**From Conventional Antipsychotics to Atypicals and Back: Dynamic Processes in the Diffusion of New Medications**

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**OBJECTIVES:** Between 1994 and 1999, the Food and Drug Administration approved three new antipsychotic medications for the treatment of schizophrenia. This study tracks antipsychotic prescription patterns in the Department of Veterans Affairs to determine how these new drugs have diffused in a national healthcare system.

**METHODS:** Pharmacy claims data were collected for all patients with a diagnosis of schizophrenia in the Department of Veterans Affairs (VA). Patients who were stable on a pharmacotherapy regimen were followed over fiscal year 2000 to determine how often patients switch to another drug, how much time elapses before they switch, the drug to which they switch, and whether they subsequently switch back.

**RESULTS:** Of the 21,873 patients with schizophrenia who were stable for three months on their medication, 5,426 (24.8%) switched medications during the next year. However, half of these patients (2,708 or 49.9%) switched back to their original therapy, usually within 30 days. Patients stable on clozapine were the least likely to switch (17.8%), while patients stable on quetiapine were the most likely to switch (37.4%). When patients switched medications, they were most likely to switch to olanzapine (35.1%) and least likely to switch to clozapine (0.7%) or quetiapine (14.0%).

**CONCLUSIONS:** Pharmacotherapy for schizophrenia is a dynamic process. One quarter of patients who are stable on an antipsychotic drug regimen change their medication within one year. Quetiapine was the least favored of the newer drugs. Our results suggest that it is important that all of these medications are included on formularies.

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**The Impact of a Formulary Expansion to Include Addition of Second-Generation Antipsychotic Medications on the Treatment of Patients with Schizophrenia**

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The California Medicaid program added olanzapine and risperidone to its formulary in October 1997. This resulted in an immediate but temporary increase in the total number of patients initiating episodes of therapy (access effect) and the substitution of second-generation antipsychotics for older drugs.

**OBJECTIVE:** Model how the formulary expansion altered drug selection decisions and then use these models to match patients for the purpose of estimating the cost impact of the formulary expansion. STUDY POPULATION: 19,221 olanzapine, 25,252 risperidone and 1,22,547 patient episodes using traditional drugs were classified into three groups: patients with no previous antipsychotic use (new), patients re-starting drug therapy and patients switching between antipsychotic medications without a break in therapy.

**METHODS:** Multinomial logistic regression models of the drug selection process were estimated then used to calculate propensity scores for olanzapine and risperidone use using the post-expansion clinical decision criteria. Health care costs were then compared within quintile bins for these 3 treatment episode types.

**RESULTS:** The formulary expansion significantly improved access for minorities, women and urban residents. However, the propensity-score matching of olanzapine and risperidone patients with patients using traditional antipsychotics (quintile bins) did not result in highly congruent patient populations. Patients using traditional antipsychotics consistently exhibited higher levels of health care use prior to the start of the treatment episode. Simple within-bin comparisons of health care costs found lower costs for olanzapine and risperidone patients. Differences based on multivariate cost models within each quintile bin greatly reduced these differences. However, continuous days of therapy were consistently higher for risperidone and olanzapine patients.