Mean persistence (days) was 219.7 for QTP, 200.9 for OLZ, 194.8 for RIS, and 179.2 for typical antipsychotics. Kaplan-Meier survival curves for the typical antipsychotic group showed that hazards of therapy modification differed within 250 days of antipsychotic initiation compared with after 250 days of therapy. Extended Cox regression modeling indicated no significant differences between antipsychotics in hazards of therapy modification within 250 days of initiation. However, patients initiated on typical antipsychotics were 6.3 times more likely to modify therapy compared with those initiated on QTP after 250 days of antipsychotic therapy ($p < 0.0001$). CONCLUSIONS: Adherence and persistence were similar between atypical antipsychotic groups. The typical antipsychotic group, however, demonstrated lower adherence and a greater likelihood of modifying therapy than the quetiapine cohort.

**PMH38**

**ADHERENCE LEVELS AND DIFFERENTIAL USE OF MENTAL HEALTH SERVICES IN THE TREATMENT OF SCHIZOPHRENIA**

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**OBJECTIVES:** To compare annual mental health service utilization patterns by level of adherence with antipsychotic medication in the naturalistic treatment of schizophrenia. METHODS: Data were drawn from a large prospective naturalistic study of treatment for patients with schizophrenia in the U.S. conducted between July 1997 and September 2003. Detailed mental health resource utilization was systematically abstracted from medical records and augmented with patients' self-report. Annual medication possession ratio (MPR) with any antipsychotic was calculated, and each participant was categorized into one of 3 adherence groups: adherent (MPR $> 80\%$, $N = 1738$), partially adherent ($60\% \leq MPR < 80\%$, $N = 36$), and non-adherent (MPR $< 60\%$, $N = 216$). RESULTS: Adherent participants were least likely to have any psychiatric hospitalization and emergency room visits ($p < 0.05$). Compared to non-adherent, adherent participants were also significantly more likely to be engaged in outpatient treatment processes as evident by greater likelihood of participation in any psychosocial group intervention ($p < 0.05$) and in any medication management with psychiatrists ($p < 0.05$). CONCLUSIONS: Medication adherence levels are associated with differential use of psychiatric services. Adherence appears to be associated with lower risk of hospitalization and emergency room visits and greater engagement in the outpatient treatment processes.

**PMH39**

**COMPARATIVE ANALYSIS OF DISCONTINUATION HAZARD FOR ATYPICAL ANTIPSYCHOTICS**

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**OBJECTIVES:** Compare discontinuation patterns across atypical antipsychotic agents, within the first year after initiating therapy among Medicaid patients with schizophrenia. METHODS: Adult Medicaid recipients diagnosed with schizophrenia and having atypical antipsychotic drug prescription claims between July 1, 2001 and September 30, 2003 were categorized into five groups of initial antipsychotic drug received: aripiprazole ($n = 446$); olanzapine ($n = 1705$); quetiapine ($n = 1467$); risperdone ($n = 1580$); and ziprasidone ($n = 700$). Discontinuation was measured using refill patterns, allowing 14-day gaps between expected refill dates, and compared across starting drug groups using Chi-Square tests. Multivariate Cox proportional hazards models then explored the simultaneous impact of age, gender, race, hospitalization in the 6 months prior to initial therapy, and other concurrent antipsychotic drug use when initiating therapy, in addition to being on any one of the five mutually exclusive drug groups, on discontinuation. Sensitivity analysis tested the robustness of results using longer allowable prescription gaps between refills, and examining multiple episodes of atypical antipsychotic use by using different definitions of the index date. RESULTS: Patients starting treatment on either aripiprazole, risperdone, or ziprasidone were not significantly different from olanzapine [HR 1.047, 0.973 and 0.990, respectively] with respect to discontinuation of therapy. Quetiapine was associated with significantly higher hazard than olanzapine [HR 1.130, $p = 0.0044$] compared to olanzapine. Other covariates associated with significantly lower discontinuation rates were being male [HR 0.899, $p = 0.0008$], older age [HR 0.997, $p = 0.0348$] and being on concurrent medication when initiating therapy [HR 0.225, $p < 0.001$]. Having previous hospitalization was associated with significantly higher discontinuation rate [HR 1.276, $p < 0.001$]. These results were robust across sensitivity analyses. CONCLUSIONS: Patients initiating on ziprasidone, aripiprazole, risperdone and olanzapine had similar discontinuation at one year. The higher hazard associated with quetiapine is consistent with the higher rate of discontinuation observed for quetiapine when compared to olanzapine in Phase I of the CATIE trial.
study demonstrated that non-adherence to atypical antipsychotics leads to more hospitalizations and hospital days in the treatment of schizophrenia.

**PMH41**

**PREDICTORS OF SWITCHING ANTIPSYCHOTICS IN THE TREATMENT OF SCHIZOPHRENIA**

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**OBJECTIVES:** To identify which patient baseline characteristics and which types of early changes in patients’ clinical status are most predictive of switching antipsychotics in the long-term treatment of schizophrenia. **METHODS:** This post-hoc analysis used data from a randomized, open-label, multi-site, one-year cost-effectiveness trial of olanzapine, risperidone, and typical antipsychotics in the treatment of schizophrenia. Study protocol permitted switching of antipsychotics when clinically warranted. Baseline characteristics were assessed using standard psychiatric measures and systematic review of medical records. In addition to baseline socio-demographics, co-morbid medical and psychiatric conditions, body weight, clinical, and functional characteristics, the prediction model included change scores on clinical measures (PANSS, five PANSS factor subscales, Barnes Akathisia Scale, Simpson Angus Scale) during the first two weeks of treatment. Cox proportional hazards model was used to identify the best predictors of switching from patients’ initial randomized antipsychotic.

**RESULTS:** About one-third (29.5%, 190/644) switched antipsychotics before the end of the one-year trial. Five variables were identified as best predictors of switching during the 1-year trial (p < 0.05): absence of antipsychotic use in the prior year, pre-existing depression, lack of lifetime substance use disorder, less improvement or worsening following two weeks of treatment on either clinician-rated akathisia (Barnes Akathisia Scale), and/or anxiety/depression symptoms (PANSS). A strong trend was observed for female gender (p = 0.058). **CONCLUSIONS:** Switching of antipsychotics appears to be prevalent in the naturalistic treatment of schizophrenia, and can be predicted by a small and distinct set of variables. Interestingly, pre-existing depressive symptomatology and less improvement or worsening of anxiety and depressive symptoms following two weeks of treatment were among the more robust predictors of future switching of antipsychotics in this one-year study.

**PMH42**

**COMPLIANCE AND PERSISTENCE: A COMPARISON BETWEEN TYPICAL AND ATYPICAL ANTIPSYCHOTIC TREATMENT OF SCHIZOPHRENIA PATIENTS**

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**OBJECTIVES:** To determine and compare the compliance and persistence to typical and atypical antipsychotics in the treatment of schizophrenia patients. **METHODS:** The study was based on NC Medicaid claims database. Patients were included if they had a diagnosis of schizophrenia (ICD-9 295.XX), received at least two antipsychotic prescriptions during the period after index date and were continuously enrolled in NC Medicaid Program during three month prior and one year post treatment periods. Medication possession ratio (MPR), persistence and medication use gap were used as compliance measures. Both descriptive and multivariate model were conducted to determine the difference in adherence/persistence to antipsychotic medications between typical and atypical antipsychotic.

**RESULTS:** A total of 919 patients (469 in typical and 450 in atypical) met the selection criteria for 3-month prior and 12-month after antipsychotic treatment. There were statistically significant differences between typical and atypical antipsychotics in terms of demographics, comorbidities, resource utilization in prior period, and adherence. As compared with those in typical groups, patients in atypical group were significantly younger (42.3 vs. 44.4, p = 0.0195), less blacks (33.1% vs. 58.4%), had more comorbid diseases (2.7 vs. 2.3, p = 0.0025), more hospital visits (0.3 vs. 0.17, p = 0.002) and greater total costs in prior period ($2703 vs. $2010, p = 0.012). The costs and utilization in prior period indicated that patients in atypical groups were sicker than those in typical groups. Patients in atypical group were more adherent to antipsychotics (35.8% vs. 16.4%, p < 0.0001), less gaps (42.4% vs. 67%, p < 0.0001), and stayed consistently in medication longer (229 days vs. 146 days). **CONCLUSIONS:** The results from this study indicated that there existed significant differences in terms of demographics, compliance and persistence between typical and atypical antipsychotics in the treatment of schizophrenia.

**PMH43**

**RAMIFICATIONS OF SWITCHING ANTIPSYCHOTICS IN THE TREATMENT OF SCHIZOPHRENIA**

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**OBJECTIVES:** To assess the clinical, functional, and economic ramifications of switching antipsychotics for any cause during treatment of schizophrenia. **METHODS:** We used outpatient data from a randomized, open-label, one-year cost-effectiveness trial of olanzapine, risperidone, and typical antipsychotics in the treatment of schizophrenia. Study protocol permitted switching of antipsychotics when clinically warranted. Resource utilization was abstracted from medical records. Treatment outcomes were assessed with standard psychiatric measures. Changes from pre-to-post switch were assessed among patients who switched from randomized antipsychotics. Switchers and non-switchers were compared on risk for crisis-related events (e.g., hospitalization).

**RESULTS:** About one-third of the patients (30.2%, 185/612) were switched from randomized antipsychotics: 14.9% from olanzapine, 27.9% from risperidone, and 48.5% from typical antipsychotics. Following antipsychotic switch, switchers experienced significant improvements in symptoms and social relations (p < 0.001), and numerical cost reductions ($3.72 per day less, p = 0.320). Compared to non-switchers, switchers were at significantly higher risk for crisis-related events (p = 0.006), experienced them sooner (p = 0.004), and accrued higher crisis-related service costs (p < 0.05). **CONCLUSIONS:** Although switching antipsychotics is an effective “rescue” option, it is costly in personal and economic terms. The optimal treatment strategy is to begin treatment with the antipsychotic most likely to lead to effective treatment for each individual patient.

**PMH44**

**ECONOMIC CONSEQUENCES OF PATIENTS NOT ADHERING TO MEDICATIONS IN THE TREATMENT OF SCHIZOPHRENIA**

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**OBJECTIVES:** To review the literature addressing the economic consequences of nonadherence in the treatment of schizophrenia. This study also seeks to extend the review results to provide