

effectiveness and toxicity of chlorpromazine, triflupromazine, mepazine, prochlorperazine, and perphenazine. Phenobarbital was used as a control medication.

PROCEDURE⁶

Patient Sample: Six hundred forty newly admitted schizophrenic men were studied in 35 VA hospitals. The average patient was 34 years old (the median was also 34), and the range was 18-54 years. He weighed 161 pounds, had finished 10% grades, had been a semi-skilled worker, and was first treated for mental illness 7½ years before his current admission. About half the patients were single, 30% were married, and the rest were divorced (10%) or separated (8%). The number of previous hospitalizations were as follows: none-18%, one-23%, two or three-27%, four or five-21%, six or more-11%. Forty-four percent had never received tranquilizers previously. All were in good physical health.

As measured by the Multidimensional Scale for Rating Psychiatric Patients-MSRPP(14), the average study patient before treatment was a little sicker, in general, but as active and no more depressed than the general population of schizophrenic men hospitalized in VA hospitals. He was somewhat more resistive, belligerent, withdrawn, and conceptually disorganized than the usual hospitalized schizophrenic veteran and markedly more paranoid, self-depreciatory, mentally agitated, active, and perceptually confused.

The attrition in the sample by the end of the study was 26%. One hundred fifty patients were dropped from the study. An additional 18 could not be included because of incomplete data. During the study period 85 patients left the hospital: 43 without medical approval, 24 on trial visits, and 18 by approved discharge. Also eliminated were 23 patients who were worse or had shown no improvement, 16 who refused medication, 4 who became seriously depressed, and 1 who was transferred. Finally,

21 patients were dropped; 12 because of side effects and 9 due to deviant laboratory findings.

Drugs, Dosage, Duration of Treatment: Identical-appearing coded medications were supplied to the hospitals from a central point in the following strength capsules: chlorpromazine, 50 and 200 mg.; triflupromazine and mepazine, 25 and 50 mg.; prochlorperazine, 10 and 25 mg.; perphenazine, 8 and 16 mg.; phenobarbital, 32 mg. These doses were chosen as equivalent on the basis of the manufacturer's recommendations. During the first 4 weeks of treatment, a fixed progressive dosage schedule was followed in all treatment groups: day 1, one low strength capsule; day 2, two low strength; day 3, three low strength; day 4, one high strength; days 5 through 14, two high strength; days 15 through 28, three high strength. During the remaining 8 weeks of the study, a flexible schedule was used in which the physician adjusted the dose, within limits of 1 to 6 high strength capsules daily, to produce optimal therapeutic effects in his individual patients.

Figure 1 shows the average number of capsules prescribed per week during the fifth through the twelfth weeks for patients in each of the 6 treatment groups. The average daily dose of each drug during the flexible dosage period was as follows: chlorpromazine, 635 mg.; triflupromazine, 175 mg.; mepazine, 190 mg.; prochlorperazine, 90 mg.; and perphenazine, 50 mg.

After the fifth week there were reliable⁷ variations among the treatment groups in number of capsules prescribed. Fewer capsules were prescribed for chlorpromazine patients than for any other group during the sixth week. In the eighth week and for the remainder of the study, significantly fewer capsules were prescribed for chlorpromazine and perphenazine patients than for mepazine or phenobarbital patients. Physicians used the full range of 1 to 6 capsules daily for each medication.

METHODS OF EVALUATING TREATMENT

Clinical Status: Clinical changes in patients were measured by two rating de-

⁶ The study protocol, reproduced in its entirety in the Transactions of the Third Annual Research Conference in Chemotherapy in Psychiatry, contains considerable detail concerning selection of patients, the randomization procedures, precautions, restrictions, laboratory controls and forms.

⁷ All differences discussed are statistically significant at or beyond the .05 level.