

Alcohol addicts

Last week when President Nixon set forth his plans for a stepped-up attack on drug abuse (SN: 6/26/71, p. 433), Sen. Harold E. Hughes (D-Iowa) praised the move but took serious objection to the emphasis on narcotics. He pointed out that alcohol (also a drug) is more widely used and causes more trouble than heroin and marijuana combined.

At least 85 million Americans drink regularly. Four million of them are addicted to alcohol and an additional five million have a serious drinking problem—marital strife, arrests, job loss. Alcohol is also probably involved in half of the nation's 50,000 annual automobile deaths.

Cure of alcoholism is rare, and Hughes believes strongly that more time, effort and money should be spent on research and alcoholism treatment. Ongoing research was reported last week in Washington, at the first annual alcoholism conference of the National Institute of Mental Health (see p. 9). It was obvious that to date there has been relatively little progress.

For example, Drs. Joseph R. Newton and Leonard I. Stein of the alcoholic treatment center at Mendota State Hospital in Madison, Wis., reported on progress with different types of therapy for alcoholics. They are using male patients between the ages of 18 and 62 who have been admitted to the alcoholic treatment center four or less times and whose principal diagnosis is alcoholism. The goals of the study are to investigate the effects of various hospital treatments, to study the effects of a new learning technique called "implosive therapy" and to compare the results of standard aftercare services with intensive ones.

The hospital has about 45 admissions a month to the alcoholic treatment center. Typical treatment consists of seven days detoxification followed by about 25 days of active hospital treatment. For their study, Drs. Newton and Stein randomly assigned patients to either detoxification only or to the full treatment program. The full milieu treatment consists of small group psychotherapy, behavior modification, family psychotherapy, Alcoholics Anonymous and recreational therapy.

A third group of patients was assigned to implosive therapy after detoxification. The theory is that a patient can unlearn a conditioned response (drinking) to anxiety. With a therapist the patient learns to recognize the anxiety, to cope with it and to engage in behavior that will reduce anxiety. These patients were seen for 15 individual psychotherapy hours by the



Sen. Hughes: Alcohol is also a drug.

same therapists who gave conventional treatment to the control patients.

The subjects are then assigned to standard or intensive service programs upon hospital discharge. The standard care patient is helped to find a job, adequate living conditions and is advised about appropriate aftercare agencies. In the high-intensity program the patient is first interviewed by a hospital coordinator. Referrals are made to various agencies and efforts are made to see that the appointments are kept. Weekly for 12 months the patient and agency are contacted and the hospital coordinator plays an active role in patient rehabilitation.

Patients in all programs are extensively interviewed upon admittance, after 20 days of therapy and after release at intervals of 1, 3, 6, 9 and 12 months. Because these tests and the study are not yet complete, only readmittance statistics are available to give an indication of treatment efficacy. The researchers warn that these figures can be misleading but they show that neither a cure nor an effective treatment has been found.

Detoxification only and milieu treatment patients had readmittance rates of 32.2 and 25 percent respectively. "We are frankly surprised that these figures are approximately equal," say the doctors. And, more surprising, the readmittance rate for the implosive therapy group was 53.3 percent, almost twice that of other treatments. "We are really puzzled by this finding," say the doctors, who expected much better results. Finally, for both high- and low-intensity aftercare treatment, 35.4 percent of the patients were readmitted. "One is inclined to conclude that intensity of coordination is of no significance," say Drs. Newton and Stein.

As the study continues data will be reexamined, but the already high rate of treatment failure indicates a solution to the 5,000-year-old problem of alcoholism is not in sight. □

Practical problems remain

The 1970 amendments to the Clean Air Act require that three major pollutants in automobile emissions—hydrocarbons, carbon monoxide and nitrogen oxides—be reduced by 90 percent from 1970 levels. Details of 1975 CO and hydrocarbon standards were issued earlier by the Environmental Protection Agency (SN: 5/15/71, p. 329). This week, Dr. John T. Middleton, EPA's air quality chief, and Eric Stork, the agency's top automobile pollution official, announced the 1976 nitrogen oxides standards. EPA says NO_x emissions have to be reduced from the allowed 1970 level of 4 grams per vehicle mile to 0.4 gram in 1976. An interim, 1973, standard requires no more than 3 grams.

There was nothing unexpected in the announcement. The law is clear. But at the press briefing on the NO_x standards, a host of problems was brought out:

- Inspection systems for cars in use will be costly, admitted Stork. Thus, the inspection systems will not be required in areas where ambient air meets Federal standards (even though emission standards apply to all autos). This situation could parallel the "non-degradation" controversy over water pollution, where environmentalists finally required EPA to prevent pollution of pure mountain streams even if the pollution would not cause the streams to be dirtier than the law allowed.

- Emission-control systems enabling autos to meet the 1975 and 1976 standards will be costly to the consumer—anywhere from \$80 to \$600.

- EPA sees the controversy over lead in gasoline, and lead toxicity, as a separate problem from emissions. But lead in gasoline will poison the catalysts used in the catalytic mufflers the auto companies are relying upon to meet hydrocarbon and CO standards. Unless lead toxicity at low levels can be proven, EPA will not ban leaded gasoline. Accidental use of a single tankful of leaded gasoline would ruin the mufflers, the Ford Motor Co. says.

- Dr. Middleton said EPA is continuously reevaluating its ambient air standards as new research findings become available. If the standards are changed, he implied they will be made more stringent, because of "subtle biochemical and cellular effects" of pollutants that may be revealed.

EPA is still treading softly on proposing restrictions or bans on the auto in urban areas as an alternative to emission standards. But Dr. Middleton said this week that such actions will be taken, if necessary, to meet ambient air standards. □