Pharmacist-Managed Medication Reconciliation and Discharge Counseling

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Abstract

Background: Legacy Health is a six-hospital, five site system with three regional teaching hospitals and three community hospitals in the surrounding Portland, Oregon area. Legacy Health is known for the state's only burn center, as well as care in trauma, heart, and children's medicine.

Introduction: The discharge process can be a difficult and confusing time for patients and families. Multiple changes to patients' medication regimens, in addition to inadequate education and continuity of care commonly result in inappropriate medication prescribing, discrepancies between prescribed and actual regimens, poor adherence and inadequate surveillance for adverse effects. [5] Approximately 13% of patients discharged from hospital to home experience a medication-related post discharge adverse event of which eight percent could potentially be prevented. [6] Thus, in addition to positive quality evidence for pharmacist counseling at discharge, pharmacist interventions during discharge results in reduced preventable adverse drug events (ADEs) after discharge, hospital readmissions and return visits to the ED.[6]

Objective: To examine the effect of a pharmacist-managed medication reconciliation and discharge counseling program on patient satisfaction, identification of medication discrepancies by pharmacist and the availability of pharmacists to perform project tasks in addition to their current workload.

Methods

Primary Outcome: Utilized Legacy's Patient Voice initiative and HealthStream Research, an independent source for patient satisfaction surveys. HealthStreams calls 50 randomly selected anonymous discharged patients every quarter from Unit 55 and completes a brief phone survey. Data from May 2011 thru October 2011 was used as the before project scores and data from November 2011 thru April 2012 was used as the after project scores. Survey questions that were utilized in this project:

1.During this hospital stay, were you given any medicine that you had not taken before? Y/N
2.Before giving you any new medicine, how often did hospital staff tell you what the medicine was for? Would you say: 1-Never, 2-Sometimes, 3-Usually, 4-Always
3.Before giving you any new medicine, how often did hospital staff describe possible side effects in a way you could understand? Would you say: 1-Never, 2-Sometimes, 3-Usually, 4- Always
4.After you left the hospital, did you go directly to your own home, to someone else's home, or to another health facility? 1-Own home, 2-Someone else's home, 3-Another health facility
5.Using any number from 0 to 10, where 0 is the worst hospital possible and 10 is the best hospital possible, what number would you use to rate this hospital during your stay?
6.Would you recommend this hospital to your friends and family?

Secondary Outcome: Legacy's electronic medical record (EMR) was used to track number and types of medication discrepancies identified by the pharmacist during medication reconciliation between the discharge summary and the patient's prior to admission medications . This also made it possible to track the availability of pharmacists to perform counseling in addition to their current workload.

- Reviewed all patient charts discharged from Unit 55 from November 2011 thru April 2012.
- Counseling was identified based on pharmacists documenting their intervention in the patients electronic chart

Implementation

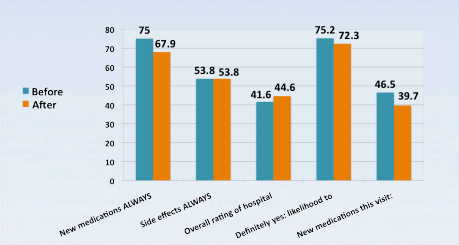
The project was implemented on a general medicine unit (Unit 55) at Legacy Emanuel Medical Center, which averages 280 discharges per month. This unit is staffed primarily by hospitalists and resident teams. There is one decentralized pharmacist on this unit during most day-time hours, however they are responsible for covering other units at different times during the shift.

Notifying Pharmacists of Future Discharges

- Within the EMR, pharmacists have "patient lists" with a variety of columns (options) to build their list of patients in the units they are covering
- Within the column "pending discharge" a date is populated once the physician has finalized the discharge summary
- The pharmacist attends daily multi-disciplinary rounds, where it is often possible to identify future discharges earlier in the day
- Worked with information services to create a "Best Practice Alert" via our EMR that would populate pending patient discharges directly into the pharmacists "In-Basket"
- Provided education to pharmacists and nurses about the new workflow

Primary Results

Table 1: Patient Satisfaction Survey Results



Patient Satisfaction

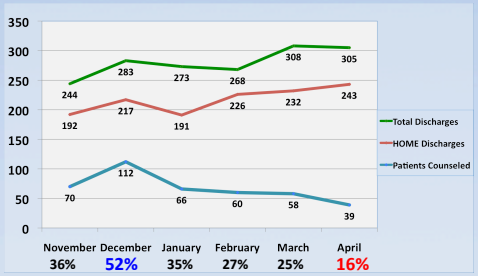
Patient satisfaction results were based primarily on two key questions; the patients overall rating of the hospital and their likelihood to recommend to friends or family. In addition, data was collected on other questions surrounding medication such as explanation of side effects and new medications. It was not possible to add specific questions about pharmacist discharge counseling as the survey was utilized by the entire Legacy system.

There was a slight increase in the percentage of patients that gave Legacy Emanuel Unit 55 an overall rating of 10/10 from 41.6% to 44.6%. In the before group, 25.7% of patients gave the unit a score of 9/10 compared to 28.4% after the intervention.

There was a slight decrease in the percentage of patients that responded they would definitely yes recommend this hospital to their family and friends from 75% to 72%. As these two questions are essentially surrogate markers for our primary endpoint of patient satisfaction, it is difficult to identify why one score would improve, while the other does not.

Secondary Results

Table 2: Pharmacist Discharge Counseling



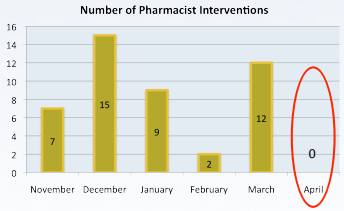
Pharmacist Availability

The rate of discharge counseling varied significantly within the six month trial period from 16 to 52 percent. As the number of total discharges per month increased, the number of patients counseled decreased, which is most likely due to decreased pharmacists availability to perform medication counseling because of their current busy workload.

During the month of December 2011, the counseling rate was at its highest of 52%. The most likely explanation for this was the increased availability of the pharmacy resident to focus solely on medication reconciliation and discharge counseling. That month also showed the highest number of medication discrepancies identified by a pharmacist. This contributes significantly to the necessity of having a complete FTE pharmacist dedicated to medication reconciliation and counseling.

Medication Discrepancies

The most common identified medication discrepancy was prevention of an adverse drug reaction, however these results are difficult to assess due to the large number of undocumented interventions. Additional pharmacist education is required to encourage increased intervention reporting within our EMR.



Conclusion

Based on preliminary measures, it is difficult to determine the overall effect of this pilot project on patient satisfaction. It is encouraging to see a higher percentage of patients scoring the hospital 10/10, although these same patients appear to be less likely to recommend the hospital to friends and family. Ultimately, until more patients being discharged home are counseled by a pharmacist this survey has limited utility due to the inability to determine if any of these surveyed patients actually received counseling or not.

The initial few months of the pilot program appeared very promising based on the percent of patients going home that received medication counseling by a pharmacist. However the last four months have had a steady decline in the counseling rate. This may be due to an increased total number of discharges, which equals an increased number of admissions, which undoubtedly takes more of the pharmacists' time. In addition during the month of December there was increased support focused on the project, which showed the effect this project could have on medication interventions and education if there was more dedicated pharmacist time available.

Recommendations

Continue pharmacist managed medication reconciliation and discharge counseling on Unit 55, consider spreading out to other medicine units within the Legacy Health system. Work with the discharge planning team to better organize the discharge process so that pharmacists are able to counsel patients perhaps the afternoon before discharge. Work with pharmacy management to reorganize which pharmacists cover other units during the day to free up pharmacists on the medicine units for more medication reconciliation and counseling time. The plan for this project specifically is to continue to collect data on pharmacist interventions to see if there is a correlation between interventions, counseling and patient satisfaction.

References

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Disclosure statement: Nothing to disclose.