

# Recognizing Club Drugs

By S. CHRISTOPHER SUPRUN

Cable television is carrying previews of spring break specials from some fabulous beach you are probably not at right now. Instead, odds are you're sitting in a continuing-ed EMS class. Has the class covered illicit drugs? Which ones? Marijuana? Cocaine? Almost certainly opiates and the glory that is naloxone.

But what about ice? Georgia Home Boy? Ecstasy? While those drugs are not always hit hard in the books and the classrooms, they are increasingly being hit hard on the street. Ecstasy, rophynol, GHB, and methamphetamines are no longer up-and-coming street drugs; they have announced that they are here to stay, particularly with a culture of younger drug users—maybe even the same ones doing their funky little dance on the TV.

## "X" Marks the Spot

Imagine your unit being dispatched on a Friday night to a suburban home for a 16-year-old female "not acting right." The patient's mother reports she had gone out with some friends earlier in the evening and came home sick. The patient seems jittery and unable to concentrate. She is dancing around sucking on a pacifier and holding a teddy bear. She also has a small bottle of vapor rub in her pocket. While your crew attempts to get an initial set of vital signs, her mother reports no allergies, medications, or medical history.

As you get vitals, the patient's mother reports that the patient has indicated nausea. Your crew's assessment reveals an increased respiratory rate of 32 times per minute, heart rate of 120 per minute, and blood pressure of 160/110. Her pupils are dilated and slow to respond, her ECG shows sinus tachycardia with frequent PVCs, and her skin is hot and moist.

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Cocaine? Probably not. But determining what this patient might be doing could be more art than science. The clues to her story aren't in her vitals—which could as easily lead you to cocaine—but in her behavior, leading you to her more likely drug of choice: ecstasy.

Ecstasy goes by a number of names including "E," "X," "XTC," "love drug," "hug drug," and "Adam," but is also known chemically as MDMA. MDMA (3,4-methylenedioxy-methamphetamine) is a stimulant with psychedelic effects as well.<sup>1</sup> The drug's effects generally last four to six hours, but dosages are sometimes "stacked;" users take doses at regular intervals to maintain their high.<sup>2</sup>

Users of MDMA often find euphoric highs because the drug increases serotonin, dopamine, and norepinephrine levels. While the brain is releasing all of these neurotransmitters, it is also causing long-lasting memory problems. The drug is known for causing a heightened attenuation of the senses, and bright colors, music, odors, and tastes are likely to excite the user. They may accessorize with lollipops, pacifiers, feather necklaces, stuffed animals, and water spray bottles as ways to tickle their senses further.

The water bottles serve another purpose, as well: self-treatment. One of the key problems with ecstasy is the increase in body temperature that often occasions the drug's use and the associated all-night rave—or dance parties. This malignant hyperthermia can cause seizures and severe sweating, and ultimately lead to dehydration. Users of MDMA often have water bottles or spray bottles and may attempt to counteract the drug's dehydration effects by drinking copious amounts of water. Depending on the amount of ingestion, this can lead to "water intoxication" or hyponatremia. This is where the increased amount of water being consumed lacks the electrolytes being burned and sweated out of the patient. While hyponatremia is not treated in the field, the altered mental status associated with it should be noted as a possible complication, and the patient's airway may need to be aggressively managed.

On the opposite end of the spectrum, providers may encounter a patient who is aggressive toward them and paranoid of authority. The possibility of seizures is very real as well, and standard sedation using 2.5 to 5.0 mg of IV Valium® (diazepam) or 2.0 to 4.0 mg of IV Ativan® (lorazepam) should provide an appropriate level of sedation should seizure activity occur.

## GHB

To come down from these highs, some Ecstasy users will ingest GHB. Known on the street by such names as "Georgia Home Boy," "cherry meth," and "Gross (or Grievous) Body Harm," gamma-hydroxybutyrate is both a sedative and an

amnesic. GHB can be a clear liquid, white powder, tablet, or capsule and is tasteless,<sup>5</sup> or with a slight salty flavor when mixed in drinks. That makes it a favorite of sexual predators, who use it as a date-rape drug. GHB was first developed in Europe 45 years ago as a possible anesthetic but has been found to have limited medical use in the United States.<sup>4</sup>

One Web site that appears to have a softer stand on recreational drug use than most people suggests that “careful users” of GHB will start with “half a teaspoon,”<sup>5</sup> but overdose statistics show GHB’s danger. One report indicated that GHB accounted for one-third of all recreational drug contacts to the poison control centers in Boston in 1999; overdoses have jumped from 55 reported in 1994 to almost 3,000 in 1999.<sup>6</sup> GHB is sometimes drunk from a beer bottle top, to accentuate the feel of the alcohol. Users have described taking a cap full of GHB and drinking a six-pack to feel as if they had been drinking all night.

Perhaps the most famous victim of GHB is River Phoenix, who collapsed and died outside Los Angeles’s Viper Room nightclub in October 1993.<sup>7</sup> This information was not confirmed, as GHB stays in bodily fluids for a short time, but evidence suggests GHB was a factor.

GHB patients may become comatose and will experience significant bradypneas and bradycardias. Patient care always starts with the airway, and support for respiratory depression should be the predominant focus of the street medic. Consideration to the patient’s heart rate will be important, too. Further treatment will include using local protocol for bradycardic patients and will likely include large-bore intravenous lines, fluid bolus, and 0.5 to 1.0 mg IV atropine as needed.

Ecstasy and GHB are not the only drugs used by the all-night group dance partygoers. For some sexual predators, two additional drugs come to mind that have immediate and dire implications as they relate to date rape. Ketamine and rophynol are both common club drugs whose sedative effects make them a dangerous cousin to sexual assault.

## Ketamine

Since roughly 1970, ketamine has found use in veterinary medicine and some use in human care. It is frequently used as a pediatric sedation agent during rapid sequence intubation, but again, its primary use is that of an animal sedative, particularly for horses and other large animals. Some humans, though, have found its dissociative and sedative characteristics a real plus. Patients on ketamine may appear awake but will clearly not be alert and will not know what is happening around them.

Ketamine is also known as “special K,” “kit kat,” and “cat Valium.” Ketamine has been associated with regular robberies of veterinarians’ offices across the country.<sup>8</sup> Used in higher doses, ketamine can cause out-of-body experiences known as going to “K land.” Patients will have symptoms similar to those of other sedative overdoses. Sometimes, patients will experience significant hallucinations; although it seems counterproductive, benzodiazepines can reduce the number of hallucinations and illusions after ketamine overdose. Again, standard dosing of

Valium or Ativan may be appropriate, depending on your local protocol and medical direction.

## Rophynol

Similarly, rophynol, known as “roofies,” causes significant sedation and is used throughout Europe as a treatment for insomnia, as a sedative, and as a pre-surgery anesthetic. Rophynol is perhaps the best known of the “date-rape” drugs and has many of the same effects as the two previously mentioned drugs, including confusion and altered level of consciousness, respiratory depression, and visual disturbances. As little as 1 mg of the drug, without the enhanced effects of alcohol, can still impair some patients for eight to 12 hours.<sup>9</sup>

Most care for rophynol is supportive, but suspicion of rophynol use should immediately cause concern about a possible sexual assault. Rophynol is not widely used by persons on their own;<sup>10</sup> should EMS providers suspect overdose or other use of the drug, they should keep in mind the possibility of sexual assault and attempt to maintain possible evidence of the crime scene for investigators and hospital staff, including SANE (sexual assault nurse examiner) nurses.

## Speed

Finally, a drug that’s being used both in trendy clubs along the beach and rustic cabins in rural America: Methamphetamine, which poses real dangers to the firefighters and EMS providers who respond to these emergencies.

Methamphetamine is a central nervous system stimulant and is highly, highly addictive. It has been reported that users who “try” methamphetamine once have a 42 percent addiction rate and users who try it a second time have a 96 percent addiction rate.<sup>11</sup> Meth comes in several forms, including pills and powders. Some users smoke the drug in a form called “ice.” The comparison can be made: if meth is cocaine, then ice is crack.

Methamphetamine usage is on an exponential rise, as 9,300 clandestine labs were raided in 2003—a 500 percent increase from 1996. In one recent news story, a spokesman for the Drug Enforcement Administration said, “Meth is now the No. 1 drug in rural America—absolutely, positively, end of question.”<sup>12</sup>

Methamphetamine kills brain cells in a way similar to that of a stroke or Alzheimer’s<sup>13</sup> and reduces dopamine transporters. Meth causes increases in alertness, respiratory and cardiac rates, and hyperthermia, and stimulates violent tendencies and aggressive behaviors. Patients tend to have paranoia, insomnia, and suppressed appetites and may not have eaten for more than a day. Depending on their level of abuse, patients may not have had significant sleep in three to 15 days.<sup>14</sup> Significant depression can occur with the use of meth and, in particular, ice. Patients may also appear itchy and be trying to remove imagined insects they say are crawling over their body.

Treatment of these patients should start with a strong sense of personal safety for yourself and your crew. Fire and EMS crews should maintain their “personal” space for themselves and the user as best as possible and speak slowly and avoid



loud speech or quick movements. Direct treatment may include cooling measures depending on the level of hyperthermia, and the use of benzodiazepines for any seizure activity that develops. These patients also have significant hypertension, but this is usually not treated in the field.

Beyond the medical issues of methamphetamine use, its production should be a significant concern to firefighters and EMS personnel. The drug can be easily made in the home, which makes its elimination from the street that much harder; there's no need for the intricate system of narco-grocery shopping required of cocaine and heroin users. However, the chemicals used to make meth are "flammable, explosive, toxic and caustic."<sup>15</sup> Fires in self-storage units, apartment buildings, or single-family dwellings can produce a robust amount of toxic fumes. Between 1996 and 1999, 72 injuries to first responders, firefighters, EMS and police were attributed to methamphetamine-associated events.<sup>16</sup>

You don't need to be in a spring break video to find these drugs; they're in every community across America. Information about them is all around the Internet, and you can be sure that every middle school student in America can use the lingo and knows where these drugs are available. It's time for the rest of us to get back to class and learn what we are facing on the streets. ●

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