

## CHAPTER 9

# OPIOID MISUSE, ABUSE, AND ADDICTION

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Extensive experience in management of cancer pain has suggested that long-term opioid therapy of an older population with no history of substance abuse is rarely associated with de novo development of abuse or addiction. Similarly, very large surveys of patients who receive opioids to treat acute pain indicate that this therapy has a very low risk of precipitating addiction. In the cancer pain and acute pain populations, there are considerable challenges in treating patients with a known history of drug abuse, but the risk of iatrogenic addiction among those without this history appears to be very low.

Importantly, the reassuring data concerning development of addiction in the nonabusing cancer pain and acute pain populations do not mean that the incidence, prevalence, or impact of various aberrant drug-related behaviors are known. The rates of all types of aberrant drug-related behavior within these diverse populations are not known and remain an important topic of future research.

Even less is known about the larger population with chronic nonmalignant pain. Surveys have shown that the occurrence of aberrant drug-related behavior during opioid therapy is common among patients who were referred to pain specialists. For example, studies of urine drug screens suggest that as many as one third of patients who are referred to specialized multidisciplinary pain clinics are prescribed opioid analgesics, and those who are not subsequently suspected of abuse may be using other drugs without the clinician's knowledge. Because patients referred to pain specialists are far more likely than the general population with chronic pain to have comorbid psychiatric disease, including prior substance abuse, it is reasonable to assume that this observation reflects the worst-case scenario.

It must be recognized that the base rate of addictive disease in the general US population is relatively high (estimated to be about 15% for alcoholism and about 5% for cocaine or heroin addiction). On this basis, it has been estimated that at least 10% of adults (and probably more) have a genetic susceptibility to addiction. With this level of genetic vulnerability, and with other psychologic and social factors also potentially driving aberrant drug-related behavior, it is prudent to acknowledge the risk of

**Table 25. SISAP tool for predicting addiction risk in patients receiving opioids**

<b>SISAP questions predictive of aberrant behavior</b>	<b>Use caution when prescribing opioids to these patients</b>
1. If you drink alcohol, how many drinks do you have on a typical day?	Men who drink more than 4 alcoholic beverages per day or 16 per week
2. How many drinks do you have in a typical week?	Women who drink more than 3 alcoholic beverages per day or 12 per week
3. Have you used marijuana or hashish in the past year?	Persons who admit to recreational use of marijuana or hashish in the previous year
4. Have you ever smoked cigarettes?	Persons who are younger than 40 years and smoke
5. What is your age?	

SISAP, Screening Instrument for Substance Abuse Potential.

problematic behavior and even addiction whenever opioids (or other abusable drugs) are prescribed. Although the risk may be low in some subpopulations, it can never be said to be zero, and clinicians who prescribe opioids must incorporate risk assessment—and management, if needed—at the start of therapy and repeatedly during its course.

Surveys have established that patients with a past history of substance abuse or addiction are at higher risk of having a problem with prescribed opioids. Recent studies have attempted to go beyond this characterization and identify other patient characteristics that can be useful in predicting aberrant drug-related behavior or addiction during opioid therapy for chronic pain. Several screening tools have recently been developed; all require additional validation in large prospective studies.

A survey by Chabal and colleagues suggested that 5 criteria could be used to judge the risk of prescription drug abuse in a patient: (1) a focus on opioids during clinic visits, (2) a pattern of early refills or dose escalation, (3) multiple telephone calls or visits pertaining to opioid therapy, (4) other prescription problems, and (5) acquisition of opioids from other sources. A survey by Compton and coworkers evaluated a 42-item interview and identified 3 items that were most predictive of drug misuse and abuse: (1) having a tendency to increase the dose, (2) having a preference for a specific route of administration, and (3) considering oneself addicted.

Coombs and associates developed the Screening Instrument for Substance Abuse Potential (SISAP) (table 25). This instrument was designed for use when a physician already knows the patient or has sufficient collateral data to confirm the patient's

responses. This tool has a low false-negative rate but results in a fairly high percentage of patients who are falsely labeled as being at higher risk (ie, high sensitivity and low specificity).

The CAGE questionnaire (**C**ut down, **A**nnoyed, **G**uilt, and **E**ye-opener), which was originally developed as a screening tool for alcoholism, has been adapted to include drugs (CAGE-AID) (table 26). Two or more positive responses should be followed by a detailed assessment.

A single question has been identified as having good predictive validity for prior addiction: “Has your use of alcohol or other drugs ever caused a problem for you or those close to you?” Given the relationship between prior drug abuse and problems with prescription drugs, an affirmative response to this question should initiate a more detailed assessment.

Recently, Adams and colleagues developed a 26-item pain medicine questionnaire. In a formal validation study, questionnaire scores were highly associated with abuse history.

Patient characteristics other than those identified in these instruments also may help a clinician define the degree of risk (table 27). Although there is yet no standard approach to the prediction of risk, this effort to examine a range of characteristics and validate screening tools reflects the importance of risk assessment before and during opioid therapy. Hopefully, future research will yield a highly valid, brief screening instrument that can be easily adapted for clinical use.

For the present, clinicians should ensure that assessment of the patient with chronic pain includes a variety of items related to the risk of abuse and addiction. In this way, patients may be

**Table 26. CAGE-AID\* questions and their implications for prescribing**

<b>In the past have you ever:</b>	<b>Implications for prescribing</b>
1. Tried to <b>C</b> ut down or <b>C</b> hange your pattern of drinking or drug abuse?	• One positive response to any question suggests caution
2. Been <b>A</b> nnoyed or <b>A</b> ngry by others' concern about you drinking or drug use?	• Two or more positive responses may have a sensitivity of 60%-95% and specificity of 40%-95% for diagnosing alcohol or drug problems and strongly suggest assessment by an addiction specialist before opioids are prescribed
3. Felt <b>G</b> uilty about the consequences of your drinking or drug use?	• CAGE screen may have less predictive value in the elderly, college students, women, and certain ethnic groups
4. Had a drink or used a drug in the morning ( <b>E</b> ye-opener) to decrease hangover or withdrawal symptoms?	

\* "AID" refers to "adapted to include drugs."

**Table 27. Additional risk factors for substance abuse**

1. History of physical, emotional, or sexual abuse
2. Personal history or family history of a severe depression or anxiety disorder
3. Personality disorders with poor impulse control (borderline, antisocial, psychopathic)
4. Family history of substance abuse/dependence or antisocial personality disorder
5. Low threshold for any adverse bodily symptoms (stimulus augments)
6. Limited stress management skills and previous episodes of “chemical coping”
7. Current dysfunctional or chaotic living environment (drug abuse in a close family member)
8. Regular contact with high-risk people (eg, drug-using friends) or involvement with high-risk activities (eg, regular time spent in a bar or on the street)
9. Previous criminal behavior
10. Prior tobacco abuse
11. Previous treatment in a drug or alcohol rehabilitation facility
12. Treatment in another pain clinic
13. Many previous automobile accidents

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classified as being at relatively low versus high risk for future problems, and this classification in turn can inform the approach used to administer and monitor therapy over time.

### **Suggested readings**

Adams LL, Gatchel RJ, Robinson RC, et al. Development of a self-report screening instrument for assessing potential opioid medication misuse in chronic pain patients. *J Pain Symptom Manage* (in press)

Chabal C, Erjavec MK, Jacobson L, et al. Prescription opiate abuse in chronic pain patients: clinical criteria, incidence, and predictors. *Clin J Pain* 1997;13:150-5

Coombs RB, Jarry JL. The SISAP: a new screening instrument for identifying potential opioid abusers in the management of chronic nonmalignant pain in general medical practice. *Pain Res Manage* 1996;1:155-62

Compton P, Darakjian J, Mitto K. Screening for addiction in patients with chronic pain and “problematic” substance use: evaluation of a pilot assessment tool. *J Pain Symptom Manage* 1998;16:355-63

Friedman R, Li V, Mehrotra D. Treating pain patients at risk: evaluation of a screening tool in opioid-treated pain patients with and without addiction. *Pain Med* 2003;4:182-5.

Michna E, Ross EL, Hynes WL, et al. Predicting aberrant drug behavior in patients treated for chronic pain: importance of abuse history. *J Pain Symptom Manage* (in press)