The NIMH-funded Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE) was a nationwide public health focused clinical trial comparing the effectiveness of older (first available in the 1950s) and newer (available since the 1990s) antipsychotic medications used to treat schizophrenia. These newer medications, known as atypical antipsychotics, cost roughly 10 times as much as the older medications. CATIE was the largest, longest, and most comprehensive independent trial ever done to examine existing therapies for this disease.

Schizophrenia is a brain disorder characterized by hallucinations, delusions, and disordered thinking. The course of schizophrenia is variable, but usually is recurrent and chronic, often causing severe disability. Previous studies had shown that taking antipsychotic medications consistently was far more effective than taking no medicine and that the drugs were necessary to manage the disease. The aim of the CATIE study was to determine which medications provided the best treatment for schizophrenia.

Why was CATIE important?

Many studies have tested new antipsychotic medications in schizophrenia. Most of these were conducted by pharmaceutical companies to obtain Food and Drug Administration (FDA) approval to market a new drug. These studies were usually short-term (4 to 8 weeks), focused on limited outcomes, enrolled a narrow range of patients, and studied only one or two medications at a time. By contrast, CATIE compared four of the newer medications to one another, and to an older medication. Participants in CATIE were followed for 18 months so that investigators could evaluate longer-term patient outcomes. The more than 1400 participants in the study included those with physical or other mental health problems in addition to schizophrenia. CATIE was conducted at many different treatment sites, broadly representative of the real life settings where patients receive their care. The results from CATIE will be applicable to the wide range of people with schizophrenia in the United States.

What are the most important results of the CATIE study?

The primary purpose of the CATIE study was to provide important new information to help doctors and patients choose the most appropriate medication according to the patients’ individual needs. For the first time, doctors and people with schizophrenia have extensive information on antipsychotic medications from a single, large, long-term study directly comparing the drugs to each other.

CATIE greatly enhanced the knowledge available to guide treatment choices for people with schizophrenia. CATIE provides new information on the efficacy and side effects of antipsychotic drugs, compared head to head, helping doctors determine the appropriateness of specific medications in individual patients. The combination of maximizing the benefits while minimizing the side effects increases the likelihood that a person with schizophrenia will stay on their antipsychotic medication, a necessary ingredient for managing symptoms and reducing the risk of relapse.

In phase 1 of CATIE, people with schizophrenia were randomly assigned to receive treatment with one of the newer (introduced in the last decade), “atypical” antipsychotic medications: olanzapine (Zyprexa®), quetiapine (Seroquel®), risperidone (Risperdal®), or ziprasidone (Geodon®), or an older “conventional” medication, perphenazine (Trilafon®). Approximately one-quarter of all the participants were satisfied with the level of symptom relief they experienced from this first antipsychotic medication, were able to tolerate its side effects, and stayed on it for the entire 18 months of the study. However, three-quarters of the participants stopped taking their first antipsychotic medication before the end of 18 months. The study investigators recorded why a participant stopped taking a medication: if the medication did not control symptoms, if the side effects were not tolerable or, if the patient chose to stop treatment for some other reason.
The goal of phase 2 of CATIE was to provide guidance for doctors and patients facing the dilemma of choosing which antipsychotic medication to try next if the first antipsychotic medication was not satisfactory.

Two articles in the April 1, 2006 issue of the *American Journal of Psychiatry* (1, 2) describe results from phase 2 of CATIE, the National Institute of Mental Health’s (NIMH) Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE) study.