Three litres of carbon dioxide were introduced into the peritoneal cavity through a Verres needle inserted in the mid-line, mid-way between the pubis and the umbilicus. With the patient in steep Trendelenburg position, a Storz laparoscope was introduced through a small transverse sub-umbilical skin incision. The pelvic organs were normal, and the Lippes loop was seen to be lying on the anterior uterine wall. An ascites trocar and cannula, size 12 Eng. gauge, was introduced in the mid-line just above the Verres needle, and a sigmoidoscopy alligator forceps passed through the cannula. A piece of soft rubber tubing was attached to the flange of the cannula and held tight around the shank of the forceps, to minimize leakage of carbon dioxide from the peritoneal cavity. The distal end of the Lippes loop was readily grasped in the jaws of the alligator forceps, under vision, and the loop gently removed through the cannula. There was no bleeding from the granulation tissue on the anterior uterine wall, and after removal of the instruments each incision was closed with a Michel clip.

The patient's postoperative course was uneventful, and she was discharged from hospital 36 hours later, after removal of the Michel clips.

COMMENT

The problem of the intrauterine device which has perforated the uterus and is lying in the peritoneal cavity is not uncommon. Hysterosalpingography is a convenient and accurate method of localizing the position of the device.

Laparotomy has usually been employed to remove such devices, although occasionally, if lying in the pouch of Douglas, they have been removed through a posterior colpotomy.

The ease with which the Lippes loop was removed under laparoscopic control in the case described suggests that this should be attempted in most cases. If it is unsuccessful, the traditional method of laparotomy can then be employed.

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Special Articles

SOME LESS FAMILIAR DRUGS OF ABUSE

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Most people associate drug abuse with the use of a few "standard" drugs only, but in fact new drugs are constantly being introduced. This paper presents information on drugs whose use by drug abusers is not well known to practitioners.

The drugs and drug sources discussed are: the hallucinogenic mushroom (Psilocybe cubensis), Romilar, DMT, "STP", Mandrax, "mellow yellow", lighter fluid, amyl nitrite, anti-Parkinsonian agents, and "dog ricket tablets".

ASSESSMENT of the nature and extent of drug abuse in the community is rendered difficult by the constant state of flux of the drugs involved. This state of flux is due to (*a*) constant change in "popularity" of individual established drugs; (*b*) the ready acceptance of "new" drugs by our young drug abusers. This trend towards variety was well demonstrated during a survey on drug abuse conducted in southern Queensland during 1969. The survey involved 51 male and female members of the "surfer" subculture at beach resorts. Among the 21 different drugs used by those interviewed, there were several whose use is not well known to Australian practitioners.

The purpose of this paper is to bring the use of these drugs, as described by those interviewed, to the attention of practitioners likely to encounter their effects clinically. Although the survey involved surfers and their female friends only, there is no suggestion that use of these drugs is confined to this group, which constitutes but a proportion of our young drug-taking community.

In order of frequency of use amongst the group interviewed, the drugs to be discussed are: the hallucinogenic mushroom (*Psilocybe cubensis*); Romilar (a proprietary cough suppressant); DMT; "STP"; Mandrax (a well-known sleeping tablet); "mellow yellow" (from bananas); lighter fluid; amyl nitrite; anti-Parkinsonian agents; and "dog ricket tablets".

PSILOCYBE CUBENSIS—THE HALLUCINOGENIC MUSHROOM

Psilocybe cubensis is closely related to *Psilocybe Mexicana*, the mushroom long used in religious ceremonies by some tribes of Mexican Indians (Wasson, 1957). Table 1 compares the characteristics of *P. cubensis* with those of *Agaricus campestris*, the common eating mushroom gathered in pastures (Stocks, 1963, with amendments as shown).

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Ingestion of *P. cubensis* produces marked atropine-like effects. The active ingredients are psilocybin (4 phosphoroloxy-N, N-dimethyltryptamine) and psilocin, the dephosphorylated derivative, both bearing close structural relationship to serotonin (5-hydroxytryptamine). It is of interest to note that LSD, also with atropine-like effects, is a serotonin antagonist (Schering Review, 1969). Previous clinical experience with the effects of *P. cubensis* has not been lacking in southern Queensland.

In 1963, A. E. Stocks, Medical Registrar of Princess Alexandra Hospital, Brisbane, noted that some patients with mushroom poisoning exhibited marked atropine-like effects, in contrast with the parasympatho-mimetic overactivity described in poisoning with Amanita species. He found the causative agent to be *P. cubensis*. Treatment with amylobarbitone and prostigmine proved effective.

TABLE 1
Comparison of the Characteristics of P. cubensis with Agaricus campestris

Characteristics	*A. campestris*	*P. cubensis*
Morphology :		
Cap stalk size ratio	Cap > stalk	Cap < stalk
Colour of cap	White	Yellow-brown
Shape of cap	Smooth dome	Peaked centre
Colour of gills	Pink/brown	Dark grey
Other features	——	Blue-green discoloration on handling Distinct persistent annulus (Aberdeen, 1958)
Ecology :		
Geographical	Temperate or sub-tropical	Pan Pacific (Aberdeen, 1969)
Local	Pastures	Pastures (on cow-pats)
Seasonal occurrence	Summer	Summer

Over the years, Southport Hospital on the Gold Coast has had a steady flow of accidental poisonings with this mushroom. A recent example was seen in 1969, when a whole family was affected after a picnic in the nearby mountains. The signs and symptoms included euphoria, depression, inappropriate answers, visual hallucinations, ataxia, vomiting, urinary incontinence, diarrhœa, dry mouth, and dilated pupils. Also, a respectable family man was caused to run naked through the hospital and molest the nursing staff.

The hallucinogenic effects of *P. cubensis* have long been known to medical botanists in Australia. They believed it was only a matter of time till these effects were discovered by young drug users (J. Aberdeen, personal communication, 1969).

Deliberate ingestion of the mushroom for its euphoriant and hallucinogenic effects became suddenly popular in southern Queensland in May, 1969, when unseasonal heavy rain produced a bumper crop. For some time, young drug users had been aware of the existence of a "legendary mushroom", but information regarding habitat, identification and effects was lacking. It seems that the necessary information was supplied by a visiting surfer from New Zealand or the U.S.A.

Over the ensuing weeks, large quantities of these mushrooms were ingested by young enthusiasts who ate them raw, on toast or as soup. They described the effects as similar to LSD, but more "natural", However, enthusiasm was short lived, as regular users began to experience extreme depression, lethargy, and loss of will to live, which persisted for several days between doses. Also, there occurred a number of "freak outs" or terrifying "trips". As a result, popularity of the mushroom waned, and by the end of 1969 its use had stabilized at the level of "good for occasional use only". There was some disappointment among initial enthusiasts who thought they had found the "ideal thing".

In spite of the above-mentioned, a regular export market to the south was established, and as at March, 1971, *P. cubensis* was readily available in Sydney and other centres.

It is worthy of note that although chlorpromazine is a drug of choice for the treatment of LSD psychosis, this may not apply to psilocybin psychosis, as cardio-vascular shock and death have occurred following the administration of chlorpromazine after the ingestion of "STP" and other atropine-like drugs (Schering Review, 1969; Tylden, 1970).

ROMILAR

Romilar is a proprietary cough-suppressant containing the opiate alkaloid dextro-methorphan hydrobromide. It is marketed as a 15 mg tablet and as a mixture containing 15 mg/5 ml (300 mg/100 ml bottle). Thus one bottle of Romilar contains 232 mg of dextro-methorphan and 67 mg of bromide.

Pharmacological discussions of the effects of dextromethorphan date back at least as far as 1953. All accounts state that it has "none of the attributes of other opiate alkaloids" (Beckman, 1964), and state specifically that it is strongly anti-tussive, but completely devoid of any CNS side effects, and non-addictive, even in high experimental doses (Goodman and Gillman, 1958; Isbell and Fraser, 1953; A.M.A. Council on Drugs, 1952). Romilar has been used in Australia as a euphoriant and hallucinogen since 1965 or earlier, the practice having been introduced from the U.S.A.

During 1968 and early 1969, there was a marked increase in its use amongst young people in and around Brisbane. This appears to have been related to the influence of visitors from New Zealand. Its popularity with younger drug abusers was related mainly to its ready availability "over the counter" at chemist shops. It was taken mainly in mixture form, the usual dose being one bottle (100 ml), preferably mixed with "Coca Cola" to disguise the taste. Onset of effects is within an hour, and duration of effects is three to four hours.

Twenty of the subjects interviewed in this survey had taken Romilar. They described the following effects: (*a*) euphoria; (*b*) increased perceptual awareness ("music better, lights brighter"); (*c*) altered time perception (time "slowed down"); (*d*) feelings of floating and being "distant"; (*e*) tactile hallucinations (swelling of fingers and hands); (*f*) visual distortion and hallucinations (e.g., non-existent people or animals); (*g*) impotence—inability to attain erection; (*h*) diplopia; (*i*) dysphagia; (*j*) occasional disorientation, nausea and paranoia; (*k*) occasional depression as the effects wore off.

Of major importance in the subsequent decline in popularity of this drug was the fact that regular ingestion over a period (for example, 100 ml daily for two weeks) was followed by a period of up to three weeks of somnambulism, lethargy and ataxia ("like a zombie") suggestive of bromism.

Are the effects described due to the bromine? To produce sedation and toxic effects a blood level of bromine of 100 to 150 mg/100 ml is needed (Laurence, 1963). To reach this level, a total dose of at least 5 gm of bromine is required (presuming 100% absorbtion of the dose). The 67 mg of bromine in the popular 100 ml dose of Romilar obviously falls far short of this dose, as does the 938 mg ingested during an intake of 100 ml daily for 14 days.

If it takes four weeks to reduce serum bromide levels by half (Laurence, 1963), one could expect these levels to remain significantly elevated for up to six weeks after a toxic dose. Blood was taken from six volunteers, six weeks after their last "effective" dose, and their serum bromide levels were all within normal range (< 3 mg/100 ml).

Hence, it would appear that the immediate and cumulative effects described above are due to dextro-methorphan.

"STP" (DOM)

DOM (4 methyl-2, 5 dimethoxy-a-methyl-phenethylamine) was developed by an American chemical company for possible use as an antipsychotic agent. Structurally it is related to mescaline (Schering Review, 1969). Soon after, it was found to be in use amongst the "hippies" of New York and Los Angeles, who called it "STP" (Serenity, Tranquillity, Peace!).

The effects are basically similar to those of LSD, and usually last for up to eight hours, although "trips" of up to 72 hours have been described (Schering Review, 1969).

The subjects interviewed indicated that "STP" had been available intermittently in Australia since 1968, being imported from the U.S.A. One subject had taken "STP" orally in 1969. She described the effects as "like LSD" and lasting for 72 hours.

Of practical importance to practitioners is the fact that cardio-vascular shock and death have occurred following the administration of chlorpromazine for crisis states precipitated by the drug (Tylden, 1970; Schering Review, 1969).

DMT

Dimethyltryptamine, commonly known as DMT, occurs naturally in the seeds of the piptadena tree of Haiti, where it is taken in the form of a snuff-"cohoba" (Schering Review, 1969). In its synthesized form it occurs as a white powder or crystals that may be smoked (for example, mixed with tobacco or cannabis) or injected.

Two of the subjects interviewed had used DMT. One had smoked it in the U.S.A. in 1966, the other had injected it subcutaneously in Sydney in 1969. In both cases, the onset of effects was instantaneous and lasted half to three-quarters of an hour. The former subject experienced emphoria and hilarity only, while the latter experienced visual hallucinations involving formed coloured patterns.

MESCALINE

Subjects indicated that mescaline had been available in Australia since 1968 or earlier. Initial supplies were imported from the U.S.A., but soon a locally synthesized product was readily available. One subject had taken local mescaline orally in Sydney in 1969. His dose was accidentally excessive, and he vividly described a terrifying trip over the ensuing 36 hours.

MANDRAX

One subject was introduced to the use of Mandrax (methaqualone plus diphenhydramine) in London, in 1967. At this stage, it was very popular amongst young British drug abusers. The effects described lasted three to four hours, and consisted of euphoria, "floating" feeling and multi-coloured flashing patterns seen when the eyes were closed. He had taken Mandrax several times in Sydney during 1968, and stated that it was used occasionally by his friends.

"MELLOW YELLOW"

"Mellow yellow" is the scrapings of the insides of dried banana skins, and when smoked is said to produce an effect similar to cannabis. Of the subjects interviewed, two had used "mellow yellow". One had smoked it daily for several months on the Gold Coast. He experienced cannabis-like effects. The other subject had tried "mellow yellow" on several occasions, but he had experienced "nothing".

LIGHTER FLUID

One subject had inhaled cigarette-lighter fluid on one occasion. He experienced the instant onset of giggly euphoria, loss of coordination, visual hallucinations (flashing lights), followed by clouding of consciousness and loss of memory for subsequent events, as a result of which he was unable to indicate the duration of effects. He has not repeated its use because of fear of blindness and damage to brain cells. He and other subjects indicated that this practice was very rare in Australia.

AMYL NITRITE

The old angina pectoris remedy, amyl nitrite, was a popular "party starter" in New Zealand during 1965, but has since fallen from favour. One subject had used this drug several times over a year in New Zealand, and knew of its occasional use in Australia. The method used was to break the ampoule and inhale the contents. This resulted in instant onset of hilarity and euphoria, lasting about two minutes.

ANTI-PARKINSONIAN DRUGS

One subject had had four admissions to psychiatric hospitals in New Zealand, with a diagnosis of "schizo-affective disorder". He stated that it was the practice of himself and other young patients to collect anti-Parkinsonian agents (given routinely with phenothiazines) and ingest them in large quantities to produce hallucinogenic effects—"like LSD". Artane was the most popular, and

was bartered for with cigarettes and sleeping tablets. However, he stated that he had no desire to recommence the practice because of the side effects of dry mouth and difficulty with micturition and defæcation. He felt that the practice was based mainly on a desire to rebel and "get even" with hospital authorities.

It is interesting to compare this practice with that of young, rebellious, drug-dependent detainees in a Queensland psychiatric hospital during 1969 — here cigarettes were used to barter for other patients' sleeping tablets (mainly Mogadon and Doriden).

"DOG RICKET TABLETS"

Tablets said to be used for treating rickets in dogs were taken by one subject because of a supposed aphrodisiac effect, but he experienced "nothing unusual". They probably were vitamin D or calcium.

DISCUSSION

Most people would associate drug abuse with the use of certain "standard" drugs only. However, it is obvious from the foregoing that a considerably broader concept is necessary, particularly in dealing with young patients likely to be involved in this practice.

Awareness of the wide range of drugs in use should be of value in assessing the causes of acute toxic episodes as well as the actual long-term pattern of drug abuse in individual patients. This would conceivably include inquiries *re* access to parents' legitimate drug supplies, etc. Also, a high index of suspicion is needed in relation to requests for prescriptions by possible drug abusers, the proprietary preparations mentioned above being cases in point.

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THE CARE OF BLOOD DURING TRANSPORT AND IN HOSPITALS

RECOMMENDATIONS OF THE NATIONAL BLOOD TRANSFUSION COMMITTEE OF THE AUSTRALIAN RED CROSS SOCIETY

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1. PRINCIPLES OF BLOOD STORAGE

DURING storage of blood, it is essential that every effort be made to prevent: (*a*) deterioration of the cellular and the protein elements; (*b*) changes which may cause difficulty in administering the blood; and (*c*) multiplication of any micro-organisms which may be present.

Deterioration of Cellular and Protein Elements

The great majority of transfusions are given either to restore blood volume or replace red cells. Red cells are best preserved at a low temperature, but must not be frozen. The recommended temperature range of 4° to 6° C (39° to 43° F) is a compromise aimed at keeping the blood as cold as possible without producing a fibrinous deposit in it. Constancy of the temperature of storage is important. Fluctuations in storage temperature produce a significant diminution of the post-transfusion survival of the red cells. The rigid requirements for the storage of red cells must take precedence over factors aimed at preserving the numerous protein components. In general, the proteins would be best preserved by freezing, but this would destroy the red cells. Fortunately, except for anti-hæmophilic globulin and some similar proteins, the plasma proteins are fairly stable, at least for short periods, at temperatures above freezing.

Platelets are relatively short-lived, but recent work indicates that platelet preparations are effective for at least 24 hours after collection, provided that (i) they are collected and prepared in a closed system to minimize risk of contamination, and (ii) they are stored throughout at room temperature (22° C). It must be emphasized that the risk of contamination cannot be entirely eliminated, and the platelets should be used as soon as possible after preparation.

White cells are extremely short-lived, and storage is not yet practicable. When they are required, the blood must be administered at the earliest possible moment after collection, and should not be chilled.

Changes Which may Cause Difficulty in Administering Blood

During storage, the cellular elements settle to the bottom of the container. The leucocytes and platelets