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Prescription Drug Abuse Part II Introduction continued

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Your Life Your Health

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Some Commonly Prescribed Medications: Use and Consequences

Opioids

- Oxycodone (OxyContin, Percodan, Percocet)
- Propoxyphene (Darvon)
- Hydrocodone (Vicodin, Lortab, Lorcet)
- Hydromorphone (Dilaudid)
- Meperidine (Demerol)
- Diphenoxylate (Lomotil)
- Morphine (Kadian, Avinza, MS Contin)
- Codeine
- Fentanyl (Duragesic)
- Methadone

CNS Depressants

Barbiturates

- Mephobarbital (Mebaral)
- Pentobarbital sodium (Nembutal)

Benzodiazepines

- Diazepam (Valium)
- Chlordiazepoxide hydrochloride (Librium)
- Alprazolam (Xanax)
- Triazolam (Halcion)
- Estazolam (ProSom)
- Clonazepam (Klonopin)
- Lorazepam (Ativan)

Stimulants

- Dextroamphetamine (Dexedrine and Adderall)
- Methylphenidate (Ritalin and Concerta)

Generally prescribed for

- Postsurgical pain relief
- Management of acute or chronic pain
- Relief of cough and diarrhea

Generally prescribed for

- Anxiety
- Tension
- Panic attacks
- Acute stress reactions
- Sleep disorders
- Anesthesia (at high

Generally prescribed for

- Narcolepsy
- Attention-deficit hyperactivity disorder (ADHD)
- Depression that does not respond to other treatment

	doses)	
<p>In the body</p> <p>Opioids attach to opioid receptors in the brain and spinal cord, blocking the perception of pain.</p>	<p>In the body</p> <p>CNS depressants slow brain activity through actions on the GABA system, producing a calming effect.</p>	<p>In the body</p> <p>Stimulants enhance brain activity, causing an increase in alertness, attention, and energy.</p>
<p>Effects of short-term use</p> <ul style="list-style-type: none"> • Alleviates pain • Drowsiness • Constipation • Depressed respiration (depending on dose) 	<p>Effects of short-term use</p> <ul style="list-style-type: none"> • A "sleepy" and uncoordinated feeling during the first few days; as the body becomes accustomed (tolerant) to the effects, these feelings diminish. 	<p>Effects of short-term use</p> <ul style="list-style-type: none"> • Elevated blood pressure • Increased heart rate • Increased respiration • Suppressed appetite • Sleep deprivation
<p>Effects of long-term use</p> <ul style="list-style-type: none"> • Potential for physical dependence and addiction 	<p>Effects of long-term use</p> <ul style="list-style-type: none"> • Potential for physical dependence and addiction 	<p>Effects of long-term use</p> <ul style="list-style-type: none"> • Potential for physical dependence and addiction
<p>Possible negative effects</p> <ul style="list-style-type: none"> • Severe respiratory depression or death following a large single dose 	<p>Possible negative effects</p> <ul style="list-style-type: none"> • Seizures following a rebound in brain activity after reducing or discontinuing use 	<p>Possible negative effects</p> <ul style="list-style-type: none"> • Dangerously high body temperature or an irregular heartbeat after taking high doses • Cardiovascular failure or lethal seizures • For some

		stimulants, hostility or feelings of paranoia after taking high doses repeatedly over a short period of time
<p>Should not be used with</p> <p>Other substances that cause CNS depression, including</p> <ul style="list-style-type: none"> • Alcohol • Antihistamines • Barbiturates • Benzodiazepines • General anesthetics 	<p>Should not be used with</p> <p>Other substances that cause CNS depression, including</p> <ul style="list-style-type: none"> • Alcohol • Prescription opioid pain medicines • Some OTC cold and allergy medications 	<p>Should not be used with</p> <ul style="list-style-type: none"> • OTC decongestant medications • Antidepressants, unless supervised by a physician • Some asthma medications

Trends in the Abuse of prescription drugs

Although prescription drug abuse affects many Americans, some concerning trends can be seen among older adults, adolescents, and women. Several indicators suggest that prescription drug abuse is on the rise in the United States. According to the 2003 National Survey on Drug Use and Health (NSDUH), an estimated 4.7 million Americans used prescription drugs nonmedically for the first time in 2002 -

- 2.5 million used pain relievers
- 1.2 million used tranquilizers
- 761,000 used stimulants
- 225,000 used sedatives

Pain reliever incidence increased-from 573,000 initiates in 1990 to 2.5 million initiates in 2000-and has remained stable through 2003. In 2002, more than half (55 percent) of the new users were females, and more than half (56 percent) were ages 18 or older.

The Drug Abuse Warning Network (DAWN), which monitors medications and illicit drugs reported in emergency departments (EDs) across the Nation, recently found that two of the most frequently reported prescription medications in drug abuse-related cases are benzodiazepines (e.g., diazepam, alprazolam, clonazepam, and lorazepam) and opioid pain relievers (e.g., oxycodone, hydrocodone, morphine, methadone, and combinations that include these drugs). In 2002, benzodiazepines accounted for 100,784 mentions that were classified as drug abuse cases, and opioid pain relievers accounted for more than

119,000 ED mentions. From 1994 to 2002, ED mentions of hydrocodone and oxycodone increased by 170 percent and 450 percent, respectively. While ED visits attributed to drug addiction and drug-taking for psychoactive effects have been increasing, intentional overdose visits have remained stable since 1995.

Older adults

Persons 65 years of age and above comprise only 13 percent of the population, yet account for approximately one-third of all medications prescribed in the United States. Older patients are more likely to be prescribed long-term and multiple prescriptions, which could lead to unintentional misuse.

The elderly also are at risk for prescription drug abuse, in which they intentionally take medications that are not medically necessary. In addition to prescription medications, a large percentage of older adults also use OTC medicines and dietary supplements. Because of their high rates of comorbid illnesses, changes in drug metabolism with age, and the potential for drug interactions, prescription and OTC drug abuse and misuse can have more adverse health consequences among the elderly than are likely to be seen in a younger population. Elderly persons who take benzodiazepines are at increased risk for cognitive impairment associated with benzodiazepine use, leading to possible falls (causing hip and thigh fractures), as well as vehicle accidents. However, cognitive impairment may be reversible once the drug is discontinued.

Adolescents and young adults

Data from the 2003 NSDUH indicate that 4.0 percent of youth ages 12 to 17 reported nonmedical use of prescription medications in the past month. Rates of abuse were highest among the 18-25 age group (6.0 percent). Among the youngest group surveyed, ages 12-13, a higher percentage reported using psychotherapeutics (1.8 percent) than marijuana (1.0 percent).

The NIDA Monitoring the Future survey of 8th-, 10th-, and 12th-graders found that the nonmedical use of opioids, tranquilizers, sedatives/barbiturates, and amphetamines was unchanged between 2003 and 2004. Specifically, the survey found that 5.0 percent of 12th-graders reported using OxyContin without a prescription in the past year, and 9.3 percent reported using Vicodin, making Vicodin one of the most commonly abused licit drugs in this population. Past year, nonmedical use of tranquilizers (e.g., Valium, Xanax) in 2004 was 2.5 percent for 8th-graders, 5.1 percent for 10th-graders, and 7.3 percent for 12th-graders. Also within the past year, 6.5 percent of 12th-graders used sedatives/barbiturates (e.g., Amytal, Nembutal) nonmedically, and 10.0 percent used amphetamines (e.g., Ritalin, Benzedrine).

Youth who use other drugs are more likely to abuse prescription medications. According to the 2001 National Household Survey on Drug Abuse (now the NSDUH), 63 percent of youth who had used prescription drugs nonmedically in the past year had also used

marijuana in the past year, compared with 17 percent of youth who had not used prescription drugs nonmedically in the past year.

Gender differences

Studies suggest that women are more likely than men to be prescribed an abusable prescription drug, particularly narcotics and antianxiety drugs—in some cases, 55 percent more likely.

Overall, men and women have roughly similar rates of nonmedical use of prescription drugs. An exception is found among 12- to 17-year-olds. In this age group, young women are more likely than young men to use psychotherapeutic drugs nonmedically. In addition, research has shown that women are at increased risk for nonmedical use of narcotic analgesics and tranquilizers (e.g., benzodiazepines).

Treatment of Drug Addiction

The two main categories of drug addiction treatment are behavioral and pharmacological. Behavioral treatments encourage patients to stop drug use and teach them how to function without drugs, handle cravings, avoid drugs and situations that could lead to drug use, and handle a relapse should it occur. When delivered effectively, behavioral treatments—such as individual counseling, group or family counseling, contingency management, and cognitive-behavioral therapies—also can help patients improve their personal relationships and their ability to function at work and in the community.

Some addictions, such as opioid addiction, can be treated with medications. These pharmacological treatments counter the effects of the drug on the brain and behavior, and can be used to relieve withdrawal symptoms, treat an overdose, or help overcome drug cravings. Although a behavioral or pharmacological approach alone may be effective for treating drug addiction, research shows that, at least in the case of opioid addiction, a combination of both is most effective.

Treating addiction to prescription opioids

Several options are available for effectively treating prescription opioid addiction. These options are drawn from research regarding the treatment of heroin addiction, and include medications such as naltrexone, methadone, and buprenorphine, as well as behavioral counseling approaches.

Naltrexone is a medication that blocks the effects of opioids and is used to treat opioid overdose and addiction. Methadone is a synthetic opioid that blocks the effects of heroin and other opioids, eliminates withdrawal symptoms, and relieves drug craving. It has been used successfully for more than 30 years to treat heroin addiction. The Food and Drug Administration (FDA) approved buprenorphine in October 2002, after more than a decade of research supported by NIDA. Buprenorphine, which can be prescribed by certified physicians in an office setting, is long lasting, less likely to cause respiratory

depression than other drugs, and is well tolerated. However, more research is needed to determine the effectiveness of these medications for the treatment of prescription drug abuse.

A useful precursor to long-term treatment of opioid addiction is detoxification. Detoxification in itself is not a treatment. Rather, its primary objective is to relieve withdrawal symptoms while the patient adjusts to being drug free. To be effective, detoxification must precede long-term treatment that either requires complete abstinence or incorporates a medication, such as methadone or buprenorphine, into the treatment program.

Treating addiction to CNS depressants

Patients addicted to barbiturates and benzodiazepines should not attempt to stop taking them on their own. Withdrawal symptoms from these drugs can be problematic, and in the case of certain CNS depressants- potentially life-threatening. Although no research regarding the treatment of barbiturate and benzodiazepine addiction exists, addicted patients should undergo medically supervised detoxification because the treatment dose must be gradually tapered. Inpatient or outpatient counseling can help the individual during this process. Cognitive behavioral therapy, which focuses on modifying the patient's thinking, expectations, and behaviors, while at the same time increasing skills for coping with various life stressors, also has been used successfully to help individuals adapt to the discontinuation of benzodiazepines.

Often barbiturate and benzodiazepine abuse occurs in conjunction with the abuse of another substance or drug, such as alcohol or cocaine. In these cases of polydrug abuse, the treatment approach must address the multiple addictions.

Treating addiction to prescription stimulants

Treatment of addiction to prescription stimulants, such as Ritalin, is often based on behavioral therapies that have proven effective in treating cocaine and methamphetamine addiction. At this time, there are no proven medications for the treatment of stimulant addiction. However, NIDA is supporting a number of studies on potential medications for treating stimulant addiction.

Depending on the patient's situation, the first steps in treating prescription stimulant addiction may be tapering the drug dosage and attempting to ease withdrawal symptoms. The detoxification process could then be followed by one of many behavioral therapies. Contingency management, for example, uses a system that enables patients to earn vouchers for drug-free urine tests. (These vouchers can be exchanged for items that promote healthy living.) Cognitive-behavioral therapy also may be an effective treatment for addressing stimulant addiction. Finally, recovery support groups may be helpful in conjunction with behavioral therapy.