

Using a dedicated team for medication histories will increase number of medication reconciliations obtained.

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Summary

Objectives:

1. To create a Medication History Technician (MHT) program to assist in the completion of medication reconciliations
2. To increase number of medication reconciliations completed at time of admission
3. To improve physician efficiency
4. To improve patient outcomes

Background:

When medication errors occur, they often occur on admission, transfer, or discharge and an estimated 30% of these have the potential to cause patient harm. Medication reconciliation can help prevent harm from medications or adverse drug events. Medication reconciliation has become an example of a safety intervention but has been difficult to implement.

Methodology:

A multidisciplinary team was created to develop a standardized workflow to complete medication reconciliations on admission. A dedicated MHT team was created by securing resources through Bridgeport Hospital's Hospitalist program.

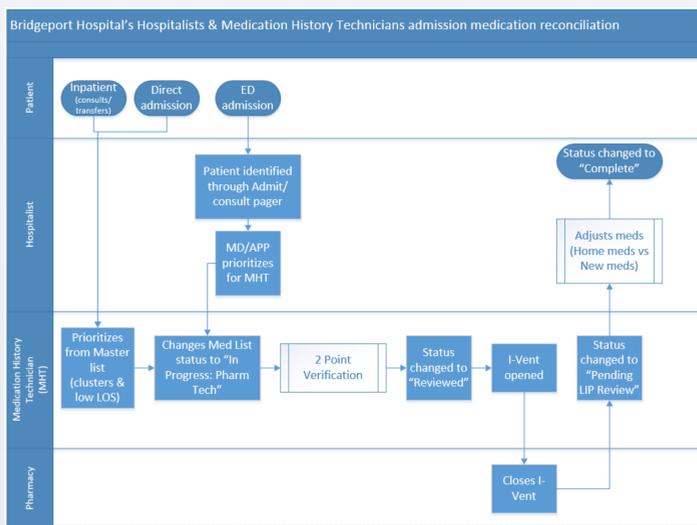
MHT's performed a 2-point verification process which may include pharmacy records, W-10, patient, or family for each medication which the physician reconciles.

MHTs began the 2-point medication verification process in mid-April 2017.

A dashboard was created to monitor the process and outcomes.

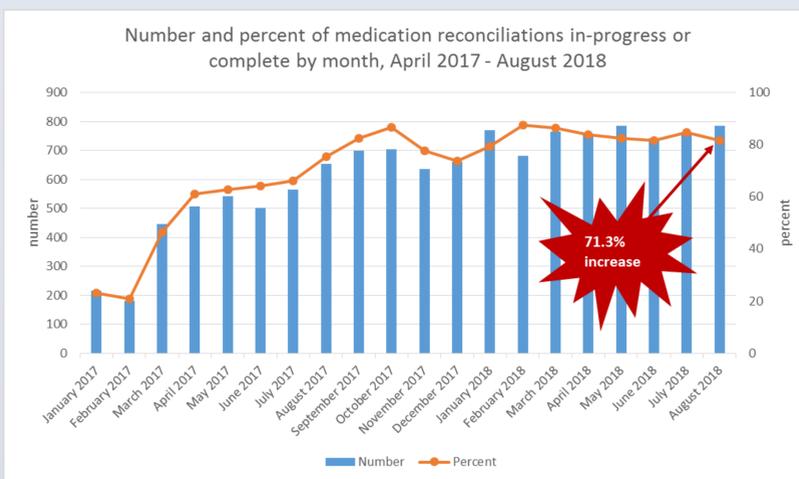
Project Description

Bridgeport Hospital's Admission Medication Reconciliation Flow



Results

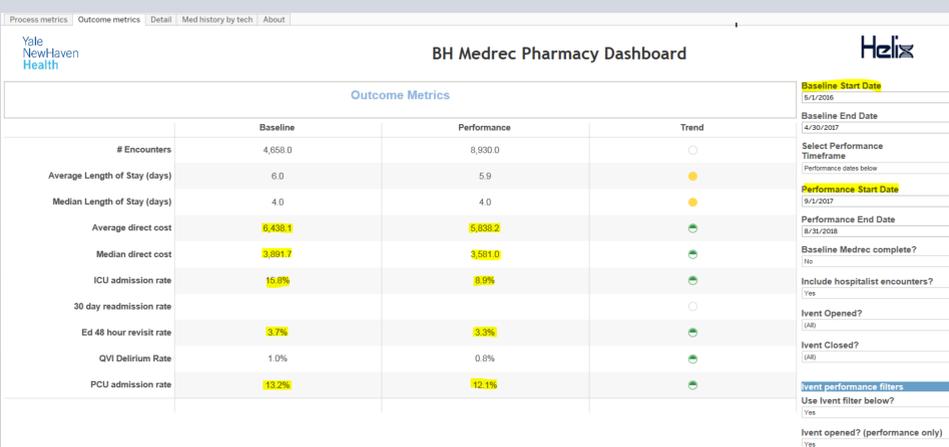
Since implementation there has been a 71.3% increase in the number of medication reconciliations obtained by the MHTs. Median times MHT to place into pending LIP review and LIP completed review was 7.0 minutes and 19 hours respectively. Comparing 12 month prior to implementation to 12 months post implementation, there has been a decrease in ICU admission rates (16.8% to 15.2%), ED 48 hour revisit rate (3.7% to 3.3%), and admissions to the step up unit (13.2% to 12.1%). An internal audit identified ~12% of patients had an *unintentional medication discrepancy.



June 2018 - August 2018

n=2422	median
MHT in-progress to pending LIP review	7 minutes
Pending LIP review to Complete	20 hours

Bridgeport Hospital's Medication Reconciliation Dashboard



Lessons Learned

Discussion

- Medication reconciliation is essential to preventing adverse drug events
- As the entire process of medication reconciliation is time-consuming, using a dedicated resource can improve efficiency.
- Creating a dedicated team of Medication History Technicians has increased total number of Medication Reconciliations obtained or completed by >70%
- MHTs can save ~7 minutes per patient of physician time, translating to saving ~1.5 hours of physician time per day
- ICU & PCU admissions, return to ED <48 hours, and cost have all decreased since implementation
- An internal audit identified unintentional medication discrepancies by ~12%, reducing the risk of potential harm

Implications

- Implementation of the MHT program has resulted in an increase in the number of medication reconciliations performed while reducing physician time to acquire a more accurate list.
- More completed medication reconciliations may lead to a more favorable hospital course such as reduced likelihood of being admitted to an ICU or step up unit or returning to the ED < 48 hours.
- Creating a dedicated team of Medication History Technicians will increase total number of Medication Reconciliations obtained

*Unintentional discrepancies are admission medication orders entered by hospitalist that differ from the patient's medication history, which may include dose, frequency, omission or additional medication. i.e. estradiol 1mg alternating 1.5mg every other day, admitting MD ordered estradiol 1mg daily