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Caring for the hospitalized patient with opioid use disorder

During your career, it's likely that you'll care for individuals with opioid dependence or addiction. Knowing the basics will help you understand these patients and improve their outcomes.

By Dorothy J. Moore, DNP, FNP-C, CCRN

In 2017, over 2 million people in the US experienced substance use disorders related to opioids, and this number may be far higher. The term *opioid* refers to both synthetic and naturally occurring drugs derived from the opium poppy that bind to the brain's opioid receptors. Opioids have analgesic properties, making them excellent pain medications; however, most opioids cause euphoria, leading to their high potential for abuse. They also depress the central nervous system and can stop a person from breathing, making them potentially lethal.

People abuse prescription opioids in a variety of ways. They can take pills orally or they may crush them and then snort, smoke, or inject them. Prescription opioid abuse is a major risk factor for progression to heroin, which can be injected, snorted, or smoked.

Opioid use disorder (OUD) is defined as a pattern of compulsive opioid use that continues despite harmful consequences (see *Diagnostic criteria for OUD*). This chronic, relapsing disease is caused by many factors, including genetics, family dynamics, and socioeconomic status. Risk factors include a mental disorder such as depression, a history of substance use disorder, being younger, and being male. OUD may lead to lost jobs, separation from family and friends, and financial hardships. It isn't unusual for people with OUD to spend hundreds of dollars a week on opioids or become hospital "frequent flyers."

Patient-centered care

There's a popular false belief that addiction is a character flaw—if a person just had better judgment and self-control, he or she wouldn't be addicted to drugs. This misconception can affect how we interact with our patients and how they interact with us. The stigma behind OUD prevents patients from seeking treatment and then from being honest about their opioid use if they're hospitalized.

Patients often worry that hospital staff members will stigmatize them and treat them poorly, which can lead to defensive behaviors, possible conflict, and suboptimal patient care. Patients with OUD often fear that they won't be treated for withdrawal during hospitalization, which can cause them to delay or defer care and lie about their addiction.

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Some patients with OUD may present to the hospital and tell you they have addiction disease; others may be hiding their issues from family members, friends, or even themselves. Sometimes, a medical crisis, especially one requiring pain management, brings an addiction diagnosis to the forefront. The connection you as a nurse make with your patient is critically important. Use nonstigmatizing, nonjudgmental language when interacting with patients. Remember that, by definition, patients with OUD have lost the ability to control their drug use.

Helping patients maintain a sense of control over their care is vital. For instance, you might ask a patient who's an I.V. drug user, "Can you tell me which vein I should use to start your I.V.?" This question acknowledges that you understand the patient is very familiar with his veins and is likely more expert at finding them than you are. It also opens the door to conversation.

Using open-ended questions, rather than telling your patient what you think is best, is always a good approach. Motivational interviewing (MI) is a counseling style in which you're the helper in the patient's road to change. Your role is that of an active listener, with the goal of eliciting behavioral change statements from the patient. One of the most powerful aspects of MI is using reflective listening—an empathetic style of counseling that "listens rather than tells."

Diagnostic criteria for OUD

To confirm a diagnosis of OUD, at least two of the following should be observed within a 12-month period:

- opioids are often taken in larger amounts or over a longer period than was intended
- a persistent desire or unsuccessful efforts to cut down or control opioid use
- a great deal of time is spent in activities necessary to obtain the opioid, use the opioid, or recover from its effects
- craving or a strong desire or urge to use opioids
- recurrent opioid use resulting in a failure to fulfill major role obligations at work, school, or home
- continued opioid use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids
- important social, occupational, or recreational activities are given up or reduced because of opioid use
- recurrent opioid use in situations in which it's physically hazardous
- continued opioid use despite knowledge of having a persistent or recurrent physical or psychological problem that's likely to have been caused or exacerbated by the substance
- exhibits tolerance*
- exhibits withdrawal.*

*Not met if the patient is taking opioids under appropriate medical supervision.

Source: Centers for Disease Control and Prevention. Assessing and addressing opioid use disorder (OUD). www.cdc.gov/drugoverdose/training/oud/accessible/index.html.

Identifying OUD

There's no straightforward way to identify a patient with OUD. Some patients show no obvious effects related to their opioid abuse; others may be in withdrawal. Others may be intoxicated when they arrive at the hospital. The intoxicated patient may appear sedated and have pinpoint pupils (miosis). This patient may nod off midsentence, have slurred speech, and have trouble staying awake. He or she should be observed closely for respiratory depression. It's best practice to place such patients on pulse oximetry and CO_2 and respiratory monitoring. Locating the patient in a high-visibility area is important. It's critical to establish I.V. access and be prepared to administer naloxone, with a healthcare provider's prescription, if the patient's respiratory rate consistently drops below 6 to 8 breaths/minute.

Undiagnosed patients may have certain red flag behaviors, including repeat hospital visits for pain without any physiologic source, a pattern of seeking opioids from several healthcare providers, and inflexibility around the pain management plan while hospitalized. However, none of these necessarily identifies a person as having OUD. Diagnosis is based on multiple factors and the key to caring for these patients is a nonjudgmental approach. Always acknowledge the patient's concerns and listen with an open mind.

Screening tools

The Drug Abuse Screening Test (DAST-10) and CAGE-AID are tools used to screen

for OUD. DAST-10 consists of 10 yes-or-no questions pertaining to drug use in the past 12 months that can be used to screen patients for treatment evaluation. An answer of "yes" receives 1 point, except for the third question, for which an answer of "no" receives 1 point. A score of 1 to 2 equals a low-level problem that requires monitoring. A score of 3 to 5 indicates a moderate-level problem that requires further investigation. A score of 6 to 8 is a substantial problem requiring intensive assessment. And a score of 9 to 10 equals a severe-level problem, also needing intensive assessment. CAGE-AID is a 4-question tool; if a patient answers "yes" to 2 or more questions, a complete assessment by a trained provider is advised.

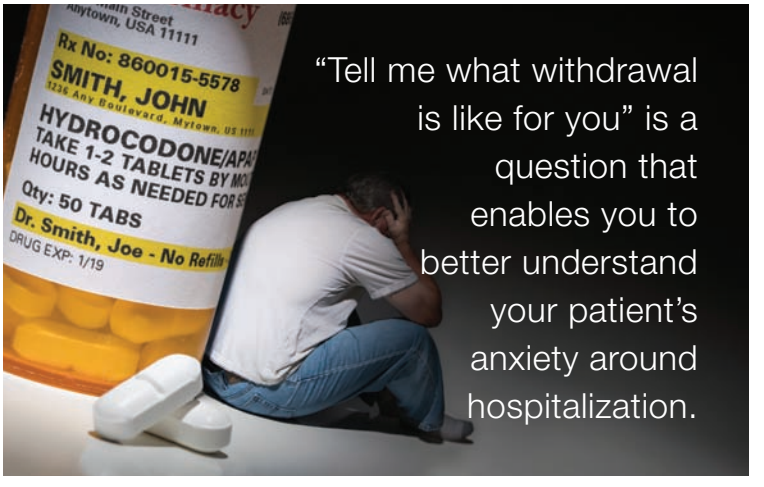
Point-of-care urine toxicology screening tests can aid in identifying OUD, although they can show false results. For example, the opioids fentanyl, buprenorphine, and trama-dolaren't routinely picked up by point-of-care testing. For this reason, most hospitals will perform gas chromatography-mass spectrometry testing, which is more reliable and precise but can take hours to days to receive results.

Urine toxicology screening can also be useful in letting you know if the patient is abusing other drugs. It isn't uncommon for patients with OUD to abuse other drugs, such as methamphetamine or benzodiazepines. Because opioids and benzodiazepines are both sedating, patients who take these drugs together are at greater risk for overdose than if they only use opioids. Diazepam, alprazolam, and clonazepam are examples of common benzodiazepines.

It's also important to explore whether your patient abuses alcohol. Typically, a blood alcohol level is ordered if this is suspected. Withdrawal from both alcohol and benzodiazepines can cause lethal seizures.

Managing withdrawal

A major concern for patients with OUD is that they'll go into withdrawal in the hospital and not receive adequate treatment for their withdrawal symptoms. Fear of untreated withdrawal is a reason why many patients with OUD elope from the ED.



Be sure to ask your patient which opioids he or she regularly takes because this will determine when to expect withdrawal symptoms. For instance, a patient taking a short-acting opioid like fentanyl will begin to experience withdrawal as early as a few hours after the last dose. Typically with heroin, withdrawal symptoms peak within 72 hours of the last dose taken and can last for days. "Tell me what withdrawal is like for you" is a question that enables you to better understand your patient's anxiety around hospitalization. Some patients describe withdrawal as worse than the worst case of flu they ever had. The first symptoms of withdrawal include yawning, runny nose, watery eyes, drug craving, agitation, anxiety, trouble sleeping, chills, and goose bumps.

As withdrawal progresses, patients may experience sweating, abdominal cramping, nausea and vomiting, and diarrhea. It isn't uncommon for patients to report muscle aches, sleep issues, depression, and drug craving for weeks to months after their last drug use. Patients in withdrawal may be anxious or even panicked. This can sometimes lead to anger and even aggressive behavior. If a patient is acting out,

ensuring staff safety is of the utmost importance. Some tips for managing difficult patient behavior include remaining calm and reassuring, limiting the number of staff members caring for the patient, listening to the patient, and acknowledging the patient's feelings.

The Clinical Opiate Withdrawal Scale, or COWS, is an objective way of measuring 11 signs and symptoms of opioid withdrawal: resting pulse, sweating, restlessness, pupil size, bone or join aches, runny nose or tearing, gastrointestinal upset, tremor of outstretched hand, yawning, anxiety or irritability, and gooseflesh skin. Nurses can use this scale at regular intervals to monitor the extent of a patient's withdrawal.

Depending on the setting, clonidine is often given to decrease withdrawal symptoms. Benzodiazepines are sometimes given for anxiety if not contraindicated, acetaminophen or nonsteroidal anti-inflammatory drugs for pain, and loperamide for diarrhea. I.V. fluids are given to prevent dehydration. Another opioid withdrawal management method is to transition the patient to an opioid agonist, such as methadone or buprenorphine, to suppress withdrawal symptoms. The patient is then tapered off the opioid agonist in a controlled setting or the patient remains on the opioid agonist and is referred to a clinic specializing in medication-assisted treatment (MAT) as an outpatient.

Patients should be warned about the risk of relapse if they're weaned off opioids in the hospital and understand that the postdischarge period is a particularly vulnerable time in terms of possible overdose. Discharge planning should include connection with follow-up addiction treatment.

consider this

Your patient, Jake, is a 27-year-old heroin user who's an ED frequent flyer. Today, he comes in for treatment of a large abscess on his left forearm. Remember the acronym OARS so you can navigate a meaningful conversation with Jake using MI:

- **O:** Ask open-ended questions that can't be answered with a simple yes or no. Example: "I notice you've been coming in to see us a lot lately. Can you tell me how it's going?"
- **A:** Affirm by recognizing and encouraging Jake's strengths. Example: "I think you have a lot of courage dealing with your addiction. We see that when you come in and are honest with us about what's going on."
- **R:** Reflect by responding so that it's obvious you're listening and empathetic to what Jake is saying. Example: "What I think you're saying is that it's getting tougher lately to be trying to score drugs on the street."
- **S:** Summarize to recap what's been discussed. This is a chance to highlight reasons for change. Example: "You've been getting sick more this winter and things are getting tougher for you. What are some of the things that are keeping you from getting treatment?"

When using MI, ask Jake:

- permission to discuss a subject (This is a good way to open the door to conversation.)
- to explain the pros and cons of the situation (What do you like about your lifestyle? What are some of the negative issues?)
- to look forward (How would things be different for you if you could receive treatment?)
- to reflect on past times that went well in his life. (What worked and why?)

The idea with MI is to help your patient reflect and draw connections for self-improvement. Research shows that this kind of insight is far more powerful than telling patients what they should do. By using even a couple of MI prompts, you may hear Jake ask for a social worker and agree to explore treatment options.

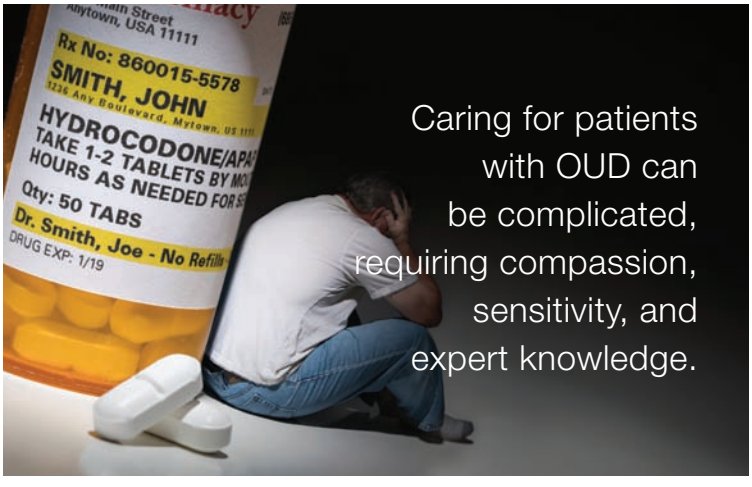
Assessment concerns

A complete bedside skin check is very important when you assess a patient with OUD. People who inject opioids often do so in unsanitary settings and use dirty needles. This can cause deep, painful abscesses, which are a collection of pus beneath the dermal layer. You'll likely see a swollen, reddened area and may feel fluid at the site. Take care if you palpate an abscess because they can be extremely tender. I.V. drug use can also cause cellulitis—surface skin infections that are swollen, warm to the touch, and red. Report signs of infection, such as redness, swelling, skin that's warm to the touch, or painful areas, to the healthcare provider.

Look for scarring along veins, known as "tracks," that develops for most I.V. drug users. Small, round, discolored areas that are often fibrotic are common with people who inject drugs subcutaneously.

You may see bruising on the thighs or buttocks with patients who inject opioids directly into their muscles. It isn't unusual for people to use their feet as an injection site out of a desire to hide their drug use or because they've run out of usual sites.

Patients who inject drugs may be quite self-conscious that their habit is obvious but taking the time to check thoroughly for active infections is extremely important, especially in out-of-sight locations. Assessing the extent of scarring from needle use can reveal the extent of your patient's addiction—more scarring can mean a more advanced addiction disease process.



Complications

Paradoxically, long-term opioid use can cause more pain rather than less. This is known as opioid-induced hyperalgesia (OIH)—a state of extreme pain sensitivity caused by desensitization of pain receptors from opioid overuse. OIH is different than tolerance to opioids where increasing the opioid dosage will decrease the patient's pain level. With OIH, the patient experiences pain despite an increased dosage of medication that's out of proportion with the medical situation. Examples of OUD patients with OIH include the patient who winces or cries out when you take off a BP cuff but who has no physical injury or the patient who describes constant 10/10 pain that's "everywhere" with no clear injury or painful illness.

When caring for patients with OIH, it's important to acknowledge that they're in real pain. Trying nonopioid analgesics may be beneficial, as well as adjuvant pain treatments such as warm or cold packs. OIH is ultimately treated by tapering patients off opioids or switching to an opioid agonist, such as methadone or buprenorphine. This can take weeks of treatment and is rarely done in the hospital.

Narcotic bowel syndrome (NBS) is colicky abdominal pain that gets worse as opioid medications wear off in some chronic opioid users. This is because opioids slow gut motility, leading to pain. Some of these patients are likely experiencing OIH as well. Patients with NBS can get caught in a vicious cycle of demanding more opioid pain medication even though the opioids are at the root of their pain. Treating NBS can be challenging; it ultimately requires weaning the patient off opioids and substituting nonopioid analgesics.

Constipation can be a chronic problem for patients with OUD because opioids affect mu-opioid receptors not only in the brain, but also in the gut, causing a slowing of gut motility. Many patients with OUD have developed routines for managing constipation, such as the use of laxatives and stool softeners. It's useful to ask your patient if constipation is a problem and, if so, how he or she manages it. Regularly assess your patient to see how often he or she is able to have a bowel movement, how long it takes, and whether treatments are working. Of course, laxatives don't address the underlying reason for constipation. For some patients, drugs known as peripherally acting mu-opioid receptor antagonists can deliver naloxone directly to the gut, reversing the effects of opioids in the gut's mu-opioid receptors and lessening constipation.

Cotton fever is a syndrome associated with I.V. heroin use, with symptoms

including fevers, body aches, nausea, and an elevated white blood cell count. It's thought to be caused by filtering liquid heroin through cotton balls. The cotton may contain bacterial endotoxins, which cause illness. Cotton fever usually goes away on its own, but these patients typically receive a full sepsis workup.

Infective endocarditis (IE) is a life-threatening complication of using dirty I.V. needles. Infected venous blood travels to the right side of the heart first, so right-sided heart valves are more likely to develop IE. Listen carefully to your patient's heart for abnormal cardiac findings, including murmurs, gallops, and pericardial rubs. You may hear adventitious sounds in a patient with OUD who appears well but who has a chronic infection. Report any abnormal findings to the healthcare provider.

Acute IE can progress rapidly, often presenting like sepsis with fevers and chills, shortness of breath, cough, or chest and joint pains. Other signs can include a stiff neck, delirium, stroke symptoms, and conjunctival hemorrhage. There are several classic signs of IE that are found in some, but not all, patients: petechiae scattered around the body from microvascular emboli; dark red, linear splinter hemorrhages beneath the fingernails; tender nodules at the ends of fingers and toes (Osler nodes); nontender lesions on the palms and soles (Janeway lesions); and retinal hemorrhages (Roth spots).

People who inject drugs and share needles or other equipment are at high risk for HIV, hepatitis B (HBV), and hepatitis C (HCV). People can contract HCV by sharing pipes and other drug paraphernalia that come in contact with body fluids. People with OUD may also have impaired judgment, causing them to have unprotected sex. Patients with OUD may be fatalistic about their lives and future, feeling like there's no point in preventive care. As a nurse, you can educate patients on the importance of being tested for viruses and about treatment and prevention options, including HBV vaccination and treatment for HCV and HIV. People at high risk for contracting HIV, such as IV drug users, can take preexposure prophylaxis, or PrEP, antiretroviral medication to help prevent HIV. Encourage patients to adopt harm reduction strategies, such as community needle exchange programs that offer free sterile needles. Your hospital's social workers should be aware of these programs and can provide resources.

Managing pain

Hospitalized patients with OUD may experience acute pain and require additional opioids. Because they've built up a tolerance to opioids, the amount of medication needed to treat their pain is usually much greater than for opioid-naive patients. Often, these patients are labeled as "drug-seeking" because of their increased pain medication requirements.

When caring for patients with OUD in acute pain, acknowledge that you accept their reports of pain. Always perform a thorough pain assessment using a "PQRST" approach and ask about precipitating factors, the quality of the pain (sharp, burning, aching), its location and whether it radiates to other locations, the patient's subjective description of the pain, and the time the pain occurs (onset, duration).

Don't withhold opioids if they're prescribed for your patient unless you're concerned about respiratory depression. Patients who take opioids on a daily basis should be given their baseline level of medication, plus additional opioid medication to control the acute pain. Some patients may require 50% to 100% more medication than their baseline dosage. Closely monitor all patients receiving opioid medication for signs of oversedation. Using a sedation scale, such as the Pasero Opioid-induced Sedation Scale (POSS), is best practice when managing a patient who's receiving opioid medications. The POSS measures a person's level of sedation. Assessments include: asleep, easy to arouse; slightly drowsy, easily aroused; awake and alert; arousable but drifts off to sleep during conversation; and somnolent with minimal or no response to verbal and physical stimulation.

Patients who are on MAT for OUD may be taking either methadone or buprenorphine on a daily basis as an outpatient. These medications treat the patient's cravings and prevent opioid withdrawal. If patients don't continue to receive these medications or a morphine-equivalent dosage of another opioid, they'll go into withdrawal. Although methadone and buprenorphine are analgesics, patients on MAT aren't receiving enough opioid medication for treatment of their acute pain, so additional pain medications are required.

Methadone has a long half-life; the usual practice is to continue the patient's methadone maintenance dosage and add a short-acting opioid such as fentanyl for acute or breakthrough pain. Management of patients on buprenorphine is more complicated because it binds more tightly to mu-opioid receptors than other opioids, inhibiting the analgesic properties of those drugs. These patients may be switched to traditional opioids and buprenorphine may be temporarily discontinued. Nonopioid medications, such as gabapentin and I.V. acetaminophen, can also be used.

on the web

American Nurse Today
NP role in medication-assisted treatment for opioid use disorder
www.americannursetoday.com/np-medication-treatment-opioid-disorder

American Nurses Association
Opioid epidemic
www.nursingworld.org/practice-policy/work-environment/health-safety/opioid-epidemic

American Society of Addiction Medicine
The ASAM national practice guideline for the use of medications in the treatment of addiction involving opioid use
www.asam.org/docs/default-source/practice-support/guidelines-and-consensus-docs/asam-national-practice-guideline-supplement.pdf

National Institute on Drug Abuse
Opioid overdose crisis
www.drugabuse.gov/drugs-abuse/opioids/opioid-overdose-crisis

Providers Clinical Support System
Opioid use disorder: What is opioid addiction?
https://pcssnow.org/resource/opioid-use-disorder-opioid-addiction

Substance Abuse and Mental Health Services Administration
Medications for opioid use disorder
https://store.samhsa.gov/product/TIP-63-Medications-for-Opioid-Use-Disorder-Full-Document-Including-Executive-Summary-and-Parts-1-5-/SMA19-5063FULLDOC

Many hospitals now start patients with OUD on buprenorphine, then discharge them with a small amount of medication to bridge them to obtaining care through an outpatient MAT program.

Discharge planning

Discharging a patient with OUD is one of the most important parts of his or her hospital care. This is a chance to help prevent readmission. Important elements for discharging a patient with OUD include:

- Screen patients with high-risk behaviors for HIV and viral hepatitis and connect them with follow-up services.
- Instruct patients on how to use naloxone in case of overdose and encourage them to teach a loved one. Some hospitals now discharge known opioid abusers with naloxone.
- For I.V. drug users, provide a list of community resources for needle exchange programs.

• For patients going home with buprenorphine, teach safe storage and disposal of the medication, especially where there are small children or teens in the home.
• Connect patients to outpatient addiction treatment services.

Life-saving knowledge

Caring for patients with OUD can be complicated, requiring compassion, sensitivity, and expert knowledge. Enhanced communication skills, along with an understanding of key focused assessments, management of opioid withdrawal, pain control strategies, and discharge planning, will improve your patient's care experience, reduce readmission rates, and potentially save a life. ■

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