

Assessing Appropriate Initial Aripiprazole and Lurasidone Dosing

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BACKGROUND

- Aripiprazole is FDA approved for schizophrenia, acute treatment of manic episodes associated with Bipolar I and adjunctive treatment of Major Depressive Disorder (MDD)
- Lurasidone is FDA approved for the treatment of schizophrenia and bipolar depression
- Recommended initial dosing varies based on indication and drug interactions
- This allows for higher initial doses without the need for titration

Indication (aripiprazole)	Initial Dose
Schizophrenia	10-15mg/day
Bipolar Mania – monotherapy	15 mg/day
Bipolar Mania – adjunct	10-15 mg/day
MDD	2-5mg/day
Indication (lurasidone)	Initial Dose
Schizophrenia	40mg/day
Bipolar Depression	20mg/day

Factors	Dose Adjustment (aripiprazole)
Strong CYP2D6 or 3A4 inhibitors	Half of usual dose
Strong CYP2D6 and 3A4 inhibitors	Quarter of usual dose
Strong CYP3A4 inducers	Double usual dose over 1-2 weeks

OBJECTIVE

Determine if initiation of aripiprazole and lurasidone dosing recommendations based on indication and CYP interactions increases the number of patients appropriately dosed and possibly reduce length of stay.

METHODOLOGY

Retrospective chart review
January 1st 2021 – July 19th 2021

- Exclusion criteria: if aripiprazole or lurasidone was a home medication or ordered for an off label indication

Charts evaluated for:

- Diagnosis, starting dose, CYP3A4/2D6 inhibitors/inducers, length of stay

Prospective: auto-generated reports to identify patients ordered aripiprazole or lurasidone

- Dosing recommendations made based on indication and interacting medications
- Percent of patients with appropriate initial doses between the two groups were compared

RESULTS

	Retrospective Aripiprazole (n=53)	Prospective Aripiprazole (n=50)	P-value
Inappropriate initial dose [n(%)]	23 (43.3)	15 (30)	< 0.005
Diagnosis [n(%)]			
Bipolar Mania	23 (43.4)	14 (28.0)	
Schizophrenia	2 (3.8)	7 (14.0)	
MDD	28 (52.8)	29 (58.0)	
CYP Drug Interactions Total (n)	9	7	
Appropriate dose [n(%)]	9 (100)	7 (100)	
Avg. Length of Stay (days)	11.6	11.7	0.98
Recommendations made (n)		15	
Recommendations accepted [n(%)]		11 (73.3)	

	Retrospective Lurasidone (n=16)	Prospective Lurasidone (n=28)	P-value
Inappropriate initial dose [n(%)]	1 (6.3)	0 (0)	0.18
Diagnosis [n(%)]			
Bipolar Depression	15 (93.8)	28 (100)	
Schizophrenia	1 (6.2)	0 (0)	
Avg. Length of Stay (days)	11.0	5.7	0.002

CONCLUSION

- There is room to improve on initial dosing of aripiprazole, specifically for patients with bipolar and schizophrenia diagnoses.
- Through pharmacy recommendations, we were able to increase the number of patients started on the appropriate initial dose of aripiprazole and lurasidone.

DISCLOSURE

- All authors do not have any financial relationships with any ineligible companies