REVIEW

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Reducing the Health Consequences of Opioid Addiction in Primary Care

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ABSTRACT

Addiction to prescription opioids is prevalent in primary care settings. Increasing prescription opioid use is largely responsible for a parallel increase in overdose nationally. Many patients most at risk for addiction and overdose come into regular contact with primary care providers. Lack of routine addiction screening results in missed treatment opportunities in this setting. We reviewed the literature on screening and brief interventions for addictive disorders in primary care settings, focusing on opioid addiction. Screening and brief interventions can improve health outcomes for chronic illnesses including diabetes, hypertension, and asthma. Similarly, through the use of screening and brief interventions, patients with addiction can achieve improved health outcome. A spectrum of low-threshold care options can reduce the negative health consequences among individuals with opioid addiction. Screening in primary care coupled with short interventions, including motivational interviewing, syringe distribution, naloxone prescription for overdose prevention, and buprenorphine treatment are effective ways to manage addiction and its associated risks and improve health outcomes for individuals with opioid addiction.

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Nationally, unintentional poisoning is surpassed only by automobile collisions for death caused by accidental injury. Deaths due to unintentional poisonings involving opioid analgesics now exceed those due to heroin and cocaine combined.[1-3] The unprecedented increase in accidental deaths related to prescription opioids over the last decade parallels a substantial increase in the number of prescriptions for opioids in the US.[4-6] Behind the increase in accidental overdose deaths is a growing problem of prescription opioid addiction.

Addiction is a state in which an individual engages in a compulsive behavior that is reinforcing (that is, pleasurable or rewarding or preventing unpleasant experiences such as withdrawal) and is accompanied by a loss of control in limiting the intake of that substance.[7] Individuals with opioid addiction, and at risk for opioid overdose, frequently present to primary care providers. An estimated two thirds of individuals with addiction see a primary care or urgent care provider every 6 months, and many others regularly interact with other medical specialties.[8] Studies of adult and pediatric patients in primary care have found a 10% prevalence of drug or alcohol disorders and 11.3% prevalence of problematic use.[9,10] Primary care providers are, therefore, uniquely poised to screen for and treat opioid addiction.

Individuals who are abusing prescription opioids, in particular, seek out primary care appointments at least in part to obtain new opioid prescriptions. Prescription opioid addiction usually involves the misuse of a personal prescription or diversion of another's prescription. Routes of diversion include family/friends "sharing" medications,

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stealing medications, patients "doctor shopping" to obtain more opioids than necessary either for personal use or for sales, and purchase from the street/dealer or via the Internet.[11,12]

Opioid addiction meets the criteria of a chronic medical illness and demonstrates comparable heritability, etiology, pathophysiology, and treatment response to type 2 diabetes mellitus, hypertension, and asthma.[9] Similar to these chronic illnesses, addiction also is difficult to treat; a cure is difficult to obtain and treatment adherence is low. Nonetheless, primary care providers can be equipped to screen, diagnose, and treat opioid addiction using established guidelines for routine screening and treatment, similar to other chronic conditions.

Given the increasing prevalence of prescription opioid addiction and the increasing risk of prescription opioid overdose among the general US population, we present a review of screening and intervention strategies for opioid addiction in primary care settings. The approach reflected in these interventions addresses addiction as a chronic disease, seeking to improve health outcomes by offering drug-using patients manageable short-term goals, even when abstinence is not immediately achievable. Implementation of these tools will enable primary care providers to reduce the negative health consequences of opioid addiction, such as opioid overdose and death among their patients.[9]

CLINICAL SIGNIFICANCE

- Addiction to opioids and related overdose are increasing nationally and also among patients seen in primary care settings.
- Lack of routine opioid addiction screening in primary care clinics results in missed treatment opportunities.
- The implementation of screening in primary care coupled with short interventions, including motivational interviewing, syringe distribution, naloxone prescription for overdose prevention, and buprenorphine treatment are effective ways to manage addiction and its associated risks.

SCREENING AND DIAGNOSIS

Despite the comparable prevalence of addiction and diabetes in primary care settings, routine screening for addiction remains uncommon.[13-15] Just as primary care providers routinely screen for diabetes, providers must institute evidence-based opioid addiction screening that can be quickly and reliably implemented to identify those individuals most in need of treatment.[9,16] Many providers may feel ill-equipped to screen or treat addiction; however, the screening tools presented here can be implemented in any clinical setting without specialized training. While not an a priori requirement, providers may seek out supplemental education to become adept at implementing opioid addiction screening and intervention tools.

The appropriate screening tool for opioid addiction in primary care must be sensitive, specific, and efficient if it is going to be widely adopted. In the context of a busy primary care practice, a time-consuming screening tool might deter routine use. A single question has recently been examined for use in adult primary care that can easily be incorporated into the busiest of practices: "How many times in the past year have you used an illegal drug or used a prescription medication for nonmedical reasons?" A response of at least one time in the last year is considered positive with a sensitivity of 100% and specificity of 74%.[17] A positive screening should prompt additional screening with other short yet effective screening tools, such as the CAGE-AID and the Drug Abuse Screening Test (DAST-10). The CAGE-AID (**Table 1**) is a simple 4-question tool to jointly screen for alcohol and drug use and requires less time to administer than screening for all the signs and symptoms of diabetes mellitus. In a study of 124 primary care patients, the CAGE-AID had a sensitivity of 70% and specificity of 85% when 2 questions were answered in the affirmative.[18] The DAST-10 is a 10-question screen (**Table 2**) where 2 questions answered in the affirmative are considered optimal for screening (sensitivity, 85%; specificity, 78%).[19,20] The DAST-10 can discriminate between current users versus former users and has been validated in Spanish.[21] The CRAFFT is a 6-question screen for adolescents (**Table 3**) validated in 538 adolescents aged 14 to 18 years. A CRAFFT score of 2 or higher was optimal for identifying any problem (sensitivity, 76%; specificity, 94%), any disorder (sensitivity, 80%; specificity, 86%), and drug dependence (sensitivity, 92%; specificity, 80%).[22] Screening for opioid addiction should occur annually, as the development of a rapport with the patient over time may increase the degree of information disclosed.

In addition to screening assessments, physical examination and observation of behaviors during a clinical visit serve as additional tools. Signs of withdrawal, intoxication (eg, pupillary size), or needle marks should trigger the medical provider to use a formal screen, like the CAGE-AID, to assess the patient for drug addiction. Individuals who are smoking or snorting may exhibit respiratory problems, atrophy of the nasal mucosa, and perforation of the nasal septum.[23]

Table 1 CAGE-AID

1. Have you ever tried to **C**ut down on your alcohol or drug use?
2. Do you get **A**nnoyed when people comment about your drinking or drug use?
3. Do you feel **G**uilty about things you have done while drinking or using drugs?
4. Do you need an **E**ye-opener to get started in the morning?

AID = adapted to include drugs.
Two or more questions answered in the affirmative require further assessment.[18]