Care Transition Strategies To Reduce Readmissions

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Wednesday, December 13, 2017
9:30am – 10:45am
11:15am – 12:30pm

#IHIFORUM
Learning Objectives

• Develop an understanding of practical measurement approaches and rigorous evaluation to identify gaps in care

• Learn how to test interventions to reduce readmissions in high-risk patients, track results and identify improvement areas

• Access proven methods to implement and sustain improvement
A group of hospitals collectively reduced readmissions by 32% in under 8 years.

*How did they do this?*
National Collaborative supporting over 200 hospitals and health systems to reliably deliver the highest quality care in a value-based health care environment

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VP, Quality and Safety
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A collaborative designed to help hospitals and health systems reliably deliver the highest quality care in a value-based healthcare environment.

QUEST leverages analytics, education and best practices to accelerate performance improvement, with complete transparency within the membership.
“Premier and the health systems that participate in QUEST have made exceptional achievements in patient safety and healthcare quality… We can only improve patient safety if we can measure and report on our efforts and the QUEST participants inspire the industry to improve care safety and quality across all settings of care.”

-National Quality Forum
Thought Leadership, Advocacy, Collaboration – QUEST Advisory Panel

- Agency for Healthcare Research and Quality (AHRQ)
- Alliance for Nursing Informatics, University of Minnesota
- American Board of Internal Medicine
- American College of Surgeons
- American Health Information Management Association
- American Heart Association
- American Hospital Association
- American Society for Healthcare Risk Management (ASHRM)
- Blue Cross Blue Shield Association (BCBSA)
- Centers for Disease Control and Prevention (CDC)

- Centers for Medicare & Medicaid Services (CMS)
- Institute for Healthcare Improvement (IHI)
- International Center for Nursing Leadership, University of Minnesota
- John D. Stoeckle Center for Primary Care Innovation, Massachusetts General Hospital
- National Business Coalition on Health
- National Patient Safety Foundation (NPSF)
- National Quality Forum
- Office of the National Coordinator for Health Information Technology
- The Commonwealth Fund
- The Joint Commission
- The Rand Corporation
ACCELERATING IMPROVEMENT

Measure with defined metrics
Report transparently
Share best practice
Execute collaboratively

“Knowing is not enough; we must apply. Willing is not enough; we must do.”

~Johann Wolfgang von Goethe
Measures Align with National Quality Strategy

• Safety
• Care coordination
• Affordable care
• Person family experience
• Health and well-being
• Prevention and treatment
QUEST Delivering Differentiated Performance

More winners under Value-Based Purchasing Program

- QUEST FY 2016 Inpatient: 64% Win, 36% Lose, 1% Exempt
- Non-QUEST Matched Sample FY 2016 Inpatient: 50% Win, 44% Lose, 6% Exempt

Higher scores under Hospital Compare’s 5-Star Rating System

- QUEST: 3.34 RATING
- Non-QUEST Matched Sample: 2.93 RATING

Premier compared the CMS star ratings between Premier QUEST hospitals and non-QUEST hospitals (non-Premier facilities) to explore potential differences in facility performance. Facilities were propensity-score matched using facility size (licensed beds), region (Northeast, Midwest, West, South), urban/rural population, and teaching status. Mean performance was compared using an independent samples t-test. The results showed that Premier QUEST members scored significantly higher (3.25 vs. 2.95; p<0.0001) than non-QUEST facilities. Similar results were obtained from comparing the HCAHPS star ratings (3.29 vs. 2.93; p<0.0001) indicating a consistent trend in higher performance for Premier QUEST members.
The next wave of high performance collaboration

QUEST Performance (2008-2016)

- 203,600 Deaths Avoided in 9 Years of QUEST
- $17.7B Saved in 9 Years of QUEST
- 45,222 Readmissions Prevented During 2014-2016
- 19,382 Harm Events Prevented During 2014-2016
- 20,352 Patients Receiving Evidence Based Care During QUEST 3.0
Hackensack University Medical Center

775 bed, non-profit, teaching, and research hospital in Bergen County, NJ

Our Mission to provide the full spectrum of life-enhancing care and services to create and sustain healthy, vibrant communities

Healthgrades America’s 50 Best Hospitals - one of only five major academic medical centers in the nation to receive Healthgrades America’s 50 Best Hospitals Award for five or more years in a row

U.S. News & World Report - #1 hospital in NJ and top four in New York metro area

Leapfrog - Top Hospital list

Magnet designated for 5 years

The Joint Commission - 25 Gold Seals of Approval, including Heart Failure and AMI – the most in the country

Becker's Hospital Review in 2017 - one of 100 Great Hospitals in America
Healthcare Trends

US Healthcare spending $3.2 trillion in 2015

• 5.8% increase in 2015
• $9,990 per person

Impact of affordable care act

• Readmission penalties
• Medicare reimbursements
• Target diagnoses groups
• Shift in healthcare culture

Change in hospital practices

• Focused on reducing readmissions
  • Creation of discharge programs
  • Models to improve patient satisfaction

CMS Pay For Performance

CMS Shifting from Fee for Service to Paying for Value

Hospital Challenges

2,597 hospitals were financially penalized in Medicare payments in 2016

1 in 5 patients readmitted to hospital within 30 days

- Lots of chronic disease
- I don’t understand what to do
- These drugs are expensive
- I don’t have transportation
CMS Pay For Performance
Shift from Fee for Service to Paying for Value

Inpatient Center for Medicare and Medicaid Services Payments At Risk for FY 2017
(Based on Approximately $150M in DRG Payments and $200M in DRG, DSH, IME Payments)

Dollars at Risk

<table>
<thead>
<tr>
<th>Category</th>
<th>Dollars at Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value Based Purchasing (2% Medicare DRG)</td>
<td>$3,000,000</td>
</tr>
<tr>
<td>HAC Reduction Program (1% Medicare DRG + DSH+IME)</td>
<td>-$2,000,000</td>
</tr>
<tr>
<td>Readmissions Reduction (3% Medicare DRG)</td>
<td>-$4,500,000</td>
</tr>
</tbody>
</table>

At Hackensack University Medical Center, approximate cost of one excess readmission = $19,000
Our Transitions of Care (TOC) Team

Administrator  TOC APN Mgr.  TOC Pharmacist  Quality Advisor

Senior VP, Quality  Director, Finance  Director, Data  TOC Case Mgr.
TOC Project Stakeholders

- Leadership
- Safety & Quality
- Physicians
- Case Management
- Finance
- Pharmacy
- External Partners
- Patient & Caregiver
Case Study

- Mr. J.G. is a 64-year-old single Hispanic male
- Undocumented from Honduras - in USA for 2 years
- History of CHF, DM, HTN, High Cholesterol, recent AMI and multiple hospital readmissions
- No children and lives with his sister
- Unemployed without health insurance and very limited financial resources
- Poor health literacy and low educational level
- Spanish speaking only and unable to read
Identifying Gaps

- Literature review
- Evaluate current process
- Review of data
- Multidisciplinary Rounds
  - Observations
- Chart review
- Patient interviews
For 2-yr period prior to The First Thirty TOC program (1/12 – 3/15), in a like group of 242 AMI/CHF patients, readmission rate was 13.22% (expected rate 13.24, O/E index 1.00)
Multi-disciplinary Rounds (MDR) Analysis

**Strengths**

- Patients are well known by team members
- Increased trust and comfortability amongst regular members
- Engaged physician advisors lead to greater efficiency
- Units with a pharmacist reported a greater number of medication interventions

**Opportunities**

- No focus on readmission prevention
- No consistent emphasis on socio-economic challenges, including access to medications
- Heavy reliance on paper notes vs. real time EMR
- Team members split between multiple units
- Nurse managers who were not in attendance failed to follow up with patient issues
- Delays in rounds leading to inefficiency
Discussion Question

What additional information might be obtained by interviewing readmitted patients that may not be found by only reviewing the chart?
CHF Readmitted Patients Chart Reviews

Jan – May 2017

N = 70
Age Range 51-99
Average Age 78

CHF Readmissions by Gender

Male: 33
Female: 37

CHF Readmissions by Insurance Type

- Medicare: 44%
- Charity Care/Medicaid: 6%
- Private: 7%
- Managed Care: 13%

CHF Readmissions by APR DRG Severity of Illness & Mortality Risk

- group 1 & 2: 12%
- group 3 & 4: 58%

CHF Readmissions by Discharge Disposition

- Home: 26%
- Homecare: 17%
- SNF/LTC: 25%
- Intermediate Care: 1%
- AMA: 1%

Age Range: 51-99
Average Age: 78

N = 70
CHF Readmitted Patients
Chart Reviews

Jan – May 2017

CHF Readmissions by Days to Next Readmission

- 0-7 days: 28
- 8-15 days: 15
- 16-24 days: 20
- 25-30 days: 7

CHF Readmissions By MD Specialty

- Cardiology: 25
- Internal Medicine: 3
- Family Medicine: 2
- Geriatric Medicine: 10
- Hospitalist Medicine: 1

CHF Readmission Reasons

- Skin Trauma: 1
- Intestinal Obstruction: 1
- Renal Disease/Failure: 3
- Pulm Edema/ARF: 4
- COPD: 2
- GI Bleed: 1
- Valvular Disease/Arrhythmia: 2
- CHF: 25

N = 70
Age Range: 51-99
Average Age: 78

Hackensack Meridian Health
## Readmission Interviews

### Heart Failure Readmission Interview Tool Results 2016

<table>
<thead>
<tr>
<th>Question</th>
<th>YES</th>
<th>NO</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understood diagnosis from 1st discharge</td>
<td>8</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Understood education after 1st discharge</td>
<td>8</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Think you were at risk for readmission</td>
<td>8</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Difficulty making follow-up MD appointment</td>
<td>3</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Did you keep follow-up MD appointment</td>
<td>9</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Did you fill all your prescriptions after discharge</td>
<td>10</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Were you compliant taking all your medications at home</td>
<td>11</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Were you told to weigh yourself daily after discharge</td>
<td>6</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Did you weigh yourself daily for weight gain</td>
<td>5</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Did you follow recommended diet to limit salt intake</td>
<td>8</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Did you call doctor’s office with any weight gain, shortness of breath or other concerns</td>
<td>6</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Do you think your readmission could have been prevented</td>
<td>2</td>
<td>8</td>
<td>1</td>
</tr>
</tbody>
</table>

### Heart Failure Readmission Interview Tool Questions 2016

- **n=11**

```plaintext
0  2  4  6  8  10  12
```

- Understood diagnosis from 1st discharge: 8 (YES), 3 (NO), 0 (N/A)
- Understood education after 1st discharge: 8 (YES), 3 (NO), 0 (N/A)
- Think you were at risk for readmission: 8 (YES), 3 (NO), 0 (N/A)
- Difficulty making follow-up MD appointment: 3 (YES), 8 (NO), 0 (N/A)
- Did you keep follow-up MD appointment: 9 (YES), 2 (NO), 0 (N/A)
- Did you fill all your prescriptions after discharge: 10 (YES), 1 (NO), 0 (N/A)
- Were you compliant taking all your medications at home: 11 (YES), 0 (NO), 0 (N/A)
- Were you told to weigh yourself daily after discharge: 6 (YES), 4 (NO), 1 (N/A)
- Did you weigh yourself daily for weight gain: 5 (YES), 5 (NO), 1 (N/A)
- Did you follow recommended diet to limit salt intake: 8 (YES), 3 (NO), 0 (N/A)
- Did you call doctor’s office with any weight gain, shortness of breath or other concerns: 6 (YES), 5 (NO), 1 (N/A)
- Do you think your readmission could have been prevented: 2 (YES), 8 (NO), 1 (N/A)

**Hackensack Meridian Health**
Operational Gaps

- Lack of process to identify 30-day readmissions
- Need for a risk assessment tool to identify high risk patients
- Discharge plan initiated late during the hospitalization
- Poor education about community resources
- Follow up appointment not made
- Appointments not coordinated with caregiver to assure transportation
- Appointment made with provider who does not take patient’s insurance
- Limited options for uninsured patients
- Medication management issues, especially during transitions of care
Patient Related Gaps

- Low socioeconomic status
- Low educational level and health literacy
- Lack of trust in the health care system
- VNS services that participate with patient’s insurance
- Delay in Medicaid application process
- Inability to be discharged to rehab due to lack of coverage
- Social access issues: food, shelter, subpar housing
- Locating and following up with patients post-discharge
Interventions To Reduce Readmissions

• Identify high risk patients
• Patient and caregiver education
• Coordination of follow up care/post discharge plan
• Provide community resources and support service information
• Medication reconciliation on admission and discharge
High Risk Assessment Identification

Identify high risk patients at admission utilizing LACE+

Additional methods:
- Nursing assessment
- TOC team needs assessment
- Case management/social services referrals

L  Length of Stay
A  Acuity
C  Co-morbidity (Charleson Score)
E  ED Utilization (Last 6 months)
+  Additional demographic and clinical information.
LACE+ Variables

+ equals:

- Age and sex
- Hospital teaching status at discharge
- Acute diagnoses and procedures during the index admission
- Number of days on alternate care during the index admission
- Number of elective and urgent admissions to the hospital in the year before the index admission.
## Readmission Score

<table>
<thead>
<tr>
<th>Patient Name/Age/Sex</th>
<th>Room/Bed</th>
<th>Admit Req Doc</th>
<th>New Notes</th>
<th>Med Overdue</th>
<th>New Messages</th>
<th>New Rslt Flag</th>
<th>Attending</th>
<th>Expected D/C Date</th>
<th>HUMC LACE+ Score Column</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3501/02</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3513/01</td>
<td>✓</td>
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<tr>
<td></td>
<td>3509/01</td>
<td>✓</td>
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<tr>
<td></td>
<td>3502/02</td>
<td>✓</td>
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<tr>
<td></td>
<td>3504/02</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>3511/02</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Readmission Score Details:

- **3** Male Patient
- **15** LACE+ Urgent Admission
- **0** LACE+ Discharge Institution
- **6** Length of Stay
- **0** Alternative Level of Care Status
- **0** ED Visits in Previous 6 Months
- **6** Elective Admission in Previous Year
- **50** Comorbidity Score (by age & number of urgent admissions)

**Score:** 80

**Remarks:**

- Daniel J
- D'Alessandro.
Charleson Comorbidity

Predicts the one-year mortality for a patient who may have a range of comorbid conditions, such as heart disease, AIDS, or cancer (a total of 22 conditions). Each condition is assigned a score of 1, 2, 3, or 6, depending on the risk of dying associated with each one.

<table>
<thead>
<tr>
<th>Assigned Weights for Conditions</th>
<th>Condition</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>MI, CHF, PVD, CVD, COPD, dementia, DM with no organ damage, mild liver disease</td>
</tr>
<tr>
<td>2</td>
<td>Moderate to severe renal disease, hemiplegia, DM with organ damage, any malignancy</td>
</tr>
<tr>
<td>3</td>
<td>Moderate to severe liver disease</td>
</tr>
<tr>
<td>6</td>
<td>Metastatic solid tumor</td>
</tr>
</tbody>
</table>

*Total score obtained by adding up assigned weight for each comorbidity present.

CHF = congestive heart failure; COPD = chronic obstructive pulmonary disease; CVD = cerebrovascular disease; DM = diabetes mellitus; MI = myocardial infarction; PVD = peripheral vascular disease.
30-Day Readmission Banner

Collaboration with IT/EPIC on Electronic Solutions
‘The First Thirty' Wellness Package

• ‘The First Thirty' Tote Bag
• Digital Weight Scale
• Automatic Blood Pressure Machine
• Pill Box for 7-day am/pm
• Calendar for 30-day appointments
• Appointment pad and First Thirty Pen
• Pulse ox (if needed)
• Diabetic and home care supplies (as needed)
NJ Care Act: Caregiver is identify on admission, educated about the plan of care and provide contact info for questions post discharge

Education is Consistent, Organized, Utilizes Teach Back, and includes:

- Self care
- Disease states
- Medications
- Management of chronic conditions
- Self monitoring tools
- Emergency instructions
Follow-Up Care

Develop a post discharge plan with patient and caregiver

• Follow-up phone call within 72hrs of discharge
• Appointments scheduled 7 – 10 days of discharge
  • PMDs/Specialist
  • Diagnostics procedures
  • Reminder 24hrs prior to appointment
• Transportation
  • Confirm 24hrs prior/verify address and phone number
• VNS
  • First visit within 24 hours of discharge
• Access to Care
  • Expedite insurance applications
Collaborate with Patient/RN/Case Manager regarding d/c plan

Review/complete Discharge Med Rec with Provider

Offer Meds to Beds program

Communicate plan of care to patient and caregiver & discuss any challenges

VNS referral and bedside enrollment

Provide patients with Wellness Package

Medication education & counseling by Pharmacist

APN education on self care, disease state management, and available resources

Weekly calls to patient for 4 weeks, as well as appt reminder calls

Post-discharge follow up phone call in 24 hours

Schedule follow-up appointments

Arrange transportation if needed

Discharge patient
Post-Discharge Challenges

Appointment scheduled & confirmed

Transportation is set up

Patient is called 24hrs prior

Patient misses appointment

“No Show” Process

VNS is notified to visit patient

Provider/clinical notifies team

If transportation was arranged, driver alerts the team
TOC Team Discharge Checklist

• Include patient in discussion
• Identify and address barriers prior to discharge
• Coordinate plan of care with primary nurse, case manager, social worker, and provider
• Fax discharge summary to outpatient provider
• Confirm transportation
• Ensure access to medications and self-monitoring tools
Medication Management

• National Patient Safety Goal #3
  • Improve the safety of using medications

• About 20% of Medicare patients are readmitted
  • More than half potentially preventable

• Cost = $15-$25 billion/year

• Mismanagement includes:
  • Adverse events
  • Poor compliance

More than half of patients have ≥ 1 unintended medication discrepancy at hospital admission

Pharmacist’s Role

• Conduct medication reconciliation
  • Admission and discharge
• Patient and caregiver counseling
• Participation in multi-disciplinary rounds
• Address prescription coverage needs for the first 30 days post-discharge
• Enrollment in Meds to Beds Program
• Ensure vaccine compliance
• Follow-up phone call within 48 hrs.
• Medication refill reminder phone call
Admission Med Rec Interventions 2016

Error Profile

<table>
<thead>
<tr>
<th>Errors</th>
<th># of Patients</th>
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<tbody>
<tr>
<td>0</td>
<td>1535</td>
</tr>
<tr>
<td>1 to 5</td>
<td>4582</td>
</tr>
<tr>
<td>6 to 10</td>
<td>1856</td>
</tr>
<tr>
<td>11 to 15</td>
<td>553</td>
</tr>
<tr>
<td>16-20</td>
<td>199</td>
</tr>
<tr>
<td>&gt;20</td>
<td>111</td>
</tr>
</tbody>
</table>
Med Rec 2016: Types of Errors

- Incorrect dose
- Dose omissions
- Incorrect entries*
- Incorrect frequencies
- Duplications
- Omissions

* Incorrect entries include wrong strengths, medications patient is no longer taking, has been discontinued, and completed therapies
Meds to Beds

- Plaza Pharmacy program designed to fill prescriptions and deliver to patients prior to discharge
- Nurse driven, Pharmacy technician managed

Benefits
- Prevent 30-Day readmissions
- Improve patient understanding and outcomes
- Improve patient satisfaction scores
- Drive successful population health management of high risk populations
Post-Intervention Readmission Data for ‘The First Thirty’ - It Works!

March 2015 through June 2017

<table>
<thead>
<tr>
<th># of Mortalities</th>
<th>6</th>
</tr>
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<tbody>
<tr>
<td>30 Day Readmissions</td>
<td>24</td>
</tr>
<tr>
<td>Readmit Rate</td>
<td>6.5%</td>
</tr>
<tr>
<td>Expected Readmissions</td>
<td>54.2</td>
</tr>
<tr>
<td>Expected Readmit Rate</td>
<td>14.69%</td>
</tr>
<tr>
<td>O/E Readmissions</td>
<td>0.44</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>READMIT RATE</th>
<th>6.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXPECTED READMIT RATE</td>
<td>14.7%</td>
</tr>
</tbody>
</table>

n = 369 discharges
Suggested Metrics and Data

- Readmission rates
- Patient satisfaction scores
- Medication reconciliation compliance on admission and discharge
- Adherence to follow-up appointments
- Medication compliance and access
Sustaining Improvement

• Leadership engagement
• Development of TOC Charter Team
• Optimize available resources
  • Community partnerships
• Return on investment/business plan
• Monitor interventions
  • Use of risk stratification tool and readmission banner
  • Multidisciplinary rounds
  • Med rec compliance
  • Collect and share metrics/data with stakeholders
  • Regular monitoring of patient’s self care skills/independence for 30 days and beyond
• Share, share and share some more!
Case Study Closing Summary

- So how did this patient do?
- How did he and others evaluate the program?
Questions?

Complete the circle of care

Contacts
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Jeanette.Previdi@Hackensackmeridian.org
Jewell.Thomas@Hackensackmeridian.org