	Kanawha	T
WVSP	James E Rucker	Non-EMS	Kanawha	T
WVSP	David M Lee	Non-EMS	Kanawha	T
WVSP	Robert Petry	Non-EMS	Kanawha	T
WVSP	Josh Eldridge	Non-EMS	Kanawha	T
WVSP	Joe Portaro	Non-EMS	Kanawha	T
WVSP	Jeff Losh	Non-EMS	Kanawha	T
WVSP	Terry Mills	Non-EMS	Kanawha	T
WVSTEP	Adam Hoffman	Non-EMS	Monongalia	T
WVU School of Pharmacy	Mark Garofoli	Non-EMS	Monongalia	T
Youth Services System	Ron Scott Jr	Non-EMS	Ohio	TT
Youth Services System	Jason Beaty	Non-EMS	Ohio	TT
No Agency Affiliation	Kortney Browning	Non-EMS	Kanawha	T
No Agency Affiliation	Adele Storm	Non-EMS	Ohio	TT
No Agency Affiliation	Crystal Bauer	Non-EMS	Ohio	TT
No Agency Affiliation	John Weitzel	Non-EMS	Ohio	TT
No Agency Affiliation	Jeremy Sagun	Non-EMS	Ohio	TT
No Agency Affiliation	Dawn Artal	Non-EMS	Ohio	TT
No Agency Affiliation	Carole Robison	Non-EMS	Ohio	TT
No Agency Affiliation	Kerry Sneddon	Non-EMS	Ohio	TT
No Agency Affiliation	Robin Leasure	Non-EMS	Ohio	TT
No Agency Affiliation	Norma Provenzano	Non-EMS	Ohio	TT
No Agency Affiliation	Irene Lawhead	Non-EMS	Cabell	T
No Agency Affiliation	Michelle Horan	Non-EMS	Cabell	T

***West Virginia County unless noted**

APPENDIX D

2016 Naloxone Administrations by West Virginia County

Barbour	16	Mingo	28
Berkeley	403	Monongalia	94
Boone	95	Monroe	16
Braxton	12	Morgan	30
Brooke	45	Nicholas	42
Cabell	710	Ohio	97
Calhoun	3	Pendleton	3
Clay	1	Pleasants	5
Doddridge	4	Pocahontas	12
Fayette	132	Preston	24
Gilmer	6	Putnam	79
Grant	7	Raleigh	199
Greenbrier	51	Randolph	31
Hampshire	44	Ritchie	6
Hancock	75	Roane	18
Hardy	13	Summers	16
Harrison	93	Taylor	11
Jackson	40	Tucker	3
Jefferson	52	Tyler	4
Kanawha	727	Upshur	21
Lewis	11	Wayne	71
Lincoln	39	Webster	7
Logan	86	Wetzel	17
McDowell	32	Wirt	1
Marion	65	Wood	120
Marshall	10	Wyoming	47
Mason	47	Other*	180
Mercer	157	**Total**	**4,185**
Mineral	27		

***Other indicates the county was not identified or it is a county outside of West Virginia.**