

# Interpreting Toxicology and Drug Facilitated Sexual Assault – Part 2



INTERNATIONAL ASSOCIATION OF FORENSIC NURSES

Jennifer Sommers & Nicole Stahlmann, MN, RN, SANE-A, AFN-BC  
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**Research. Educate. Lead.**



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The opinions, findings, conclusions, and recommendations expressed in this presentation are those of the author(s) and do not necessarily reflect the views of the Department of Justice, Office on Violence Against Women or the International Association of Forensic Nurses.

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The planners, presenters, and content reviewers of this presentation disclose no conflicts of interest relative to this educational activity.




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## Learning Outcomes

At the end of this webinar, participants will report an increase in knowledge:

- Similar characteristics of drugs used to facilitate sexual assault;
- Common issues relative to DFSAs;
- Understanding of some of the more common drugs




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### Cost – Toxicology

- National Medical Services (NMS Labs) –
  - \$438/sample
  - Testing blood & urine - \$876
- A complete drug toxicity screen can cost more than \$800, and a single substance like GHB or Rohypnol can cost about \$80 per substance to test (LeBeau & Mozayani, 2001)



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**Jennifer M. Sommers**  
Deputy Chief  
Special Investigations and  
Prosecutions  
NYS Officer of the Attorney  
General



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As we go keep in mind...



Broad strokes and averages.

Genetics, prior use frequency, your state,  
your lab, etc. are all relevant.

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### Drug Facilitated Crimes *Generally*

- Victim is the subject of a crime during which the effects of a drug or drugs on the victim help the perpetrator carry out the crime.
  - Drugs and/or alcohol can make a crime easier to commit.
  - Exs - Robbery, Human Trafficking, Burglary, Sexual Assault
- Substance(s) can be *voluntarily* or *involuntarily* ingested by a person who is then victimized.




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### Voluntary v. Involuntary Consumption



- **VOLUNTARY CONSUMPTION**
  - Victim is too intoxicated to consent due to voluntary consumption of a drug or drug(s). [Ex. A person voluntarily consumes excess alcohol or Ambien, passes out, and is assaulted.]
- **INVOLUNTARY CONSUMPTION**
  - The surreptitious administration of an intoxicating substance (i.e. GHB, Rohypnol, Ketamine, or other *widely accessible drugs*) to an unwitting victim by an assailant. [Ex. A person unwittingly consumes GHB and is sexually assaulted.]
- **MIXED CONSUMPTION**
  - Victim is too intoxicated to consent due to the voluntary consumption of drugs and/or alcohol *and* the surreptitious administration by an offender. [Ex. A person is voluntarily consuming alcohol and a perpetrator provides an additional substance – renders the victim incapable of consent.]

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### Opportunistic v. Proactive

**Opportunistic** – The assailant takes advantage of someone who has voluntarily ingested drugs and/or alcohol.

**Proactive** – The assailant intentionally administers the intoxicating substance to the victim.

**\*Significantly** – Opportunistic does not mean unplanned\*




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### Classes of Drugs

based on Central Nervous system effects  
[Some can Cross Classes]

- **STIMULANTS**
  - Speed up the CNS – including the brain. Often cause feelings of alertness and energy.
  - Exs. Cocaine, (Meth)Amphetamine, Adderall, Crack ...
- **HALLUCINOGENS**
  - Cause hallucinations / dissociation – profound distortions in a person’s perceptions of reality.
  - Exs. LSD, PCP, Psilosyn (Mushrooms)
- **DEPRESSANTS**
  - Slow the CNS
  - Exs. Alcohol, Rohypnol, GHB, Opioids

<https://www.drugabuse.gov/publications/research-reports>

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### Depressants

- Slow Brain Activity – Drowsy and calming effect.
  - Sleepy and uncoordinated feeling – especially initially.
  - Slurred speech
  - Poor concentration
  - Confusion
  - Dizziness
  - Depressed breathing
- Long Term – More drug is needed to achieve the same effect.



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Depressant most commonly used to facilitate sexual assault?

ALCOHOL



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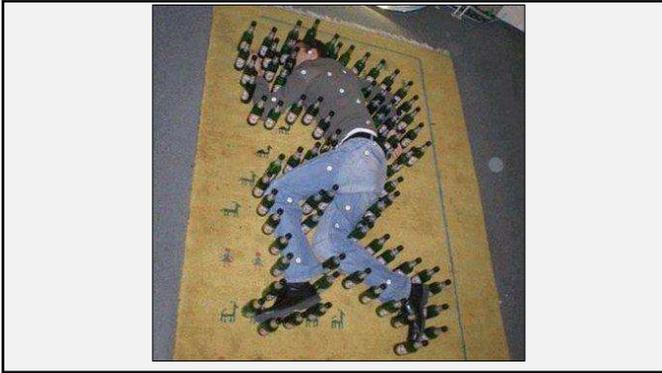
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### Depressant Drugs -vs- Alcohol

- Similar in action on the Central Nervous System (generally - Drugs used to facilitate sexual assault are CNS Depressants).
- Similar in effects on the body.
- Drugs act more quickly and with greater potency than alcohol.
- Synergistic effects when consumed with alcohol. [1+1 = 3]




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### Aspiring model dies from date-rape drug overdose hours after leaving home of New York City's 'king of all pimps'

By Daily Mail Reporter  
Updated 18:19 EST, 20 September 2011

Florida police are taking a closer look at the death of a Wisconsin woman found dead after partying at the home of an infamous New York City pimp.

Julia Sumnicht, a 21-year-old University of Wisconsin and aspiring model, was on a spring break trip to Miami with friends when she was found dead in March 2010.

More than a year later, new details are emerging about the suspicious circumstances behind her death from private investigators hired by her family.

The New York Post reported that the brown-eyed beauty arranged to go to the SEC nightclub with an acquaintance, Hungarian photographer Zoltan Prepszent.

After some time at the club, she went with Prepszent to the apartment he shared with Jacob Izbir, the self-proclaimed 'king of all pimps,' who pleaded not guilty earlier this month to charges of procuring prostitution and money laundering.

After two hours at Prepszent and Izbir's apartment, Miss Sumnicht then went to another photographer's apartment where she had been staying.

Hours later, she was dead.

The cause of Miss Sumnicht's death was listed as a fatal overdose of the date-rape drug GHB.

The investigators concluded that she consumed the GHB in Prepszent and Izbir's apartment, according to a report obtained by the Post.



Victim, Julia Sumnicht died of an overdose of the date rape drug GHB after visiting the home of Manhattan pimp Jacob Izbir and photographer Zoltan Prepszent.

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### Rise in the Use of Drugs to Facilitate Sexual Assault

- Not many comprehensive statistical studies.
- Nature of the drugs and their effects are not conducive to obtaining accurate statistics.
- US Dept. of Justice recognized in 1999 the seriousness and significance of drug facilitated rape.
- Drug facilitated SA represent an "...unknown fraction" of total number of rapes.

Janet Reno, Washington D.C, 1999



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### DFSA IS UNDERREPORTED

- Victims of drug-facilitated or incapacitated rape are less likely than victims of forcible rape to report to authorities.

Source: Kilpatrick, Dean, PhD, et al, Drug-facilitated, Incapacitated and Forcible Rape: A National Study (2007)

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### Why is DFSA Under-reported?

- Embarrassment / Guilt / Shame – because of cultural expectations and the manner in which these rapes are perpetrated.
- No or minimal recall – (reality is that some victims do not realize they were even raped).



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**THE BLAZE**  
 'Disgusting, Sickening': Sheriff Says Video Shows Spring Break Revelers Watching Apparent Gang Rape Take Place on Crowded Beach; Two Students Charged

- PANAMA CITY, Fla. (TheBlaze/AP) — Two college students have been charged with sexually attacking a woman on a crowded Florida beach filled with spring break revelers who seemed to do nothing to stop what authorities called an apparent "gang rape."
- The attack, recorded on a cellphone video, happened sometime March 10-12 in Panama City, Bay County Sheriff Frank McKeithen said at a news conference. Authorities learned of the assault when police in Troy, Alabama, discovered the video while investigating a shooting.
- The victim told police that she thought she had been drugged at the time, and she did not remember the incident well enough to report it.

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Most significant reason accurate statistics are not available for dfsa:



Failure to detect drugs or drug metabolites in bodily specimens after the crime.

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**Does Failure to Detect = No Date Rape Drug Used?**

- NO
- Drugs are metabolized rapidly and eliminated from the body
- Window for detection is brief




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**Issues with DFSA:**

- Not complete stranger rapes (Nice Guy, doesn't look like rapist, etc...)
  - Stranger rapes prosecuted more vigorously than acquaintances.
- No force, weapons or physical injury.
  - Rapes with injury/ weapons are prosecuted more vigorously than those w/out.
- "Bad" victims
  - Drug Related - Memory problems, black outs, etc.
  - Situation Related - Bar/Party, knowledge of perp.




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**Overcome the Obstacle**



- Detect the drug in the victim's drug screen
  - But because of quick metabolism + delay in reporting – detection rarely happens.

**These are the ultimate well-planned  
"PERFECT CRIMES"**

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**General Characteristics**

- Commonly - **CNS Depressants** (or act similarly)
  - Depress Brain Activity and Produce a Drowsy Calming Affect.
- **Anesthesia-type drugs**
  - Unconscious or semi-conscious during rape
  - When conscious will often suffer anterograde amnesia.
- **Alcohol-like effects**
  - Alcohol will enhance effects of Date Rape Drugs




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- Consider that Drugs may have been used if you have a physical manifestations / responses from a victim that are grossly disproportionate to the amount of alcohol consumed.
- **ALWAYS REMEMBER** – ETHANOL IS THE MOST COMMON DRUG ASSOCIATED WITH SEXUAL ASSAULT
- Drugs used to facilitate rape are almost **ALWAYS** going to be surreptitiously administered to a victim who is already drinking alcohol. [Dunkin' Donuts Principle]

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### Classes of Date Rape Drugs



GHB, Rohypnol, GBL, and Ketamine – most well known, BUT...

Prescription drugs (primarily anti-anxiety, anti-panic attack, and sleep aids) are becoming more prevalent.

[http://www.soft-tox.org/files/MinPerfLimits\\_DFC2017.pdf](http://www.soft-tox.org/files/MinPerfLimits_DFC2017.pdf)

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### Benzodiazepines

Trade Name	Generic Name
Ativan (anxiety)	Lorazepam
Dalmane	Flurazepam
Halcion (insomnia)	Triazolam
Klonopin (also Rivotril) (panic/anxiety)	Clonazepam
Lexotan (anxiety)	Bromazepam
Librium (anxiety / insomnia)	Chlordiazepoxide
Mogadon	Nitrazepam
ProSom (insomnia)	Estazolam
Restoril (insomnia)	Temazepam
Rivotril (also Klonopin)	Clonazepam
Serax (anxiety / tension)	Oxazepam
Valium (anxiety/nervousness/tension)	Diazepam
Versed	Midazolam
Xanax (anxiety/panic)	Alprazolam



American Prosecutors Research Institute, The Prosecution of Rohypnol and GHB Related Sexual Assaults (Alexandria VA, 1999)

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## Non-Benzodiazepine Sedative Hypnotics

Trade Name	Generic Name
Ambien (insomnia)	Zolpidem tartrate
Amytal (insomnia/anxiety/tension)	Amobarbital
Equanil (also Miltown) (anxiety/tension)	Meprobamate
Fioricet (tension pain)	Butalbital
Miltown (also Equanil)	Meprobamate
Numbutal (insomnia/tension)	Pentobarbital
Noctec/veterinary anesthetic	Chloral hydrate
Placidyl (insomnia/pain)	Ethchlorvynol
Secobarbital (insomnia/anesthesia)	Secobarbital
Soma (acute pain)	Carelsoprodol



American Prosecutors Research Institute, The Prosecution of Rape/Incest and GHB Related Sexual Assaults (Alexandria, VA, 1999)

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### DA wants former police officer convicted of rape to be labeled as a high risk offender



Updated: 10/29/2014 9:05 AM  
Created: 10/29/2014 6:38 PM WHEC.com

Witherspoon was a sergeant with the Caledonia Police Department back in 2004 when he was arrested. At his trial, prosecutors submitted evidence that he raped an 18-year-old female after slipping an [alibi](#) to her drink.




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## Miscellaneous Drugs

Trade Name	Generic Name	Common Use
Benadryl	Diphenhydramine	Antihistamine
Flexeril	Cyclobenzaprine	Muscle relaxant
Telazol	Tiletamine/ zolazepam	Veterinary anesthetic
Transderm scop	Scopolamine	Motion sickness preventative
Ketamine	Ketamine S HCL	Anesthetic Agent



American Prosecutors Research Institute, The Prosecution of Rape/Incest and GHB Related Sexual Assaults (Alexandria, VA, 1999)

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### Further Issues with DFSA

## If You're Drugged And Raped, The Police May Never Know. Here's Why.

Everything about date rape drug tests — from the way they are performed to how the results are interpreted — is deeply unreliable. So why does the legal system treat them like gospel? A BuzzFeed News investigation.



Rosalind Adams  
BuzzFeed News Reporter



Reporting From  
Williamson, West Virginia

Posted on February 14, 2019, at 8:58 a.m. ET



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### No national Standards for:

- The range of drugs that labs should test for;
- The type of testing labs should use;
- The quantity of drugs and metabolites in the system that should constitute a positive result.
  - State to State / Case to Case Variability
  - – Like Playing Roulette.

<https://www.buzzfeednews.com/article/rosalindadams/date-rape-drug-testing-is-an-absolute-mess>



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### Testing – immunoassay [Antibodies detect the presence of drugs]

#### PROs

- Quick / Screening type test.
- Antibodies bind to drugs or drug metabolites.
- Generally screens for drug types
  - Benzodiazepines
  - Opioids

#### CONS

- Does not distinguish between drug types within category.
- Qualitative only.
- Typically misses semi and semisynthetic opioids and synthetic marijuana.
- FALSE NEGATIVES – because of high cut offs.

[https://www.cdc.gov/drugoverdose/pdf/prescribing/CDC-DUIP-UrineDrugTesting\\_FactSheet-508.pdf](https://www.cdc.gov/drugoverdose/pdf/prescribing/CDC-DUIP-UrineDrugTesting_FactSheet-508.pdf)



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### Testing – gas chromatography/mass spectrometry

\*This should be done in all suspected dfsa\*

#### PROs

- Directly measures drugs and their metabolites.
- Quantitative results.
- High specificity.
- Minimal false negatives and positives.
- Identifies synthetics

#### CONs

- Expensive
- Labor intensive
- Takes time




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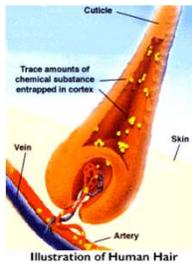
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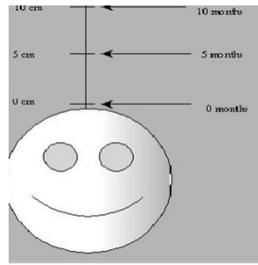
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### Hair Detection: Wave of the Future?



www.testcounty.com



www.toxassociates.com

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### Britney Spears shaved her hair off in 2007 to cover up drug use: ex-aide

By Andy Sells

October 20, 2012 | 4:00pm



SKINHEAD Britney Spears shaved her head and flipped out on a car during her 2007 descent into madness amid a struggle for custody of her children.  
Photo: BENDAY/VECTORMARTIN/GETTY IMAGES

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### Hair Testing

- Hair Grows .5 cm/ 30 days.
- Hair will give “history” vs. recent use.
- Accredited labs will generally not use hair more than 2.5 cm from the scalp. (1.5 is preferred cut off).
- VERY expensive.
- Most PSLs do not currently have resources to analyze hair.




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### Hair and DFSA

- Hair is best suited for drugs of chronic abuse.
- Suspected DFSA can be like searching for needles in haystacks.
- Hair might be a reasonable option (at a private lab) if there is credible evidence that a specific drug was used.




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### Issues independent of testing

State to state differences:

Ex. “In Florida, a urine screen for opiates would come back negative if it showed less than 150 nanograms per milliliter. But if that same sample were tested in New Jersey’s state lab, for example, the results would be deemed positive — even down to as little as 10 nanograms per milliliter.”

<https://www.buzzfeednews.com/article/rosalindodams/date-rape-drug-testing-is-an-absolute-mess>




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Gamma Hydroxybuteric Acid  
GHB

Gamma OH;

Grievous Bodily Harm;

Georgia Home Boy;

Goop;

Liquid Ecstasy; Liquid X

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- Usually administered as a liquid – nearly tasteless and odorless.
- CNS Depressant
- Some is naturally occurring within humans (endogenous).
- United States - Schedule I Controlled Substance
- Obtained - As Date Rape Drug- Home-made or smuggled into country.
- Info on manufacture – internet
  - - Kits for mass production - \$48 - \$200.

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### GHB Effects

#### All are Enhanced when combined with Alcohol

- Feelings of Euphoria
  - Increased Sexual Drive
  - Lowered Inhibitions
  - Drowsiness
  - Tremors
  - Nausea Diarrhea
  - Vomiting
  - Irregular or Shallow Breathing
  - Confusion, Irritation, Agitation
  - Hallucinations
  - Blackouts and Memory Loss
  - Unconsciousness
  - Death
- <https://adf.org.au/drug-facts/ghb>



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### Detection of GHB/ Metabolites

- **Influenced by** : Amount ingested, victim's body size, inherent metabolism, and stomach contents.
- Blood - 4-8 hours post-consumption.
- Urine - 12-18 hours post-consumption



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### GHB - Hair Analysis

- There are private labs that currently advertise (on internet) capability of detecting GHB in hair samples.
- Not widespread – VERY expensive.



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## GHB Detection

- Humans produce endogenous GHB [i.e. there is naturally occurring GHB in the human body].
- Between 5.0 – 10.0 µg/mL necessary for positive result – Will vary from state to state.

See, [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2257868/#:~:text=Although%20there%20is%20no%20consensus,concentration%20\(5%2C6\).](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2257868/#:~:text=Although%20there%20is%20no%20consensus,concentration%20(5%2C6).)



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**NMS Labs**  
 200 Welsh Road, Horsham, PA 19044-2208  
 Phone: (215) 697-2200 Fax: (215) 697-2972  
 Email: nms@nmslab.com  
 Robert A. Malsberg, PhD, F-ABFT, CMSCS(T), Laboratory Director

**CONFIDENTIAL**

**Demo Report**  
**Report Issued:** 03/30/2020 14:29  
**Last Report Issued:** 08/21/2018 11:39

**9326U**  
**Clinical Example Report**  
 NMS - Lablogix Reports  
 200 Welsh Road  
 Horsham, PA 19044

**Patient Name:** 9326U  
**Patient ID:** 9326U  
**Chain:** 18001162  
**Age:** Not Given **DOB:** Not Given  
**Gender:** Not Given  
**Workorder:** 18001162  
**Received:** 08/21/2018 11:01

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**Sample ID:** 18001162-001  
**Matrix:** Urine  
**Patient Name:** 9326U  
**Patient ID:** 9326U  
**Container Type:** Clear vial  
**Approx Vol/Weight:** Not Given

**Receipt Notes:** None Entered

Analysis and Comments	Result	Units	Reporting Limit	Notes
<b>9326U Gamma-Hydroxybutyric Acid Screen, Urine</b>				
Analysis by Gas Chromatography/Mass Spectrometry (GC/MS)				
Gamma-Hydroxybutyric Acid				
Synonym(s): GHB, Gamma-Hydroxybutyrate				
Endogenous GHB levels in healthy adults have been determined to range up to 6.8 mcg/mL.				
Sobered healthy adults given a single oral dose (50 mg/kg) developed urine levels averaging 180 mcg/mL during the 0 to 3 hour post-dose interval, 137 mcg/mL during the 3 to 6 hour period and 53 mcg/mL for the 6 to 12 hour window.				
The value reported for GHB is a total of GHB and its lactone (GBL) in the specimen.				
	None Detected	mcg/mL	5.0	

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**NMS Labs**  
 200 Welsh Road, Horsham, PA 19044-2208  
 Phone: (215) 697-2200 Fax: (215) 697-2972  
 Email: nms@nmslab.com  
 Robert A. Malsberg, PhD, F-ABFT, CMSCS(T), Laboratory Director

**CONFIDENTIAL**

**Demo Report**  
**Report Issued:** 03/30/2020 14:28  
**Last Report Issued:** 08/21/2018 11:39

**9326B**  
**Clinical Example Report**  
 NMS - Lablogix Reports  
 200 Welsh Road  
 Horsham, PA 19044

**Patient Name:** 9326B-PCOS  
**Patient ID:** 9326B-PCOS  
**Chain:** 18001155  
**Age:** Not Given **DOB:** Not Given  
**Gender:** Not Given  
**Workorder:** 18001155  
**Received:** 08/21/2018 10:58

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**Sample ID:** 18001155-001  
**Matrix:** Blood  
**Patient Name:** 9326B-PCOS  
**Patient ID:** 9326B-PCOS  
**Container Type:** Clear vial  
**Approx Vol/Weight:** Not Given

**Receipt Notes:** None Entered

Analysis and Comments	Result	Units	Reporting Limit	Notes
<b>9326B Gamma-Hydroxybutyric Acid Screen, Blood</b>				
Analysis by Gas Chromatography/Mass Spectrometry (GC/MS)				
Gamma-Hydroxybutyric Acid				
Synonym(s): GHB, Gamma-Hydroxybutyrate				
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				
This test was developed and its performance characteristics determined by NMS Labs. It has not been cleared or approved by the US Food and Drug Administration.				
	See Comment	mcg/mL	5.0	
<b>5101B Gamma-Hydroxybutyric Acid Confirmation, Blood</b>				
Analysis by Gas Chromatography/Mass Spectrometry (GC/MS)				
Gamma-Hydroxybutyric Acid				
Synonym(s): GHB, GHB, Gamma-Hydroxybutyrate				
	60	mcg/mL	5.0	

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**GHB: The drug used as a 'rapist's weapon of choice'**

By Hazel Shearing  
BBC News  
9 January

When Reynhard Sinaga took a victim back to his flat, he would drug them unconscious before launching his assault.

Following his conviction for 159 sex offences, Home Secretary Priti Patel called for a review of controls for drugs like GHB.



**Helen Pidd** *North of England editor*  
@HPidd  
Mon 6 Jan 2020 07:20 EST

**How serial rapist posed as a good samaritan to lure victims**

Reynhard Sinaga pretended to help his victims before drugging them and filming himself raping them.

There is no such thing as a typical rapist. But both Reynhard Sinaga's friends and victims agree there was nothing about his friendly and unthreatening appearance to suggest he was capable of any kind of violence, let alone a two-and-a-half year campaign of rape and degradation.




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**GBL**  
**Gamma-butyrolactone**

- Precursor to GHB – Schedule I Drug
  - Can be used to manufacture GHB
  - Can be consumed and converted to GHB within the human body.
- Clear liquid.
- Up to three times more potent than GHB.

<https://www.sciencedirect.com/science/article/abs/pii/S0273230014002037>




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**The drug that caused almost 40 overdoses in Melbourne**

IT'S been described as "coma in a bottle" and can bring on psychosis and hallucinations. It also caused 40 overdoses this weekend.

Olivia Lambert @LivLambert news.com.au FEBRUARY 20, 2017, 5:31PM

A DRUG that melts plastic and has the nickname "coma in a bottle" has had a devastating impact on Melbourne's party scene.

GBL is believed to be the cause of almost 40 overdoses in the city on the weekend, with people unknowingly taking the drug, which is a derivative of GHB.

People were being carried away on stretchers one after the other after consuming the potentially fatal substance.

Ambulance Victoria said the fact there were no deaths as a result of drugs at the Electric Parade music festival in Melbourne and the White Night event was "good luck rather than anything else".

GBL is much the same as GHB and when taken, the body converts GBL into GHB, but it is often more toxic.

"It's a drug that causes people to become unconscious, slows the heart rate and can cause seizures," Ambulance Victoria state health commander Paul Holman said.

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# Rohypnol



Ruffies; Roofies;  
Roachies; The Forget Pill;  
Rib; R-2; Rope;  
Ropies; Roopies;

**THE HANGOVER PILL (Rufinol)**

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Dr.: Okay, this is interesting. Your blood work came in this morning.  
Wow. They found a large amount of Rupylin in your system.  
Ruphylin. Roofies. Commonly known as the date-rape drug.

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## Rohypnol



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## Rohypnol General Information

- CNS Depressant.
- Similar acting to Valium – Both are benzodiazepines – but Rohypnol is up to 10 times more potent). See, e.g. - <https://www.drugs.com/illicit/rohypnol.html>
- Illegal in US but legal in many other countries including Mexico
- As Date Rape Drug- smuggled into country.




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## Effects on the Body

- Rohypnol is tasteless, odorless, and dissolves easily in carbonated beverages.
- A person under the influence of Rohypnol can appear to be drunk, display no coordination, bloodshot eyes and slurred speech.
- Sedation can occur as soon as 20 minutes after ingestion. The drug's effects will peak within 2 hours and may persist for up to 8 hours or more, depending on the dosage. Other adverse effects associated with Rohypnol include visual disturbances, drowsiness, confusion, decreased blood pressure, memory impairment, gastrointestinal disturbances and urinary retention.
- When mixed with alcohol, Rohypnol may cause respiratory depression, aspiration or even death.
- The drug can cause profound "anterograde amnesia"; that is, individuals may not remember events they experienced while under the effects of the drug. This may be why one of the street names for Rohypnol is "the forget-me pill."

[http://www.dea.gov/druginfo/drug\\_data\\_sheets/Rohypnol.pdf](http://www.dea.gov/druginfo/drug_data_sheets/Rohypnol.pdf)



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## 'I was so scared': Model who was roofied at a bar in Los Angeles reveals exactly what her symptoms were so others will know what to look for, as she admits she was 'uneducated'

- Model Sierra Oliveira, who lives in California, said she wanted to use her experience to explain to others the symptoms in case it happens to them
- She then detailed how Rohypnol can make the person disoriented, severely fatigued and confused if mixed with alcohol
- On Saturday, Sierra said she was out with friends when the incident happened
- Her friends were able to get her home safely without anything happening



© Twitter/@olivia\_sierra

Scared: Sierra (pictured) confessed to still feeling disoriented on Sunday after getting unwillingly drugged on Saturday

By DANIELLE ZOELLNER FOR DAILYMAIL.COM  
PUBLISHED: 16:20 EST, 6 May 2019 | UPDATED: 16:53 EST, 6 May 2019

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## Detection of Rohypnol

- **Influenced by :** Amount ingested, victim's body size and inherent metabolism, and stomach contents.
- **Blood –** Up to 24 hours post-consumption.
- **Urine -** 48-96 hours post-consumption.
- **Hair –** 30 days [Private labs only].

e.g. - <https://pharmpsych.com/2013/10/17/rohypnol-good-bad-pharmacology/>




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**NMS Labs**  
 200 Welsh Road, Horsham, PA 19044-2208  
 Phone: (215) 667-4900 Fax: (215) 667-2972  
 e-mail: nms@nmslabs.com  
 Robert A. Middleberg, PhD, F.ABFT, DABCC-TC, Laboratory Director

CONFIDENTIAL

**Demo Report**  
 Report Issued: 08/02/2006 14:30  
 Last Report Issued: 08/02/2006 14:53

**Sample Information**  
 Patient Name: 9341U-POS  
 Patient ID: 9341U-POS  
 Container Type: Clear vial

**Receipt Notes**  
None Entered

**Sample ID:** 06008291-001  
**Matrix:** Urine  
**Collect Dt/Tm:** Not Given  
**Source:** Not Given

**Approx Vol/Weight:** Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
<b>9341U Flunitrazepam and Metabolites Screen, Urine</b>				
Analysis by High Performance Liquid Chromatography/Tandem Mass Spectrometry (LC-MS/MS)				
Flunitrazepam	See Comment	ng/mL	2.0	
Synonym(s): Rohypnol®				
Norflunitrazepam	See Comment	ng/mL	2.0	
Synonym(s): Flunitrazepam Metabolite				
7-Amino Flunitrazepam	See Comment	ng/mL	2.0	
Synonym(s): Flunitrazepam Metabolites				
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				
In urine, approximately 10% of an oral dose is excreted as 7-Amino Flunitrazepam.				
This test was developed and its performance characteristics determined by NMS Labs. It has not been cleared or approved by the US Food and Drug Administration.				
<b>9341U Flunitrazepam and Metabolites Confirmation, Urine</b>				

Results for sample 06008291-001 are continued on next page.

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 Robert A. Middleberg, PhD, F.ABFT, DABCC-TC, Laboratory Director

CONFIDENTIAL

**Sample ID:** 06008291-001  
**Matrix:** Urine  
**Patient Name:** 9341U-POS  
**Patient ID:** 9341U-POS

**Collect Dt/Tm:** Not Given  
**Source:** Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
<b>Analysis by High Performance Liquid Chromatography/Tandem Mass Spectrometry (LC-MS/MS)</b>				
Flunitrazepam	5000	ng/mL	2.0	
Synonym(s): Rohypnol®				
Norflunitrazepam	5000	ng/mL	2.0	
Synonym(s): Flunitrazepam Metabolite				
7-Amino Flunitrazepam	5000	ng/mL	2.0	
Synonym(s): Flunitrazepam Metabolite				
In urine, approximately 10% of an oral dose is excreted as 7-Amino Flunitrazepam.				
This test was developed and its performance characteristics determined by NMS Labs. It has not been cleared or approved by the US Food and Drug Administration.				

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**Ketamine**

Special K  
Kit Kat, Cat Valium Jet  
Super K  
K, K-land, K-hole  
Vitamin K



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**Ketamine**

- Available by prescription for human and veterinary use [anesthesia]
- Since 2019 – approved for treatment-resistant depression.
- Schedule III Drug in United States



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**Ketamine**

- Clear Liquid (used as prescribed) or white / off-white powder - bitter.
- Can be cut with other powder substances or added to cigarettes.



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### Ketamine Effects Dissociative Anesthetic

- Anesthesia (Can render user unconscious)
- Sedation (Feeling calm and relaxed)
- Immobility
- Relief from pain
- Hallucinations
- Amnesia – [BUT - Flashbacks are possible]




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### Ketamine Detection

- Single Use (DFSAs) detectable:
  - Up to 24 hours in blood
  - 48-72 hours (or more) in urine
  - 30-90 hours in hair. [Private lab only]

<https://www.rehabcenter.net/ketamine/detection-time/>




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**NMS**  
LAB

NMS Labs  
200 West Hand, Harrisburg, PA 17044-2008  
Phone: (717) 657-4800 ext. 2200 (toll-free)  
www.nmslabs.com  
Robert A. Metzberg, PhD, FACPT, LADC(C) CL Laboratory Director

**CONFIDENTIAL**

**Demo Report**  
Report Issued: 10/05/2020 10:29

**To: 88888**  
Forensic Example Report  
Adm. Example Reports  
200 West Hand  
Harrisburg, PA 17044

**Patient Name:** 80304-P05  
**Patient ID:** 20001119  
**Client:** DDM, Not Given  
**Age:** Not Given  
**Gender:** Not Given  
**Workorder:** 20001119

Page 1 of 6

**Positive Findings:**

Compound	Result	Units	Matrix	Source
EtOH	88	ng/mL	001	Urine
Alprazolam	00	ng/mL	001	Urine
Delta 9 Tetrahydrocannabinol - Total	00	ng/mL	001	Urine
BAC/AB - Free	25	ng/mL	001	Urine
Morphine - Total	2800	ng/mL	001	Urine
Fentanyl	10	ng/mL	001	Urine
Cocaine	00	ng/mL	001	Urine
Cocaine/Benzoyl	00	ng/mL	001	Urine
Buprenorphine	00	ng/mL	001	Urine
Flunitrazepam	00	ng/mL	001	Urine
Propoxyphene	00	ng/mL	001	Urine
Ketamine	00	ng/mL	001	Urine
Meperidine	00	ng/mL	001	Urine
Buprenorphine	00	ng/mL	001	Urine
EDDP	00	ng/mL	001	Urine
Tetraolol	00	ng/mL	001	Urine
O-Desmethylnormadol	00	ng/mL	001	Urine

See Detailed Findings section for additional information

**Testing Requested:**

Analysis Code	Description
80307	Drug Facilitated Crime Panel, Urine (Ornament)

**Specimens Received:**

ID	Tube/Container	Volume/ Mass	Collection Date/Time	Matrix	Source	Labeled As
001	Clear 10mL		Not Given	Not Given	Urine	Not Applicable

All sample volumes/weights are approximations.  
Specimens received on 04/06/2020.

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- At Luster's home, he mixes drinks for the group.
- According to Luster, he and Carrie have voluntary sex in shower and bedroom (x 2).
- "She liked it, she was enthusiastic about it."
- Carrie calls Luster a few days later :
  - C: "Dude, what did you put in my drink"
  - L: "Liquid X "
  - C: "You don't have to drug me to have sex with me [next time]"
  - L: "I won't I promise."




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- Police execute search warrant at Luster's home.
- Videotapes show Luster raping several other victims.
- These victims **did not know** they had been raped.
- Ex.: **Shauna GHB-ing** "I dream of this. A strawberry blonde passed out on my bed."
- Woman snoring heard on tape.




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### Luster is Convicted



- "I can't believe what has happened."
- "It's all been blown out of proportion."
- "This was fun, casual sex"
- "OK, it might be a bit kinky, but it's not criminal."

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**The True Story of John Doe**  
 (Can't use his real name b/c he was acquitted in bench trial)

- 2005 – Victim goes on a pub crawl in the city of Rochester.
- She drinks 3x beers total at three different bars in the South Wedge (and eats).
- At the last bar, she is playing pool with John Doe (just met), leaves her beer to go to bathroom.
- Last memory is of missing the pool balls.




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**In the Morning...**

- Awakes in bed w/ John Doe;
- He is engaging in intercourse from behind – pain wakes her up;
- She can't move;
- Comes out of fog, feels ill, can barely drive home.
- How did she leave the bar, get to this place, etc.???




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**Goes to the Hospital ...**

- Hospital collects urine (testing 6-8 weeks)
- Officer responds...
  - "What was a country kid like you doing on a pub crawl?"
  - "So you were voluntarily drinking..."
- Per the victim "She clearly thought I was full of it...I will never forget how she made me feel."




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### The "Investigation"

- Officer responds to 'young man's home...'
- He was 'extremely cooperative, professionally dressed and friendly...'
- Told of the allegations – he said it 'was consensual and he didn't really like her that much...'
- Officer 'can I take a quick look around'... 'Sure'...
- 'Did not see any evidence of Date Rape Drugs...'




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### Did not...

- Speak to (any) Witnesses;
- Perform Controlled phone call / visit;
- Strategize the conversation with the defendant;
- Visit the bar, interview bartender, others;
- Take photographs (bar, scene, etc.)
- Procure a Search Warrant
- Do a comprehensive search including the suspect's cell phone.




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### 6-8 Weeks later ...

- Urine positive for GHB
- Officer's response
  - "She probably gave it to herself"
  - "I know he didn't use a date rape drug b/c he was way better looking than she was and he went to RIT"




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Reference

- LeBeau, M. & Mozayani, A (2001). Drug-Facilitated Sexual Assault, A Forensic Handbook. Academic Press.
- National Criminal Justice Reference Service (NCJRS). Sexual Assault Kit Evidence Tracking: Managing Critical Information. Retrieved October, 2020 from: [www.ncjrs.gov/App/publications/abstract.aspx?ID=274821](http://www.ncjrs.gov/App/publications/abstract.aspx?ID=274821)
- U.S. Department of Justice (DOJ), Office on Violence Against Women (2013). A National Protocol for Sexual Assault Medical Forensic Examinations Adult/Adolescent (2nd ed.). Washington, DC: DOJ. Retrieved from <https://www.ncjrs.gov/pdffiles1/ovw/241903.pdf>




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INTERNATIONAL ASSOCIATION OF  
**Forensic Nurses**

Medical Forensic Exam  
Payment TA project

info@safeta.org or  
projects@forensicnurses.org

Helpline: 877-819-SART

Talk to us  
Contact the International Association of  
Forensic Nurses  
@  
info@ForensicNurses.org  
1-410-626-7805





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*Research. Educate. Lead.*

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**Thank you very much!**

Jennifer M. Sommers  
Special Assistant Attorney General  
NYSAG's Office  
Jennifer.Sommers@ag.ny.gov

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