SAMHSA
Opioid Overdose
TOOLKIT:

Information for Prescribers

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Also see the other components of this Toolkit:

- ★ Facts for Community Members
- ★ Five Essential Steps for First Responders
- ★ Safety Advice for Patients & Family Members
- ★ Recovering from Opioid Overdose:
  Resources for Overdose Survivors & Family Members

INFORMATION FOR PRESCRIBERS

Opioid overdose is a major public health problem, accounting for almost 17,000 deaths a year in the United States [1]. Overdose involves both males and females of all ages, ethnicities, and demographic and economic characteristics, and involves both illicit opioids such as heroin and, increasingly, prescription opioid analgesics such as oxycodone, hydrocodone, fentanyl and methadone [2].

Physicians and other health care providers can make a major contribution toward reducing the toll of opioid overdose through the care they take in prescribing opioid analgesics and monitoring patients' response, as well as through their acuity in identifying and effectively addressing opioid overdose. Federally funded CME courses are available at no charge at http://www.OpioidPrescribing.com (six courses funded by the Substance Abuse and Mental Health Services Administration) and on Medscape (two courses funded by the National Institute on Drug Abuse)[1].

OPIOID OVERDOSE

The risk of opioid overdose can be minimized through adherence to the following clinical practices, which are supported by a considerable body of evidence [3-6].

ASSESS THE PATIENT. Obtaining a history of the patient's past use of drugs (either illicit drugs or prescribed medications with abuse potential) is an essential first step in appropriate prescribing. Such a history should include very specific questions. For example:

- "In the past 6 months, have you taken any medications to help you calm down, keep from getting nervous or upset, raise your spirits, make you feel better, and the like?"
- "Have you been taking any medications to help you sleep? Have you been using alcohol for this purpose?"
- "Have you ever taken a medication to help you with a drug or alcohol problem?"
- "Have you ever taken a medication for a nervous stomach?"
- "Have you taken a medication to give you more energy or to cut down on your appetite?"
- Have you ever been treated for a possible or suspected opioid overdose?

The patient history also should include questions about use of alcohol and over-the-counter (OTC) preparations. For example, the ingredients in many common cold preparations include alcohol and other central nervous system (CNS) depressants, so these products should not be used in combination with opioid analgesics.

Positive answers to any of these questions warrant further investigation.

TAKE SPECIAL PRECAUTIONS WITH NEW PATIENTS. Many experts recommend that additional precautions be taken in prescribing for new patients [5,6]. These might involve the following:

1. Assessment: In addition to the patient history and examination, the physician should determine who has been caring for the patient in the past, what medications have been prescribed and for what indications, and what substances (including alcohol, illicit drugs and OTC products) the patient has reported using, when and what amount was last used and by what route. Medical records should be obtained (with the patient's consent).
2. Emergencies: In emergency situations, the physician should prescribe the smallest possible quantity, typically not exceeding 3 days' supply, and arrange for a return visit the next day. In addition, consider prescribing naloxone to help mitigate risk associated with these emergent situations. At a minimum, the patient's identity should be verified by asking for proper identification.
3. Limit quantities: In non-emergency situations, only enough of an opioid analgesic should be prescribed to meet the patient's needs until the next appointment. The patient should be directed to return to the office for additional prescriptions, as telephone orders do not allow the physician to reassess the patient's continued need for the medication.

[1] For additional educational material for extended release and long-acting opioid analgesics, see http://www.er-laopioidrems.com/IwgUI/rems/faq.action, and the FDA Blueprint for Prescriber Education for Extended-Release and Long-Acting Opioid Analgesics, http://www.fda.gov/downloads/drugs/drugsafety/informationbydrugclass/ucm277916.pdf

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STATE PRESCRIPTION DRUG MONITORING PROGRAMS (PDMPs) have emerged as a key strategy for addressing the misuse and abuse of prescription opioids and thus preventing opioid overdoses and deaths. Specifically, prescribers can check their state's PDMP database to determine whether a patient is filling the prescriptions provided and/or obtaining prescriptions for the same or similar drugs from multiple physicians.

While many states now have operational PDMPs, the programs differ from state to state in terms of the exact information collected, how soon that information is available to physicians, and who may access the data. Therefore, information about the program in a particular state is best obtained directly from the PDMP or from the state board of medicine or pharmacy.

SELECT AN APPROPRIATE MEDICATION. Rational drug therapy demands that the efficacy and safety of all potentially useful medications be reviewed for their relevance to the patient's disease or disorder [3,6].

When an appropriate medication has been selected, the *dose*, *schedule*, and *formulation* should be determined. These choices often are just as important in optimizing pharmacotherapy as the choice of medication itself. Decisions involve (1) dose (based not only on age and weight of the patient, but also on severity of the disorder, possible loading-dose requirement, and the presence of potentially interacting drugs); (2) timing of administration (such as a bedtime dose to minimize problems associated with sedative or respiratory depressant effects); (3) route of administration (chosen to improve compliance/adherence as well as to attain peak drug concentrations rapidly); and (4) formulation (e.g., selecting a patch in preference to a tablet, or an extended-release product rather than an immediate-release formulation).

Even when sound medical indications have been established, physicians typically consider three additional factors before deciding to prescribe an opioid analgesic [3,6]:

1. The severity of symptoms, in terms of the patient's ability to accommodate them. Relief of symptoms is a legitimate goal of medical practice, but using opioid analgesics requires caution.
2. The patient's reliability in taking medications, noted through observation and careful history-taking. The physician should assess a patient's history of and risk factors for drug abuse before prescribing any psychoactive drug and weigh the benefits against the risks. The likely development of physical dependence in patients on long-term opioid therapy should be monitored through periodic check-ups.
3. The dependence producing potential of the medication. The physician should consider whether a product with less potential for abuse, or even a non-drug therapy, would provide equivalent benefits. Patients should be warned about possible adverse effects caused by interactions between opioids and other medications or substances, including alcohol. At the time a drug is prescribed, patients should be informed that it is illegal to sell, give away, or otherwise share their medication with others, including family members. The patient's obligation extends to keeping the medication in a locked cabinet or otherwise restricting access to it and to safely disposing of any unused supply (visit http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm101653.htm for advice from the FDA on how to safely dispose of unused medications).

EDUCATE THE PATIENT AND OBTAIN INFORMED CONSENT. Obtaining informed consent involves informing the patient about the risks and benefits of the proposed therapy and of the ethical and legal obligations such therapy imposes on both physician and patient [6]. Such informed consent can serve multiple purposes: (1) it provides the patient with information about the risks and benefits of opioid therapy; (2) it fosters adherence to the treatment plan; (3) it limits the potential for inadvertent drug misuse; and (4) it improves the efficacy of the treatment program.

Patient education and informed consent should specifically address the potential for physical dependence and cognitive impairment as side effects of opioid analgesics[2].

[2] An important source of patient information is the FDA package insert. The medication guides that accompany all extended-release or long-acting as well as oral solution opioids should be reviewed as part of the FDA Risk Evaluation and Management Strategy or (REMS). For available patient counseling documents in either English or Spanish please visit: http://www.er-la-opioidrems.com/IwgUI/rems/pcd.action

Other issues that should be addressed in the informed consent or treatment agreement include the following [6]:

- The agreement instructs the patient to stop taking all other pain medications, unless explicitly told to continue by the physician. Such a statement reinforces the need to adhere to a single treatment regimen.
- The patient agrees to obtain the prescribed medication from only one physician and, if possible, from one designated pharmacy.
- The patient agrees to take the medication only as prescribed (for some patients, it may be possible to offer latitude to adjust the dose as symptoms dictate).
- The agreement makes it clear that the patient is responsible for safe- guarding the written prescription and the supply of medications, and arranging refills during regular office hours. This responsibility includes planning ahead so as not to run out of medication during weekends or vacation.
- The agreement specifies the consequences for failing to adhere to the treatment plan, which may include discontinuation of opioid therapy if the patient's actions compromise his or her safety.

Both patient and physician should sign the informed consent agreement, and a copy should be placed in the patient's medical record. It also is helpful to give the patient a copy of the agreement to carry with him or her, to document the source and reason for any controlled drugs in his or her possession. Some physicians provide a laminated card that identifies the individual as a patient of their practice. This is helpful to other physicians who may see the patient and in the event the patient is seen in an emergency department.

EXECUTE THE PRESCRIPTION ORDER. Careful execution of the prescription order can prevent manipulation by the patient or others intent on obtaining opioids for non-medical purposes. For example, federal law requires that prescription orders for controlled substances be signed and dated on the day they are issued. Also under federal law, every prescription order must include at least the following information:

- Name and address of the patient
- Name, address and DEA registration number of the physician
- Signature of the physician
- Name and quantity of the drug prescribed
- Directions for use
- Refill information
- Effective date if other than the date on which the prescription was written.

Many states impose additional requirements, which the physician can determine by consulting the state medical licensing board. In addition, there are special federal requirements for drugs in different schedules of the federal Controlled Substances Act (CSA), particularly those in Schedule II, where many opioid analgesics are classified.

Blank prescription pads as well as information such as the names of physicians who recently retired, left the state, or died all can be used to forge prescriptions. Therefore, it is a sound practice to store blank prescriptions in a secure place rather than leaving them in examining rooms.

NOTE: The physician should immediately report the theft or loss of prescription blanks to the nearest field office of the federal Drug Enforcement Administration and to the state board of medicine or pharmacy.

MONITOR THE PATIENT'S RESPONSE TO TREATMENT. Proper prescription practices do not end when the patient receives a prescription. Plans to monitor for drug efficacy and safety, compliance, and potential development of tolerance must be documented and clearly communicated to the patient [3].

Subjective symptoms are important in monitoring, as are objective clinical signs (such as body weight, pulse rate, temperature, blood pressure, and levels of drug metabolites in the bloodstream). These can serve as early signs of therapeutic failure or unacceptable adverse drug reactions that require modification of the treatment plan.

Asking the patient to keep a log of signs and symptoms gives him or her a sense of participation in the treatment program and facilitates the physician's review of therapeutic progress and adverse events.

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Simply recognizing the potential for non- adherence, especially during prolonged treatment, is a significant step toward improving medication use [7]. Steps such as simplifying the drug regimen and offering patient education also improve adherence, as do phone calls to patients, home visits by nursing personnel, convenient packaging of medication, and periodic urine testing for the prescribed opioid as well as any other respiratory depressant.

Finally, the physician should convey to the patient through attitude and manner that any medication, no matter how helpful, is only part of an overall treatment plan.

When the physician is concerned about the behavior or clinical progress (or the lack thereof) of a patient being treated with an opioid analgesic, it usually is advisable to seek a consultation with an expert in the disorder for which the patient is being treated *and* an expert in addiction. Physicians place themselves at risk if they continue to prescribe opioids in the absence of such consultations [6].

CONSIDER PRESCRIBING NALOXONE ALONG WITH THE PATIENT'S INITIAL OPIOID PRESCRIPTION. Naloxone competitively binds opioid receptors and is the antidote to acute opioid toxicity. With proper education, patients on long-term opioid therapy and others at risk for overdose may benefit from having a naloxone kit containing naloxone, syringes and needles or prescribing Evzio[3]® which delivers a single dose of naloxone via a hand-held auto-injector that can be carried in a pocket or stored in a medicine cabinet to use in the event of known or suspected overdose [8].

Patients who are candidates for such kits include those who are:

- Taking high doses of opioids for long-term management of chronic malignant or non- malignant pain.
- Receiving rotating opioid medication regimens (and thus are at risk for incomplete cross-tolerance).
- Discharged from emergency medical care following opioid intoxication or poisoning.
- At high risk for overdose because of a legitimate medical need for analgesia, coupled with a suspected or confirmed history of substance abuse, dependence, or non-medical use of prescription or illicit opioids.
- On certain opioid preparations that may increase risk for opioid overdose such as extended release/long-acting preparations.
- Completing mandatory opioid detoxification or abstinence programs.
- Recently released from incarceration and a past user or abuser of opioids (and presumably with reduced opioid tolerance and high risk of relapse to opioid use).

It also may be advisable to suggest that the at-risk patient create an "overdose plan" to share with friends, partners and/or caregivers. Such a plan would contain information on the signs of overdose and how to administer naloxone (e.g.: using a FDA-approved preparation of naloxone, a naloxone autoinjector or other FDA approved devices as they become available) or otherwise provide emergency care (as by calling 911).

DECIDE WHETHER AND WHEN TO END OPIOID THERAPY. Certain situations may warrant immediate cessation of prescribing. These generally occur when out-of-control behaviors indicate that continued prescribing is unsafe or causing harm to the patient [3]. Examples include altering or selling prescriptions, accidental or intentional overdose, multiple episodes of running out early (due to excessive use), doctor shopping, or engaging in threatening behavior.

When such events arise, it is important to separate the patient as a person from the behaviors caused by the disease of addiction, as by demonstrating a positive regard for the person but no tolerance for the aberrant behaviors.

In such a situation, the essential steps are to (1) stop prescribing, (2) tell the patient that continued prescribing is not clinically supportable (and thus not possible), (3) urge the patient to accept a referral for assessment by an addiction specialist, (4) educate the patient about signs and symptoms of spontaneous withdrawal and urge the patient to go to the emergency department if withdrawal symptoms occur, (5) retrain on the risks and the signs of opioid overdose and on the use of naloxone and consider prescribing naloxone if deemed appropriate, and (6) assure the patient that he or she will continue to receive care for the presenting symptoms or condition [6].

[3] For further information about Evzio® visit www.evzio.com.

Identification of a patient who is abusing a prescribed opioid presents a major therapeutic opportunity. The physician should have a plan for managing such a patient, typically involving work with the patient and the patient's family, referral to an addiction expert for assessment and placement in a formal addiction treatment program, long-term participation in a 12-Step mutual help program such as Narcotics Anonymous, and follow-up of any associated medical or psychiatric comorbidities [3]. Providing training on use of naloxone and prescribing a naloxone kit or FDA-approved naloxone delivery device should be considered.

In all cases, patients should be given the benefit of the physician's concern and attention. It is important to remember that even drug- seeking patients often have very real medical problems that demand and deserve the same high-quality medical care offered to any patient [3,6].

TREATING OPIOID OVERDOSE

In the time it takes for an overdose to become fatal, it is possible to reverse the respiratory depression and other effects of opioids through respiratory support and administration of the opioid antagonist naloxone [9]. Naloxone is approved by the FDA and has been used for decades to reverse overdose and resuscitate individuals who have overdosed on opioids. Naloxone is available as a kit that can be put together from prescribed naloxone and syringes or a prescription for an FDA-approved naloxone delivery device (e.g.: Evzio® Auto Injector).

The safety profile of naloxone is remarkably high, especially when used in low doses and titrated to effect [8,9]. If given to individuals who are not opioid-intoxicated or opioid-dependent, naloxone produces no clinical effects, even at high doses. Moreover, while rapid opioid withdrawal in tolerant patients may be unpleasant, it is not typically life-threatening.

Naloxone should be part of an overall approach to known or suspected opioid overdose that incorporates the following steps.

RECOGNIZE THE SIGNS OF OVERDOSE. An opioid overdose requires rapid diagnosis. The most common signs of overdose include [3]:

- Extreme sleepiness inability to awaken verbally or upon sternal rub
- Breathing problems can range from slow to shallow breathing in a patient that cannot be awakened
- Fingernails or lips turning blue/purple
- Extremely small pupils "pinpoint pupils"
- Slow heartbeat and/or low blood pressure

Signs of **OVERMEDICATION**, which may progress to overdose, include [3]:

- Unusual sleepiness, drowsiness, or difficulty staying awake despite loud verbal stimulus or vigorous sternal rub
- Mental confusion, slurred speech, intoxicated behavior
- Slow or shallow breathing
- Pinpoint (small) pupils; normal size pupils does not exclude opioid overdose
- Slow heartbeat, low blood pressure
- Difficulty waking the person from sleep.

Because opioids depress respiratory function and breathing, one telltale sign of an individual in a critical medical state is the "death rattle." Often mistaken for snoring, the "death rattle" is an exhaled breath with a very distinct, labored sound coming from the throat. It indicates that emergency resuscitation is needed immediately [8].

SUPPORT RESPIRATION. Supporting respiration is the single most important intervention for opioid overdose and may be life-saving on its own. Ideally, individuals who are experiencing opioid overdose should be ventilated with 100% oxygen before naloxone is administered to reduce the risk of acute lung injury [3,8]. In situations where 100% oxygen is not available, rescue breathing can be very effective in supporting respiration [8]. Rescue breathing involves the following steps:

- Verify that the airway is clear.
- With one hand on the patient's chin, tilt the head back and pinch the nose closed.
- Place your mouth over the patient's mouth to make a seal and give 2 slow breaths (the patient's chest should rise, but not the stomach).
- Follow up with one breath every 5 seconds.

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ADMINISTER NALOXONE. Naloxone competitively binds opioid receptors and is the antagonist of choice for the reversal of acute opioid toxicity. It should be given to any patient who presents with signs of opioid overdose, or when overdose is suspected [4]. Naloxone can be given by intramuscular, subcutaneous or intravenous injection every 2 to 3 minutes [8-10].

The most rapid onset of action is achieved by intravenous administration, which is recommended in emergency situations [13]. The intramuscular route of administration may be more suitable for patients with a history of opioid dependence because it provides a slower onset of action and a prolonged duration of effect, which may minimize rapid onset of withdrawal symptoms [4]. The product Evzio® is specifically designed for intramuscular use but may also be administered subcutaneously.

The intramuscular or subcutaneous route of administration may be more suitable for patients with a history of opioid dependence because it provides a slower onset of action and a prolonged duration of effect, which may minimize rapid onset of withdrawal symptoms [8].

Pregnant patients. Naloxone can be used safely to manage opioid overdose in pregnant women. The lowest dose to maintain spontaneous respiratory drive should be used to avoid triggering acute opioid withdrawal, which may cause fetal distress [8].

MONITOR THE PATIENT'S RESPONSE. Patients should be monitored for re-emergence of signs and symptoms of opioid toxicity for at least 4 hours following the last dose of naloxone (however, patients who have overdosed on long-acting opioids require more prolonged monitoring) [8].

Most patients respond to naloxone by returning to spontaneous breathing, with mild withdrawal symptoms [8]. The response generally occurs within 3 to 5 minutes of naloxone administration. (Rescue breathing should continue while waiting for the naloxone to take effect.)

The duration of effect of naloxone is 30 to 90 minutes depending on dose and route of administration. Patients should be observed after that time for re-emergence of overdose symptoms. The goal of naloxone therapy should be restoration of adequate spontaneous breathing, but not necessarily complete arousal [8-10].

More than one dose of naloxone may be required to revive the patient. Those who have taken longer-acting opioids or opioid partial agonists may require further doses or may require further intravenous bolus doses or an infusion of naloxone [8]. Therefore, it is essential to get the person to an emergency department or other source of acute care as quickly as possible, even if he or she revives after the initial dose of naloxone and seems to feel better.

SIGNS OF OPIOID WITHDRAWAL: Withdrawal triggered by naloxone can feel unpleasant. As a result, some persons become agitated or combative when this happens and need help to remain calm.

The signs and symptoms of opioid withdrawal in an individual who is physically dependent on opioids may include (but are not limited to) the following: body aches, diarrhea, tachycardia, fever, runny nose, sneezing, piloerection, sweating, yawning, nausea or vomiting, nervousness, restlessness or irritability, shivering or trembling, abdominal cramps, weakness, and increased blood pressure [9]. Withdrawal syndromes may be precipitated by as little as 0.05 to 0.2 mg intravenous naloxone in a patient taking 24 mg per day of methadone.

In neonates, opioid withdrawal also may produce convulsions, excessive crying, and hyperactive reflexes [9]. Additionally, in neonates, opiate withdrawal may be life-threatening if not recognized and properly treated.

NALOXONE NON-RESPONDERS: If a patient does not respond to naloxone, an alternative explanation for the clinical symptoms should be considered. The most likely explanation is that the person is not overdosing on an opioid but rather some other substance or may even be experiencing a non-overdose medical emergency. Another possible explanation to consider is that the individual has overdosed on buprenorphine, a long-acting opioid partial agonist. Because buprenorphine has a higher affinity for the opioid receptors than do other opioids, naloxone may not be effective at reversing the effects of buprenorphine-induced opioid overdose [8].

In all cases, support of ventilation, oxygenation, and blood pressure should be sufficient to prevent the complications of opioid overdose and should be given the highest priority if the patient's response to naloxone is not prompt.

NOTE: All naloxone products have an expiration date. It is important to check the expiration date and obtain replacement naloxone as needed.

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LEGAL AND LIABILITY CONSIDERATIONS

Health care professionals who are concerned about legal risks associated with prescribing naloxone may be reassured by the fact that prescribing naloxone to manage opioid overdose is consistent with the drug's FDA-approved indication, resulting in no increased liability so long as the prescriber adheres to general rules of professional conduct. State laws and regulations generally prohibit physicians from prescribing a drug such as naloxone to a third party, such as a caregiver. (Illinois, Massachusetts, New York, and Washington State are the exceptions to this general principle.) More information on state policies is available at http://www.prescribetoprevent.org/ or from individual state medical boards.

CLAIMS CODING AND BILLING

Most private health insurance plans, Medicare, and Medicaid cover naloxone for the treatment of opioid overdose, but policies vary by state. The cost of take-home naloxone should not be a prohibitive factor. Not all community pharmacies stock naloxone routinely but can always order it. If you are caring for a large population of patients who are likely to benefit from naloxone, you may wish to notify the pharmacy when you implement naloxone prescribing as a routine practice.

The codes for Screening, Brief Intervention, and Referral to Treatment (SBIRT) can be used to bill time for counseling a patient about how to recognize overdose and how to administer naloxone. Billing codes for SBIRT are as follows:

Commercial Insurance: CPT 99408 (15 to 30 minutes)

Medicare: G0396 (15 to 30 minutes)

Medicaid: H0050 (per 15 minutes

For counseling and instruction on the safe use of opioids including the use of naloxone outside of the context of SBIRT services the provider should document the time spent in medication education and use the E&M code that accurately captures the time and complexity. For example, in new patients deemed appropriate for opioid pharmacotherapy and when a substantial and appropriate amount of additional time is used to provide a separate service such as behavioral counseling (e.g. opioid overdose risk assessment and naloxone administration training), consider using modifier –25 in addition to the E&M code.

In addition, when using an evidence-based opioid misuse/abuse or overdose risk factor assessment tool/screening instrument, CPT Code 99420 (Administration and interpretation of health risk assessment instrument) can be used for patients with commercial insurance.

RESOURCES FOR PRESCRIBERS

Additional information on prescribing opioids for chronic pain is available at the following websites: http://www.opioidprescribing.com.

Sponsored by the Boston University School of Medicine, with support from SAMHSA, this site presents course modules on various aspects of prescribing opioids for chronic pain. To view the list of courses and to register, go to http://www.opioidprescribing.com/overview. CME credits are available at no charge.

http://www.pcss-o.org or www.pcssmat.org. Sponsored by the American Academy of Addiction Psychiatry in collaboration with other specialty societies and with support from SAMHSA, the Prescriber's Clinical Support System offers multiple resources related to opioid prescribing and the diagnosis and management of opioid use disorders.

http://www.er-la-opioidrems.com/IwgUI/rems/home.action. The FDA provide physician training and patient education on the use of extended-release or long-acting opioids which can be found here.

http://www.medscape.com. Two course modules sponsored by the National Institute on Drug Abuse and posted on Medscape can be accessed at http://www.medscape.org/viewarticle/770687 and http://www. medscape.org/view article/770440. CME credits are available.

http://prescribetoprevent.org. Compiled by prescribers, pharmacists, public health workers, lawyers, and researchers working on overdose prevention and naloxone access this privately funded site provides resources to help health care providers educate their patients to reduce overdose risk and provide naloxone rescue kits to patients.

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