**BACKGROUND**

- Long-acting injectable antipsychotics (LAIs) have been established since the 1960s. Numerous meta-analyses emphasize their interest as a relapse prevention strategy in schizophrenia and bipolar disorder.

- Few observational or real world studies have compared LAIs head-to-head with relatively small sample sizes. Also, these retrospective studies failed to produce statistical significant differences in time to hospitalization and psychiatric hospitalization rates with LAIs.

- Descriptive analyses indicate individual LAI first-generation antipsychotic (FGA) and second-generation antipsychotic (SGA) agents with a larger sample size and broader, generalizable, patient demographic from an acute care psychiatric hospital setting.

**PURPOSE**

- To compare rates of readmission to an acute care psychiatric hospital within 30 days of discharge for patients prescribed LAIs.

- To examine whether patient diagnosis potentially impacted hospital readmission.

**METHODS**

- Retrospective chart review.

- Patients 18 years old hospitalized between July 2016 and November 2018 with a diagnosis of bipolar I, bipolar II, bipolar mixed, major depressive disorder (MDD) with psychosis, MDD without psychosis, psychosis, schizoaffective disorder, or schizophrenia who received LAIs during hospitalization.

- Exclusion: Prolixin Decanoate®, Risperdal Consta®, and Invega Trinza® were excluded due to small sample size.

- Independent variables: Ability Maintainability (AM), Aristada® (AR), Haldol Decanoate® (HD), and Invega Sustenna® (IS).

- Outcome was readmission within 30 days from the discharge date after receiving LAIs.

- Descriptive analysis: Chi-square test, ANOVA test.

- Main results: Logistic regression

**RESULTS**

<table>
<thead>
<tr>
<th>Table 1. Demographics</th>
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</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td><strong>Male</strong></td>
</tr>
<tr>
<td>Total</td>
<td>1590</td>
</tr>
<tr>
<td>Age</td>
<td>13.0 (11.5)</td>
</tr>
<tr>
<td>Gender</td>
<td>607 (100.0%)</td>
</tr>
<tr>
<td>Diagnosis</td>
<td>28 (100.0%)</td>
</tr>
<tr>
<td>MDD with Psychosis</td>
<td>165 (100.0%)</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>168 (100.0%)</td>
</tr>
<tr>
<td>Bipolar I</td>
<td>198 (100.0%)</td>
</tr>
<tr>
<td>Bipolar II</td>
<td>51 (100.0%)</td>
</tr>
<tr>
<td>Bipolar Mixed</td>
<td>13 (100.0%)</td>
</tr>
<tr>
<td>Schizoaffective</td>
<td>41 (100.0%)</td>
</tr>
<tr>
<td>Psychosis</td>
<td>113 (100.0%)</td>
</tr>
</tbody>
</table>

**DISCUSSION**

- A total of 607 patients who used AM (n=198), AR (n=68), HD (n=106), and IS (n=235) during the index hospitalization were analyzed.

- The 15 group had the highest rate of readmission within 30 days (6.8%, p=0.028).

- Logistic regression showed that the likelihood of being readmitted to the hospital within 30 days was 2.1 and 3.2 times higher for patients on AM and AR, respectively, compared to patients on IS (OR=2.11, 95% CI=1.74-4.17, p=0.031, and OR=3.16, 95% CI=1.36-7.33, p=0.007).

- HD group had a higher likelihood of readmission compared to IS; however, there was no significant difference (OR=0.70, 95% CI < 0.23-2.15, p=0.522).

**LIMITATIONS**

- Readmissions recorded occurred at the same hospital and therefore readmission rates may be underestimated.

- Sample size for Prolixin Decanoate®, Risperdal Consta®, and Invega Trinza® were too small to be included in the study.

- Future studies are warranted with larger sample sizes to evaluate all LAIs individually.

**CONCLUSION**

- Invega Sustenna® was the most effective at reducing psychiatric hospital readmission within 30 days.

- Although schizophrenia patients were prescribed LAIs more often than other mental disorders, there was no difference in readmission rates within 30 days by diagnosis.

**REFERENCES**


