

BACKGROUND

The inpatient units at Vanderbilt Psychiatric Hospital (VPH) expanded a Vanderbilt “Meds to Beds” (M2B) program to provide psychiatric patients with medications the day of discharge. While prior programs have utilized in-person medication delivery,¹ VPH used an automated kiosk system. This program began on the child and adolescent inpatient psychiatry unit in Spring 2019. A quality improvement (QI) project was initiated to understand the current utilization of this voluntary program and any differences that may exist between and among patients with public and commercial insurance.

Objective

The purpose of this poster is to describe the first phase of a current QI project that seeks to understand the current utilization of a novel medication system that provides patient with medications at discharge through use of an automated kiosk. This is the first in a multi-phase project to improve the utilization of this system to offer patients with their medications at discharge.

METHODS

Quality Improvement

- This is the first Plan-Do-Study-Act cycle of this QI
- Timeline: April 1, 2019 through August 31, 2019

Data Gathered

- All discharges from the child/adolescent inpatient unit were analyzed via Epic Slicer Dicer
- Proportion of patients prescribed SSRIs, atypical antipsychotics, and alpha agonists using the pharmacy supplying the automated kiosk
- Insurance: Commercial vs Medicaid (TN Care)
- Age: 0 to 19, 0 to 12, and 13 to 19 years of age

Analysis

- Descriptive statistics were generated (Excel)
- T-tests compared the proportion of M2B participation between insurance types per medication and between age groups within each insurance and medication type
- Alpha = 0.05 for significance

RESULTS

Differences in Participation by Insurance Type

A total of 436 patients with insurance were discharged during the study period; 249 with commercial insurance (57.1%) and 187 (42.9%) with TN Care. Among child/adolescent patients prescribed SSRIs, a higher proportion with commercial insurance used the Meds to Beds program significantly more than those with TN Care (34.1% vs 20.0%; $p < 0.001$) There was no significant difference between patients with commercial insurance and TN Care prescribed an atypical antipsychotic (17.4% vs 14.1%; $p = 0.1$) or alpha agonist (13.9% vs 12.4%; $p = 0.7$).

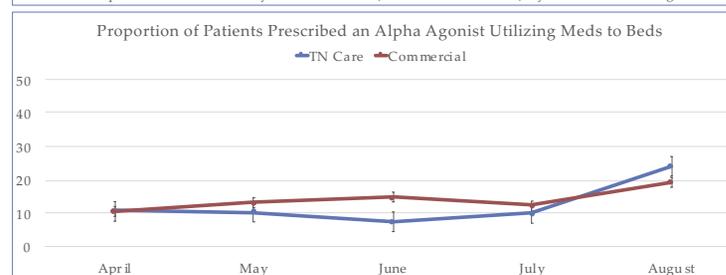
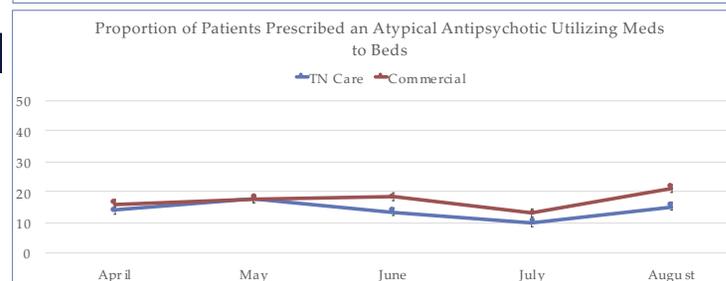
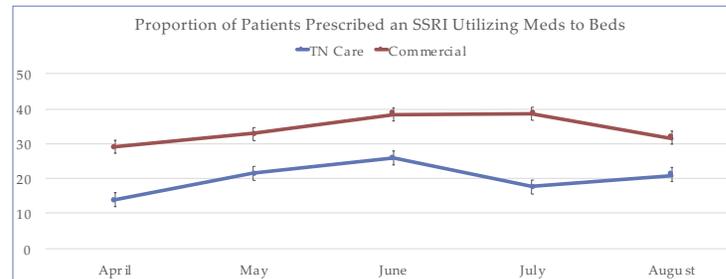


Figure 1. Proportion of patients with Tennessee Medicaid (TN Care) and Commercial Insurance utilizing the Meds to Beds program per month during the study period. Proportions were calculated for all patients prescribed an SSRI, atypical antipsychotic, or alpha agonist at discharge (Error bars = Standard Error).

Differences in Participation by Age

Within both insurance groups, patients 13 to 19 years of age prescribed an SSRI utilized M2B more than individuals under 13 ($p < 0.001$).

Patients 13 to 19 years of age with commercial insurance prescribed an atypical antipsychotic utilized M2B more than individuals under 13 ($p < 0.02$).

There was no significant difference in participation by age among patients with TN Care or commercial insurance prescribed an alpha agonist ($p = 0.9$ and $p = 0.7$, respectively) and those with TN Care prescribed an atypical antipsychotic ($p = 0.1$).

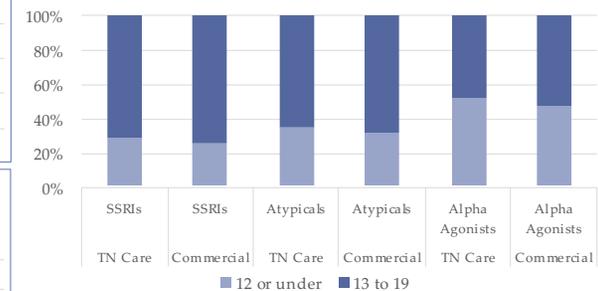


Figure 2. Proportion of all patients 12 or under vs 13 to 19 years utilizing M2B divided by medication and insurance type

LIMITATIONS & FUTURE DIRECTIONS

Limitations

- Limited to age, medication, and insurance type
- Study period conducted over summer

Future Directions

- Investigate additional cofactors
- Second phase of QI
 - Weekly inpatient team check ins and feedback
 - Track change in utilization of M2B program
 - Track complications the teams experience
- Repeat Plan-Do-Study-Act cycle

REFERENCES

1. Hutton J, Blair-Merritt M, Cabral H, et al. Increasing Medication Possession at Discharge for Patients With Asthma: The Meds-in-Hand Project. *Pediatrics*. 2016;137(3):e20150461