

A Team-Driven Approach to Improving Medication Reconciliation in Rural Outpatient Resident Clinic

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INTRODUCTION

Medication reconciliation involves the precise identification of a patient's current medications, encompassing details such as names, dosages, frequencies, and routes of the medication. This process entails cross-referencing medical records with external lists sourced from patients, hospitals, or other healthcare providers.

Both the Institute for Healthcare Improvement (IHI) and The Joint Commission endorse medication reconciliation as a vital patient-safety measure (1). The CDC highlighted a 2016 study by the British Medical Journal stating that medication errors are the third leading cause of global mortality (2). Not only are medication errors a public health concern, but they are also a financial burden for the healthcare system. A 2023 study assessed the financial burden to be approximately \$20 billion dollars per year for healthcare consumers in the United States alone. Prior to June 2023, the Tahlequah Internal Medicine Residency Clinic estimated medication reconciliation rates to be below 20%, indicating a pressing need for enhancement in this fundamental aspect of patient care.

AIM STATEMENT

This initiative was launched to ensure comprehensive medication reconciliation for all patients at the Internal Medicine Residency outpatient clinic.

The primary goal for this project is to increase completion rate to greater than 75% for 6 consecutive months. Additionally, secondary goal for this project is to identify barriers preventing compliance from both the patient and the medical team.



METHODS

Project design:

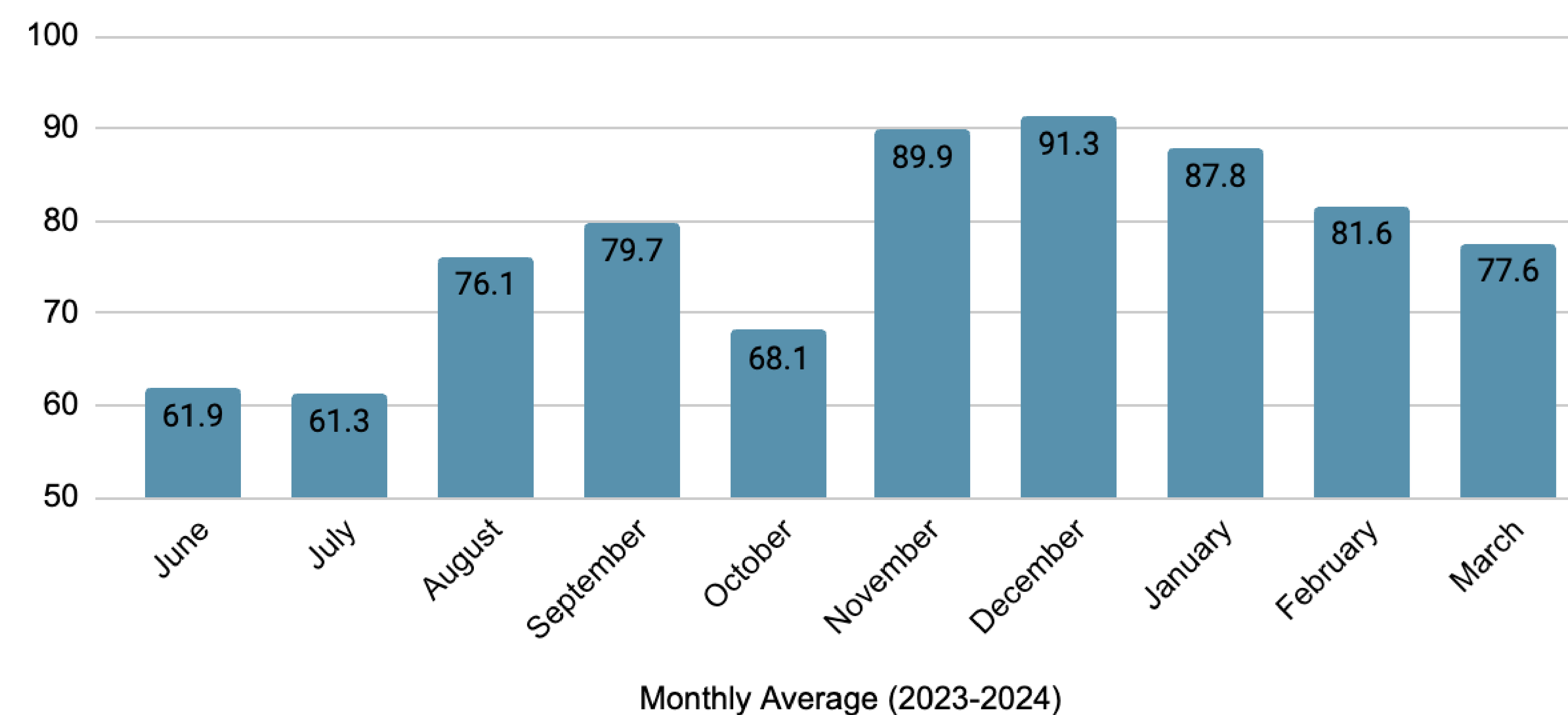
- We divided our continuity clinic data in 2 groups; Monday and Thursday teams.
- Collected monthly data and assembled a bar diagram for representation.
- Explanation to the staff for the way reconciliation is done in Cerner was made by demonstration as well as images.
- Implement Plan-Do-Study-Act (PDSA) cycles and adjust study design as necessary

Strategy:

- At the monthly Performance Improvement (PI) project meeting, a concise tutorial on completing the medication reconciliation process was conducted.
- The nursing staff underwent separate training sessions on this process, and patients were urged to bring their medications during their initial visits.
- A \$20 gift-card incentive was implemented for the highest medication reconciliation percentage achieved by a resident at the completion of the project.
- A visual reminder was incorporated in the patient-vital sheet reminding office staff and residents to update patient medication.

RESULTS

Percentage of completed medical reconciliations by month



DISCUSSION

Improvements in medication reconciliation in the resident clinic were successful. The medical team achieved their goal of greater than 75% reconciliation consistently since November 2023. During our project, the lowest percentage of medical reconciliation occurred in October (68.1%). We hypothesize a reason for the October decline was secondary to clinical staff turnover. Subsequently, re-education was implemented for all clinical staff and employees. As a result, the highest percentage of medical reconciliation occurred during the months of December (91.3%) and November (89.9%).

Throughout the beginning of 2024, there has been a consistent decline in medical reconciliation (87.8% > 81.6% > 77.6% for January, February, and March respectively). This can be due to temporary employee leave resulting in new staff training.

CONCLUSION

With improved medication reconciliation, residents can reduce the stress on the rural, elderly population who are high risk for confusion regarding their medication. The re-education and re-orientation of the staff as well as residents is beneficial in minimizing medication errors.

LIMITATION

- Ongoing training and orientation of clinical and administrative staff
- Changing rotations of residents and attendings in the clinic makes consistency with medical reconciliation efforts challenging.

NEXT STEPS

- Quarterly evaluations will be conducted by residents to maintain compliance with medication reconciliation
- Implementing a patient care summary after each visit ensuring patient understanding and accuracy
- Highlighting the importance of medication reconciliation efforts during resident orientation and new staff orientation
- Updating Cerner to streamline the medication reconciliation process

RESOURCES

[1] P. G. Harper *et al.*, "Team-based approach to improving medication reconciliation rates in family medicine residency clinics," *Journal of the American Pharmacists Association*, vol. 61, no. 1, Aug. 2020.

doi:10.1016/j.japh.2020.08.007

[2] M. A. Makary and M. Daniel, "Medical error—the third leading cause of death in the US," *BMJ*, p. i2139, May 2016.

doi:10.1136/bmj.i2139

[3] T. L. Rodziewicz, "Medical error reduction and prevention," StatPearls [Internet].

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