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Prescription Drug Misuse in Youth

Almost 10 million young people aged 12 to 25 years have abused drugs at least once.¹ Marijuana is by far the most common one. It is followed by nonmedical use of prescribed drugs.^{1,2} These include pain relievers, stimulants, and anti-anxiety/sedative-hypnotics. The less common drugs include cocaine, heroin, hallucinogens, and inhalants. We will focus on the prescribed drugs in this newsletter.

Why young people abuse these drugs

Young people take these drugs to:

- Get high, have more fun
- Deal with stress or anxiety
- Decrease inhibitions, fit in
- Stay awake to study
- Improve sports performance
- Enhance self-esteem
- Lose weight
- Treat unwanted effects caused by other drugs they are abusing

Where young people get these drugs

Most get them for free from friends or relatives who have a prescription for the drug. The drugs are commonly prescribed for pain, ADHD, narcolepsy, obesity, anxiety, or difficulty sleeping.

Stealing from friends, relatives, or pharmacies; forging prescriptions; buying them on the street; and getting prescriptions from more than one doctor are other ways of getting these drugs.

Dangers of drug misuse

These drugs have many effects on the body. Some effects may be relatively mild, while others can be life-threatening. Effects are often worse when combined with other drugs or alcohol. All can result in dependency and are potentially addictive.

- *Pain relievers:* dizziness, impaired coordination, confusion, nausea, constipation, failure to pass urine, drowsiness, decreased blood pressure and heart rate, slow or arrested breathing, unconsciousness, coma, death
- *Stimulants:* sleeplessness; loss of appetite; weight loss; extreme fatigue; restlessness; nervousness; anxiousness; hostility; aggression; panic; hallucinations; paranoia; suicidal or homicidal thoughts; increased blood pressure, heart rate, and body temperature (high fever, excessive sweating); tremors; seizures; convulsions; heart attack or stroke; death



Commonly misused prescription drugs*

Prescription pain relievers

- Codeine
- Hydrocodone (Vicodin®)
- Hydromorphone (Dilaudid®)
- Oxycodone (OxyContin®, Percocet®, Percodan®)
- Oxymorphone (Opana®)

Stimulants

- Amphetamine (Adderall®, Dexedrine®)
- Methylphenidate (Concerta®, Ritalin®)

Anti-anxiety/Sedative-Hypnotics

- Alprazolam (Niravam®, Xanax®)
- Chlordiazepoxide (Librium®)
- Clonazepam (Klonopin®)
- Diazepam (Valium®, Valrelease®)
- Eszopiclone (Lunesta®)
- Lorazepam (Ativan®)
- Zaleplon (Sonata®)
- Zolpidem (Ambien®)

*This list is not all-inclusive.

- *Anti-anxiety/sedative-hypnotics*: sleepiness, reduced reaction time, impaired memory and coordination, nightmares, irritability, confusion, paranoia, suicidal thoughts, slow heart rate and breathing, coma, and death

What you can do

- Before prescribing medication,
 - Do a survey to find out how likely it is the patient will misuse the drug.
 - Ask the patient about *all* the drugs he/she is taking.
 - Look in pharmacy databases to get the patient's prescription history.
- Tell the patient about the dangers of misusing the prescribed drug.
- Tell the patient to take the drug only as directed.
- Tell the patient to store the drug in a safe, secure place and not share it with others.
- Randomly screen patients for drug misuse.
- Be alert to frequent requests to replace lost prescriptions, increase the dose, or renew the prescription early.
- Help the patient recognize a drug problem, set recovery goals, and seek treatment.

What the laboratory can do

The laboratory serves as an integral part of periodic patient monitoring. Urine drug testing can help to:

- Verify patient compliance
- Identify possible patient drug diversion, misuse, or abuse
- Identify potentially dangerous drug-drug interactions
- Assist with meeting regulatory requirements

Drug screens are performed using immunoassays that determine the presence or absence of a drug. Mass spectrometry (GC/MS or LC/MS/MS) confirmatory testing is performed to identify the specific drug and its concentration.

References

1. Substance Abuse and Mental Health Services Administration. Results from the 2011 National Survey on Drug Use and Health: Summary of National Findings. <http://www.samhsa.gov/data/NSDUH/2k11Results/NSDUHresults2011.htm#Fig2-5>. September 2012. Accessed July 1, 2013.
2. Johnston LD, O'Malley PM, Bachman JG, et al. Monitoring the Future national results on drug use: 2012 overview, key findings on adolescent drug use. <http://www.monitoringthefuture.org/pubs/monographs/mtf-overview2012.pdf>. February 2013. Accessed July 1, 2013.