Reducing 30-day Readmission Rates

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Questions

• On the left side of your screen, click the message box, “Chat with Presenter.”
• Type your question.
• Click ‘Send.’
• These questions will be addressed after the presentation.
The 10,000 ft View

• Centers for Medicare and Medicaid Services Triple AIM:
  1) Better care for individuals
  2) Better health for populations
  3) Reduce per capita costs
30-Day Readmission Rate: Definition

• Readmission = total # of patients readmitted within X number of days following discharge/total number of hospital discharges

• CMS 30-day readmission description:
  – “Hospital-specific 30-day all-cause risk standardized readmission rate following hospitalization for acute myocardial infarction (AMI), heart failure (HF) or pneumonia (PN) among Medicare beneficiaries aged 65 years or older at the time of index hospitalization”
The Scope of the Issue

- Out of 12 million fee-for-service Medicare beneficiaries: 20% of them who had been discharged from a hospital, were re-hospitalized within 30 days

- A MedPAC analysis found that 17.6% of all Medicare hospital admissions are readmissions
  - These account for $15 billion annually in expenditures
  - Of the $15 billion in readmission costs, they found that $12 billion was attributable to potentially preventable/avoidable readmissions

- MA ranks 41st in US on Medicare 30-day readmissions

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CMS Care Transitions Goals

- Reduce 30-day all-cause readmission rate by 3%
- Improve HCAHPS scores for medication management and discharge planning
- Increase patients seen by physician post-discharge
CMS Care Transitions Goals Cont.

- The Four Pillars
  1. Medication Self-Management (i.e. education)
  2. Follow-up with PCP
  3. Knowledge of “red flags” or warning signs/symptoms and how to respond
  4. Patient-centered record
Conditions Commonly Associated with Increased 30-Day Readmission Rates

• Medical\(^1\):
  – heart failure
  – pneumonia
  – chronic obstructive pulmonary disease
  – psychoses
  – gastrointestinal problems

• Surgical\(^1\):
  – cardiac stent placement
  – major hip or knee surgery
  – vascular surgery
  – major bowel surgery
  – other hip or femur surgery
Key Factors Associated with Avoidable Readmissions

Avoidable Readmissions

Delays in Scheduling post-hospitalization
- Medical Follow-up

Failures in communication
- Health Literacy
- Communication among the healthcare team and between sites of care
- Patient/Family Education

Gaps in planning
- Medication Discrepancies

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Interventions

- 3 types of interventions found to be effective at addressing the key factors previously mentioned:
  - Project BOOST
  - Project RED
  - Transitional Care Interventions
    - Naylor Model
    - Coleman Model

- The quality improvement process is intrinsic to all of these models:
  Form a team → Set aims → Establish measures → Select change → Test change
1. A Comprehensive Intervention developed by a panel of nationally recognized experts based on the best available evidence.
Project BOOST

3. Longitudinal Technical Assistance provides face-to-face training and a year of expert mentoring and coaching to implement BOOST interventions (train the trainer DVD and curriculum for nurses and case managers, webinars targeting the educational needs of other team members).
4. The **BOOST Collaboration** allows sites to communicate with and learn from each other via the BOOST Listserv, BOOST Community site, and quarterly all-site teleconferences and webinars.
5. The BOOST Data Center, an online resource center, allows sites to store and benchmark data against control units and other sites and generates reports.

http://www.hospitalmedicine.org/ResourceRoomRedesign/RR_CareTransitions/PDFs/Project_BOOST_Fact_SheetFinal.pdf
The Resources BOOST Provides

- Clinical toolkit (discharge planning tools, risk stratification tools)
- Data collection tools
- Project Management Tools (guidance for gaining institutional support, creating and managing a team)
- Educational tools - background information for professionals new to quality improvement
- Review of key literature
- Exchange Information and Share Success stories
  - All of these can be found at the Project BOOST website
The BOOST Tools

- The TARGET
- Patient PASS: A Transition Record
- Teach-Back process
- Risk-Specific Interventions
- Written Discharge Instructions
TARGET

- Used for risk stratification on 8 different measures (8Ps)
- Includes universal discharge list and GAP analysis (General Assessment of Preparedness)
# Tool for Addressing Risk: A Geriatric Evaluation for Transitions

<table>
<thead>
<tr>
<th>Risk Assessment: SP Screening Tool (Check all that apply)</th>
<th>Risk Specific Intervention</th>
<th>Signature of Individual responsible for ensuring intervention administered</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Problem medications</strong> <em>(anticoagulants, insulin, aspirin &amp; clopidogrel dual therapy, digoxin, narcotics)</em></td>
<td>□ Medication specific education using Teach Back provided to patient and caregiver</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>□ Monitoring plan developed and communicated to patient and aftercare providers, where relevant (e.g. warfarin, digoxin and insulin)</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>□ Specific strategies for managing adverse drug events reviewed with patient/caregiver</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>□ Follow-up phone call at 72 hours to assess adherence and complications</td>
<td>[ ]</td>
</tr>
<tr>
<td><strong>Psychological</strong> <em>(depression screen positive or No depression diagnosis)</em></td>
<td>□ Assessment of need for psychiatric aftercare if not in place</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>□ Communication with aftercare providers, highlighting this issue if new</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>□ Involvement/awareness of support network insured</td>
<td>[ ]</td>
</tr>
<tr>
<td><strong>Principal diagnosis</strong> <em>(cancer, stroke, DM, COPD, heart failure)</em></td>
<td>□ Review of national discharge guidelines, where available</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>□ Disease specific education using Teach Back with patient/caregiver</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>□ Action plan reviewed with patient/caregivers regarding what to do and who to contact in the event of worsening or new symptoms</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>□ Discuss goals of care and chronic illness model discussed with patient/caregiver</td>
<td>[ ]</td>
</tr>
<tr>
<td><strong>Polypharmacy</strong> <em>(≥5 or more routine meds)</em></td>
<td>□ Elimination of unnecessary medications</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>□ Simplification of medication scheduling to improve adherence</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>□ Follow-up phone call at 72 hours to assess adherence and complications</td>
<td>[ ]</td>
</tr>
<tr>
<td><strong>Poor health literacy</strong> <em>(inability to do Teach Back)</em></td>
<td>□ Committed caregiver involved in planning/administration of all general and risk specific interventions</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>□ Aftercare plan education using Teach Back provided to patient and caregiver</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>□ Link to community resources for additional patient/caregiver support</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>□ Follow-up phone call at 72 hours to assess adherence and complications</td>
<td>[ ]</td>
</tr>
<tr>
<td><strong>Patient support</strong> <em>(absence of caregiver to assist with discharge and home care)</em></td>
<td>□ Follow-up phone call at 72 hours to assess condition, adherence and complications</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>□ Follow-up appointment with aftercare medical provider within 7 days</td>
<td>[ ]</td>
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<tr>
<td></td>
<td>□ Involvement of home care providers of services with clear communications of discharge plan to those providers</td>
<td>[ ]</td>
</tr>
<tr>
<td><strong>Prior hospitalization</strong> <em>(non-elective, in last 6 months)</em></td>
<td>□ Review reasons for re-hospitalization in context of prior hospitalization</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>□ Follow-up phone call at 72 hours to assess condition, adherence and complications</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>□ Follow-up appointment with aftercare medical provider within 7 days</td>
<td>[ ]</td>
</tr>
<tr>
<td><strong>Palliative care</strong> <em>(Would you be surprised if this patient died in the next year? Does this patient have an advanced or progressive serious illness? Yes to either:)</em></td>
<td>□ Assess need for palliative care services</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>□ Identify goals of care and therapeutic options</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>□ Communicate prognosis with patient/family/caregiver</td>
<td>[ ]</td>
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<tr>
<td></td>
<td>□ Assess and address bothersome symptoms</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>□ Identify services or benefits available to patients based on advanced disease status</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>□ Discuss with patient/family/caregiver role of palliative care services and benefits and services available</td>
<td>[ ]</td>
</tr>
</tbody>
</table>
## The Universal Checklist

### Universal Patient Discharge Checklist

<table>
<thead>
<tr>
<th>Task</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. GAP assessment (see below) completed with issues addressed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Medications reconciled with pre-admission list.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Medication use/side effects reviewed using Teach Back with patient/caregiver(s).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Teach Back used to confirm patient/caregiver understanding of disease, prognosis and self-care requirements.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Action plan for management of symptoms/side effects/complications requiring medical attention established and shared with patient/caregiver using Teach Back.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Discharge plan (including educational materials; medication list with reason for use and highlighted new/changed/discontinued drugs; follow-up plans) taught with written copy provided to patient/caregiver at discharge.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Discharge communication provided to principal care provider(s).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Documented receipt of discharge information from principal care provider(s).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Arrangements made for outpatient follow-up with principal care provider(s).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**For increased risk patients, consider:**

<table>
<thead>
<tr>
<th>Task</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Interdisciplinary rounds with patient/caregiver prior to discharge to review aftercare plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Direct communication with principal care provider <strong>before</strong> discharge.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Phone contact with patient/caregiver arranged within 72 hours post-discharge to assess condition, discharge plan comprehension and adherence, and to reinforce follow-up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Follow-up appointment with principal care provider within 7 days of discharge.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Direct contact information for hospital personnel familiar with patient’s course provided to patient/caregiver to address questions/concerns if unable to reach principal care provider prior to first follow-up.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Confirmed by: ____________________________

Signature ____________________________

Print Name ____________________________

Date ____________________________

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[Image: The John D. Stoeckle Center for Primary Care Innovation]
# General Assessment of Preparedness (GAP)

Prior to discharge, evaluate the following areas with the patient/caregiver(s). Communicate concerns identified as appropriate to principal care providers. 

**A** = beginning upon Admission; **P** = Prior to discharge; **D** = at Discharge

## Logistical Issues

1. Functional status assessment completed (P)  
   - YES □  NO □  N/A □
2. Access (e.g. keys) to home insured (P)  
   - YES □  NO □  N/A □
3. Home prepared for patient’s arrival (P)  
   - YES □  NO □  N/A □  
   - (e.g. medical equipment, safety evaluation, food)
4. Financial resources for care needs assessed (P)  
   - YES □  NO □  N/A □
5. Ability to obtain medications confirmed (P)  
   - YES □  NO □  N/A □
6. Responsible party for insuring med adherence identified/prepared, if not patient (P)  
   - YES □  NO □  N/A □
7. Transportation to initial follow-up arranged (D)  
   - YES □  NO □  N/A □
8. Transportation home arranged (D)  
   - YES □  NO □  N/A □

## Psychosocial Issues

1. Substance abuse/dependence evaluated (A)  
   - YES □  NO □  N/A □
2. Abuse/neglect presence assessed (A)  
   - YES □  NO □  N/A □
3. Cognitive status assessed (A)  
   - YES □  NO □  N/A □
4. Advanced care planning documented (A)  
   - YES □  NO □  N/A □
5. Support circle for patient identified (P)  
   - YES □  NO □  N/A □
6. Contact information for home care services obtained and provided to patient (D)  
   - YES □  NO □  N/A □

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**Confirmed by:**  

Signature: __________________  
Print Name: __________________  
Date: ___________________
Patient PASS

- PASS is a transitions record given to the patient
- It lists the problems that may occur and solutions to them; appointment times/dates; tests and issues that the patient needs to discuss with provider, important contact info
Teach Back Tool

Step 1: Using simple lay language, explain the concept or demonstrate the process to the patient/caregiver.

Step 2: Ask the patient/caregiver to repeat in his or her own words how he or she understands the concept explained.

Step 3: Identify and correct misunderstandings of or incorrect procedures by the patient/caregiver.

Step 4: Ask the patient/caregiver to demonstrate his or her understanding or procedural ability again to ensure any misunderstandings are corrected.

Step 5: Repeat Steps 4 and 5 until the clinician is convinced the comprehension of the patient/caregiver about the concept or ability to perform the procedure accurately and safely is ensured.
Risk-Specific Interventions

• Once you have identified the extent of a patient’s risk using TARGET, you can focus and improve upon each risk individually using the associated interventions (listed in the TARGET tool)
Written Discharge Instructions

• Please see Universal Discharge Checklist
• Should also include:
  – A statement about the reason for the hospitalization
  – A list of medications with name (brand or generic or both, as appropriate), dose, route, frequency, and when relevant, reason for prn, written in lay terminology
  – Statements about what types of complications may occur and what to do if they happen (warning signs and symptoms)
  – A list of follow-up appointments for tests and clinical visits, with their dates, times, and locations
  – A list of relevant contact information (e.g., principal care providers, the VNA, the pharmacy, the hospitalist)
BOOST Results

• Early data from six sites, which implemented Project BOOST, reveals a reduction in their 30-day readmission rates from 14.2% before implementation to 11.2% after implementation

• 21% reduction in 30 day all-cause readmission rates.
Project RED

- Intervention is a patient-centered, standardized approach to discharge planning and discharge education
Project RED: First Steps and Designing the Intervention

Readmission within 6 mo

Hospital Discharge

Patient readmitted within 3 mo

Probabilistic risk assessment

Process Mapping

Failure Mode and Effects Analysis

Root Cause Analysis

Qualitative Analysis
Components of Project RED

1. Educate the patient about their diagnosis throughout hospital stay
2. Make appointments for clinician follow-up and post-discharge testing
3. Discuss with the patient any tests completed in the hospital and discuss who will be responsible for following up the results
4. Organize post-discharge services
5. Confirm the Medication Plan
6. Reconcile the discharge plan with national guidelines and critical pathways
Components of Project RED

7. Review the appropriate steps for what to do if a problem arises.
8. Expedite transmission of the Discharge Resume (summary) to the physicians (and other services such as the visiting nurses) accepting responsibility for the patient’s care after discharge.
9. Assess the degree of understanding by asking them to explain in their own words the details of the plan.
10. Give the patient a written discharge plan at the time of discharge.
11. Provide telephone reinforcement of the discharge plan and problem-solving 2-3 days after discharge.
Tools

- The Training Manual
- After Hospital Care Plan (AHCP)
- Louise
### After Hospital Care Plan

**Example:** Medication Schedule tells patient what medicines should be taken, when and how.

<table>
<thead>
<tr>
<th>Morning</th>
<th>Heart</th>
<th>Aspirin EC 325 mg</th>
<th>1 pill</th>
<th>By mouth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>To stop smoking</td>
<td>Nicotine 14 mg/24 hr</td>
<td>1 patch</td>
<td>On skin</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nicotine 7 mg/24 hr</td>
<td>1 patch</td>
<td>On skin</td>
</tr>
<tr>
<td>Blood pressure</td>
<td></td>
<td>Cozaar Losartan Potassium 50 mg</td>
<td>1 pill</td>
<td>By mouth</td>
</tr>
<tr>
<td>Infection in eye</td>
<td></td>
<td>Vigramox Moxifloxacin HCl 0.5 % soin</td>
<td>1 drop</td>
<td>In your left eye</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Noon</th>
<th>Blood pressure</th>
<th>Atenolol 75 mg</th>
<th>1 pill</th>
<th>By mouth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Blood pressure</td>
<td>Lisinopril 40 mg</td>
<td>1 pill</td>
<td>By mouth</td>
</tr>
<tr>
<td>Infection in eye</td>
<td></td>
<td>Vigramox Moxifloxacin HCl 0.5 % soin</td>
<td>1 drop</td>
<td>In your left eye</td>
</tr>
</tbody>
</table>
Meet Louise…

“Virtual Discharge Advocate”: a hospital bedside patient education system that engages with patients about their post-discharge self-care plans.
The Results

<table>
<thead>
<tr>
<th></th>
<th>Usual Care</th>
<th>Project RED</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Readmissions</td>
<td>76 (0.207)</td>
<td>55 (0.149)</td>
</tr>
</tbody>
</table>

Project RED resulted in 21 fewer (5% decrease) readmissions than usual care (p=0.09).

Saved $412 per patient
STate Action on Avoidable Rehospitalizations (STAAR) Initiative

- The STate Action on Avoidable Rehospitalizations (STAAR) initiative aims to reduce rehospitalizations by working across organizational boundaries in four states — Massachusetts, Michigan, Ohio, and Washington
STate Action on Avoidable Rehospitalizations (STAAR) Initiative

- Brigham and Women's Hospital, Boston, MA
- Cambridge Health Alliance, Cambridge, MA
- Faulkner Hospital, Boston, MA
- Massachusetts General Hospital, Boston, MA
- Newton-Wellesley Hospital, Newton, MA
- North Shore Medical Center, Salem, MA
Summary

• 1 out of 5 patients admitted to the hospital are readmitted within 30 days, resulting in significant wasteful spending ($12 billion in avoidable readmissions).

• There are three main factors associated with avoidable readmissions: delays in scheduling post-hospitalization, failures in communication and gaps in planning.

• Project BOOST and Project RED are comprehensive interventions that address these key factors and have been found to effectively reduce readmission rates.

• The STARR Initiative has potential to be an effective model as well, and is being piloted across MA.
Resources

- Project BOOST and Project RED
  - toolkits, manuals, first steps, presentations, papers
- Project BOOST: http://www.hospitalmedicine.org/BOOST
- Project RED: https://www.bu.edu/fammed/projectred/index.html
Resources Continued

- **Project STAAR:**
  - http://www.ihi.org/IHI/Programs/StrategicInitiatives/STateActiononAvoidableRehospitalizationsSTAAR.htm?TabId=4