Health Care Reform’s BOOST to Reducing Readmissions

Objectives

- Describe how we got here
- Demonstrate variability in rates of rehospitalization
- Outline key healthcare reform legislation components
- Review how Project BOOST can enhance the hospital discharge transition
Health Care Costs
Rising Faster than Inflation

Price Increases - CPI vs. Medical Care (Cumulative % Increase)

Hospital Spending per Discharge, 2008
Adjusted for Differences in Cost of Living

* 2007.
** 2006.

Source: OECD Health Data 2010 (Oct. 2010).
Expected vs. Actual US Per Capita Cost

Population Over Age 65 Doubles by 2030
Federal Deficit

$1.5 Trillion Deficit

BIG piece of the $3.5 Trillion Government Pie - 2010

- Social Security $754.2
- Other $861.5
- Treasury $444.3
- CMS $729.1
- Defense $666.7

Source: U.S. Treasury

$ in billions
Nation’s Health Care Dollar 2010

- CMS - 48 cents of every dollar received by hospitals
- 28 cents of every dollar spent on physicians services

June 2007 MedPAC Report

- Medicare pays for ALL admissions regardless
  - Initial stay or readmission for same condition
- 17.6% of admissions result in re-admissions within 30 days (6% in 7 days)
  - = $15 billion in spending
- Future
  - Public Disclosure of readmission rates
  - Lower case payments for readmissions
HospitalCompare.hhs.gov

Welcome to Hospital Compare. In this tool you will find information on how well hospitals care for patients with certain medical conditions or surgical procedures, and results from a survey of patients about the quality of care they received during a recent hospital stay. This information will help you compare the quality of care hospitals provide. Talk to your doctor about this information to help you, your family and your friends make your best hospital care decisions.

www.hospitalcompare.hhs.gov

Rehospitalizations among Patients in the Medicare Fee-for-Service Program

Stephen F. Jencks, M.D., M.P.H., Mark V. Williams, M.D., and Eric A. Coleman, M.D., M.P.H.

• 1 in 5 Medicare patients rehospitalized in 30 days
• Half never saw outpatient doc
• 70% of surgical readmissions–chronic medical conditions
• Costs $17.4 billion
Health Affairs 2010; 29:57-64

By Vincent Mor, Oma Intrator, Zhanlian Feng, and David C. Grabowski

The Revolving Door Of Rehospitalization From Skilled Nursing Facilities

**ABSTRACT** Almost one-fourth of Medicare beneficiaries discharged from the hospital to a skilled nursing facility were readmitted to the hospital within thirty days; this cost Medicare $4.34 billion in 2006. Especially in an elderly population, cycling into and out of hospitals can be emotionally upsetting and can increase the likelihood of medical errors related to care coordination. Payment incentives in Medicare do not encourage providers to coordinate beneficiaries’ care. Revising these incentives could achieve major savings for providers and improved quality of life for beneficiaries.
"striking variation in 30-day readmission rates across hospital referral regions and academic medical centers."

Little progress reducing readmission rates over the five-year period 2004 to 2009.

Readmission rates increased for the nation and for many regions and hospitals.

Early follow-up with clinicians fell short in most regions of the country and at most hospitals.

Rates of ER visits after discharge varied up to twofold across regions.

Observational study of 6,955,461 Medicare FFS hospitalizations for HF; 1993 and 2006, with 30-day f/u.
- Mean age = 80
- 52% Htn, 38% DM, 37% COPD

LOS 8.8 days down to 6.3

Discharges to SNF increased from 13% to 20%
- Discharge to home decreased from 74% to 67%

30 day readmission increased from 17.2% to 20.1%
- Post-discharge mortality increased from 4.3% to 6.4%

In-hospital mortality declined from 8.5% to 4.3%

30-day mortality declined from 12.8% to 10.7%
A Problem for a long time

- Rosenthal, J. M. and D. B. Miller
  "Providers have failed to work for continuity." Hospitals 53(10): 79-83.

- Continuity of patient care between different health care settings has been advocated for nearly 20 years, but little has been done to affect it. The study described here emphasizes the current lack of effort by health care providers in hospitals and nursing homes to find a workable solution.

Eric Coleman, MD, MPH

- Director, Care Transitions Program
  University of Colorado Denver

- Reducing readmissions “jumps off the page as an area where we could see enormous savings in national health expenditures.”

- “We’re pretty good at identifying who’s at risk of readmission, but it’s harder to say who’s at modifiable risk.”
Reform – It’s here!

- H.R. 3590, the Patient Protection and Affordable Care Act
  - H.R. 4872 the Health Care and Education Reconciliation Act
- Paying for quality instead of quantity
- Demonstration projects

Affordable Care Act and Reducing Readmissions

§3026
- Beginning in FY 2011
- Community-Based Care Transitions Program

§3501
- For Period FY 2011-2014
- AHRQ funding for projects related to QI research and technical assistance. Topics identified include reducing readmissions.

§399KK
- March 2012
- Program for eligible hospitals to improve their readmission rates through Patient Safety Organizations

§3025
- Beginning in FY 2013
- Hospitals with higher than expected readmissions rates will experience decreased payments for Medicare discharges
Medicare Community–based Care Transitions Program - 3026

- CCTP, mandated by section 3026 of the Affordable Care Act, provides funding to test models for improving care transitions for high risk Medicare beneficiaries.

- Part of Partnership for Patients
  
  http://partnershippledge.healthcare.gov/

Hospital Discharge - currently

“Random events connected to highly variable actions with only a remote possibility of meeting implied expectations.”

Roger Resar, MD
Agent of Tremendous Change
and Global Innovation Seeker
Luther Midelfort – Mayo Health System
Senior Fellow, IHI
**Dangers of Discharge**

*Annals of Internal Medicine*

The Incidence and Severity of Adverse Events Affecting Patients after Discharge from the Hospital

- 19% of patients had a post discharge AE
  - 1/3 preventable and 1/3 ameliorable

Adverse events among medical patients after discharge from hospital

- 23% of patients had a post discharge AE
  - 28% preventable and 22% ameliorable

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**Medication Reconciliation**

*JGIM 2010*

Results of the Medications At Transitions and Clinical Handoffs (MATCH) Study: An Analysis of Medication Reconciliation Errors and Risk Factors at Hospital Admission

- 21 minute Pharmacist interviews – 36% order errors
  - ½ required increased monitoring or intervention
  - 10% harmful
- 49% omission error, 30% wrong dose; 11% frequency
- Elderly and larger # of meds increased risk
- Medication List protective to avoid errors
Dangers of Discharge

Patient Safety Concerns Arising from Test Results That Return after Hospital Discharge

Christopher L. Roy, MD; Eric C. Posen, MD, MPH; Andrew S. Karon, MD, MPH; Zahra Ladak-Merchant, BDS, MPH; Robin E. Johnson, BA; Saverio M. Mariotta, MD, MSc; and Tejpal K. Gandhi, MD, MPH

Ann Intern Med
2005;143(2):121-8

- 1095 of 2644 (41%) inpatients discharged with test result pending
  - 191 (9.4%) potentially required action
  - Survey of MDs involved: almost 2/3 unaware of results
  - Of these: 37% actionable and 13% urgent

Dangers of Discharge

Tying Up Loose Ends

Arch Intern Med. 2007;167:1305-1311

Discharging Patients With Unresolved Medical Issues

Carston Moe, MD; Thomas McGuire, MD, MPH; Ethan Holm, MD, MPH

- ¼ of discharged patients require additional outpatient work-ups
- > 1/3 not completed
- Increased time to post-discharge f/u associated with lack of work-up completion
- Availability of discharge summary increased likelihood of work-up being done
Hospitalist to PCP

- Info transfer and communication deficits at hospital discharge are common
  - Direct communication 3-20%
  - Discharge summary availability at 1st post-discharge appt 12-34%; 51-77% at 4 weeks
  - Discharge summaries often lack info
    - Dx test results (33-63%), hospital course (7-22%), discharge meds (2-40%), pending test results (65%)
    - Follow-up plans (2-43%), Counseling (90-92%)


Transitions of Care Consensus Policy Statement: American College of Physicians, Society of General Internal Medicine, Society of Hospital Medicine, American Geriatrics Society, American College of Emergency Physicians, and Society for Academic Emergency Medicine

Vincenza Snow, MD1
Dennis Beck, MD2
Tina Budnitz, MD4
Doraine C. Miller, MD3
Jane Potter, MD1
Robert L. Weers, MD1
Kevin B. Weiss, MD1
Mark V. Williams, MD2

1 American College of Physicians, Philadelphia, Pennsylvania.
2 Beacon Medical Services, Aurora, Colorado.
3 Society of Hospital Medicine, Philadelphia, Pennsylvania.
4 University of Chicago Medical Center, Chicago, Illinois.
5 University of Nebraska, Lincoln, Nebraska.
6 University of Florida, Gainesville, Florida.
7 American Board of Medical Specialties, Chicago, Illinois.
8 Northwestern University, Chicago, Illinois.

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Project RED

- RCT of 749 hospitalized adults
- Intervention
  - Nurse Discharge Advocate
    - F/U appt, Medication Reconciliation
    - Patient education
  - Individualized instruction booklet
  - Pharmacist call 2-4 days post-discharge
    - Review medications
- Limitations
  - Urban, academic, safety net hospital

Project RED Outcomes

<table>
<thead>
<tr>
<th></th>
<th>Intervention (n = 370)</th>
<th>Control (n = 368)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ER Visits*</td>
<td>16.5%</td>
<td>24.5%</td>
</tr>
<tr>
<td>Rehospitalization**</td>
<td>15%</td>
<td>21%</td>
</tr>
<tr>
<td>PCP f/u in 30 days*</td>
<td>62%</td>
<td>44%</td>
</tr>
<tr>
<td>Prepared for Discharge*</td>
<td>65%</td>
<td>55%</td>
</tr>
</tbody>
</table>

*p < 0.05
**p = 0.09

Mean age = 50
Mean LOS = 2.6 to 2.8 days
Exclusions: Admitted from SNF
         Discharged to SNF
Low-cost Intervention
Redefining and Redesigning Hospital Discharge to Enhance Patient Care: A Randomized Controlled Study

- “user-friendly” Patient Discharge Form
- Telephone outreach from a nurse post-discharge
- Improved outpatient follow-up
- Reduced ER visits and rehospitalizations from historical controls

1. Med Rec by PharmD
2. RN Care Coordinator D/C Planning
3. Phone Follow-up
4. PHR, Supplemental Discharge Form
- Reduced ER visits, Reduced Readmission
Safe STEPs

Safe and Successful Transitions for Elderly Patients
John A. Hartford Foundation Grant

A Quality Improvement Intervention to Facilitate the Transition of Older Adults from Three Hospitals Back to Their Homes

Param Dedhia, MD,* Steve Kravet, MD, MBA,* John Bulger, DO,† Tony Hinson, MD,‡ Antinudh Sridharan, MD,* Ken Kolodner, ScD,* Scott Wright, MD,* and Eric Howell, MD*

OBJECTIVES: To study the feasibility and effectiveness of a discharge planning intervention.
DESIGN: Quasi-experimental pre-post study design.
SETTING: General medicine wards at three hospitals.


Safe STEP Interventions

- Medication reconciliation
  - Pharmacy reviews: admission and d/c
  - Geriatric friendly medication forms

- Education
  - Patients: pre-d/c appointment
  - Providers: geriatric h&p

- PCP communications
  - “Fast facts”
Safe STEPs

- 237 elderly patients at three hospitals
  - Academic, community
- 5 component intervention
  - Admission form with geriatric cues
  - Fax to PCP
  - Interdisciplinary worksheet
  - Pharmacist-physician medication reconciliation
  - Pre-discharge planning appointments
- Reduced ED visits and readmissions by 1/3

Interventions to Reduce 30-Day Rehospitalization: A Systematic Review

Pre-Discharge
- Patient Education
- Discharge Planning
- Medication Reconciliation
- F/U Appt scheduling

Post-Discharge
- Timely Follow-up
- Timely PCP Communication
- F/U Phone Call
- Patient Hotline
- Home Visit

Bridging Interventions
- Transition Coach
- Patient-centered Discharge Instructions
- Provider Continuity
"In this systematic review of studies evaluating interventions to reduce readmission within 30 days of hospital discharge, we did not identify a discrete intervention or bundle of interventions that appears to reliably reduce rehospitalization....
Project BOOST

California HealthCare Foundation
The John A. Hartford Foundation
BlueCross BlueShield

www.hospitalmedicine.org/BOOST

BOOSTING THE DISCHARGE PROCESS TO IMPROVE OUTCOMES AND REDUCE UNNECESSARY READMISSIONS

Advisory Board

Chair: Eric Coleman, MD, MPH
Co-Chair & PI: Mark Williams, MD

with organizational representatives from:

- Social work
- Case management
- Clinical pharmacy
- Geriatric medicine
- Geriatric nursing
- Health IT
- Blue Cross/Blue Shield
- United Health
- Health systems
- NQF
- AHRQ
- TJC
- CMS
- National Consumer’s League
- Other content experts
Key Components

- **BOOST Tools & Intervention**
  - Available for free at: [www.hospitalmedicine.org/BOOST](http://www.hospitalmedicine.org/BOOST)
- **Project Management tools**
- **Clinical Tools:**
  - Comprehensive risk assessment on admission—8Ps
  - Risk specific interventions during stay & at discharge
  - Patient centered discharge process
    - Teachback
    - F/U appt scheduled prior to discharge
  - Standardized PCP communication
  - 72 hour follow-up call for high risk patients

- **Mentored Implementation**
  - Longitudinal coaching throughout planning and implementation
  - Ongoing educational opportunities
  - BOOST Community/Collaborative

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Checklists

- Michael Scriven
  Western Michigan U
- “The humble checklist … and the process of validating an evaluative checklist is a task calling for considerable sophistication.”
TARGET Assessment Tool - The 8Ps
Tool for Addressing Risk: a Geriatric Evaluation for Transitions

- Prior hospitalization
- Problem medications
- Psychological
- Principal diagnosis
- Polypharmacy
- Poor health literacy
- Patient support
- Palliative care

- Risk Specific Checklist
- GAP: General Assessment of Preparedness

Risk Prediction Models for Hospital Readmission
A Systematic Review

Devan Kansagara, MD, MCR
Honora Englander, MD
Amanda Salaritro, MD, MS, MSPH
David Kagen, MD
Cecelia Theobald, MD
Michele Freeman, MPH
Sunil Kripalani, MD, MSc

Context: Predicting hospital readmission risk is of great interest to identify which patients would benefit most from care transition interventions, as well as to risk-adjust readmission rates for the purposes of hospital comparison.

Objective: To summarize validated readmission risk prediction models, describe their performance, and assess suitability for clinical or administrative use.

Data Sources and Study Selection: The databases of MEDLINE, CINAHL, and the Cochrane Library were searched from inception through March 2011, the EMBASE database was searched through August 2011, and hand searches were performed of conference proceedings. A total of 7843 citations were identified. Of these, 30 studies of 26 unique models met the inclusion criteria. The most common outcome used was 30-day readmission; only 1 model specifically addressed preventable readmissions.

- “Of 7843 citations reviewed, 30 studies of 26 unique models met the inclusion criteria. The most common outcome used was 30-day readmission; only 1 model specifically addressed preventable readmissions.”

- “Most current readmission risk prediction models that were designed for either comparative or clinical purposes perform poorly.”
Address Patient concerns

Incorporating Patient Concerns into Discharge Plans: Evaluation of a Patient-Generated Checklist

Karen A. Grimmer, PhD1  Lauren R. Dryden, BPhty (Hons).1  Runthip Puntumetakul, MAAppSoc.1
Alexandra F. Young1  Michelle Guarin, BPhty (Hons).1  Yamini Deenadayalan, MAAppSoc.1
John R. Moss, MSocSci2

“Our research consistently reports the lack of involvement of patients and families/friends in planning discharge from hospital, and a lack of understanding by hospital staff of patients’ home circumstances.”

Project BOOST
Better Outcomes for Older Adults through Safe Transitions

The General Assessment of Preparedness: The GAP

- Caregivers and social support circle for patient
- Functional status evaluation completed
- Cognitive status assessed
- Abuse/neglect
- Substance abuse
- Advanced care planning addressed and documented

On Admission

- Functional status
- Cognitive status
- Access to meds
- Responsible party for ensuring med adherence prepared
- Home preparation for patient’s arrival
- Financial resources for care needs
- Transportation home
- Access (e.g. keys) to home

Nearing Discharge

- Understanding of dx, treatment, prognosis, follow-up and post-discharge warning S/S (using Teach Back)
- Transportation to initial follow-up

At Discharge
**Patient PASS**
Patient Preparation to Address Situations (after discharge) Successfully

I was in the hospital because

If I have the following problems...
1. 
2. 
3. 
4. 
5. 

I should...
1. 
2. 
3. 
4. 
5. 

Important contact information:
1. My primary doctor: ___________________
2. My hospital doctor: ___________________
3. My visiting nurse: ___________________
4. My pharmacy: ___________________
5. Other: ___________________

My appointments:
1. On / _ / _ _ _ at _ _ _ am/pm
   For: ___________________
2. On / _ / _ _ _ at _ _ _ am/pm
   For: ___________________
3. On / _ / _ _ _ at _ _ _ am/pm
   For: ___________________
4. On / _ / _ _ _ at _ _ _ am/pm
   For: ___________________

Tests and issues I need to talk with my doctor(s) about at my clinic visit:
1. 
2. 
3. 
4. 
5. 

Other instructions: 1. 
2. 
3. 

I understand my treatment plan.
I feel able and willing to participate actively in my care.

Patient/Caregiver Signature __________________________
Date __________________________

---

**DPET**

- **Discharge Patient Education Tool**
- **DIAGNOSIS**
  - I had to stay in the hospital because: ________
  - The medical word for this condition is: ________
  - I also have these medical conditions: ________

- **TESTS**

  While I was in the hospital I had these tests:

<table>
<thead>
<tr>
<th>Tests</th>
<th>which showed:</th>
</tr>
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<tbody>
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- **TREATMENT**

  While I was in the hospital I was treated with:

<table>
<thead>
<tr>
<th>Treatment</th>
<th>The purpose of this treatment was:</th>
</tr>
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</table>
FOLLOW-UP APPOINTMENTS
After leaving the hospital, I will follow up with my doctors.

Primary Care Doctor: ________________ Phone Number: ________________
DATE: __________, __ __, 20__ TIME: ___ : ___ ___.

Specialist Doctor: ________________ Phone Number: ________________
DATE: __________, __ __, 20__ TIME: ___ : ___ ___.

FOLLOW-UP TESTS
After leaving the hospital, I will show up for my tests.

<table>
<thead>
<tr>
<th>TESTS</th>
<th>LOCATION</th>
<th>DATE</th>
<th>TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>____________</td>
<td>___ : ___ ___</td>
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</table>

Call your Primary Care Doctor for the following:

Warning signs:
1) ________________
4) ________________

LIFE STYLE CHANGES
After leaving the hospital, I will make these changes in my activity and diet.

Activity: ____________________, because ____________________
Diet: ____________________, because ____________________

NEW CONCEPT: Health information, advice, instructions, or change in management

Teach Back
- Assess patient comprehension / Ask patient to demonstrate
- Explain new concept / Demonstrate new skill
- Patient recalls and comprehends / Demonstrates skill mastery
- Clarify and tailor explanation
- Re-assess recall and comprehension / Ask patient to demonstrate

Mentored Implementation

- Secret Sauce for Project BOOST
- Target hospitalists at sites
  - QI effector arm
- Mentor conference calls with hospital QI team
  - Email follow-up
- Mentor
  - experienced physician with QI expertise

Beyond BOOST

- Some patients need more attention and support beyond the foundation provided by Project BOOST
- Frail elderly patients with multiple medical problems, multiple medications and potentially multiple social issues
BOOST@hospitalmedicine.org

www.hospitalmedicine.org/BOOST