

# Refining Transitions of Care: A Quality Improvement Project to Improve the Timeliness of Discharge Documentation

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Researchers from the Iowa City VA Health Care System sought to evaluate and update the discharge documentation and process to help overcome barriers and improve the quality of communication related to the discharge process.

Care transitions are the events that occur when patient care is transferred among different health care settings and requires actions that ensure safety, coordination, and continuity.<sup>1</sup> Hospital discharges are precarious care transitions as discontinuity between acute and ambulatory care can lead to dangerous adverse events (AEs).<sup>2</sup> For example, 20% of Medicare patients who are discharged from the hospital are readmitted within 30 days of discharge.<sup>3</sup> Further, nearly 2.3 million emergency department (ED) visits annually involve patients discharged from a hospital within 1 week of their ED visit.<sup>4</sup> Overall, the lack of effective communication among health care professionals at the time of discharge is associated with decreased provider and patient satisfaction, increased resource use, rehospitalization, and AEs.<sup>1,5-9</sup>

The discharge document can serve as a potential communication tool between inpatient and outpatient providers that improves the inpatient to ambulatory care transition. Van Walraven and colleagues found that patients' risk of rehospitalization decreased when their ambulatory follow-up physician had received a discharge summary.<sup>10</sup> The study concluded that the discharge summary dissemination of patient-specific hospital information to the follow-up physicians might influence important patient outcomes. Stiell and colleagues found that visits at the ED of a teaching hospital in Ottawa, Canada, were 1.2 hours longer on average for patients with an information gap in their health records than for those without one.<sup>11</sup> Although a study done by Bell and colleagues was unable to determine a direct relationship between physician communication and

important postdischarge patient outcomes, the study established the need for improving postdischarge communication between inpatient and outpatient providers.<sup>12</sup> Hence, timely completion of the hospital discharge document is essential to ensure optimal continuity of care for patients.

Within the Veterans Health Administration (VHA) system, asynchronous communication between physicians via the discharge summary is facilitated by the electronic medical record (EMR), which ensures all VHA providers have access to all documented patient encounters. Despite this support, there are 3 potential barriers to successful discharge communication. First, if not completed immediately, the discharge summary will not be available for a primary care physician (PCP) to review at the posthospital follow-up appointment. Second, documentation quality and style may vary in ways that inhibit effective communication. Third, dual system use (ie, using both VHA and private sector physicians) may mean a veteran's PCP does not have easy access to the patient's electronic

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discharge summary. Therefore, this study sought to evaluate and update the discharge documentation process at a local facility to help overcome these barriers and improve the quality of communication related to the discharge process.

When the project began, the standard practice at discharge was for patients to receive printed discharge instructions that listed discharge diagnoses, diet or activity restrictions, important contact numbers, and follow-up appointments. Other information, in particular medical information such as the hospital course, was included in a separate discharge summary ideally completed within 48 hours of discharge. However, hospital leadership was concerned about how frequently discharge summaries were more than 1 week delinquent. With the long-term goal of improving patient safety, the primary objective of this quality improvement (QI) project was to discharge all patients from the internal medicine inpatient unit with a single, veteran-centered, and provider-friendly physician discharge summary and instructions document. Secondary objectives identified during the improvement process included (1) establishing a robust process for medication reconciliation for patient discharge; and (2) revising the nursing discharge instructions.

## METHODS

### Setting

This QI project was conducted at the Iowa City VA Health Care System (ICVAHCS) and targeted all patients discharged from the internal medicine service. The ICVAHCS is a 93-bed acute care hospital affiliated with the University of Iowa Hospitals and Clinics providing care to more than 184,000 veterans living in 56 counties of eastern Iowa and western Illinois. The internal medicine service

provides care to about 200 patients per month on a 29-bed general internal medicine unit.

### Internal Medicine Unit Team Structure

On average, the general internal medicine unit is staffed by 7 nurses per 8-hour shift, and physicians are grouped into 3 academic teaching teams with 1 attending physician, 1 senior resident, 2 interns, and medical students. Multidisciplinary (ie, social work, pharmacy, physical therapy, palliative care, nursing, and dietitian) rounds occur on Monday to Friday afternoons to discuss care plans and anticipated discharge needs.

### Improvement Project Steps

The study used the Vision-Analysis-Team-Aim-Map-Measure-Change-Sustain framework to revise the discharge document and medication reconciliation process.<sup>13</sup>

### Vision

With the long-term goal of improving patient safety, the primary objective of this QI project was to discharge all patients admitted to the internal medicine inpatient unit with a single, patient-centered, and provider-friendly physician discharge summary and instructions document.

### Analysis

A review of 5 documents (ie, physician discharge instructions, nursing discharge instructions, day-of-discharge progress note, medication reconciliation note, and discharge summary) related to discharge was performed. The review of these documents identified many areas of overlap and repetition, which represented an additional workload as well as potential sources of confusion if the documents contained conflicting statements. Streamlining and focusing these documents represented an

easy win for the improvement team as well as something that could be marketed as a source of value for all the stakeholders. The review process also uncovered the first additional project driver, medication reconciliation.

A major concern that was uncovered when reviewing the discharge instructions documents, which facilitate self-care, was that patients received a minimum of 3 medication lists (physician-reconciled list, pharmacist-reviewed list, and nursing list of medications taken that day). This occurred because the document was edited by multiple providers, but if changes were made (particularly during the medication reconciliation process), the downstream provider could not remove any earlier medication lists that contained errors. While the nursing list of medications given on the day of discharge presented information different from that contained in the outpatient medications lists, patients could potentially misinterpret the meaning of the medications list. Additionally, this review identified the inclusion of standardized self-care guidelines for heart failure patients in the nursing discharge instructions for all patients, regardless of the patients' diagnoses.

A survey was also conducted with PCPs and residents to understand the information they needed for patient care or felt was appropriate communication in the discharge documentation. Questions covered the following: (1) what works well in the process; (2) problems with the discharge instructions and summary; (3) combining the documents; (4) suggestions; and (5) critical elements for the discharge summary. Particularly enlightening was feedback from the PCPs on ways that the discharge summary could be tailored to better facilitate patient care during the patient care transition.

Surprisingly, all of the surveyed residents were in favor of a combined document. Facilitating resident acceptance was the university affiliate hospital requiring a discharge summary prior to discharge. In contrast, PCPs did not favor a combined document, citing a concern that the new document would intensify their difficulty in identifying key information.

### Team

A multidisciplinary team was assembled with 2 cochairs, inpatient and outpatient physicians, an inpatient unit nurse manager, pharmacists, EMR programmers, and personnel from QI and utilization review offices.

### Aim

1. To discharge all patients admitted to internal medicine inpatient units with a single physician discharge document providing both instructions and summary.
2. To refine the discharge medication reconciliation process.
3. To revise the nursing discharge instructions.

### Map

The current discharge process and documentation was mapped by creating a 7-lane process flow map, which identified who on the care team created relevant documentation and how documentation contributed to the communication of information between individuals. Given the multidisciplinary nature of the discharge process and the need to coordinate multiple activities, it was critical to identify the roles and responsibilities of all providers involved in the process.

### Measure

The project required direct observation on the wards, discussing and

solving problems with the residents, nurses, clerks, and medical record programmers to ensure the combined discharge document met everyone's needs. More quantitative evaluation included monitoring the rate of delinquent discharge summaries, defined as summaries completed > 7 days after discharge, as well as evaluation of the quality of discharge instructions by reviewing compliance with the recommended congestive heart failure discharge core measures of the Joint Commission.

### Change

Over the next 4 months, the project team held several meetings to refine the discharge documents and medication reconciliation process. The process of refining the discharge documentation involved reviewing billing and compliance requirements for discharge documentation, sampling of discharge documents at VA hospitals, and reviewing transitions of care recommendations.<sup>14-17</sup> The group also worked to engage representatives from the surgical service but was unsuccessful.

The new physician discharge document and medication reconciliation process were piloted with 1 of the 4 medicine teams in March 2011. This process uncovered several technical issues as well as helped identify additional areas of improvement based on feedback from residents, nurses, and ward clerks. The final discharge document was rolled out in April 2011 after multiple Plan-Do-Study-Act (PDSA) cycles. The nursing discharge document, tailored to the nursing role, was rolled out in May 2011.

### Sustainment

The new physician discharge document, incorporating the discharge instructions and summary and the re-

vised nursing discharge instructions document, was set as the default discharge document for all the patients admitted to the internal medicine inpatient unit at the ICVAHCS. All residents were trained to use this document during their orientation session. The ongoing training and the completely prototyped document made sustainment easy and automatic.

## RESULTS

### Preimplementation

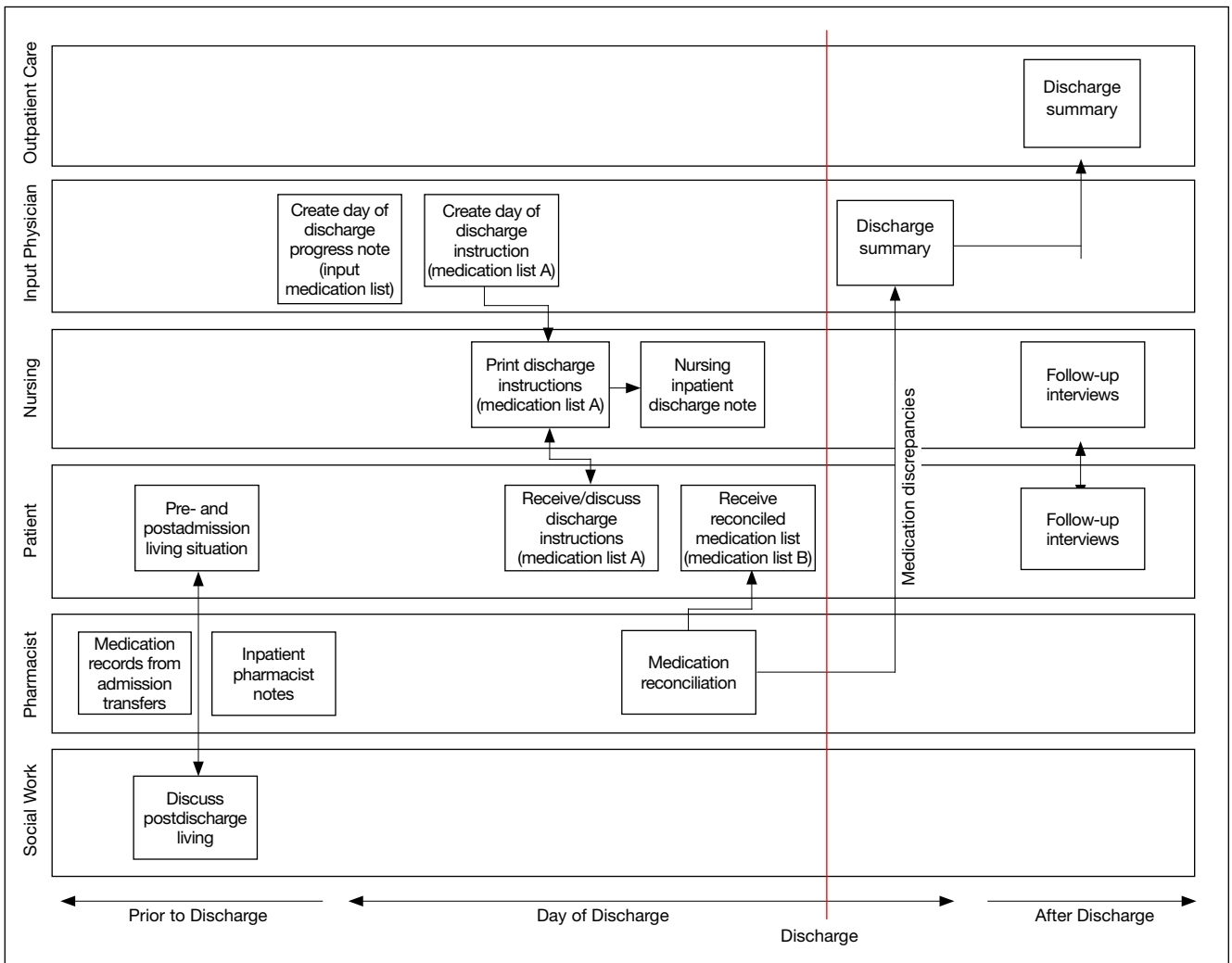
The discharge process is graphically described by the swim lane process map (Figure 1). The horizontal lanes represent patients and health care providers (HCPs) involved in the discharge process. The process is centered on the actual discharge of the patient from the facility (red vertical line) with the predischarge, discharge day, and postdischarge processes on the left and right side of the line as temporally appropriate. Vertical arrows between the lanes represent the transfer of information or material between individuals.

### Combined Discharge Summary and Instructions Document

Table 1 lists the final data elements included in the combined physician discharge summary and instructions document. The content, as well as the order of the elements, varied throughout the PDSA cycles as feedback from the key users helped clarify how to optimally balance the needs of all the stakeholders.

### Medication Reconciliation Process

The revised process involves the resident's review and ordering of outpatient medications and then signing of the combined physician discharge document without listing any of the medications in the document. Once the document is



**Figure 1.** Preimplementation Swim Lane Process Flow Map.

signed, the pharmacy reviews the ordered medications and communicates with the resident physicians to address any concerns. Once the pharmacy completes the reconciliation, they add the discharge document with the final outpatient medications list, and this becomes the only outpatient medications list given to the patient.

**Revised Nursing Discharge Instructions Document**

Table 2 lists the final elements of the nursing discharge instructions docu-

ment, tailored to reflect the nursing role in providing discharge education to the patient.

**Postimplementation**

The delinquency rate for completion of discharge summaries, defined as summaries completed > 7 days after discharge, declined after rollout of the new document while the number of discharges increased from October 2010 to June 2012 (Figure 2). Prior to the pilot testing, the 3-month average rate of delinquencies was 11%; in the 3 months after the pilot test-

ing, the rate was 3% and remained around 2% by June 2012. Although 100% of the discharge summaries were completed and provided to patients at the time of discharge, the delinquency rate did not drop to 0%. In further review, this was explained by the attending physicians not cosigning the discharge document in a timely manner. The quality of the discharge summary was maintained as indicated by a > 95% compliance rate with the heart failure discharge core measure of the Joint Commission.

**Table 1. Physician Discharge Document Components**

Data Element	Details of Discharge Document Components
Physician discharge overview	Discharge destination (eg, home, nursing home); principle diagnosis and relevant secondary diagnoses
Lifestyle recommendations	Instructions for activity and diet
Phone numbers	Phone numbers for emergent and nonemergent follow-up
Smoking	Smoking status documentation; if current smoker, advice to quit and assist with smoking cessation resources
Physician disease-specific instructions	Prewritten instructions for chest pain, congestive heart failure, chronic obstructive pulmonary disease, diabetes, hypertension, pneumonia, surgical care, or pain
Other	Open text field for additional physician instructions to the patient
Follow-up appointments request	Existing appointments and postdischarge follow-up appointments to be scheduled (eg, clinic, time frame, reason for visit)
Discharge summary	Hospital course, condition at discharge, pertinent abnormal review of systems, and physical examination findings at discharge
Tests	Pertinent laboratory results from the hospitalization, separate lists of procedures/images/surgeries completed, pending, or recommended at a follow-up visit

## DISCUSSION

All veterans admitted to the internal medicine service at the ICVAHCS are now discharged with a single, patient-centered, and provider-friendly physician discharge summary and instructions document. The medication reconciliation process and revised nursing discharge instructions were also improved.

The combined physician discharge document features a structured template with subheadings and guidelines that ensure documentation is consistent with the Joint Commission and VA requirements for discharge communication.<sup>18</sup> The discharge document ensures timely delivery of and consistent content covering patient diagnosis, abnormal physical findings, discharge medications, follow-up arrangements, counseling provided to patients and families, and tasks to be completed in the outpatient setting.<sup>7,17</sup>

During the pilot testing, the new

discharge document was met with some initial resistance. However, after a PDSA cycle addressing concerns the residents had with the document, the responses were overwhelmingly positive. For example, while hospital policy does not require a formal discharge summary (only discharge instructions) for patients treated under observation status (specific designation for hospital stays that are expected to be < 24 h), the residents preferred to complete the redesigned discharge instructions and summary rather than use the old discharge instructions for observation patients. In fact, although the document combined 2 documents (summary and instructions), residents provided testimony that completing it was actually time-saving.

This approach also helped reduce discrepancies within the patient record, standardized communication, and potentially reduced AEs after discharge. Reducing postdischarge AEs is a clear and important focus in

the payment reforms established in the Patient Protection and Affordable Care Act of 2010.<sup>19</sup>

Nearly half of the patients discharged from hospitals experience medical errors related to incomplete diagnostic workups, poor medication continuity, or failure to follow up on test results.<sup>8</sup> Studies have shown that physicians are frequently unaware of actionable test results that return after discharge.<sup>20</sup> Delays in postdischarge follow-up by PCPs decrease the likelihood that recommended workups will be completed, but an available discharge summary with documented workup recommendations will increase the likelihood of a completed workup.<sup>21</sup> Thus, better communication and coordination of care facilitated by a discharge summary can ameliorate many common postdischarge errors.<sup>6,8</sup> The proliferation of discharge venues and discontinuity in care of hospitalized patients makes postdischarge communica-

**Table 2. Nursing Discharge Document Components**

Data Element	Details of Discharge Document Components
Nursing discharge overview	Discharge location, contact information, acknowledgment of receipt and understanding of the instructions by patient/family
Lifestyle recommendations	Diet, activity, lifting restrictions
Medications	Medications administered to the patient prior to discharge
Nursing disease-specific instructions	Blood clot monitoring, infection signs/symptoms, wound care, smoking, anti-coagulation
Follow-up appointments update	Status of appointments (made and patient informed, pending at the time of discharge)
Specific referrals	Visiting nurse, home oxygen, physical therapy, occupational therapy, cardiac rehabilitation, other
Equipment	Status of delivery (accompanied with patient or to be delivered home) of equipment such as home oxygen, blood glucose monitor, etc
Other instructions	Transportation, special instructions, etc

tion especially important.<sup>22</sup> This effort incorporating the physician discharge instructions and summary into a single document attempts to bridge the asynchronous communication gap between outpatient and inpatient providers. While the delinquency rate did not fall to 0%, reflecting missing attending cosignatures on the revised discharge document, the document was complete for all patients and reviewable by a VHA PCP at the time of patient discharge from the hospital. In addition, giving a copy to the patient allows the patient to bring it to appointments with a PCP, no matter his or her affiliation with the VHA system. Studies have suggested using patients as couriers to shorten delivery time of discharge communication.<sup>7</sup>

Nearly 73% of seniors with chronic illnesses take more than 5 medications daily, and 33% to 54% of patients admitted to the hospital and nearly 15% of patients discharged after hospitalization experience unintended medication discrepancies.<sup>23-25</sup> Several barriers exist to effective medication recon-

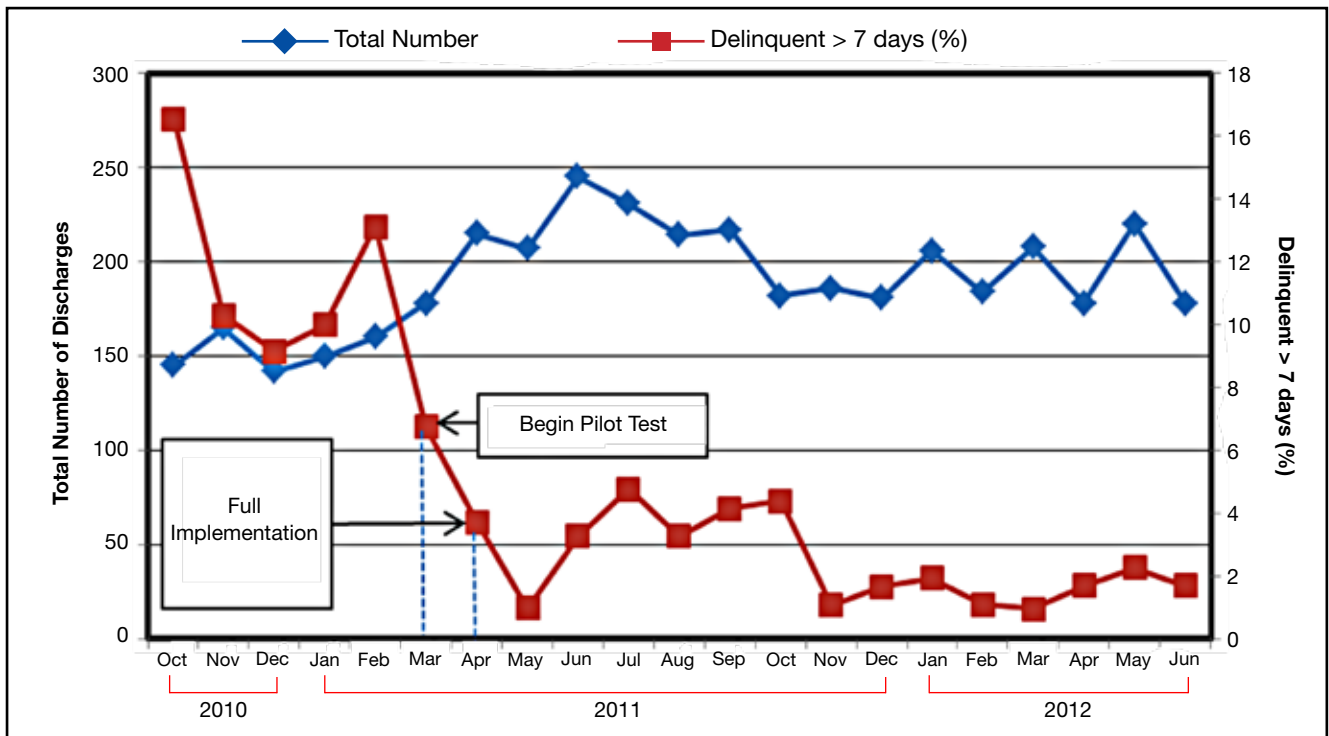
ciliation at care transitions, including health literacy, time constraints, language barriers, health status, and medical interviewing skills.<sup>26</sup> Multiple providers taking medication histories from the same patient could increase medication discrepancies.<sup>17</sup> Medication reconciliation at discharge involves careful review of the preadmission medications list, resuming or discontinuing any held medications, determining which medications from the hospitalization to continue, and providing patient education.<sup>27,28</sup> Studies have shown that pharmacist participation in medication reconciliation decreases medication discrepancy and patient harm.<sup>29</sup> The preimplementation discharge instructions document featured multiple medications lists, creating patient confusion and representing a potential threat to patient safety. Streamlining the medication reconciliation process increased communication and collaboration between pharmacists and physicians. These groups now work together to approve 1 final medications list. They understand

each group's unique contributions, and the process improvement has streamlined the practice such that the pharmacy department gladly accepted ownership of finalizing and placing the final medications list in the revised discharge document.

**LIMITATIONS**

This QI intervention has some limitations to generalizability. First, the setting is a medium-sized VA hospital in the Midwest with only 2 medicine wards. Although the process may not apply to other hospitals, the improvement steps can be applied to identify barriers to a successful, effective, and safe health care transition process. Second, although the discharge document was revised, it did not measure patient satisfaction or clinical outcomes of the new process. However, by discharging patients with a single medications list, it is hoped that patient safety and understanding of their postdischarge plan increases.<sup>18</sup> Third, although the patients were discharged with a single physician discharge document, they also received an additional nursing discharge doc-





**Figure 2.** Discharge Summaries Delinquent by > 7 Days (%) and Total Number of Discharges From October 2010 to June 2012.

ument. Although the document was tailored to reflect the nursing role in providing discharge instructions to patients, a few redundant components of the document (eg, activity instructions, medications taken prior to discharge) due to nursing requirements could not be removed. The VA computerized patient electronic record system limited the ability to combine nursing and physician documents into a single discharge document. These redundancies were viewed as essential checkpoints to ensure adequate discharge instructions were provided to the veterans.

## CONCLUSION

By involving the key stakeholders and garnishing support of hospital leadership, all patients were successfully discharged and admitted to the internal medicine inpatient unit with a single, patient-centered, and

provider-friendly physician discharge summary and instructions document as well as a revised nursing discharge instructions document. Informal discussions with the resident physicians, pharmacists, unit clerks, and nurses revealed increased satisfaction with the revised physician discharge document, medication reconciliation process, and nursing discharge instructions. Identification of individual roles and tailoring the process to reflect the responsibilities of various HCPs were important elements of its success. ●

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REFERENCES

1. Coleman EA, Berenson RA. Lost in transition: Challenges and opportunities for improving the quality of transitional care. *Ann Intern Med.* 2004;141(7):533-536.
2. Cook RI, Render M, Woods DD. Gaps in the continuity of care and progress on patient safety. *BMJ.* 2000;320(7237):791-794.
3. Jencks SF, Williams MV, Coleman EA. Re-hospitalizations among patients in the medicare fee-for-service program. *N Engl J Med.* 2009;360(14):1418-1428.
4. Burt CW, McCaig LF, Simon AE. Emergency department visits by persons recently discharged from U.S. hospitals. *Natl Health Stat Report.* 2008;(6):1-9.
5. Forster AJ, Murff HJ, Peterson JF, Gandhi TK, Bates DW. Adverse drug events occurring following hospital discharge. *J Gen Intern Med.* 2005;20(4):317-323.
6. Forster AJ, Murff HJ, Peterson JF, Gandhi TK, Bates DW. The incidence and severity of adverse events affecting patients after discharge from the hospital. *Ann Intern Med.* 2003;138(3):161-167.
7. Kripalani S, LeFevre F, Phillips CO, Williams MV, Basaviah P, Baker DW. Deficits in communication and information transfer between hospital-based and primary care physicians: Implications for patient safety and continuity of care. *JAMA.* 2007;297(8):831-841.
8. Moore C, Wisnivesky J, Williams S, McGinn T. Medical errors related to discontinuity of care from an inpatient to an outpatient setting. *J Gen Intern Med.* 2003;18(8):646-651.
9. Poon EG, Gandhi TK, Sequist TD, Murff HJ, Karson AS, Bates DW. "I wish I had seen this test result earlier!": Dissatisfaction with test result management systems in primary care. *Arch Intern Med.* 2004;164(20):2223-2228.
10. van Walraven C, Seth R, Austin PC, Laupacis A. Effect of discharge summary availability during post-discharge visits on hospital readmission. *J Gen Intern Med.* 2002;17(3):186-192.
11. Stiell A, Forster AJ, Stiell IG, van Walraven C. Prevalence of information gaps in the emergency department and the effect on patient outcomes. *CMAJ.* 2003;169(10):1023-1028.
12. Bell CM, Schnipper JL, Auerbach AD, et al. Association of communication between hospital-based physicians and primary care providers with patient outcomes. *J Gen Intern Med.* 2009;24(3):381-386.
13. Davies M. VHA systems redesign: A plan for organizational transformation. Health Services Research and Development Services Website. [http://www.hsrdr.research.va.gov/for\\_researchers/cyber\\_seminars/archives/qip-052609.pdf](http://www.hsrdr.research.va.gov/for_researchers/cyber_seminars/archives/qip-052609.pdf). Accessed November 29, 2013.
14. Coleman EA, Parry C, Chalmers S, Min SJ. The care transitions intervention: Results of a randomized controlled trial. *Arch Intern Med.* 2006;166(17):1822-1828.
15. Halasyamani L, Kripalani S, Coleman E, et al. Transition of care for hospitalized elderly patients—development of a discharge checklist for hospitalists. *J Hosp Med.* 2006;1(6):354-360.
16. Jack BW, Chetty VK, Anthony D, et al. A reengineered hospital discharge program to decrease rehospitalization: A randomized trial. *Ann Intern Med.* 2009;150(3):178-187.
17. Kripalani S, Jackson AT, Schnipper JL, Coleman EA. Promoting effective transitions of care at hospital discharge: A review of key issues for hospitalists. *J Hosp Med.* 2007;2(5):314-323.
18. Joint Commission. The Joint Commission announces the 2008 national patient safety goals and requirements. *Jt Comm Perspect.* 2007;27(7):1, 9-22.
19. United States Department of Labor: Patient protection and Affordable Care Act. United States Department of Labor Website. <http://www.dol.gov/ebsa/healthreform>. Accessed November 29, 2013.
20. Roy CL, Poon EG, Karson AS, et al. Patient safety concerns arising from test results that return after hospital discharge. *Ann Intern Med.* 2005;143(2):121-128.
21. Moore C, McGinn T, Halm E. Tying up loose ends: Discharging patients with unresolved medical issues. *Arch Intern Med.* 2007;167(12):1305-1311.
22. Agency for Healthcare Quality Research. HCUPnet. Agency for Healthcare Quality Research Website. <http://hcupnet.ahrq.gov>. Accessed November 29, 2013.
23. Cornish PL, Knowles SR, Marchesano R, et al. Unintended medication discrepancies at the time of hospital admission. *Arch Intern Med.* 2005;165(4):424-429.
24. Coleman EA, Smith JD, Raha D, Min SJ. Post-hospital medication discrepancies: Prevalence and contributing factors. *Arch Intern Med.* 2005;165(16):1842-1847.
25. Gleason KM, McDaniel MR, Feinglass J, et al. Results of the medications at transitions and clinical handoffs (MATCH) study: An analysis of medication reconciliation errors and risk factors at hospital admission. *J Gen Intern Med.* 2010;25(5):441-447.
26. Sullivan C, Gleason KM, Rooney D, Groszek JM, Barnard C. Medication reconciliation in the acute care setting: Opportunity and challenge for nursing. *J Nurs Care Qual.* 2005;20(2):95-98.
27. Holzmüller CG, Hobson D, Berenholtz SM. Medication reconciliation: Are we meeting the requirements? *Clin Outcomes Manage.* 2006;13(8):441-444.
28. Pronovost P, Weast B, Schwarz M, et al. Medication reconciliation: A practical tool to reduce the risk of medication errors. *J Crit Care.* 2003;18(4):201-205.
29. Gleason KM, Groszek JM, Sullivan C, Rooney D, Barnard C, Noskin GA. Reconciliation of discrepancies in medication histories and admission orders of newly hospitalized patients. *Am J Health Syst Pharm.* 2004;61(16):1689-1695.