



Pacific

Information

Service

on

Street-Drugs

Sponsored by:

Beta Omega Chapter

Rho Chi

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Bulletin No. 4
May, 1972

Comment & News

The feature article, "A Street-Drug Identification Program", is in response to the large number of requests that we have had for information regarding the procedures that we use in operating our street-drug identification program. Hopefully, it will answer most of the questions that come to mind. If there are unanswered questions please write to us and we will try and clarify the problem(s).

One very serious concern that is expressed by persons involved in this kind of a program is the possibility that they become "the quality control" segment of the illicit market-place. This problem can be overcome by delaying the publication of the results of an analysis and only giving results immediately when there is a medical crisis. Sample descriptions and results should not be published until sometime after the analyses have been completed. We make our results known to the drug-counseling centers in our area; we try to do this weekly but are not always successful. The Do It Now Foundation in Los Angeles have gone from a weekly to a monthly report of street-drug analyses (Los Angeles Free Press, 9(18): 10, 1972.).

The School of Pharmacy, University of Maryland is now operating an "Anonymous Drug Analysis and Poison Control Center", funded by the State of Maryland - Drug Abuse Administration. These people are to be commended for their genuine interest in this very great threat to public health and welfare. As far as we are aware, this is the first such program funded by any governmental agency, either state or federal. Each pharmacy school in the United States should be operating such a program and be funded by an appropriate agency of their state. There is NO OTHER profession with the expertise required to operate this kind of a public service.

Dr. Dave Blake is the co-ordinator of the project at the University of Maryland:

Dr. Dave Blake
636 West Lomard Street
Baltimore, Maryland 21201

Dr. Blake and his group are publishing results of their analyses and have found that out of 140 samples where the alleged contents were known, 81 samples were misrepresented. It appears that the east coast distributors are more "honorable" than our dealers. We find approximately 75% misrepresentation of the samples where we are aware of the alleged constituents.

Marvin H. Malone
Stockton, California 95204

John K. Brown
May 8, 1972

A STREET-DRUG IDENTIFICATION PROGRAM

The ingestion and injection of street-drugs to alter perception is fraught with danger. Those segments of our society who experiment with legally or illegally manufactured drugs - natural or unnatural products, capsules, tablets or powders - often use materials whose alleged chemistry bears little resemblance to the actual chemistry of the active constituent(s) (1-12). This non-medical use of drugs may precipitate a crisis and proper treatment requires rapid identification of the crisis-producing material. As a community service, a drug identification center for the Stockton, California area was organized. The main emphasis has been upon rapid identification of those street-drugs involved in "bad trips". The drugs are not quantitated because identification of the active ingredient(s) is of first importance. Also, the amount of drug ingested or injected by the user is difficult, if not impossible, to determine. The user tends not to remember the amount used. In one rather severe intoxication the dose of LSD (lysergic acid diethylamide), purchased as mescaline, was described as "six licks off a baggy". From the symptoms observed; it was an overdose - "a one week trip".

The street-drug samples that are screened come from a number of sources. The majority of the samples are from six drug-counseling centers, two in Stockton, California and four others in surrounding towns (Manteca, Modesto, Merced, Sonora). These groups supply about 90 percent of the drugs processed. Some community pharmacists who are involved in drug-misuse programs also submit samples for identification. Occasionally our pharmacy students have been given samples for the monitoring program. Street-drug samples are NOT actively solicited from individual members of the community. If an individual brings a sample to us for screening it is accepted but the results are relayed to a drug-counseling center in the community where the sample originated. Samples submitted to our laboratory for screening and possible identification are NEVER returned to the person or organization that requested the service. All samples of street-drugs are retained in our laboratory.

Procedures and Methods

The number of sources and the diversity of the street-drug samples require the maintenance of adequate records. Each drug-counseling center is supplied with a form (Fig. 1) to be completed and returned with each sample. When the sample is received in the laboratory, a serially numbered card (Fig. 2) is prepared. This card and the form from the drug-counseling center remain with the sample until the screening procedure is completed. When the screen is completed, we send a photo-copy of this form to the center

COMMUNITY DRUG IDENTIFICATION SERVICE

From: "The Bridge"
P. O. Box 2068
Merced, California 95340

Director: John "Mike" Gallagher

Sample Number: B 4-4-72-1

Sample Alleged to be: LSD

Sample Description: Spot on piece of white paper
(Capsule, tablet, powder etc.)

Effects reported after using: Hallucinations and a long
period of depression after the effects of the drug wore off.

To: John K. Brown, Ph. D.
Associate Professor of Pharmacognosy
School of Pharmacy
University of the Pacific
Stockton, California 95204

Our Sample No. 00237 Date Received: 4-7-72 jkb

Sample Description: Piece of white paper - spot about 1 cm. diam.

Date Screened: 4-11-72

Results: LSD - only Rather Potent.

Figure 1 - The form supplied to each drug-counselling group.
Typical annotations have been inserted.

that requested the service. If the sample is particularly noxious (toxic) we alert the community or hospital at once.

For screening purposes the samples are divided, based on the alleged chemistry, into four broad groups.

Group One Compounds. This group comprises psychoactive and stimulant compounds and consists of psilocybin (PSI), N-monomethyltryptamine (MMT), N,N-dimethyltryptamine (DMT), lysergic acid diethylamide (LSD), strychnine (STRY), mescaline (MESC), methamphetamine (MAMP), amphetamine (AMP), and phencyclidine (PCP). If a street-drug sample is alleged to contain a compound or compounds in this group it is subjected to an extraction and thin-layer chromatographic procedure developed in our laboratory (13).

Group Two Compounds. This group consists of all samples designated as marihuana (Cannabis sativa L.), all preparations alleged to be hashish, tetrahydrocannabinol (THC), and a material known as "Superweed" (a natural product alleged to be three times as potent as the best marihuana).

All dried plant material is first subjected to microscopic examination. If the microscopic features are indicative of C. sativa the sample is then evaluated by an extraction and thin-layer chromatographic technique developed by Carew (14). If the microscopic features of the plant material are not indicative of C. sativa, a 5-10 mg. sample of the material is extracted with 0.5 - 1.0 ml. of 95% ethanol and then the extract is evaluated by the procedure used to screen the group one compounds (13). Samples of alleged hashish and marihuana extracts are also subjected to microscopic examination and then n-hexane extracts are evaluated by thin-layer chromatography (14). If the chromatographic results are negative for cannabinoids, the sample is then treated as a group one compound (13). All alleged THC containing samples are simultaneously screened for both group one and group two compounds (13,14).

Group Three Compounds. This group comprises all samples designated as "downers" and includes such popular barbiturates as secobarbital (Reds, Mexican Reds, F-40'S, and "Downers") and pentobarbital (Yellows, Nembies, "Downers").

Approximately 25 mg. of the material, accurately weighed, is placed in a 1-ml. Microflex tube (Kontes of California) and 0.5 ml. of 95% ethanol added, the tube is shaken for 3-5 minutes, then centrifuged. Ten microliters of the clear supernatant is applied to a pre-coated silica gel plate (E. Merck), 0.25 mm. thick, which had been activated at 105° for 60 minutes and stored over silica gel. Known barbiturate solutions are used for comparison. The standard barbiturate solutions are prepared

by treating commercially available dosage forms in a similar manner. TLC plates are developed in a solvent system of chloroform-acetone, 9:1 (15) and 1 % aqueous mercurous nitrate and iodine vapours are used as detecting reagents.

Group Four Compounds. This group of street-drugs consists of all samples that are designated as opiates or opiate derivatives such as codeine, morphine and diacetylmorphine (heroin).

The sample is treated as follows; 10-25 mg., accurately weighed, is placed in a 1-ml. Microflex tube and 0.5 ml. of 95% ethanol added, the tube capped and shaken for 3-5 minutes, centrifuged and the clear supernatant solution is used for TLC evaluation. Varying amounts of of the supernatant (5-20 μ l.), along with standard solutions, are applied to pre-coated silica gel plates and developed in a solvent system (16) of 28% ammonium hydroxide solution-benzene-dioxane-ethanol 95% (5:50:40:5) and iodoplatinate reagent (13) is used for detection.

John K. Brown
May 5, 1972

Sample No. 00237 Actual Chemistry LSD

Source: "The Bridge"

Amount of Sample: Piece white paper - 0.0565 gm.

Sample Description: Paper with spot about 1 cm. in diameter

Alleged to be "Blotter Acid"

Date Received: 4-7-72 jkb

Date Screened: 4-11-72

Results: LSD - only

Comments: Potent!

Analyst: BW & CG

Figure 2 - Laboratory record card. When the screening procedure is completed this card becomes part of the permanent record.

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The text of this issue is the first half of the presentation made by. J.K.Brown on Monday, April 24th in Houston, Texas at the second session of the Pharmacognosy and Natural Products Section of the A.Ph.A. Academy of Pharmaceutical Sciences.
Reference: Abstr. Acad. Pharm. Sci., Am. Pharm. Assoc., 2(1):94 (1972).

