TOXICOLOGY

Heroin Cure Works

At the end of nearly three years of preliminary testing, the drug methadone appears to have fulfilled its promise as an answer to heroin addiction.

Some 276 hard-core New York addicts treated at the Rockefeller University Hospital and Beth Israel Medical Center have lost their habits and none have returned to heroin-a 100 percent success rating.

Methadone, a synthetic narcotic, acts by blocking the euphoric effect of opiates. Addicts thus get nothing from heroin and feel no desire to take it. They must, however, be permanently maintained on methadone-100 milligrams per day taken orally is the rate established by the Rockefeller researchers. But methadone lacks the toxic effects of heroin and once stabilized on the drug, addicts are alert, feel well and are apparently able to live completely normal lives.

Dr. Marie Nyswander, a psychiatrist on the methadone project, reports that 75 percent of the male patients who had been on the program for six months at the end of 1966 were working fulltime. Of the women, 50 percent were working or taking care of their homes. This, however, was not due solely to methadone. The drug relieved the addiction, but an excellent rehabilitation program put them back into society.

Most of the addicts came into the program with prison records, "tracks" on their arms, poor education and background, Dr. Nyswander reports in the January Bulletin, published by New York branches of the American Psychiatric Association.

Though they received no formal psychotherapy, the addicts did profit from a very small patient-staff ratio. Counselors helped them to find homes, jobs, educated them "in the ways of the world" and shared their successes and failures. By the end of the program's first year, most patients were working regularly or were in school.

Since the methadone project began in early 1964, only three addicts have dropped out, said Dr. Nyswander. The project itself dropped 24 for psychiatric reasons, violence, alcoholism or the use of nonopiate drugs.

To be admitted at all, the addicts had to have a long-standing heroin addiction, while being free of obvious psychopathology. For these addicts, Dr. Nyswander believes addiction to be a chemical problem requiring medical solution.

Pain Killers Indicted

Excessive use of pain-killers has been tied to sometimes fatal kidney disease by scientists in Scotland and Australia.

In Scotland, Dr. L. F. Prescott of Aberdeen University reported 36 cases of kidney disease among patients taking preparations that contain phenacetin, often in combination with codeine. Ten of the patients, who had been taking an average of ten such tablets daily, died.

Dr. Prescott said one unusual aspect of his study is that one-third of the patients were taking the nonprescription drugs for the wrong reasons. Usually used for relief of tension headache or arthritis, these patients used the phenacetin-containing pills variously as pep pills and narcotics.

In Australia, the incidence of kidney disease is higher than anywhere else in the world, according to Dr. Priscilla Kincaid-Smith, who attributes the phenomenon partly to the climate but primarily to Australians' excessive use of pain-relieving drugs. It is important to note that evidence from recent autopsies showed that five percent of cases took a lot of pain-killing drugs during their lifetime," she said, and even when kidney disease was not cited as the direct cause of death, it is likely that papilliary necrosis or tissue death was a contributing factor.

Reports linking prolonged phenacetin usage and kidney disease in persons in the United States led the Food and Drug Administration in 1964 to require a warning to this effect on labels of all preparations containing the suspect drug.

Phenacetin is found in commonly used prescription drugs such as Darvon and Demerol and in over-the-counter products such as Empirin Compound. In small, discontinuous doses it poses no threat and in spite of evidence that it can lead to nephritis or inflammation of the kidney, conclusive proof has not been found and some scientists dispute the claim there is any relation at all.

GYNECOLOGY

Evaluate Loops and Coils

Intrauterine devices, widely used for contraception by women in India, Pakistan and other heavily populated nations, are slated for review by the U.S. Government. Oral contraceptives are more popular with American women than IUDs.

Evidence of IUDs safety and efficacy, from both animal and human data, will be evaluated by the Food and Drug Administration's Advisory Committee on Obstetrics and Gynecology, headed by Dr. Louis M. Hellman of the State University of New York. The committee also plans to take up the question of legal controls over medical devices in general and IUDs in particular. At present, FDA has no authority to judge the safety of medical devices or cosmetics before they go on the market.

Exactly how or why IUDs work in humans is not known, though scientists believe they somehow speed the transport of an egg from the uterus so quickly it cannot implant itself in the uterine wall. Whatever the mechanism, IUDs work with 98 or 99 percent accuracy in those women who can tolerate them and they do not pose the same threats as the more effective but many times more expensive contraceptive pills.

IUDs are expelled by about 15 per-

cent of the women who try them and are often unsatisfactory for women who have not had any children, but few if any deaths have ben attributed to them.

Deaths from blood clotting, a predisposition to cancer and the possibility of genetic disorders in future generations have been linked with contraceptive pills, though scientists estimate it will be 20 years or more before conclusive evidence is in.

Adverse reaction to the IUDs, however, seem to be limited to bacterial infections and unusual bleeding. Serious perforation of the uterus has been reported in "very few" users, according to Dr. Phillip A. Corfman, a member of FDA's committee.

In addition to learning the physiologic mechanism by which IUDs operate, researchers want to find more suitable materials from which to make the devices that are not much bigger than a penny. The ideal material would neither irritate the uterus nor stimulate abnormal growths. The most widely used at present is the polyethylene Lippes Loop, a double "S" shaped device with a tail that remains in the cervical canal so the wearer can be sure the loop is in place. Other devices are made of stainless steel.