

# READMISSIONS CHANGE PACKAGE

## Improving Care Transitions and Reducing Readmissions



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## PREVENTING AVOIDABLE READMISSIONS OVERVIEW

### Background

- A 2009 study in the *New England Journal of Medicine* demonstrated that almost one-fifth (19.6%) of Medicare patients were readmitted to the hospital within 30 days of discharge and 34% were readmitted within 90 days.
- This research estimated that only 10% of these readmissions were planned, and that the annual cost to Medicare of unplanned hospital readmissions exceeds \$17 billion.
- Medicare 30-day re-hospitalization rates vary from 13-24% across states and even more significantly within states.
- All-cause readmission rates have fallen only 0.3% over the past three years, from 15.6% in 2009 to 15.3% in 2011.
- Medicare has implemented readmission penalties for hospitals with higher than expected readmission rates. In Fiscal Year 2013,

more than 2,000 hospitals will experience a drop in their inpatient hospital payments of up to 1%. The maximum readmission penalty increases to 3% in 2015.

### Suggested AIM

- By 12/31/13, reduce hospital readmissions by 20% as compared to the 2010 baseline by decreasing preventable complications during transitions from one care setting to another.

### Potential Measures

- Outcome:**
- 30-day all-cause hospital readmission rate
  - 30-day all-cause readmission rate for patients with heart failure (or other selected patient populations)
- Process:**
- The percentage of patients receiving complete discharge education verified by Teach-back or other means
  - Formal assessment of patient's risk of readmission

PRIMARY DRIVER	IDEAS TO TEST
<b>Identify patients at high-risk for readmission</b>	<ul style="list-style-type: none"> <li>• Use a risk of readmission assessment tool and methodology to identify and stratify patients with a higher risk of readmission.</li> <li>• Adopt an enhanced admission assessment.</li> <li>• Engage a multi-disciplinary team to manage care.</li> <li>• Assess the patient's engagement and assertiveness in managing their own care.</li> </ul>
<b>Self-management Skills</b>	<ul style="list-style-type: none"> <li>• Identify and address patient health literacy and activation levels.</li> <li>• Educate patients regarding the medications prescribed, the purpose of the medications, the means to obtain the medications, and the instructions for taking the medication. Validate understanding through Teach-back.</li> <li>• Educate patients on their condition, symptoms and red flags of complications, and what to do if symptoms worsen.</li> <li>• Provide clearly written medication instructions and education using health literacy concepts.</li> </ul>
<b>Coordination of care along the care continuum</b>	<ul style="list-style-type: none"> <li>• Obtain accurate information about the patient's primary care physician at the time of admission.</li> <li>• Create a patient-centered record.</li> <li>• Ensure effective communication with non-hospital-based care team members.</li> <li>• Provide medication reconciliation at each transition of care.</li> <li>• Send a discharge summary to the primary care physician with 48 hours of patient discharge.</li> </ul>
<b>Adequate follow-up and community resources</b>	<ul style="list-style-type: none"> <li>• Prior to patients' leaving the hospital, determine which post-discharge-hospital resources and appointments will be needed and ensure appropriate planning is instituted.</li> <li>• Work with patients and care providers to identify and address barriers to making and attending follow-up appointment(s) and other follow-up care items such as medications, special diets, etc.</li> </ul>

### Making Changes

- The Best Practices in Reducing Readmissions activities are part of the HRET HEN Reduce RED Collaborative. National meetings, webinars, monthly coaching calls, change packages and other tools augment state hospital association and other regional activities.

### Key Resources

- Re-engineered Discharge (RED). Retrieved at: <http://www.bu.edu/fammed/projectred/index.html>
- Better Outcomes for Older Adults through Safe Transitions (BOOST). Retrieved at: [http://www.hospitalmedicine.org/ResourceRoomRedesign/RR\\_CareTransitions/CT\\_Home.cfm](http://www.hospitalmedicine.org/ResourceRoomRedesign/RR_CareTransitions/CT_Home.cfm)

- State Action on Avoidable Hospitalizations (STAAR) How to Guide. Improving transitions from the hospital to post-acute care. Retrieved at: <http://www.ih.org/knowledge/Pages/Tools/HowtoGuideImprovingTransitionstoReduceAvoidableRehospitalizations.aspx>
- AHRQ Tools on Medication Reconciliation. Retrieved at: <http://www.ahrq.gov/qual/match/>
- Coleman, E., The Care Transitions Program. Retrieved at: <http://www.caretransitions.org/>
- Naylor, M. The Care Transitions Model. Retrieved at: <http://www.caretransitions.org/>

## PREVENTING AVOIDABLE READMISSIONS DRIVER DIAGRAM

**AIM:** By 12/31/13, Reduce Hospital Readmissions by 20% Compared to the 2010 Baseline by Decreasing Preventable Complications During a Transition from One Care Setting to Another.

PRIMARY DRIVERS	SECONDARY DRIVERS	CHANGE IDEAS
<p><b>Identify patients at high-risk for readmission</b></p>	<ul style="list-style-type: none"> <li>• Effective risk assessment and simplified risk stratification.</li> <li>• Enhanced admission assessment of discharge needs.</li> <li>• Engage a multi-disciplinary team to coordinate care.</li> </ul>	<ul style="list-style-type: none"> <li>• Use a risk of readmission assessment tool and validate it using your institution's data.</li> <li>• Adopt an enhanced admission assessment.</li> <li>• Make readmission risk assessments easy for all to access and utilize.</li> <li>• Coordinate care using a multi-disciplinary team including doctors, nurses, pharmacists, physical therapists, occupational therapists, nutritionists, and respiratory therapists.</li> <li>• Find out if the patient has a caregiver and who the caregiver is.</li> <li>• Communicate who the primary caregiver is to the members of the patient's health care team, e.g. use a whiteboard, record important information in a standard, visible, and accessible site in the medical chart.</li> <li>• Discuss with patients their palliative care and end-of-life treatment wishes.</li> <li>• Design interventions to match identified needs based on risk.</li> </ul>
<p><b>Self-management skills</b></p>	<ul style="list-style-type: none"> <li>• Enhance patients'/caregivers' knowledge about the medications prescribed.</li> <li>• Enhance patients'/caregivers' knowledge about their symptoms, red flags, and self-care strategies.</li> <li>• Identify and address patients' health literacy and activation levels.</li> <li>• Use Teach-back to validate patient understanding.</li> </ul>	<ul style="list-style-type: none"> <li>• Obtain an accurate home medication history from the patient and/or primary caregiver at admission.</li> <li>• Educate patients/caregivers before discharge regarding all medications prescribed, the purpose of these medications, the means of obtaining them, and the instructions for taking them.</li> <li>• Evaluate patient's "level of activation" or engagement in self-management and consider implementing motivational interviewing and activation-based coaching approaches.</li> <li>• Provide clearly written medication instructions using health literacy concepts and culturally appropriate training materials.</li> <li>• Develop patient-centered educational tools that employ health literacy concepts to teach patients about their diagnosis and symptoms.</li> <li>• Train clinical staff on Teach-back using role play, and observe their technique in the field. Do they... <ul style="list-style-type: none"> <li>— Use "I" statements when speaking with patients and caregivers? "To make sure I did a good job explaining your medications, can you tell me ...?"</li> <li>— Validate patient and caregiver understanding of discharge instructions?</li> </ul> </li> </ul>
<p><b>Coordination of information along the care continuum</b></p>	<ul style="list-style-type: none"> <li>• Create a patient-centered record.</li> <li>• Timely communication with members of the care team who are not hospital-based.</li> <li>• Accurate medication reconciliation at admission, at any change in the level of care, and at discharge.</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate best practices and resources and established tools such as the Project RED After Hospital Care Plan (AHCP) and Coleman Personal Health Record.</li> <li>• Determine which models will work in your organization.</li> <li>• Engage IT support for completing plans of care.</li> <li>• Determine where key information is to be stored and how it will be compiled to complete plans of care.</li> <li>• Obtain accurate information about patients' primary care physicians at the time of admission.</li> <li>• Send completed discharge summaries to patients' primary care physicians within 48 hours of discharge.</li> <li>• Use of a concise, standardized discharge transfer form.</li> <li>• Assign clear accountability for medication reconciliation and perform reconciliation at each transition of care; consider a home visit to educate patients/caregivers about their medications and to reconcile the medications in the patients' homes.</li> </ul>

PRIMARY DRIVERS	SECONDARY DRIVERS	CHANGE IDEAS
<p><b>Ensure adequate follow-up and community resources are available.</b></p>	<ul style="list-style-type: none"> <li>• Coordination with physician/other care provider to facilitate resources and follow-up needs. Post-discharge calls/visits for high-risk patients.</li> <li>• Integrate organizations and identify or develop medical home capabilities.</li> <li>• Coordinate with skilled-nursing facilities</li> <li>• Determine the community resources for the special needs of the highly vulnerable populations.</li> </ul>	<ul style="list-style-type: none"> <li>• Prior to leaving the hospital, determine what post-discharge resources and appointments will be needed, and ensure they are addressed in the after-care plan.</li> <li>• Work with patients and care providers to determine any barriers to making and attending follow-up appointment(s).</li> <li>• Work with patients and caregivers to determine any barriers to other follow-up requirements such as medications, special diet, transportation needs, etc.</li> <li>• In addition to these hospital-driven elements, additional benefits have been demonstrated with post-discharge interventions such as: post-discharge phone calls, home visits, home health referrals, etc. Those patients who have the highest risk of readmission may also benefit from more intensive community resources and support.</li> <li>• Consider developing or launching programs for special populations, e.g. behavioral health patients, homeless patients, end-stage renal disease, human immunodeficiency virus-infected, or other complex, high-risk populations.</li> <li>• Identify community-based organizations, resources available and service gaps needing to be addressed. Collaborate to meet patient needs.</li> <li>• For patients without a primary care physician (PCP), work with health plans, Medicaid agencies, and other safety net programs to identify PCPs. Consider follow-up clinics run by hospitalists or nurse practitioners if timely access to a PCP not available.</li> </ul>

## FOOTNOTES

<sup>1</sup> Website. Retrieved at: <http://www.insigniahealth.com/solutions/patient-activation-measure>

<sup>2</sup> Website. Pages 32-42. Retrieved at: <http://www.bu.edu/fammed/projectred/newtoolkit/3.%20How%20to%20deliver%20the%20RED%204.15.11.pdf>

<sup>3</sup> Website. Retrieved at: <http://www.caretransitions.org/documents/phr.pdf>

## PREVENTING AVOIDABLE READMISSIONS

An oft-cited 2009 study published in the *New England Journal of Medicine* demonstrated that almost one-fifth (19.6%) of Medicare patients were readmitted to the hospital within 30 days of discharge and 34% were readmitted within 90 days.<sup>1</sup> Only 10% of these readmissions were planned. Medicare 30-day readmission rates varied among states, ranging from 13-24%.

Medicare's annual cost for unplanned hospital readmissions exceeds \$17 billion. Among the most important factors contributing to unplanned readmissions are uncoordinated care and ineffective care transitions. Addressing complex issues across care settings is challenging, and requires new tools, communication channels and care processes. Fortunately, hospitals can reduce avoidable readmissions by employing several proven strategies.

Care models and systems have been created to address the needs of patients in complex healthcare systems. Many of the approaches outlined below are supported by research or based on successful trials in a significant number of hospitals. This change package does not endorse any particular model or care system; instead, common approaches and practices are highlighted. Hospitals should review the models listed in the "Key Resources" section and determine which approaches could be the most effective in mitigating the leading causes of readmissions for their specific organizations and patient populations.

In sum, avoidable readmissions are common and costly. They can be minimized by implementing effective care coordination and by improving transitions of care.

## SUGGESTED AIMS

An aim statement for re-hospitalization reduction efforts could include one of the following:

- By 12/31/13, reduce hospital readmissions by 20% as compared to the previous year's baseline by decreasing preventable complications during a transition from one care setting to another.
- By the end of 2013, readmissions for heart failure (or another specified condition or complication) will be reduced by 20% as compared to the 2010 baseline.

## IDENTIFY HIGH-RISK PATIENTS

Understanding which patients are more likely to be re-hospitalized will enable you to focus limited resources on priority targets. There are a number of risk assessment tools available to identify high-risk patients, most of which share these key factors:

- Prior hospitalizations within a given time period
- Complex, chronic diagnoses
- Age
- Patient disposition

Through risk assessment, patient populations can be segmented into groups such as high, medium, or low risk for readmission. Assessment of patient risk permits the selection of specific care interventions based on a patient's risk level and, as appropriate, engaging the patient and/or primary caregiver in the care planning process.

### Secondary Driver: Risk Assessment and Stratification.

Use a validated readmission risk assessment tool (see Appendix I for samples) or use your own hospital's data to determine the risks for identified factors and conditions within your patient data set. Risk for readmission is not only comprised of clinical risk factors (e.g. co-morbid conditions or illness severity), but of non-clinical factors such as:

- patient access to an available primary care physician,
- patient mobility and access to transportation,
- patient financial constraints, such as lack of health insurance, that may limit access to medications,
- and the lack of a support system to assist the patient with self-care and management.

Risk assessment tools are helpful, but may miss some at-risk patients. Health care providers should remain alert throughout a patient's hospital stay for clues to socioeconomic and personal factors that could signal an increased risk for readmission. At a minimum, providers should identify which of their patients have been previously hospitalized. Additionally, patients who struggle with or fail "Teach-back" instructions and education would also be at moderate-to-high-risk for readmission. Use the findings from your readmission risk assessments to stratify your patients into risk groups or segments and determine which interventions will be associated with each segment. For example:

- Low risk of re-hospitalization – normal discharge process
- Moderate risk of re-hospitalization – enhanced care-coordination and discharge/transfer process
- Highest risk of re-hospitalization – enhanced care-coordination and discharge/transfer process, plus community intervention

Hospitals can develop a risk assessment tool using their own readmissions data. An analysis of the factors associated with patient who are readmitted can be performed by looking at patient characteristics such as age, prior admissions, discharge disposition, etc. then determining, through statistical analysis, which characteristics have the greatest predictive power for readmission. Once such an analysis is performed the hospital would understand what the risk factors for readmission to their organization are based on their own data. See Appendix II for an example of how this was done.

### **Change Ideas:**

- Select a risk assessment tool that is easy to implement, will require minimal training, and can fit into current workflows. (See the links to sample risk assessment tools in Appendix I.)
- Periodically validate the findings from the selected tool by comparing the risk assessments with your readmissions data. Ask: “Is this risk assessment tool effectively identifying our readmitted patients?”
- If you find additional factors that contribute to a high risk of readmission, include them in your risk assessment process.
- Develop a consistent process to document the risk assessment findings and associated care interventions. Locate this information in a place where it is accessible to all members of the care team.
- Implement a qualitative interview approach to identify non-clinical factors contributing to readmission and whether the community care system met patients’ individual needs. For example, ask several patients to describe their experiences post-discharge and prior to readmission, including the actions taken when symptoms or issues developed.
- Frequently, asking the simple question “Why do you believe you were readmitted?” will provide invaluable information about the challenges the patient faced.

### **Suggested Process Measure<sup>2</sup>**

- Formal assessment of patients’ risk of readmission. You can include all eligible patients or a random sample of 10-30 cases each month. Determine for each patient if the risk assessment tool was completed accurately and if the results were readily accessible in the medical record.

### **Secondary Driver: Enhanced Admission Assessment of Discharge Needs.**

For patients who have a higher risk of re-hospitalization, perform an enhanced admission assessment that includes identification of their primary caregiver and their discharge care needs. If a patient has had a prior admission, analyze previous discharge plan failures and care transition challenges, and identify potential barriers to self-management post-discharge that can be addressed more effectively in the future. For patients who are at a higher risk for rehospitalization, perform an enhanced admission assessment to determine who their primary provider/caregiver is and what their discharge needs will be. Take into special consideration prior discharge plan failures and care transition challenges if the patient had a prior admission. Identify potential barriers that might prevent patients from being able to manage their care once they are discharged.

### **Change Idea**

- Identify who the patient’s primary caregiver is and communicate the identity to the members of the patient’s healthcare team. Use a standardized method to communicate this information to members of the care team such as use of a whiteboard or specific, standardized entry in the medical record.
- Identify potential barriers to self-management including limited financial resources and lack of a support network.

### **Suggested Quality Improvement Measure**

Sample a small number of patients, e.g. 10 cases per month, to evaluate if information about the primary caregiver is accurate and accessible to all members of the health care team

### **Secondary Driver: Multidisciplinary Care Team.**

All complex patients, including those at high risk of readmission, benefit from care managed by a multidisciplinary team. Based on a patient’s specific needs, consider expanding the care team from physicians and nurses to include hospitalists; pharmacists; physical, occupational, and respiratory therapists; case managers; social workers; and nutritionists. For example, several studies have shown the value of early engagement of palliative care services in assisting with symptom management, reducing overall costs, and aligning care with patient’s treatment preferences.<sup>3,4,5</sup> Other research has demonstrated the benefits of adding a care coordinator, transitions coach, care navigator, or similar provider in improving quality of care and safety both during a hospital stay and after discharge.<sup>6,7</sup>

Unfortunately, dysfunctional organizational systems, misalignment of financial incentives, and an unenlightened culture can create barriers to implementing interdisciplinary/multidisciplinary care practices. To promote successful adoption of this approach, identify a core team of respected hospital staff (physicians, nurses, quality specialists, case managers, and pharmacists) to trial and champion collaboration to reduce readmissions. Successful trials can then be disseminated more broadly to the medical staff.<sup>8</sup>

### **Change Idea**

- Implement multidisciplinary rounds for selected patients at high risk of readmission.
- Engage palliative care early in the hospitalization of patients at high risk of readmission, especially for those patients who are experiencing challenges with symptom management or end-of-life needs.
  - Develop a process for obtaining palliative care consultation within 48 hours of patient admission.
  - Develop accessible educational materials for patients and families on the benefit of palliative care.

### **Suggested Quality Improvement Measure**

Evaluate the effectiveness of palliative care consults at your institution. Suggested sample size = 10 cases. Review: How many consults are completed within the desirable time-frame, i.e. within 48 hours after admission? Are the patient and family members engaged in the care or are they declining the services?

### **“Hardwiring” the Identification of High-Risk Patients in Improvement Plans**

Determining the best risk-assessment methodology can become a “holy grail” — a goal never fully realized — because multiple non-clinical factors can influence risk. The most reliable approaches clearly define the processes for risk assessment and the criteria for risk stratification, and ask the questions:

- Who is responsible for the risk assessment?
- Which risk assessment tool will be used?
- Where will the assessment results be recorded?
- To whom will they be communicated?
- Which actions will be implemented as a result of the assessment?

Test risk assessment processes to ensure that they are accurately identifying high risk patients and are compatible with patient and organizational needs. Based on trial results, revise processes as needed. Successful hardwiring occurs through continual institutional learning and improvement of systems.

### **SELF-MANAGEMENT SKILLS**

All interventions should have patient self-management as a goal. Patients need to leave the hospital with the understanding of how to manage their medical conditions. Keys to success are:

- knowledge of medications
- knowledge of early warning signals and what to do if these signals occur, and
- knowing what to do or where to go when they have questions.

In some cases, the patient is neither the primary caregiver nor the primary learner. Identify who provides the care for the patient and whether multiple caregivers are involved, and target care management skill development towards them.

### **Secondary Driver: Medications.**

Medication management issues are a significant driver of avoidable readmissions. On admission to the hospital, it’s critical to find out from the patient or primary caregiver what medications the patient is taking at home. Complete and accurate assessment of home medication history is the first component of medication reconciliation. The history should include the name, dose and frequency of the medication as well as the patients’ understanding of why they are taking the medication and how they are taking

it (such as on an empty stomach or with food). At discharge, medication reconciliation includes a review, with the patient or responsible caregiver, of new prescriptions, home medications which are to be discontinued, and any other modification. For a safe discharge, each patient or caregiver needs to understand:

- each medication prescribed including dose, frequency, time of day, etc,
- the purpose of each medication, i.e. what condition or symptom the medication addresses
- and how to obtain the prescribed medication(s).

### **Change Ideas**

- Medication education:
  - Educate patients before discharge regarding: each medication prescribed, the purpose of the medication, and methods of obtaining and taking each medication. Simplify instructions to the greatest extent possible.
  - Provide clearly written medication instructions using health literacy concepts to ensure patient understanding. Include easy-to-understand text and use pictures when appropriate.

### **Suggested Process Measure**

Medication education is a key component of the Project BOOST discharge bundle. A process measure is the number of patients with discharge bundles completed or with discharge plans that contain all the bundle elements. Though this measure is based on the Project BOOST discharge bundle, it can apply to any discharge plan that contains the critical elements below:

- The reason for hospitalization;
- The list of all discharge medications with details on dose, route, frequency, and reason for use written in understandable language;
- The description of any potential complications, warning signs and/or symptoms, and what to do if they occur;
- A list of follow-up appointments; and
- Relevant contact information for each provider.

### **Secondary Driver: Promote Knowledge about Symptoms and Red Flags.**

Before discharge, patients should understand what to do if their condition begins to worsen. With this knowledge, patients can obtain assistance in a timely manner, and thereby prevent the need for urgent or emergent care. Some patients may be able to identify red flags, but lack the assertiveness or problem-solving skills necessary to navigate the ambulatory care system, especially if their doctor is not easily accessible.



## Change Ideas

- Develop patient-centered educational tools about diagnoses and treatments that use health literacy concepts such as the Personal Health Record created by Dr. Eric Coleman. Available at <http://www.caretransitions.org/documents/phr.pdf>
- Make the health information easily accessible to patients using tools such as wallet cards, refrigerator magnets, etc.
- Keep red flag instructions simple-to-understand.
- Assess the patient's or caregiver's ability to manage red flags and take necessary steps to address concerns/seek care. Write out steps to be taken as appropriate.

## Suggested Quality Improvement Measure

- Assess patients' understanding of their "red flags." Sample a small number (~10) of patients each month and determine each patient's level of comprehension regarding their "red flags."

## Secondary Driver: Health literacy level and patient activation.

Not all patients will have the same ability to learn and implement self-management techniques. Patients must be able to understand discharge education and apply the information provided, including knowledge of when to seek medical care, how to take medications correctly, and how to follow care instructions.

Health literacy is "the ability to obtain, process and understand health information to make informed decisions about health care." Health literacy involves using skills such as reading and listening to understand health-related issues and perform health-related tasks.<sup>9</sup> Limited health literacy has been associated with self-management difficulties, medication errors, and higher health care costs. Experts recommend that providers should assume that most patients have limited health literacy and should focus on creating an environment in which patients of all health literacy levels can thrive. To be effective, education and training materials should be patient-centered, understandable and useful, and geared to address specific populations and their needs. Even patients with high literacy levels can benefit from visual or graphic displays that enhance narrative text. Materials should be customized using literacy and cultural competency principles, and patient/family coaching provided should be individualized based on the recipients' health literacy levels.

Additionally, assessing patients' "levels of activation" – that is, how engaged and self-assertive they are in managing their own care – can guide providers in tailoring discharge education to meet patients' needs. Patient activation skills are correlated with healthcare outcomes such as medication adherence, emergency

room utilization, and re-hospitalization. Improving patient activation has been associated with improved health outcomes and a lower risk of readmissions.

## Change Ideas

- Develop patient-centered education and training materials, using health literacy concepts.
- Focus on improving communications with patients. Limit the use of medical jargon, ask open-ended questions, and use the "Teach-back" technique (see below).
- Improve written educational materials. Use documents that are easy-to-read and incorporate images.
- Ensure written materials align with and reinforce verbal instructions.
- Have patient focus groups or patient advocates assist you in developing effective patient education materials.
- The Patient Activation Measure (PAM) is a proprietary measure and coaching program. Additional information on the PAM is available at: <http://www.insigniahealth.com/solutions/patient-activation-measure>
- Consider using motivational interviewing techniques for patients who are at high-risk and have lower activation. Motivational interviewing is a technique to increase the participation and desire of the patient to carry out self-management tasks. More information about motivational interviewing can be retrieved at: <http://www.motivationalinterview.org/>.

## Suggested Quality Improvement Measures

- Evaluate the effectiveness of educational materials via qualitative and quantitative assessments of patient comprehension. Refine the materials until maximal effectiveness is achieved.
  - For organizations who have implemented the Patient Activation Measure or a formal health literacy assessment tool, evaluate the use of these assessment instruments.

## Secondary Driver: Use Teach-Back to Validate Understanding.

Use "Teach-back" as a communication tool to validate the patient's understanding of instructions. Teach-back is a method wherein clinicians ask patients, in a non-threatening manner, to recite the instructions just provided.<sup>10</sup> If a patient or caregiver cannot effectively "Teach-back," additional support is needed. Failure of Teach-back may be due to:

- Limited clinician skills or experience in using Teach-back.
- Limitations in patients' or caregivers' understanding.

Communications would need to be repeated or revised to improve patient understanding prior to discharge. Prioritizing the teaching points and limiting the amount of information provided can avoid overwhelming patients with more information than they are able to process.

### **Change Ideas**

- Using role-plays, train clinical staff how to perform Teach-back and observe their technique. Consider creating videos, starring your own staff, that display examples of “good” and “could be better” Teach-back.
  - Use “I” statements when speaking with patients and caregivers. E.g. “To make sure I did a good job explaining your medications, can you tell me...?”
  - Script specific Teach-back questions staff can use such as: “Can you tell me who you would call if you gained five pounds?”
- Designate where and how the status of patient understanding will be documented in the medical record. For example, will an education record need to be created or will the current clinical record need to be modified to document this status?
- Determine how this information will be transferred from provider to provider throughout the patient’s stay. E.g. How is a patient’s current level of understanding relayed to staff from shift to shift?
- Monitor the use and effectiveness of Teach-back through observation and validation of patient understanding. For example, ask a nurse manager to interview patients to independently assess their level of understanding and compare the assessments to the reports on the education record. Provide real-time feedback if the nurse manager’s assessments and the staff assessments are not in concordance.

### **Suggested Process Measure**

- Evaluate patients receiving complete discharge education verified by Teach-back or other means.
  - Data can be obtained by observing the discharge education interaction and/or interviewing patients after discharge education has been provided. Additional information on the effectiveness of Teach-back can be assessed through follow-up phone interviews with discharged patients.
  - Given the resource intensity of these evaluations, random or stratified sampling is recommended. A feasible sampling strategy may include having a nurse manager or care coordinator observe seven discharge educational interactions occurring Monday through Friday (weekdays) and three occurring on Saturday or Sunday (weekends) for a total of ten observations per month.

### **“Hardwiring” Self-Management Skills in Improvement Plans**

Successfully coaching patients to develop high-quality self-management skills requires a variety of techniques which will likely need to be continuously refined and adapted to specific populations and individual patients. Additionally, not all patients will be able to acquire adequate self-management skills during their hospital stay. Ongoing skills development will be necessary at home and within the ambulatory system to hardwire self-management completely.

To promote patient learning:

- Create a Patient/Family Council or other formal committee that is tasked with the responsibility of reviewing and improving patient education materials.
- Implement Teach-back as a key competency for all clinical staff.
- Include training on Teach-back in new employee orientations.
- Formally evaluate competency with Teach-back as a component of performance evaluations

### **COORDINATION OF INFORMATION ALONG THE PATIENT CARE CONTINUUM**

Patient information should be accessible and available wherever and whenever it is needed to care for the patient. Health information management and appropriate and timely interventions are critical components of effective care coordination.

#### **Secondary Driver: Create a Patient-Centered Record.**

The patient is a key source of his/her clinical information. Develop a patient-centered record that can be used by patients to manage their care and to communicate with their clinical providers.

### **Change Ideas**

- Consider adopting available tools and best practices such as the Project RED’s After Hospital Care Plan (AHCP), <http://www.bu.edu/fammed/projectred/toolkit.html>, and the Coleman Personal Health Record (PHR), <http://www.caretransitions.org/documents/phr.pdf>.
- Determine where in the record key information will be stored and accessed to be used in care plans. Consider using Information Technology to assist in this process.

### **Suggested Process Measure**

The number of completed patient care plans that contain all the required elements. In the Project RED patient care plan these elements include:

- the date of discharge;
- contact information for the primary physician and other key care providers;
- medications to be continued at home, including name, purpose, dosage, frequency, etc.;
- follow-up appointments scheduled;
- other orders related to patient self-care such as diet, activity, etc.;
- information about the diagnosed disease(s) or condition(s);
- signs and symptoms that warrant a phone call to the physician;
- signs and symptoms that warrant a visit to the emergency department; and
- a form on which a patient can record questions to ask at the follow-up appointment

### **Secondary Driver: Communication to Other Health Providers**

Timely and adequate communication of key information to care providers who are not based in the hospital. (Please see the section below on post-hospitalization follow-up.)

#### **Change Ideas**

- Obtain accurate information about each patient's primary care physician (PCP) at the time of admission.
  - Sometimes the patient may not know who his/her primary care provider is, so using other questions such as: "Which doctor prescribed your medication?" or "Where do you go when you need to see a doctor?" may help elicit accurate information.
  - If this information is not obtainable at admission due to the patient's condition, institute a process to obtain the information post-admission.
- Ask non-hospital providers what information they will need to assume follow up care and how they wish to receive it.
- Send discharge summaries to primary care providers within 24 to 48 hours of patient discharge.
- Use a concise, standardized discharge or transfer form. Some states have created standardized transfer forms for all hospitals and skilled nursing facilities, which streamline communication.

### **Suggested Process Measure**

- Timely transmission of the transition record (inpatient discharge to home/self-care or any other site of care), i.e. the percentage of patients whose transition record was transmitted to another facility or a primary care provider within 48 hours of discharge.

### **Secondary Driver: Medication Reconciliation**

Medications should be reconciled at admission, upon any change in level of care, and at discharge. On admission, the focus should be on obtaining an accurate home medication history and reconciling the history with the medications that will be required to manage the acute condition. On discharge, the emphasis should be on reconciling medications used during the hospital stay with the medications prescribed at discharge, and clarifying any modifications to medications the patient will be using at home. Patients at moderate-to-high-risk of readmission may need additional assistance to understand discharge medication instructions. They may benefit from follow-up phone calls and/or home visits to review medications and other components of the discharge plan.

#### **Change Ideas**

- Perform accurate medication reconciliation at a minimum on admission and at discharge so that the medication list is as accurate as possible.
- Assign clear accountability for medication reconciliation at each transition of care.
- At discharge, provide the patient and/or primary caregiver with a list of medications that clearly identifies which medications should be taken and how they should be administered. Use health literacy concepts to ensure understanding.
- Implement post-discharge follow-up. In some settings, pharmacy technicians can reconcile medications by phone with low or moderate-risk patients. For high-risk patients, consider a home visit, and work with the home health or other ambulatory providers to assess home medications and reinforce discharge instructions.

### **Suggested Process Measure**

- Heart failure discharge instructions. This composite measure includes six components: 1. activity level, 2. diet, 3. discharge medications, 4. follow-up appointment, 5. weight monitoring, and 6. what to do if symptoms worsen.

### **“Hardwiring” Coordination of Information Along the Continuum of Cares**

Develop a patient/family council or other formal committee to review patient-centered discharge plans-of-care. Seek information from primary care practitioners regarding the information they wish to receive, and how they wish to receive it.

Typically, recipients of information prefer easy-to-read formats, but institutions may not have the resources to produce multiple formats and levels of educational materials or provide lengthy individualized coaching. Information technology may help to balance and coordinate the “needs” of the receivers and the resource limits of the “senders” and provide functional, efficient, and sustainable systems of communication.

Implement regular training and communication sessions with post-acute-care providers (long-term, ambulatory, and home health care) to identify and resolve care coordination and transition problems and improve the reliability and sustainability of improved tools, practices, and systems.

### **ADEQUATE POST-HOSPITALIZATION FOLLOW-UP AND COMMUNITY RESOURCES**

Develop plans-of-care for patients to follow after discharge that are designed to meet the required levels of care. After-care plans are crucial for care coordination and should integrate input from a patient’s entire clinical team.

#### **Secondary Driver: Physician/Other Care Provider and Resource Follow-Up Needs.**

Determine which provider(s) should follow up the patient after discharge and the necessary intervals and frequency of follow-up. Identify and address other patient post-discharge needs such as medications, durable medical equipment, oxygen, etc.

#### **Change Ideas**

- Upon patients’ admissions, begin to plan for what after-hospitalization resources and appointments will be necessary.
- Clearly communicate the post-acute plan-of-care to patients and caregivers.
- Healthcare facilities and their physicians should determine the acceptable length of time between discharge and the first follow-up visit with a clinician. Ideally, the follow-up appointment should occur within 7 to 14 days; however, for patients at high-risk of readmission, a follow-up appointment within 48 to 72 hours may be necessary.
  - Track your institution’s readmission data to determine the intervals at which patients are returning. The analysis will inform you about the timeframe needed for follow-up appointments for your patients.

- Work with patients and care providers to determine any barriers to making and attending follow-up appointment(s).
  - If barriers are identified, determine how they might be resolved. For example, coach patients to call their physician and say: “I need to make an appointment to see the doctor because I just got out of the hospital and I need to be sure that I am taking my medications correctly.”
  - Consider hospital-run follow-up clinics run by hospitalists or nurse practitioners if timely access to a primary care physician (PCP) is not available.
- Work with health plans, Medicaid agencies, and other safety-net programs to identify a PCP for patients who do not have one.
- Work with patients and caregivers to identify any barriers to addressing other follow-up needs such as medications, special diets, etc.
  - If barriers are identified, determine how they might be resolved. For example, can an extended supply of medications be obtained prior to discharge? Can medications be mailed to the patient?

#### **Suggested Process Measures**

Several measures from the Joint Commission Hospital-Based Inpatient Psychiatric Services (HBIPS) and Children’s Asthma Care (CAC) core measure sets are applicable

- For psychiatric patients, the percentage of patients discharged from a hospital-based inpatient psychiatric setting with a post-discharge continuing care plan (HBIPS-6) which is transmitted to next-level-of-care provider upon discharge (HBIPS-7).
- For pediatric asthma patients, the percentage of patients/caregivers who received the pediatric asthma Home Management Plan of Care (HPMC) document.

#### **Secondary Driver: Post-Discharge Calls and Visits.**

Develop a process to call and/or visit high-risk patients to ensure that they are able to carry out their plan-of-care. Determine if the plan has been understood and whether and changes or revisions are necessary.

#### **Change Ideas**

- Determine which patients will be telephoned, who will do the calls, and when the calls will occur.
  - Gather and analyze information from these calls to identify trends that can inform your readmission team. For example, repeated patient questions about medications may guide your team to revise medication education materials or processes.

- Anticipate high no-answer rates for cold calls. Patients and care-givers will tend to answer calls from an identified clinician they met in the hospital. During the discharge process, advise patients to anticipate a follow-up call from an identified hospital staff member, and confirm the specific phone number where they can be reached. Do not assume that phone number is the number in their medical record; patients may be staying with a relative or neighbor during their convalescence.
- Determine if patterns are occurring with unanswered calls, e.g., a specific time of day, the location of the patient, or the patient's level of engagement.
- Maximize the continuity of post-discharge calls when possible, by assigning one individual to follow-up and connect with the patient or caregiver.
- Determine which patients will require a home visit, who will do these visits, and when they will occur.
  - Review home health referrals.
  - Review home health readmission patterns to determine opportunities for additional focused interventions.
- Consider implementing tele-health or other remote monitoring.

#### **Suggested Quality Improvement Measures**

Potential measures for tests of change for post-discharge follow-up calls or visits include:

- the percentage of calls placed within 48 hours of discharge,
- the percentage of calls answered by patients and/or caregivers, and
- the percentage of patients with home visits completed within 2 days after discharge.
- the percentage of patients who had a follow-up visit scheduled before being discharged.
- the percentage of patients who visited their PCP (or other provider) within 7 days of discharge.

For any of these measures, data can be collected using a sample from a specific population such as patients hospitalized with a primary diagnosis of heart failure.

#### **Secondary Driver: Integrate Organizations and Identify or Develop a Medical Home.**

Proactively identify high-risk patients. Including them in a comprehensive medical home program may prevent avoidable readmissions. Partner organizations should engage in outreach to high-risk patients and provide accessible information and services, as well as monitor patient health and wellness via a multidisciplinary ambulatory infrastructure. Further information

about medical homes can be accessed at: <http://www.ncqa.org/LinkClick.aspx?fileticket=ycS4coFOGnw%3d&tabid=631>

#### **Change Ideas**

- Consider ongoing case management through a medical home.
- Consider referring the patient to complex care clinics.
- Consider developing population registries to identify and monitor the health needs of the community served.
- Consider accrediting medical homes.

#### **Suggested Quality Improvement Measures**

For organizations that have medical homes in their community, even if the homes are not directly affiliated with the hospital, assess the percentage of patients discharged to a physician practicing within a medical home. Evaluate readmission rates compared to those discharged to other practices or models. Other quality improvement and process measures could be stratified by medical home practices as well. These include the timely transmission of transition records to primary physicians or other follow-up health care providers within 24 hours of discharge, the scheduling of follow-up appointments before discharge, and the examination of patients by primary care providers within 7 days of discharge.

#### **Secondary Driver: Coordinate with Skilled Nursing Facilities.**

Patients who are discharged to skilled nursing facilities (SNF) and other post-acute care providers are readmitted at a higher than expected rate. Many of these re-hospitalizations could have been prevented.<sup>11,12</sup>

#### **Change Ideas**

- Evaluate the percentage of re-hospitalized patients from skilled nursing facilities.
- Review admission source data to determine which SNFs drive your readmission rate.
- If these patients have come from a number of nursing facilities, drill further into the data to identify the SNFs with which you can partner on readmission reduction strategies.
- Meet with SNFs and start a dialogue about strategies to avoid preventable readmissions.
- Consider INTERACT II. Available at: <http://www.interact2.net/>
- Periodically review readmissions with the SNF to look for improvement opportunities
  - Consider providing after-hours physician phone triage/consultation services for SNFs that are contemplating sending a patient to the Emergency Department.

- Invite SNF leadership and clinical teams to visit your hospital and offer to spend time at their facility. This collaboration can create a shared knowledge base of the services provided by each organization and the care needs of patients.
- Implement a process for verbal handoffs from hospital clinicians (physician and/or nurse) to nursing home providers.
- Use a standardized transfer form to communicate information from the hospital to the SNF. Several states have implemented this process at the state level and work to balance the needs of the “receivers” and the resource limits of the “senders.”

### **Suggested Quality Improvement Measures**

Capture data on components of the transition process from hospital to nursing home such as completion of the standardized discharge form, transmission of the form when a patient is transported from the hospital to a nursing home, physician to physician verbal hand-offs, and follow-up phone calls from the hospital to nursing home clinicians within 48 hours of transfer.

### **Secondary Driver: Determine the Community Resources for the Special Needs of Highly Vulnerable Populations.**

More vulnerable patient populations may benefit from additional interventions and resources. These populations include: behavioral health patients; homeless patients; patients with end-stage renal disease (ESRD); those infected with human immunodeficiency virus (HIV); and children with complex, chronic conditions. Identifying and partnering with community-based organizations can be key to achieving timely care transitions and effectively responding to patients’ needs.

### **Change Ideas**

- Collaborate with established community resources (e.g., nutrition programs, transportation programs, case management programs) or identify and develop new services.
- Patients with the highest risk of re-hospitalization may benefit from the support of other clinical and non-clinical community resources.
  - Map out the resources in your community.
  - Consider partnering or developing a referral relationship with community-based resources such as local agencies on aging, home health, etc,
- For patients without a PCP, enlist local health plans, Medicaid agencies and other safety net programs to help identify a PCP.

### **Suggested Quality Improvement Measures**

Failure to coordinate care and gaps in services can be reflected not just in readmission rates for these vulnerable patients, but in increased emergency department visits. Consider evaluating whether readmitted patients had access to primary care, home care services, transportation, appropriate nutrition, etc.

### **“Hardwiring” Post-Hospitalization Linkages with Community Resources for Follow-up**

- Clearly define the processes for addressing follow-up needs including: post-discharge calls, visits and referral to community resources.
- Analyze collected data to determine if the highest-risk patients are being effectively supported.
- Test processes to ensure that they are compatible with patient, organizational, and community needs.
- Revise processes as necessary as a result of testing.
- Select tools to implement, and determine accountability and documentation requirements for new processes.
- Train involved staff in new processes.
- Monitor results and provide feedback to involved staff members.
- Establish a forum in which community providers can exchange information and feedback about needs and resources with the hospital.
- On a periodic basis, share data about readmissions with outside agencies so that all involved parties can review the cases and identify opportunities for improvement.
- Establish a community forum to prioritize and address issues that emerge such as palliative care and end-of-life planning.

### **POTENTIAL BARRIERS**

Reducing readmissions is “the right thing to do”, but it is not necessarily aligned with reimbursement at the current time. Understanding the financial ramifications of readmissions and their reduction helps to identify potential economic benefits for institutions and patients.

Reducing preventable readmissions is challenging work because it requires the involvement of many individuals and systems both within and beyond the hospital. Time and resources must be expended to understand the organization’s current level of performance and to identify performance gaps, as well as to select the appropriate interventions to address the needs identified in the gap analysis. After the interventions are selected, they need to be tested, adapted, and implemented. Common barriers to implementation include: organizational drift towards other strategic priorities, a lack of accountability and expectations for completion of the initiative, and inadequate availability of resources.

### **Use administrative leadership sponsorship to help remove or mitigate barriers**

- Align readmission reduction efforts with strategic business priorities.
- Enlist a senior leader as a champion to advocate for and promote the initiative.
- Enlist a senior leader to mitigate barriers and provide adequate resources to support the improvement efforts.
- At least monthly, review processes, barriers, and outcome measures with the senior leader.
- Develop strategies to overcome barriers and evaluate the effectiveness of the strategies.

### **Change not only the practice, but the culture.**

Promoting changes in cultures and practices can be very challenging. It's common for people to be reluctant to give up "what is comfortable" and replace it with "what is unknown." However, change is critical for quality improvement. Healthcare professionals may be more receptive to change if the process is framed in a way that highlights the benefits for patients and providers. Suggestions include:

- Keep the patient "front and center." Show the expected benefits of the change.
- Unite and motivate staff around the aim. Use respected champions in a breadth of professions to advocate for the change and demonstrate the benefits of new processes and collaborative implementation.

Interdisciplinary communication and collaboration play key roles in reducing readmissions. Professionals in some disciplines may have more experience working independently, however, and collaboration across disciplines may require a change in perspective.

- Bring representatives from a variety of professions together to launch improvement processes.
- Create a structured forum where different disciplines can share their understanding of the intended changes and of their expected roles and contributions.
- Routinely share patient stories that describe the positive outcomes and benefits of the intended changes.

Another cultural shift that promotes positive outcomes is the transition from a paternal approach, in which patients are told what to do, to a patient-centered approach, wherein patients play pivotal roles in their care. For example, some clinicians would be unfamiliar with asking patients why they believe they needed to return to the hospital or validating the patients' understanding of

educational information. Explaining the value of patient feedback and data in readmission reduction can help promote acceptance of these changes in processes, which include:

- Using Teach-back.
- Engaging patients to actively participate in the design and implementation of their care.
- Seek information from patients about the reason for readmission.

Readmission reduction work often includes the need to partner with both clinical and non-clinical members of the community. An excellent first step is to bring community partners together to collaborate.

- Create a forum for community involvement. Identifying local agencies and other organizations interested in effective care can lead to the establishment of partnerships to improve quality of care and address readmissions.
- Use community-organizing principles to engage partners beyond the hospital and its official partners. More information can be accessed at: <http://sites.harvard.edu/icb/icb.do?keyword=k2139&pageid=icb.page12185>

### **Tips on How to Use the Model for Improvement How Will You Know If You've Made an Improvement?**

Throughout the course of your readmission reduction improvement efforts, you should measure outcomes (readmission rates) and evaluate processes that contribute to reduced rates. Potential measures from the HRET HEN Encyclopedia of Measures include:

#### **Outcome Measures:**

- Readmissions within 30 days (all-cause)
- Readmissions within 15 days (all-cause)
- Acute myocardial infarction (AMI) patients – readmissions within 30 days (all-cause)
- Heart failure (HF) patients – readmissions within 30 days (all-cause)
- Pneumonia (PN) patients – readmissions within 30 days (all-cause)
- AMI 30 day risk-standardized readmission measure (Medicare fee-for-service patients)
- HF 30 day risk-standardized readmission measure (Medicare fee-for-service patients)
- PN 30 day risk-standardized readmission measure (Medicare fee-for-service patients)

### Process Measures:

- Completion of Patient Care Plan (Project Red)
- Formal assessment of patient's risk of readmission
- Patients receiving complete discharge instructions verified by Teach-back or other means
- Completion of discharge bundle (Project BOOST)
- Evaluation of left ventricular systolic (LVS) function (heart failure patients)
- Heart failure discharge instructions
- Pediatric asthma Home Management Plan of Care document given to patient / caregiver
- Psychiatric patients – post discharge continuing care plan transmitted (overall rate)
- Psychiatric patients with post discharge plan (overall rate)
- Timely transmission of transition record

To evaluate the effectiveness of quality improvement efforts, consider collecting both qualitative and quantitative data. Many teams overlook the importance of qualitative data, especially when they are testing new processes, but qualitative data such as user satisfaction levels and other user feedback can be very useful in developing necessary revisions and changes.

### Understand Your Current Processes and Data

Before choosing which evidence-based approaches you will implement in your organization, perform an intensive assessment of your current quality of care status and gaps.

- Interview returning patients and their caregivers with the goal of identifying why they believe they were readmitted. Sample size: Five.
- Interview the primary care providers of these readmitted patients to determine if they were aware of the original hospitalization and their patient's earlier discharge needs.
- Ask the PCPs what they believe occasioned the re-hospitalization?
- Review the medical records for recent readmissions of these five patients within the past 90 days to discover the patient's diagnosis and dispositions over the designated interval.
- Collect data for all of your readmitted patients from within the past year and analyze these data to identify your readmission rates, most common diagnoses, etc.
- Review key processes within your organization to identify and address the gap between your current processes and the improvements necessary to reduce readmissions. Identify which processes in place are effective and reliable, which process in place are not always effective or reliable, and which processes are not currently being implemented.

### What Are Your Patients Telling You?

Talk to the five readmitted patients or their caregivers and ask them to why they perceive the readmission occurred. You may need to ask a series of open-ended "why" questions to identify the specific failures. See the sample Patient Interview Tool in Appendix III.

You can ask questions used in the STAAR initiative such as:

- How do you think you became sick enough to come back to the hospital?
- Did you go to your doctor's office before you came back to the hospital? If yes, who is your doctor? If not, why not?
- Did you have any problems getting to see your doctor?
- Has anything gotten in the way of you taking your medicines?
- How do you take your medicines and set up your pills each day?
- Tell me about the kinds of meals you typically eat each day.
- Why do you think you were readmitted to the hospital?
- What do you think needs to happen for you to be able to stay healthy enough to stay at home?

Further information about patient experiences with your hospital's education and transition processes can be obtained from HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) surveys. Beginning January 2013, hospitals participating in HCAHPS are required to use the expanded survey with three additional questions on care transitions:

1. During this hospital stay, staff took my preferences and those of my family or caregiver into account in deciding what my healthcare needs would be when I left.
2. When I left the hospital, I had a good understanding of the things I was responsible for in managing my health.
3. When I left the hospital, I clearly understood the purpose for taking each of my medications.

The entire survey and additional information on HCAHPS requirements is available at <http://www.hcahpsonline.org/home.aspx>

- What gaps did you identify?
- What processes do you need to change to fill these gaps?

### What are the Primary Care Physicians (PCP) or Other Providers of Care Telling You?

Contact the PCP or other providers who cared for the patient after discharge. Ask them what they believe contributed to the patient's re-admission, with the aim of uncovering not just the diagnosis but the reason for the patient's clinical deterioration. Determine if the



PCPs were aware of the patient's earlier hospitalization and if they had received a discharge summary. See the sample Provider Interview Tool in Appendix IV.

- What gaps did you identify?
- What processes do you need to change to fill these gaps?

### **What Are Your Medical Records Telling You?**

Review the medical records of the patients you interviewed. Begin with their initial admission and review all subsequent readmissions within the past 90 days. See the sample Medical Record Review Tool in Appendix V. For each episode (e.g., the index hospitalization and any readmission), examine data such as:

- Admission and discharge dates and any correlation with specific days of the week
- Number of days in-between admissions
- Reasons for each admission/readmission
- Condition at each discharge
- Name and location to which patient was discharged (e.g. to another acute care hospital, post-acute care facility, or home health agency)
- Location from which patient was admitted (e.g. from another acute care hospital, post-acute care facility, or home health agency, specific name)
- The list of medications at discharge
- At the time of each discharge, was the patient/caregiver provided with: a clear medication list, a follow-up appointment, and assistance with obtaining medications and attending the PCP visit if necessary?
- Was there documented evidence that the patient/caregiver understood the discharge instructions, e.g., "Teach-back"?
- Were there documented unmet social needs that may have contributed to readmission?
- What did you learn from this chart review?
- What was missing in the medical records that should have been documented?
- What additional information is needed?
- What processes do you need to change to fill the gaps in care transitions?

### **What Are Your Data Telling You?**

Collect the data for all readmissions from the prior year. Run reports to answer the following questions:

- What is your readmission rate per month for the past twelve months?
- What are the characteristics of patients who are being readmitted?
- Which groups of patients are at highest risk for readmission?
- Consider factors such as: age, gender, location of residence, primary and secondary diagnoses, from where patients were being readmitted, to where they were discharged prior to each readmission.
- What have you learned from this review of your data?
- Based on your findings, do any priorities stand out for you?

### **What Are Your Processes Telling You?**

Understanding your current processes and the degree to which they are reliable requires more than a review of your policies and procedures.

- Begin by reviewing your policies and procedures, forms, and other printed materials. Ask, "Do we need to make any changes?"
- Find out how the staff members are trained to perform the processes being studied. Ask, "Do we need to make any changes?"
- Trace these procedures to determine if they are widely known and followed. Did you find evidence of these processes in your chart reviews, observations and interviews?
- Interview at least three staff members who routinely admit and discharge patients to ascertain their understanding of these key processes. Do you routinely monitor these processes? If so, what is measured, by whom, how often, and where are the data recorded?

(See the sample Process Review Tool in Appendix VI.)

### **Understand your current admissions process**

On admission, collect data about patients' primary caregivers by asking questions such as:

- Who takes care of you at home?
- Who helps you with your medications?
- Who goes to the doctor's appointment with you?

Analyze:

- Who collects this patient information?
- Where does this information go?
- Is the information displayed in such a way that it is easily accessible by other healthcare providers, i.e. on a whiteboard in the patient's room or in an accessible section of the medical record?

### **Understand your current patient/family teaching processes**

Health care organizations with the best process improvement results share the following traits:

- Teaching efforts are consistently targeted to the appropriate key learner.
- Educators consistently evaluate patients' understanding of the information provided.
- Organizational culture supports efforts to prioritize patient education.
- Strategies and technologies are adopted to make patient education activities fit easily, if not automatically, into hospital employees' workflow.
- Education materials are designed thoughtfully with the patient in mind.

Questions to consider:

- Who receives teaching?
- When and how often is teaching performed?
- Are the written training and educational materials appropriate for the languages and reading level of the patients/caregivers?
- How is patient understanding demonstrated?
- Can the patients/families reliably Teach-back their conditions, medications, discharge follow-up needs, etc.?
- Is Teach-back used?
- How is staff competency to perform Teach-back evaluated?
- Are the following types of Teach-back questions included throughout the patient's stay:
  - knowledge of medications, diet, etc.?
  - understanding of why this information is important?
  - methods by which patients will remember and organize this information?

### **Understand your coaching and discharge processes**

- Does your coaching model effectively transfer self-management skills to the patient/caregiver? How do you know your model is effective?
- Does your staff understand your hand-off processes?

- Does your patient reliably leave your organization with a clear patient health/transition record which includes a clear list of medications to be taken post-discharge? Is there a means for the patient to obtain these medications if they are not provided by the organization?
- Does your organization reliably communicate key information to the next providers of care? Are discharge summaries completed and sent to the PCP within 24 hours of discharge? Is there a standardized method to communicate with other organizations such as SNFs? Does this method meet the patient's needs?

### **Understand your post-acute care follow-up process**

- Does your patient have adequate and reliable follow-up care? Is a follow-up appointment scheduled prior to discharge? Is there a process in place to confirm if the patient was followed-up and an intervention if he/she was not?
- Do you have a process in place for post discharge follow-up telephone calls or tele-health monitoring?
- Do you know who the highest-risk patients are?
- Do you have specific post-discharge strategies in place for these patients?
- What did you learn from this review of these processes?
- Has your thinking about readmissions changed as a result of this review? If so, how?
- What was missing in your current processes?

Do not be surprised to find gaps in these processes; the gaps represent opportunities for improvement. You will also find bright spots, i.e. processes that are working well. Discover why they work well, so you can replicate these best practices in other areas.

### **Select a Process to Improve**

Based on the findings from your diagnostic studies, select improvement priorities. Your priorities might be based on criteria such as: potential impact, level of readiness, availability of resources, etc. If, for example, you wished to determine which readmission risk assessment should be used by your facility, you could:

- Review a variety of risk assessment tools.
- Select a tool that appears to be compatible with the resources and needs of your organization.
- Ask: "Is there anything we need to modify before we test this here?"
- If yes, make the modification. However, note that if you are using a validated tool, modifications may negatively impact the reliability and validity.

## Testing Change Ideas

**Plan:** Tomorrow, one nurse will test this readmission risk assessment tool on his/her first admission.

**Do:** The nurse tests the readmission risk assessment.

**Study:** At the end of the shift, the team debriefs with the nurse to ask questions such as:

- “Were there any challenges in completing the assessment?”
- “Were you able to collect the required information from the patient or medical record?”
- “How much time did it take to complete the tool?”
- “Are there any suggestions for modifications of the tool or the process?”

**Act:** Make any recommended changes and re-test to determine if the changes are an improvement. If no changes are suggested, plan additional testing with more patients the following day.

Once the assessment has been tested successfully on several more patients, you can expand the test to other nurses.

Document each PDSA cycle so you will have a record of the changes you implemented. You can run several PSDA cycles in parallel. For example, while one group is working on the readmission risk assessment, another might be testing changes to obtain accurate information about the PCP. Coordinate the findings from all of your PDSA cycles so that you can keep track of the entire project.

Additional information on the model for improvement, PDSA cycles, and conducting small tests of change is available at the HRET HEN website <http://hret-hen.org/resources>. Resources include links to several recordings and presentations on the topic.

## Project BOOST – 8 P's

### RISK ASSESSMENT: 8P SCREENING TOOL

(Check all that apply.)

**Problem medications**

(anti-coagulants, insulin, oral hypoglycemic agents, aspirin & Clopidogrel dual therapy, Digoxin, narcotics)

**Psychological**

(depression screen positive or history of depression diagnosis)

**Principal diagnosis**

(cancer, stroke, Diabetes Mellitus, COPD, heart failure)

**Poly-pharmacy**

(> 5 or more routine meds)

**Poor health literacy**

(inability to do Teach-back)

**Patient support**

(absence of a care provider to assist with discharge and home care)

**Prior hospitalization**

(non-elective; in last 6 months)

**Palliative care**

(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:

The Project BOOST 8P tool contains risk-specific interventions aligned with the assessment.

The best results will be achieved when implementing the entire tool and not only the screening criteria. The tool is available at [http://www.hospitalmedicine.org/ResourceRoomRedesign/RR\\_CareTransitions/html\\_CC/O6Boost/O3\\_Assessment.cfm](http://www.hospitalmedicine.org/ResourceRoomRedesign/RR_CareTransitions/html_CC/O6Boost/O3_Assessment.cfm)

**Appendix I: Sample Validated Risk Assessment Tools** (continued)

## Modified LACE Tool

ATTRIBUTE	VALUE	POINTS	PRIOR ADMIT	PRESENT ADMIT
Length of Stay	Less than 1 day	0		
	1 day	1		
	2 days	2		
	3 days	3		
	4-6 days	4		
	7-13 days	5		
	14 or more days	6		
Acute admission	Inpatient	3		
	Observation	0		
Comorbidity	No prior history	0		
	DM, no complications, Cerebrovascular disease, History of MI, PVD, PUD	1		
	Mild liver disease; DM with end organ damage; CHF; COPD; leukemia, lymphoma, or any other cancer or tumor; moderate to severe renal disease	2		
	Dementia or connective tissue disease	3		
	Moderate or severe liver disease or HIV infection	4		
	Metastatic cancer	5		
Emergency room visits during previous 6 months	0 visits	0		
	1 visit	1		
	2 visits	2		
	3 visits	3		
	4 or more visits	4		
<b>Sum of the points/Total:</b>				

Modified LACE tool

<http://www.mtpin.org/docs/ActiveStudies/ReduceReadmit/Nursing%20instruction%20modified%20LACE.pdf>

## Transitional Care Model (TCM): Hospital Discharge Screening Criteria for High-Risk Older Adults

ARE THE FOLLOWING STATEMENTS TRUE FOR THE PATIENT? CHECK IF 'YES'

- Age 80 or older
- Moderate to severe functional deficits (e.g. HARP score > 2, KATZ score < 4, Lawton score < 5)
- An active behavioral and/or psychiatric health issue (e.g. GDS > 5)
- Four or more active co-existing health conditions
- Six or more prescribed medications
- Two or more hospitalizations within the past 6 months
- A hospitalization within the past 30 days
- Inadequate support system
- Low health literacy
- Documented history of non-adherence to the therapeutic regimen

If 2 or more findings are present further investigation is warranted and formal collaborative assessment and implementation of discharge planning - transitional care needs should be initiated.

- Cognitive impairment (e.g., Mini-Cog positive)

Any suspected or diagnosed cognitive impairment with or without a positive result on the above screening criteria should independently trigger post-discharge intervention to assure appropriate information transfer and follow-up after discharge to home or other care setting.

Transitional Care Model tool

[www.avoidreadmissions.com/wwwroot/userfiles/documents/50/tcm-overview-protocol-and-assessments.pdf](http://www.avoidreadmissions.com/wwwroot/userfiles/documents/50/tcm-overview-protocol-and-assessments.pdf)

## Appendix II: Sample Risk Assessment Methodology

Please insert your organization's own data when performing this assessment. The fictitious sample below is an example of the process:

### RISK ASSESSMENT FORMULA EVALUATION

The factors to be considered are:

Characteristic:

- Length of stay
- Admission(s) in the past 3 months
- Month of admission
- Attending physician
- Discharge destination
- Age by decade
- Diagnosis
- Comorbidity (1st 12 ICD-9 codes)
- Days between discharge and readmission
- Patient insurance
- Organization-specific factors
- Fall risk
- Caregiver
- Depression
- Dementia
- Poly-pharmacy (>5 medications on discharge)
- Receiving high-risk medication (Beer's listing)
- Health literacy

Six months of data on all patients discharged was collected. The data were entered into a relational database (FileMaker Pro, FileMaker, Inc., version 11). The fields listed above were used to create an odds ratio describing each characteristic's effectiveness in predicting readmission (formula 1). These odds ratios and their corresponding characteristics were ranked, and a linear regression analysis was performed on the top 10. The factors which demonstrated the greatest effectiveness in predicting readmission were selected for the formula. The odds ratio was used to weigh the individual elements of the predictive formula. The formula was calculated and converted to a percentage risk for readmission over the baseline risk for the entire population of patients discharged.

The four factors having the greatest predictive association in this patient population were:

- age,
- prior admission within the previous 90 days,
- discharge to a skilled nursing facility, home health care, or a residential care facility, and
- specific ICD-9 codes, such as heart failure, pneumonia, COPD.

### FORMULA 1: DETERMINE THE RATE OF READMISSION FOR A CHARACTERISTIC

**# of patients readmitted with a specific characteristic divided by # of patients with this specific characteristic.**

100 patients with CHF were readmitted; there were 1,000 patients discharged with the diagnosis of CHF. Readmission rate 10%.

### FORMULA 2: DETERMINE THE OVERALL READMISSION RATE FOR THE ENTIRE POPULATION

**# of patients readmitted divided by # of patients admitted.**

1,000 patients were readmitted; there were 10,000 patients discharged. Readmission rate 10%.

In this fictitious example, there was no additional risk of readmission predicted for patients with CHF.

Odds ratio = **Readmission rate patient with characteristic (rate with CHF, 10%) Readmission rate for entire population (hospital readmission rate 10%)**

Odds ratio is 1.0.

Conclusion: patients with CHF are no more likely to be readmitted than any patient admitted to the hospital.

### Example of Increased Risk for Readmission

**# of patients readmitted who are discharged to a skilled nursing facility (SNF) divided by the total # of patients discharged to a SNF.**

Example: 300 patients discharged to a SNF were readmitted; there were 1,000 patients at the hospital discharged to a SNF. Readmission rate 30%.

**# of patients readmitted divided by the total # of patients admitted.**

1,000 patients were readmitted at this hospital; there were a total of 10,000 patients discharged. Readmission rate for this institution is 10%. In this fictitious example, there is additional risk predicted for patients discharged to a SNF.

Odds ratio = **Readmission rate patient with characteristic (discharged to SNF, 30%) Readmission rate for entire population (hospital readmission rate 10%)**

Odds ratio is 3.0.

Conclusion: patients discharged to a SNF have 3 times the risk of being readmitted as compared to all patients discharged from the hospital.

## Appendix II: Sample Risk Assessment Methodology (continued)

A sample formula, which is currently being beta tested, is:

### Age factor =

- 1.4 if patient > 90
- 1.5 if patient 80 to 89
- 1.4 if patient 70 to 79
- 1.2 if patient is 60 to 70
- 0.9 if patient is <60

### Prior admission factor = 2.8

### Diagnosis factor =

- 1.9 if patient has CHF
- 1.8 if pneumonia or COPD
- 1.4 if chest pain
- 1.5 if CVA

### Disposition destination factor =

- 1.4 if patient is going to a SNF
- 1.3 if to a Residential Care Facility
- 1.3 if into Home Health Care
- 1.0 if to Home

### Weighting factor predicting readmission = Age factor + prior admission factor + diagnosis factor+ disposition destination factor

Baseline readmission rate = 11.4%

Example: The odds of being readmitted for a 90 year old patient with CHF, already readmitted within 90 days and now being discharged to a SNF are:

$$(1.4 + 1.9 + 2.8 + 1.4) * 0.12$$

### Odds ratio for readmission is odds ratio for readmission baseline \* weighting factor predicting readmission

A readmission rate of 11.4% equals an odds ratio of .12



### Appendix III: Sample Patient Interview Tool

QUESTIONS	PT./CAREGIVER NAME	PT./CAREGIVER NAME	PT./CAREGIVER NAME
Number of days since your last discharge?			
How do you think you became sick enough to come back to the hospital?			
Physician Questions — Did you go to your doctor's office before you came back to the hospital? If yes, who is your doctor? If not, why not? Did you have any problems getting to see your doctor?			
Medication Questions — Has anything gotten in the way of you taking your medicines? How do you take your medicines and set up your pills each day? Can you tell me which medications you are supposed to take each day?			
Dietary Questions — Tell me about the kinds of meals you typically eat each day.			
Why do you think you were readmitted to the hospital?			
What do you think needs to happen for you to be able to stay healthy enough to stay at home?			
What did you learn from the patient?			

## Appendix IV: Sample Provider Interview Tool

QUESTIONS	PT./CAREGIVER NAME	PT./CAREGIVER NAME	PT./CAREGIVER NAME
Number of days since the last discharge?			
Were you aware of the patient's last discharge from the hospital?			
Did you receive timely follow-up information from the hospital about your patient's condition and any changes to his/her medications?			
Did you provide any follow-up visits with the patient between his/her discharge and this readmission?			
Why do you think the patient needed to be readmitted? (The goal here is not to obtain a clinical diagnosis rather it is to uncover the reason why the patient's clinical condition deteriorated).			
What do you think needs to happen for your patient to be able to stay healthy enough to stay out of the hospital?			
What did you learn from the provider(s)?			

## Appendix V: Sample Medical Record Review Tool

QUESTIONS	PT./CAREGIVER NAME	PT./CAREGIVER NAME	PT./CAREGIVER NAME
In the past 90 days, how many acute care admissions has this pt. had? List the dates of all admissions.			
In the past 90 days how many ED visits has this pt. had? List the dates of all visits.			
What was the reason for each admission?			
What was the patient's condition at each discharge?			
Where was the patient admitted from and discharged to for each admission?			
For each discharge, did the patient/caregiver have: a clear medication list and a follow-up visit scheduled, and was confirmation that the pt./caregiver had the means to obtain the meds and attend the visit provided?			
Was there documented evidence of pt./caregiver's understanding of discharge instructions, e.g. "Teach-back"?			
Were any social needs documented and addressed?			
What did you learn from the medical record review?			

## Appendix VI: Sample Process Review Tool

Process Questions	List and review any policies and procedures or forms related to this process? Are any changes needed?	Review training materials for involved individuals? Any changes needed?	Review observations of actual practice through: chart review, staff interview, pt. interview or unit observation. Were desired practices evident on at least three separate occasions?	Describe any monitoring that is being performed regarding the process. What measures are collected? How frequently? Who collects and aggregates these data? Where are the findings recorded and displayed?
<b>ENHANCED ADMISSION ASSESSMENT</b>				
Enhanced Admission — Do you routinely ask the patient/caregiver upon admission: “Who takes care of you at home? Who helps you with your medications? Who goes to the doctor’s appointment with you?”				
Is there a whiteboard or other method to easily record and relay this information to other providers? Is it complete and up-to-date?				
<b>TEACHING AND COACHING PROCESSES</b>				
Who receives teaching? When and how often is this performed? How is understanding demonstrated? Can your patients/families reliably Teach-back to you an adequate understanding of their conditions, medications, discharge follow up needs, etc.? Do you use Teach-back? How do you evaluate staff competency to perform Teach-back? Do you include all of the following types of Teach-back questions throughout the patient’s stay: knowledge of medications, diet, etc.; attitude and behavior questions, e.g. why these are important, how will you remember, organize, etc. ? Are written training materials appropriate for the languages and reading level of your patients?				
Does your coaching model work to transfer self-management skills to the patient/caregiver? How do you know it is effective?				

**Appendix VI: Sample Process Review Tool** (continued)

Process Questions	List and review any policies and procedures or forms related to this process? Are any changes needed?	Review training materials for involved individuals? Any changes needed?	Review observations of actual practice through: chart review, staff interview, pt. interview or unit observation. Were desired practices evident on at least three separate occasions?	Describe any monitoring that is being performed regarding the process. What measures are collected? How frequently? Who collects and aggregates these data? Where are the findings recorded and displayed?
<b>HAND OVER PROCESSES</b>				
Does your patient reliably leave your organization with a clear patient health and transition(s) record which includes a clear list of medications to take after discharge?				
Is there a plan for the patient to obtain the medications if they are not provided by the organization?				
Does your organization reliably communicate key information to the next providers-of-care? Are discharge summaries completed and sent to the PCP within 24 hours of discharge?				
Is there a standardized method of communicating to other organizations such as SNFs? Does the method meet the patient's needs?				
<b>POST-ACUTE-CARE FOLLOW UP PROCESSES</b>				
Does your patient have adequate and reliable follow-up? Is a follow-up appointment scheduled prior to discharge? Is there a process in place to confirm that the patient made it to the appointment and an intervention if he/she did not?				
Do you have a process in place for post-discharge follow-up calls or tele-health monitoring?				
Do you have specific strategies in place for high-risk patients? How do you determine which patients are high-risk?				

## KEY RESOURCES

Robert Wood Johnson Foundation. "Combining Better Systems and Intensive Patient Education for Better Heart Care," March 24, 2010, Retrieved at: <http://www.rwjf.org/qualityquality/product.jsp?id=58789>

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- Hospital 2 Home sponsored by the American College of Cardiology and the Institute for Healthcare Improvement. Retrieved at: <http://www.h2hquality.org/>

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- <sup>2</sup> Throughout this document, the header "Suggested Process Measure" is used when the measure described is included in the HRET HEN Encyclopedia of Measures. If there is not a specific measure in the Encyclopedia of Measures directly related to the change concepts, the header "Suggested Quality Improvement Measure" is used.
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- <sup>10</sup> Additional information on health literacy and cultural competency is available from the Agency for Healthcare Research and Quality at: <http://www.ahrq.gov/browse/hlitix.htm> and the American College of Physicians Foundation at: <http://www.acpfoundation.org/health-literacy-programs/>
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