"use of Tofranil in patients receiving M.A.O.I.'s is contraindicated" appears in the text. The initials refer to monoamine oxidase inhibitors which are also antidepressants but of a different chemical class from Tofranil. The physician is warned not to use these two drugs together. That the patient may die if this warning is overlooked is buried in the package circular information. How well buried it is is shown in Exhibit #4 (Behavioral Neuropsychiatry, April 1969). This is a three-page ad; the left-hand page is blank, the right-hand page contains the text and over on the following page is the package circular information. It is now very common to see package circular information divorced in this way from the body of the advertisement and I regard this as evading the responsibility to publicize drug hazards fully and honestly.

## TRANQUILIZERS

I have already referred to the practice of promoting tranquilizers for the relief of all sorts of normal and appropriate anxiety states. Exhibit #5 refers to an advertisement for the tranquilizer Valium (International Journal of Psychiatry, November 1967). This advertisement was based on an experiment by Clemens and Selesnick <sup>10</sup> which showed that anxious neurotics, if pretreated with Valium, had diminished physiological reactivity to an anxiety-producing motion picture. The advertisement did not mention some important qualifications: that physiological reactivity is diminished by other drugs which have no tranquilizing activity and that the method by which reactivity was measured was never reported. This is an important point. I have seen an example in which any one of six patients could have been considered "most reactive" to a drug depending upon which of six reactivity measures was used. This is not intended as a criticism of Clemens and Selesnick; their experiment was imaginative and they reported their results fairly. The point is that background information and qualifications which might appear in a scientific article can be omitted and the results exaggerated beyond what the authors intended. This particular advertisement has now been withdrawn but I mention it because it was the subject of the most extensive advertising campaign which I have ever seen for a psychotropic drug.

## GENERAL COMMENTS

Beyond these specific objections there is a broader issue on which I want to comment. No one knows exactly what calculations enter into a doctor's therapeutic decisions. Ideally he relies on research findings and on the clinical experience of experts accumulated over the years and published in the medical literature, tempered by his own judgment and his knowledge of the patient's particular circumstances. All of us have the duty to be aware of new information and to reevaluate our therapeutics in its light. This is a humbling experience. We constantly see our highest hopes and strongest clinical impressions dissolve when hard evidence is collected. This is perhaps more true in the field of psychiatry where symptoms may be more heavily influenced by non-pharmacologic factors and for this reason we have invested particular effort to develop strategies of drug testing which control the element of personal bias. Even so, an attitude of skepticism, and respect for evidence is difficult to maintain. It is hard to teach students and hard to preserve in oneself. The history of our science shows any number of worthless and even harmful treatments which were at first highly regarded. My concern is that drug companies, with all the resources they have to prompt doctors to prescribe drugs, will just overwhelm the more conservative point of view. This is happening. The public surfeit with medications and drugs is one of our major health problems. Adverse drug reactions affect more than a third of hospitalized patients.1

One might wonder whether increased vigilance by the FDA and by the journal advertising committees could influence this situation. I believe that these groups have lessened some of the more obvious abuses but they will never be able to complete the job of separating the wheat from the chaff in drug advertising because—to make my position perfectly clear—there is no wheat.

 <sup>&</sup>quot;Diseases of the Nervous System," vol. 28, pp. 98-104, 1967.
35% according to Borda (J. American Medical Assn.), vol. 205, p. 645 (1968).