

The paucity of adequate statewide systems for the investigation of suspicious or unnatural deaths, the unavoidable provincialism of otherwise competent county-city investigative systems, and the relative immaturity for forensic medicine in the United States give little and late data on the hazards of many drugs, poisons and other chemicals.

We have seen an increase in propoxyphene deaths from rare cases in 1969 through 1971 to over a score annually from 1972 through 1974. Forty-nine were certified in 1975. Subsequent years have yielded at least 30 each. Development of the new medical examiner system with enhanced suspicions, search efforts, and new toxicology techniques may have accounted for the initial increase. There was another surge in propoxyphene deaths well after our medical examiner system was stabilized.

Reports from other investigators including the BNDD (now DEA) indicate the North Carolina experience is not a regional phenomenon. At least 65, perhaps 80 percent of the deaths are suicides. The drug the victims used had been prescribed for them in most instances. Ten dose units appeared adequate to cause death but more were generally used. The prescription size ranged from 20 to 240 units. Females were predominant except among the "accidental overdoses". Alcohol and other drugs were commonly present, *usually not* in significant quantity (and not really more frequently or at greater concentrations than detected with gunshot suicides).

The great popularity of propoxyphene (almost entirely Darvon, Darvon Comp 65, Darvon-N 100 and the like) appears to be due to factors other than its effectiveness. These appear to include:

- (a) Vigorous marketing and detailing efforts.
- (b) Fortunate name.
- (c) Attractive appearance.
- (d) Third party compensation for propoxyphene but not for aspirin or acetaminophen.
- (e) Public concept of the drug as a "real" medicine as opposed to plain aspirin.
- (f) Physicians' concept of the drug as essentially harmless.

Independent evaluations of analgesics generally rank propoxyphene as equivalent to placebo and less efficient than aspirin.

Our recommendations included:

- (1) Education through standard medical channels concerning propoxyphene's analgesic effects.
- (2) Physicians' voluntary reduction in average prescription size.
- (3) Establishment of the same third party payment standards for analgesics such as aspirin and acetaminophen as for propoxyphene.
- (4) Enhanced patient warning of the hazards of combining alcohol and "pain killers" and other mood affecting drugs.
- (5) Placement of propoxyphene in Schedule II of the "Controlled Substances Act" of Public Law 91-513.

We concluded with the opinion that "more discriminating prescription writing and reduced drug availability could diminish not only propoxyphene poisonings but also the total suicides and drug-related deaths".

Some of the other issues discussed in the article are addressed in my responses to the following questions posed in Senator Nelson's invitation to appear here today.

Q. What does the volume of prescriptions written for propoxyphene show?

A. Propoxyphene has been at or very close to the top in total new prescription frequency for over 10 years. This is combining primarily the trade names of Darvon, Darvon N 100, Darvon Comp and others.

Q. In view of prescription volume and prescription size, are doctors aware of the dangers of Darvon and other prescriptions containing propoxyphene?

A. No. They could hardly have been less aware. Repeatedly I have seen physicians frankly shocked to learn of the frequency of propoxyphene fatalities. Some stated they had heard of propoxyphene victims but assumed they were "young punks shooting drugs" as opposed to the kinds of folks their own patients represented. Reactions have varied from, "I think it's a good drug, my patients ask for it", to, "I don't know why I use it; it isn't worth a damn without aspirin in it."

Q. Is it sound practice to prescribe 120 or more dose forms of propoxyphene, as you have found done most frequently at Veterans Administration hospitals?

A. No. I realize that there are severe logistical and other problems in managing chronically ill patients who live many miles from the medical centers and/