



The Role of Hypnotic Medications in Drug-Facilitated Sexual Assault

By Matthew D. Krasowski and Jerrod Brown

Hypnotic medications, commonly known as sleeping pills, are the most common prescription sleep aids in the U.S. Three closely related drugs (zolpidem/Ambien, zopiclone/Lunesta, and zaleplon/Sonata) are often referred to as the “Z-drugs” because of their generic names. In addition to their prescribed purposes, Z-drugs are sometimes used to facilitate crimes such as sexual-related offenses. Therefore, the medical, forensic, and law enforcement communities must be aware of three key factors in drug-facilitated sexual assaults.

Availability

Z-drugs are readily available, since they are generally safe and have fewer adverse effects than other medications used historically as sleep aids. For example, older sleep aids like the barbiturates (e.g., secobarbital, amobarbital) were effective sleep aids but were often associated with fatal drug overdoses. Although Z-drugs are generally safer than their previous therapeutic counterparts, widespread use has made them available for drug diversion and illicit use.

Effectiveness

Z-drugs amplify the effects of other central nervous depressants such as alcohol. In some instances, Z-drugs have been placed into beverages with slight change in color or taste. This combined effect can make an individual more susceptible to sexual assault and other criminal acts. Z-drugs have a rapid onset of action and a relatively short duration of effect (less than eight hours). Defenseless, the victim may awaken hours later with little or no memory of what happened.

Invisibility

Z-drugs are not detected by standard screening tests for drugs of abuse. Detection for Z-drugs in urine or blood is problematic because at the present, no rapid laboratory tests exist. In fact, when Z-drugs

are slipped into alcoholic beverages, routine testing often reveals only the presence of alcohol in the blood or urine of the victim. This may lead to the conclusion that only the consumption of ethanol was involved in the event. Detection of Z-drugs requires sophisticated analyses (e.g., gas chromatography/mass spectrometry) available only at specialty clinics or forensic laboratories. The difficulty to detect Z-drugs suggests that the incidence of crimes using Z-drugs is likely underestimated.

Biographies

Matthew D. Krasowski, MD, PhD, is a pathologist and Director of Clinical Laboratories in the Department of Pathology at the University of Iowa Hospitals and Clinics. He is interested in the pharmacology and analytical toxicology of drugs of abuse. His published works include articles and book chapters on pharmacology and drugs of abuse.

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