Opioid abuse has become a public health crisis of unprecedented proportion that encompasses addiction, overdose, crime and death. The root of the problem is the nonmedical use of prescription medications including Vicodin (hydrocodone), OxyContin (oxycodone), Opana (oxymorphone) and methadone. Nationally, 35 million people (14% of the population 12 years of age and older) have used prescription pain relievers for nonmedical reasons at least once in their lifetime. Roughly 12 million have reported doing so in the past year.1

The largest national survey of adolescents found that 15% of high school seniors reported using prescription drugs in 2012 (compared with 36% who reported using marijuana and 63% alcohol).2 Of the estimated 3.1 million persons 12 years of age and older who used drugs illicitly for the first time in 2011, 22% reported that their first drug was a psychotherapeutic drug and 14% reported it was a pain reliever; 67.5% reported their first drug was marijuana.3

Opioids are widely available. The number of prescriptions for opioids dispensed annually by U.S. pharmacies grew 48%, from 174 million in 2000 to 257 million in 2009.4 These medications find their way on to the street in a number of ways: Pharmacies are robbed. Homes are invaded. Medicine cabinets are emptied. Dispensers and prescribers, their employees and other health care providers pilfer them. People share them with friends. Some even feign pain, get prescriptions from multiple doctors and then sell or trade those drugs for heroin and other illicit substances.

Societal Impact
As a nation, we have experienced historic shifts: Drug-induced deaths now outnumber motor vehicle deaths, and overdose deaths from prescription opioids outnumber deaths from heroin and cocaine combined.5

Law enforcement is scrambling to keep up with the illegal activity surrounding opioid use. The number of dosage units of oxycodone seized by law enforcement in Minnesota increased 174% from 2010 to 2011.6 Heroin-related arrests rose 90% during that time.

The health care system has felt the impact as well. From 2009 to 2011, addiction treatment admissions for “other opiates,” mostly prescription opioids, rose 26.5% in Minnesota. In just one year, from 2010 to 2011, addiction treatment admissions for heroin rose 46.7%.7 In the Twin Cities, admissions to addiction treatment programs for heroin and other opioids accounted for 21.5% of total admissions in the first half of 2012, second only to admissions for alcohol (46.5%). (Heroin abuse is more prevalent in the Minneapolis/St. Paul metro area, and prescription opiate abuse is more so in nonmetro areas.)

Of the heroin users entering treatment in the Twin Cities during the first half of 2012, more than 40% were between 18 and 25 years old. Many became addicted by using prescription drugs. Why is that the case?

Research has shown that if opioid addicts can get quality heroin at an affordable price, they invariably switch to heroin. That heroin sells for 25 cents per pure milligram compared with up to $1 per milligram for a prescription opioid makes the transition more likely. In 2007, 2008 and 2009, the heroin in Minneapolis was purer and less expensive than that in any other U.S. city where Mexican heroin was sold.8

The Rampant Abuse of Prescription Pain Medications

BY CAROL FALKOWSKI

Opioid abuse has become a national and state public health crisis. This article reviews the extent of the problem in Minnesota, the relationship between prescription opioids and heroin, and the nature of addiction. It also describes what every physician can do to help remedy the situation.
**The Nature of Addiction**

Addiction affects multiple brain circuits, specifically those involved in reward and motivation, cognition, memory and inhibitory control over behavior. The vast majority of people who take prescription opioids as medically directed will not become addicted. But some will. About 50% of the variance in the likelihood of any individual developing addiction can be explained by genetic predisposition and the other half is explained by environmental factors (Figure).

A person with a family history of addiction is more likely to develop addiction than a person without a family history of addiction. (Still there are many people with such a family history who do not develop addiction.) Environmental factors including not having a bond with an adult during childhood, growing up in a chaotic home, being exposed to the pro-substance abuse attitudes of others or suffering adverse childhood experiences (eg, sexual abuse or child abuse or neglect) also increase the likelihood of addiction.

Age of onset of use factors in as well. The younger a person is when they first use, the more likely they are to develop addiction.

Often, trauma, change or stress triggers the onset of addiction. This is why the development of an addictive disorder may coincide with such events as leaving home, moving, losing one's job, sexual assault, criminal victimization, death of a loved one or divorce.

One profile of today’s opioid addict is a person who seeks medical treatment for a debilitating disease or injury. When such an individual uses potent opioids to relieve pain addiction may ensue. This is especially true of those with pre-existing genetic or environmental vulnerabilities or both.

Another is the person who abuses whatever substances he or she can easily acquire including marijuana and alcohol. Several years ago, methamphetamine and crack cocaine were readily available. Now pills and heroin are part of the mix.

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**Treatment of Opioid Addiction**

Most people who need treatment for addiction do not receive it. Of the 21.6 million persons (8.4% of those 12 years of age and older) who needed treatment for an illicit drug or alcohol addiction in 2011, only 2.3 million people actually received it.

The goal of treatment is to assist the individual in stopping drug use, maintaining a drug-free lifestyle and restoring their ability to function productively within the family, at work and in society. Effective treatment requires paying attention to all of the patient’s psychosocial and medical comorbidities. Because addiction is a chronic disease with behavioral components, addicts must change their behavior in order to manage it over the course of their lifetime, just as a patient with diabetes, hypertension or asthma must do.

A number of medications are used to help addicts re-establish normal brain function, prevent relapse and diminish craving. Those used to treat opioid addiction are:
- Methadone—an opioid pain reliever that eliminates withdrawal symptoms and relieves drug cravings. It has been used for more than 40 years and can only be dispensed in the context of an opioid treatment program.
- Buprenorphine—a partial opioid agonist. Available since October 2002, a buprenorphine monotherapy product, Subutex, and a buprenorphine/naloxone combination product, Suboxone, can be prescribed in a physician’s office.
- Naltrexone—an opioid receptor blocker used to help prevent relapse. Only an individual who has stopped using opioids can take this drug. If a person continues to use opioids while taking it, they will experience severe withdrawal symptoms.
- Naloxone—a short-acting opioid receptor blocker that is used to reverse overdoses.

Although these medications are both effective and available, many treatment providers in Minnesota remain reluctant to use them.

### What Physicians Can Do about Opioid Addiction

The challenge for physicians is reducing the nonmedical use of prescription opioids while ensuring that patients with legitimate needs have access to them. Toward that end, physicians need to do several things.

First, they need to become educated about addiction, pain management, opioid prescribing and addiction treatment. Formal training about addiction is often lacking in medical school and residency programs. Therefore, many doctors do not recognize it and lack the skills to confidently address a patient’s high-risk drinking and drug-taking behaviors, much less treat an addiction or even make an informed referral to an addiction specialist. In addition, doctors need to become familiar with the range of medication-assisted and abstinence-based treatment options for persons who are addicted. They also need to learn about optimal opioid-prescribing practices including effective strategies for managing chronic and acute pain such as patient contracting and requiring regular follow-up visits for those using opioids long-term.

Second, physicians need to screen all patients for substance abuse. Doctors routinely screen for hypertension and obesity during office visits. When patients are found to have elevated blood pressure or body weight, physicians discuss with them how their behaviors may be contributing to their condition. Not so with drinking and drug-taking. There may be a question or two about them on a routine history form, but these behaviors are rarely, if ever, discussed. One approach for screening and doing a brief intervention in primary care and emergency room settings is Screening, Brief Intervention, and Referral to Treatment (SBIRT). This is a proven, evidence-based method for identifying, preventing and reducing problematic use, abuse and dependence on alcohol and illicit drugs.

Third, physicians need to learn about the ways addicts seek prescription medications. Many doctors lack an appreciation of the extreme, often unbelievable, lengths to which addicts will go to acquire prescription opioids. It is not just a convincing acting performance (of a patient in severe pain of persistent and undetermined origin) that can fool you. Addicts have been known to injure themselves, rip out their own sutures after a surgical

### Additional Resources

**From the National Institute on Drug Abuse (www.drugabuse.gov)**
- Managing Pain Patients Who Abuse Rx Drugs
- Safe Prescribing for Pain
  Developed in 2012 by the National Institute on Drug Abuse and Medscape Education, these courses provide practical guidance for screening pain patients for substance use disorder risk factors and identifying patients who may be abusing their medications.
- NIDAMED: Medical & Health Professionals
  This website provides many science-based resources including drug use screening tools, alcohol screening tools, drug abuse information, addiction information, treatment information and materials for patient education.

**From the National Institute on Alcohol Abuse and Alcoholism (www.niaaa.nih.gov)**
- NIAAA Clinician’s Guide Online Training
- Video Cases: Helping Patients Who Drink Too Much. Ten-minute cases and evidence-based clinical strategies for managing patients with different levels of severity and readiness to change. Free CME/CE credits for physicians (AAFP approved) and nurses through Medscape.
- Rethinking Drinking
  This is a package of educational and self-assessment tools designed for anyone interested in looking at their own alcohol consumption.

**From the Substance Abuse and Mental Health Services Administration (www.samhsa.gov)**
- SBIRT - Screening, Intervention, and Referral to Treatment and other tools at the SAMHSA-HRSA Center for Integrated Health Solutions
- Behavioral Health Treatment Services Locator for finding local treatment options
- CSAT Buprenorphine Information Center, Center for Substance Abuse Treatment
procedure, or use their children, relatives, elderly strangers and even their pets to get pain medications.

Fourth, when dealing with a known opioid abuser, physicians need to consider implementing an overdose-prevention strategy. Over the past decade, community-based opioid overdose-prevention services have expanded throughout the United States. In these programs, the opioid antagonist naloxone hydrochloride is dispensed to persons who use opioids or to their family members, friends and service providers who can administer it during an emergency. An injection of naloxone can reverse the potentially fatal respiratory depression caused by overdose and has been found to be effective in reducing overdose mortality.19

Fifth, physicians should use the state’s Prescription Monitoring Program (PMP). Minnesota’s PMP is a web-based tool that can help prescribers and dispensers identify individuals engaged in “doctor-shopping.” The PMP tracks patients’ prescription history for controlled substances (Schedule II-IV).

Because the problem of opioid addiction is complex and its tentacles are deeply embedded in our culture, physicians alone cannot be expected to solve it. However, as the prescribers of opioids, they play a pivotal role in preventing misuse of these drugs and in identifying and treating people who are addicted. MM

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