

Heroin Addiction

Kim A. Drury RN, MSN

Heroin use is on the rise in our area. Nearly every day the news media reports situations involving Heroin. According to the Substance Abuse and Mental Health Services Administration (SAMHSA), "...among Americans aged 12 or older, the use of illicit (illegal) drugs has increased over the last decade from 8.3% of the population using illicit drugs in 2002 to 10.2% (27 million people) in 2014. Of those, 7.1 million people met criteria for an illicit (illegal) drug use disorder in the past year. The misuse of prescription drugs is second only to marijuana as the nation's most common drug problem after alcohol and tobacco, leading to troubling increases in opioid overdoses in the past decade." Also, "More than 50% of people aged 12 or older in 2011-2012 who used pain relievers for non-medical reasons in the past year got them from a friend or relative." (<http://www.samhsa.gov/topics>). So easy access plays a major role.

The Allegheny County Health Department (ACHD) is concerned about increased heroin use and deaths due to overdosing in the last 10 years (ACHD, 2015, iii). Butler County is seeing increases in heroin related cases. There were 137 deaths in 2014, 104 due to Heroin, which is more than deaths from other causes in this county. An ER physician said on average he sees at least 5 cases a day (London, 2015, <http://www.wlwt.com/news/butler-co-coroner-number-of-drug-overdose-deaths-surpass-natural-deaths/31389238>). Armstrong and Westmoreland counties are also reporting similar phenomena.

Comparing Pennsylvania with 35 other states, a report by the "Trust for America's Health and the Robert Wood Foundation" found Pennsylvania to rank in the middle at 23rd "for all injury-related deaths", but when separating out deaths due to drug overdoses, ranked at 9th which is "significantly above average" (Schwarz, H., 2015).

It is thought that using prescription pain relieving medications and heroin are largely responsible for the increase of deaths due to drug overdose which "now surpasses car accident-related deaths in Pennsylvania and 35 other states" (Schwarz, H., 2015). The tri state area, Pennsylvania, Ohio and West Virginia have seen even more increases in drug use and abuse including Heroin and opioid pain medications. But why is this such a problem? Let's look at what heroin is, how it works, and how it affects our community.

Heroin belongs to a chemical group known as “opioids” that are part of a larger category of central nervous system (i.e. brain and spinal cord) depressants. They “depress” or slow down the speed of communication in the central nervous system resulting in a feeling of calm and well-being. [See other documents: Addictions: Central Nervous System Depressants] Sources of both legal prescription opioid medications and illegal opioids are “natural” (ex. Poppy flower) or “synthetic” created in a laboratory. Some examples of prescription opioids are Codeine, Percocet, Hydrocodone, Oxycodone, Morphine, Fentanyl, Demerol, Methadone, and Dilaudid. Heroin is an illegal opioid. Legally prescribed opioids are sometimes obtained through illegal ways against the law so become illegal to possess, use or sell. Most opioids are available in pill form, some are available as an injection (shot) and a few are liquids (ex. Codeine in prescription cough syrup). Heroin also is an opioid and is available in a powder form (white or brown) sold in bags or in a sticky goo (black) (2015; National Institute on Drug Abuse; 2015, <http://akvnews.com/>). It can be smoked, snorted up the nose or injected (shot) into a vein.

All opioids are narcotics and are listed on the Food and Drug Administration (FDA) Schedule of Controlled Substances according to their medicinal use and strength. Opioids that are used medically are listed in a different category than Heroin. Heroin is listed as both an opioid and as a substance for which there is no medical use.

Legally prescribed opioids are medically useful for controlling acute pain (ex. Surgery, injury) and some types of chronic pain. Examples of this include pain following dental procedures, injury where other types of pain relievers are not effective and pain secondary to cancer. In many cases, short-term use does not lead to misuse, abuse or dependence (addiction). They work by binding to specific areas (receptors) in the brain so pain is decreased or stopped. Interestingly, the brain produces its own chemicals to deal with pain called “endorphins” that have a chemical similarities to opioids (ex. Morphine) (Stahl, 2000, 521). The brain’s endorphins last for a shorter period of time. In fact when someone abuses opioid medications/substances, the brain stops producing as much of its endorphins. When people stop using opioids, it will take some time before the brain is able to produce normal levels of endorphins. This results many times in the person experiencing pain more acutely for a time. This may also contribute to the person relapsing and going back to misusing and abusing opioids.

Also, tolerance to the same opioid and same amount frequently occurs. This results in the person taking more and more to achieve the same relief or feeling. When someone starts taking opioids or other substances for the “feeling” instead of to decrease pain, they have crossed the line into misuse, abuse and can eventually develop dependence if there is no intervention to stop use of these substances.

Heroin is extremely addictive and progresses quickly. The first “high” that is experienced becomes the goal they attempt to achieve every time they use it, but will rarely if achieve this goal. This is commonly referred to as “chasing the high”. Either opioid medications or Heroin alone are addicting enough, but when used together become so much more dangerous and have increased lethality. The U.S. Department of Health and Human Services (USDHHS) is calling Heroin combined with opioid pain relievers an “epidemic” (2015, USDHHS). More and more frequently, heroin is being mixed with (“laced with”) other opioids (ex. Fentanyl) or different substances leading to fatal overdoses. The person buying Heroin assumes it is the same quality and strength they had been using.

The denial and rationalization they unconsciously experience is very strong and overcomes their ability think logically and cope emotionally. They truly believe they can control it, but in a short time the opioids, heroin or both are controlling them. Also, adolescents are in a normal growth and development period in their lives that cause them to believe they are to some extent invincible, and nothing bad is going to happen to them.

People misusing, abusing or depending on opioids do not realize that although they may have developed a tolerance to the feeling or “high” they experience, their body does not become tolerant to the decrease breathing rate (respiratory depression) and this leads to an overdose that many times is fatal. This phenomenon also occurs with other drugs such as benzodiazepines (ex. Xanax, Ativan, Valium) and barbiturates (ex. Phenobarbital, Seconal, Sodium Pentathol) or when combining alcohol with opioids. These substances are all central nervous system depressants so they produce symptoms of relaxation, pleasant “high” feeling, lethargy, decreased sensitivity or perception of pain, slower reflexes; slower heart rate, respirations and blood pressure, blurred vision, slurred speech, impaired ability to think or concentrate, staggering or some people report increased energy or feeling “hyped up” (<http://www.medicinenet.com/script/main/art.asp?articlekey=87726>).

Not all people misuse, abuse or become dependent on opioids. People who may be at higher risk to do so include:

- Have a history of misuse, abuse or dependence with similar medications or alcohol
- Have experienced tolerance to opioids
- Have history of mental illness
- Dealing with stress to the point that the intensity, duration or number of stressors put them at higher risk
- Have poor coping skills or their positive coping skills are overwhelmed so no longer work
- Have little or no social support
- Boredom
- Difficulty delaying gratification
- Family history of alcohol or other substance abuse
- Family history of mental illness

In an effort to address at least part of the problem, the commonwealth created a drug monitoring program- “statewide data base that tracks patient prescriptions”. This assists in decreasing potential situations where patients have gone to several different physicians requesting narcotic pain medicine and thereby obtaining large amounts of these medications without each physician knowing it. Physicians are cautioning patients who are prescribed opioid medications for pain to keep these pills in an area where someone else could gain access to them (diversion).

And, the latest intervention a medication, Narcan/Naloxone, to combat opioid overdoses. Narcan has been around a very long time, but until recently, was used only in acute hospital settings including emergency rooms. Narcan works to reverse the effects of opioids by binding more strongly or completely to opioid receptor areas in the brain resulting in reversing the effects of the opioids. It works quickly, approximately 5 minutes (<http://stopoverdoseil.org/narcan>).

Locally some police officers are being equipped with Narcan and some primary healthcare programs (ex. UPMC St. Margaret’s) are equipping and teaching family members when and how to use Narcan. However, the time period Narcan is effective may be shorter than

the effect of the opioids the person used. This means that the person should be medically evaluated immediately as they may still be in danger medically of the opioid overdose symptoms returning. Another dose of Narcan may also be required as well as other medical interventions.

Prevention, early detection and intervention are the keys to helping prevent and combat this “epidemic” (2015, USDHHS). The Allegheny-Kiski Health Foundation provides information and resources to help our community.

Resources:

- AKVNEWS. (2015, October 23rd). “Heroin related deaths in Armstrong County at 21.” AKVnews. Retrieved October 26th, 2015 from <http://AKVnews.com>.
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