Strategies to Reduce Readmissions and Length of Stay

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Curve 1 to Curve 2

First Curve
- Fee-for-Service
- Quality Not Rewarded
- Pay for Volume
- Fragmented Care
- Acute Hospital Focus
- Stand Alone Providers Thrive

Straddle

Second Curve
- Revenue Drops Minimal Reward for Quality Volume Decrease
- Value Payment System of Care
- IT Centric
- Physical Alignment
- Providers at Risk for Payment
- Continuity of Care Required

No Decline Payment Change Pay for Volume Continues

High Cost IT Infrastructure Physicians in Primary Care

Performance

Time
National Statistics

- 20% of patients discharged from the hospital suffer an adverse event
- Direct communication between hospital physicians and post-acute providers occurs minimally 12% of the time
- 1 in 5 Medicare patients are readmitted within 30 days resulting in costs exceeding $17.4 billion
- Only 41.9% of patients can state their diagnosis at discharge.
- Patients can list all their medications a staggeringly low 27.9% of the time
- 37.2% were at minimum able to state the purpose of their medications

CMS Conditions of Participation (CoP)

§482.43: The hospital must have in effect a discharge planning process that applies to all patients. The hospital’s policies and procedures must be specified in writing.

a) Standard: Identification of patients in need of discharge planning. The hospital must identify at an early stage of hospitalization all patients who are likely to suffer adverse health consequences upon discharge if there is no adequate discharge planning (Centers for Medicare & Medicaid Services [CMS], 2013).
Background

Care transitions are a time of significant vulnerability for patients with multiple chronic illnesses or complex health and social needs. Moving between settings or providers requires comprehensive preparation and education of patients and families. Lack of effective coordination of the transition leaves patients at risk for adverse outcomes (Lamb, 2015).

Reason for Action

- Eliminate adverse outcomes for patients
- Reduce financial penalties from the Centers for Medicare & Medicaid Services (CMS) and other insurers
- Create a standard of excellence across the IU Health system for patient care and safe transitions that meets CMS requirement
- Improve overall efficiency, utilization of resources and satisfaction of the patients and staff
Does Anything Reduce Risk of Readmission?

Leppin et al (2014) reviewed 42 randomized trials for effective readmission prevention initiatives. The Ideas included:

- Discharge planning
- Case Management
- Telephone follow up
- Telemonitoring
- Patient education
- Self management
- Patient centered discharge instructions
- Medication intervention and reconciliation
- Home visits
- Scheduled follow up
- Timely PCP communication
- Clinician continuity
- Timely follow up
- Patient hotline
- Rehabilitation
- Streamlining
The Cumulative Complexity Model: Patient context is represented as a balance between workload and capacity. This balance must be optimized to ensure care effectiveness and improve outcomes. In turn, the outcomes achieved feed back to affect the workload-capacity balance.

Figure Legend:

What Works

- Based on this Meta-analysis, it was determined that almost everything helps a little, but if you want to decrease readmissions significantly, it is more complex.
- “Patient subgroup” was not predictive of readmissions.
- Requires a portfolio approach.
- Does not mean that all patients are at equal risk of readmission.
- There is no silver bullet (Tremain, 2015).
5:2:1

- Interventions that involve many components
  - 5 or more = 40% more effective
- Care that significantly involves
  - at least 2 individuals = 30% more effective
- Processes that support the patient’s
  - Capacity for self care = 30% more effective
  (Tremain, 2015)

- It is not just doing at least 5 interventions...
- *It is doing them well, every time, every patient*
- It is getting at least two people besides the patient significantly involved...
  - “Owners”
- It is increasing capacity for *self care* (Tremain, 2015)
Daily Interdisciplinary Huddles

Members

- Case Manager (CM)
- Charge RN (Chg RN)
- Physician or representative (MD, APN, PA)
- Social Worker (SW)
- Pharmacist (RPh)
- Rehabilitation Services (PT/OT)
- Nutrition Services (RD)

Standard Discussion Includes:

- Patient identifier(s) – Chg RN
- Service and Diagnosis – MD or Chg RN
- Actual and expected LOS - CM
- Projected D/C date – MD, CM
- Discharge disposition (home v. facility) - PT
- Diet - RD
- Pharmacy needs - RPh
- Barriers to discharge - all
- Readmission Risk – CM/SW
Conclusions: Positive Outcomes

- Mutual respect
- Enhanced communication
- Improved efficiency
- Collaborative problem solving
- Patient centered focus

Conclusions: Recommendations

<table>
<thead>
<tr>
<th>Issues</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inconsistent format</td>
<td>Develop “standard work” to define content</td>
</tr>
<tr>
<td>Inconsistent attendance by all disciplines</td>
<td>Increased conversation of the “why” with associated outcomes data</td>
</tr>
<tr>
<td>Impact of staffing</td>
<td>Inclusion of huddle information in staff onboarding and ongoing</td>
</tr>
<tr>
<td>Developing unit-based ownership for outcomes</td>
<td>Increase communication related to outcomes; Accountable Care Units</td>
</tr>
<tr>
<td>Implementation by unit was a prolonged and fragmented process</td>
<td>Educate and integrate ALL disciplines at the beginning of process with ongoing reinforcement of concepts</td>
</tr>
<tr>
<td>Ancillary services cover multiple units</td>
<td>Develop alternate means of communication that does not require attendance</td>
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Comparative Analysis

- Care Transitions Program (CTI®)
  - The CTI is a patient-centered coaching intervention to empower individuals to better manage their health. It begins in-hospital and continues for 30 days, including one home visit and one to two phone calls.
  - The care transitions intervention is in the public domain at [www.caretransitions.org](http://www.caretransitions.org).
- Primary Care focus with 20-50% reduction in readmissions (Gardner et al, 2014).
Comparative Analysis

- **Boost®**
  - Better Outcomes by Optimizing Safe Transitions developed by Society of Hospital Medicine
  - Early data from six sites, which implemented Project BOOST, revealed a reduction in their 30 day readmission rates from 14.7% before BOOST to 12.7% after implementation; also, producing a 13.6% reduction in 30 day all-cause readmission rates (Society of Hospital Medicine, 2016).

- **LACE®**
  - Developed by Institute of Health Improvement
  - It has been shown to have a moderate to high predictive value in identifying those patients at risk for readmission and a high predictive value in identifying those patients at risk to return the Emergency Department (Niewiadomski, 2015).

<table>
<thead>
<tr>
<th>Scope of Risks:</th>
<th>LACE®</th>
<th>BOOST®</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOS Acuity of Admission Co-morbidity ED visits over the past 6 months</td>
<td>Problem Medications Psychological Principle diagnosis Physical limitations Poor health literacy Patient support Prior hospitalization Palliative care</td>
<td></td>
</tr>
<tr>
<td>Reliability:</td>
<td>Pilot showed 54% accuracy in predicting 30-day readmissions</td>
<td>6 sites demonstrate a 3% reduction in readmission</td>
</tr>
<tr>
<td>Stratification:</td>
<td>Score &gt; 11 or diagnosis of pneumonia</td>
<td>1 identified risk</td>
</tr>
<tr>
<td>Meaningful Use:</td>
<td>Simplicity of scoring system to identify at-risk patients.</td>
<td>Provides risk-specific intervention techniques which fosters communication with the interdisciplinary team and requires a high-level staff engagement</td>
</tr>
<tr>
<td>Interventions:</td>
<td>Case Management engagement for discharge planning assistance</td>
<td>Multidisciplinary intervention; functional and cognitive assessment, advanced care planning, medication acquisition and adherence, home prep, transportation, social support</td>
</tr>
</tbody>
</table>
**Why BOOST®?**

The goal of BOOST® is to improve the care of patients as they transition from the hospital to home. This Readmission Risk Assessment aims to:

- Identify patients at high risk of re-hospitalization and target specific interventions to mitigate potential adverse events
- Reduce 30 day readmission rates
- Improve patient satisfaction scores and H-CAHPS scores related to discharge
- Improve flow of information between hospital and outpatient physicians and providers
- Improve communication between providers and patients
- Optimize discharge processes

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**Case Management Standard Work**

Readmission Risk Assessment
Scope of Assessment

Assess all inpatient and observation patients within 24 hours of admission. As well as Emergency Department (ED) patients upon referral to:

- Ensure high-risk patients are identified and specific interventions are offered to mitigate their risk at any point of access
- Improve flow of information between the patient/family/caregiver and the interdisciplinary team, as well as post-acute providers

Standard Work

- Identification of any one of the readmission risks identifies the need of Case Management services and therefore requires patient’s engagement with the ICM department.
- Case Management Assessment of the patient will include but is not limited to:
  - Knowledge of the related risk(s)
  - Adherence to their current plan of care (i.e. appointments, medication, etc.)
  - Access to resources and support (i.e. caregiver, transport, insurance, etc.)
Readmission Risk Assessment Tool

Risk Indicators - BOOST® 8Ps +2

- Problem Medications
- Psychological
- Principal Diagnosis
- Physical Limitations
- Poor Health Literacy
- Patient Support
- Prior Hospitalization
- Palliative Care

*Socio-economic Factors*

*Chronic, Catastrophic or Terminal Illness*
**Problem Medications**

Polypharmacy > 10 medications and/or presence of anticoagulants/insulin/aspirin & clopidogrel dual therapy, digoxin or narcotics

- Medication specific education using Teach Back provided to patient and caregiver
- Monitoring plan developed and communicated to patient and aftercare providers, where relevant
- Specific strategies for managing adverse drug events reviewed with patient/caregiver
- Follow-up phone call at 72 hours to assess adherence and complications

**Psychological**

Depression screen positive or diagnosed history of depression

- Assessment of need for psychiatric aftercare if not in place
- Communication with aftercare providers, highlighting this issue if new
- Involvement/awareness of support network insured
Principal Diagnosis

New or previously diagnosed patients with cancer, stroke, DM, COPD, heart failure, pneumonia, total knee/hip arthroplasty, sickle cell and/or asthma.

- Review of national discharge guidelines, where available
- Disease specific education using Teach Back with patient/caregiver
- Action plan reviewed with patient/caregivers regarding what to do and who to contact in the event of worsening or new symptoms.
- Follow-up phone call at 72 hours to assess adherence and complications

Physical Limitations

Patients with deconditioning, frailty, or other physical limitations that impair their ability to participate in their own care

- Engage family/caregivers to ensure ability to assist with post-discharge care assistance
- Assessment of home services to address limitations and care needs
- Follow-up phone call at 72 hours to assess ability to adhere to the care plan with services and support in place.
Poor Health Literacy

The degree to which individuals have the capacity to obtain, process, and understand basic health information, teach back education and services needed to self-manage and make appropriate health decisions.

- Committed caregiver involved in planning/administration of all discharge planning and general and risk specific interventions
- Post-hospital care plan education using Teach Back provided to patient and caregiver
- Link to community resources for additional patient/caregiver support
- Follow-up phone call at 72 hours to assess adherence and complications

Health Care Literacy Impact on Healthcare

- Video from the American Medical Association (3.5 minutes)
  - https://www.youtube.com/watch?v=OSrL5eycFLM
Patient Support

Absence of support to assist with care, as well as insufficient or absent connection with primary medical care.

- Follow-up phone call at 72 hours to assess condition, adherence and complications
- Follow-up appointment with appropriate medical provider within 7 days after hospitalization
- Involvement of home care providers of services with clear communications of discharge plan to those providers
- Engage a transition coach

Prior Hospitalization

More than one (1) Non-elective hospitalization in the last 6 months.

- Review reasons for re-hospitalization in context of prior hospitalization
- Follow-up phone call at 72 hours to assess condition, adherence and complications
- Follow-up appointment with medical provider within 7 days of hospital discharge
- Engage a transition coach
Palliative Care

Presence of an advanced or progressive illness that could result in death within the next 12 months

- Assess need for palliative care services
- Identify goals of care and therapeutic options
- Communicate prognosis with patient/family/caregiver
- Assess and address concerning symptoms
- Identify services or benefits available to patients based on advanced disease status
- Discuss with patient/caregiver role of palliative care services and the benefits and services available to the patient

Socioeconomic Factors

Social or economic factors that are a potentially detrimental to the patients recovery such as, lack of insurance, homelessness etc....

- Involvement for Social Work for coordination of aftercare if not in place
- Link to community resources for additional patient/caregiver support
- Follow-up appointment with aftercare medical provider within 7 days
Chronic, Catastrophic or Terminal Illness

Presence of a chronic, catastrophic or terminal illness not otherwise captured in the high-risk diagnoses identified previously in the tool

- Committed caregiver involved in planning/administration of all general and risk specific interventions
- Discuss goals of care and chronic illness model discussed with patient/caregiver
- Aftercare plan education using Teach Back provided to patient and caregiver
- Link to community resources for additional patient/caregiver support
- Follow-up appointment with aftercare medical provider within 7 days
- Involvement of post-acute providers of services with clear communications of discharge plan to those providers

Measurements & Outcomes
Reports

- LOS
- 30-day Readmissions
- Patient Satisfaction (DC & TOC Domains)

Reporting Future State:

- Patients Screened
- Patients Followed
- PCP Follow-up
- Medications in hand
- Callback Rates
- Referrals by type

Results - Readmissions

<table>
<thead>
<tr>
<th>Unit</th>
<th>2013 Readmission Rate</th>
<th>2015 Readmission Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orthopedics</td>
<td>7.7%</td>
<td>7.4%</td>
</tr>
<tr>
<td>Trauma</td>
<td>11.6%</td>
<td>10.4%</td>
</tr>
<tr>
<td>Urology/Plastics</td>
<td>13.1%</td>
<td>12.5%</td>
</tr>
<tr>
<td>Cardiovascular Surgery</td>
<td>14.0%</td>
<td>14.1%</td>
</tr>
<tr>
<td>Renal-Metabolic</td>
<td>18.00%</td>
<td>17.10%</td>
</tr>
<tr>
<td><strong>Mean:</strong></td>
<td><strong>12.9%</strong></td>
<td><strong>12.3%</strong></td>
</tr>
<tr>
<td><strong>Reduction:</strong></td>
<td></td>
<td><strong>0.56%</strong></td>
</tr>
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**Paired t-test : Significant (p < .03)**
Results - LOS

<table>
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<tr>
<th>Unit</th>
<th>2013 Average LOS</th>
<th>2015 Average LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orthopedics</td>
<td>4.47</td>
<td>4.90</td>
</tr>
<tr>
<td>Trauma</td>
<td>7.05</td>
<td>7.10</td>
</tr>
<tr>
<td>Urology/Plastics</td>
<td>5.36</td>
<td>5.00</td>
</tr>
<tr>
<td>Cardiovascular Surgery</td>
<td>6.81</td>
<td>8.10</td>
</tr>
<tr>
<td>Renal-Metabolic</td>
<td>5.22</td>
<td>5.90</td>
</tr>
<tr>
<td>Mean:</td>
<td>5.78</td>
<td>6.20</td>
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</table>

Paired t-test: No significant change at p < .05

Interpretation of Results

- Inverse relationship between LOS and Readmission
- Impact of Readmission Risk Assessment interventions on LOS and Readmission
- LOS and Readmission are impacted by staffing
- Multidisciplinary communication is critical to successful LOS/Readmission management
- ACA patient benefits impact Case Management processing time which impacts LOS
References


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