

THE ORTHOMOLECULAR TREATMENT OF DRUG ADDICTION

A FIRST AUSTRALIAN REPORT

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Introduction

On March 8th 1977, Dr Irwin Stone of the U.S.A. wrote to us and said, "please drop me a line quickly and let me know if narcotic addiction is a serious problem in Australia. We have developed a non-toxic, detoxication procedure where we can take the addicts off heroin or methadone with no withdrawal symptoms. The addicts have no desire to return to the drug and if they do take a "fix," it is like injecting plain water, the detoxication is so complete and rapid. We are preparing papers for publication in a few months and would like to hit Australia about the same time. We have also developed a new detoxication product which you could sell in Australia. Let my have your thoughts, by return mail, because things are moving rapidly over here and I would like to include you in our plans."

Actually it was a known problem in public schools in Victoria over a decade ago, but attempts to make the authorities aware of this were just as abortive as our attempts to pass on our knowledge of treatment when we returned from the USA in 1977.

In late August, 1977 we were invited to the clinic of Dr Alfred Libby in Santa Ana, California, USA, to observe the practicality of the ascorbate treatment for heroin addicts. Earlier in the year Dr Irwin Stone had enthusiastically related the theory behind the clinical successes achieved by Dr Libby.

This is a brief account of our own experiences which eventuated solely as a result of the pioneering work completed by Dr Irwin Stone and Dr Alfred Libby. To them we give full credit.

The following is the prepublication abstract of the Stone & Libby article "Hypoascorbemia— Kwashiorkor Approach to Drug Addiction Therapy: A Pilot Study," which was published in 1977.

"All humans carry a defective gene for the synthesis of the liver-enzyme, L-gulonolactone oxidase, which produces a potentially fatal, but easily correctable, "inborn error of carbohydrate metabolism" called Hypoascorbemia. This human birth defect prevents the normal mammalian liver-synthesis of the antistressor metabolite ascorbate. The absence of this ascorbate synthesis produces profound abnormal physiological reactions in humans. Besides Hypoascorbemia, drug addicts also suffer from severe hypoamino-aciduria, and general malnutrition, so that chronic drug addiction induces a Hypoascorbemia-Kwashiorkor type of pathological syndrome. The full orthomolecular correction of the syndrome yields very remarkable salutary changes in the addicts. They can eliminate the heroin or methadone intake without experiencing withdrawal symptoms, they lose their desire for the drugs, and should they take a "fix" it is immediately detoxified and produces no "high." The orthomolecular treatment regimen is simple and non-toxic, may be administered orally, contains no narcotic drugs, is inexpensive and requires no hospitalization. It comprises administration of 25 to 75 or more grams of sodium ascorbate per day plus large doses of vitamins, essential mineral and amino acid supplements. After several days, appetite returns and they eat voraciously, they also have restful sleep. After about 6 days, the dosages are gradually reduced to holding dose levels (about 10 grams sodium ascorbate a day) and the ex-addict is now ready for rehabilitation or psychotherapy programs. This procedure seems to be an ideal substitute for the ill-conceived ineffective and expensive Methadone Programs now being used. Besides saving taxpayers a lot of money, it should go far in reducing the crime rate, as

the addict can now quit addiction painlessly and with little effort. In drug overdose (OD), sodium ascorbate is an effective and rapid life saving measure. If the OD is comatose, 30 to 50 grams of sodium ascorbate should be given intravenously. Conscious OD's that swallow and retain food, can be given 50 grams of sodium ascorbate dissolved in a glass of milk. This procedure is non-specific and works on drugs other than heroin or morphine, so it is not necessary to waste time in identifying the narcotic."

Arriving at the Santa Ana Clinic we spoke with Dr Libby for many hours before questioning his staff and ex-patients. There was most certainly every reason to be jubilant and if we have any doubts in our mind they were erased by the Reverend Vic Ramsey of the United Kingdom who is a well known authority on the treatment and rehabilitation of drug addicts both in the UK and the USA. He informed us that this was the best programme he had seen for over twenty years. Good reason to be optimistic with the message we were to take home to our own experts in Australia. Unfortunately, nobody seemed interested. We ask with some justification, why?

Problem Known about in Victorian Public Schools a Decade Ago

In writing this paper we might delve into the pages of history and see just how much our own politicians must share the blame for the growing problems related to drug addiction in Victoria and Australia.

On Friday 13th November 1969, the Australasian College of Biomedical Scientists held their 2nd annual meeting at the Royal Australasian College of Surgeons in Melbourne. One of the College Fellows, Dr Bruce Semple, a physician who had been connected with some of Melbourne's leading public schools, was scheduled to talk about drug addiction in teenagers, in the hope that preventive measures might be applied "before the horse bolted."

Accordingly the appropriate invitations were sent to people in government who should care. Drug addiction was not a known problem at that time and the usual excuses were proffered, resulting in a nil attendance by government officials. Little did we realize that we were to be involved in the treatment of heroin addicts some nine years later.

After our return from the Libby Clinic in the USA, we felt confident that our "experts" involved with the problem of treating drug addictions would welcome the clinical details and methodology which were offered to us overseas.

Accordingly we wrote to Dr Gerald Milner, Dr Andrew Oster, and Dr Phillip Oystrough, (7.4.77) all people who should have at least acknowledged our offer

to supply the information that we had gathered. Unfortunately there was no response, not even the courtesy of a reply. In desperation we talked with one of Melbourne's leading QC's who advised us to write to Dr Stella Dalton in N.S.W. (5.5.77). She is an authority on drugs of addiction and drug addicts. Again, no response, no reply. Could it be that they really think methadone substitution will solve the problem?

Let us briefly discuss the theory behind the ascorbate treatment and return to the methadone alternative later on.

How the Ascorbate Treatment was Discovered

Some pioneering orthomolecular scientists and physicians had been treating terminal cancer patients with large doses of sodium ascorbate. The success of this treatment has been published by Pauling and Cameron.

As is customary, many of these patients had been receiving large doses of analgesics and opiates to help relieve their pain. Surprisingly, when the ascorbate therapy was introduced it was observed that in many instances pain was relieved and the analgesics were no longer necessary. Perhaps more surprisingly, no withdrawal symptoms were experienced by these patients.

It was therefore reasoned that such treatment would be beneficial to heroin addicts or indeed as Libby and Stone pointed out, the procedure was non specific and worked on drugs other than heroin or morphine, making it unnecessary to waste time in identifying the narcotic.

Such a finding should have excited the scientific world and you would be justified in thinking that medical authorities would waste no lime in launching major trials to assess the validity of the treatment.

We are unable to offer any explanation for the failure of such enthusiasm or trials, particularly as the methadone programme has been so useless and damaging. Dr Densen-Gerber (USA) described the authorities' attempts to treat drug addicts in Victoria as frightening and horrendous. To quote her, "I began my research in 1965 in replacement chemotherapy with substances such as methadone. Anyone who works with it for a length of time realises that all you are doing is replacing a good scotch with a very cheap wine."

The "Age" further reported a study completed by Professor Ian Webster, head of the Community School of Medicine at the University of New South Wales, in which it was stated:

"The general health of narcotic addicts receiving methadone treatment is severely impaired. The addicts suffer a wide range of physical, psychological and nervous disorders, all of which must be considered in their treatment and rehabilitation. The addicts compared with a control group of university students of similar age, were more likely to suffer liver disease, especially hepatitis, and respiratory problems and constipation. The addicts weighed less, drank more alcohol, had inferior dental health, and often suffered abdominal pain, a feature of withdrawal from narcotics."

As methadone treatments are long, costly, useless and damaging to health, why isn't the non toxic ascorbate treatment even given consideration?

Patients come to us.

Some publicity was afforded the successful treatment of a long standing addict in a Melbourne Newspaper which resulted in a steady trickle of heroin addicts seeking attention. Over the past 12 months we have treated absolutely free of charge either for medication, pathology tests, literature or consultation over 100 addicts. (It is fitting here to acknowledge the help of the Det-Kal Ascorbate Research Foundation, and its members, that later provided most of the medication and the cost of the literature for the addicts, thus relieving us of this financial burden,) Our case histories show that at least three patients suffered from serum hepatitis as well as their addiction to drugs. The ascorbate treatment rapidly reversed the serum hepatitis and the patients expressed gratitude for their general improvement in health.

Unfortunately we were unable to follow up all the patients as we would liked to have done but at least 25% of them either rang, or presented themselves in order that we might see them as no longer drug addicts. If we could obtain these sort of results with our lack of facilities, how much better should government clinics be able to do using the ascorbate treatment with their better facilities? We earnestly hope that they will try some pilot studies to assess the strength of our statements. Unfortunately it seems that the medical profession is still reluctant to accept the fact that vitamin C does more than prevent and cure scurvy.

Facts And Theory

The following abstracts come directly from the Stone and Libby paper and again we are indebted to them for the information.

"We do not claim to be the first to suggest or use ascorbate in the addiction problem, but we do claim to be the first to use sodium ascorbate properly to get these desired results. Ascorbate injected into rats at the rate of 100 mg per kg body weight attenuated and abolished the narcotic effects of morphine (Ghione, 1958). Ascorbate's detoxification of a wide variety of inorganic and organic poisons was reviewed (Stone, 1972) and included Klenner's work on the successful megascorbic treatment of barbiturate poisoning, snakebite, and Black Widow spider bites. It was suggested in this review that megadoses of ascorbate be used in drug addiction (Stone, 1972). Two interesting papers appeared in 1976, one from Thailand which showed that the sleeping times in minutes for ascorbate dosages of 0,250mg, 500mg, 750mg, were 50, 29, 27, 23 and at 1,000 mg ascorbate the rabbits did not fall asleep at all (Bejrablaya and Laumjansook, 1976). The other paper, (Scher et al., 1976) was originally presented in 1974 to the North American Congress on Alcohol and Drug Problems, by these authors from the National Council on Drug Abuse and the Methadone Maintenance Institute, and was entitled "Massive Vitamin C as an Adjunct in Methadone Maintenance and Detoxification." These authors realised that scurvy played a large part in the drug abuse problem, but they only saw ascorbate as a means to reduce some of the side effects of methadone administration like constipation, loss of libido, and rest less sloop For this they used about 5 g of ascorbic acid a day. It apparently never occurred to them that by switching to sodium ascorbate and increasing their dosage by a factor of 10 they could completely eliminate the ill-conceived Methadone Program with all its problems and at the same time have a simple, nontoxic and elegant solution to the drug abuse problem."

The Orthomolecular Procedure for Correcting the H-K Syndrome.

Originally in our early testing, when the addicts came in we took a sample of urine for the simple C-Stix test for urinary spillover of ascorbate and a 24 hour specimen for a complete quantitative individual amino acid and related constituent column fractionation and assay. The results were so consistently low on the amino acids, and with no spillover of ascorbate, that we no longer go to the expense or bother of these tests.

The narcotic intake is stopped, and the addict is given the first dose of sodium ascorbate, high levels of multivitamins and minerals, and nine tablespoons per day of PHH Pro, in divided doses, a pre-digested protein preparation. Since the addicts have a rather abnormal digestive system, it is an aid to direct absorption

of the amino acids into the vascular system if the liquid amino acid dosage is held in the mouth as long as comfortable before swallowing. The total amount of ascorbate given a day will vary with the extent of the drug addiction. It is never less than 25 g a day in spaced doses and can go to 85 g or more per day. As a rough rule-of-thumb means of judging dosage: a \$50 a day habit needs 25 to 40 g sodium ascorbate, \$ 150-200/day about 60-70 g. Judging dosage comes with experience, and any errors should be on the high-dosage side because of ascorbate's extremely low toxicity and lack of side effects. The megadoses are continued for four to six days. During this time no withdrawal symptoms should be encountered (if any appear, increase the sodium ascorbate intake.) Generally, in two or three days appetite returns and most patients begin to eat well and have restful sleep for the first time since the chronic addiction began. One of the first observations to be made of the patient on this orthomolecular therapy is the rapid change in well-being; they feel good. The megadoses are then gradually reduced to holding dose levels of about 10 g per day of sodium ascorbate and lower levels of the vitamins and minerals. The predigested protein is discontinued if the patients are eating well.

Orthomolecular Treatment of Drug Overdose

Drug overdosage is a common occurrence because of the wide variability in the potency of the illicit "street" drugs and the tendency among addicts to mix different drugs. This causes many deaths among addicts. A nonspecific orthomolecular treatment of OD's, which acts as an antidote and rapidly relieves the stricken addict, is as follows: If the victim is unconscious, immediately but slowly inject 30 g or more of sodium ascorbate intravenously; if conscious and can swallow and retain liquids, give about 50 g of sodium ascorbate dissolved in a glass of milk.

Discussion

This joint pilot study was started in January, 1977 after a series of coincidences between the authors. Both authors had been working independently on the drug abuse problem for many years, AFL conducting occasional clinical tests on addicts since 1974 and getting exceedingly promising results, and IS working on the theoretical, genetic and biochemical background. We heard of each other's work in December, 1976 and pooled our knowledge and experience. Stone had been trying unsuccessfully to get some clinical research started for over a decade. His latest and most discouraging attempt came in November, 1976 when a megascorbic clinical research protocol was turned down by one of the "top men" in the field with, "there is no evidence for usefulness of massive doses of vitamin C in any disorder (except scurvy) — least of all in conditions

associated with heroin addiction." "Massive doses of vitamin C are potentially toxic." "There is no known scientific basis for thinking that vitamin C would be beneficial in methadone maintenance or detoxification."

If we had not regarded this authoritarian certitude as utter nonsense, this promising new therapy of drug addiction could have been again delayed for years. This prevailing attitude toward megascorbics, however, convinced us that the orthodox drug abuse agencies were not the proper means for starting or conducting exploratory clinical tests on megascorbics in drug abuse. We also realised that getting any support for clinical work involving megascorbics, the black sheep of orthodox funding agencies, would be next to impossible to obtain, and certainly impossible to obtain quickly. Libbys preliminary tests were so impressive and this work had been delayed for so long, that in view of the poor record of achievement by orthodox medicine, we felt immediate action was demanded. We eliminated all the time-consuming funding red tape by simply operating on our own personal funds and time.

The clinical results have been so successful in 100% of the 30 drug addicts treated to date of this writing, that we regarded the prompt presentation and publication of our data to be an absolute necessity.

As a consequence of the lack of funds, we have not been able to dot all the "i's" and cross all the "t's", and chase down all our speculations. We have, however, gone to a point where we can offer a reliable, nontoxic, simple and practical procedure that has many orthodox means of handling drug addicts.

Even though this therapy utilises sodium ascorbate, vitamins, minerals, and pre-digested protein, we believe that the main anti-narcotic effect is due to the sodium ascorbate, and the other materials are necessary adjuncts. High levels of sodium ascorbate have analgesic properties as shown by the observations of Cameron and Baird (1973) and Saccoman (1976) in terminal cancer and by Klenner (1974) in the relief of pain of severe burns and snakebite.

In terminal cancer, the ascorbate analgesia was so good that the patient's toxic morphine schedules were discontinued. Thus high levels of sodium ascorbate mimic morphine and probably fit into the opiate receptor sites. The fact that these terminal cancer patients abruptly removed from their morphine showed no withdrawal symptoms was one piece of evidence that indicated our megascorbic treatment of drug addiction would be successful.

As previously noted, ascorbate is a general detoxicant for many different poisons, but its mode of action is mostly unknown. Klenner (1974) points out,

"Ascorbic acid can be lifesaving in shock. Twelve grams of the sodium salt given with a 50 cc syringe will reverse shock in minutes. In barbiturate poisoning and monoxide poisoning, the results are so dramatic that it borders on **malpractice** to deny this therapy." The detoxicating effect of sodium ascorbate on narcotics appears to be so rapid that this very rapidity seems to preclude a mechanism involving direct chemical attack on the narcotic molecule to convert it into some inactive derivative. Also it works on so many different types of narcotic molecules. A more compatible hypothesis would be to view the action as a competition for opiate receptor sites of the brain wherein high levels of sodium ascorbate in the brain prevent the attachment and displace narcotic molecules already attached to these sites.

Brain Receptor Sites

The research of S.H. Snyder and co-workers on the binding of morphine-like-substances to brain opiate receptor sites was recently reviewed (Snyder, 1977). They have shown that the largest amount of binding occurs in cells from the very primitive limbic system deep within the brain. They also showed that the very primitive hagfishes and sharks have as much opiate receptor binding sites as the most advanced of the main mammals, monkeys and man. They found that the properties of these receptor sites in these early and most recent vertebrates were similar, indicating that few changes have been made during the course of about 400 million years of evolution. It is stated that, "This suggested that the opiate receptor is normally concerned with receiving some molecule neurotransmitter which acts at these sites." Also the presence of high levels of sodium helps dislodge the narcotic from the receptor sites.

We speculate that these binding sites were evolved in the early vertebrates to concentrate and localise, from the very low concentrations existing in these animals, the electronically labile ascorbate molecules, which aid in neurotransmission. The fact that these sites bind narcotics is purely happenstance, because of a possible similarity in molecular shape. There does not seem to be any obvious physiological evolutionary reason for concentrating narcotics in the nerve endings of this newly developing control system, whereas there may have been a great need to concentrate and obtain high levels of ascorbate at synapses to aid in efficient nerve impulse transmission. Ascorbate is a molecule that appears to have changed little in the last 400 million years and was present on the evolutionary scene long before the fishes appeared (Stone, 1972.) If this hypothesis is valid, then the receptor sites should be renamed "ascorbate-receptors" instead of "opiate receptors." It should not be difficult to experimentally test the validity of these theoretical considerations.

Implications

1. In surgery it might be possible to eliminate the patient spending hours in the recovery room "coming out" of the anaesthetic which also requires nursing attendance. If the patient at the termination of the operative procedure was given a massive intravenous injection of sodium ascorbate, possibly in the neighbourhood of 30 to 50 g, it might be possible for the patient to be awake before leaving the operating room. Giving the patient large doses of ascorbate immediately before an operation should be generally avoided, because it would increase the amount of anaesthetic required to give an equivalent anaesthetic effect. Giving the patient this post-operative dose of ascorbate would also have other salutary healing and anti-shock effects.

2. In the megavitamin treatment of schizophrenia, large doses of ascorbate and niacin are routinely used. In schizophrenia, the brain receptor sites may be saturated with endogenously produced hallucinogens or schizomimetic metabolites. The action of ascorbate may be to replace these hallucinogens on the receptor sites. In individuals where the therapeutic response to megavitamins is incomplete, it may be that the few grams of sodium ascorbate routinely administered may not be "mega" enough for this purpose, and they require daily ascorbate in the same range required in drug addiction, at least in the beginning of the therapy.

Materials and Sources

All the materials used in this study are orthomolecular and are commonly available. No toxic chemicals or narcotics are employed.

The ascorbate may be obtained in several different types and forms, and it is best to have a sufficient supply of all to meet individual requirements. One should become familiar with the properties of ascorbate in its different forms. Sodium ascorbate can be obtained as the pure crystalline powder and as 1 g tablets. the crystalline

powder is very soluble in water, milk, and foods, is essentially tasteless, and a level teaspoon weighs about 3 g. A solution has a pH of slightly over 7. Ascorbic acid, while also quite soluble in water, has a very sour taste, and is limited in the number of foods to which it may be added because of this sour taste. It has a pH of about 3 and will curdle milk if added thereto. Sodium ascorbate is the preferred substance for the megadosages.

The high potency vitamin and mineral preparations were commercial multivitamin and mineral preparations in tablet form. Six tablets supplied the dosages listed in Table 1.

Sterile injectable sodium ascorbate is supplied in 30 or 50 ml vials containing a 25% solution. Use only the "preservative-free" product which may be obtained from Bronson or Preventix listed below. The intravenous route of administrations of sodium

Daily Dosages of Multivitamins and Minerals

Vitamin A.....	10,000 IU
Vitamin D	400 IU
Vitamin E	400 IU
Vitamin B1	50 mg
Vitamin B2.....	50 mg
Vitamin B6	100 mg
Ca Pantothenate.....	200 mg
Vitamin B12	10mcg
Folic Acid	0.1 mg
Calcium	900 mg
Phosphorous	700 mg
Iron	20 mg
Iodine.....	0.15 mg
Magnesium	500 mg
Potassium.....	90 mg
Manganese.....	5 mg
Zinc	50 mg
Copper.....	1 mg

ascorbate is more rapid and efficient than the oral route, since it bypasses the digestive tract. In drug overdoses and in occasional other cases it may have to be used, but in general we have tried to avoid the routine treatment use of the "Needle and syringe" because of the psychological implications for the addict.

In an effort to reduce the number of separate products used in this procedure we have been experimenting with a single combined product comprising sodium ascorbate with the vitamins and minerals to be available soon both as a crystalline powder and tablets.

For the protein supplementation, we used a product called "P.H.H.-PRO" comprising a liquid predigested collagen solution containing mostly easily assimilable amino acids.

This is available in plastic bottles up to 1 gallon size. These products may be obtained from the following:

Bronson Pharmaceuticals, 4526 Rinetti Land, La Canada, Ca 91011 Preventix Pharmacal Co., 503 South Raymond Ave., Fullerton, CA 92631

C Stix, the 10-second dip-stick test for ascorbate in urine, is available in bottles containing 50 plastic test strips from the Specialty Systems Department, Ames Company, Elkhart, Indiana 46514. The current price is \$6 per bottle of 50 strips.

Summary

Chronic drug addiction produces in the victims severe subclinical scurvy along with multivitamin and mineral dysfunction and protein deficiencies. The widely used Methadone Program for "treating" these sick people merely substitutes a legal narcotic for an illicit one, which only continues the severe biochemical stresses contributing to their illness. This pilot study regarded the addicts as suffering from a serious Hypoascorbemia-Kwashiorkor type of syndrome. Our procedure was designed to fully correct both the genetic defect causing the Hypoascorbemia and also the multi-malnutritional disturbances and protein deficiencies involved in the Kwashiorkor. The treatment is entirely orthomolecular and inexpensive, is non-toxic, and uses no drugs or narcotics. It is rapidly effective in bringing good health to the addicts. In the initial phases of the procedure, sodium ascorbate is administered at 25 to 85 g per day or more, along with high doses of multivitamins, essential minerals, and protein hydro-lysate. Under this treatment, the heroin or methadone is stopped and no withdrawal symptoms are encountered. Should a "fix" be taken, it is immediately detoxified and no "high" is produced. It is like injecting plain water. There is a great improvement in well being and mental alertness. In a few days appetite returns and they eat well, they have restful sleep, and the "methadone-constipation" is relieved. After about four to six days the dosages are reduced to holding dose levels. In the 30 addicts tested in this pilot study, the results were excellent in all cases, and it would appear that this simple non toxic procedure should serve as the basis for large scale testing to develop a new program for freeing drug addicts of their addiction. In drug overdose, sodium ascorbate can be a lifesaving measure. Unconscious overdosed addicts are given the sodium ascorbate intravenously, 30 to 50 g while those able to

swallow can be given the same quantity dissolved in a glass of milk. This antidote is non specific and works on all drugs, so no time need be wasted in identifying the drug. We speculate on ascorbate's action as due to the high levels of sodium ascorbate in the brain as competing lot and displacing the narcotic from the opiate receptor sites. If this be the case, then it might be possible to use this phenomenon postoperatively on surgical patients to quickly bring them out of anaesthesia. We strong urge all who contemplate using the ascorbate-treatment to obtain copies of the paper in entirety."

(By kind permission of the Academy of Orthomolecular Psychiatry, The Australasian Nurses Journal published this in their Jan-Feb of 1978.)

Modified Treatment

We emphasise that the treatment we have been successfully using is based on the work of Stone and Libby but we have been using slight modifications. We do not use the protein concentrate PHH-Pro, but recommend a diet of food rich in protein during the withdrawal phase such as boiled eggs, dairy products and white meats.

In a recent letter (26 October 1978) Dr Libby made some interesting points concerning calcium supplement as well as making some pertinent remarks concerning methadone. Part of that letter is quoted herewith:

"Wow, you must really be having a lot of fun down there with the establishment. I have no fears that ultimately we will win out, namely because we are right and they are wrong. I would ten times rather work with a heroin addict, irrespective of dosage, than work with a patient on methadone. Methadone is far worse on the body, from a metabolic point of view, than is heroin. With methadone there is loss of a normal sleep, severe constipation, loss of libido, loss of appetite, lack of ability to function, and perhaps worst of all, if for some reason they do not obtain their day's supply of methadone, their lower back pain is so severe, they literally cannot walk. It is unconscionable to me to put a person on methadone maintenance with no way to get them off.

SECONDLY, THE 21 DAY METHADONE DETOX IS ALSO A FARCE. When the 21 days is over, they come out sick and still have the "guts craving" so the first thing they do is go for a "fix" in order to set well. What a sham. The medical establishment still has the idea that once a junkie, always a junkie. They also look at the addict as a **problem**, instead of having a problem.

Now.... let me add some updated technique for you. Begin your initial dosage of 6 g sodium ascorbate and 3 tablets of Bronson's #16 Calcium Complex with Magnesium. From then on every 2 hours give 4 g of sodium ascorbate (in orange juice only) and 3 tablets of the Calcium complex until a total of 8 doses are given. Do this for the first 30 hours. This approach controls all withdrawal symptoms. If you have any symptoms, decrease the "C" half and give every hour along with the Calcium. After diarrhoea is well established, decrease the "C" to 12 g per day; then begin to add the other vitamins, namely Pantothenic acid for adrenal support and control of the hypoglycaemia symptoms, zinc 180 mg per day for the return of appetite, and B6 four times daily. Remember non-essential amino acid metabolism will not proceed in light of a B6 deficiency. After normal eating has been re-established, add the Super-Bee and Insurance formula. Hope this information will add to your expertise."

Since the 20th of December, 1977 we have seen 109 patients. Our records show that at least 25% of them claim to have been cured. As no follow-ups were done and we relied simply on patients reporting the success or otherwise of their treatment, probably the success rate is far in excess of the number who either phoned or came back to show us that they had truly conquered their addiction.

We realise that there are grave weaknesses in our approach, but just what do you do when desperate young people beg you to assist them? Social workers and follow up are a must, but we are not geared to cope with the total problems.

When a patient presents, a history is taken and if there are any signs of jaundice, liver function tests are done. Three patients were found to have serum hepatitis with impaired liver function. In all cases response to the ascorbate treatment was dramatic, patients felt well after a few days and liver function tests improved.

Patients were advised to cancel all engagements for at least a week, as the megascorbics would produce a severe diarrhoea, in this respect they were advised not to use toilet paper but rather wet cotton wool or simply wash with water. It may sound a minor point, but bottoms can become very sore after repeated abrasion from toilet paper. The instructions were to take a heaped teaspoonful of sodium ascorbate either in orange juice, milk or water, on the hour, every hour until they wished to go to sleep. They were advised that the diarrhoea must be maintained until withdrawal symptoms disappeared. This varied with the cures from 12 hours to 12 days. In addition to the ascorbate, formula three tablets were given (Formula three tablets, Magnesium oxide 50

mg, vitamin B6 25mg and zinc sulphate 25 mg) three tablets every day, plus calcium as recommended in the Libby correspondence in this article.

Recent correspondence from America shows that it is possible to purchase a DRUG REHABILITATION KIT which sells for a mere * \$29.00. The kit contains 1 1/2 kilos of sodium ascorbate, multivitamins, complete simple instructions, a copy of the Libby-Stone paper from the Journal of Orthomolecular Psychiatry, and a 100% money back guarantee if you aren't completely satisfied. At the time of writing this article nobody had asked for their money back and the question arises about the desirability of somebody, perhaps even our conservative health department, giving consideration to making such kits available in Australia. Most certainly the question is worthy of consideration.

* This price would be subject to inflationary increases (Author.)

Side Effects

Unlike the toximolecular approach which uses methadone, this orthomolecular treatment is remarkable safe to use. No ill effects have been reported, no kidney stone or other theoretical hazards have been encountered. Indeed one patient (Medical Centre, Redfern) was given 200 g of sodium ascorbate I.V. over a period of 18 hours and the effectiveness of this treatment would justify a paper on its own.

We are currently engaged in writing papers about the fallacies associated with so sodium ascorbate. It seems tragic that we should have to do this, as we have now been using megascorbics for about 8 years and the only side effect seems to be chronic good health. This can hardly be said for most other forms of medication.

Diet

During withdrawal a high protein diet is recommended, e.g. boiled eggs, dairy products, including milk, any fresh fruit and vegetables or white meat. Avoid junk food, starchy foods and any refined carbohydrates.

After they were aware that withdrawal symptoms had ceased they were advised to maintain their ascorbate level at 10 g per day. Of necessity these details are scanty but we feel that they may assist people who are sufficiently well motivated to attempt the program by themselves.

Interest Shown by Other Organisations

As we have previously pointed out no interest has been demonstrated by official channels, but many behind scenes enquiries have been made. The Drug Users and Parents Association (DUPA) has freely used our services and excellent co-operation has been established, shortly another organisation, Supportive Environment for the Elimination of Drugs (SEED) will become operative using the techniques that we have shown to be so successful. The Det-Kal Ascorbate Research Foundation has borne a good deal of the financial overhead associated with our efforts all of which is encouraging and shows that some really do care.

Concluding Remarks

Perhaps the best manner to cope with the heroin problem would be to immediately legalize its use. The drug "pushers" would be wiped out overnight and heroin would be of a quality that would cause least harm. It is common to "cut" it with any substance that makes up the bulk and the "diluent" is often more harmful than the heroin. Having then solved the problem of drug pushing, we could concentrate our efforts upon the addicts who need attention. The fact that it would be legally available would hardly result in any great rush to become an addict.

Other methods have been tried without success — why not adopt this suggestion and use the ascorbate treatment instead of methadone?

Why is it that the media supports orthodox views so readily, rejecting all other avenues of scientific investigation? If the alternatives were without scientific basis or if they involved some risk of treatment because of established toxicity, this would be understandable, but always you will read in popular journals, and the lay press in general articles by "experts" whose "words of wisdom" are then taken up by the radio and television.

Should the proponents for medical reform manage to get a little publicity, then an "expert" from the orthodox camp will readily gain access to the total media negating any possibility of an official trial. All too often we have seen this happen, no reasons or scientific evidence is presented, just a sweeping denial of the total situation.

Perhaps it is fitting to conclude with the words of Dr Robert Schuller (Hour of Power) used by Dr Libby at the conclusion of his last letter to us:

"I would rather do something great and fail, than attempt nothing and succeed."