

The Impact of an Integrated Care Pathway on the Use of Antipsychotics in Acute Psychiatric Settings



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Background

- Overall outcomes are significantly worse in patients with longer duration of untreated psychosis. (1)
- It is thought that interventions aimed at the first 2-5 years make the biggest impact in patients with psychosis.
- An early psychosis integrated care pathway (ICP), which included a condensed guideline, a medication algorithm, and medication reference tables, was created and piloted in one inpatient psychiatric unit at St. Paul's Hospital.

Five Key Guideline Recommendations

- Second generation antipsychotics (SGAs) should be used preferentially over first generation antipsychotics (FGAs).
- Long-acting injections should be used earlier in treatment (after failure on an oral SGA, particularly if secondary to non-adherence).
- Clozapine should be considered after failure on two other antipsychotics.
- Antipsychotics should be started at low doses and gradually titrated to a maintenance dose over 2-4 weeks, as tolerated.
- FGAs should be used in hospital only at low doses, and on an "as needed" basis in agitated and/or aggressive patients.

Objectives and Outcomes

- The objective of this study is to determine whether the use of an Early Psychosis ICP resulted in increased prescribing of evidence-based, guideline-concordant pharmacotherapy.
- Primary outcome:
 - The proportion of patients whose pharmacotherapy was entirely guideline-concordant.
- Secondary outcomes:
 - The proportion of patients who met each individual key guideline recommendation for early psychosis.

Methods

- Population: Early psychosis patients, defined as <25 years of age with psychotic symptoms for <5 years.
 - ICP Group: Patients on the Early Psychosis ICP on unit A from September 2016-2017.
 - Pre-ICP Group: Early Psychosis patients admitted to unit A from April 2013-2015 prior to ICP implementation.
 - Non-ICP Group: Early Psychosis patients admitted to unit A or matching unit B who were not on the ICP from September 2016-2017.

Table 1: Patient characteristics

	ICP (n=19)	Pre-ICP (n=38)	Non-ICP (n=28)
Age, mean (95% CI)	22.4 (21.7-23.2)	21.5 (20.8-22.2)	22.6 (22.1-23.2)
Gender, Male, n (%)	15 (78.9)	32 (84.2)	18 (64.3)
Ethnicity			
Caucasian, n (%)	9 (47.4)	16 (42.1)	11 (39.3)
Discharge Diagnosis			
Schizophrenia, n (%)	4 (21.1)	20 (52.6)	13 (46.4)
Schizoaffective disorder, n (%)	1 (5.3)	5 (13.2)	5 (17.8)
Bipolar disorder, n (%)	7 (36.8)	0 (0.0)	1 (3.6)
Substance-induced psychosis, n (%)	2 (10.5)	1 (2.6)	3 (10.7)
Psychosis NOS, n (%)	5 (26.3)	12 (31.6)	6 (21.4)
First episode psychosis, n (%)	6 (31.6)	6 (15.8)	3 (10.7)
Medication Adherence Prior to Admission			
Non-adherent, n (%)	12 (63.2)	23 (60.5)	21 (75.0)
Not applicable, n (%)	6 (31.6)	6 (15.8)	3 (10.7)
Substance use, n (%)			
Cannabis use, n (%)	18 (94.7)	35 (92.1)	23 (82.1)
Stimulant use, n (%)	14 (73.7)	26 (68.4)	12 (42.9)
Number of past antipsychotic trials, mean (95% CI)	1.95 (1.13-2.76)	2.05 (1.54-2.56)	3.04 (2.42-3.65)

Figure 1: Proportion of patients who received pharmacotherapy in concordance with treatment guidelines

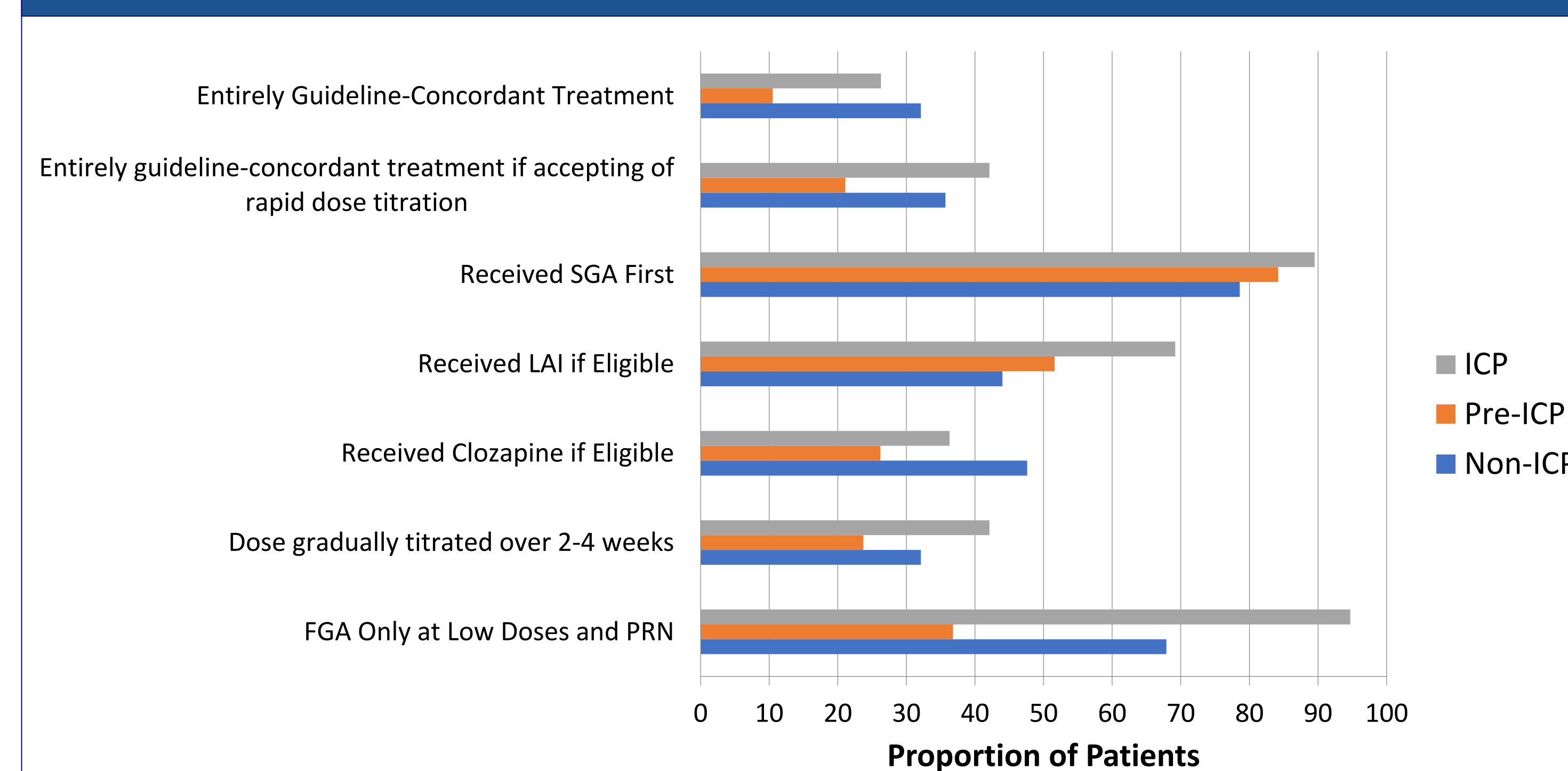
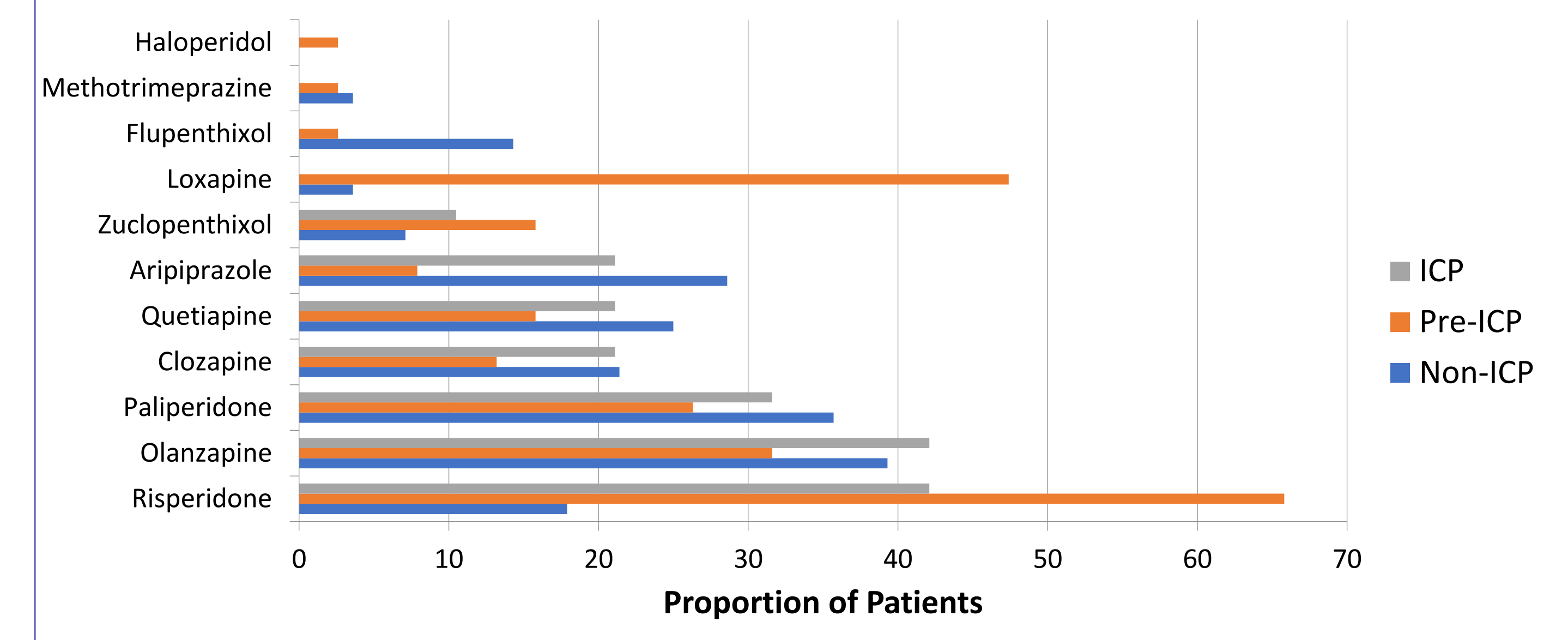


Figure 2: Proportion of patients who received each antipsychotic agent on a regularly-scheduled basis



Limitations

- Retrospective design and small sample size
- Difficult to distinguish failure to document from guideline-discordant practices
- Change in patient population, new prescribers, and new clinical pharmacy specialist on unit A
- Clinician crossover likely occurred between ICP and Non-ICP patients
- ICP cohort contained more patients with first episode psychosis, bipolar disorder, and antipsychotic-naive patients.

Conclusions

- The number of individual guideline-concordant prescribing practices increased after implementation of the Early Psychosis ICP.
- ICPs may be an effective tool for encouraging targeted changes in pharmacotherapy prescribed for early psychosis patients.
- Interventions that require mandatory documentation in the health record (e.g. PPOs) seem to have the greatest impact on pharmacotherapy.
- An ICP integrated in one mental health ward may also have an impact on the pharmacotherapy used in other wards, particularly in cases of clinician cross-over.

References

1) Marshall M, et al. Arch Gen Psychiatry. 2005 Sep;62(9):975-83.