

samples on the lecture table. A considerable portion of the introductory session was devoted to methods for assessing reports of drug trials. The criteria outlined by Mahon and Daniel(4) were emphasized. The method consists of the stepwise application of the following criteria: (1) the presence of adequate controls, including the effects of a placebo preparation as well as standard therapy; (2) randomization of treatments; (3) objective assessment of drug effects, including the principle of the double-blind trial to avoid biased evaluation; and (4) statistical analysis of results. The students were instructed to determine how many of the cited references were actually available in the Medical Library (which has 1250 scientific journals on the subscription list) and what proportion of those available were adequate according to the above minimal criteria. Attention was also directed to other source material such as the Medical Letter, the A.M.A. Council on Drugs reports, New Drugs, etc.

It was not an objective of this program to criticize or rate individual drug manufacturers. The important role of the pharmaceutical industry is emphasized in many ways in this course. During the EDA program, for example, a one-day visit to a nearby pharmaceutical firm was arranged. In addition to seeing the excellent pharmacological and medicinal chemical research and the manufacturing and packaging functions of this firm, the students were addressed by an executive officer of the firm who, by prearrangement, presented much valuable additional material on drug advertising from a viewpoint somewhat different from that of the instructors.

Each group of students was assigned a clinical advisor, usually a physician who had had considerable clinical experience with the assigned drug. The students were instructed to discuss their assignments with their advisor following the introductory session and from time to time during the progress of the program in regard to questions relative to the evaluation of the drug, the other drugs available for comparable therapy, and the state of knowledge in the field for which the particular drug is intended. They were urged to obtain as many opinions on these questions as possible by also consulting other clinical instructors and to consult several pharmacists regarding available preparations and relative costs to the patient of equivalent doses of the assigned drug and of other comparable drugs. Students were offered secretarial assistance if they wished to write to pharmaceutical firms for additional information.

The students were allowed eight hours of laboratory time over a three-week period to work on the EDA program. At the end of the program, each group submitted a written report of their study and each member of the group was prepared to present an oral 10-minute report. The oral reports were presented to the class and discussed by the class advisors and departmental staff. The person chosen from each group to present the oral report was not announced in advance.

The staff of instructors and the clinical advisors report that the students rapidly developed a skeptical attitude towards the particular advertising claims which they studied. The students were particularly impressed with the number of quoted "references" which were not available even in a good medical library. Many groups found that of the references they could find in the literature only about 5% fulfilled all of the criteria for a satisfactory clinical trial of a new drug, which is in general agreement with results of the large study reported by Mahon and Daniel.(4).

At the end of the pharmacology course, student opinion of various aspects of the pharmacology course was polled in an unsigned questionnaire. The class was unanimous in its belief that a study of drug advertising belonged in a medical pharmacology course. Ninety-five per cent of the class thought that the project outlined in this report was a valuable learning experience and 85% thought that the time allotted to the project was "about right". Further polls of the same class will be sought just before graduation and after a period of time in practice to determine whether attitudes towards drug advertising and reports of clinical trials of new drugs developed as a result of this teaching exercise have been maintained. In the meantime the enthusiasm of the students and the members of the faculty who participated is ample justification for continuing the project with modifications designed to improve the attainment of the objectives or to better suit further developments in drug advertising and regulations of the Food and Drug Administration.