Discharge Education Program Increases Patient Understanding of Treatment and Follow Up Care

◼ Snapshot

Summary

Emory Crawford Long Hospital conducted a pilot test of the Patient Safe-D(ischarge) program, which uses standardized tools to educate patients about their discharge needs, test understanding of those needs, and improve medication reconciliation at admission and discharge. A quasi-randomized controlled trial of the program found that it significantly increased patients' understanding and knowledge of their diagnoses, treatment, and required follow up care. Based on the success of this test, Patient Safe-D has now been incorporated as part of the Society of Hospital Medicine's Project BOOST (Better Outcomes for Older Adults through Safe Transitions) initiative, which provides a full implementation toolkit to help institutions implement this and other programs to improve discharge education.

Developing Organizations

Emory Crawford Long Hospital

Atlanta, GA

Date First Implemented

2005

What They Did

Problem Addressed

Recently discharged patients often suffer complications that lead to hospital readmission. Many of these problems are the result of a failure to understand and adequately manage post-discharge care needs, such as following prescribed medication regimens.

- **Frequent (but often preventable) readmissions:** One study found that almost one-fifth of individuals with an initial preventable admission had at least one preventable readmission within 6 months, at a cost of approximately $730 million.[1] A Medicare Payment Advisory Committee report notes that 11.5 percent of Medicare patients are readmitted within 15 days of their initial discharge, while 17.6 percent are readmitted within 30 days; 76 percent of 30-day readmissions were considered preventable.[2]

- **Insufficient patient understanding of care and care needs:** Many readmissions occur because hospitalized patients and their family members do not adequately understand their post-discharge care needs, including complicated medication regimens and the need for periodic follow up care from different health care providers. In fact, at discharge, patients often do not know what medications their physicians have prescribed, when their follow up appointments should take place and, in some cases, why they were hospitalized in the first place.[3] One study of recently discharged patients found that 64 percent reported not being told before discharge how to manage their care at home.[4]

Description of the Innovative Activity

Emory Crawford Long Hospital conducted a pilot test of the Patient Safe-D program, which

uses standardized tools to educate patients about their discharge needs, test patients' understanding of those needs, and improve medication reconciliation at admission and discharge. Patient Safe-D tools have now been incorporated within the Society of Hospital Medicine's Project BOOST initiative, which provides a full implementation toolkit to help institutions improve discharge education. Key elements of the program, which was tested by the hospital from July 2005 through June 2007, include the following:

- **Eligibility:** At Crawford Long, patients over the age of 18 years who did not have underlying dementia (or who had dementia but had a reliable caregiver) were considered eligible for the program.

- **Discharge Patient Education Tool (DPET):** This form provides basic patient information as well as admission and discharge dates; names of physicians who provided care; patient diagnoses; test results; a summary of the most important treatment interventions received in the hospital; required follow up appointments, tests, and other care; symptoms to watch for; and required medications. The form is written in first-person language to enhance patient understanding and attachment to the information. In the pilot test at Crawford Long, a nurse case manager completed the form, confirmed its accuracy with the patient's physician, and reviewed it with the patient prior to discharge. The patient was given the DPET form to take home for later reference.

- **Discharge Knowledge Assessment Tool (DKAT):** This form is used by clinicians or investigators to record the patient's responses to teach-back questions related to information presented on the DPET and to determine the accuracy of patient understanding and recall. At Crawford Long, a research assistant visited with study participants and used the DKAT to assess patient understanding of discharge instructions; patients were permitted to refer to the DPET during this teach-back process.

- **Medication reconciliation forms:** A medication reconciliation form is completed at patient admission, listing all medications used before admission (including pills, patches, inhalers, eye drops, over-the-counter medications, and supplements). A discharge medication form lists the prescription and non-prescription medications to be taken after discharge, along

with reasons for taking the medication and prescribed doses. During the pilot test at Crawford Long, a pharmacist completed these forms and reviewed the discharge form with patients before discharge.

References/Related Articles

Care Transitions for Older Adults Resource Room: Project BOOST, Society of Hospital Medicine. Available at: www.hospitalmedicine.org/BOOST

Contact the Innovator

Mark V. Williams, MD, FACP

Chief, Division of Hospital Medicine

Northwestern University Feinberg School of Medicine

750 N. Lake Shore Drive, #11-187

Chicago, IL 60611

(312) 503-2810

E-mail: markwill@nmh.org

Did It Work?

Results

The innovation impact was evaluated with a quasi-randomized controlled trial using a mix of randomization and convenience sampling, according to project resources. The trial, which included 161 intervention patients and 100 control group patients, found that the Patient Safe-D program significantly improved patients' understanding and knowledge of their diagnoses, treatment, and required follow up care. Because results from the study are currently being submitted for publication, more detailed quantitative findings cannot be shared at this time.

- **Better understanding of diagnoses, testing, and treatment:** Very few program participants failed to understand their diagnoses, compared to roughly one in five of those in the control group. Program participants were twice as likely as those in the control group

to understand the tests they received in the hospital, and 50 percent more likely

to understand the treatment received.

- **Improved knowledge of follow up care:** Nearly all program participants knew the dates

  and times of their required follow up appointments, compared to less than 20 percent of

  those in the control group.

Evidence Rating (*What is this?*)

Moderate: The evidence consists of comparison between intervention and control group outcomes to

evaluate impact on patients' understanding of the inpatient care they received and of required follow

up care.

How They Did It   [Back to Top]

Context of the Innovation

The Patient Safe-D research project was conducted at Emory Crawford Long Hospital, a 450-bed

community hospital staffed by community and academic physicians. Mark V. Williams, MD, created

the program while at Crawford Long (he is now at Northwestern University's Feinberg School of

Medicine); the program grew out of his general interest in health literacy and a desire to improve

transitions in care. In 2005, Dr. Williams was awarded one of 17 Partnerships in Implementing

Patient Safety (PIPS) grants offered by the Agency for Healthcare Research and Quality (AHRQ);

these 2-year grants are intended to promote the development of implementation kits and tools

that facilitate the adoption of patient safety interventions. As a part of Project BOOST, the Society of

Hospital Medicine is currently disseminating the implementation resources developed through Patient

Safe-D, along with additional tools developed as part of Project RED (Re-Engineered Discharge), a

separate PIPS project tested at the Boston Medical Center.

Planning and Development Process

Project BOOST, which is working to encourage adoption of Patient Safe-D resources, offers

a detailed implementation guide that outlines the steps and tools necessary to implement

a program designed to improve discharge education. Selected elements of the planning and

development process described by the guide include the following:

- **Establishing an organizational framework for quality improvement:** Several initial steps are required, including obtaining support from institutional leadership; establishing a team that includes stakeholders from various disciplines; and establishing team rules, general goals, and specific quantifiable improvement aims to be achieved by delineated dates.

- **Estimating financial costs and benefits:** Estimates of the program's financial impact (based on factors such as payer mix, occupancy rate, and others) and the resources required should be developed.

- **Analyzing the existing process:** The project team should analyze the existing education process used at discharge and identify key areas for improvement. Important areas for consideration include tools used to assess patient/family preparedness for discharge; the medication reconciliation process, including how polypharmacy issues are addressed; patient handoff, including processes and tools for communicating with physicians and with subsequent care sites; and evaluation methods for assessing the quality of the current discharge process.

- **Implementing a new process:** The team should design a new process that incorporates relevant Patient Safe-D and Project BOOST resources, including (but not limited to) a tool to evaluate a patient's risk of readmission, an assessment of patient preparedness for discharge, the DPET, medication reconciliation tools, and tools to facilitate and confirm communication with providers at the next site of care.

- **Evaluating the new process:** The team should collect, analyze, and present data showing the impact of the new discharge process. Outcomes evaluated might include length of stay, 30-day rehospitalization rates, and patient satisfaction. Process measures might include patient/caregiver understanding of treatments, follow up care required, and warning signs and response.

- **Ongoing refinement:** Based on findings from the evaluation, the team should continue to improve the discharge process by examining whether the needs of all patients are being

addressed, whether hospital staff have embraced the new process, and/or whether further simplification is possible.

Resources Used and Skills Needed

- **Staffing:** The project can be implemented with existing discharge planning or nursing staff who can incorporate the DPET and other discharge planning tools into their daily activities.

- **Costs:** Patient Safe-D tools are available free of charge through Project BOOST (see Tools and Other Resources section below) and can be implemented with minimal funds, using existing staff resources.

Funding Sources

Agency for Healthcare Research and Quality; John A. Hartford Foundation

Patient Safe-D research was funded by AHRQ PIPS Grant #HS015882-01. Project BOOST is funded by the John A. Hartford Foundation.

Tools and Other Resources

The Project BOOST implementation kit, which includes a wide array of tools, is available at:

http://www.hospitalmedicine.org/ResourceRoomRedesign/RR_CareTransitions/CT_Home.cfm.

Selected Tools

The Discharge Patient Education Tool (DPET). Available at:

http://www.hospitalmedicine.org/AM/Template.cfm?Section=Quality_Improvement_Tools&Template=/CM/ContentDisplay.cfm&ContentID=12941

The Discharge Knowledge Assessment Tool (DKAT). Available at:

http://www.hospitalmedicine.org/AM/Template.cfm?Section=Quality_Improvement_Tools&Template=/CM/ContentDisplay.cfm&ContentID=12942

Medication Reconciliation Forms

Medication reconciliation at admission. Available

at: http://www.hospitalmedicine.org/AM/Template.cfm?Section=Quality_Improvement_Tools&Template=/CM/ContentDisplay.cfm&ContentID=12943

Medication reconciliation at discharge. Available

at: http://www.hospitalmedicine.org/AM/Template.cfm?Section=Quality_Improvement_Tools&Template=/CM/ContentDisplay.cfm&ContentID=12944

Adoption Considerations

Getting Started with This Innovation

- **Obtain senior administrator support:** To win administrator support, share data on the program's potential to reduce readmissions and improve physician and patient satisfaction. A direct line of communication to a senior administrative "champion" can be very helpful.

- **Consider financial implications:** For many institutions, current payment mechanisms do not create a financial incentive to support activities that reduce rehospitalizations. As a result, the potential financial impact of better discharge education should be estimated.

- **Create a multidisciplinary project team:** The discharge process involves a number of different disciplines. The project team should include representatives from the medical staff, nursing, pharmacy, discharge staff, care management, and social work. Former patients can also be valuable team members.

- **Learn quality improvement techniques:** Understanding the principles, strategies, and tools for quality improvement is critical prior to the success of any program to improve discharge education. Institutions often have quality improvement officers that can assist teams in designing processes.

- **Set appropriate project goals:** Goals should be SMART (specific, measurable, achievable, realistic, and time-defined).

- **Use a process flow mapping tool:** Formally mapping the discharge process will ensure that team members have a good understanding of the current discharge process and opportunities for improvement.

- **Expect and prepare for more patient questions:** Engaging patients in the discharge process will likely encourage them to ask questions or request more information (in fact, clinicians should invite patients to do so). Answering these questions will add some time to the discharge process, but the time will be well spent, as it will enhance patients' understanding of their condition, treatment, and required follow up care.

Sustaining This Innovation

Continue to monitor and refine the discharge process: Ongoing, regularly-scheduled assessments of the process are necessary to ensure that improvements are sustained.

Use By Other Organizations

Project BOOST is being implemented in six pilot sites beginning in October 2008.

Comment on this innovation/Read other comments.

[1] Friedman B, Basu J. The rate and cost of hospital readmissions for preventable conditions. *Med Care Res Rev* 2004 Jun:61(2);225-40. [PubMed]

[2] Report to the Congress: promoting greater efficiency in Medicare. Washington, DC: Medicare Payment Advisory Committee (MedPAC); June 2007:103-20. Available at:

http://www.medpac.gov/documents/Jun07_EntireReport.pdf

[3] Reengineering hospital discharge process could improve care, say AHRQ researchers. Agency for Healthcare Research and Quality. AHRQ Patient Safety E-Newsletter. 2007 Aug 6;(34). Available at:

http://www.ahrq.gov/news/ptsnews/ptsnews34.htm

[4] Clark PA. Patient satisfaction and the discharge process: evidence-based best practices. Marblehead, MA: HCPro, Inc.; 2006.

Innovation Profile Classification

Patient Population: Age > Senior adult (65-79 years); Aged adult (80+ years); Geographic Location > City; Vulnerable Populations > Frail elderly

Stage of Care: Preventive care; Acute care

Setting of Care: Hospital Inpatient - Hospital Type > Community hospital

Patient Care Process: Active Care Processes: Diagnosis and Treatment > Chronic-disease management; Patient safety; After Care Processes > Follow-up care; Transitions between settings; Patient-Focused Processes/Psychosocial Care > Counseling; Improving patient self-management; Patient education; Provider-patient communication

IOM Domains of Quality: Effectiveness; Patient-centeredness; Safety; Timeliness

Developer: Emory Crawford Long Hospital

Funding Sources: Agency for Healthcare Research and Quality; John A. Hartford Foundation