

From Hofmann to the Haight Ashbury, and into the Future: The Past and Potential of Lysergic Acid Diethylamide

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Abstract—Since the discovery of its psychedelic properties in 1943, lysergic acid diethylamide (LSD) has been explored by psychiatric/therapeutic researchers, military/intelligence agencies, and a significant portion of the general population. Promising early research was halted by LSD's placement as a Schedule I drug in the early 1970s. The U.S. Army and CIA dropped their research after finding it unreliable for their purposes. NSDUH estimates that more than 22 million (9.1% of the population) have used LSD at least once in their lives. Recently, researchers have been investigating the therapeutic use of LSD and other psychedelics for end-of-life anxiety, post-traumatic stress disorder (PTSD), cancer, and addiction treatment. Adverse psychedelic reactions can be managed using talkdown techniques developed and in use since the 1960s.

Keywords—Haight Ashbury Free Medical Clinic, hallucinogens, LSD, psychedelics, talkdown techniques, therapeutic psychedelic use

*To fathom hell or soar angelic
Just take a pinch of psychedelic.*

- Humphry Osmond, M.D., in a letter to Aldous Huxley

Lysergic acid diethylamide, more popularly known as LSD, acid, or blotter, has recently seen a resurgence in research studies after a more than 40-year drought of scientific inquiry. Articles in the popular press (Slater 2012; Katchadourian 2012), spawned by a recent lawsuit by veterans' groups against primarily the CIA and U.S. Army and the making public of formerly unavailable documents,

have renewed public interest in the drug. Organizations such as the Multidisciplinary Association for Psychedelic Studies (MAPS) have provided a focal and rallying point for would-be researchers and students of LSD and other drugs for more than two decades (<http://www.maps.org>).

Initially formulated by Dr. Albert Hofmann, a Swiss chemist, in 1938, LSD's consciousness-altering properties were discovered inadvertently by Dr. Hofmann five years later (Hagenbach & Werthmuller 2011; Hofmann 1976). The similarities of LSD's molecular structure and mechanism of action to serotonin's were recognized in the early 1950s (Nichols 2013), and researchers and clinicians began to explore LSD's potential for therapeutic use with the mentally ill and alcoholics.

At the same time, government agencies wondered if they could use LSD and other psychoactive drugs as

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weapons and for intelligence gathering. The United States had dropped two atomic bombs on Japan only a few years earlier, with horrific human casualties, and a hydrogen bomb was exploded on Eniwetok Atoll in the early 1950s. It was suspected that the Soviet Union also had nuclear weapons, and the Cold War was in full force. Could an enemy's army be mentally and/or physically incapacitated temporarily in some way that could avoid bloodshed and loss of life? The CIA's MK-ULTRA experiments, many of which took place in the San Francisco Bay Area, and the U.S. Army's work at Edgewood Arsenal, chronicled by one of its psychiatrists, James Ketchum, tested the effects of many substances on witting and unwitting subjects (Ketchum 2006).

The early 1960s saw the embracing of LSD as a consciousness-expanding vehicle by Timothy Leary and Richard Alpert (later Ram Dass), then researchers at Harvard University, and Leary led the charge with his urging to "Turn on, Tune in, Drop out." Although he and Alpert were fired, Leary had let the cat out of the bag. Publicity about his experiments and termination led to greater experimentation with LSD among students and young researchers, which ultimately spread beyond academe (Lattin 2010).

The lead author of this paper was a researcher at the University of California, San Francisco, in the mid-1960s, and lived nearby on the fringes of the Haight Ashbury. He and his colleagues soon realized that the drugs they were giving to rats under carefully controlled conditions and dosages were being freely consumed (in very uncontrolled forms and dosages) by many residents of the neighborhood, and few seemed to have ill effects.

It quickly became apparent that many newcomers to the neighborhood did experience adverse effects from their LSD ingestion, and volunteers at the Haight Ashbury Free Medical Clinic (HAFMC) developed techniques to "talk them down" from their drug frenzy, observing that the individual's environment had a lot to do with how the effects of LSD were perceived by the user and their amelioration. These techniques have been used and refined by the clinic's Rock Medicine program at concerts with thousands of "trippers" at Grateful Dead and other concerts for over 40 years, with the vast majority of patients returned to their families and friends by the end of the concert (see Appendix).

In 1966, LSD was outlawed and, in 1970, was reclassified as a Schedule I drug under the Controlled Substances Act in an attempt to forestall its increasing recreational use. Research on its potential therapeutic uses came to a standstill in the U.S. and in many other nations, just as research on marijuana, MDMA, and other psychedelics has been thwarted until very recently. Only during the past decade or so has research finally been permitted on the possible therapeutic uses of many psychedelic substances, including

LSD, MDMA, ayahuasca, marijuana, and ibogaine. Early studies are also being reevaluated and measured against current evidentiary standards.

HOFMANN'S "PROBLEM CHILD" AND EARLY RESEARCH ON ITS THERAPEUTIC VALUE

It is important to revisit the origins of LSD and the good and the bad that subsequently transpired; most importantly, how American medicine lost valuable opportunities to understand psychedelics. In the 1950s and early 1960s, LSD was researched by scientists and clinicians from universities and drug companies, and by therapists and philosophers.

The LSD-induced mystical experience was what Humphry Osmond (coiner of the term "psychedelic") judged to be therapeutic in his studies in the 1950s of the use of LSD in the treatment of alcoholism (Dyck 2006a). Theorizing that Alcoholics Anonymous (AA), based on the philosophy of AA co-founder Bill Wilson and the psychology of Carl Jung, suggested that the induction of a spiritual experience could facilitate recovery from the disease of alcoholism, Osmond provided high doses of LSD to patients, and reported a 40–50% success rate (Dyck 2006b). Although a certain number of alcoholics were able to abstain for up to six months, most relapsed due to a lack of follow-up counseling. Bill Wilson experimented with LSD to explore the spiritual experience, but decided that without follow-up steps to provide tools for recovery, such as the 12 steps of AA, relapse would occur even after the initial spiritual experience (Lattin 2012).

The last group of researchers to study LSD before it became readily available to the public was the medical therapeutic community. Universities across the country had been quietly using LSD in a number of studies. Sidney Cohen (1965; 1972), a psychiatrist at UCLA and later director of NIDA, administered LSD in a controlled clinical setting to several hundred subjects in the late 1950s and early '60s. He described the adverse drug reaction rate in such controlled clinical settings as less than 1%, with several of the patients having enhanced psychotherapeutic benefit. He summarized:

The varieties of psychotic LSD experiences are many. A very few may resemble a delirium, some are quite reminiscent of schizophrenia and others have an idiosyncratic quality not seen in the naturally occurring psychoses. The psychotic response to LSD is better understood than the transcendent experiences because its neurochemistry and phenomenology have been worked out. Additionally, there is greater familiarity with the endogenous psychoses than the endogenous cosmic experiences. The LSD condition, especially the insane state, is indeed an experience in search of an explanation. It is even possible that not all humans are capable of achieving that state by means of hallucinogenic drugs. The LSD state remains an area of enormous interest that requires exploration and research (Cohen 1985).

Dyck (2006) and Mangini (1998) surveyed early therapeutic treatments of alcoholism with LSD and reported positive results. This promising avenue was cut off by the government's refusal to fund studies of LSD after it became a Schedule I drug.

An analysis of early randomized controlled trials by Krebs and Johansen (2012) found "evidence for a beneficial effect of LSD on alcohol misuse. . . . A single dose of LSD, in the context of various alcoholism treatment programs, is associated with a decrease in alcohol misuse."

NON-MEDICAL USE OF LSD

The non-medical use of LSD surged during the Ken Kesey era of the mid-'60s (Wolfe 1968), culminating in the psychedelic Human Be-In featuring Leary and Allen Ginsberg in San Francisco's Golden Gate Park in January 1967, followed by the LSD-, marijuana-, and amphetamine-fueled Summer of Love in the Haight Ashbury and the evolution of the psychedelic counterculture. Responding to the huge influx of seekers of sex, drugs and rock 'n' roll who had arrived in San Francisco and especially the Haight Ashbury neighborhood, in June the Haight Ashbury Free Medical Clinic (HAFMC) opened, pioneering the LSD talkdown and calm center in a medical setting.

HAFMC opened with the support of many physicians and other clinicians, as well as other volunteers with street smarts. Meeting the overwhelming demand for public health had been its first goal, but it soon became evident that half the problems stemmed from the use or misuse of LSD and other psychoactive substances. HAFMC was run and staffed by people who either knew LSD from their personal experience or had the compassion and patience to deal with those in altered states of consciousness. They also knew that while they could not save every soul, they could guide a large number of them through the rough waters and rabbit holes of the LSD experience by literally talking to them. In many cases, reassuring the patient that the drug would wear off and that they would return to normal (whatever that was) was sufficient.

An individual ingesting 150–250 micrograms (now considered a strong dose) of LSD typically experiences illusions; i.e., objects changing shape and color, stationary objects seeming to move, colors becoming brighter or more intense, synesthesia (i.e., one type of sensory experience is translated into another; e.g., one "sees" sound), and frequent emotional changes. In addition, value judgment may be suspended, time and spatial orientation are often affected, and events experienced while under the influence of LSD are given increased meaning. The individual does not lose consciousness due to LSD ingestion, and usually remembers what has happened during his "trip." Although LSD is classified as a hallucinogen,

hallucinations are actually infrequent. Rather, the individual experiences pseudohallucinations, where he may see something but knows that what he is seeing has no basis in external reality (hallucinations are a false sensory perception without a basis in external reality) (Smith 1967).

The HAFMC clinic staff became masters in the art of talkdown. This knowledge and experience were shared and passed on through word of mouth, concerts, publications, and classes. Wavy Gravy informed the world and the half million pilgrims at Woodstock that if you were having problems with psychedelics, head over to the wonderful people at the Hog Farm's "bad trip tent" and they would talk you down.

Early on, the clinic workers learned that environment, stimulation, and the individual's past history played a large role in the tripper's LSD experience. This was later clinically described by Zinberg (1984) as "set and setting." If you put 10 people in the same room and gave them the same dosages and stimulation, you were likely to have 10 different reactions.

Some, such as Ken Kesey's Merry Pranksters and their "acid tests," pushed the parameters of total stimulation with bright lights, loud music, and intense visuals. Others, such as Leary, Ram Dass (Richard Alpert), and the Millbrook circle in upper New York State, chose a more spiritual, meditative, and church-like atmosphere for their LSD experience. They adopted a more inner exploration than the extroverted rock 'n' roll, take it to the limit trip that many others sought. In most cases, those who took LSD had a great experience, but for others it was very scary. In many ways, the Summer of Love in San Francisco came to be known as the end of the enlightened days and the beginning of the dark days, as heroin and methamphetamine became the drugs of choice.

PSYCHOCHEMICAL WARFARE

Governments argued that many world powers were looking into hallucinogenic drugs for mind control and non-lethal antipersonnel weapons to immobilize enemies after the devastation of World War II. This created an accelerated demand for more testing and development of psychoactive drugs, which were conducted by private pharmaceutical companies, universities, the military, and the CIA. We now know much more, but not all, of what went on during this era because of the Freedom of Information Act and the passing of time and personnel. Nonetheless, large gaps exist in the data collected by the intelligence agencies because of the destruction of their records.

Khatchadourian (2012) cites the suggestion of Alsoph Corwin, a chemist at Johns Hopkins, who consulted for the U.S. Army in 1947: "One other rather spectacular possibility should certainly be called to attention, however. This is the possibility of producing mass hallucinations

and uncontrollable hysteria by intoxication.” The idea resonated with U.S. Army officials because of observations they had made in their study of nerve agents and, in 1949, L. Wilson Greene, Edgewood Arsenal’s technical director, wrote an influential paper titled “Psychochemical Warfare: A New Concept of War.” He called for a search for compounds that would create the same debilitating effects as nerve gas, developed by the Germans in WWII, but without the lethality (Greene 1949). The paper set in motion decades of research at Edgewood and the CIA. Greene wrote, “I am convinced that it is possible, by means of the techniques of psychochemical warfare, to conquer an enemy without the wholesale killing of his people or the mass destruction of his property” (Khatchadourian 2012).

As described by Greene, psychochemical warfare fit into the evolving ethos of “Better Fighting through Chemistry” (this paralleled but was a completely different application of the effects of LSD desired by Aldous Huxley (1954) in *The Doors of Perception*, culminating in the Summer of Love mantras of “Better Living through Chemistry” and “Make Love, Not War”). Allen Dulles noted in 1955, “The [Central Intelligence] Agency became interested in the potential importance of psychochemicals, primarily because of the enthusiasm and foresight of Dr. L. Wilson Greene. . . .” (Dulles 1955).

The vision of the idealistic, spiritually oriented psychedelic philosophers such as Aldous Huxley (author of *Brave New World*, *Island*, and *The Doors of Perception*) and Huston Smith (author of *The World’s Religions*) was pre-empted by the Cold-War-induced nightmare of purveyors of paranoia such as Greene.

Early on, Army researchers believed that LSD held the greatest promise as a psychochemical weapon—and they feared that the Soviet Union was avidly pursuing the drug’s use in warfare as well (Ketchum 2006). At Edgewood, thousands of Army volunteers were exposed to biological and psychoactive agents, and LSD was one of them. This research is chronicled in detail by James Ketchum, the lead investigating psychiatrist at Edgewood, in *Chemical Warfare, Secrets Almost Forgotten* (2006). In the end, the Army concluded that LSD was too unpredictable and uncontrollable for any tactical use by the United States Army, or for that matter by any army (Ketchum 2006).

The CIA, however, used the early data from Edgewood to set up a number of their own programs and experiments with LSD. Their agenda was not to look for LSD’s incapacitating possibilities but rather to search for a “truth serum” that could be used in interrogation. Ketchum describes their program and results best when he writes:

During my years at Edgewood, I was completely unaware that the CIA had been quietly carrying out a separate secret program of research with LSD and other compounds. To me their experiments seemed scientifically unsophisticated and often done at the whim of the local agent in charge (Ketchum 2006).

He summed up the CIA’s work as being “shady and nefarious,” and he is especially indignant at the way they duped or used unknowing and uninformed subjects. He blames the CIA’s poorly designed protocols for the negative way in which they reflected on the scientific research that was carried out at Edgewood, and added to the paranoia and aura of conspiracy surrounding LSD research.

It is ironic that the CIA’s clandestine program, MK-ULTRA, operated in San Francisco in the 1950s and ’60s. Agents began by “dosing” unsuspecting patrons of a local brothel by placing the drug in their cocktails. The purpose of these comical and sometimes tragic attempts was to ascertain whether LSD could be used for interrogation. The irony is that, at the same time and place, there were thousands of other LSD experiments underway with an entirely different agenda and purpose—recreation.

INTO THE FUTURE

As we progress through the new millennium, government-sponsored use of LSD as an antipersonnel agent has ceased. The therapeutic use of LSD is undergoing a slow revival, but the recreational use of LSD in illegal drug cultures is expanding. No longer centered in former psychedelic havens such as the Haight Ashbury, LSD and other designer drugs have spread across the U.S. and throughout the world.

In contrast to the long-standing U.S. government barriers to therapeutic research with LSD and other psychedelics, the governments of other countries such as Australia are more open to controlled studies of psychedelics where there are fewer government restrictions, and less critical of alternative nongovernment projects such as the efforts of the MAPS directed by Rick Doblin.

The National Survey on Drug Use and Health (NSDUH) reported that, in 2007, over 22 million persons (9.1% of the population) in the U.S. reported LSD use during their lifetimes (NIDA 2009). Much of this use is as a rite of passage or participation in a psychedelic music culture that surrounds “jam bands” such as Furthur (an offshoot of the Grateful Dead), Phish, and Leftover Salmon (as a hopeful development for the addiction treatment community, parents, and others, the Wharf Rats’ 12-Step-based meetings at the shows welcome those in recovery).

A few researchers are investigating psychedelic drugs for patients dealing with death and dying. One of the lead investigators in this area is Charles Grob, a psychiatrist at Harbor-UCLA Medical Center, who administered psilocybin—an active component of *Psilocybe*, a genus that includes nearly 200 species of mushrooms—to end-stage cancer patients to see if it could reduce their fear of death (Slater 2012). Grob and his team determined that it could safely reduce the subjects’ anxiety and depression about

their impending deaths (Grob et al. 2011). Grob envisions a future where individuals will seek psychedelic therapy not only for psychological reasons, but also for personal growth, to solve creative problems, improve brain function, and heighten spiritual awareness (Grob & Danforth 2013; Slater 2012).

The rebirth of such futuristic and optimistic thinking recalls the earlier psychedelic era of the early 1960s. The powerful reference compound for all psychedelic research, LSD (Smith 1985), had been synthesized by Hofmann in 1938, and in the 1950s and 1960s more than a thousand clinical papers on psychedelic drug therapy involving 40,000 patients were published (Cohen 1985). Aldous Huxley received 100 mg of LSD before dying of laryngeal cancer in 1963, and Stanislav Grof, the father of psychedelic medicine for the dying, began his pioneering work researching psychedelics for cancer patients at Spring Grove State Hospital near Baltimore, Maryland, in the 1950s. In 2005, he wrote:

In one of my early books I suggested that the potential significance of LSD and other psychedelics for psychiatry and psychology was comparable to the value the microscope has for biology or the telescope has for astronomy. My later experience with psychedelics only confirmed this initial impression. These substances function as unspecific amplifiers that increase the cathexis (energetic charge) associated with the deep unconscious contents of the psyche and make them available for conscious processing. This unique property of psychedelics makes it possible to study psychological undercurrents that govern our experiences and behaviours to a depth that cannot be matched by any other method and tool available in modern mainstream psychiatry and psychology. In addition, it offers unique opportunities for healing of emotional and psychosomatic disorders, for positive personality transformation, and consciousness evolution (Grob 2005).

Little demonstrates this psychedelic resurgence more than the Mind & Medicine Psychedelic Science conference, held April 19–21, 2013, in Oakland, California, co-sponsored by MAPS, the Beckley Foundation, Council on Spiritual Practices, and Heffter Research Institute, organizations dedicated to valid scientific research on psychedelics for potential therapeutic uses. Over 1,500 people from the U.S. and overseas attended the sold-out conference, which opened with an overview of current research by Rick Doblin, MAPS' director. Most of the science-based research is occurring outside the United States. Doblin stressed that psychedelic brain research can be a vital component of President Barack Obama's broader Brain Initiative to unlock the mysteries of the human brain.

Swiss psychiatrist Peter Gasser presented positive data on "LSD-Assisted Psychotherapy in the Treatment of Anxiety Secondary to Life Threatening Illness." U.S. hospice physicians in the audience questioned why we can give powerful narcotics to alleviate pain for the dying,

but not LSD to promote a calming and reassuring spiritual experience.

Torsten Passie, a physician from Hannover Medical School in Germany, reported on various surveys suggesting that LSD and psilocybin may prevent cluster headaches, as well as the development of the Bromo-LSD (also invented by Hofmann) as a medicine for these painful and debilitating headaches.

David Nichols presented on new research on the neuroscience of LSD, focusing on the 5-HT_{2A} receptor agonists in the brain related to serotonin. This receptor is a critical component of sensory perception in humans and is a key player in mediating consciousness, due to the unique psychopharmacological properties of psychedelics.

Gabor Mate discussed the interconnectedness of mind and body, and examined the potential of psychedelics to affect the progress of diseases such as cancer and addiction when used in conjunction with therapy (Mate 2013). Others presented findings on the therapeutic use of MDMA (Ecstasy) in the treatment of post-traumatic stress disorder (PTSD), and ayahuasca and ibogaine to aid in countering addiction.

It is clear that the psychedelic resurgence and its leaders have learned from the past and are taking a much more balanced approach to the use of psychedelics. Only then will we be able to understand these complex drugs and related psychedelic compounds.

The conference introduced the new term "psychedelic harm reduction" for large gatherings such as Burning Man where psychedelic drugs are taken as part of the celebration. This concept can also apply to the "talkdown" techniques developed by the Haight Ashbury Free Medical Clinic.

Rock Medicine and other organizations know that LSD, while very unpredictable with individualized reactions, can be managed. As millions of people can attest, LSD is not the poison it has been pictured as by the U.S.' judicial and medical establishment. What has been lost for the last 45 years is the opportunity for a tremendous amount of research on LSD's (and other psychedelics') potential for ameliorating brain disease. The logic that there is no medical use is easily disregarded when there are likely millions who are living very normal lives who have used the drug and have had positive responses. Scientific literature and research papers are being published about LSD and other psychedelics outside the U.S. While we stress that we do not believe in or promote the use of LSD by the general public, we do know that our present system does not keep anyone from obtaining it. It would behoove the government to allow medical and scientific communities in this country to conduct responsible, controlled, and evidence-based psychedelic research to further our knowledge of brain science.

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APPENDIX: MEDIATING ADVERSE PSYCHEDELIC REACTIONS (APRS)

Among other undertakings, volunteers from the Haight Ashbury Free Medical Clinic (HAFMC) unofficially treated adverse psychedelic reactions (APRs) at rock concerts produced by impresario Bill Graham at the Fillmore Auditorium in San Francisco. As a businessman, Graham knew that one could not continually produce events that forced the local government's emergency infrastructure to deal with drug reactions because the "powers that be" would soon pull the permits, so he supported the clinic in a "quid pro quo" relationship (his benefit concerts saved HAFMC's existence on more than one occasion). It was here that the talkdown became a psychological art. The following quote is from an interview with sociologist Howard Becker from the University of Michigan Substance Abuse Research Center Oral History Interviews:

I always tell people I made one of the few successful predictions in sociology—which is a nice prediction because it's counterintuitive—that as LSD use increased, the amount of pathology associated with it would decrease. I got into it, because I was around all these people who were dealing with acid, like Dave Smith, and I was hearing all these stories. As I said, I thought I understood the rationale, I thought I understood what was going on and could explain it. And I knew people like . . . there was nurse named Peggy Sankot who worked at the Haight-Ashbury clinic. Peggy was the one who invented the talking-down therapy for people who were freaking out on acid. She told me all about that, and it made perfect sense from my point of view, although it doesn't make sense from a pharmacological point of view (Campbell 2005).

Rock Medicine (Rock Med) became an official section of the HAFMC in 1973, specifically to provide medical coverage and crisis intervention at Bill Graham's shows. Rock Med volunteers worked their first show with the Grateful Dead at the San Francisco 49ers' old Kezar Stadium in the Haight Ashbury on May 26, followed by a Led Zeppelin concert attended by over 50,000 the following weekend. In many ways, the volunteers simply moved the medical clinic to the stadium, and while they provided first aid and emergency medical care to the injured and ill, they were also prepared for APRs. "But high noon had brought the acid-boom . . . and our tent began to fill up with sun and acid overdoses. This was generally a happy and peaceful group, however, and easily managed" (Gay et al. 1972). A lot of lessons were learned and talkdown skills were sharpened and expanded:

Each individual, in his own time, wears many mantles and many faces. His own physiology, past experience and expectations . . . if altered by external stresses (even slight), or by foreign ingested chemicals may dramatically affect his actions. Likewise, a given crowd, as a pulsating living unit, may achieve a selective end-process within itself by the mood which external forces impose upon it, and by the chemicals with which it chooses to achieve a special symmetry (Gay et al. 1972).

The Rock Med protocol consists of screening, or triaging, patients according to their medical problem. Once staff establishes that the patient is not in any physical distress from injury or illness, but suffering from an APR, the patient is taken to the "space station." Whenever possible, this area is located as far as possible from the cacophony of noise and crowds endemic to a rock concert. Here the volunteer staff, while continually monitoring the patient's vital signs (blood pressure, pulse, respiration), starts to "establish control, rapport, trust, guide, reassure, re-establish the reality base, and then return control to the patient" (Anderson 1988). Some patients need only one of these interventions for a short period; others require all of them and a lot of time.

The art of talkdown is the interplay of knowledge, intuition and experience of the guide(s), varying with individuals, circumstances, substances, and resources available. Put another way—with apologies to Sigmund—a tripper is an Id with feet. He has no rules (Superego) or reason (Ego). He is his own universe. We become his rules (containment) and we provide an "alternative ego" until those functions of his character can reassert their own control (Anderson 1988).

In many cases, the best Rock Med can do is get patients back to the mental state they were in before they ingested their drug of choice. Unfortunately, these individuals sometimes need much more mental health care than can be offered in a concert setting.

The next to worst case scenario is that the patient needs physical restraint. Rock Med has developed procedures through trial and error, and group experience, for safe methods to "take down" and physically restrain a patient. A team approach secures patients from injuring themselves and those around them, using some of the principles of Professional Assault Response Training (PART). This type of restraint allows the staff to "feel" when the patient starts to relax and no longer needs to be restrained, and is then ready for the talkdown stage of recovery. Leather and cloth straps, while useful when transporting a patient in an ambulance, just escalate the patient's mental distress in the Rock Med setting. Rock Med has found that foam mats placed on the floor (or ground) offer the safest place to restrain people. While it can be uncomfortable for clinicians, there is no danger of the patient falling off the floor (although there were times at Grateful Dead shows when the patients did seem to actually float above the ground).

In the worst-case scenario, where due to the individual's size and/or APR level the patient is deemed a danger to him/herself and the clinicians, s/he is medicated by the staff physician, according to the following protocol developed by Rock Med volunteers:

. . . it is prudent to avoid both oral and intravenous routes of pharmacological administration for several reasons: (1) it is virtually impossible to convince an agitated, actively hallucinating individual to swallow medication safely or reliably, and gastric absorption in oral administration is too slow to be useful

in an acute situation; (2) it is very difficult to maintain intravenous access in the patients and invasive procedures tend to increase their agitation; and (3) safe handling of hypodermics in these situations is problematic at best.

Again, based on the clinical experience of the authors over nearly the past two decades in treating hundreds of patients, the most effective method of controlling anxiety and the perceptual abnormality associated with APRs has been to administer lorazepam 2mg intramuscularly with haloperidol 2 mg intramuscularly, *in combination with* supportive, nonjudgmental talk down. The dose can be repeated at one hour intervals based on clinical judgment and patient behavior. These patients are usually discharged to responsible friends or relatives; hospitalization is rarely required (Miller et al. 1992).

This formulation has proven effective for reducing the patient's "high," as well as allowing the patient to leave under his/her own power by the end of the concert, in the company of responsible family and friends.

Rock Med continues to treat concertgoers at hundreds of shows every year. They have demonstrated repeatedly that LSD APRs are manageable, even when the location and setting may be challenging. Rock Med enthusiastically supports Guido the Guide's advice that concertgoers remember that:

Psychedelics are unpredictable. Environment plays a very strong part in each person's general reaction. The crowd scene isn't always the best place to take your first trip. The number of people you don't know, the music, and perhaps the weather, may be overwhelming (Anonymous 1991).

The effects of LSD and its related psychedelic compounds connect in a large way to psychological set and environmental setting. The HAFMC and Rock Med volunteers and staff have recognized and acted on this from the earliest days at the Clinic. Today, Rock Med, JahMed, and the guides at Burning Man continue to use these insights to ease the travails of travelers disoriented in time and space.