

Examining the Impact of Prescribing Long-Acting Injectables (LAI) at discharge compared to Oral antipsychotic medications on Re-admission at Eastern State Hospital



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BACKGROUND

- Schizophrenia Spectrum Disorders (SSD) are mental health challenges that present with positive (e.g., audio/visual hallucinations), negative (e.g., amotivation), and cognitive (e.g., impaired executive functioning) symptoms^{1,2}
- As compared to those with other mental illnesses, those with SSD, have disproportionately higher prevalence of medical illnesses, greater mortality rates, and incur more healthcare costs^{3,4}
- Approximately 47.8-75.7% of individuals living with SSD meet the thresholds of adherence to oral antipsychotic treatment⁵
- However, using Long-Acting Injectable (LAI) antipsychotics are associated with enhanced treatment adherence, reduced hospitalizations, decreased emergency department visits, and improved symptom remission^{6,7}

Purpose

To compare hospital readmission comparing individuals with SSD discharged on LAIs vs. Orals. Specifically, we:

- 1) Examined the proportion of patients prescribed an LAI at discharge from ESH and,
- 2) Assessed differences in 30-day, 6-month, 1-year and 2-year re-admission rates among those prescribed an LAI as compared to an oral antipsychotic at discharge

METHODS AND MATERIALS

- Design: Retrospective chart review using a two-group cohort design
- Sample (N=707):
 - Diagnosis of a schizophrenia or schizoaffective disorder
 - 18 years of age or older
 - Discharged with an antipsychotic medication
 - Obtained between January 1 2018 to December 31 , 2019
- Measures:
 - Demographics
 - Medication status (LAI vs. oral antipsychotic)
 - Antipsychotic type (1st vs. 2nd generation antipsychotic)
 - Readmission rates (% of patients readmitted in the specified time frames)

Data analyses:

- Chi-square and independent sample t-tests
- Logistic regression analysis

RESULTS

- On average, participants were 44 years of age, mostly male, white-non Hispanic, had a high school education or higher, lived in the metro areas, and were given a diagnosis of schizophrenia (Table 1)
- Those prescribed LAI's at discharge were significantly more likely to have a diagnosis of schizophrenia than those on orals.

Table 1. Demographic characteristics of sample

	Total (N=707)		Oral (n=409)		LAI (n=298)	
	N	%	n	%	n	%
Age (Mean, SD)	44.0	14.0	44.0	14.0	42.0	13.0
Gender						
Female	257	36.4	155	38.0	121	34.2
Ethnicity						
White	543	76.8	324	79.0	219	73.7
Education						
Less than High School	130	18.4	79	19.1	52	17.2
Rural Code						
Metro	368	52.1	200	48.9	168	56.4
SSD type						
Schizophrenia	393	55.6	212	51.8	181	60.7

- Less than half of those with SSD who were discharged from the hospital were prescribed an LAI (see Figure 1)
- Individuals with schizoaffective disorder were significantly less likely to be prescribed an LAI at discharge compared to those with schizophrenia.

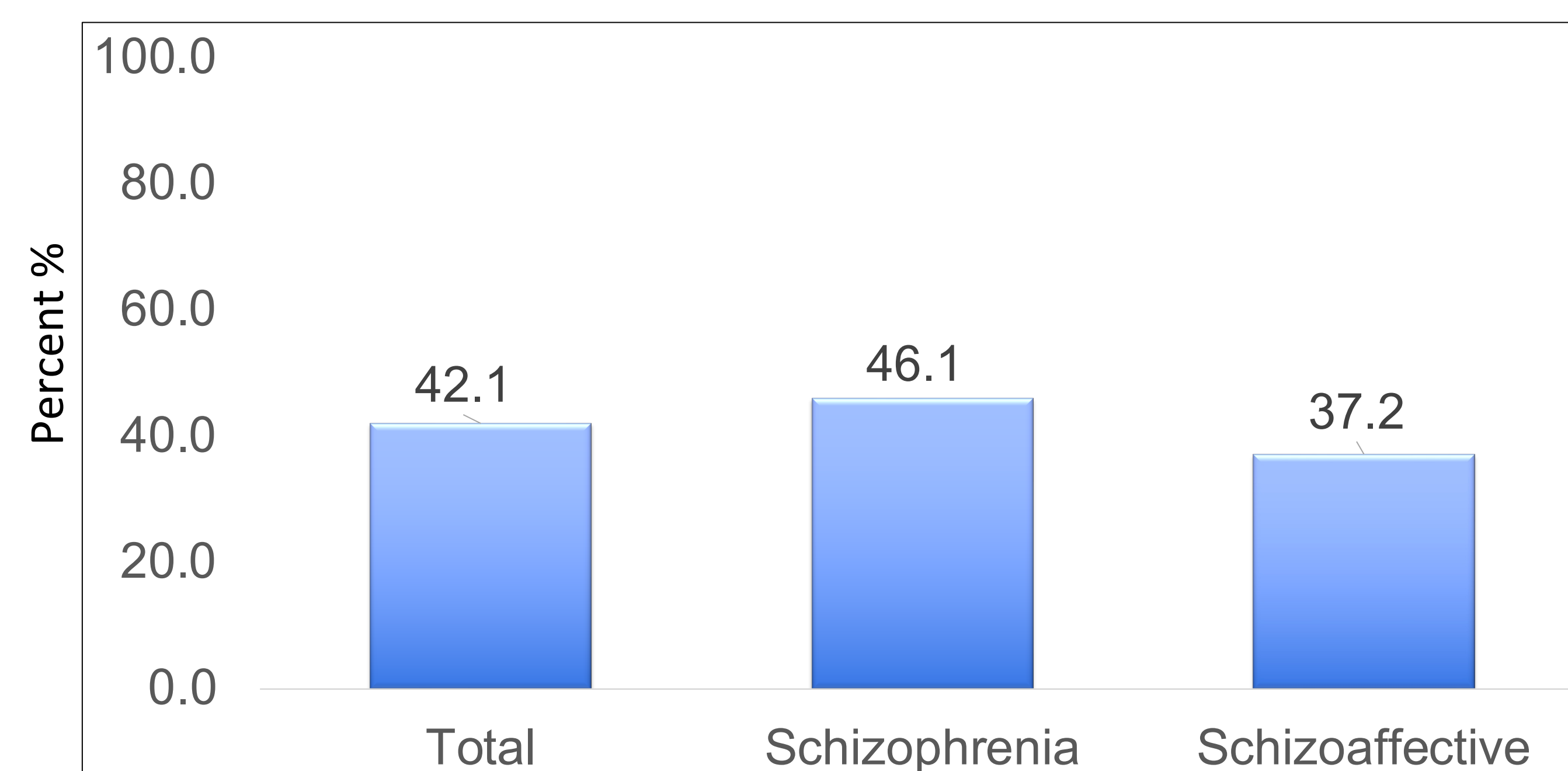


Figure 1: Percent of patients with SSD prescribed LAIs at discharge by diagnosis (Odds ratio=0.70, 95% CI=0.52- 0.95)

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RESULTS

- Compared to patients on oral antipsychotics, those discharged on LAIs had a lower, albeit non-significant, proportion of 1-, 6-, 12-, and 24-months readmissions (Figure 2)

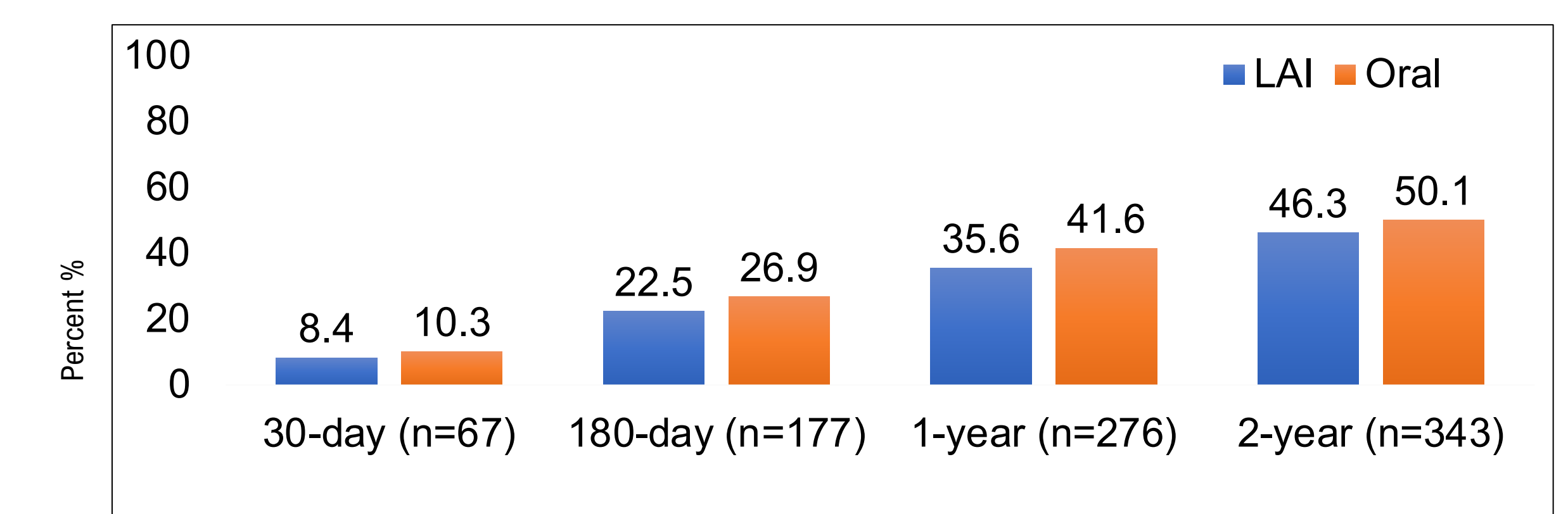


Figure 2: Differences in 30-day, 6-month, 1-year and 2-year re-admission rates by LAI vs. oral antipsychotic prescribed at discharge

- Controlling for demographics and psychiatric diagnoses, those discharged with a second-generation LAI had significantly lower odds of being readmitted within the 24-month period as compared to those discharged on a first generation oral (Figure 3)

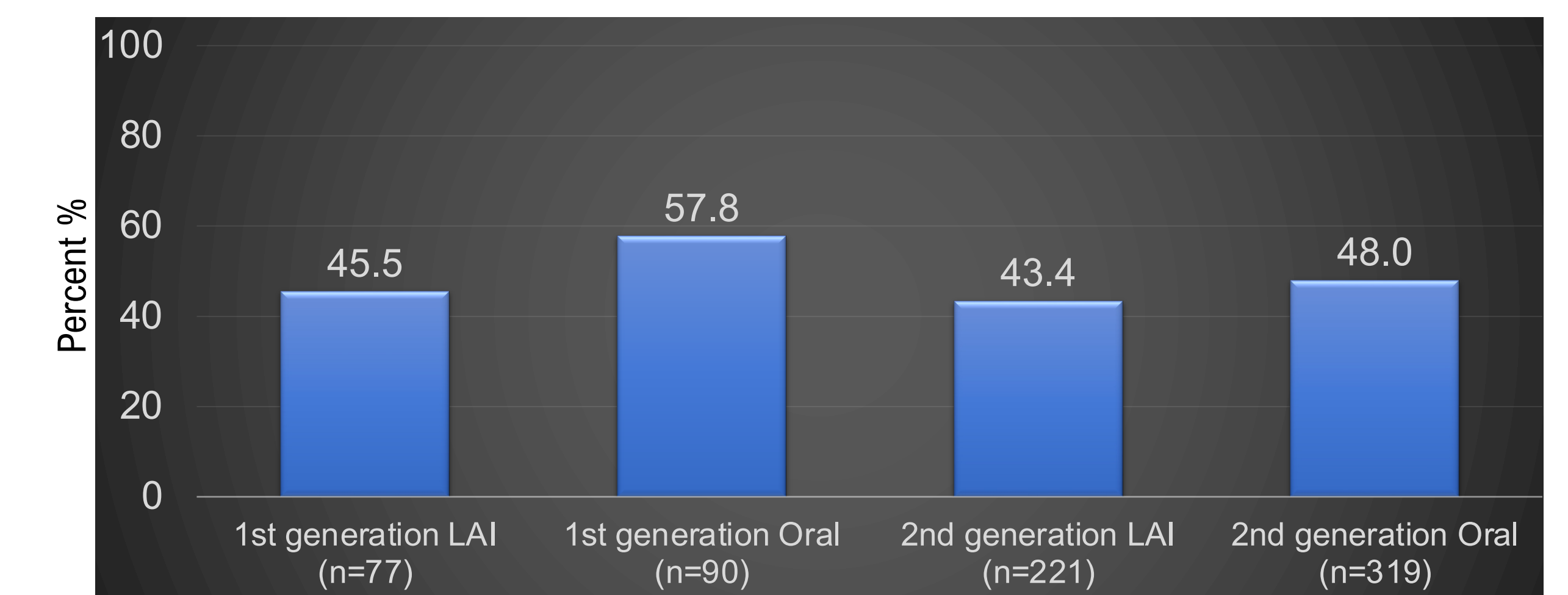


Figure 3: Differences in re-admission rates by type of LAI vs. oral antipsychotic prescribed at discharge (Odds Ratio=0.53, 95% CI=0.32-0.88)

CONCLUSIONS

- Less than half of the patients with SSD were discharged on LAIs
- Lower proportion of patients on 2nd generation LAIs were readmitted than patients on 1st generation oral antipsychotics
- Education needed on the use of LAIs for whom it may be indicated to support treatment adherence and reduce readmission risk

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