Emerging CDI Technology Solutions

Presenter:

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Just himagine what we can accomplish together.
Our Discussion Today

• 2015 I10 Implementation is behind us!
• Last year CDI technology solutions were not in the forefront, or in the budget...
• This session will cover:
  – the landscape of CDI solutions in the market place today
  – emerging technology solutions currently being used to solve the CDI challenges facing physicians, CDIPs & Coders
  – how the latest technology can improve clinical documentation and reimbursement while engaging the physicians in the use of time saving tools to support query response
Current Healthcare Industry Landscape
Population Health

David Kindig from the University of Wisconsin suggests:

“Population health is a relatively new term, with no agreement about whether it refers to a concept of health or a field of study of health determinants...Discussions of population health involve many terms, such as outcomes, disparities, determinants, and risk factors, which may be used imprecisely, particularly across different disciplines, such as medicine, epidemiology, economics, and sociology.”

How does this affect the current healthcare industry landscape?

“The atmosphere is ripe for considering the ways to link prevention to clinical care because of the momentum to move away from fee-for-service to value based global payment for health care.”


Current Landscape

- Increasing regulatory, operational and financial burden
- Increasing patient population moving to government payers (Medicare, Obamacare)
- Increasing risk based payers
- HCC - Hierarchical Condition Categories
- Reimbursement tied to quality metrics
- Decreasing margins as many healthcare systems face reduction in the bottom line
- Aftermath of I10 with decreased productivity for specific types of coding
Healthcare Executive’s Focus for 2016

• The forward-thinking executive recognizes the need for improvements:
  – Streamlined clinical operations
  – Efficient patient care delivery models tied to quality metrics
  – Accurate reimbursement for all patient types
  – HCC/OPT CDI implementation
  – Risk Adjusted Metrics for trending new programs

These objectives can be met through technology driven solutions that make the most of your EHR investment
Why CDI in 2016 – A case for program expansion & effectiveness
EHR ROI through CDI Technology

- Engagement of clinical outcomes using CDI technology to improve specificity for patient care and provider collaboration decreasing complications, ensuring appropriate LOS, appropriate admission and site of service assignment
- EHR workflow enhancement using NLP, speech recognition and mobile device communication
- Enhanced patient care team communication tools
- Improved clinical documentation to reflect accurate CMI and SOI / ROM; ensure appropriate risk adjusted outcome metrics and resulting reimbursement for both the hospital and physicians
Technology Overview
CDI Solutions in the Marketplace

- Peer Benchmarking (MedPAR/DRG, APC, HCC)
- Automated CDI Workflow and case review capture
- Productivity Trend Reports (physician, CDS, Coder)
- Natural Language Processing (NLP), Computer Assisted Physician Documentation technology (CAPD) using Clinical Language Understanding (CLU) – clinical indicator alerts
- Speech Recognition for input directly into the EHR
- EHR templates to collect specific data points
- EHR query integration
- Mobile Device Communication for team collaboration and query process
- Outpatient CDI
Computer-Assisted CDI makes the most of your clinical documentation improvement program with smart technology tools

3M™ 360 Encompass™ System

Supercharge program coverage with automated queries

Extend resources with algorithmically-driven configurable worklists

Find additional impact with auto-suggest queries and CDI edits

Deliver better scorecards with early-warning quality indicators

Citation: http://solutions.3m.com/wps/portal/3M/en_US/Health-Information-Systems/HIS/Products-and-Services/Products-List-A-Z/360EncompassSystem/
NLP

• Natural Language Processing
  – “CDI software in today’s marketplace can not only track activities, but also enhance the clinical record review process using NLP” (Hess, 2105).

• Clinical Language Understanding
  – Identifies key words and phrases with a dictionary of common CDI focused diagnoses, quality indicators and clinical data
  – Decreases chart abstraction
  – NPL improves query process through elimination common queries
  – Enhances the trending of CDI focus areas through automated identification of target areas

Citations:
https://mmodal.com/cdi-solutions/
CAPD

• CAPD (Computer Assisted Physician Documentation technology) using CLU
• Speech Recognition for input directly into the EHR
• EHR templates to collect specific data points
  – Every document is reviewed in detail through automated review for key phrases and test results
  – Allows more time for the team to collaborate on complex cases
  – Reduces queries for routine cases by allowing the physician to answer a prompt during the original documentation process
  – Where latest guidelines are incorporated in the software, assists with clinical documentation/coding compliance and training as part of the documentation process

Citation: http://www.nuance.com/for-healthcare/clintegrity360/clinical-document-improvement/cdi/index.htm
Metrics

Improved metrics and reporting

– Increased case review covering 97% of the potential cases with automation
– Technology allow for multiple ways to submit queries such as via the software itself, interfaced with the EHR and printout on the nursing unit
– Analytics from query data using structured data elements
– Notifications (alerts) to collaborative partners in quality department
– System updates so that case review process is close to real time

Citation: http://www.chartwisemed.com/products/
Progress Note

DATE: 12/02/2013  TIME: 5:00 p.m.

CHIEF COMPLAINT: SOB x 3 days and abdominal pain

HISTORY OF PRESENT ILLNESS:

Onset- 4 days ago

Time course- SOB consistent, abdominal pain

Severity- high

Pt admitted today via ambulance to ER, complaining severe abdominal pain, dyspnea and upon exam reveals lower leg edema, ejection fraction 30%. Positive for nausea and sweat and difficulty swallowing. No vomiting or chest pain.

Similar SOB 1+ years ago.

Patient is status post abdominal surgery 6/2009. Pt has hypertension, CHF, Anemia and reports unstable mental status depression.

Stress test- negative 2 yrs ago; EKG pending


Diagnoses:

- F17200: Nicotine dependence, unspecified, uncomplicated
- D649: Anemia, unspecified
- R199: Unspecified abdominal pain
- R1612: Epigastric pain
- I10: Essential (primary) hypertension
- R0602: Shortness of breath
- F329: Major depressive disorder, single episode, unspecified
- M7989: Other specified soft tissue disorder
- K660: Heart failure, unspecified
- K5660: Unspecified intestinal obstruction
- K660: Heart failure, unspecified

ICD Procedures:

- DD1K2ZM: Bypass Ascending Colon to Descending Colon, Open Approach

Built in Queries

Dear Doctor,

In order to ensure that the reported codes best reflect your patient’s condition, it is imperative that you provide further documented clarification in the patient’s medical record.

Please specify type of heart failure:
1. Chronic Diastolic Heart Failure;
2. Acute Diastolic Heart Failure;
3. Acute on Chronic Diastolic Heart Failure;
4. Chronic Systolic Heart Failure;
5. Acute Systolic Heart Failure;
6. Acute on Chronic Systolic Heart Failure;
7. Combined Diastolic and Systolic Heart Failure;
8. Other (please specify).

Please document accordingly on patient Progress Note as soon as possible.

http://www.streamlinehealth.net/

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# Enterprise CDI Dashboard Report

Discharges from 01/01/2016 - 01/31/2016

<table>
<thead>
<tr>
<th>Facility</th>
<th># InPatient Discharges</th>
<th>% of ALL Inpatients Reviewed</th>
<th>% Traditional Medicare Reviewed</th>
<th>Query Rate</th>
<th>Agree Rate</th>
<th>No Response</th>
<th>Physician Query TAT</th>
<th>% Response under Threshold (&lt;=5 days)</th>
<th>Month End Unbilled $</th>
<th>% Queries with Financial Impact</th>
<th>Financial Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Streamline Medical Center</td>
<td>3,923</td>
<td>49.68%</td>
<td>93.01%</td>
<td>7.39%</td>
<td>86.22%</td>
<td>11.75%</td>
<td>3.81</td>
<td>70.59%</td>
<td>$4,547.31</td>
<td>39.31%</td>
<td>$790,119.19</td>
</tr>
<tr>
<td>Looking Glass Medical Center</td>
<td>806</td>
<td>58.34%</td>
<td>92.05%</td>
<td>7.25%</td>
<td>67.43%</td>
<td>12.05%</td>
<td>3.55</td>
<td>74.15%</td>
<td>$2,321.45</td>
<td>37.45%</td>
<td>$203,204.54</td>
</tr>
<tr>
<td>Rural Medical Center</td>
<td>181</td>
<td>61.05%</td>
<td>95.55%</td>
<td>20.05%</td>
<td>90.22%</td>
<td>3.45%</td>
<td>1.25</td>
<td>95.45%</td>
<td>$1,102.10</td>
<td>42.55%</td>
<td>$54,231.13</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>4,909</strong></td>
<td><strong>52.23%</strong></td>
<td><strong>93.54%</strong></td>
<td><strong>8.04%</strong></td>
<td><strong>87.36%</strong></td>
<td><strong>10.68%</strong></td>
<td><strong>3.30</strong></td>
<td><strong>74.27%</strong></td>
<td><strong>$7,970.86</strong></td>
<td><strong>40.03%</strong></td>
<td><strong>$1,047,554.77</strong></td>
</tr>
</tbody>
</table>

**Target**
- 95%
- 20%
- 85%
- 0%
- <= 5 days
- 75%

**Key**
- # of InPatients Discharged: Total sum of all Inpatients Discharged for Each facility
- % of ALL Inpatients Reviewed: Percentage of all Inpatients with at least 1 review.
- % Traditional Medicare Reviewed: Percentages of all Financial Class Encounters with at least 1 review.
- Query Rate: Percentage of Reviewed Encounters with at least 1 or more Queries.
- Agree Rate: Percentage of Queried Encounters with Documentation added.
- No Response Rate: Percentage of Query Encounters with no response OR the Query was cancelled with reason "No Response".
- Physician Query TAT Days: The Average number of days between when a query is sent and Physician Responded.
- % Response Under Threshold: Percentage of Physician Responses within 5 days of Query Sent.
- % of Queries with Financial Impact: The Percentage of Encounters Queried where Impact = Y on Impact Tab.
- Financial Impact: Total Reimbursement within CDI for each Facility within Discharge Date Range.

**Color Key**
- Red: Key Indicators below Target
- Green: Key Indicators Exceeding Target

http://www.streamlinehealth.net/
Mobile Device Communication

Initial Status Referral

CDI Query

http://www.providentedge.com/solutions/
Mobile Device Query

DocEdge Communicator

http://www.providentedge.com/solutions/
Questions to Ask

• Is NLP included in the CDI software
• How do you provide customer support – on-line question, email, on-line chat, live help desk, higher level IT support, implementation support and workflow redesign
• What analytics are included
• Is CDI, physician and coder collaboration built into the software
• Is there a SaaS solution
• Can I purchase software separately from CDI consulting services
• Can software implementation include CDI consulting services
• Can I use facility specific queries in the software
• What is the workflow for physician queries – software/EHR interface, within EHR only, personal mobile device communication
• Cost
Outpatient CDI Solutions

Assessment

• APC/CPT/HCC analytics review
• Clinical documentation audit for HCC, APC and CPT
• E/M benchmarking
  – Review of automated E/M level assignment
  – Crosswalk table for E/M criteria to EHR data elements
  – Emergency Severity Index (ESI)
• I10 coding workflow for medical necessity determination (NCD, LCD)
• Denials trend analysis including CDM, HCC, APC, I10 and claims scrubber related errors
• APC/CPT/I10, prebill editor root cause analysis
• High level implementation work plan
Outpatient CDI Solutions

Implementation

• Governance & oversight structure
• Workflow analysis, root cause determination and redesign specifications (facility & professional practice)
  » E/M levels
  » HCC assignment
  » CPT/APC (facility) assignment
  » I10 diagnosis coding (HCC, Medical Necessity)
  » Denials and claims scrubber edit – on-going review and root cause analysis
  » It solutions for edit issues
• Detailed work plan and redesign implementation
• Ongoing analytics/metrics review and communication process
Outpatient CDI Software

HCC Software

- Research Data Assistance Center (ResDAC) reports CMS Software available for analyzing HCC scores
  https://www.resdac.org/resconnect/articles/173

- EMSI Health http://www.emsinet.com/EMSI-Health
- Health Data Visions http://healthdatavision.com
- TriZetto http://www.trizetto.com
A case for CDI technology
CDI Solutions in the Marketplace

Case Study #1

• Health system with several facilities including a 250 bed acute care community hospital with a full range of medical services and a significant Cardiovascular, Neuro, Ortho and General Surgery practice. A successful inpatient CDI program with CAC was implemented in 2013.

• Challenges

  – Newly implemented outpatient CDI including same day surgery, ambulatory and ED coding.
  – Concerned with decreased productivity for both INPT and OPT coding and CDI
CDI Solutions in the Marketplace

Case Study #1

• Solutions
  – Automated performance analytics with peer benchmarking to determine areas of risk
  – Automated CDI tools integrated into the daily workflow including real time case review data and collaboration between physicians, CDI and coders at the point of service
  – Automated reference materials for CDI and coders to shorten time for research of coding guidelines and clinical indicators
  – Collaboration on principal diagnosis selection and better concurrent DRG assignment for case management/UR length of stay planning
  – Physician education real time at the point of documentation using built in prompts, templates and drop down menus.
CDI Solutions in the Marketplace

Case Study #2

• A large multi hospital health system including a 480 bed acute care regional hospital with a full range of medical and surgical services. The system has had substantial growth over the past year.

• Challenges
  – Improved provider communication and documentation throughout the growing network
  – Need for improved front and back end speech recognition and NLP
Case Study #2 - Solutions

• Seamless/integrated back-end and front-end speech recognition allowing the physician to use the technology as a single platform instead of separate tools

• Increased front end speech recognition and NLP decreased time taken complete clinical records while streamlining physician workflows and improving quality of care through increased provider collaboration

• Structured data pulled from reports helping Coders and CDIPs real time/concurrently to get a better principal diagnosis and MCC/CC capture

• Seamless integration with the EHR providing one tool for physician workflow

• Built in clinical documentation and I10 guidelines improve documentation for quality of care, support quality initiatives, and improve reimbursement
Questions?