

TAKE ACTION.

TO SAVE LIVES

NURSE PRACTITIONER'S GUIDE TO PRESCRIBING NALOXONE AND OPIOID SAFETY

AANP | American Association of
NURSE PRACTITIONERS®

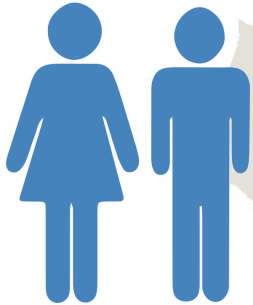


Purpose:

Providing access to naloxone is a major component of delivering trauma-informed, harm reduction-based care to people who use drugs or are otherwise at risk for an opioid overdose.

Nurse practitioners (NPs) can be the first-line providers who prescribe naloxone and educate patients and their families on how to respond to opioid overdoses.

This guide will provide NPs the resources they need to prescribe naloxone and educate patients and their families to prevent accidental opioid overdose deaths.

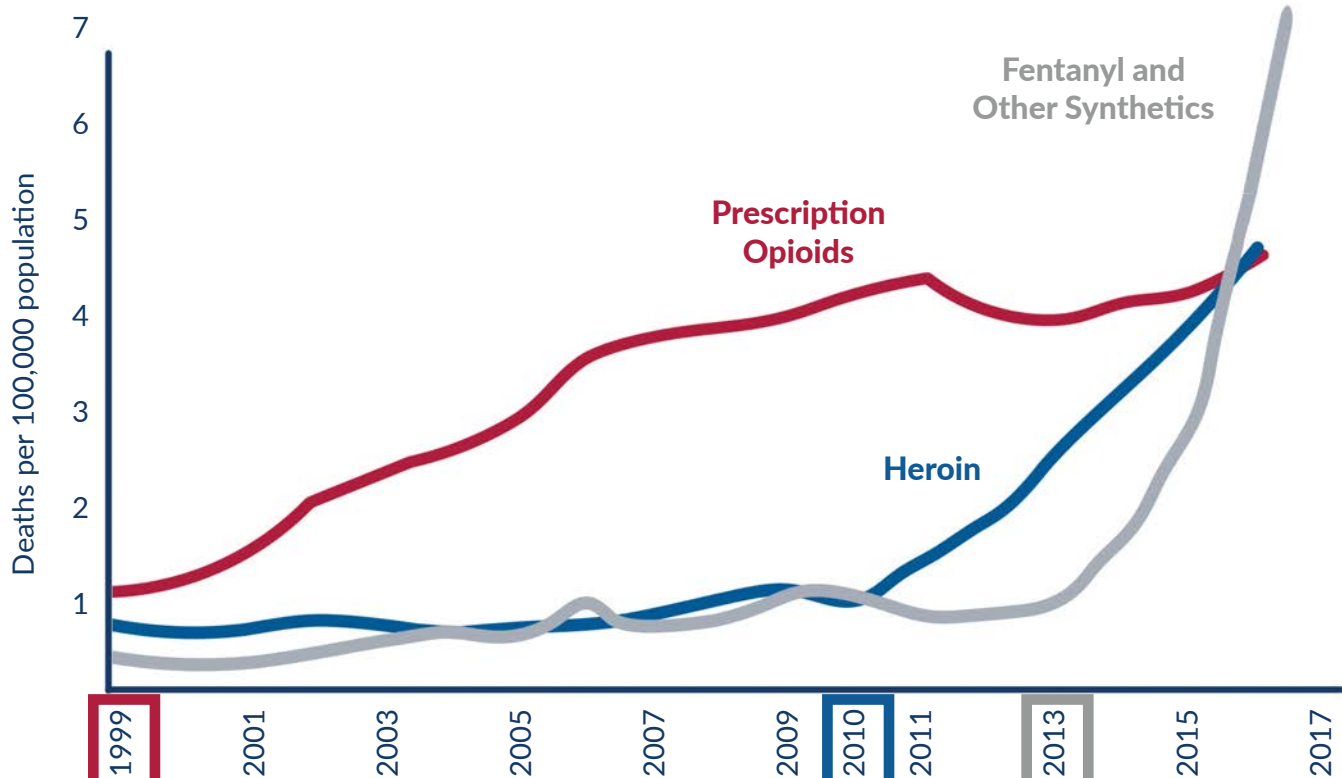


130

Americans die **every day** from an opioid overdose¹

The first wave of opioid overdose deaths was due to the increased prescription of opioids that began in the 1990s. The second wave began in 2010 with a sharp increase in deaths from heroin, even as opioid prescription rates peaked and leveled off from 2010–2012. Beginning in 2013, another rapid rise in overdoses was observed with fentanyl and fentanyl analog (e.g., *acetyl fentanyl*) fatalities.^{2,3} The illicitly manufactured fentanyl is often found contaminated with heroin, cocaine and counterfeit pills.^{4,5} Unfortunately, the enhanced effects associated with illicitly manufactured fentanyl occur more rapidly than those of heroin, leading to quicker overdose deaths.

THREE WAVES OF THE RISE IN OPIOID OVERDOSE DEATHS



Wave 1: Rise in prescription opioid overdose deaths

Wave 2: Rise in heroin overdose deaths

Wave 3: Rise in synthetic opioid overdose deaths

WHAT ARE OPIOIDS? WHAT IS AN OPIOID OVERDOSE?

Opioids are a class of drugs that are naturally derived from the opium poppy or made synthetically by pharmaceutical companies. They are used to relieve pain, treat opioid use disorders and suppress coughing. Each type of opioid varies in strength and how long it lasts in a person's body (see table below).

Oral	Class	Duration
Fentanyl (50x-100x stronger than morphine)	Synthetic	1-2 hours
Codeine	Natural	2-2.5 hours
Heroin (2x stronger than morphine)	Semi-synthetic	3-5 hours
Morphine	Natural	4-6 hours
Hydrocodone	Semi-synthetic	4-6 hours
Methadone	Synthetic	22-48 hours
Carfentanil (10,000x stronger than morphine)	Synthetic	NOT APPROVED FOR HUMAN USE (used to tranquilize large animals i.e., moose, elk and elephants)

Opioids bind to specific μ opioid receptors in the brain that control our breathing. When too many opioids are bound to the μ opioid receptors, the person's lung muscles relax, breathing slows down and there is lack of oxygen to the brain. Eventually, the person becomes unresponsive and unconscious and their breathing stops. Once breathing stops, the heart stops and death occurs (see Figure 1). This process can take seconds to minutes to hours, depending on the type of opioid ingested, the amount of opioid and the health of the person. **Therefore, oxygenation and early intervention are critical to survival.**

THE OVERDOSE PROCESS CAN HAPPEN IN SECONDS, MINUTES OR HOURS

LUNGS

- 2) Lung muscles relax.
- 3) Breathing slows.
- 4) Brain is deprived of oxygen.
- 5) Person becomes unresponsive or unconscious.
- 6) Breathing stops.

BRAIN

- 1) Too many opioids bind to the opioid μ receptor in the brain.

HEART

- 7) Heart stops.

8) DEATH OCCURS.

SIGNS OF OVERDOSE



Slow, erratic or absent breathing



Blue or gray lips and/or fingernails



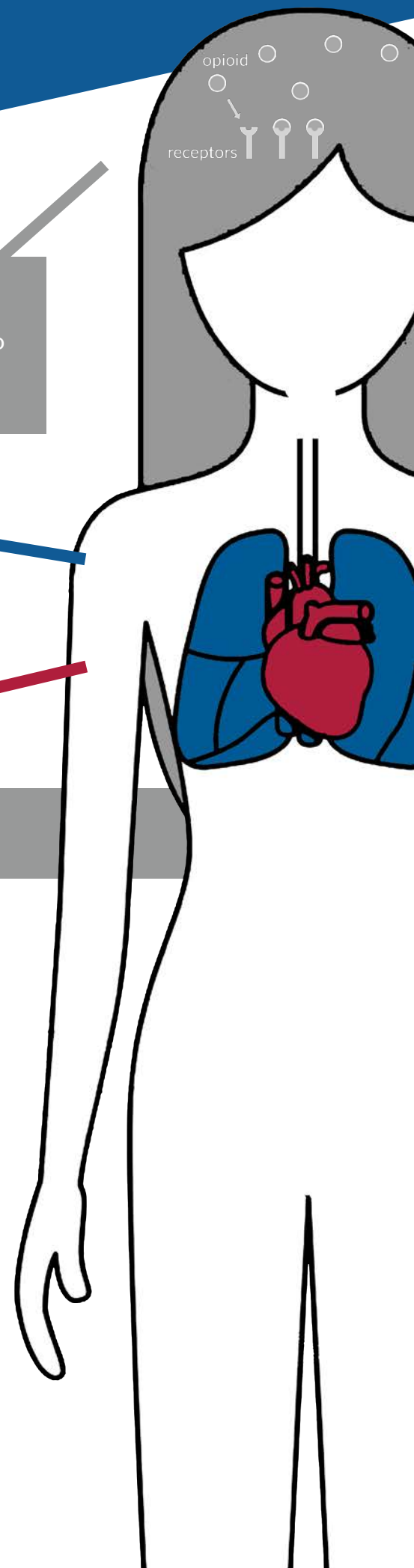
Choking sounds or a snore-like gurgling noise



Pinpoint pupils



Unresponsive to pain stimulus



OVERDOSE RISK FACTORS

The following factors are associated with a higher risk of overdose.

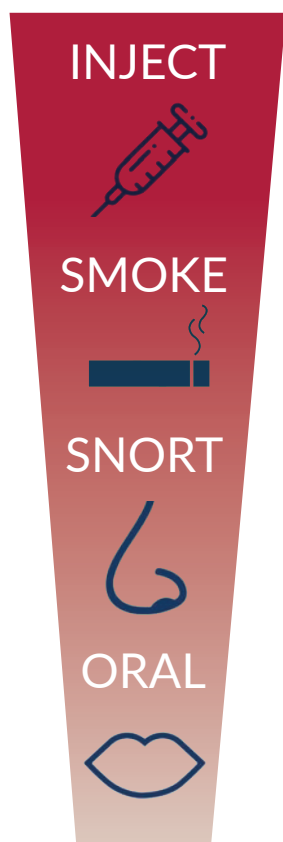
History of Past Overdose

If a person has overdosed before, they are more likely to overdose again.^{6,7}

History of Certain Health Problems

People who have, or have a history of, these health issues are more likely to overdose:

- Substance use disorder¹⁴
- Mental health illness (e.g., bipolar, schizophrenia, depression)^{14,15}
- Respiratory conditions such as chronic obstructive pulmonary disease (COPD) or asthma¹⁵
- Liver disease, renal disease and cardiac disease^{16, 17}
- HIV/AIDS¹⁸



Injecting Drugs

Risk of overdose can increase, depending on how a drug is consumed. The chart on the left shows how risk changes with method of consumption.¹¹

More Potent Drugs

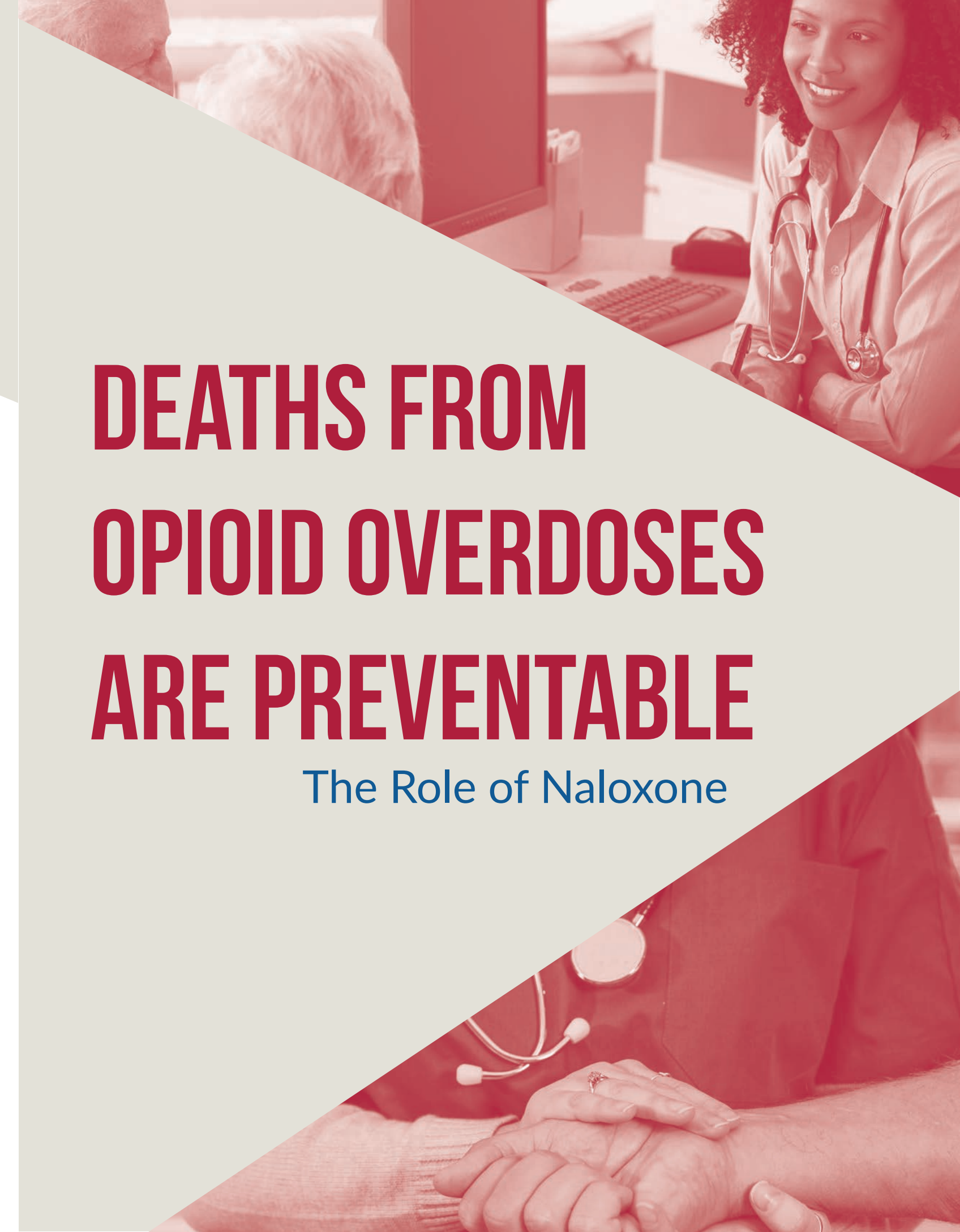
The strength of street drugs is unpredictable. Higher purity drugs have a greater overdose risk.⁵ Daily opioid doses higher than 50 morphine milli-equivalents are associated with a higher risk of overdose.^{8,9} Using extended-release and long-acting opioids is another high risk factor.¹⁰

Drug Tolerance

A person's body develops tolerance to a drug the more he or she uses it. That means a person needs more of the drug to achieve the same effect. Sometimes people go through a time of not using (eg., incarceration, in-patient treatment, detoxification treatment).^{12,13} During those times, their tolerance is lowered, and they can't tolerate the same dose, placing the person at a higher risk of an overdose.

Mixing Other Drugs With Opioids

When any drug that slows down the nervous system is mixed with opioids, it increases overdose risk.¹⁹ This includes alcohol; anti-anxiety medicine like Xanax[®], Ativan[®] and other benzodiazepines; and antidepressants.

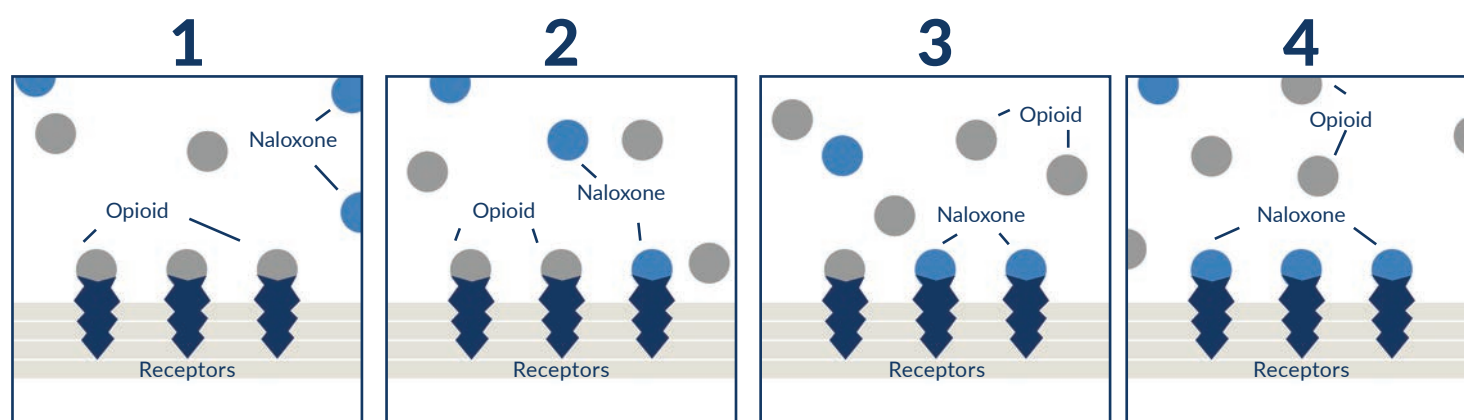


DEATHS FROM OPIOID OVERDOSES ARE PREVENTABLE

The Role of Naloxone

WHAT IS NALOXONE?

Naloxone is a pure opioid antagonist and has a stronger affinity to the μ opioid receptors than the opioids a person has used. Naloxone binds to the μ opioid receptors, displacing the opioid from the μ opioid receptor for 30–120 minutes, temporarily allowing the person to breathe again. Naloxone, however, does NOT remove opioids from the body.



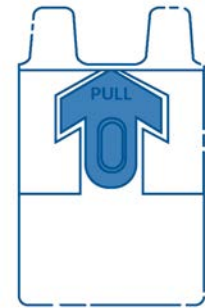
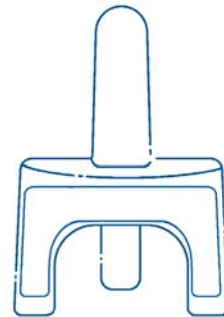
Naloxone does not display any pharmacokinetic activity in the absence of narcotics.^{20,21} It is considered safe when administered in low doses and titrated until the person resumes breathing.²²

It is possible for a person to re-overdose, depending on the opioid ingested, since heroin can last in the body for three to five hours and methadone for 22–24 hours. This risk is low, but it increases if the person decides to use again, and uses longer acting opioids, soon after naloxone is administered. Therefore, the person should NOT use opioids again for at least four hours²² or longer²³ after being revived with naloxone.

Naloxone Quick Facts

- | | |
|---|---|
| 1 Only reverses opioid overdose. | 5 In standard doses, no effects if no opioids are in the body. |
| 2 No abuse potential.
CANNOT get high on naloxone.
Not a controlled substance. | 6 Acts quickly in two to five minutes.
<i>Often in less than three minutes.</i> |
| 3 Stays active for only 30–120 minutes.
<i>Depends on metabolism and amount of opioid ingested.</i> | 7 Can be repeated every two to three minutes. |
| 4 Safely used on infants, adolescents and elderly. | 8 Safe to administer on pregnant persons during an opioid emergency. |

TYPES OF NALOXONE



Product	Naloxone Vial	Narcan® Nasal Spray	Evzio® Auto-injector
Duration of Action	30–90 minutes	30–120 minutes	30–90 minutes
Repeat Dosing	Every two to three minutes		
Strength	0.4 mg/mL	4 mg	2 mg
Assembly/Supplies Needed	#2, 3 mL syringe with 23-25 gauge 1-1.5 inch IM needles	None	None
SIG for Suspected Overdose	Inject 0.4 mg (1 mL) IM x1. Repeat every two to three minutes until patient is responsive or EMS arrives.	1 actuation in nostril x1. Repeat every two to three minutes until patient is responsive or EMS arrives.	2 mg IM x1. May repeat dose every two to three minutes until patient is responsive or EMS arrives.
Storage	Protect from light. Room temperature 68° to 77°	Protect from light. Room temperature 59° to 77°, excursion allowed between 39°–104°	Store in the outer case provided. Room temperature 59° to 77°, excursion allowed between 39°–104°
How Supplied	Single-dose fliptop vial	Carton contains two blister packages of 4 mg single-use nasal spray	Carton contains two 2 mg auto-injectors and a single trainer
Disposal	Sharps container	Any waste container away from children	Sharps container
Direct Cost	\$30–40	\$169	\$4,600
Prescription Coverage	Copay varies by state.		

HOW TO RESPOND TO AN OVERDOSE

Suspect an opioid overdose?

Take **A.C.T.I.O.N.** by following these steps:

Arouse (Three S's)

- Shout the person's name
- Shake shoulders vigorously
- Sternal rub

Check for Signs of Overdose

- Slowed or no breathing
- Blue/gray lips or fingernails
- Deep snoring or gurgling noises
- Unresponsive to pain
- Pinpoint pupils
- Clammy skin

Telephone 911

Stay with the person until help arrives

Intranasal/Intramuscular Naloxone

Oxygen

- Rescue breaths: one breath every five to six seconds
- CPR if you know the proper technique OR follow dispatch instructions

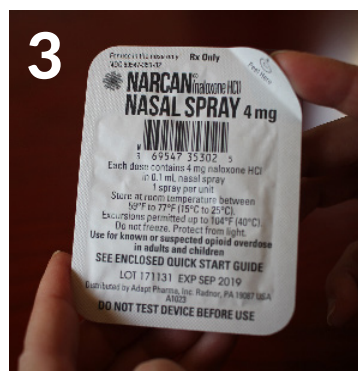
Naloxone Again

- If no response after two to three minutes of first dose, repeat naloxone
- If you need to leave the person, or if vomiting occurs, place them in recovery position (see picture below)
- **Stay with the person until help arrives**



1

Open box containing Narcan® nasal spray.



3

Lift top corner labeled "peel here" to open.



5

Hold using index and middle fingers on nozzle, and thumb by plunger.



7

Press plunger with thumb to spray.

Narcan® Nasal Spray



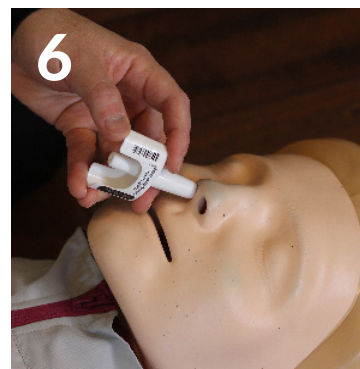
2

Remove sealed Narcan® package from box.



4

Peel back cover to access Narcan® nasal spray.



6

Place nozzle into nostril. **Do not press plunger until nozzle is in nostril.**

Intramuscular Naloxone

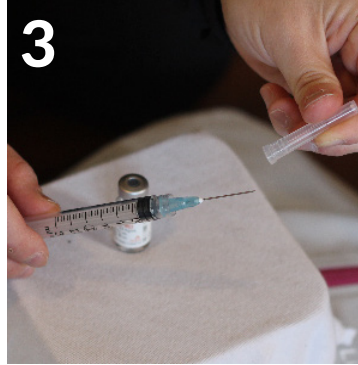


Supplies needed:

- Gloves
- Alcohol swabs
- 23-25G, 1-1.5 inch needle
- 1 mL vial of naloxone



Remove orange flip top from naloxone.



Remove syringe cap before inserting syringe into vial. Draw 1 mL of air into syringe.



Insert syringe into vial, then inject air into vial.



Draw 1 mL of naloxone from vial (tip of needle should be in liquid).



Syringe is prepared for injection.



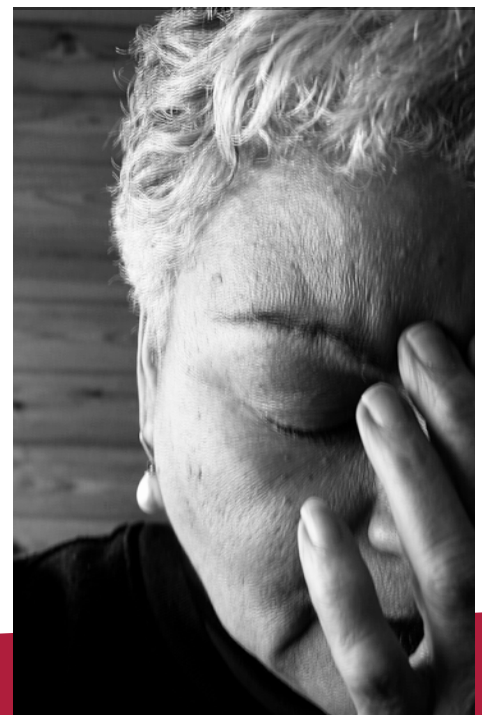
Insert syringe needle into muscle at a 90-degree angle, then push plunger slowly all the way in to inject the naloxone.

Possible injection spots: upper arm or outer thigh.



Naloxone Side Effects

For people who are non-opioid dependent or opioid-naïve, naloxone has no clinical effects in standard doses up to 1 mg/kg.^{24,40} Mild symptoms such as dizziness, paresthesias, sweating, yawning, nausea and reduced cognitive functioning are experienced at doses of 2 mg/kg IV or higher.⁴⁰ For people who are opioid dependent, naloxone may precipitate withdrawal symptoms, which may include but are not limited to nausea, vomiting, runny nose, sneezing, piloerection, chills, muscle aches, diarrhea, restlessness or irritability, weakness, nervousness, increased blood pressure and tachycardia.²⁰ Though these symptoms are uncomfortable, they are not life threatening. However, other reports such as seizures, arrhythmias and pulmonary edema have been described in the literature, but it is unknown if this relationship is dose dependent, a result of naloxone or due to the presence of pre-existing condition and the complications related to hypoxia.⁴⁰



NALOXONE OPIOID OVERDOSE PREVENTION LAWS

Many states have overdose prevention laws that protect prescribers when prescribing, dispensing or distributing naloxone to a layperson. Prescribing naloxone to patients during the regular course of providing health care is legal and within the scope of practice. **Prescribing naloxone in this context carries no more liability than prescribing any other medicine.**

In an attempt to increase naloxone access and diversify the ways that a layperson can obtain naloxone, advocates have influenced several categories of laws at the state level.

Civil, Criminal and Licensing Liability Protections:

Some states limit liability for health care providers who provide direct and/or indirect naloxone access, including to people who may not be their patients. There are also usually liability protections for the people, including laypeople in the community and licensed/certified people at work, who administer naloxone during a suspected opioid-related emergency.

Authorizing Third-party Prescribing:

These laws allow a prescriber to make naloxone available to a person who may not experience an overdose themselves but who could be in a position to recognize and respond to an overdose if they are a bystander (e.g., a parent whose child uses opioids).

Authorizing a Pharmacy Standing Order or Pharmacist Prescribing:

These laws allow a person to present in a pharmacy and acquire naloxone without having a prescription from their health care provider. The specific mechanism that allows this depends on the state, but the de facto experience of the patient is that naloxone is “behind the counter.”

The two broad categories of overdose prevention legislation are 911 Good Samaritan laws and Naloxone Access laws. These laws vary from state to state, including the specific language about liability protections, standing orders and third-party prescribing. 911 Good Samaritan laws aim to minimize risk of legal sanction at the overdose scene in an attempt to increase rates of calling 911 in overdose emergencies. **For state-specific language, visit the Prescription Drug Abuse Policy System at pdaps.org. For case studies on these approaches, visit prescribetoprevent.org.**



ASSESSING RISK

Screen for Opioid Use Disorder

Multiple screening tools exist to screen for opioid use disorder or drug use in adolescents and adults. A comprehensive list can be found in the National Institute on Drug Abuse (NIDA) Chart of Evidence-based Screening Tools and Assessments for Adults and Adolescents.²⁵ Research has shown that even the one-item screening question, “How many times in the past year have you used an illegal drug or used a prescription medication for nonmedical reasons?” (where a response of ≥ 1 time was considered positive for drug use), was 100 percent sensitive and 73 percent specific for detecting current drug use and drug use disorders in a sample of primary care patients.²⁶ Other common tools are the NIDA Drug Use Screening Tool (NM ASSIST), opioid risk tool and Drug Abuse Screen Test (DAST-10) in primary care.

CANDIDATES FOR NALOXONE PRESCRIPTION

The Centers for Disease Control and Prevention (CDC) recommends considering a naloxone prescription for patients with any of these characteristics:

- History of overdose²⁷
- History of substance use disorder
- History of nonmedical use of opioids
- Receiving ≥ 50 MME daily of prescribed opioids
- Concurrent use of alcohol, benzodiazepine, sedative or antidepressant
- At risk for returning to a high dose for which they are no longer tolerant, such as:
 - Patients released from incarceration
 - Patients leaving detoxification facilities
 - Patients entering and exiting treatment

Other expert and national recommendations include:

- Family or friend who can be in a position to aid someone who is at risk of an opioid overdose²⁸⁻³⁰
- History of mental health condition^{14,15}
- History of medical conditions such as smoking,³¹ respiratory illness, COPD, asthma, sleep apnea,¹⁵ impaired liver or renal function,¹⁶ cardiac disease¹⁷ or HIV/AIDS¹⁸
- Use of other illicit drugs such as methamphetamine, cocaine or counterfeit pills that are being contaminated with illicitly manufactured fentanyl^{29,32}
- Release from emergency department after treatment for opioid overdose²⁴

PATIENT EDUCATION TIPS



Incorporating opioid overdose education and prescribing naloxone in practice is acceptable and feasible.³⁴ It is recommended to have a formal structured program such as a universal prescribing model³⁵ to be implemented clinic-wide to ensure essential reminders, support and instruction are available for providers until it becomes routine care.³⁶

When educating patients, use the patient education brochure that accompanies this practical resource guide, titled “Opioid Safety and Naloxone,” and others found on [prescribetoprevent.org](https://www.prescribetoprevent.org). Topics to discuss include: what are the signs and symptoms of overdose, what is naloxone and how is it used, what to do after using naloxone and what not to do

during an overdose. It is also helpful to have a reusable demonstration intranasal spray, trainer device for intramuscular injection or syringe and needle kit, depending on which naloxone method is being prescribed or distributed. These reusable demonstration products can be obtained by contacting the corresponding pharmaceutical representative.

For web-based naloxone training:

- overdoseACTION.org
- getnaloxonenow.org
- prescribetoprevent.org

PATIENT EDUCATION TIPS (CONTINUED)

Harm reduction involves providing services to reduce drug-related harm for individuals who may be actively using drugs. NPs often use the Stages of Change model to describe behavior change and tailor stage-based services to an individual's situation. Consider harm-reduction activities, particularly overdose prevention, as part of your clinical focus when working with clients who are in different stages of change.³⁷ Active substance use, by definition, is expected in these stages. A provider adept at providing harm-reduction strategies conveys willingness and ability to work with patients across all stages of a change, affirming that being alive and healthy is more important than drug using status.

In addition to providing practical, useful, public health-based information and materials, a harm-reduction approach recognizes and respects autonomy and individual agency. Combined with Motivational Interviewing techniques,³⁸ harm-reduction approaches build or transfer power among people who are most affected (e.g., recognizing and supporting a person who uses drugs and acknowledging that person's capacity and unique position to save another person's life with naloxone).

Harm-reduction messages may include reviewing the dangers and potency of fentanyl when combined with other respiratory depressants such as benzodiazepines, anti-seizure medications, psychiatric medications, alcohol and over-the-counter medications (diphenhydramine) in increasing the person's risk of an overdose. A mantra that has been promoted by harm-reduction activists is to **"go slow, never use alone and carry naloxone."**³⁹

It is also important to develop and share an overdose plan with family and friends. This plan would include where naloxone is stored and how to use it in an emergency.

HOW TO TALK TO PATIENTS ABOUT NALOXONE

Similar to talking about an EpiPen® for anaphylaxis and glucagon for hypoglycemia, NPs should be comfortable initiating the conversation about naloxone, which is a life-saving medication. Here are important tips to remember:

- Normalize the conversation using a non-judgmental tone. If an NP feels uneasy talking about naloxone, the patient will experience the uneasiness as well.
- The word "overdose" may have a negative association with patients.³⁷
- Patients who were prescribed opioids perceive themselves to be at low risk of an overdose, even though they may have previously overdosed. Consider using phrases such as, "accidental overdose" or "bad reaction" and emphasizing education on "opioid safety."

Conversation starters can include:

"Have you ever had a bad reaction to your opioid medication?"

"Opioids have side effects like any medication. Naloxone reverses them in case you have an accidental overdose or a bad reaction."

"Accidental opioid overdoses can occur even when taking the prescribed medication correctly."

"Have you heard about naloxone/Narcan?"



PRECAUTIONS:

- Do not use opioids when you are alone.
- Go slow if injecting drugs.
- Carry naloxone.
- If using opioids, do not mix them with other drugs such as alcohol and prescriptions.
- Tell family and friends where naloxone is stored and how to use it in an emergency.



NALOXONE ACCESS AND BILLING

The majority of private health insurance plans, Medicare and Medicaid cover naloxone for the treatment of opioid overdose, but prescription coverage and copays vary by state. Many community organizations distribute naloxone for free through harm-reduction agencies and pre-paid inpatient health plans. For the nearest overdose prevention program in your area, visit hopeandrecovery.org/overdose/.

Many states have authorized third-party prescriptions (except for Delaware, Kansas, Minnesota, Missouri and Virginia) and pharmacy standing orders (except Nebraska) that allow individuals to obtain naloxone without an office visit with a provider (see pdaps.org). The pharmacy standing orders allow the pharmacist to generate prescriptions authorized by a state medical director to dispense naloxone to an individual. The standing order is billed to the individual's insurance and copay is paid in accordance with the person's insurance.

To bill for time counseling a patient to recognize signs and symptoms of an overdose and how to respond to an overdose, providers can use codes for Screening, Brief Intervention and Referral to Treatment (SBIRT) integration.samhsa.gov/sbirt/reimbursement_for_sbirt.pdf. Commonly used billing codes for SBIRT are:

- Commercial insurance and Medicaid: 99408 and 99409
- Medicare: G0396, G0442, G0443

For counseling and education on using opioids safely and the use of naloxone outside the context of SBIRT services, providers can document the time spent in medication education and use the E&M (Evaluation and Management) code to describe the complexity and time spent with the patient.

RESOURCES

- SAMHSA Opioid Overdose Prevention Toolkit was first released in 2012 and has been updated several times since then.
store.samhsa.gov/product/Opioid-Overdose-Prevention-Toolkit/SMA18-4742
- SAMHSA's TIP 63: Medications for Opioid Use Disorder (OUD) provides guidelines for treating people who have an OUD with medication.
store.samhsa.gov/product/TIP-63-Medications-for-Opioid-Use-Disorder-Introduction-to-Medications-for-Opioid-Use-Disorder-Treatment-Part-1-of-5-/SMA18-5063PT1

RESOURCES (CONTINUED)

Web-based Naloxone Training: overdoseACTION.org and getnaloxonenow.org

- The Harm Reduction Coalition has operated overdose programs in San Francisco and New York City for many years. The coalition's website provides a link to the Guide to Developing and Managing Overdose Prevention and Take-home Naloxone Projects.
harmreduction.org/issues/overdose-prevention/tools-best-practices/manuals-best-practice/od-manual
This document contains a large collection of online training and advocacy videos.
harmreduction.org/issues/overdose-prevention/tools-best-practices/overdose-videos
- The Chicago Recovery Alliance started the first organized overdose project in the United States in 1996. The alliance has downloadable resources, including video training materials.
anypositivechange.org
- The Prescribe To Prevent website contains resources for health care providers, such as doctors, nurses and pharmacists, who are interested in prescribing naloxone to patients.
prescribetoprevent.org/patient-education/materials
- The Prevent & Protect website has opioid safety and overdose prevention information for public health departments, schools and community members. prevent-protect.org

The Prescription Drug Abuse Policy System website has an interactive map that describes state-by-state naloxone overdose prevention laws and 911 Good Samaritan overdose prevention laws. The map lets visitors click on their state to learn about their state law.

pdaps.org/datasets/good-samaritan-overdose-laws-1501695153

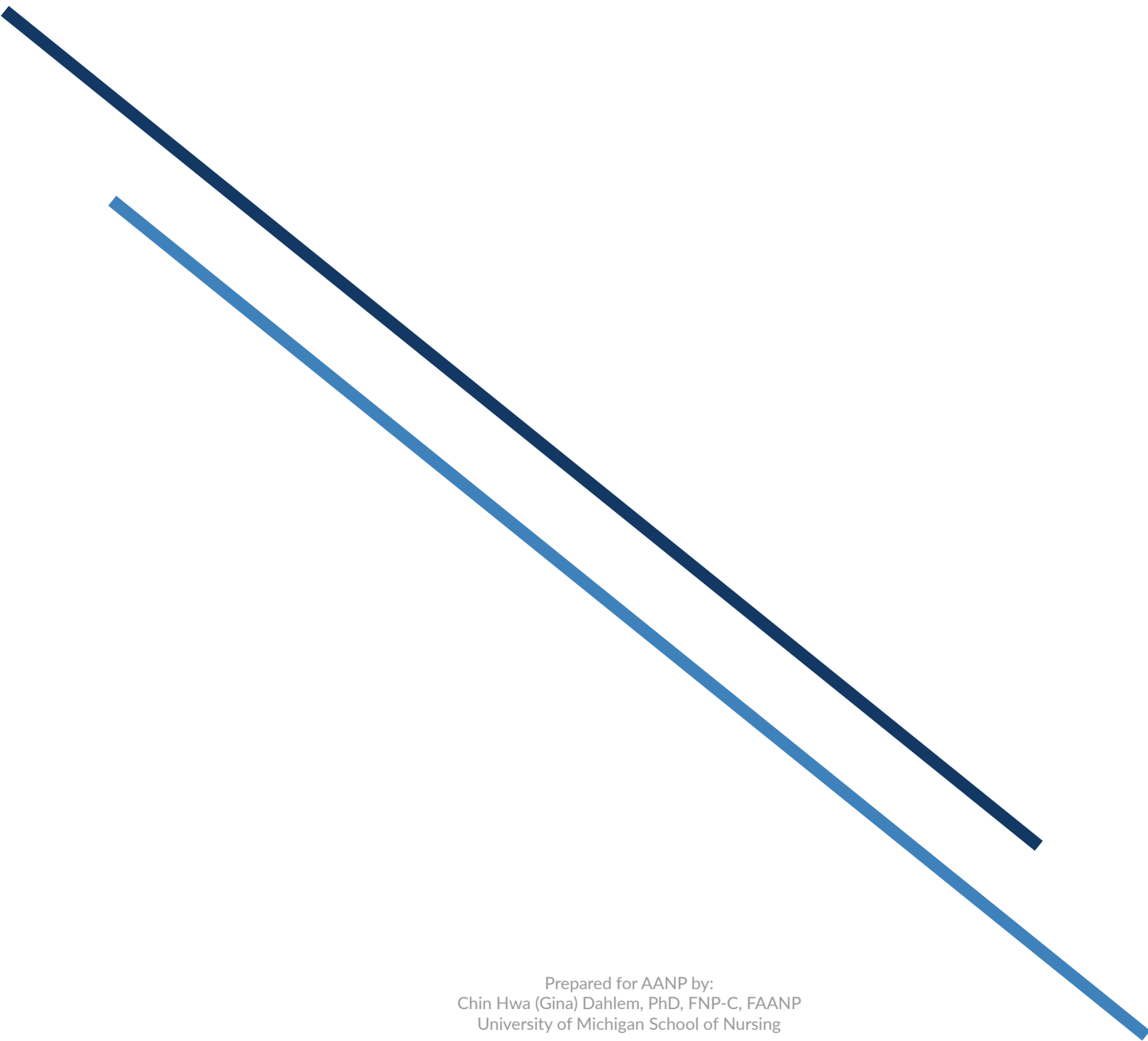
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