

opportunity to present to you a short—I hope no more than about 10 minutes—statement on the toxicology of propoxyphene, and I thank you for this opportunity.

The role of propoxyphene and its major metabolites in medico-legal investigation has been of interest to toxicologists for the past decade. As the availability of the drug and its subsequent prescription by physicians increased so, inevitably, its frequency of occurrence in cases of sudden, unexplained death presented analytical and pharmacological problems for forensic and clinical scientists.

As a direct result of several reports in the early 1970's which indicated an apparent growing involvement of propoxyphene in forensic toxicology cases the Center for Human Toxicology, University of Utah—supported by Eli Lilly & Co. and FDA—under my direction undertook an independent national collaborative study in 1975–76 to assess the role of propoxyphene in post mortem cases and place the drug in perspective against demographic and epidemiological information about the deceased individuals. The study was also designed to evaluate the current laboratory techniques used to detect, identify, and quantitate the drug and its metabolites in biological specimens.

The results of the study, which involved 18 forensic toxicologists, medical examiners, and coroners, was published in the *Journal of Forensic Sciences* in 1976.

Senator NELSON. Let me ask a question for clarification. On the first page you say the Center for Human Toxicology is supported by Lilly and the FDA.

Are you saying the Center for Human Toxicology is supported by Eli Lilly & Co. and the FDA, or did they support this particular study?

Dr. FINKLE. The latter is correct. Would be that it was the former. I have attached to my statement a reprint of that study for your information and perusal.

Senator NELSON. Is that the one we have here called “Memorandum for the record”?

Dr. FINKLE. No, it is not, Senator. It is a separate document.

Senator NELSON. Very well.

Dr. FINKLE. The principal findings indicated that during the period 1970–75, the number of deaths involving propoxyphene increased each year and at a faster rate than total drug deaths. About half of the 1,022 cases studies were suicides. The deceased were not part of the illegal drug abuse population and had no particular propensity for the use of heroin or narcotics, but were a particular medical population with a marked tendency to hypochondria, chronic minor illnesses, and emotional problems, and misuse of a variety of prescription drugs and alcohol.

It was confirmed that propoxyphene can be a dangerous drug when misused, deliberately or accidentally, but most especially in combination with alcohol and/or other central nervous system depressant drugs. I am not speaking here of the fixed drug combinations in Darvon such as aspirin, but the many other drugs such as barbiturates and tranquilizers and so on which are listed in the table appended as part of this statement.

From a toxicology perspective propoxyphene appeared to be no more dangerous than many other potent drugs available, and that typical of