Lumateperone Persistency for the Treatment of Schizophrenia

Wing Chan, MS, MBA[1]; Shailjia Dixit, MD, MS, MPH[2]; John B Edwards, MD[1]; Bradford Loo, PharmD[1]; Margaret Martin, PharmD[1]

[1]Intra-Cellular Therapies, Inc., New York, NY, USA; [2]ApexHealth LLC, Skillman, NJ, USA

BACKGROUND

- Schizophrenia is a burdensome disease requiring consistent long-term treatment[1]
- Challenges in selecting an individualized antipsychotic and adverse side effects lead to frequent antipsychotic switching[2,3]
- Nonadherence to oral antipsychotic medication is reported in up to two thirds of patients with schizophrenia and is the most common cause of disease relapse[1]
- Lumateperone (lumateperone tosylate, ITI-007) is a mechanistically novel antipsychotic that is FDA approved to treat schizophrenia and depressive episodes associated with bipolar I or bipolar II disorder, as monotherapy and as adjunctive therapy with lithium or valproate[4,5]
- Lumateperone simultaneously modulates serotonin, dopamine, and glutamate neurotransmission[4]
  - Specifically, lumateperone is a potent serotonin 5-HT_{2A} receptor antagonist, a dopamine D_2 receptor presynaptic partial agonist and postsynaptic antagonist, a D_1 receptor–dependent indirect modulator of AMPA and NMDA currents, and a serotonin reuptake inhibitor[4]
- This analysis evaluated real-world persistency of lumateperone 42 mg to treat schizophrenia using open claims databases

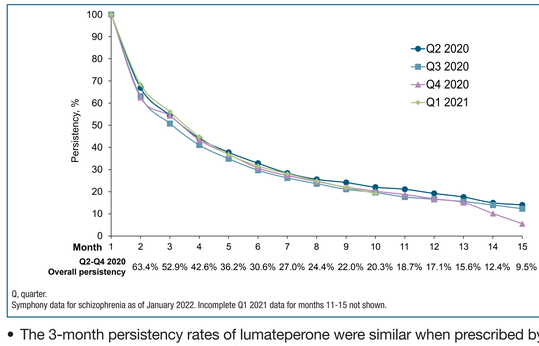
METHODS

- Persistency was defined as a patient continuing treatment for the prescribed duration, as exhibited by having a claim for the drug in the longitudinally tracked patients database
- The Symphony database was used to investigate persistency of lumateperone to treat schizophrenia from March 2020 to January 2022
  - Cutoffs were chosen to include data for lumateperone for the treatment of schizophrenia (FDA approved December 2019) and exclude data for the treatment of bipolar depression (FDA approved December 2021)
- Persistency was investigated over time and in subgroups based on geography, prescribing provider type, and payer type
- The persistency of lumateperone for the first year after launch (June 2021 cutoff) was compared with launch-adjusted data from Symphony for the first-year persistency of cariprazine for schizophrenia treatment

RESULTS

- The overall persistency of lumateperone for schizophrenia treatment decreased over time, with a 3-month persistency of 52.9% in those initially prescribed lumateperone from quarter (Q) 2 to Q4 2020 (**Figure 1**)
- Persistency rates over time were similar between patients initially prescribed lumateperone from Q2 2020 to Q1 2021 (**Figure 1**)

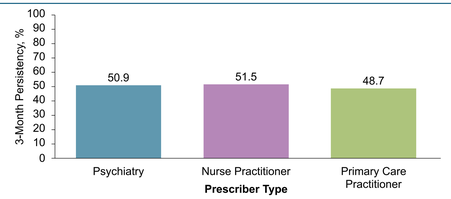
Figure 1. Lumateperone Persistency Over Time



Q, quarter.
Symphony data for schizophrenia as of January 2022. Incomplete Q1 2021 data for months 11-15 not shown.

- The 3-month persistency rates of lumateperone were similar when prescribed by various prescriber types (**Figure 2**)

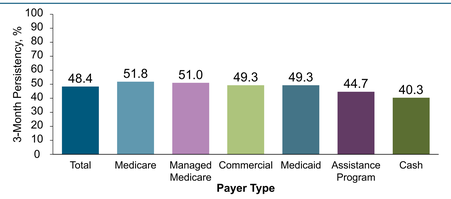
Figure 2. Lumateperone 3-Month Persistency by Prescriber Type



Symphony data for all lumateperone patients as of January 2022.

- By payer, 3-month persistency was highest in those paying via Medicare (51.8%) or Managed Medicaid (51.0%) (**Figure 3**)
- Three-month persistency was notably lowest in those paying cash (40.3%) (**Figure 3**)

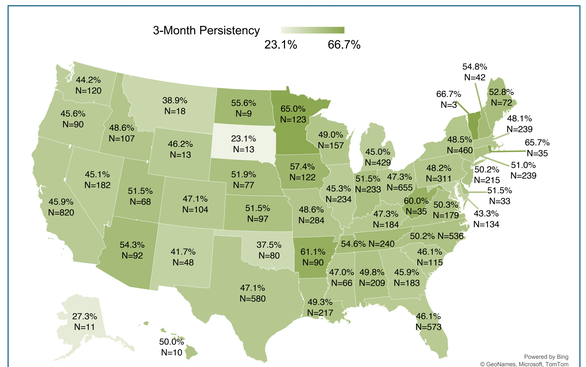
Figure 3. Lumateperone 3-Month Persistency by Payer Type



Symphony data for all lumateperone patients as of January 2022.

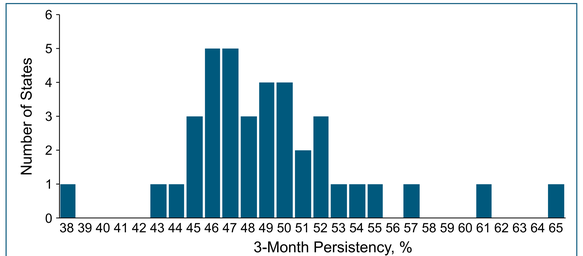
- By US state, the highest lumateperone 3-month persistency was reported in Vermont (66.7% of 3 patients), Rhode Island (65.7% of 35 patients), and Minnesota (65.0% of 123 patients) (**Figure 4**)
- As expected due to population density and other socioeconomic variables, the number of patients prescribed lumateperone by state varied widely from 3 in Vermont to 820 in California (**Figure 4**)
- In the 38 states with >50 prescriptions of lumateperone, most states had 45% to 52% persistency (**Figure 5**)

Figure 4. Lumateperone 3-Month Persistency by State



Symphony data for all lumateperone patients as of January 2022.

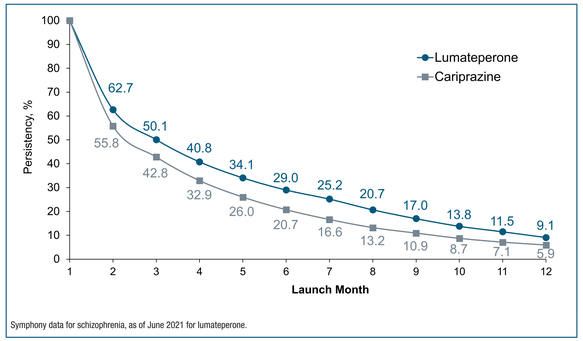
Figure 5. Histogram of Lumateperone 3-Month Persistency in States with >50 Patients



n=38 states with >50 patients prescribed lumateperone.
Symphony data for all lumateperone patients as of January 2022.

- When aligned for launch timing, the persistency of lumateperone was higher than cariprazine at each month for the 1st year (**Figure 6**)

Figure 6. Launch-Aligned First Year Persistency of Lumateperone and Cariprazine



Symphony data for schizophrenia, as of June 2021 for lumateperone.

CONCLUSIONS

- **Approximately half of patients prescribed lumateperone for schizophrenia continued treatment at 3 months**
- **Compared with the initial launch of cariprazine in schizophrenia, lumateperone had somewhat better persistency over the first year**
- **Real-world persistency of lumateperone to treat schizophrenia was as expected based on historical experience of approved second generation antipsychotics**

REFERENCES

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W Chan, JB Edwards, B Loo, and M Martin are full-time or former full-time employees of Intra-Cellular Therapies, Inc. and may hold equity in the company.

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Email questions to Margaret Martin at mmartin@itci-inc.com