Paliperidone 3-monthly injection: experience in a real world setting

Alice Wisdom[1], Samantha Cole[1], Amita Ingole[2]

[1]SA Pharmacy, Northern Adelaide Local Health Network. [2]The Queen Elizabeth Hospital, South Australia

Background

One of the major contributors to the risk of relapse in schizophrenia is non-adherence to treatment with antipsychotics[1]. Long-acting injectable antipsychotics (LAI) are commonly used in clinical practice to combat partial or complete non-adherence to oral antipsychotic treatment. LAIs have further benefits of establishing consistent and sustained plasma levels and assisting with identification of true response to treatment[2]. Recently, the newest LAI to be approved for use within Australia, paliperidone palmitate 3-monthly injection (Invega Trinza) features the longest duration of action currently available.

Clinical trials have demonstrated successful results in comparison to placebo[3] and the 1-monthly formulation[4]; however there is limited data available in a real world setting.

Aims

Primary aim:

- To assess rate of successful transition to the 3-monthly paliperidone LAI

Secondary aims:

- To assess compliance with recommended guidelines for transitioning to the 3-monthly LAI
- To assess if the longer dosing interval has an effect on frequency of patient contact with mental health services

Methods

Population: Consumers initiated on paliperidone 3-monthly LAI between January 2017 and December 2018

Setting: Northern Community Mental Health Services, South Australia

Follow up: Observational: 3 months pre and post transition

Successful transition was defined as transition to the 3-monthly LAI ***without*** one or more of the following events occurring within the 6 months post transition:

- Admission to a psychiatric inpatient unit
- Increase or addition of supplemental oral antipsychotic therapy
- Cessation of 3-monthly paliperidone LAI

Change in dosage of 3-monthly paliperidone LAI

Results

In total **65 consumers** were transitioned to the 3-monthly LAI during the study period. Patient demographics are displayed in ***Table 1.***

Table 1: Baseline Demographics

Baseline Demographics	n=65
Age, median (IQR)	42 (9.6)
Male, n (%)	50 (76.9)
Primary Diagnosis, n (%)	
Schizophrenia	41 (63.1)
Schizoaffective disorder	18 (27.7)
Other	6 (9.2)
Active CTO at time of switch, n (%)	25 (38.5)
Hospital admission previous 6 months, n (%)	8 (12.3)
Dose prior to switch	
150mg, n (%)	28 (43.1)
100mg, n (%)	29 (44.6)
75mg, n (%)	8 (12.3)

Just under **two-thirds** were successfully transitioned to the 3-monthly LAI during the study period as shown in ***Table 2.***

Table 2: Treatment outcomes in the 6 months following transition to 3-monthly paliperidone LAI

Outcome	n (%)
Successful transition	41 (63.1)
Hospital admission	8 (12.3)
Change in 3-monthly injection	15 (23.1)
Swapped back to 1-monthly LAI	7 (10.8)
Ceased	4 (6.2)
Decreased dose	3 (4.6)
Increased dose	1 (1.5)
Additional/ increased supplementary antipsychotic	12 (18.5)

IQR: Interquartile Range, CTO: Community Treatment Order

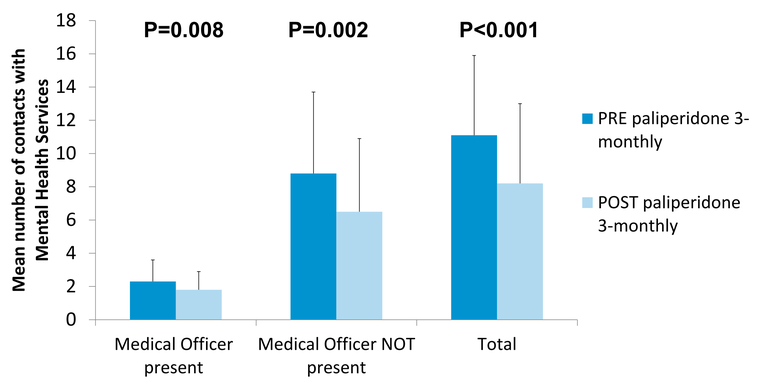
Compliance to recommended transition guidelines were as follows:

- Equivalent dose conversion: 63 (96.9%)
- ≥ 4 months of uninterrupted 1-monthly LAI: 61 (93.8%)
- ≥ 2 consecutive 1-monthly LAI of the same dose: 65 (100%)

Of the two non-compliant dose conversions, both received a lower than equivalent dose. One consumer required a subsequent hospital admission and the other required additional oral antipsychotic supplementation within 6 months.

Contact with mental health services was **reduced** following the transition to the 3-monthly LAI as shown in ***Figure 1.***

Figure 1: Comparison of face-to-face contacts with Mental Health Services 6-months pre and post transition to 3-monthly paliperidone



Conclusions

- Challenges may be present when swapping to a long acting antipsychotic injection with a longer dosing interval in a real world setting including consumers' perceived treatment intensity and engagement with mental health services
- Caution should be taken to ensure long term therapy with paliperidone is suitable and that adequate symptom control and tolerability is first well established with shorter acting formulations
- Reduction in contact with Medical Officers who are not routinely present during injection administration may suggest a broader reduction in engagement with services
- Purposefully increased contact and monitoring during this period should be implemented to identify and prevent early relapse.

For more information

Alice Wisdom

Senior Pharmacist: Mental Health and Research, Northern Adelaide Local Health Network

Alice.Wisdom@sa.gov.au

References

1. Tiihonen J, Haukka J, Taylor M et al. A nationwide cohort study of oral and depot antipsychotics after first hospitalization for schizophrenia. Am J Psychiatry. 2011;168
2. Olivares JM, Pinal B, Cinos C. Comparison of long-acting antipsychotics injection and oral antipsychotics in schizophrenia. Neuropsychiatry. 2011;1:275–289
3. Berwaerts J, Liu Y, Gopal S et al. Efficacy and Safety of the 3-Month Formulation of Paliperidone Palmitate vs Placebo for Relapse Prevention of Schizophrenia. A Randomized Clinical Trial. JAMA PSYCHIAT 2015;72(8):830-839
4. Savitz A, Xu H, Gopal S et al. Efficacy and Safety of Paliperidone Palmitate3-Month Formulation for Patients with Schizophrenia: A Randomized, Multicenter, Double-Blind, Noninferiority Study. IJNP 2016; 19(7): 1–14