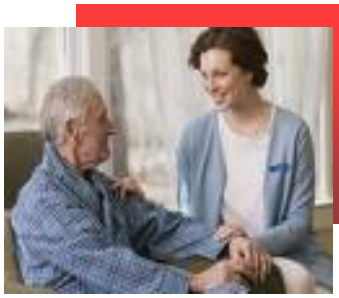

An Overview of the ReEngineered Discharge(RED) Toolkit

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A note to users: We would greatly appreciate any feedback that you might have on how to improve this toolkit. This information should be directed to Project RED on Boston University Medical Center's website, www.bu.edu/fammed/projectred/, and leave your comments or questions in the "contact us" section.

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Introduction

A variety of forces are pushing hospitals to improve their discharge process to reduce readmissions. Researchers at the Boston University Medical Center (BUMC) developed and tested the Re-engineered Discharge (RED) process. Research showed that RED was effective at reducing readmissions and post-hospital emergency department visits[1].

BUMC, under an AHRQ contract, has developed this toolkit to assist hospitals to replicate the RED. *An Overview of the RED Toolkit* explains why hospitals would want to re-engineer their discharge processes, provides evidence of the RED's impact, and introduces each of the tools in the toolkit.

Why Re-Engineer Your Discharge Process?

The hospital discharge is a complex process requiring integrated communications among the inpatient care team, primary care team, community services and the patient and patient's family. Discharge processes at U.S. hospitals have recently been shown to lack many key components which can lead to rehospitalization of patients, at a rate of almost 1 in 5, some of which are avoidable[2,3]. Some factors include:

- **Delayed Transfer of Discharge Summary:** There is frequently a delay between the time a patient is released from the hospital and when the primary care doctor receives the discharge summary. This delay means the doctor isn't immediately aware of which tests and procedures were done during the patient's hospital stay or what conditions still need attention.
- **Unknown Test Results:** Test results aren't complete by the time the patient leaves the hospital. This means the test results won't be included in the report the patient's primary care doctor receives.
- **Patients Fail to Follow-up:** Patients themselves often don't realize they need to make appointments for tests or procedures after leaving the hospital. They may be unable to make appointments due to lack of access to transportation or availability of appropriate doctors/specialists. Research has found that more than one-third of the patients who left the hospital in need of more care (i.e. lab tests or a referral to a specialist) failed to get that care[4,5].
- **Medication Interactions and Adverse Events:** Confusion about which medications to take can also lead to problems after a patient leaves the hospital. When patients are admitted to the hospital, many stop taking their regular medications and start taking new ones. Once they leave the hospital, there is often confusion regarding which of the pre-hospitalization

[1] Jack BW, Chetty VK, Anthony D, Greenwald JL, Burniske GM, Johnson AE, Forsythe SR, O'Donnell JK, Paasche-Orlow MK, Manasseh C, Martin S, Culpepper L. A Reengineered Hospital Discharge Program to Decrease Rehospitalization: A Randomized Trial. *Annals of Internal Medicine* 2009; 150(3): 179-197.
[2] IBID
[3] Jencks SF, Williams MV, Coleman EA, Rehospitalizations among patients in the Medicare fee-for-service program. *N Engl J Med*. 2009;360:1418-1428.
[4] Roy CL, Poon EG, Karson AS, Ladek-Merchant Z, Johnson RE, Maviglia SM, Gandhi TK. Patient Safety Concerns Arising from Test Results that Return after Hospital Discharge. *Annals of Internal Medicine* 2005; 143(2):121-8.
[5] Moore C, McGinn T, Halm E. Discharging Patients with Unresolved Medical Issues. *Archives of Internal Medicine* 2007;167:1305-11.

medications should be continued. This may result in the failure to take a needed medication, ingestion of duplicate medication or unanticipated adverse drug or natural remedy interactions.

The result of hospitals' failure to ensure an effective transition has included adverse events[6] and high readmission and emergency department visit rates.[7] Forces are, however, converging to push hospitals toward improving their discharge processes and reducing readmission rates.

One force is that national quality organizations have begun to set standards to address some of the deficiencies of discharge planning. For example, the National Quality Forum (NQF) Safe Practice-15 lays out key processes of an effective discharge plan including communicating discharge information to community providers.[8] NQF has recently endorsed three readmission performance measures: hospital-specific, risk-standardized and all-cause 30-day readmission rates and the Centers for Medicare and Medicaid (CMS) has begun public reporting of these measures.

A second force comes from quality improvement organizations that have set out to help hospitals improve their discharge process. For example, in the Quality Improvement Organizations' 9th Scope of Work, CMS has included a theme entitled Patient Pathways (Care Transitions). The goal of this theme is to measurably improve the quality of care for Medicare beneficiaries who transition among care settings, with the goal of reducing readmissions and developing replicable strategies to sustain reduced readmission rates.[9]

A third force is the prospect that payment for readmissions will be changed. In its 2007 report to Congress, the Medicare Payment Advisory Commission (MedPac) identified a potential savings of $12 billion per year by reducing preventable readmissions.[10] In its June 2008 report, MedPAC made recommendations that Medicare should adopt a bundled payment approach, paying a single provider entity (comprising a hospital and its affiliated physicians) a fixed amount to cover the costs of providing the full range of Medicare-covered services delivered during the episode of care (e.g., the hospital stay plus 30 days after discharge).[11] In April 2008 the Centers for Medicare and Medicaid sought public comment on two proposals to revise hospital payments to provide hospitals with financial incentives to reduce avoidable readmissions. The first is to reduce payments for preventable readmissions. The second is to incorporate readmission rates into the calculation of performance-based payments in the Value-Based Performance Plan. President Obama's FY 2010 budget included savings in health care programs, including proposals to bundle Medicare payments for hospital and post-acute care ($17.84 billion in savings), reduce payments to hospitals with certain readmission rates ($8.43 billion), and link a portion of

[6] Forster AJ, Clark HD, Menard A, et al. Adverse events among medical patients after discharge from hospital. *CMAJ* 2004; 170 (3): 345-349.
[7] Jencks, et al. Rehospitalizations among patients in the Medicare fee-for-service program.
[8] National Quality Forum. Safe Practices for Better Healthcare- 2009 Update: A Consensus Report. Washington, DC: National Quality Forum; 2009.
[9] Centers for Medicare & Medicaid Services and Quality Improvement Organization. 9th Statement of Work. Pre-Proposal Conference; January 28, 2008; CMS. Baltimore, Maryland. *www.inahq.com/.../5-1-2008_InAHQ_**9th**_SOW_Presentation.ppt.*
[10] Medicare Payment Advisory Commission. Reporting to the Congress: Promoting Greater Efficiency in Medicare. Washington, DC: MedPac; 2007.
[11] Medicare Payment Advisory Commission. Report to the Congress: Reforming the Delivery System. Washington, DC: MedPac; 2008.

inpatient hospital payment to performance on specific quality measures ($12.09 billion).[12] The Hospital Readmissions Reduction Program included in the Patient Protection and Affordable Healthcare Act (PPACA) signed by President Obama states that starting October 1, 2012 Medicare will reduce payments to hospitals with "excess readmission rates" for heart attacks, heart failure and pneumonia.[13]

What is the RED?

Project Re-Engineered Discharge (RED) consists of a set of 11 actions that the hospital undertakes during and after the hospital stay to ensure a smooth and effective transition at discharge. RED is the product of seven years of work supported with funding from the Agency for Health Research and Quality (AHRQ) and the National Heart, Lung and Blood Institute (NIH-NHLBI). Preliminary work included intensive study of the discharge process, borrowing methodologies from engineering such as process mapping, failure mode effect analysis, probabilistic risk assessment, root cause analysis, and qualitative analysis to define the RED, a set of mutually reinforcing components that we believe define a high quality hospital discharge.

For more information on our methodology please go to:

http://www.bu.edu/fammed/projectred/publications.html

Components of the RED

1. Make appointments for follow-up medical appointments and post discharge tests/labs.
2. Plan for the follow-up of results from lab tests or studies that are pending at discharge.
3. Organize post-discharge outpatient services and medical equipment.
4. Identify the correct medicines and a plan for the patient to obtain and take them.
5. Reconcile the discharge plan with national guidelines.
6. Teach a written discharge plan the patient can understand.
7. Education the patient about his/her diagnosis.
8. Assess the degree of the patient's understanding of this plan.
9. Review with the patient what to do if a problem arises.
10. Expedite transmission of the discharge summary to clinicians accepting care of the patient.
11. Provide telephone reinforcement of the discharge plan.

While hospitals are likely to be motivated to improve their discharge process, with a specific goal of reducing readmissions, they may require support and guidelines to optimize success. A Cochrane review of discharge planning interventions indicated that a number of interventions did not have a measurable

[12] Office of Management and Budget. A New Era of Responsibility: Renewing America's Promise. Washington, DC: U.S. Government Printing Office; 2009. http://www.whitehouse.gov/omb/assets/fy2010_new_era/a_new_era_of_responsibility2.pdf.
[13] Ppaca&Hcera; Public Laws 111-148&111-152: Consolidated Print; pg 311-16.

impact on readmission rates.[14] The RED, however, has shown significant impacts in a randomized controlled trial[15]. Patients who received the RED experienced a 30 percent lower rate of hospital utilization within 30 days of discharge compared to patients receiving usual care. One readmission or emergency department visit was prevented for every 7 patients receiving the RED. Further, the RED patients cost an average of $412 less in the 30 days following hospital discharge than patients who did not receive the RED. This represents a 33.9% lower observed cost for this group. These results have important implications for quality of care and costs for the more than 38 million hospital discharges each year in the US. Additional reasons to implement RED can be found in the text box below.

Why Should Hospitals Use the RED?

Improves Clinical Outcomes

- Decreases 30 day re-hospitalization by 25%
- Decreases ED use from 24% to 16%
- Improves patient "readiness for discharge"
- Improves PCP follow-up

Meets Safety Standards and Improves Documentation

- Accepted as NQF Safe Practice and endorsed by IHI, Leapfrog, CMS
- Meets Joint Commission standards
- Documents the discharge preparation
- Documents understanding of the discharge plan

Improves Return on Investment

- Saves $412 per patient
- Allows higher level physician billing for discharge
- May reduce diversion and creates greater capacity for higher revenue patients
- May improve market share as 'preferred provider"
- Improves relationships with ambulatory providers
- Prepares for near certain change in CMS rules regarding readmission reimbursement

Improves Community Image

- Brands the hospital with high quality
- Improves patient and family satisfaction

[14] Shepperd S, Parkes J, McClaran JJM, Phillips C. Discharge planning from hospital to home. *Cochrane Database of Systematic Reviews* 2004, Issue 1. Art. No.: CD000313. DOI: 10.1002/14651858.CD000313.pub2.
[15] Jack, et al. A Reengineered Hospital Discharge Program to Decrease Rehospitalization: A Randomized Trial.

The New and Improved RED Toolkit

Project RED developed a toolkit that described how BUMC implemented RED in its hospital. There were, however, additional implementation issues that needed to be addressed to ensure that the Toolkit would be generalizable to a variety of hospital types and patient populations. The RED toolkit has been expanded to provide complete implementation guidance and adapted to address language barriers, cross cultural issues and disparities in healthcare communication and trust. Inviting patients to identify family members or other key support persons to include in the RED process recognizes the important personal and cultural influence they may have on the patient's decision-making and healthcare behaviors. The toolkit now includes four tools that provide step-by-step instructions to provide a springboard for hospitals to proactively address avoidable readmissions. Below is a brief description of each tool.

1) **The Re-Engineered Discharge: How to Begin Implementation at Your Hospital**
   This document outlines the steps you need to take to begin implementation at your hospital. It will help you consider all aspects of implementation, from planning your implementation team to measuring progress of RED implementation. For example, it reviews the advantages and disadvantages of integrating the discharge education functions into the duties of the staff nurse responsible for patient discharge versus a strategy of hiring dedicated discharge educators to perform these functions.

2) **How to Deliver the Re-Engineered Discharge**
   This document describes various tasks the discharge educators undertake to implement the RED components, from reconciling medication lists to reviewing the After Hospital Care Plan (AHCP) with the patient. The manual includes guidance about communicating with patients and families from diverse cultures and languages as well as guidance on how to collaborate with interpreters in this process. It also includes instruction about how to create the AHCP. The AHCP is a booklet that patients take home with instructions about how to take care of themselves after leaving the hospital. The AHCP includes a medication schedule, a schedule of follow-up appointments, information about the patient's condition(s), and guidance on diet and exercise. This document describes the various methods that can be used to create the AHCP, either manually or using automated software. The AHCP can be generated in English, Spanish, Simplified Chinese, and Hmong using the automated software. For all other languages, a hospital can choose to manually create the AHCP in the patient's preferred language or to print the AHCP in English, with space where a translation can be entered.

3) **How to Deliver the RED to Diverse Populations**
   It is our belief that a culturally competent approach to the RED program ensures the effective delivery of the RED program to all eligible patients and improves the quality of healthcare service. This tool is provided to assist Discharge Advocates (DA) preparing to deliver the RED program to patients from diverse social backgrounds including diversity of language, culture, race, ethnicity, educational background, health literacy and social circumstance. It includes some proactive communication and relational strategies such as the RESPECT model.

4) **How to Conduct a Post-discharge Follow-up Telephone Call**
   The post-discharge reinforcement phone call is scheduled within 72 hours of a patient's hospital discharge. The objectives are to review appointments, medications, medical issues, and what to do if a non-emergent problem arises. This document provides a script for the telephone call, as well as scenarios of actual calls and role play cases that can be used in training callers.

5) **How to Benchmark Your Hospital Discharge Improvement Process**
This document will help you begin to examine your hospital's current rate of readmissions and implement a program to monitor your hospital's progress. It reviews the reasons for measuring transitional care, suggests outcome and process measures, and reviews the availability of data to create benchmarks.

The RED process utilizes software that can be purchased from Engineered Care, a company that provides software implementation and support for the RED. You can contact Engineered Care at info@engineeredcare.com