Data Supplement:

1. Definition of medication episodes:

Medication episodes were defined as a continuous period that began on the first observed dispensing date and ending with a treatment discontinuation indicated by a lapse in medication prescriptions lasting 45 days past the date when the prior supply of medication would have been completely exhausted had the medication been taken as prescribed. For oral medications, the discontinuation date was the expected refill date, whereas for LAIs, it was the expected re-injection date. Days individuals spent in inpatient settings were not included in the creation of their treatment episodes or in the calculation of episode duration. Data on medications prescribed during inpatient stays were unavailable to us, and were considered less relevant for determining the duration of medication use than were outpatient prescriptions. The earliest incident episode included in the study began on April 1, 2011.

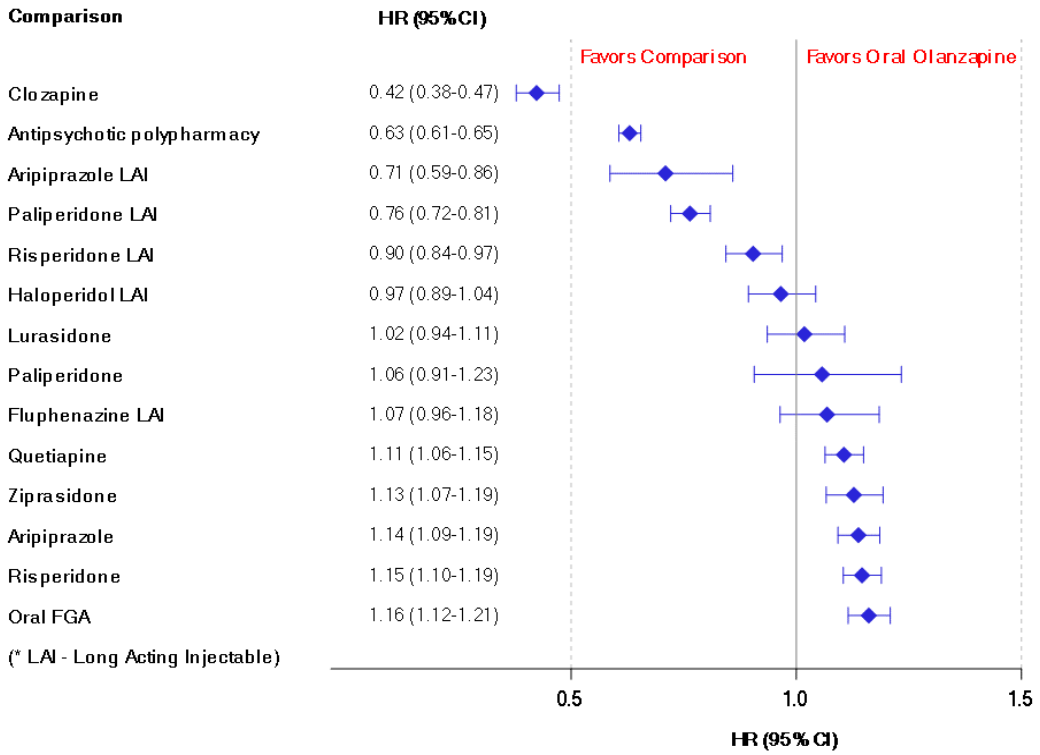
2. Description of Covariates:

The following measures were used to describe the sample and used as covariates in multivariable analyses, since they may be correlated with underlying preferences for different antipsychotic medications: 1) demographic characteristics, which included age, gender, race, and marital status; 2) an indicator variable for whether an individual had a service-connected disability rating ≥ 50%, as these veterans are exempt from copayments for prescription medications, and consequently may be less likely to discontinue a medication; 3) an indicator variable of which geographic location the veteran received the majority of their healthcare services; 4) clinical indicators and healthcare utilization measures as proxy measures of illness severity in the 6-month period immediately preceding each antipsychotic episode start date. The latter variables included indicators for four co-occurring psychiatric disorders (i.e., major depression, post-traumatic stress disorder, alcohol use disorder, other substance use disorders) ascertained by ICD-9 codes; indicators for prescriptions for four other types of psychiatric medications (i.e., mood stabilizers, antidepressants, anti-anxiety medications, medications for substance use disorders); counts of the number of visits for intensive mental health services to

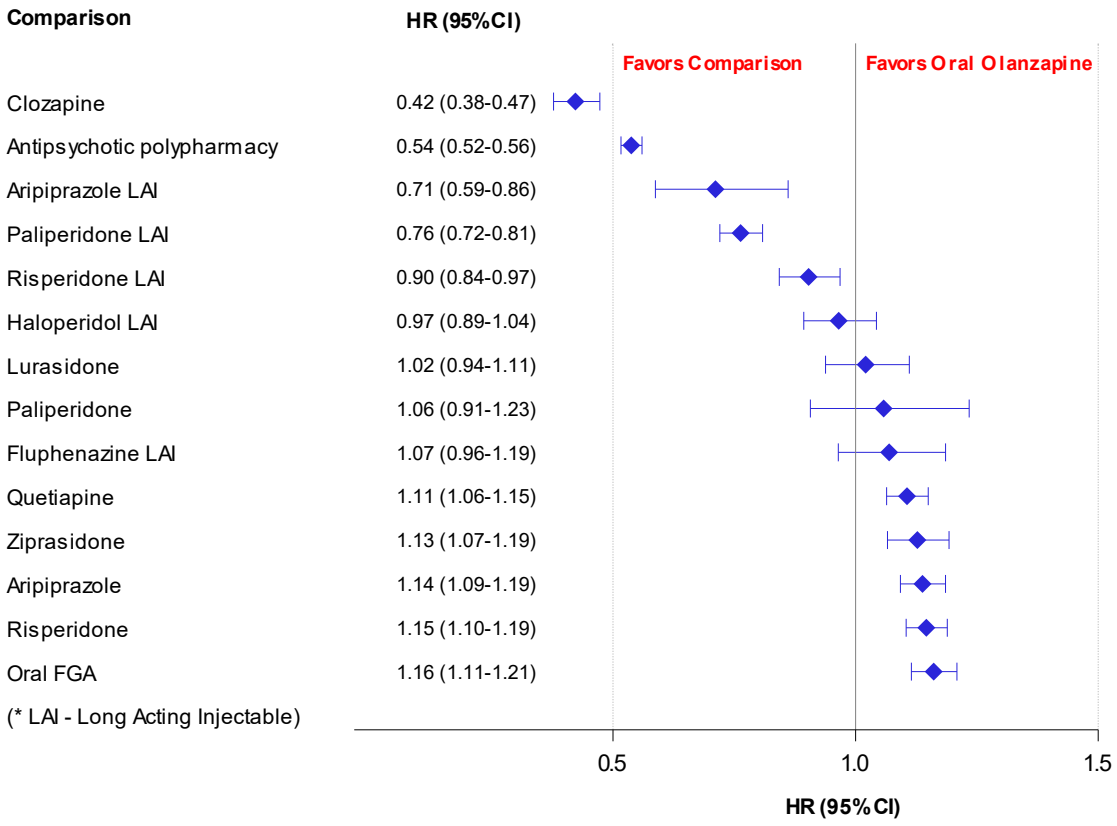
Psychosocial Rehabilitation and Recovery Centers and by Mental Health Intensive Case Management teams; counts of the number of other mental health visits and visits for substance use disorders; and inpatient mental health admissions; 5) indicator variables for whether the individual had any inpatient medical admission and a count of outpatient medical visits to assess medical conditions and services; 6) a measure of overall medical comorbidity, the Charlson Comorbidity Index score (1), which was calculated as the sum of weighted values assigned to 19 categories of comorbid illnesses, and categorized as having values of 0, 1 or 2 or more conditions; 7) an indicator variable of whether the individual had any visits to the emergency department for psychiatric or medical reasons; and 8) indicator variables for fiscal year during which the episode began were included in all models to account for possible secular trends.

The following measures were used as covariates (see web supplement for details): demographics, service-connected disability ratings, geographic location, psychiatric comorbidity, medications and visits to outpatient mental health services, inpatient and outpatient medical care and comorbidities, psychiatric or medical emergency department visits, and fiscal year.

Supplemental Figure S1: Adjusted Hazard Ratios (HRs) for Time to Antipsychotic Discontinuation Compared to Oral Olanzapine (polypharmacy overlap for 90 days)



Supplemental Figure S2: Adjusted Hazard Ratios (HRs) for Time to Antipsychotic Discontinuation Compared to Oral Olanzapine (polypharmacy overlap for 120 days)



References:

1. Charlson ME, Pompei P, Ales KL, MacKenzie CR. A new method of classifying prognostic comorbidity in longitudinal studies: development and validation. Journal of chronic diseases. 1987;40:373-383.