Hospital Readmissions
University Hospitals

Cathy Koppelman, RN, MSN, NEA-BC
Chief Nursing Officer, UH & UHCMC
Hospital Readmissions

Agenda

• Health care reform/readmissions
• UH System analysis
• Organization-wide approach
• System trends/improvements
• Heart failure/cardiorenal syndrome
• UH System outcomes
Health Care Reform/Readmissions

- Increasing interest in readmissions – health care reform
- Approximately 18 percent of Medicare patients readmitted within 30 days
- Readmission cost the Medicare program approximately $15 billion a year
Health Care Reform/Readmissions

- **Accountable Care Act**
- Identifies 3 DRG’s/core measures
  - Heart failure
  - Myocardial infrastructure
  - Pneumonia
  - DRG’s will expand annually
- Expected re-admission rates
- Hospitals above expected rate
  - Adjustment of Medicare reimbursement by 1%
  - Fiscal year 2013
## UH System Analysis
### UH/CMC – Adult M/S
University Health System Consortium
2008

<table>
<thead>
<tr>
<th>DRG</th>
<th>% 30 Day Re-admit</th>
</tr>
</thead>
<tbody>
<tr>
<td>395 Red blood cell disease</td>
<td>43.86%</td>
</tr>
<tr>
<td>127 Heart failure and shock</td>
<td>24.7%*</td>
</tr>
<tr>
<td>383 Antipartem Dx</td>
<td>33.9%</td>
</tr>
<tr>
<td>430 Psychosis</td>
<td>14.11%</td>
</tr>
<tr>
<td>316 Renal failure</td>
<td>20.9%*</td>
</tr>
<tr>
<td>144 Other circulatory Dx w/cc</td>
<td>27.08%</td>
</tr>
</tbody>
</table>
Framework for Categorizing Readmissions

<table>
<thead>
<tr>
<th>Classification of Readmissions</th>
<th>Related to Initial Admission</th>
<th>Unrelated to Initial Admission</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Planned Readmission</strong></td>
<td>A planned readmission for which the reason for readmission is related to the reason for the initial admission.</td>
<td>A planned readmission for which the reason for readmission is <strong>not related</strong> to the reason for the initial admission.</td>
</tr>
<tr>
<td><strong>Unplanned Readmission</strong></td>
<td>An unplanned readmission for which the reason for readmission is <strong>related</strong> to the reason for the initial admission.</td>
<td>An unplanned readmission for which the reason for readmission is <strong>not related</strong> to the reason for the initial admission.</td>
</tr>
</tbody>
</table>

Public policy efforts aimed at reducing readmissions should begin by identifying and focusing on the group of **unplanned, related** readmissions for which the greatest opportunity exists for hospitals to take actions that may prevent the occurrence of readmissions.
## AHA Box Analysis
### Heart Failure Readmissions
#### UH Wholly-Owned Hospitals

<table>
<thead>
<tr>
<th></th>
<th>Related to Initial Admission</th>
<th>Unrelated to Initial Admission</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Planned Readmission</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009 Q1-Q2</td>
<td>6.5% of cases (9 / 138)</td>
<td>4.4% of cases (6 / 138)</td>
</tr>
<tr>
<td>2008</td>
<td>3.1% of cases (10 / 319)</td>
<td>3.5% of cases (11 / 319)</td>
</tr>
<tr>
<td>2007</td>
<td>2.1% of cases (7 / 331)</td>
<td>2.7% of cases (9 / 331)</td>
</tr>
<tr>
<td>2006</td>
<td>3.5% of cases (12 / 341)</td>
<td>2.6% of cases (9 / 341)</td>
</tr>
<tr>
<td><strong>Unplanned Readmission</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009 Q1-Q2</td>
<td>44.9% of cases (62 / 138)</td>
<td>44.2% of cases (61 / 138)</td>
</tr>
<tr>
<td>2008</td>
<td>50.8% of cases (162 / 319)</td>
<td>42.6% of cases (136 / 319)</td>
</tr>
<tr>
<td>2007</td>
<td>47.1% of cases (156 / 331)</td>
<td>48.1% of cases (159 / 331)</td>
</tr>
<tr>
<td>2006</td>
<td>44.6% of cases (152 / 341)</td>
<td>49.3% of cases (168 / 341)</td>
</tr>
</tbody>
</table>
UH System Analysis 2009

• Box classification – CMC/all community hospitals - 2008
• Top 5 DRG re-admissions
• System trends
  • Heart failure
  • Pneumonia
  • Chronic obstruction pulmonary disease
  • Psychosis
• Hospital specific
Organization-wide Approach

- System-wide retreat
- Three-month period – analysis
  - Retrospective review
  - Concurrent data collection
- Follow-up system-wide retreat
  - Trends specific to DRG group
  - Trends across all patient groups
- AHA – interventions suggested to decrease re-admits
# UH System Analysis

## Nationally Reported Readmission Outcomes

**3rd Qtr 2005 – 2nd Qtr 2008 Discharges**

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Acute Care</th>
<th>Critical Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>UH Geauga Medical Center</td>
<td>No Different than the U.S. National Rate</td>
<td>No Different than the U.S. National Rate</td>
</tr>
<tr>
<td>UHHS Bedford Medical Center</td>
<td>No Different than the U.S. National Rate</td>
<td>Number of Cases Too Small</td>
</tr>
<tr>
<td>UHHS Memorial Hospital of Geneva</td>
<td>Worse than the U.S. National Rate</td>
<td>No Different than the U.S. National Rate</td>
</tr>
<tr>
<td>UHHS Richmond Heights Hospital</td>
<td>No Different than the U.S. National Rate</td>
<td>Number of Cases Too Small</td>
</tr>
<tr>
<td>University Hospitals Conneaut</td>
<td>No Different than the U.S. National Rate</td>
<td>No Different than the U.S. National Rate</td>
</tr>
<tr>
<td>University Hospitals of Cleveland</td>
<td>No Different than the U.S. National Rate</td>
<td>Worse than the U.S. National Rate</td>
</tr>
</tbody>
</table>

## Rate of Readmission for Heart Attack Patients
- No Different than the U.S. National Rate
- No Different than the U.S. National Rate
- Number of Cases Too Small

## Rate of Readmission for Heart Failure Patients
- No Different than the U.S. National Rate
- Worse than the U.S. National Rate
- No Different than the U.S. National Rate

## Rate of Readmission for Pneumonia Patients
- No Different than the U.S. National Rate
- Worse than the U.S. National Rate
- Worse than the U.S. National Rate
Organization-wide Approach

UH System Readmission Structure

Readmission Steering Committee

System Subcommittees

Heart Failure
R. Rowell/Dr. Fang

MI
R. Rowell/Dr. Mohan

COPD
R. Rowell/Dr. Dassnbrook

Pneumonia
R. Rowell/Dr. Dassnbrook

Psychiatry
L. Locke w/Dr. Ronis

Readmission Trends
C. Koppelman/Dr. Anderson

Hospital Specific

Geneva
UTI

Conneaut
Resp.

CMC
Ortho

Geauga
UTI

Bedford
Renal

Richmond

UTI

OB/GYN

Sickle Cell

Ortho

Post Surgical Infection

Renal

Sept. 11-12, 2012
System Trends/Improvements

• Trends for all hospitals
• 3 categories
  • Discharge planning
  • Insurance/financial
  • Physician-related
System Trends/Improvements

• Discharge planning
  • Interdisciplinary team effectiveness
  • Under utilization of home care
  • End of life care needs
  • Re-admits from extended care facilities

• Improvements
  • Team evaluations and improvement goals
  • Home care algorhythm
  • Structured patient/family meetings
  • Palliative care program
  • Senior services/post-acute involvement
  • STARR Initiative
System Trends/Improvements

- Insurance/financial
  - Cost of medication
  - Different payors/methods
  - Access to post-acute
- Improvements
  - Issues with commercial payors → corporate contracting
  - Readmission report by payor source
  - Medication resource guide/education
    - Grand rounds
    - Education of MD’s – ordering meds
System Trends/Improvements

• Physician issues
  • Lack of Primary Care Physicians (PCP)
  • Infection post-procedure
  • Specific MD pattern
  • MD approval – pre-authorized meds

• Improvements
  • Beginning discussion with UHMP
  • Expand Home Care Pilot – surgical population
  • Best practice physician interviews – low re-admits rates
Hospital Readmission
Heart Failure

Risk screen for re-admits

- Non-adherence to meds
- Low ejection fraction
- Advanced heart failure – not keeping appointment
- New diagnosis of heart failure
- Lack of social supports
Hospital Readmission
Heart Failure

Home Care Pilot
• Readmission – not home care eligible
• Home care nurse visit
• Abstract presentation – American Heart Association
• IRB research protocol approval
Hospital Readmission
Heart Failure

Results

- Baseline readmission: 16.7%
- Pilot group: 8.9%
- Reduction rate: 47%
Hospital Readmission
Pneumonia and COPD

- Home Care Pilot – October 2011
- Pulmonary Rehab Program – certification
- RN office visit – post discharge
- Risk screen implemented
- Hand off tool – ICU transfers
Hospital Readmission
Psychosis

• Care Coordination conference pilot
  • In-patient team
  • Community/managed care provider
  • 80% reduction in readmissions
• Enhanced transition care – nursing homes
• Next day follow-up care – phone contact
### Nationally Reported Readmission Outcomes

**HQA Report/CMS Hospital Compare**

**3Q 2007 – 2Q 2010 Discharges**

<table>
<thead>
<tr>
<th></th>
<th>Geauga Medical Center</th>
<th>Bedford Medical Center</th>
<th>Geneva Medical Center</th>
<th>Richmond Medical Center</th>
<th>Conneaut Medical Center</th>
<th>Case Medical Center</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Heart Attack</strong></td>
<td><strong>Equals National</strong></td>
<td>No Different than U.S. National Rate</td>
<td>Number of Cases Too Small</td>
<td>No Different than U.S. National Rate</td>
<td>Number of Cases Too Small</td>
<td>No Different than U.S. National Rate</td>
</tr>
<tr>
<td><strong>Heart Failure</strong></td>
<td>No Different than U.S. National Rate</td>
<td>No Different than U.S. National Rate</td>
<td>No Different than U.S. National Rate</td>
<td>No Different than U.S. National Rate</td>
<td>No Different than U.S. National Rate</td>
<td>No Different than U.S. National Rate</td>
</tr>
<tr>
<td><strong>Pneumonia</strong></td>
<td>No Different than U.S. National Rate</td>
<td><strong>Worse than National</strong></td>
<td>No Different than U.S. National Rate</td>
<td>No Different than U.S. National Rate</td>
<td>No Different than U.S. National Rate</td>
<td>No Different than U.S. National Rate</td>
</tr>
</tbody>
</table>
Hospital Readmission
All Patients – Care Coordination

Transformation Initiative

• Re-design of care coordination model
• Core teams
  • RN Care coordinator
  • Case manager
  • Social worker
• Education/team development/accountability
• Continuum based approach/program development
• Use of STARR Initiative core processes
Hospital Readmission
2012 Plan Update

• Updated outcomes
  • 2 x 2 table analysis
  • Top 5 DRG’s system-wide
  • Common co-morbid states - Diabetes
• 3 main trends
  • PCP access ≤ 7 days of D/C
  • Patient/family refusal of D/C plan
  • Patient adherence to D/C plan
Hospital Readmission
2012 Plan

• Processes not sufficient
• Need programmatic infrastructure
• Specific roles/care maps
• Continuum based management
• Community partnerships
Hospital Readmission
Heart Failure

Grant Application

• CMS Innovation Center
• Prevention of readmissions
  • Partnership – Hospital and Community Agency
  • New program or initiative
  • Root cause analysis and plan
  • Project savings
Hospital Readmission
Heart Failure

Grant Application
- CMS Innovation Center
- Prevention of Readmissions
  - UH/CMC – Partnership with CDC
  - UH/BMC – Partnership with WRAA & SNFs
- Both applications – not accepted
  - CMS → Regional Grant Partnerships
  - WRAA, UH/CMC, CCF, Metro
  - CDC will partner with UH/CMC without grant
Hospital Readmission
Heart Failure

Grant Application

• Prevention of heart failure – readmissions
• Root cause analysis – Medicare patients
  • 357 patients with cardio renal syndrome
  • 230 readmission patients (64%) – 6 months
  • 115 readmission patients (50%) - ≤ 30 days
• Fluid overload and medication management
Grant Application

- Partnership with Community Dialysis Center
- New program/model of care
  - RED – Re-engineered discharge
  - TCM – Transitional care model
- UH/CMC – Discharge advocate
- CDC – Transition care coordinator
- Continuum based plan of care/database
UH System Readmission Outcomes

- A hospital’s qualifying discharges are risk adjusted to determine a predicted rate of readmission.

- Nationwide results are also risk adjusted and according to the level of severity an expected rate of readmission is determined.

- A hospital’s risk adjusted rate is divided by the national risk adjusted expected rate to determine the excess readmission ratio:
  - Ratio greater than 1.0 leads to a penalty.
  - Ratio less than or equal to 1.0 means no penalty.
UH System Readmission Outcomes

• The goal is to have as low an excess readmission ratio as possible

• Only penalized if ratio is greater than 1.0, but the lower the number, the better a hospital is at preventing readmissions
### Table 1: Your Hospital’s 30-Day All-Cause Risk-Standardized Readmission Results for AMI, HF, and PN for the FY 2013 Hospital Readmissions Reduction Program
Based on Discharges from July 2008 through June 2011
UNIVERSITY HOSPITALS OF CLEVELAND

<table>
<thead>
<tr>
<th>Measure</th>
<th>Number of Eligible Discharges at Your Hospital</th>
<th>Number of Readmissions at Your Hospital</th>
<th>Predicted Readmission Rate</th>
<th>Expected Readmission Rate</th>
<th>Excess Readmission Ratio</th>
<th>National Crude Readmission Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMI</td>
<td>379</td>
<td>83</td>
<td>21.4%</td>
<td>20.3%</td>
<td>1.0506</td>
<td>19.2%</td>
</tr>
<tr>
<td>HF</td>
<td>754</td>
<td>190</td>
<td>25.4%</td>
<td>26.0%</td>
<td>0.9779</td>
<td>24.6%</td>
</tr>
<tr>
<td>PN</td>
<td>379</td>
<td>71</td>
<td>19.1%</td>
<td>19.5%</td>
<td>0.9768</td>
<td>18.5%</td>
</tr>
</tbody>
</table>

* Starred items will be publicly reported on the Hospital Compare website in October 2012.

** Results for hospitals with fewer than 25 eligible discharges will not be publicly reported nor used to calculate the readmission adjustment for FY 2013; your results are presented here for your information.

- Excess Readmission Ratio is > 1.0 for AMI so Case will face a penalty for that measure
- Ratio < 1.0 for HF and PN so those will not be penalized
### UH System Readmission Outcomes

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Payment Adjustment Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case Medical Center</td>
<td>0.12%</td>
</tr>
<tr>
<td>Ahuja</td>
<td>0.00%</td>
</tr>
<tr>
<td>Bedford</td>
<td>1.00%</td>
</tr>
<tr>
<td>Geauga</td>
<td>0.12%</td>
</tr>
<tr>
<td>Richmond</td>
<td>1.00%</td>
</tr>
<tr>
<td>St. John</td>
<td>0.04%</td>
</tr>
<tr>
<td>Southwest</td>
<td>0.58%</td>
</tr>
</tbody>
</table>

- For example, Case Medical Center will lose 0.12% of its overall 2013 Medicare inpatient revenue.
- To look at it another way, for each Medicare claim in 2013, CMC will only receive 99.88% of the expected reimbursement.
## Readmission Reduction Penalty

### U.S. News Honor Hospitals and select AMC’s

<table>
<thead>
<tr>
<th>Hospital Name</th>
<th>City, State</th>
<th>FY 2013 Readmission Penalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mayo Clinic</td>
<td>Rochester, MN</td>
<td>0.00%</td>
</tr>
<tr>
<td>Stanford Hospital</td>
<td>Stanford, CA</td>
<td>0.00%</td>
</tr>
<tr>
<td>Hospital of the University of Pennsylvania</td>
<td>Philadelphia, PA</td>
<td>0.02%</td>
</tr>
<tr>
<td>University of Pittsburgh Medical Center</td>
<td>Pittsburgh, PA</td>
<td>0.03%</td>
</tr>
<tr>
<td>Cedars-Sinai Medical Center</td>
<td>Los Angeles, CA</td>
<td>0.04%</td>
</tr>
<tr>
<td>NYU Langone Medical Center</td>
<td>New York, NY</td>
<td>0.09%</td>
</tr>
<tr>
<td>UCSF Medical Center</td>
<td>San Francisco, CA</td>
<td>0.09%</td>
</tr>
<tr>
<td><strong>University Hospitals of Cleveland</strong></td>
<td>Cleveland, OH</td>
<td>0.12%</td>
</tr>
<tr>
<td>University of Washington Medical Center</td>
<td>Seattle, WA</td>
<td>0.14%</td>
</tr>
<tr>
<td>Indiana University Health</td>
<td>Indianapolis, IN</td>
<td>0.16%</td>
</tr>
<tr>
<td>Ronald Reagan UCLA Medical Center</td>
<td>Los Angeles, CA</td>
<td>0.19%</td>
</tr>
<tr>
<td>Duke University Medical Center</td>
<td>Durham, NC</td>
<td>0.45%</td>
</tr>
<tr>
<td>Massachusetts General Hospital</td>
<td>Boston, MA</td>
<td>0.50%</td>
</tr>
<tr>
<td>Brigham and Women's Hospital</td>
<td>Boston, MA</td>
<td>0.53%</td>
</tr>
<tr>
<td>University of Chicago Medical Centers</td>
<td>Chicago, IL</td>
<td>0.55%</td>
</tr>
<tr>
<td>Vanderbilt University Hospital</td>
<td>Nashville, TN</td>
<td>0.62%</td>
</tr>
<tr>
<td>University of Michigan Hospitals</td>
<td>Ann Arbor, MI</td>
<td>0.64%</td>
</tr>
<tr>
<td>Ohio State University Hospitals</td>
<td>Columbus, OH</td>
<td>0.64%</td>
</tr>
<tr>
<td>Cleveland Clinic</td>
<td>Cleveland, OH</td>
<td>0.70%</td>
</tr>
<tr>
<td>Northwestern Memorial Hospital</td>
<td>Chicago, IL</td>
<td>0.70%</td>
</tr>
<tr>
<td>New York Presbyterian - Columbia and Cornell</td>
<td>New York, NY</td>
<td>0.71%</td>
</tr>
<tr>
<td>Mount Sinai Medical Center</td>
<td>New York, NY</td>
<td>0.89%</td>
</tr>
<tr>
<td>Yale-New Haven Hospital</td>
<td>New Haven, CT</td>
<td>0.89%</td>
</tr>
<tr>
<td>Barnes-Jewish Hospital</td>
<td>St. Louis, MO</td>
<td>1.00%</td>
</tr>
</tbody>
</table>