Administration patterns of paliperidone long-acting injectables: a retrospective analysis in Minnesota behavioral health pharmacies

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Background

- Medication adherence among patients with schizophrenia is consistently poor, which can lead to the return of psychosis, worsening conditions, and increased cost of care.[1,2] While long-acting injectables (LAIs) can help to improve adherence, late or missed injections may vary by product or formulation.
- Paliperidone palmitate (PP) is one of the most used LAI antipsychotics. Existing literature primarily examines LAI adherence within clinic-based settings. Limited data describe product-specific, on-time administration patterns in behavioral health community pharmacies.

Objectives

- Compare adherence differences between 1-month (PP1M), 3-month (PP3M) and 6-month (PP6M) formulations at behavioral health pharmacies.

Methods

- **Study design:** Retrospective, observational cohort study at Genoa Healthcare.
- **Inclusion criteria:** Adult patients with schizophrenia receiving PP LAIs of paliperidone palmitate at Genoa pharmacy sites in Minnesota between January 1, 2024–December 31, 2025.
- **Data source:** Genoa's prescription dispensing database
- **Statistical analysis:** Adherence was measured using proportion of days covered (PDC) and population ≥ 90% PDC (goal based on PP package insert (PI) grace period).[3] Gap in therapy was evaluated by proportion of patients who had a clinically significant gap, requiring supplemental therapy (Table 1. PP PI Administration Guide).[3] ANOVA: Single Factor test was used for continuous data. Chi-square test was used for categorical data. Alpha was set to 0.05 with a p-value of < 0.05 considered statistically significant.

Table 1. Table 1. PP PI Administration Guide[3]

Drug	Grace period	Clinically significant gap	Re-initiation indicated
PP1M	+/- 7 days	14 days late	140 days late
PP3M	7 days early – 14 days late	28 days late	168 days late
PP6M	14 days early – 21 days late	21 days late	140 days late

Results

Table 2. Patient age and PDC

	PP1M (N= 1,110)	PP3M (N=197)	PP6M (N=29)	p-value
Age, years (mean ± SD)	41.4 ± 13	42.0 ± 13	44.1 ± 11	0.41
PDC (mean ± SD)	88.3 ± 16	93.1 ± 12	95.9 ± 8	**<0.0001**

Figure 1. Population ≥ 90% PDC*

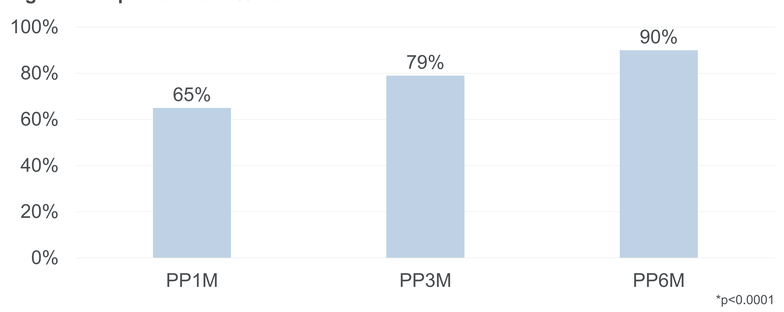
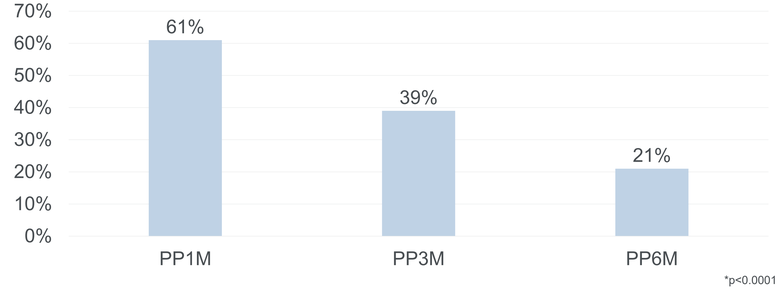


Figure 2. Clinically significant gap in therapy*



- PP3M vs. PP1M was associated with a 20% absolute reduction in gap occurrence (NNT = 5)
- PP6M vs. PP1M was associated with a 40% absolute reduction in gap occurrence (NNT = 2.5)

Conclusion

- In post-hoc analyses, PP3M and PP6M extended-interval PP formulations were associated with significantly improved treatment adherence and continuity compared to PP1M administration (p<0.0001).
- Extended-interval PP formulations were associated with 20–40% absolute reduction in gap occurrence compared to PP1M (PP3M number needed to treat (NNT) = 5 and PP6M NNT = 2.5).
- Longer administration intervals may reduce destabilizing treatment interruptions; however, the small PP6M sample warrants cautious interpretation.
- Findings from this research can support providers who are hesitant to switch patients to PP3M or PP6M with concern of reduced administration office visits reducing outcomes.
- Next steps for expanded research include evaluating additional patient demographics such as sex, social vulnerability index (SVI) and region as well as provider administration setting and health care resource utilization outcomes.

Limitations

- The study is limited to patients serviced by select Genoa Healthcare locations, which may not be generalizable to other healthcare settings.
- Outcomes are selective to LAI antipsychotics in severe mental illness and may not apply to LAIs administered in other disease states.

Learn more

References

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3. Janssen Pharmaceuticals. Invega Dosing & Administration Guide. 2024. dosing-and-administration-guide.pdf. Accessed March 9, 2026.

Disclosures / contact

Authors of this presentation have the following to disclose: All authors are full-time employees of Genoa Healthcare (Optum).

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