Johnson Memorial Hospital

- Johnson County Memorial Hospital opened in 1947 as a tribute to the men and women of Johnson County who have served in the military.
- Number of Beds: 125
Our Readmission Journey… Started with the Heart

- Formal focus on reduction of readmissions started in 2010.
- Lean Six Sigma Green Belt Team focused on Heart Failure patients.
  - Post-discharge call backs (continues to evolve and be refined)
  - Transitions of Care Coalition (TOCC)
  - Identification of patients at the time of admission (alert sent to case management, nutrition and pharmacy)
  - Follow-up appointments (continues to evolve and be refined)
Our Readmission Journey…
Started with the Heart

- Lean Six Sigma Green Belt Team focused on Heart Failure patients.
  - HF Magnet (zones)
  - HF patient education booklets
  - 2010 - 13.6% of readmissions were HF
  - 2012 - 7.4% of readmissions are HF
Goal

Decrease all-cause, all-payer 30-day Inpatient to Inpatient readmission rates by 20% by December 2013 over 2011 rates. (Decrease of 20% = Rate 5.2%)
2012-2013 Lean Six Sigma Readmissions Team

Criteria

- Inpatient to Inpatient, all-cause, all-payer, all disposition
- Readmissions occurring less than 30 days from index discharge to readmission.
- Principle diagnosis used for index and readmission diagnosis.
2012-2013 Lean Six Sigma Readmissions Team

Excluded

- Patients readmitted for elective surgeries
- Labor patients
Tools Used To Gather Data

- Voice of the Customer (VOC) / S.W.O.T. analysis
- Bar and pie graphs
- Flowcharts
- Fish bone diagram
- SIPOC – Broke into 4 categories: Admission, Inpatient stay, Discharge, and Post-discharge.
Data Collection
Data Collection determined…

**Time and day of week**

12:30 pm to 10:00 pm were the peak times when patients were readmitted. However, those times correlate with peak admission times for the hospital in general so no significant effect/impact was determined. Tuesdays were the days with the highest readmissions.
Data Collection determined…

By physician

- Physicians who had the highest readmission rates were identified.
- They were also the highest admitters to the hospital.
Data Collection determined…

Disposition

● 46% of patients were discharged home without additional resources on index discharge (Home health, etc.)

● 50% of the readmission discharges received a higher level of care (Home health, etc.)
Data Collection determined…

Diagnosis:

• Top readmission diagnoses determined.
## 2012 Readmission Data

<table>
<thead>
<tr>
<th>Diagnoses</th>
<th># of cases</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sepsis/Septicemia</td>
<td>19</td>
<td>15.7%</td>
</tr>
<tr>
<td>CHF</td>
<td>9</td>
<td>7.4%</td>
</tr>
<tr>
<td>ARF</td>
<td>8</td>
<td>6.6%</td>
</tr>
<tr>
<td>COPD</td>
<td>8</td>
<td>6.6%</td>
</tr>
<tr>
<td>Resp infect/failure</td>
<td>7</td>
<td>5.8%</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>7</td>
<td>5.7%</td>
</tr>
<tr>
<td>Bowel obstruction</td>
<td>5</td>
<td>4.1%</td>
</tr>
<tr>
<td>Hip/Femur Fx</td>
<td>5</td>
<td>4.1%</td>
</tr>
<tr>
<td>Cellulitis</td>
<td>4</td>
<td>3.3%</td>
</tr>
<tr>
<td>Diverticulitis</td>
<td>4</td>
<td>3.3%</td>
</tr>
<tr>
<td>Post-op infections</td>
<td>3</td>
<td>2.5%</td>
</tr>
<tr>
<td>Cancer related</td>
<td>3</td>
<td>2.5%</td>
</tr>
</tbody>
</table>
Run Chart

(Preventable Readmissions) Readmission within 30 days (All Cause)

- Johnson Memorial Hospital
- All State Organizations
- All Project Organizations
As a Result of the LSS Readmissions Team
As a Result of the LSS Readmissions Team

- LACE Tool and call back modifications.
- Quarterly Physician Report on all readmissions meeting criteria.
- Sepsis added to the call back/LACE Tool.
- Sepsis Committee was formed and will meet monthly for six months then switch to quarterly.
- Medication reconciliation Six Sigma Team.
# Quarterly Physician Report

<table>
<thead>
<tr>
<th>Quarterly Physician</th>
<th>Report Less Than 30 Day</th>
<th>Readmissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>MR#</td>
<td>Index Admission Attending</td>
<td>Index Admission Attending #</td>
</tr>
<tr>
<td>Q3 2013</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q4 2013</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Barriers

- Inconsistent Hospitalists
- Variation in Practice
- Patient/Family Non-Compliance
- Patient/Family Lack of Resources
Case Management Interventions

- Case Managers change from Utilization Review to Case Management
- Screening of Patients within 48 hours of admission
- Modified Lace Tool
- Change in Call Back Process
- Partnerships with Providers
- Palliative Care Team
Case Management Interventions
RN Case Manager Changes

- Case Managers prior priority was for Utilization Review versus true Case Management
- Secretarial Support
  - 40 hours per pay period
- LCSW
  - 40 hours per pay period
Case Management Interventions
Patient Screening

- Screening of patients within 48 hours of admission
  - Identify baseline
  - Identify needs early
  - Link patient with financial resources
    - Claim-Aid
    - Disability (Allsup)
Case Management Interventions
Modified Lace Tool

- HRET recommended using a tool to identify high risk patients for readmission.
  - Modified Lace Tool
  - www.raadplan.com
Case Management Interventions

**LACE**

- **Length of Stay**
- **Acuity of Admission**
- **Comorbidities**
- **Emergency Room Visits in Past 6 Months**
## Case Management Interventions

**LACE TOOL**

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
<th>Points</th>
<th>Prior Admit</th>
<th>Present Admit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Length of Stay</strong></td>
<td>Less 1 day</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 day</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 days</td>
<td>2</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>3 days</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4-6 days</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7-13 days</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>14 or more days</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute admission</strong></td>
<td>Inpatient</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Observation</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Comorbidity:</strong></td>
<td>No prior history</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Comorbidity points are cumulative to maximum of 6 points)</td>
<td>DM no complications, Cerebrovascular disease, Hx of MI, PVD, PUD, Mild liver disease, DM with end organ damage, CHF, COPD, Cancer, Leukemia, lymphoma, any tumor, cancer, moderate to severe renal dz</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dementia or connective tissue disease</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Moderate or severe liver disease or HIV infection</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Metastatic cancer</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lymphoma</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Emergency Room visits during previous 6 months</strong></td>
<td>0 visits</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 visits</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 visits</td>
<td>2</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>3 visits</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 or more visits</td>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Take the sum of the points and enter the total ➔
Case Management Interventions
Lace Score

- Study recommended using LACE score of 11
- Reviewed readmissions for our population and found that a LACE score of 10 would be more effective for our area
- Plan to monitor and reassess to see if lowering LACE score would be more beneficial
Case Management Interventions
Communicating LACE Scores

- Nurse Case Managers review discharges to home and calculate LACE score using I-PAD
- Score is entered into Meditech Interventions
- Scores are printed to Discharge Call RN printer for review
Case Management Interventions
Discharge Call Nurse

- Prior practice was to call all patients
- Changed focus to call high risk patients
- Changed from single call to serial calls
- Single call for
  - Patients that did not follow discharge recommendations
  - Pediatrics
  - Any patients identified by CM/SW
Case Management Interventions

Discharge Calls

- Serial Calls (Discharge to Home only)
  - Modified Lace Score of 10 or greater
  - Discharge Diagnosis
    - Pneumonia
    - COPD
    - CHF
    - Sepsis
    - MI
Case Management Interventions
Discharge Call Success

- **Call Success Rate:**
  - First Call - 60%
  - Second Call – 44%
  - Third Call – 48%
  - Fourth Call – 53%
  - Fifth Call – 38%
  - Total – 50%
Case Management Interventions
Discharge Call Interventions

- Problems identified by Discharge Call RN
  - Brought to CM Manager for intervention
    - Contact patient or family
    - Contact physician or physician office
    - Initiate higher level of care
      - HHC, SNF, LTAC
    - Medications
      - Last Resort Fund
    - Transportation
      - Access Johnson County
Case Management Interventions
Partnerships/ Resources

- Partnerships
  - St. Thomas Clinic
    - Follow-Up Appointments
  - Kindred LTAC
    - Screenings

- Resources
  - Last Resort Fund
  - AHN ACO Case Managers
  - Transitions of Care Coalition
Lessons Learned

- The reduction of readmission is **NOT** resolved with one silver bullet!
- Multidisciplinary approach is needed.
- Data collection was time consuming but worth it!
- Patient centered approach.
Questions?

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