In J. Savino & B. Turvey (Eds.) *Rape Investigation Handbook*. New York, Elvisier (in press, 2004)

Investigating Drug-facilitated Sexual Assault

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"Candy is dandy but liquor is quicker"
---Ogden Nash

I. Introduction

A publication of the American Prosecutor's Research Institute (APRI, 1999) on the prosecution of drug-related sexual assaults reflects the growing public concern with the use of such potent drugs as Rohypnol (flunitrazepam) and GHB (gamma-hydroxybutyrate) in the commission of sexual crimes. The same concerns are reflected in documentaries and extensive media reports on the use of these and other drugs in the commission of sexual assaults by dates or acquaintances of unsuspecting victims.

Google searches using combinations of such keywords as 'date', 'acquaintance', 'rape', 'sexual assault', 'drug', 'Rohypnol', 'GHB', 'ecstasy', 'alcohol', etc., identified from 100,000 to 1.5 million internet 'hits' that focus on drug-facilitated sexual assaults allegedly perpetrated by dates or acquaintances of the victims. Including among these are literally thousands of articles in magazines and newspapers, law enforcement and criminal justice agencies websites, and many colleges and Universities sites. Among the resources listed on these sites are hundreds of local or nationwide organizations dedicated to warning potential victims of these crimes or offering assistance to those

who have been victimized. Yet, according to the APRI report, fewer than 20 cases of drug-facilitated rapes had been brought to trial in the United States by the end of 1999[1].

Estimates of the prevalence of sexual assault vary greatly from source to source. A widely cited nationwide survey of 3187 female and 2972 male college undergraduates (Koss, 1988; Koss, Gidvez, & Wisniewski, 1987), for example found that:

- Approximately 25 percent of co-eds report being the victim of rape or attempted rape
- Almost 85 percent of victims knew their attacker
- Approximately 60 percent of the assaults occurred while on dates or at parties
- More than fifty-five percent of women who were assaulted were under the influence of alcohol or drugs at the time of the assault
- More than 40 percent of rape victims did not tell anyone about their sexual assault
- Only 27 percent of women whose sexual assaults met the legal definition of rape thought of themselves as rape victims
- Only five percent of rape victims reported the crime to the police
- Only 5 percent of rape victims sought help at rape-crisis centers
- At least 40 percent of the victims had subsequent sexual relations with their assailants

The study also found that almost 10 percent of male students reported that they had committed acts that met the legal definitions of rape or attempted rape, and that 85 percent of those men did not believe that their behavior was either criminal or improper.

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1. A majority of these cases were prosecuted in Broward and Dade counties, FL and in Los Angeles, CA. Most of the prosecutions involved the death of one or more victims; a few were based on videotapes recorded by the perpetrators to memorialize their acts; some were "stranger-rapes" in which the perpetrators drugged their victims who they met in bars. We have been informed by the director of the APRI Violence Against Women Unit that no information is available on additional prosecutions since the publication of the APRI Manual in December 1999.

Estimates from other sources (e.g., Berliner & Koss, 1992; Fitzgerald & Riley; Fairstein, 1997) indicate that as many as 40 percent of women between the ages of 16 and 35 have been the victims of at least one sexual assault, and almost all sources indicate that the actual prevalence of sexual assaults is likely to be considerably higher due to the failure of victims to report.[2]

When drugs or alcohol are used to facilitate a sexual assault estimates of prevalence are even more likely to be inaccurate because, in addition to false reports and failures to report, in many – perhaps most cases – the alleged victim has little or no memory of what actually occurred.

Although news sources report many cases of drug-facilitated sexual assaults perpetrated by employers, co-workers, neighbors or other acquaintances, the published literature and information we have obtained from prosecutors throughout California and other states, suggest that the majority of reported cases involve college and high-school aged women who believe they have been assaulted by dates or acquaintances who are either fellow students or mutual friends of their classmates.[3] These are the kinds of cases that are most likely to "fall through the cracks" of the criminal justice system because, as Campbell (1998) points out:

- Stranger rapes are typically investigated more thoroughly than acquaintance rapes (e.g., Fairstein, 1997),
- Assaults that involve the use of weapons or that result in physical injury to the victim are more likely to be investigated thoroughly than those that do not (e.g., Kerstetter, 1990) and,
- Victims of these crimes tend to be classified by investigators and prosecutors as "bad victims" because their impaired memory, reluctance to seek help, and other factors

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2. Estimates of the prevalence of sexual assaults may also be inflated by false reports (e.g., Baeza & Turvey, 2002, McGrath, 2000). Most sources agree, however, that the number of false reports does not offset the under-estimation caused by failures to report.

3. It is worth noting that few if any cases of on-campus sexual assaults are reported by any of the colleges or universities whose annual crime reports we have reviewed. This includes many of the schools that maintain websites that provide information and warnings about the dangers of drug-facilitated sexual assault.

that are directly associated with the unique features of these crimes, .make them appear to be less credible than victims of other types of sexual assault (Madigan & Gamble, 1991; Schuller & Stewart, 2000; Schuller & Wall, 1998).

It is reasonable to assume that the vast disparity between the number of reported cases of drug-facilitated sexual assaults by dates or acquaintances and the number of defendants prosecuted for these offenses can be attributed to these and related issues. Yet, as we will try to show in this chapter, investigators who understand the unique features of these crimes can use the very factors that appear to make their task more difficult to their advantage in their pursuit of the truth.

II. Unique Features of the Crime

Drug-facilitated date or acquaintance rapes differ from other cases of rape or sexual assault in many ways. These differences can be categorized under four major headings:

- The use and effects of a variety of drugs and/or alcohol
- Victim participation
- Perpetrator motives and behavior
- The social context

A. Drug Use and Effects

Although most public attention has focused on Rohypnol and GHB as "date-rape" drugs, Lebeau et al (1999) note that many other substances have been detected in victims of alleged sexual assaults. These include:

Ethanol (alcohol)	Amphetamines
Benzodiazepines	Methamphetamine
Alprazolam (Xanax)	MDMA (Ecstasy)
Clonazepam (Klonopin)	Barbiturates
Chlordiazepoxide (Librium)	Cocaine
Diazepam (Valium)	Marijuana

Flunitrazepam (Rohypnol)	Opiates
Flurazepam (Dalmane)	Muscle relaxants
Lorazepam (Ativan)	Carisoprodul (Soma)
Triazolam (Halcion)	Cyclobenzaprine (Flexeril)
GHB	Meprobamate (Equanil, Miltown)
Ketamine	Antihistamines
Scopolamine	Diphenhydramine (Atarax)
	Chloral hydrate

ElSohly & Salamone (1999) report that the substances found most frequently in urine samples of 1179 cases collected from alleged victims in 49 states, Puerto Rico and the District of Columbia over a 26 month period were alcohol, marijuana, cocaine, benzodiazepines, amphetamine and GHB. Thirty-nine percent of the samples tested negative for all substances. Alcohol was found to be present in almost 40 percent of the samples; whereas benzodiazepines (including Rohypnol) and GHB – the most frequently suspected "date-rape" drugs were each found in slightly less than four percent of the samples.

These findings demonstrate the difficulty of relying on toxicological findings to determine the validity of victim's reports of drug-facilitated rape. They also lend support to the notion that alcohol remains the most likely substance to be involved in these crimes when they do occur (e.g., Ullman, Karabatsos, & Koss, 1999). They also suggest that the victims of these alleged assaults are willing participants in the consumption of alcohol and of other drugs that may be used to facilitate the offense. The role of alcohol in such cases is well documented in the literature (e.g. Abbey, 1991, Abbey, McAuslan & Ross, 1998) whereas the use of other drugs is more often suspected than confirmed. (See below for a discussion of some of reasons that failures to confirm the presence of drugs through toxicological testing does not necessarily mean that they were not used to facilitate a sexual assault).

Most of the drugs – including alcohol --that are commonly used to facilitate acquaintance rape have sedative-hypnotic effects that cause the user to lose their inhibitions, to be more submissive, and ultimately to lose consciousness. Other effects commonly reported include confusion, dizziness, drowsiness, loss of muscle control, impaired judgment, and nausea (LeBeau et al, 1999). Drugs such as GHB, ketamine, and scopolamine produce similar effects even though they are not classified as sedative-hypnotics and they are not typically used to cause these effects. MDMA (Ecstasy) is often used because of its reputed ability to enhance feelings of intimacy and sexual desire.

In addition to the major sedative-hypnotic effects – loss of inhibitions, mental confusion, impaired judgment, and ultimate loss of consciousness -- that lead to their use in cases of drug-facilitated sexual assaults, many of these substances -- especially Rohypnol, GHB and scopolamine cause partial or total amnesia for events that occurred while the victim is under the influence of the drug. The same is true but to a lesser extent with alcohol and MDMA.

The investigator should be aware that the inability of the victim to recall little if anything of what actually occurred, or even to identify who may have assaulted her is particularly true when drugs with a rapid onset such as Rohypnol, GHB, or scopolamine are involved. This should not occur when alcohol or drugs that take longer to have an effect are used unless the sexual assault took place after the victim had lost consciousness. It is also important for the investigator to recognize that in many cases the perpetrator of the sexual assault may be equally unsure of what actually took place because of his voluntary use of alcohol and/or other drugs.

B. Victim participation

In contrast to the vast majority of rapes in which an unwilling victim is forced to engage in sexual acts by threats of bodily harm, the alleged victim of drug-facilitated rape may or may not have been a willing and active participant in previous acts of consensual sex, they may or may not have voluntarily consented to use drugs with the alleged perpetrator, or they may engage in sexual acts in situations where they had sought to obtain drugs from the alleged perpetrator.

With the growing popularity of GHB and Ecstasy (MDMA) as "club drugs" that are commonly used to by members of both sexes to enhance energy and to produce euphoria at all-night dances or 'raves', it is also likely that at least some alleged victims of drug-facilitated rape were not drugged involuntarily, and that they may have encouraged or initiated sexual intimacies that they later regret or that they perceive were forced upon them.

In other cases, the victim may have met the perpetrator at a bar or party and had been willingly talking, dancing and drinking with him before he slipped something into her drink. At this point, she may become noticeably more flirtatious and amorous and most people would just assume that she is drunk. People who observe her may believe that her increased sexual behavior is an indication of her interest in the person she is with.

However, it is important to note that if she had ingested Rohypnol, MDMA or especially GHB, such behavior is very much part of the effect of the drug. It is also possible that during her intoxicated and disinhibited state, she will "voluntarily" ingest other recreational drugs. Such behaviors may appear to be "consensual" to others and in such cases, interviewing waitresses, and other witnesses may be important in determining if the victim was behaving uncharacteristically, even though her behavior appeared to be voluntary. In addition, an indication of a drug being slipped in a drink is that the alleged victim will notice that she feels far more "drunk" than expected, given the amount of alcohol she has ingested, particularly if she had a drink she usually consumes.

C. Perpetrator Motives and Behavior

In cases of drug-facilitated rape, the perpetrator does not typically use weapons, force or threats to force his victim to engage in sexual acts; the victim is far less likely to be the victim of physical attack or to engage in defensive behaviors that may provide important physical evidence (e.g., fingernail scrapings, scratches or bite marks, etc.).

Another critical difference – except, perhaps, in the case of repeat offenders – is that the perpetrator cannot easily be classified in terms of the commonly employed stratagems that rapists use to entice their victims (e.g., Douglas, Burgess, Burgess & Ressler, 1992; Groth & Birnbaum, 1979;

Douglas & Olshaker, 1998). Similarly, while many studies have demonstrated that rapists are typically motivated by power, control, sexual sadism or other pathological motives (e.g., Groth & Birnbaum, 1979), in most cases of drug-facilitated acquaintance rape it is more likely that the perpetrator is motivated primarily by sexual desire.

As we noted in the introduction to this chapter, almost ten percent of male college students admit that they have committed acts that met the legal definitions of rape or attempted rape, and that 85 percent of those who did so did not believe that they had committed any crime. Although we are not aware of any published studies that focus on drug-facilitated sexual assaults, it is reasonable to believe that the findings would be comparable. Even when men admit that the use of alcohol and/or other drugs by their female partners raises their expectations of engaging in sex with them, they do not perceive that encouraging their dates to consume alcohol or drugs is improper, or that their partner's intoxication affects their ability to engage in consensual sex.

Moreover, a number of studies find that both male and female undergraduates believe that a woman's willing use of alcohol or drugs with male partners increases the likelihood that she will consent to having sex, and that women who allege that they have been sexually assaulted when they have voluntarily used only alcohol makes their allegations less credible (e.g., Schuller & Wall, 1998).

D. The Social Context

The setting in which two people interact and eventually engage in sexual acts, and the larger social network of mutual friends of both the alleged victim and perpetrator play and important role in cases of drug-facilitated acquaintance rape. In many cases the setting is a party or other social event at which others may have observed the alleged victim willingly touch, kiss or fondle the alleged perpetrator. Others may have also observed both of them drinking or using drugs. . In some cases, others may be aware that the couple had engaged in sexual activities on previous occasions, or that the alleged victim may have told others that she wanted or planned to do so. It is even possible that either or both of them were using drugs and alcohol for the explicit purpose of lowering their inhibitions and with the expectation that they would eventually have a sexual relationship. Although

no romantic behavior or prior intentions of the alleged victim negate the possibility that she was, in fact, raped or sexually assaulted, what others know or observe may provide useful information in determining what actually occurred, especially when the victim claims partial or total amnesia for the events leading up to the alleged assault.

It is reasonable to assume that failure to report sexual assault, and to typical delays of three months to a year before making a report in many cases (e.g. Feldman, Cauffman, et al., 2000), results from alleged victims' uncertainty about whether any sexual activity actually took place or whether she had consented to whatever did occur. In some cases, others who observed the couple may be influential in convincing the alleged victim to report a sexual assault when she is uncertain about what occurred. In many other cases, others may discourage the victim of a sexual assault from making a report when doing so might alienate her from friends who may either disbelieve her claim or view it as a betrayal of personal and group loyalties.

The larger social context in which drug-facilitated acquaintance rape occurs also plays a role in cases of false accusations. High-school or college students, for example, may feel the need to make a false report to protect their reputations, to avoid punishment for violating curfews or other rules and regulations imposed on them by parents or school authorities, or to explain their behavior to boyfriends or other sexual partners. The same reasons may account for false accusations of rape in other cases, but it may be a more tempting alternative when the alleged victim's misconduct is either witnessed by or widely known by her friends and associates.

The same is true, of course, of false accusations motivated by anger or jealousy toward the alleged perpetrator, but again, it may occur more frequently among schoolgirls who believe that their reputation and/or social status may be irreparably damaged by her failure to retaliate against a young man who others know have treated her badly.

III. Investigation of Drug-facilitated Acquaintance Rape

When a case of alleged drug-facilitated rape is reported to the police, the investigation should focus on:

- Determining if sexual acts that meet the legal definition of rape, attempted rape or other types of sexual assault actually occurred,
- Determining if the victim was under the influence of drug or alcohol to the extent that she was unable to consent or to resist a sexual assault,
- Determining the extent to which the victim was a willing or inadvertent participant in the use of drugs,
- Identifying the alleged perpetrator,
- Determining if the alleged perpetrator had access to the drugs that were either identified by toxicological findings or that are consistent with the victim's account of the effects of the drugs that may have been used to facilitate the offense.

The nature and course of the investigation will depend to a significant extent on how soon after the alleged assault a report is made. In cases where reports are delayed for even a few days, for example, neither toxicological evidence nor medical examination of the victim can provide any useful information. In such cases, the investigation must focus primarily on interviews with the alleged victim, the alleged perpetrator and others who may have witnessed the events preceding the assault or the assault itself.

To the extent that the investigator believes that a sexual assault did take place, the investigation should focus on a search for other possible victims of the alleged perpetrator, friends of the alleged perpetrator who may have witnessed the assault or were told by the perpetrator that it did occur. A pretext phone call to the alleged perpetrator by the alleged victim may also be used to obtain direct evidence that the assault actually took place. If there is sufficient evidence to obtain a search warrant, the investigator may then conduct a search for videotaped recordings that some perpetrators use to memorialize their conquests or for evidence that he possesses illicit drugs that may have been used in the alleged offense.

Although the chances of obtaining sufficient evidence to prosecute a perpetrator are slim when reports are delayed, the investigator should not doubt the credibility of the reporting victim simply because she failed to make an immediate report or because her impaired memory of the events leave her uncertain about what actually occurred. While the investigator should take note of the "red flags" of false accusations discussed by Baeza & Turvey (2002), he or she should also be aware that victim confusion and delayed reports are more the rule than the exception in these cases. It is well worth remembering that many perpetrators – especially repeat offenders – are encouraged to use drugs to facilitate their sexual assaults because they believe themselves to be immune to prosecution for these very reasons.

When the report is made immediately after the assault or within a few days thereafter, toxicological findings may confirm that the victim had used drugs and/or alcohol that may have been given to her without her knowledge or against her will. Because all of the drugs – except alcohol -- implicated in cases of drug facilitated sexual assault are excreted from the body more-or-less rapidly, blood rather than urine samples should be submitted for toxicological examination. The presence of drugs in blood is indicative of relatively recent use, whereas their presence in urine does not[4].

Because alcohol and many of the drugs – including Rohypnol and GHB -- that are commonly used to facilitate sexual assaults are used recreationally, the detection of these drugs may lend credibility to the alleged victim's accusation, but it is not necessarily of any probative value. If the alleged victim has a history of recreational drug use, for example, positive toxicology findings are of little help determining that she was drugged without her knowledge or against her will.

It is important to note that many toxicology laboratories do not routinely test for GHB, MDMA, scopolamine and some other drugs used to facilitate sexual assaults, and that when blood rather than urine samples are submitted for testing, the failure to detect the presence of drugs does not necessarily mean they were not used.

4. Some inferences about how recently certain drugs were used can be made from urine toxicology findings when both the parent drug and its metabolites are detected.

To determine if the alleged victim's belief that she was drugged is credible, the investigator should become familiar with the signs and symptoms of the use of all of the commonly used "date-rape" drugs so that he or she can determine if the victim's account of her experiences is consistent with their effects. The next section of this chapter provides information on Rohypnol and GHB – the two drugs that are most often believed to be used in cases of drug-facilitated sexual assaults. Information on other drugs is readily available in the medical literature, on the internet and from numerous law enforcement and criminal justice system manuals and reports. The Vaults of Erowid website, www.erowid.org is an excellent source of information on many drugs, and is particularly valuable because it includes many first-hand accounts by users of their subjective experiences.

The importance of obtaining as detailed an account as possible of the alleged victim's experiences cannot be over-emphasized, especially in cases where the drug or drugs that may have been used cannot be confirmed. The investigator should ask the victim to recall whatever she can prior to the time she began to experience the effects of drugs she may have been given, and then about her subjective feelings of intoxication. From this information the investigator may be able to make an educated guess about what drugs may be involved. If, for example, she reports that she felt very relaxed and drowsy before losing consciousness she may have ingested Rohypnol or some other sedative-hypnotic drug. If she reports having felt giddy, "drunk-like", and then "nodded" off and on for a while before losing awareness of events, it is more likely that she had been given GHB.

No matter how little the alleged victim may recall, the investigator should not give any indication that he or she doubts that her account is authentic. Because drug-induced amnesia is rarely either total or permanent, the investigator should be patient in probing for even seemingly trivial details that may trigger the recall of events that were previously lost to memory. Pressing for details of the alleged assault or focusing on information that is of greatest interest to the investigator too soon in the interviewing process is likely to be unproductive. A number of interviews over a period of weeks may be required before the victim is able to recall events that critical to the investigation and that may be corroborated by other evidence.

As in the case of delayed reports discussed above, investigation of drug-facilitated sexual assaults should focus on interviews of the alleged victim, perpetrator and others who either witnessed or have knowledge of what may have occurred. Pretext phone calls and a search for other possible victims and physical evidence should be considered also, if the investigator believes that there is sufficient cause.

Finally, when cases of drug-facilitated sexual assaults are reported soon after the alleged events, the investigator should consider a search for physical evidence at the scene of the alleged drugging and other locations at which the victim and perpetrator were together. Traces of drugs, for example, may be found on glasses from which the victim drank, in containers used to mix drinks, or in discarded bottles that may have contained drugs, especially those that are available in liquid form.

IV. The "Date-rape" Drugs

Rohypnol and GHB are most often referred to as "date-rape" drugs. Women who believe that they have been drugged and sexually assaulted are most likely to believe that one of these drugs was used to facilitate the assault. While there is little evidence to demonstrate that this is the case, there is no question that the popularity, availability and use of both drugs has grown dramatically in recent years.

The information we provide below about these drugs was obtained primarily from websites maintained by the Office of National Drug Control Policy (ONDCP), the Drug Enforcement Administration (DEA), the National Institute on Drug Abuse (NIDA) and a number of other governmental agencies and organizations. Additional information on these and on other drugs that may be implicated in cases of sexual assault is easily accessible from these and other internet sites and in the medical and scientific literature.

Rohypnol

Background: The Swiss pharmaceutical company, Hoffman-La Roche first developed benzodiazepines in the 1950s. Since then, modifications of the basic benzodiazepine structure have led to the introduction of many related tranquilizers. Rohypnol was first introduced to the market in 1975. Although Rohypnol is reported to be the most widely prescribed sedative-hypnotic drug in Western Europe it has never been available for medical use in the United States.[5]

Rohypnol, apparently brought in to the United States from Mexico, became available in Florida and Texas in the early 1990s. An increasing number of seizures of Rohypnol and related drugs by law enforcement officials led to the formation of a Texas-Florida Rohypnol Response Group that, in 1995, actually suggested closing the border to cut off the supply of these drugs.

The first reported case of the use of Rohypnol in a drug-facilitated sexual assault occurred in Florida in early 1992. Additional cases reported in Florida rose from 11, in 1992 to 38 in 1993, 144 in 1994 and 342 in 1995. Los Angeles began to identify cases of Rohypnol-facilitated rape in 1995. To date more than 2500 cases of sexual assault believed to involve the use of Rohypnol have been reported to law enforcement agencies throughout the country and reports of additional cases are reported by media news sources almost every day.

Common names: Street names for Rohypnol include 'R-1' (1.0 mg tablets), 'R-2', (2.0 mg tablets), the 'forget-me-pill', 'rib', 'roaches' 'roofies', 'rope', 'ropies', 'ruffies', 'run-trip and fall', 'Mexican Valium', and 'pingas'.

Appearance: Royhypnol tablets manufactured by Hoffman-La Roche come in the form of small, white tablets that are either single or double-scored on one side and are inscribed on the other side with the name 'Roche' and the encircled number 1 to designate a 1.0 mg dosage.[6] It is

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5 Hoffman La-Roche did not seek FDA approval for Rohypnol in the United States because other comparable drugs, including some that it manufactured, were already available on the domestic market

6. Hoffman La-Roche no longer manufactures the 2.0 mg tablet that was inscribed with the name Roche and the encircled number 2 but was otherwise identical to the 1.0 mg tablet in appearance. When the 2.0 mg table was available it was often confused with Klonopin (clonazepam) tablets, also

commonly encountered in a clear plastic blister pack, but has also been found unpackaged or in containers marked “Roche Vitamins”. Very rarely, it is found in liquid form, or crushed into power form. In solution, the drug is colorless, odorless and tasteless. The price of a single tablet ranges from $2.00 to $5.00.

Because of concerns about the illicit use of Rohypnol in sexual assaults and other crimes, Hoffman La-Roche reformulated the drug in 1998. The new Rohypnol is a hard green oval tablet with a coating that make it dissolve slowly; it also contains a strong blue dye designed to color any liquid in which it is dissolved, making improper use more difficult. Although the green oval tablets in 0.5 and 1.0 mg doses are currently used throughout the world, except in Japan, the white tablets remain available to illicit users in the United States.

Uses: Rohypnol is a central nervous system depressant or sedative-hypnotic drug that was prescribed primarily for the treatment of insomnia and related sleep disorders. Its effects are similar to that of Valium – a closely related benzodiazepine, but it is estimated to be ten time more potent. Rohypnol has also been used to relieve depression following withdrawal from the use of stimulants such as methamphetamine and cocaine. The use of Rohypnol and alcohol to enhance the subjective effects of heroin or to reduce the severity of withdrawal from heroin or methadone has also been reported.

Effects: Rohypnol is typically ingested orally, but it may also be snorted (insufflated), smoked or injected. Effects of the drug begin within 15 to 30 minutes after oral ingestion, peak within two hours, and may persist 8 to 12 hours or more. Symptoms include decreased blood pressure, drowsiness, visual disturbances, dizziness, confusion, impaired memory, nausea, gastrointestinal disturbances and urinary retention. Many users experience amnesia for events occurring for as long as 8 to 10 hours after ingestion of the drug while others report less dramatic impairment of memory.

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manufactured by Roche that were inscribed with the number 2 preceded and followed by a dot instead of being encircled as it was with the 2.0 mg tablets of Rohypnol. Klonopin is commonly used for treatment of panic and seizure disorders.

While most users fall asleep within two hours after using the drug, others may have experiences that resemble an alcoholic "blackout" in which they appear to be awake and able to function normally even though their conscious control of their behavior is significantly impaired and they are unaware of what they are doing. In many cases, the person is unaware that they are under the influence of a drug even when they are acting in an uncharacteristic manner (e.g., Dowd et al., 2002). In cases of drug-facilitated assault this may result in the victim engaging in sexual behavior in a state of automatism or dissociation in which they lack the ability to either consent or resist. When the victim awakens 10-12 hours later, she may be fatigued, confused, and unable to focus attention for as long as two days thereafter.

The victim typically cannot give a full account of what occurred while she was under the influence of the drug, but she may have glimpses of memory where she recalls fragments of people, place and events, many of which are trivial and incidental to the sexual assault. She may recall, for example, being in a dark place that had a pretty picture hanging over the bed, asking a tall man for a glass of water, having someone pull off her pants, and riding in a big car with nice music playing on the radio. The initial reports of these experiences may be related without regard for the order in which they occurred, without emotion, and without understanding what they signify. Only with the passage of time, and often with the assistance of others, will the victim begin to weave these fragments together, to recall additional details, and eventually to assist in the investigation of the offense.

Toxicology: Baselt & Cravey (1995) report that while the half-life of Rohypnol ranges from 9 to 25 hours, plasma levels of the drug drop off rapidly after ingestion. The drug may be detected in urine samples for five days or longer, but only if the level of detectability is set to 0.02 ng/ml rather than the 0.20 ng/ml cut-off level used in many laboratories. Although most laboratories test for benzodiazepines, they may not routinely screen for Rohypnol. Negative findings for Rohypnol, therefore, do not necessarily rule out the possibility of it's use (Negruz & Gaensslen, 2003). Because the most commonly used presumptive tests (Emit, FPIA and Online) often yield

false negative results for Rohypnol, it is always preferable to use GC/MS analysis when its use is suspected.

Legal status: Until 1996, travelers could declare up to180 doses of Rohypnol for personal use if they had a foreign prescription. This is no longer the case. Although Rohypnol is available as a prescription drug in more than 60 European and Latin American countries, it is not manufactured or sold legally in the United States.

A steadily increasing number of sexual assaults believed to be facilitated by the use of Rohypnol have been reported in the British Islands and other countries throughout Europe, Asia and South America. Some European countries have already banned the use of Rohypnol or are in the process of enacting legislation to do so.

Rohypnol is currently classified as a Schedule IV substance under the Controlled Substances Act of 1970. Schedule IV drugs are considered to have legitimate medical uses, but also have a potential for abuse and for the development of physical or psychological dependence.

In 1995, Rohypnol was moved to Schedule III by the World Health Organization, requiring more thorough record keeping on its distribution. In 1997, the U. S. Sentencing Commission increased the penalties associated with the possession, trafficking, and distribution of Rohypnol to those of a Schedule I substance, a classification reserved for drugs that have no legitimate medical use, a high potential for abuse and addiction, and an unacceptable level of safety. The DEA is currently considering the possibility of classifying Rohypnol as a Schedule I drug.

GHB

Background: Gamma hydroxybutyrate (GHB) is classified as a "nutrient" that is found in all mammalian tissue. It was first synthesized in the 1920's. It is a powerful, rapidly acting central nervous system depressant that has been investigated for the treatment of a number of disorders, including alcohol dependence. GHB was used as a general anesthetic in the 1960s and 1970s, but it never gained wide acceptance in clinical practice except in the treatment of narcolepsy.

More recently, GHB has been used by bodybuilders, who believed that it stimulates the body's production of growth hormone. GHB was sold in health food stores until the Food and Drug Administration (FDA) banned it in 1990.

The chemical "recipe" for GHB, and kits containing precursor chemicals, equipment and detailed instructions to make it are available on a number of internet sites. The two basic ingredients of GHB are GBL (gamma-butyrolactone) and lye (sodium hydroxide). Muriatic acid or vinegar is also used in the manufacturing process. Because almost all of the GHB available to street users is made in home laboratories, samples of the drug vary widely in their chemical composition and purity.

When ingested, the precursor drug, GBL, produces a clinical picture very similar to that of GHB, but its effects persist for considerably longer. GBL is also sold in health food stores as a dietary supplement under such trade names as 'Renewtriant', and 'Revivarant' ; it is known to users as 'blue nitro' and 'firewater'. GBL is also available as an industrial solvent used for stripping floors and degreasing machinery.[7]

Common names: Street names for GHB include 'aminos' 'blue monster' 'G', 'Georgia home boy', 'gh buddy', 'goop', 'great hormones at bedtime' 'grievous bodily harm', 'liquid X', 'liquid ecstasy', 'salty water', 'soap', 'scoop', and 'water'.

Appearance: GHB is a clear, liquid substance that looks like water. It is carried in water bottles, or any other container that can hold a small amount of liquid, including purse-size hair spray, children's bubble containers (very common at raves) or vitamin pill bottles. It is also starting to be seen in powder form, in capsules or in a putty-like form.

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7. As the regulation of GHB has tightened, street users have turned to the use of GBL and other closely related drugs. Among these is another industrial solvent, 1,4-butanediol whose effects are similar to that of GHB and GBL. Street names for this drug include 'pine needle extract', 'pine needle oil', ' thunder nectar' and 'serenity'.

Uses: GHB is now a drug of choice in the club and rave scene – especially in Los Angeles -- where it is prized for its ability to cause euphoria without any residual "hangover' effects. Recreational users generally buy capfuls (the size of a water bottle cap) or sip on a diluted GHB mixture as they dance throughout the night. The price of a capful of the drug typically ranges from $25 to $40. Because it is naturally present in human tissue, many users assume that GHB is harmless.

In cases of drug-facilitated sexual assault, GHB is typically mixed into an already strong alcoholic drink to try to mask the salty and unpleasant taste of the drug. GHB is rapidly absorbed into the bloodstream, with peak levels occurring 20 to 60 minutes after ingestion.

Effects: Although it is known as a nutrient or steroid, GHB acts as sedative-hypnotic drug or central nervous system depressant. Like alcohol, low doses of GHB result in giddiness and lowering of inhibitions that may cause female users to be sexually aroused and to behave in an uncharacteristically flirtatious and. provocative manner. Higher doses lead to relaxation and progressively increasing loss of consciousness as the user become drowsy, begins to "nod" off and eventually falls asleep. Depending on the dosage, the victim may initially look and act "drunk" before passing out.

The ability of the drug to lower inhibitions, arouse sexual interest and cause women to be more receptive to sexual advances may account for at least some of its popularity as a 'club drug'. Its ability to subsequently cause an increase in submissive and compliant behavior as the user begins to lose consciousness and to move from drowsiness to sleep may account for its use in the facilitation of sexual assaults.

The effects of GHB on memory are similar to those described above for Rohypnol, particularly when the dosage is sufficient to cause a loss of consciousness.

Toxicology: GHB is excreted very rapidly from blood. With its estimated half-life of only 20 minutes, it cannot be detected in blood samples within four or five hours after ingestion. It may be detected in urine for 72 to 96 hours.

When the use of GHB is suspected in a case of drug-facilitated sexual assault, (or when no information points to any specific drug) it is important for the investigator to realize that most laboratories do not routinely test for GHB and that many are unable to do so. Because GHB is normally found in human tissue, especially careful evaluation of toxicology findings is required in the identification of GHB when it is used as a drug.

Legal Status: Prior to the passage of the bill H.R. 2130 that was signed into law by President Clinton in February 2000, laws regulating GHB and its analogs were enacted primarily at the state level. Since that date GHB, GBL and ketamine (another drug implicated in sexual assaults) are classified as Schedule I Controlled Substances. The continued medical use of GHB for the treatment of narcolepsy is still under consideration by the FDA.

GHB remains legally available in Europe and from other foreign sources, some of which continue to offer it for sale on their internet sites.

Investigators should also be aware that the 1996 "Drug-induced Rape Prevention and Punishment Act" criminalizes the possession of GHB and other drugs by persons who "intend to commit a violent crime by covertly distributing a controlled substance to an unknowing individual."

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