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The use of Aripiprazole Long-Acting Injectable at a Major Health Service: a Longitudinal Observational Study

Horiniak A[1], Hopkins R[1], Hooper M[1], Stafrace S[2], Hollander Y[2], Saraf S[2]

[1]*Pharmacy Department, Alfred Health, Melbourne, Victoria* [2]*Alfred Mental and Addiction Health, Alfred Health, Melbourne, Victoria*

Background

In patients with schizophrenia, rates of antipsychotic medication non-adherence are considered high[1]. Long-acting injectable antipsychotics can play a vital role in the management of this patient population. Despite long-acting injectable (LAI) antipsychotics being used in clinical practice for almost 50 years, they constitute <20% of treatment in the outpatient setting[2].

Aripiprazole LAI (LAI-ARI) was approved for use in Australia (2014) as a once monthly injection[3]. Clinical trials have evaluated the efficacy of LAI-ARI in adults with chronic schizophrenia, but there is limited evidence in paediatric or geriatric populations[1].

Comparison studies with other LAI antipsychotics lack follow-up beyond 12 months and do not include patients from both inpatient and community setting[4]. There is a need for studies examining the use of LAI-ARI in real-life clinical practice.

Aims

To describe the use of aripiprazole long-acting injection (LAI-ARI) at a major Australian mental health service over the initial three-year period following TGA registration:

- To evaluate patient and treatment-related factors associated with treatment continuation or cessation.
- To conduct sub-analyses of use in young adults (16-25 years) and older patients (>65-years), if numbers allow.

Methods

An retrospective observational study of all patients prescribed LAI-ARI, at least once, from Dec-2014 to Dec-2017 at a metropolitan mental health service was undertaken.

Alfred Mental and Addiction Health, based in the inner south eastern region of metropolitan Melbourne, has separate adult and aged inpatient wards, as well as child and youth, adult and aged community mental health services.

Demographic and treatment-related characteristics were recorded, patients were followed up until LAI-ARI was ceased or for twelve months.

Treatment success: defined as ongoing LAI-ARI treatment at 12-months, de-escalation to oral antipsychotics, or transfer to community management (general practitioner, private psychiatrist).

Results

Between December 2014 and December 2017, 176 patients received LAI-ARI at least once; median age 41 years, 52% male (Table 1).

Overall, 129 (73%) patients achieved treatment success with LAI-ARI, while 47 patients were considered unsuccessfully treated (Figure 1).

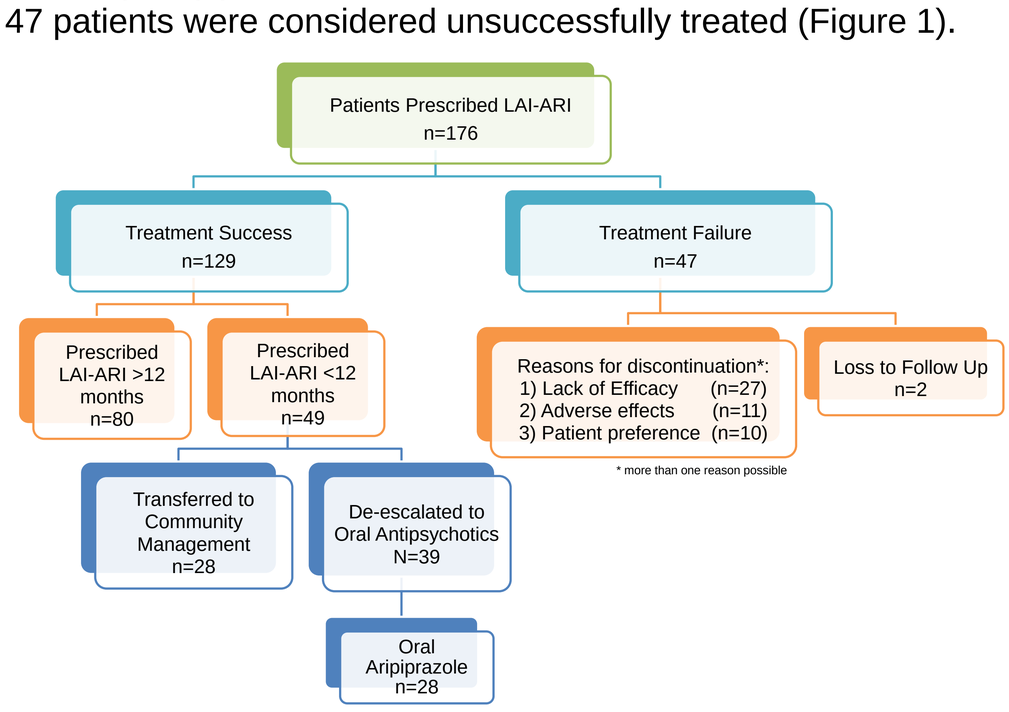
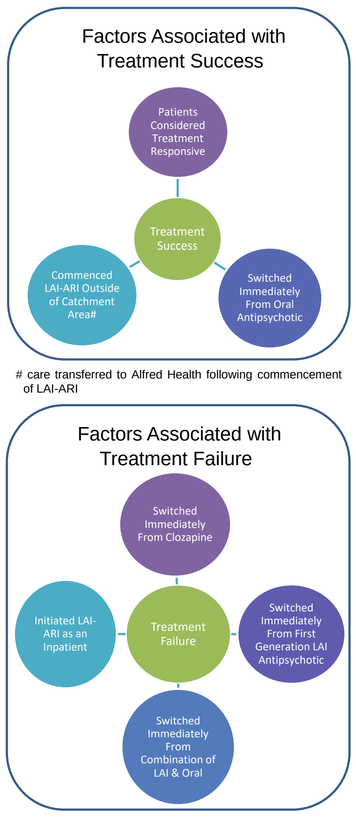


Figure 1: Patient disposition following LAI-ARI treatment

Results

Table 1: Baseline Participant Characteristics and Reported Adverse Events, according to treatment outcome

	Success (n=129)	Failure (n=47)	p-value
Male, n (%)	63 (49)	29 (62)	0.17
Age, years, median (IQR)	41 (29, 52)	38 (30, 49)	0.61
Illness duration, years, median (IQR)	10 (4, 20)	12 (6, 22.5)	0.38
Primary diagnosis, n (%)			
Schizophrenia	84 (65)	32 (68)	0.86
Schizoaffective Disorder	22 (17)	9 (19)	0.82
Bipolar Affective Disorder	13 (10)	3 (6)	0.56
Other	10 (8)	3 (6)	1.00
Current polysubstance abuse, n (%)	61 (47)	27 (57)	0.30
Previously treatment responsive, n (%)	117 (91)	32 (68)	<0.001
Involuntary treatment order, n (%)	85 (66)	36 (77)	0.2
Initiated dose of 400mg, n (%)	99 (77)	38 (81)	0.84
Reported adverse effects, n (%)	25 (19)	12 (26)	0.41



Patients considered previously 'treatment responsive' were more likely to experience treatment success. Figure 2 shows other factors statistically associated with treatment success and failure.

Of the 47 patients who failed treatment, 27 (57%) ceased due to a reported lack of efficacy. Patients who failed treatment were more likely to require inpatient readmission while receiving LAI-ARI (53% v 30%, p=0.007).

There was no difference in the incidence of reported adverse effects between groups.

Treatment success was achieved in 83% and 89% of patients aged <25yrs (n=30) and >65yrs (n=9), respectively. Sample sizes were too small to identify differences in patient characteristics between those experiencing treatment success and failure.

Figure 2: Predictors of Treatment Success and Failure (p<0.05 between groups)

Discussion

Treatment success was achieved in 73% of patients receiving 12-months treatment with LAI-ARI, comparable to a 28 week randomized controlled trial completion rate of 67.6%[1].

The predictors of failure replicate the findings of a 2013 paliperidone palmitate observational study, where initiation as an inpatient or those patients with established treatment resistance were associated with treatment failure[5]. Inpatients are generally more acutely unwell than outpatients and therefore more likely to experience treatment failure.

Rates of discontinuation of LAI-ARI due to adverse effects were 6.3% compared to 4.8% reported in the paliperidone palmitate study[5].

Overall 69% of patients initiated on ARI-LAI were compulsory treated, notably lower than the 85% reported for other LAI initiation at the same health service[6]. Further investigation of patient preferences for LAI-ARI compared to other LAI antipsychotics is required.

During the study time frame fluphenazine decanoate was discontinued (2017) and at this health service olanzapine pamoate depot was non-formulary, which may have influenced the number of patients initiated on LAI-ARI.

Conclusion

Long-acting injectable aripiprazole is a useful antipsychotic formulation for managing schizophrenia and schizoaffective disorder in treatment responsive patents who are unable to adhere to daily dosing of oral medication.

References

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theAlfred Caulfield HOSPITAL Sandringham HOSPITAL MSHC MELBOURNE SEXUAL HEALTH CENTRE