Assessing the impact of pharmacist-initiated versus provider-initiated patient enrollment in Meds to Beds services

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Abstract

Purpose: This study evaluated the impact of pharmacist-initiated versus provider-initiated patient enrollment in the Meds to Beds program. The primary objective was to compare the number of high-risk readmission patients enrolled through pharmacist-initiated versus provider-initiated processes. Secondary objectives included comparing 30-day all-cause and heart failure readmission rates, number of prescriptions delivered, patients receiving pharmacist counseling, and impact on HCAHPS scores.

Methods: This retrospective, single-center cohort study compared patients in the provider-initiated program (August–October 2023) with those in the pharmacist-initiated program (November 2023–February 2024) at Mount Sinai Brooklyn. Inclusion criteria for the intervention group included patients with COPD, asthma, CHF, ACS, diabetes, hypertension, or age >75. Exclusion criteria included discharges to long-term care facilities and prescriptions for C-II controlled substances. Data analysis included the number of patients being enrolled, counseling numbers, prescribed medications, and readmission rates. Data were sourced from Epic. Descriptive statistics, p-values, and chi-squared testing were used for analysis.

Results: A total of 380 patients were enrolled in the pharmacist-initiated group and 162 in the provider-initiated group; 228 and 162 patients received counseling in the respective groups. Of those counseled, 19.7% in the pharmacist-initiated group were readmitted within 30 days, compared to 19.1% in the provider-initiated group. For heart failure patients, 29.6% in the pharmacist-initiated group were readmitted within 30 days, versus 36.4% in the provider-initiated group. HCAHPS scores increased by 15% from Q1 to Q4 2023. The pharmacist-initiated process saw a 26% increase in total medications prescribed.

Conclusion: Pharmacists played a pivotal role in enhancing the Meds to Beds process to improve patient outcomes and satisfaction.

Keywords: meds to beds, discharge counseling, transitions of care, counseling, pharmacy, provider, enrollment

Introduction

Medication-related hospital admissions due to poor medication adherence account for 33–69% of cases.[1] It is estimated that 50% of Americans don't take their chronic long-term therapy medications as prescribed,[2] and there are several significant reasons for this.

In 2021, 8.2% of adult Americans reported not taking medications in the past 12 months due to cost. The high costs of prescriptions may lead patients to take cost-saving measures such as skipping doses, taking less of a medication than is prescribed, or delaying filling a prescription. These cost saving behaviors are especially prevalent among uninsured adults and those with lower incomes.[3]

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The complexity of medication regimens, particularly for patients with multiple chronic diseases, and a lack of adequate support can both lead to non-adherence. Actual or perceived side effects causing potential harm can influence patient adherence behavior,[4] as can low health literacy (with many patients not fully understanding the importance of taking their medications as prescribed) and serious mental illness, such as depression and schizophrenia. And elderly patients, particularly those who are frail, have multiple comorbidities, or face insurance coverage issues, are at a significantly higher risk of experiencing medication access problems; they also often struggle with affordability, leading to cost-related medication non-adherence.[5]

Another barrier is pharmacy accessibility. The geographic accessibility of pharmacies varies substantially across communities in the United States, and pharmacy closures may decrease pharmacy access and thereby limit patients' ability to fill prescriptions and adhere to prescribed medication regimens.[6]

These factors highlight the need for a multifaceted approach to improving medication adherence, one that involves patient education, simplified regimens, and improved communication between healthcare providers and patients.[4]

Each year in the U.S., non-adherence contributes to more than $500 billion in avoidable healthcare costs, around 125,000 preventable deaths, and up to 25% of hospitalizations.[7]

Pharmacists play an essential role in educating patients and reinforcing the safe use of medicines, helping avoid potential post-discharge medication-related harm, and ultimately optimizing health outcomes through medication management support.[8]

Bedside medication delivery programs, commonly referred to as "meds to beds," are essential in circumventing issues surrounding medication non-adherence. Meds to Beds, a quality improvement intervention that is gaining wider implementation throughout the U.S., provides bedside delivery of prescriptions and discharge counseling to patients before they are discharged from the hospital. These programs address two main factors affecting hospital readmission rates: the ability of patients to obtain prescriptions upon discharge from the hospital, and the provision of education regarding accurate medication utilization.[9] Meds to Beds programs increase the number of patients obtaining their discharge medications by removing common barriers related to payment and transportation; they also increase patient satisfaction and reduce costs.

Although several studies evaluate the impact of pharmacists' role in transitions of care and Meds to Beds services,[9,10] there are few that compare different Meds to Beds models and their effects on patient outcomes. This study uniquely compares and evaluates the impact of two separate models: a provider-initiated enrollment service and a pharmacist-initiated enrollment service that sought to target patients with high-risk conditions based on pre-specified criteria. We felt it was essential to pursue this study to enhance our patients' access to their medications and increase compliance—particularly with the pharmacist-initiated enrollment service, which we hypothesized would better identify high-risk patients prone to readmission. We also sought to identify patients facing insurance coverage issues or experiencing delays in discharge due to medication access problems, and we were able to intervene promptly.

By providing medications directly to patients before their discharge, we eliminated the need for them to visit a pharmacy, thus improving access to medications and ensuring they had the necessary medications in hand upon leaving the hospital. This not only enhances patient care but reduces avoidable readmissions, showcasing the significant impact pharmacists can have on the Meds to Beds service and on overall patient outcomes.

Methods

Study Design

This was a retrospective, single-center cohort study performed at Mount Sinai Brooklyn, a 212-bed acute care community hospital. Patients were enrolled between August 1, 2023, and October 31, 2023, for the provider-initiated Meds to Beds program, and between November 11, 2023, and February 9, 2024, for the pharmacist-initiated Meds to Beds program. This study was deemed exempt by the Institutional Review Board in April 2024.

The inclusion criteria for the provider-initiated process included any adult patient age 18 or older referred to the pharmacy by the hospitalist providers for the Meds to Beds service. No screening took place for this process; patients were referred to the program at the discretion of the discharging provider. The initial Meds to Beds program launched in March 2023, following a series of preparatory meetings with hospitalist leadership, the Chief Medical Officer (CMO), and the Chief of Medicine (COM) to discuss and refine the program's structure. The initiative was also introduced during hospitalist grand rounds, and its presence was consistently reinforced through Epic chats and daily reminders about enrolled patients. Although designed as a provider-initiated program, several challenges were encountered: providers often forgot about the program's existence, communication barriers arose, enrollment numbers fell short of expectations, and providers frequently enrolled patients too close to discharge, leaving insufficient time to process and deliver prescriptions before patients left the hospital.

In November 2023, we transitioned to a pharmacist-initiated program to address these challenges and compare the effectiveness of the two approaches. The transition again occurred after preparatory meetings with hospitalist leadership, the CMO, and COM; was introduced at hospitalist grand rounds; and had its presence continuously reinforced with Epic chats and daily reminders about enrolled patients. At its implementation, heart failure providers specifically agreed to use the program. Our shift to the pharmacist-initiated program allowed us to leverage our pharmacists' expertise and availability to ensure more timely interventions.

For the pharmacist-initiated enrollment, patients were deemed eligible if they were on either a hospitalist or a heart failure service and had one of the following risk factors: diabetes, hypertension, congestive heart failure (CHF), age $\geq$75, COPD, asthma, or acute coronary syndrome (ACS). Our focus on these risk factors is well-supported by evidence on hospital readmissions. Studies have shown that diabetes increases the risk of a 30-day readmission by at least 17% and up to 2.5-fold.[11] Hypertension, while not always a significant risk factor on its own, is often comorbid with diabetes and contributes to cardiovascular disease risk in diabetic patients.[3] Heart failure is consistently identified as one of the most common reasons for hospital readmissions, with one study reporting that 74% of patients with advanced heart failure had at least one readmission within 2 years.[12] Advanced age ($\geq$75) is linked to higher rates of medication-related problems and hospital readmissions.[13] Acute exacerbations of both COPD and asthma are one of the main reasons for hospital admission and readmission.[14,15] And ACS is responsible for high rates of hospital admission and readmission, which are

associated with increased costs for the patient and the health system, along with increased in-hospital mortality rates.[16]

Our focus on patients with these risk factors aligns with the literature emphasizing the impact of comorbidities, medication-related issues, and specific health conditions on readmission rates. By concentrating on these high-risk groups, the Meds to Beds program aimed to direct pharmacist interventions where they are most likely to be effective in reducing readmissions and improving patient outcomes.

The exclusion criteria for both the provider-initiated and pharmacy-initiated processes were discharge to a rehabilitation facility, nursing home, or other long-term care facility; enrollment into hospice care; prescription of only scheduled C-II controlled substances; or age younger than 18.

For the pharmacist-initiated enrollment process, an Epic report that captured patients who had at least one of the listed risk factors for program eligibility was generated and reviewed within 24 hours of patient admission. Each patient profile was then further screened to quantify each patient's number of risk factors. This was done by using the search bar function within the patient profile to locate each of the specific risk factors within provider notes in the patient's EMR history. This process helped validate the accuracy of the patient's diagnosis and ensured that all relevant risk factors were identified and documented. Patients were excluded from the eligibility list if they fit at least one of the listed exclusion criteria.

After a patient was screened for eligibility, one of the staff pharmacists at Mount Sinai Brooklyn would visit the patient's bedside and request their verbal consent to be enrolled in the Meds to Beds program. For patients unable to provide verbal consent, (i.e., if the patient had altered mental status or was in critical condition), consent was obtained from their family members or caretakers via a phone call. If a patient did not speak English, interpreter services were used to communicate in the patient's primary language and obtain consent. Once patients agreed to participate in the Meds to Beds service, their pharmacy was updated to the specific contracted retail pharmacy that had entered into an agreement with the Mount Sinai Brooklyn Hospital to provide services for the program. The contracted pharmacy is not a hospital pharmacy in our institution, but an external retail pharmacy that is integrated into the hospital's workflow.

The list of consented patients was forwarded to the medical provider team daily via the Secure Epic chat feature, organized by unit. The patient's discharge prescriptions were then sent to the contracted retail pharmacy before discharge. The contracted retail pharmacy processed the discharge prescriptions and assisted with insurance claims, prior authorizations, and payment collection. The discharge medications were then delivered to the inpatient pharmacy, followed by bedside delivery and discharge counseling by a designated hospital inpatient pharmacist.

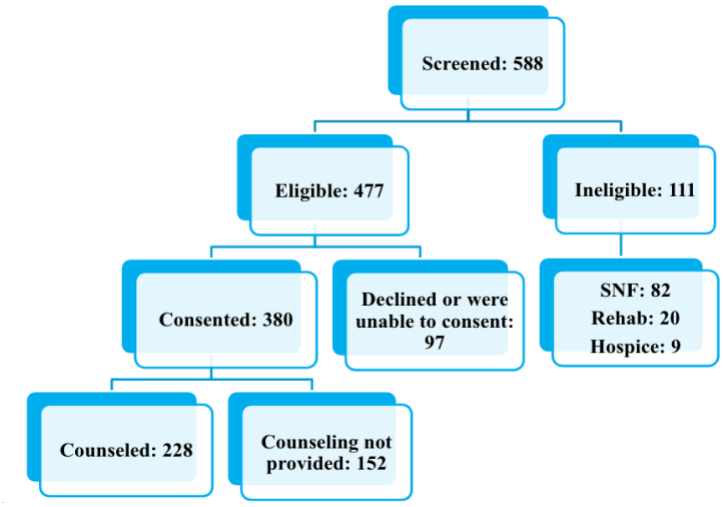
Primary Objective

The primary objective of the study was to compare the number of high-risk patients enrolled in the Meds to Beds program through provider-led versus pharmacist-initiated enrollment methods. Secondary objectives were to compare the number of patients receiving pharmacist counseling at bedside prior to hospital discharge, the number of prescription medications delivered to patients overall, all-cause 30-day readmission rates, 30-day readmission rates for patients readmitted due to CHF exacerbation, and Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores, focused on medication-related communication, since the program's inception. This endpoint was used to address the patients' perceptions and assess their overall satisfaction regarding communication about their medications. It allowed for an objective comparison assessing our effectiveness in medication-related patient communication, and allowed us to evaluate whether the transition to a pharmacist-led Meds-to-Beds program had enhanced our ability to convey crucial information to patients about their medications. The two HCAHPS questions asked were:

1. Overall hospital rating: "On a scale from 0 to 10, where 0 represents the worst hospital imaginable and 10 represents the best hospital possible, how would you rate this hospital during your stay?"
2. Willingness to recommend the hospital: "Would you recommend this hospital to your friends and family?"

Eligibility Screening

In the eligibility screening and enrollment process for the pharmacist-initiated enrollment process (Figure 1), a total of 588 charts were reviewed, with 477 patients meeting eligibility criteria. A total of 111 patients were ineligible for the program: 82 were discharged to a skilled nursing facility, 20 transferred to a rehabilitation facility, and 9 were enrolled into hospice care. A total of 380 patients provided consent to the program. The remaining 97 patients did not provide consent for various reasons, such as patients or caretakers requesting to have their medications sent to a retail pharmacy they regularly use, or patients or caretakers regularly having their medications delivered from their retail pharmacy and not wanting to change their current delivery process. In other cases, consent was not obtained because the patient did not have a family or caretaker to contact for consent if the patient was unable to provide consent, or because the patient's family or caretakers did not answer on any of our three separate phone call attempts to reach them.



SNF = skilled nursing facility

Figure 1. Study enrollment

Of the 380 patients who provided consent to the program, 228 received medications and discharge counseling from an inpatient staff pharmacist. The reasons the remaining 152 patients who consented to the Meds to Beds program did not receive discharge medications or discharge medication counseling are depicted in Figure 2. Eighty-two (53.95%) of these patients did not have any prescribed medications, and another 32 (21.05%) had their prescriptions sent to a non-contracted retail pharmacy instead of the contracted retail pharmacy for the Meds to Beds program. The additional reasons included medication delivery to the patient's residence, death of the patient, discharge before the bedside medication delivery, or the patient leaving against medical advice.

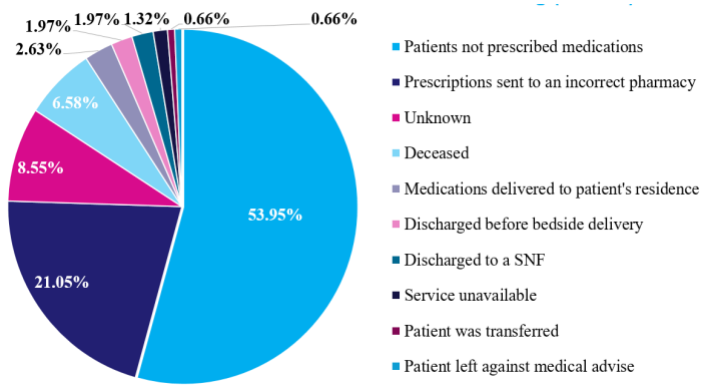


Figure 2. Reasons consented patients did not receive counseling (n = 152)

Statistical analysis

All statistical analyses were conducted using Excel. Descriptive statistics were utilized for all demographic, baseline, and clinical data. Continuous data, such as age, are described by means and standard deviations.

To evaluate the differences between the provider-initiated and pharmacist-initiated processes, we conducted statistical analyses using p-values for various demographic factors and outcome measures. The factors analyzed included age, gender, risk factors, and services provided. We also conducted statistical analyses using p-values and chi-square test for secondary outcomes, specifically the 30-day readmission rate for patients who received counseling and the 30-day readmission rate for patients with heart failure. A p-value of less than 0.05 was considered statistically significant.

It is important to note that, due to the absence of a denominator for the provider-initiated enrollment process, p-values could not be calculated for the number of patients enrolled or the number of patients counseled. Specifically, we did not collect data on which patients declined to participate in the provider-initiated process, nor did we record the total number of patients approached in that group. This limitation prevented a direct statistical comparison of enrollment and counseling rates between the two initiation processes.

Results

Baseline Characteristics

Table 1 lists demographics of the patients in the provider-initiated and pharmacist-initiated enrollment process. The average age of patients was 65.8 and 72.0 years, respectively. Females accounted for 52.5% and 51.3% of patients, respectively.

A smaller percentage of patients were under the primary care of hospitalist providers in the pharmacist-initiated process (77.6%) compared to the provider-initiated process (92.0%), while a higher percentage were under the care of private providers (21.1% vs. 6.2%).

Figure 3 demonstrates a significant difference in the risk profile of patients enrolled in the pharmacist-initiated program compared to the provider-initiated program. The pharmacist-initiated program had a higher proportion of patients with 2–5 risk factors, and fewer patients with only 1 risk factor or no risk factors at all. In the provider-initiated program, approximately 9.3% of patients had no risk factors.

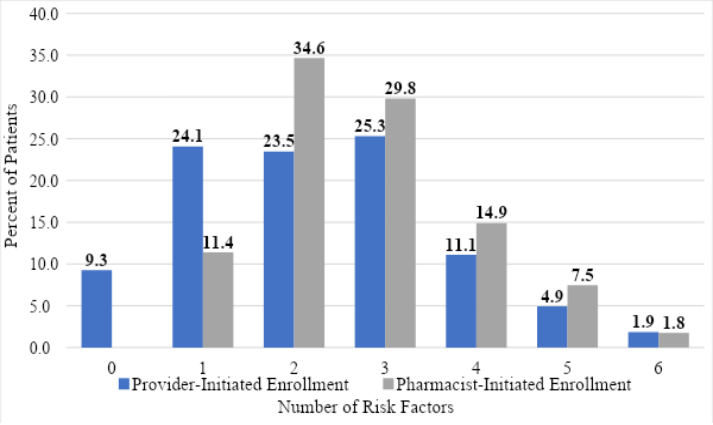


Figure 3. Distribution of patients by the number of existing risk factors

Demographic	Provider-Initiated Enrollment Process (n = 162)	Pharmacist-Initiated Enrollment Process (n = 228)	P-value
Age in years, avg (Std Dev)	65.8 (18.0)	72.0 (15.3)	0.0004
Gender, n (%)			
Male	77 (47.5)	111 (48.7)	2.53 E^{-11}
Female	85 (52.5)	117 (51.3)	5.38 E^{-09}
Risk factors, n (%)			
Hypertension	121 (74.7)	182 (79.8)	1.13 E^{-13}
Diabetes	79 (48.8)	137 (60.1)	8.38 E^{-23}
Age ≥75	56 (34.6)	112 (49.1)	3.72 E^{-33}
Heart failure	42 (25.9)	81 (35.5)	1.62 E^{-30}
COPD/asthma	37 (22.8)	61 (26.8)	2.23 E^{-19}
Acute coronary syndrome	33 (20.4)	60 (26.3)	3.73 E^{-26}
Service, n (%)			
Hospitalist	149 (92.0)	177 (77.6)	0.0018
Private	10 (6.2)	48 (21.1)	1.86 E^{-75}
Cardiology	3 (1.9)	3 (1.3)	1

Table 1: Baseline Characteristics

This distribution suggests that the pharmacist-initiated program was more effective at identifying and enrolling high-risk patients. Pharmacists were able to capture a greater number of patients with multiple risk factors, which are typically associated with a higher likelihood of medication-related problems and readmissions. The provider-initiated program, in contrast, enrolled a larger proportion of lower-risk patients, including some with no identified risk factors.

The p-values for most demographic factors were statistically significant ($p < 0.05$), indicating notable differences between the two processes. These significant differences were observed in age distribution, gender composition, and the prevalence of various risk factors. It is important to note, however, that the p-value for the cardiology service group did not reach statistical significance, as the distribution of patients in this service category was the same in both groups, with a value of 3 for both the provider-initiated and pharmacist-initiated processes.

Outcomes

As shown in Table 2, for the primary outcome, 380 patients were enrolled in the Meds to Beds program in the pharmacist-initiated enrollment group, compared to 162 in the provider-initiated enrollment group. For the secondary outcomes, 228 patients received counseling in the pharmacist-initiated enrollment group compared to 162 patients in the provider-initiated enrollment group. This indicates that the transition to a pharmacist-initiated enrollment led to a 71% increase in patient counseling volume.

Outcome Measures	Pharmacist-Initiated Enrollment	Provider-Initiated Enrollment	P-value	Chi-Squared
Primary Outcome				
Enrolled patients, n	380	162	NA	NA
Secondary Outcomes				
Patients counseled, n	228	162	NA	NA
30-day readmission rate for patients who received counseling, n (%)	45 (19.7)	31 (19.1)	0.88	0.022
30-day readmission rate for patients with heart failure, n (%)	24 (29.6)	12 (36.4)	0.29	1.10

Table 2: Outcomes

Comparing the pharmacist-initiated enrollment group and the provider-initiated enrollment group, the 30-day readmission rates overall were 19.7% and 19.1%, respectively, and for patients with heart failure were 29.6% and 36.4%.

Over the four quarters of the program, communication about medication HCAHPS scores increased 15% (Figure 4). The total number of medications prescribed, filled, and delivered to patients was higher in the pharmacist-initiated enrollment

group, with 907 prescriptions compared to 670 in the provider-initiated enrollment group.

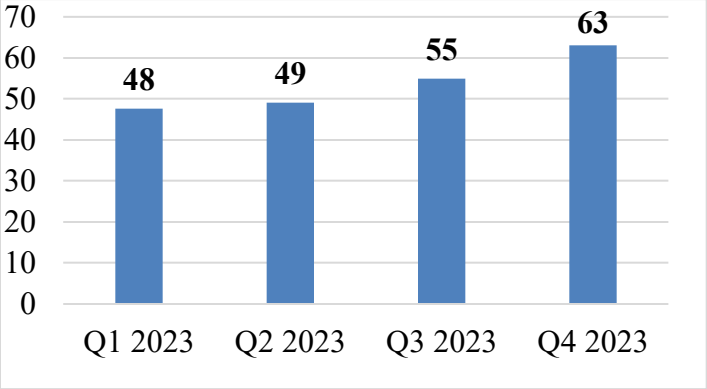


Figure 4. HCAHPS communication about the medication scores (%)
Q = quarter

The pharmacist-initiated program identified more high-risk patients who required multiple medications, aligning with the earlier observation that this program captured more patients with 2–5 risk factors. It improved medication access; more medications were prescribed, and they were filled and delivered to the patient's bedside. This helped eliminate the potential barriers to access patients may face after discharge, such as transportation issues or delays in visiting a pharmacy. It enhanced adherence potential by ensuring that patients left the hospital with their medications in hand. And it reduced the risk of medication errors by bridging the gap between inpatient and outpatient care through receiving patient counseling.

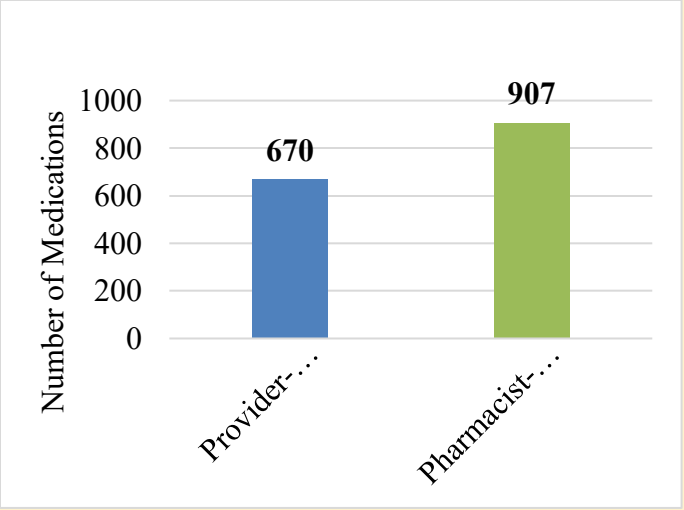


Figure 5. Total number of medications prescribed

The p-value of 0.88 for the 30-day readmission rate for patients receiving counseling, and of 0.29 for the 30-day readmission rate for patients with heart failure, indicate that the observed differences in readmission rates between the provider-initiated and pharmacist-initiated processes are not statistically significant.

Discussion

Study Strengths

There were many notable strengths of our study. Its comprehensive approach, which includes both quantitative outcomes (e.g., readmission rates, number of patients counseled) and qualitative ones (e.g., HCAHPS scores), aligns with the growing emphasis in the literature on evaluating multifaceted impacts of healthcare interventions. This dual focus allows for a thorough assessment of how pharmacist involvement can enhance patient care, similar to that of other studies that emphasize the critical role of pharmacists in improving medication adherence and patient satisfaction.[17]

By targeting high-risk patients with greater readmission risks, the study addresses a crucial gap in existing research. Previous studies have shown that Meds to Beds programs significantly reduce hospital readmissions by ensuring that patients leave with their medications and understand how to use them. Our focus on high-risk patients not only underscores the program's potential to improve outcomes for vulnerable populations, but also aligns with broader healthcare goals of reducing hospital readmissions and enhancing patient safety.[18]

The pharmacist-initiated enrollment process demonstrated in this study is a significant contribution to the literature, offering a practical framework for other institutions. This approach has been shown to increase patient enrollment and improve counseling rates, consistent with findings from other programs in which pharmacists play an active role in patient education and medication management.[18] The study's results support the notion that pharmacists' direct involvement can lead to better communication about medications, as reflected in improved HCAHPS scores. [19]

This study also demonstrated that multidisciplinary collaboration could enhance patient outcomes. The involvement of pharmacists alongside nurses and providers facilitates improved interdisciplinary teamwork and overall efficiency of the Meds to Beds service, ensuring that patients receive timely discharge medications and counseling. This collaborative model has been shown to foster better patient outcomes and satisfaction, reinforcing the value of integrated care teams in healthcare settings. [18, 19]

With a large sample size, this study provides robust evidence supporting the effectiveness of pharmacist-led interventions. The findings are applicable to similar hospital settings, adding to the generalizability of Meds to Beds programs across different healthcare environments. [18]

It is important to note that the increase in patient enrollment following the implementation of the pharmacist-initiated enrollment process may actually underestimate the program's

true impact. During the pharmacist-initiated enrollment period, individual providers were still permitted to enroll patients into the program at their discretion for select cases. These provider-initiated enrollments were not systematically tracked or included in our primary analysis. Consequently, the overall number of patients enrolled in the program during the pharmacist-initiated period is likely higher than what is reported in our results. This suggests that the positive impact of the program may be even more substantial than our data directly indicates. The flexibility to allow provider-initiated enrollments alongside the new pharmacist-initiated process demonstrates a comprehensive approach to patient care, potentially capturing a broader range of eligible patients and enhancing the program's reach and effectiveness.

Overall, this study highlights how the addition of a pharmacist in a program such as Meds to Beds can improve patient outcomes. It provides valuable insights into the role of pharmacists in improving patient outcomes, and lays a foundation for future research, encouraging further studies to assess the long-term impact of pharmacist-initiated enrollment in Meds to Beds programs.

Limitations

There were several limitations in our study. A notable one was our inability to calculate p-values for the patients enrolled or counseled in the provider-initiated process. This was due to the lack of a denominator for provider-initiated enrollment, as we did not systematically track which patients agreed to or declined participation, nor did we record the total number of patients approached in this group. This data collection oversight prevented a direct statistical comparison of enrollment and counseling rates between the provider-initiated and pharmacist-initiated processes. And while we were able to calculate p-values for other demographic factors and secondary outcomes, the results for the 30-day readmission rate for patients who received counseling ($p = 0.88$) and the 30-day readmission rate for patients with heart failure ($p = 0.29$) were not statistically significant. This lack of statistical significance limits our ability to draw definitive conclusions about the comparative effectiveness of the two processes in reducing readmission rates, although it does not necessarily imply that there are no clinically meaningful differences between them.

Gaps in interdisciplinary team communication led to missed counseling opportunities within our program. These gaps included nurses failing to notify the team when a patient left the facility, providers sending prescriptions to the contracted pharmacy without informing the core Meds to Beds team, and pharmacists not informing nurses when medications were being prepared for discharge counseling. As a result, some patients were discharged before receiving their discharge medications. Many missed opportunities to provide the service were also due to a lack of diligence in updating the patient's pharmacy information to the contracted retail pharmacy within their profile as soon as the patient was consented; this was the second-most common reason why consented patients did not receive counseling. Enhanced communication, documentation practices, and multidisciplinary collaboration were identified as necessary to resolve these barriers and optimize patient care outcomes.

The accuracy of risk factor assessment for eligibility screening depended heavily on thorough provider documentation, and we encountered incomplete patient histories at our institution due to diagnoses occurring elsewhere. Finalizing diagnosis often occurred after initial screening, making patients eligible retrospectively as necessary tests for confirmation were incomplete at initial screening. Data were also missing on the number of patients that providers initially tried to enroll and on those for whom we couldn't provide the service, such as patients leaving against medical advice before their planned discharge or patients declining the service after our enrollment attempt.

We lacked a standardized process for the provider-initiated enrollment process, as each provider had their own perspective about when the Meds to Beds program would be beneficial for their patients. Some chose not to use the service at all, and there was no screening process for the provider-initiated enrollment process.

After-visit summaries frequently failed to accurately reflect medication lists, contributing to instances of conflicting prescriptions (e.g., prescribing Oxycodone IR as a new medication while listing Percocet for continued use). This discrepancy often stemmed from inconsistent updates in admission medication reconciliations, resulting in discharge recommendations that were not consistently accurate. Limited engagement from social work and case management colleagues further exacerbated these issues, often preventing us from identifying patients facing financial barriers to accessing medications before sending discharge prescriptions or on the day of discharge. The lack of a coordinated multidisciplinary discharge planning process, and the absence of defined protocols for uninsured patients, also posed challenges to continuity of care.

The increased patient discharge counseling volume strained pharmacy staff resources. This was exacerbated by a shortage of cross-trained pharmacists, which occasionally created gaps in service provision. The lack of clear cutoff times for sending discharge prescriptions to the contracted pharmacy at times limited the availability of pharmacy staff as well, particularly during the evening shift when staffing levels were lower. Lastly, there was no comparison of readmission rates between patients discharged before and after the Meds to Beds service was implemented irrespective of the enrollment process.

Future Directions

This project highlighted several opportunities for improving our Meds to Beds process.

Defining a clear process for providing Meds to Beds services for uninsured patients will ensure that all patients, regardless of insurance status, have access to necessary medications upon discharge. This can be achieved by increasing engagement from social work and case management to better identify patients with insurance coverage gaps early in their admission and provide them with additional assistance for their prescription coverage.

Interdisciplinary communication protocols can also be improved, ensuring that nurses, providers, and pharmacists consistently inform each other about patient disposition status, prescription orders, and medication preparation. This coordination can prevent patients from being discharged before receiving their necessary medications and bedside counseling.

By being more diligent when updating the patient's pharmacy information to the contracted retail pharmacy required for the Meds to Beds service, we can ensure that patients who originally consent to the program receive their medication bedside delivery as anticipated. Improvements can also be made by conducting thorough medication reviews and reconciliation upon discharge, ensuring accurate and consistent medication lists in the after-visit summaries. This will also ensure that patients are well-informed about their discharge regimen, reducing the risk of adverse drug reactions and poor compliance.

Cross-training existing staff and hiring additional pharmacy staff to assist with patient counseling is essential to alleviate strain on our current Meds to Beds team and allow for expansion of services. By expanding our team's capacity, we can better meet the counseling needs of patients being discharged, and enhance overall service quality. We also need to increase awareness of the program; this is crucial for boosting the number of enrolled patients. Through targeted outreach efforts and education initiatives, we aim to reach more patients and extend the benefits of enrollment to a broader population.

Finally, comparing the readmission rates of patients discharged before and after the service implementation will provide a clearer understanding of the impact of our service on patient outcomes.

Conclusion

Implementation of the pharmacist-initiated process resulted in an increase in several key areas. There was a notable increase in overall patient enrollment in the Meds to Beds program for patients at high risk for readmission. Patient satisfaction, as measured by HCAHPS scores, saw a significant gradual improvement under the pharmacist-initiated process. The increase in the number of patients who were provided pharmacist counseling at bedside likely contributed to this enhanced satisfaction, as more patients received comprehensive support and education regarding their medications.

Furthermore, while similar readmission rates were observed between the two groups overall, readmission rates for patients with heart failure were notably lower for those in the pharmacist-initiated group. This underscores the importance of pharmacist involvement in medication management, particularly for patients with complex conditions requiring extensive or complex medication regimens.

Overall, pharmacists in our study played a pivotal role in enhancing our Meds to Beds process to improve patient outcomes and satisfaction. In the future, we will proactively pursue opportunities to further refine the process, with a focus on optimizing workflow, enhancing communication channels, and leveraging pharmacist expertise to continue driving improvements in patient care and outcomes.

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