(The memorandum referred to follows:)

MARKET RESEARCH SUMMARY OF PHYSICIANS' ATTITUDES TOWARD ANTIBIOTICS

The objectives of this study were to explore physicians' attitudes toward antibiotic drugs and the determinants which influence selection among antibiotic brands with special attention to V-cillin K and Ilosone. At our request, National Analysts of Philadelphia conducted 24 group-depth interviews in eight cities throughout the United States. In each city, separate groups of GP's, internists, and pediatricians were interviewed. Average group size ranged between 10 and 12 physicians. While a qualitative study of this sort may not be statistically projectable, the major findings are confirmed by market data and our current general understanding of the market.

From the study, it is possible to make a logical ordering of the decision-making processes experienced by physicians in choosing and using antibiotic drugs. Such a model of the physician "decision tree" permits the study to be organized in five major areas as follows: 1) determinants of treatment (Should an antibiotic be used?), 2) determinants of therapeutic route (Should it be IM or oral?), 3) determinants of antibiotic choice (Which generic group of antibiotics is indicated?), 4) determinants affecting choice of V-cillin K, and 5) determinants affecting choice of Ilosone.

Since physicians' thinking and behavior may not always be logical, many of the determinants may interact simultaneously or there may be a "short circuiting" in which physicians may move directly to a brand choice without pausing first to consider which group is appropriate. Such action reflects the formation of individual ideas about antibiotic therapy over a long time period or at some point in the past. As a result antibiotic use decisions may be largely automatic and unconscious for many physicians.

I. DETERMINANTS OF TREATMENT

(A) The study indicates that physicians feel pressured to treat with antibiotics even when they are not convinced that the illness is bacterial in nature and they frequently do prescribe antibiotics in illnesses that they suspect are viral in origin.

(B) Factors influencing the initial decision to treat or not to treat with an antibiotic generally fall into characteristics related to the nature of the illness, those related to the patients, and those related to the physician. Characteristics related to illness include severity of illness, degree of pain, magnitude of visible signs of tissue change, viral or bacterial diagnosis and the duration of illness.

(C) Characteristics related to the patient which determine antibiotic use include such factors as predisposition to serious infections, presumed vulnerability to the illness, patient expectations or demands for antibiotic therapy and the socio-economic class or degree of "medical sophistication" of the patient.

(D) Characteristics related to the doctor which may determine antibiotic treatment are personality type and professional focus. Here the study identified two different personality types with regard to their professional approach in coping with an infection—these may be called "problem solvers" and the humanist or healer." The relatively small group of physicians is "problem solving" in that they see themselves as practicing scientists depending upon cultures, tests, rigorous evaluation of objective data. Of the three groups considered in this study, the "problem solving" type of doctor was found more often among internists, secondly among pediatricians, and least among GP's. The other and larger group of physicians may be classified as more humanistic than scientific, more concerned with the well-being of the total patient than the specific form and locus of infection alone. They use antibiotics to assure patients of the doctor's active role in genuine concern, to maintain confidence in morale, and bolster patient cooperation.

Other characteristics related to the physicians which determine antibiotic use are classified as professional sophistication and security, nature of the doctor-patient relationship (degree of authoritarianism), the satisfactions of giving medication (using antibiotics rather than palliatives), fear or risks of treatment (side-effects, malpractice, and censure by colleagues), apprehension about the consequences of no treatment, time and place of examination and initial treatment, and fear of developing resistant organisms if antibiotics are given (expressed by only a few physicians).