Artificial Intelligence and Clinical Documentation: The Impact on Quality Outcomes and Physician Engagement

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Steady shift toward risk-based payment

Medicare value-based purchasing program performance criteria

<table>
<thead>
<tr>
<th>Year</th>
<th>Safety</th>
<th>Process of Care</th>
<th>Experience of Care*</th>
<th>Outcomes of Care</th>
<th>Efficiency of Care*</th>
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</thead>
<tbody>
<tr>
<td>2014</td>
<td>25%</td>
<td>45%</td>
<td>20%</td>
<td>20%</td>
<td>5%</td>
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<tr>
<td>2015</td>
<td>20%</td>
<td>30%</td>
<td>30%</td>
<td>25%</td>
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<tr>
<td>2016</td>
<td>25%</td>
<td>30%</td>
<td>25%</td>
<td>25%</td>
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<tr>
<td>2017</td>
<td>25%</td>
<td>20%</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>2018*</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
<td>5%</td>
<td>25%</td>
</tr>
</tbody>
</table>

Source: CMS.gov
Clinical revenue cycle is at the heart
Optimizing improves performance in both “worlds”

Which documentation is better?

1) 79 YO Female Patient who presents with a left lower lobe pneumonia. On presentation patient was found to have an elevated WBC count of 19,000 with left shift, respiratory rate of 24, HR of 110 and Temp of 102.5 F, Blood Pressure of 90/40 and altered mental status. Patient admitted to ICU, Vasopressors if needed, Blood Cultures. Improving on IV Fluids and broad spectrum antibiotics.

Or

Expected Mortality 1.0%

2) 79 YO Female patient who presents with a left lower lobe pneumonia, sepsis and septic encephalopathy, transferred to ICU improving with treatment.

Expected Mortality 11.7%
The Risk to Providers

• The only way your clinical performance is adjudicated by those outside of your medical staff is through BILLING DATA!!!
• If you do not get the billing data correct then your performance will be adjudicated incorrectly…
• This will be vital in the changing healthcare environment
  – In a population-based payment system those that have less than expected performance in quality and cost will be marginalized
The federal government announced that Medicare will now allow use of its extensive medical claims database by employers, insurance companies and consumer groups to produce report cards on local doctors and hospitals.

…By analyzing masses of billing records, experts can glean such critical information as how often a doctor has performed a particular procedure and get a general sense of problems such as preventable complications.

Compiled in an easily understood format and released to the public, medical report cards could become a very powerful tool for promoting quality care and reducing waste…
Clinical impact of a successful program

How a Clinically-Based CDI Program Can Drive Superior Outcomes

CareChex

- A publically available website
- Developed by Comparion Analytics, now part of Quantros
- Ranks all US hospitals, using MedPar data, using 6 variables and 37 different clinical areas
- Mortality Rating is the best correlation to risk capture
Hospitals with clinically-focused CDI outperform their peers in overall mortality ratings

93% of Nuance CDI Client Hospitals are in the 50th percentile for overall mortality ratings

Nuance CDI client hospital performance: overall mortality rating

Top 10%: 37%
Top 25%: 70%
Top 50%: 93%
5 year mortality ratings

Nuance CDI client facilities outperform the expected distribution of the database at all percentiles

- Hospitals in 90th Percentile
  - 10% Nuance partner hospitals:
    - FFY 11: 37%
    - FFY 12: 34%
    - FFY 13: 36%
    - FFY 14: 37%
    - FFY 15: 93%

- Hospitals in 75th Percentile
  - 25% Nuance partner hospitals:
    - FFY 11: 69%
    - FFY 12: 70%
    - FFY 13: 69%
    - FFY 14: 70%
    - FFY 15: 94%

- Hospitals in 50th Percentile
  - 37% Nuance partner hospitals:
    - FFY 11: 87%
    - FFY 12: 96%
    - FFY 13: 93%
    - FFY 14: 93%
    - FFY 15: 93%

Nuance CDI clients show significant improvement

- Mortality & Inpatient Mortality AHRQ Ratings
  - Pre-Implementation: 54.12, Post-Implementation: 71.79 (33% improvement)
  - Pre-Implementation: 48.3, Post-Implementation: 60.07 (25% improvement)

- Expected Mortality
  - Pre-Implementation: 2.00%, Post-Implementation: 2.10% (24% improvement)
All hospitals vs Nuance CDI Clients: expected mortality

Artificial Intelligence
The Future is Here
Nuance CDI technology enablement

**Physician facing**
- Improve case mix index, DNFB
- Appropriately document ROM, SOI
- Assist physicians in real-time at the point of documentation

**CDS facing**
- Reduce post-discharge queries
- High physician acceptance
- Improve quality outcomes

**DRAGON MEDICAL ADVISOR**
- EMBEDDED CAPOD
- FACT EXTRACT

**CLINTEGRITY CDI**
- CLINTEGRITY COMPUTER ASSISTED CDI
Physician facing CAPD

Positively impact clinical documentation quality and completeness

Integrated Computer-Assisted Physician Documentation (CAPD) solutions impact note completeness, compliance, ICD-10 and support regulatory requirements and quality initiatives.

Dragon Medical Advisor
Specify documented diagnoses—impact DNFB, HCCs, CMI, SOI, ROM, and reduce number of CDI/Coder queries to physician.

Embedded CAPD
Discover undocumented diagnoses by analyzing all notes from a patient encounter to identify key clinical clarifications—impact principal diagnosis and severity.

Embedded Fact Extraction
Extract clinical facts (problems, procedures, medications, allergies, vitals, social history…) from unstructured narratives—impact note quality, clinical productivity, and physician satisfaction.

Dragon Medical Advisor
Streamline workflow, compliance, improve risk adjustment and billing

Real-time counter unobtrusively displays number of available advice without need to open advice window

Real-time auto-processing of any note—dictated, transcribed, typed—allows you to move seamlessly between documentation

Accelerates physician and hospital billing for inpatient—advises on most common diagnoses impacting DNFB

Provides more accurate reflection of disease and resource burden—increases CMI

Increases diagnostic specificity to support outpatient risk adjusted payment models—better support HCCs

Acute Renal Failure is documented with no documentation of:
- Cause: Unknown cause, Hypovolemia, Obstruction, Ischemia, Sepsis
- Injury Site: Tubular Necrosis, Cortical Necrosis, Medullary Necrosis
- Lab Support: High Creatinine

Depression is documented with no documentation of:
- Severity: Mild, Moderate, Severe
- Type: Major Depressive Disorder, Bipolar Depressive Disorder, Manic Depressive Disorder, Schizophrenic
- Episode: Single Episode, Recurrent Episode
- Psychosis: Psychotic, Without Psychosis, Schizoaffective, Schizophrenic

Congestive Heart Failure is documented with no documentation of:
- Acuity: Acute, Chronic, Acute on Chronic
Building a CDI Department Amongst a Changing Healthcare Landscape

Joann Ferguson, MBA, BSN, RN
St. John Providence Health System
Director of Clinical Documentation and Revenue Cycle Compliance

St. John Providence Health System
Where the program started

- Partnered with JA Thomas (now Nuance) about 5 years ago
- Existing program with about 20 FTE’s across the health system with no consistency in practice
- Increased to about 30 FTE’s
- Worked in Silos
- Focused on DRG optimization and building provider relationships
- Achieved a 2-4% Medicare CMI improvement in the first year
Year Two

- Same methodology
- Expanded Payers
- Increase to about 45 FTE’s
- Focused on Physician response agree
- Gaps still existed

Why do we have these gaps?

"I just want to take care of my patients"

Another PSI?

Interqual, Interqual, Interqual!

Why are our observation rates so high?

Volumes are up, why is revenue down?

Would you just give me a diagnosis!
We Still have Opportunity to Navigate the Maze

Current State
How do we change our work so the provider is in the center?

• **BOOTS ON GROUND!**
• Actively engage the provider as a member of the team – this is not just for the hospital!
• Work around their schedule
• Early intervention (clinical documentation review starts at the door)
• Engage them in the post-payment audit process
• Strong executive support

**Technology**

**Automation**

**Outpatient**

**Going......**

**ROAD CLOSED AHEAD**
Technology/Automation

- Electronic Health Record
- Auto Suggest Clarifications
- Prioritization of work
- No more payer-specific reviews

Outpatient

- **Observation status**
  - Review in ED
  - Separate from Case Management

- **Provider offices**
  - Move from FFS to VBP
  - No formalized review process
  - HCC’s
  - Insurance incentives
Questions?

Joann.Ferguson@stjohn.org

To submit a question, click on the Q&A widget at the bottom of your screen.

Thank you for attending!

- Please do not close your browser.
- Be sure to complete and submit the program evaluation. It is listed below, but you also will be redirected to it automatically when the program ends.

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Please note: Starting 15 minutes before the program begins, you should hear hold music after logging in to the webinar room. The room will be silent at other times.