

# Managing the Pain

## Improving pain management in addicted patients

By Pamela J. Woods, RN, CEN, SANE-A, BSN • Trauma Staff Development Specialist  
Marilynn Kyritsis Bartley, RN, MSN, FNP-C • Trauma Advanced Practice Nurse  
Christiana Care Health System • Newark, Del.

PAIN MANAGEMENT FOR PATIENTS with a current or past history of substance abuse presents a major challenge for healthcare providers. Nurses may face this challenge every day, whether in a person who abuses alcohol, one who abuses prescribed opioid medications, or the person who abuses illicit drugs. To care for these patients, the bedside nurse needs to be knowledgeable on two subjects: substance abuse and pain management.

The mechanism of substance abuse disorders is complex and multifactorial. In the last several decades the medical profession has adopted the model in which chemical dependency is considered an illness requiring treatment. The American Society of Addiction Medicine states, “Patients with addictive disease and pain have the right to be treated with dignity, respect, and the same quality of pain assessment and management as all other patients.” This includes maintaining a balance between provision of pain relief and protection against inappropriate use of prescribed medication. Alcohol and other drug use is linked to major and minor trauma and to chronic illnesses associated with high levels of pain. Despite this increased risk, these patients often report undertreatment of pain. Too often, a patient’s request for more or different medication is perceived to be an indication of addiction. The reality of pain is often seen as suspect in those with an addiction, it isn’t thought to be real, and at times the patient may be viewed as just wanting to be “high.”

### Commonly used terms

To better understand and manage pain, several terms need to be defined. *Pain* is a sensory emotional experience resulting from actual or potential tissue damage. Pain can be acute, as with the pain that follows an injury, disease, or invasive procedure and is normally time limited; or chronic, which is pain that’s lasted beyond the normal course for a disease or injury. Chronic pain can persist for months or even years. *Substance abuse* is defined as the maladaptive pattern of drug or alcohol use that may lead to social, occupational, psychological, or physical problems. *Withdrawal* is a psychological and physical syndrome that can be produced by abrupt cessation of drug use. *Tolerance* is a condition that occurs from the regular use of a drug in which a person requires increased or more frequent dosage to achieve



that same effect. *Addiction* is the habitual psychological and physical dependence on a substance that’s beyond voluntary control. Nurses’ views on chemical dependence can shape their attitudes and behaviors toward a patient with drug dependence, ultimately affecting how they’re cared for and how effectively their pain is treated.

### Ask the right questions

All patients should be asked about their use of alcohol and drugs, both prescribed and nonprescribed. Substance abuse disorders are often missed and therefore untreated. Patients should be questioned about the use of illicit substances such as heroin, cocaine, marijuana, alcohol, and any prescribed medications. To provide pain management for a patient, you need to know what drugs he’s actively using and how often, what (if any) drugs he’s used in the past, and if he’s on any type of maintenance program.

Assessment tools have been developed for the evaluation of substance abuse. The CAGE questionnaire is a set

# Managing the Pain

of four interview questions that identify possible alcohol dependence or abuse (see *CAGE questionnaire*).

It's important to accept all patients' reports of pain whatever the history of drug abuse. If a patient is dependent on opioids because of nonprescribed use, he'll have built up a tolerance to drugs and may need more of a drug to establish the same effect. It may be necessary to administer larger doses of prescribed opioid or to space doses at shorter intervals.

## Alcohol dependence

The consequences of alcohol misuse are serious. Heavy drinkers (defined as having more than one drink per day) can have an increase in the risk for certain cancers, especially those of the liver, esophagus, throat, and larynx. Heavy drinking can cause liver cirrhosis, immune system problems, brain damage, and harm to a fetus during pregnancy.

Individuals with alcohol dependence can exhibit serious symptoms once admitted to a hospital where they can no longer obtain alcohol and may start to withdraw. For some patients, withdrawal symptoms might be mild and may include agitation, increased sweating, tachycardia, increased hand tremors, gastrointestinal upset, palpitations, headache, and anorexia. More severe symptoms may occur 12 to 48 hours after not drinking. At this stage, the patient may develop delirium exhibited by agitation, disorientation, and fluctuating levels of consciousness, and visual and auditory hallucinations. Seizures can occur, which is the point when alcohol withdrawal can become dangerous. In alcohol withdrawal syndrome, generalized tonic-clonic seizures typically occur 12 to 48 hours after the last drink and delirium tremens begins 48 to 72 hours. The signs of acute alcohol withdrawal typically abate 3 to 5 days after the last drink, but subtle brain abnormalities may persist for an undetermined period.

Assessment of this population must include investigating whether the abuse is chronic or acute. In acute abuse, depending on the amount, there's a concern for airway maintenance. Alcohol is a central nervous system depressant and as such, clinicians need to be aware of its respira-

tory depressive effects when combined with opioid pain management.

In chronic abusers, it's important to elicit the usual daily intake as well as the last ingestion. Withdrawal in this population can be more detrimental to the patient than the actual presenting chief complaint; therefore, treatment of alcohol withdrawal with the use of benzodiazepines such as lorazepam (Ativan) as prescribed by the treating healthcare provider is crucial.

The bedside nurse should be aware of the signs and symptoms of alcohol withdrawal that may include elevation in heart rate and BP, nausea/vomiting, diaphoresis, anxiety, headache, abdominal cramping, and tremors.

The Clinical Institute Withdrawal Assessment for Alcohol Withdrawal (CIWA-Ar) is a scale used to quantify and direct patient treatment for alcohol withdrawal. The scale guides the reviewer through several subjective and objective clinical findings to obtain an overall CIWA-Ar score.

Benzodiazepines are the agent of choice in treating alcohol withdrawal. Check your facility's guidelines regarding treatment of patients undergoing alcohol withdrawal for specifics. The guideline should discuss careful monitoring of patients at risk for alcohol withdrawal as well as provide orders to administer a benzodiazepine such as chlordiazepoxide (Librium) or lorazepam (Ativan), based on the severity of symptoms.

## Benzodiazepine dependence

Benzodiazepines such as alprazolam (Xanax), diazepam (Valium), chlordiazepoxide (Librium), and lorazepam are prescribed to treat anxiety and sleep disorders. With abuse, these agents cause tolerance and dependence and the withdrawal symptoms can also be severe. Long-term use of benzodiazepines can give rise to many unwanted effects, including poor memory and cognition, emotional blunting, depression, increasing anxiety, physical symptoms, and dependence. Benzodiazepines are unsuited for long-term use and they should, in general, be prescribed for periods of 2 to 4 weeks only. Patients who are withdrawing from long-term use of benzodiazepines must reduce the dosage slowly. Abrupt or over-rapid withdrawal, especially from high doses, can give rise to severe symptoms such as convulsions, psychotic reaction, and acute anxiety states.

If a patient is hospitalized and is dependent on a benzodiazepine, one of these agents needs to be resumed to prevent withdrawal. The dependence will need to be addressed once the patient recovers from his acute illness or injury by slowly decreasing the dosage of the medication.

### CAGE questionnaire

- Have you ever felt you should cut down on your drinking?
- Have people annoyed you by criticizing your drinking?
- Have you felt bad or guilty about your drinking?
- Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover (eye-opener)?

# Managing the Pain

## Opioid dependence

Opioids, which are narcotic substances derived from opium, include oxycodone hydrochloride (OxyContin, Roxicodone) and hydrocodone/acetaminophen (Vicodin). They're prescribed for moderate to severe pain. Oxycodone and acetaminophen (Percocet, Roxicet, Endocet) remains popular as well. An additional concern with this type of abuse is liver toxicity from the excessive acetaminophen ingestion. Alternative pain management would preclude acetaminophen use and any medications that are hepatotoxic.

Opioid abuse causes tolerance and dependence and the withdrawal symptoms are severe. Physical dependence is a normal and predictable response to regular treatment with opioids for more than 1 to 2 weeks. Physical dependence is characterized by a withdrawal syndrome when the opioid is abruptly discontinued, if an opioid antagonist (Naloxone) is given, or when the drug blood levels fall below a critical level. Signs of opioid withdrawal include yawning, sweating, lacrimation, rhinorrhea, anxiety, restlessness, insomnia, dilated pupils, piloerection ("goosebumps"), chills, tachycardia, hypertension, nausea/vomiting, crampy abdominal pain, diarrhea, and muscle aches and pain. Emergence of withdrawal symptoms varies with the half-life of the particular opioid (within 6 to 12 hours after the last dose of morphine, hydromorphone, oxycodone, or 72 to 96 hours after the last dose of methadone).

Opioid withdrawal syndrome is preventable. Dose reduction of 25% every day or two will generally prevent signs and symptoms of withdrawal. Clonidine can be used to treat autonomic hyperactivity symptoms. Patients who are dependent on opioids may need increased dosages of medication to control pain if they're hospitalized for an acute injury or illness.

Heroin is a synthetic opioid that's processed from morphine, a naturally occurring substance extracted from the poppy plant seed. Heroin usually appears as a white or brown powder. The short-term effects of heroin abuse appear soon after a single dose and disappear in a few hours. After an injection of heroin, the user reports feeling a surge of euphoria ("rush") accompanied by a warm flushing of the skin, a dry mouth, and heavy extremities. Following the initial euphoria, the user goes in alternating wakeful/drowsy states. With regular heroin use, tolerance develops and the need for more to achieve the same intensity of effect. As high doses are used over time, physical dependence and addiction develop. With physical dependence, the body has adapted to the presence of the drug, and withdrawal symptoms may occur as its use is reduced or stopped. Withdrawal, which in regular users may occur as early as a few hours after the last adminis-

tration, produces drug cravings, restlessness, muscle and bone pain, insomnia, diarrhea and vomiting, cold flashes with goosebumps, and kicking movements. Major withdrawal symptoms last between 48 to 72 hours after the last dose and subside after about a week.

The treatment for patients with heroin dependence is methadone, a synthetic opiate medication that blocks the effects of heroin for about 24 hours. It's been shown to be effective when prescribed at a high enough dosage level for people addicted to heroin. Other approved medications are naloxone and naltrexone. Buprenorphine (Subutex) can be used for treating addiction to heroin and other opiates. This medication is different from methadone in that it offers less risk of addiction and can be dispensed in the privacy of a healthcare provider's office.

## Pain assessment

Accurate pain assessment can be challenging. Pain perception is unique to each individual and quantifying this information for appropriate pain management requires skills and tools to elicit a proper understanding and response.

You must take into consideration all of the influences that may affect the individual's pain perception: his personal experiences with pain, the reaction from family and friends to his pain, and the perceptions of the healthcare provider to the patient's pain response.

Pain is the leading cause of ED admissions, but pain is often underestimated by staff and is often undertreated. Assessment of pain begins upon the patient's presentation to the ED. The nurse begins the initial assessment, which encompasses evaluation of the patient's condition, history of the presenting event, and vital signs to assist in determining the severity of the condition. Many EDs use a system to triage patients according to severity of injury and the amount of resources needed to standardize and streamline care. Different scales can be used, but they all direct the healthcare provider toward the common goal of prioritizing patients to provide optimal care with the appropriate resources.

The initial pain assessment begins with asking the patient if he's experiencing pain. If he's unable to answer, investigate further and look for physiologic signs of distress, such as increased heart rate, BP, and increased respiratory rate, although these signs may not always be present. Once verbal patients indicate pain, it's important to elicit a location and if anything aggravates, increases, or decreases the pain and the onset of symptoms. A description of the pain is helpful in identifying possible causes and severity. Descriptive terms such as *sharp*, *burning*, *dull*, and *pressure* can help the patient describe his pain. A pain scale is employed to quantify the pain. This helps the healthcare provider

measure severity level and effectiveness of future interventions. Additional questions that are important for assessment and management include: What medications were taken? When was the last dose taken? How much was taken? What was your reaction?

There are several pain scales that can help the patient provide the healthcare provider with an understanding of his pain because pain is “whatever the experiencing person says it is, existing wherever he says it does.” These scales apply a numerical value to a qualitative attribute allowing for objective measurement.

### **Pain assessment in the addicted patient**

As previously mentioned, assessing pain appropriately has its challenges; however, add the nuances of an addicted patient and the challenge may seem insurmountable. In the nonaddicted patient, there’s a hesitation to provide liberal pain management for fear of creating an addiction. In fact, recent research has shown that managing pain with opioids seldom causes addiction to the opioid. Nevertheless, when faced with an admitted ad-

dicted patient, healthcare providers may become tentative: Is the patient truly in pain or just seeking a quick fix? What do we have that will be better than what he’s already taking? He really doesn’t look like he’s in pain.

The difference in assessing pain in the addicted patient as compared with the nonaddicted patient is the understanding and knowledge base of the healthcare provider when managing this population.

It would be beneficial to know what drug the patient’s been taking, but the standard initial assessment questions would be the same. It’s been noted that the pain experienced by addicted patients is actually greater than pain experienced by nonaddicted patients. Decreased serotonin levels in addicted patients who inject drugs cause a hyperalgesic affect, lowering pain thresholds.

It may take a “more than usual” amount to achieve a reduction in a patient’s pain level. It’s also important to understand that the drugs obtained on the street are of a different composition than those manufactured and utilized in a healthcare facility, which may have an impact on effectiveness.

# Managing the Pain

Respiratory depression is a major concern for the healthcare provider. Care should be taken when combining central nervous system depressants such as benzodiazepines and opioids, especially if an unknown amount has been ingested prior to the arrival of the patient to your facility. Frequent monitoring is necessary to prevent complications, such as decreased gag reflex, aspiration, respiratory arrest, or cardiovascular collapse.

## Practical pearls

There's an increase in nonprescription drugs that have the potential to do harm when used incorrectly. Antihistamine abuse, whether intentional or nonintentional, has the potential to cause respiratory depression and mental status changes. Some may be found over the counter (diphenhydramine [Benadryl, Sominex, Unisom Maximum Strength]) or by prescription (promethazine [Phenadoz, Phenergan]). Be cautious of administering additional central nervous system depressants in conjunction with these types of medications.

Antagonist drugs such as naloxone (Narcan) must be administered judiciously because sudden reversal for a chronic opioid-addicted patient can precipitate increased pain, agitation, and hypertension. The healthcare provider must also be aware that the half-life of naloxone is much shorter than that of the opioid he's attempting to reverse, so continued assessment and remedication may be needed.

Gaining the knowledge required to address the needs of these addicted patients may decrease the stress and uncertainty surrounding their treatment and potentially decrease the amount of possible adverse events. **LPN**

## Selected references

Hogan S. Patient satisfaction with pain management in the emergency department. *Top Emerg Med.* 2005;27(4):284-294.

Jennings-Ingle S. The sobering facts about alcohol withdrawal syndrome. *Nursing Made Incredibly Easy!* 2007;5(1):50-59.

Lome B. Acute pain and the critically ill trauma patient. *Crit Care Nurs Q.* 2005;28 (2):200-207.

Smeltzer SC, Bare BG, Hinkle JL, Cheever KH. *Brunner & Suddarth's Textbook of Medical-Surgical Nursing.* 11th ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2007:258.

Woods PJ, Bartley MK. Improve pain management in patients with substance abuse. *Nurs Crit Care.* 2008;3(1):19-27.