Using Data to Get to the Heart of the Problem: Physician-Level Data and CDI Program Improvement

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Learning Objectives

• At the completion of this educational activity, the learner will be able to:
  – Assess the changing roles and responsibilities of CDI in value-based care
  – Identify three types of data that help ensure a successful CDI program
  – Discuss key steps for establishing physician communication that coaches and educates utilizing meaningful data
  – Identify documentation indicators that will add value to the organization

Who We Are

Carolinas HealthCare System has a unique story to share. Operating as a fully integrated system and connecting and transforming care delivery throughout the Carolinas, our overarching goal is to provide seamless access to coordinated, high-quality healthcare and a superior patient experience—and to provide that care closer to where our patients live.

With 41 hospitals and 900+ care locations, the depth and breadth of services results in a full continuum of integrated care, including:
• Prevention and general wellness
• Primary care at more than 180 locations
• Specialty care via several nationally recognized service lines
• Critical care with one of the largest virtual critical care programs in the nation
• Continuing care, including home health, skilled nursing, hospice, palliative care, inpatient/outpatient rehab, and long-term acute care hospital
Where We Are

At a Glance

- 41 hospitals and 900+ care locations in North Carolina, South Carolina, and Georgia
- More than 7,800 licensed beds
- 3,000+ system-employed physicians and advanced clinical practitioners, 15,000 nurses, and more than 60,000 employees
- $1.5 billion in community benefit in 2014
- More than $8 billion in annual revenue
- The region’s only Level I trauma center
- One of five academic medical centers in North Carolina
- One of the largest HIT and EMR systems in the country
  - STAR/EPIC (dual environment/three-year conversion)
  - Cerner EMR
  - 3M 360 CAC

Accuracy

Documentation and Coding in the Value-Based World

In a volume-based world, we were paid for a diagnosis or a procedure.
In a value-based world, we are paid for performance, which is measured in many ways.
Why Is Accurate Documentation Important?

- Reputation
  - Patient safety
  - Physician profiles
  - Benchmarking
  - Payor Tiering

- Analytics
  - Integrated system of care
  - Outcomes
  - Evidence based
  - Population health

- Revenue/Spa
  - ICD-10
  - Optimal DRG
  - Risk on admission (POA)
  - HACs and PSI

- Strategic growth
  - Hospital documentation
  - Medical staff quality
  - Observation patient safety

ICD-10 Coders and CDI
- Translate documentation into codes and DRGs
- Apply virtual knowledge to support physicians

Physicians
- Complete, accurate, and timely documentation
- Clinical indicators to support anxiety

Physicians as Partners

*HAC/hospital-acquired condition; PSI/Patient Safety Indicator and CDI

Data and Physicians

- Variety of sources (manual and electronic)
  - 3M 360
  - Premier
  - Chart reviews
  - Quality team reviews (e.g., core measures, abstractions)

- Partnerships so we work to one goal together
  - Coding
  - CDI
  - Medical staff quality

- Data on all levels that is actionable
  - Physician
  - Service line
  - Unit

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Even last year, some physicians didn’t want to listen because they thought our efforts, aimed at better documentation, were all about facility reimbursement.

Gaining Momentum

Physicians see their observed-to-expected (O/E) LOS and mortality data compared to others, and now appreciate what accurate documentation will do to impact the expected LOS and the credit they receive for their care.

Code Sepsis

Intersection of care and documentation
How to scale sepsis protocols across an entire health system

But it’s not impossible—in the past year, Carolina HealthCare System scaled a best-in-class sepsis care model from one of their facilities across 14 other hospitals and satellite emergency departments in the system. Between April and July 2014, compared to the same months in 2013, their sepsis mortality rate reduced by 12%. I spoke with Dr. Alan Heffler, the medical director of the ICU at Carolina HealthCare System’s Carolinas Medical Center and physician champion for the sepsis initiative, to learn from their success.

Did the Sepsis Code Make It to the Record?

- Retrospective review of patients where the code sepsis was triggered
  - Was sepsis coded?
  - Was severe sepsis coded?
  - Was septic shock coded?
- Findings
  - 37/48 cases reviewed had clinical indicators of sepsis, severe sepsis, and/or septic shock, but not the supporting documentation

Case Examples

<table>
<thead>
<tr>
<th>DRG</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
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</thead>
<tbody>
<tr>
<td>Sepsis</td>
<td>Septic shock</td>
<td>Septic shock</td>
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<td>Septic shock</td>
<td>Septic shock</td>
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<tr>
<td>0.7611</td>
<td>1.4861</td>
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<td>1.4861</td>
<td>1.4861</td>
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</tr>
</tbody>
</table>

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Code Sepsis: Now Let’s Document

- Daily list of patients generated based on code sepsis activation
- CDI reviews documentation for sepsis, severe sepsis, and/or septic shock
- MD engagement as appropriate
  - In person
  - Physician documentation clarification logged
- Results of first 5-day pilot: 25%+ required MD documentation

Concurrent Documentation Excellence

Where coding, CDI, and medical staff quality interface with 3M 360

What Is CDE and Why Do It?

- Concurrent documentation excellence is a collaboration between coding, CDI, and medical staff quality to:
  - Identify PS/HAC concurrently
  - Reduce the number of retrospective physician documentation clarifications (PDC)
  - Review all payers
  - Find documentation gaps, partnering with physicians to improve severity of illness (SOI), risk of mortality (ROM), and expected LOS
- 3M 360 CDI dashboard gives us a single platform for all teammates to work from and communicate

Promotes One voice to the physicians
Concurrent Documentation Excellence

- Teammates: Concurrent coders, CDI, and medical staff quality
- Pilot continues at CMC on surgery and med/hospitalist units
- Proposed expansion will continue concurrent PSI/HAC work and improve documentation/coding to impact E-LOS
  - CMC-NE
    - Surgical unit (June)
    - Sepsis activation cases (March)
  - CMC
    - Sepsis activation cases (May)
- Working with 3M on enhancements to improve manual parts of this process, making expansion easier—weekly development sessions started in early March

CDE – Results
A Surgical Unit CMC Started 4/20/2015

<table>
<thead>
<tr>
<th>Metrics</th>
<th>Before project</th>
<th>After project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final coding &lt; 5 days</td>
<td>19.24%</td>
<td>42.83%</td>
</tr>
<tr>
<td>Final coding &gt; 5 days</td>
<td>80.76%</td>
<td>57.17%</td>
</tr>
<tr>
<td>Avg. # of days from DC date to final coding</td>
<td>14.17 days</td>
<td>10.16 days</td>
</tr>
<tr>
<td>% retrospective coding clarifications</td>
<td>4.0%</td>
<td>1.8%</td>
</tr>
<tr>
<td>% concurrent CDI clarifications</td>
<td>15.8%</td>
<td>17.9%</td>
</tr>
<tr>
<td>APR-DRG severity of illness</td>
<td>1.6648</td>
<td>1.7432</td>
</tr>
</tbody>
</table>

- Improved physician engagement with real-time clarifications
- Proven value to financial health of the organization where majority of physicians are employed

CDE – Results
A Medical/Surgical Unit CMC Started 7/13/2015

<table>
<thead>
<tr>
<th>Metrics</th>
<th>Before project</th>
<th>After project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final coding &lt; 5 days</td>
<td>13.87%</td>
<td>74.48%</td>
</tr>
<tr>
<td>Final coding &gt; 5 days</td>
<td>86.13%</td>
<td>25.52%</td>
</tr>
<tr>
<td>Avg. # of days from DC date to final coding</td>
<td>11.25 days</td>
<td>5.56 days</td>
</tr>
<tr>
<td>% retrospective coding clarifications</td>
<td>2.9%</td>
<td>0.9%</td>
</tr>
<tr>
<td>% concurrent CDI clarifications</td>
<td>33.6%</td>
<td>43.3%</td>
</tr>
<tr>
<td>APR-DRG severity of illness</td>
<td>1.4078</td>
<td>1.4047</td>
</tr>
</tbody>
</table>

- Improved physician engagement with real-time clarifications
- Proven value to financial health of the organization where majority of physicians are employed
Neurosurgery

A case study

Neurosurgery

- Documentation and coding opportunities:
  - Reviewed the data with the neurosurgeon
  - Built documentation tip card
  - Educated ACPs
  - Dedicated CDI built rapport with MDs and ACPs — familiar face on the unit
  - Met monthly (HIM/coding, CDI, outcomes specialist)

LOS should increase with severity
Engaging the Physicians

- Improves physician workflow with NLP-driven intuitive prompts highlighting potential documentation gaps vs. the current retrospective query process
- Improves accurate documentation with concurrent 24/7 NLP intelligence
- Increased CDI/coder productivity due to reduced need for manual intervention clarification as a result of 30%-40% CAPD clarification coverage
- Provides ongoing physician education

### As evidenced by:

<table>
<thead>
<tr>
<th>Issue</th>
<th>Overview</th>
<th>Example</th>
</tr>
</thead>
</table>
| Specificity | - Documentation does not fully define the diagnosis. | - Data becomes information that turns into action.

3M 360 MD – CAPD – Another Source

- While the CAPD automatically prompts the physician for specificity, we will collect data:
  - Which prompts are being fired?
  - To whom?
  - At what frequency?
  - What is the result of the prompt?
  - Agreed and created note?
  - Disagreed?
  - Ignored?
- Data becomes information that turns into action
  - Education can be focused on an individual physician or group
  - Success can be monitored to prove better documentation drives value

Obstetrics

The final frontier?
A Word on Obstetrics

Historically an area where coding and DRGs have not kept pace with the clinical side

- Women are giving birth who wouldn’t have 15 years ago
  - Lupus
  - Cancer
  - Chronic disease
  - Genetic or chromosomal
- Same scrutiny for quality and core measures as the adult med/surg world—same issues identified:
  - Missing and inconsistent documentation
  - Under-coding

Method to the Madness

Rank the DRG trios at a high level to identify areas with potential to improve documentation and/or coding.

Isolate the Opportunity

- Need to separate operational from documentation opportunities
  - Separate those discharged to SNF or rehab from those sent home
- Second-level composite score at DRG level for top 10 trios:
  - Volume
  - GMLOS expected variance to observed
  - APR-DRG severity index
Second-Level Analysis

LOS gap of 0.8 days where SOI is major but DRG is w/o complicating diagnosis = potential documentation and coding opportunity.

Obstetrics – In Process

- Review documentation and coding
  - Develop material to educate physicians
  - Re-code if inaccuracies found
- Findings (examples)
  - Gestational vs. preexisting—documentation vague or inconsistent
    - Hypertension
    - Diabetes
  - Incorrect principal diagnosis code selection on C-sections
- Developed OB/NB coding cohort (started April 2016)
  - Clinically educated by physicians and labor nurses
  - Surfaces documentation issues/inconsistencies to clinicians

Vaginal Delivery

<table>
<thead>
<tr>
<th>DRG</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>775 Vaginal Delivery w/o Complicating Dx</td>
<td>774 Vaginal Delivery w/ Complicating Dx</td>
<td>775 Vaginal Delivery w/o Complicating Dx</td>
<td>774 Vaginal Delivery w/ Complicating Dx</td>
<td></td>
</tr>
<tr>
<td>POX</td>
<td>Gestational HTN, 3rd trimester</td>
<td>Gestational HTN, 3rd trimester</td>
<td>Gestational diabetes mellitus in childbirth</td>
<td>Preexisting diabetes mellitus—Type 1</td>
</tr>
<tr>
<td>Sex Dx</td>
<td>Single live birth, 38 weeks gestation</td>
<td>Other infection during labor</td>
<td>C. coll Single live birth 38 weeks gestation</td>
<td>Single live birth, 38 weeks gestation</td>
</tr>
<tr>
<td>DRG weight</td>
<td>0.5865</td>
<td>0.7529</td>
<td>0.5865</td>
<td>0.7529</td>
</tr>
<tr>
<td>DRG A/SOS</td>
<td>2.3</td>
<td>3.1</td>
<td>2.3</td>
<td>3.1</td>
</tr>
<tr>
<td>SO/SOM</td>
<td>2/1</td>
<td>3/1</td>
<td>1/1</td>
<td>2/1</td>
</tr>
</tbody>
</table>
### Caesarean Section

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DRG</strong></td>
<td>766 Cesarean Section w/o CC/MCC</td>
<td>765 Cesarean Section w/ CC/MCC</td>
</tr>
<tr>
<td><strong>PDx</strong></td>
<td>Full-term premature rupture membranes, onset of labor</td>
<td>Full-term premature rupture membranes, onset of labor</td>
</tr>
</tbody>
</table>
| **Sec Dx** | Gestational diabetes mellitus in childbirth  
Single live birth  
30 weeks gestation | Preexisting diabetes mellitus in childbirth  
Type 1 diabetes mellitus without complications  
Long-term use of insulin  
Single live birth  
30 weeks gestation | Preexisting diabetes mellitus in childbirth  
Type 1 diabetes mellitus with diabetic CKD  
CKD stage 3  
Long-term use of insulin  
Single live birth  
30 weeks gestation |
| **DRG weight** | 0.7807 | 1.1442 | 1.1442 |
| **DRG A/LOS** | 3.1 | 4.7 | 4.7 |
| **SOI/ROM** | 2/1 | 2/1 | 2/2 |

### Caesarean Section

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DRG</strong></td>
<td>766 Cesarean Section w/o CC/MCC</td>
</tr>
<tr>
<td><strong>PDx</strong></td>
<td>Severe pre-eclampsia, third trimester</td>
</tr>
</tbody>
</table>
| **Sec Dx** | Abnormality in fetal heart rate complicating delivery  
Prolonged pregnancy  
40 weeks gestation of pregnancy  
Single live birth | Abnormality in fetal heart rate complicating delivery  
Prolonged pregnancy  
Acute posthemorrhagic anemia  
Delayed and secondary postpartum hemorrhage  
Anemia complicating childbirth  
40 weeks gestation of pregnancy  
Single live birth |
| **DRG weight** | 0.7807 | 1.1442 |
| **DRG A/LOS** | 3.1 | 4.7 |
| **SOI/ROM** | 2/1 | 2/1 |

Where would we be without the right documentation?

Unemployed?
Thank you. Questions?

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