Electronic Physician Documentation: Increased Satisfaction

Session 222, February 23, 2017
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Health Quest Systems, Inc.
- Health Quest CIO – 8 Years
- CIO for 17 Years
- Experience:
  - Clinical / Revenue Cycle Workflow
  - Clinical / Revenue Cycle Operations
  - Acute / Ambulatory
  - Technology
- Main Focus:
  - Provider Satisfaction
  - Supporting System Growth
  - Strategic Planning

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Chief Medical Information Officer
Health Quest Systems, Inc.
- Health Quest CMIO – 2 Years
- Physician Executive, Informatics – 10 Years
- Experience:
  - Computerized Provider Order Entry (CPOE)
  - Electronic Provider Documentation
  - Clinical Decision Support Systems
  - Population Health Management
- Main Focus:
  - Provider Satisfaction and Adoption of Informatics
  - Medical Leadership and Management
  - Implementations and Optimizations
Conflict of Interest

Robert (Bob) Diamond (Sr. Vice President / CIO – Health Quest Systems, Inc.)
- Has no real or apparent conflicts of interest to report.

Kshitij (Tij) Saxena MD, MHSA (CMIO, Health Quest Systems, Inc.)
- Has no real or apparent conflicts of interest to report.
Agenda

- Introduction of Health Quest Systems, Inc. (Health Quest)
- Health Quest Baseline (Before Electronic Physician Documentation)
- Goals and Strategy: Electronic Physician Documentation
- Implementing the Physician Documentation Strategy
- Implementation Rollout / Support Approach
- Qualitative Analysis: Provider Satisfaction
- Physician Governance Model
- Improved Financial Outcomes
- Next Steps
- **Determine** an approach to analyze, measure and monitor for optimal rollout and continued compliance.

- **Explain** how an electronic physician documentation implementation must be accompanied by cultural changes to be truly effective.

- **Discuss** the involvement of physicians early in the process to help them understand functionality, design and customization to their specialties.
An Introduction of How Benefits Were Realized for the Value of Health IT

Focusing on ease of use, cultural change, physician compliance, and comprehensive reporting are keys to success when implementing electronic physician documentation across a health system.

S – Satisfaction – Physician collaboration and buy-in ensure optimal design, customization, training, conversion, and follow-up. Results validated by metrics that include a 400% increase in physician satisfaction.

T – Treatment/Clinical – Develop offerings with physicians to enhance their clinical specialty-specific notes and lead to better treatment for patients.

E – Electronic Secure Data – Eliminating paper documentation and dictation provides timely, clinically relevant documentation. Providers now have the discrete electronic details and narrative available for each patient visit.

P – Patient Engagement and Population Management – The value of an electronic note, which can now be shared throughout the health system, leads to better management of conditions across our patient population.

S – Savings – $1.3 Million reduction in transcription costs; estimated $5.8 Million by 2019.
Health Quest Systems, Inc.

- Acute Care – 4 Acute Care Facilities
- Non-Acute – Nursing Homes / Adult Care
- Community – Home Care
- 400 Employed Physicians / 250 Community Physicians
- $1.2 Billion Annual Revenue
- 6000+ Employees
- Financial Margin: 6%
- HIMSS Level 6 – Starting HIMSS 7 Collection Period (Early 2017)
- EMR(s) –
  - Acute – Cerner
  - Ambulatory – eClinicalWorks / Allscripts – In process of converting to Cerner Ambulatory
Organization Information: Health Quest

Northern Dutchess Hospital, Rhinebeck, NY

- 69 Acute Beds
- Community-Based Physicians
- Major Services:
  - OB
  - Orthopedic
  - Ambulatory Surgery
  - Physical Rehab
  - Bariatric Surgery
  - Outpatient Diagnostics
Organization Information: Health Quest

Putnam Hospital Center, Carmel, NY
- 169 Acute Beds
- Community-Based Physicians
- Major Services:
  - Orthopedic
  - Ambulatory Surgery
  - Cancer
  - Mental Health
  - Bariatric Surgery
  - Outpatient Diagnostics
Vassar Brothers Medical Center, Poughkeepsie, NY

- 385 Acute Beds
- Community-Based Physicians
- Major Services:
  - Trauma Center
  - Orthopedic
  - Ambulatory Surgery
  - Open Heart
  - Cancer
  - OB
  - Intervention Neurology
Sharon Hospital, Sharon, Conn.

- 79 Beds
- Community-Based Physicians
- Major Services:
  - Orthopedic
  - Ambulatory Surgery
  - Cardiology
  - OB
  - Mental Health
Health Quest Medical Practices: NY

- HV Heart Center – 40 Physicians
- Health Quest Medical Practice – 400 Physicians
- Health Quest Urgent Care – 10 Physicians
**History: Acute Care Facilities**  
(Prior to Speech Recognition / Electronic Documentation)

**Status of Electronic Health Record (EHR):**
- Certified HIMSS Level 6
- Vast majority of clinical processes within EHR
- High level of CPOE Utilization (95%+)
- High level of nursing clinical staff documentation in EHR
- Remainder of workflow primarily paperless
- Comprehensive integration with devices throughout organization

**Physician Status (Satisfaction / Documentation) – Acute Care:**
- Physicians using paper documentation / transcription (issues with legibility and timely access to data)
- Estimated annual transcription costs - $1.5+ Million
- Physician Satisfaction Score (PRC National Survey – Excellent rating) – 25th Percentile
- Continued frustration (Physicians) being half in EHR (Orders – In / Documentation – Out)
History: Acute / Ambulatory Care Facilities
(Prior to Speech Recognition / Electronic Documentation)

Physician Status (Satisfaction / Documentation) Acute Care – Continued:
- Significant legibility concerns
- Delays in discharge – Significant delinquency issues
- Documentation issues (Present on Admission, completeness, etc.)

Operational Impact (Partial Electronic Chart):
- Patient information was not being fully utilized due to hybrid chart
- Both nursing and physician frustration
- Physician documentation was not actionable due to significant use of handwritten notes
**History: Acute / Ambulatory Care Facilities**  
(Prior to Speech Recognition / Electronic Documentation)

**Financial Issues:**
- $1.5+ Million in annual transcription costs (Acute Care)
- Coding Issues – Inability to read handwritten notes
- Chart Delinquencies – Increased “Discharged / Not Final Billed” status impacting cash flow
- Increased physician satisfaction drives volumes

**Physician Status (Satisfaction / Documentation) – Office Practices:**
- Comprehensive use of EHR in ambulatory setting – HIMMS Level 6
- Physicians / staff enter discrete PHI information during visit
- Handwritten notes not allowed
- Coding Issues – Physicians not expanding on documentation beyond discrete data entry; Not wanting to type to expand on information
Goals: Electronic Physician Documentation

- Complete migration of chart to fully electronic
- Increase adoption of electronic documentation
  - Support ease of use and provider efficiency (physicians / physician extenders)
  - Support documentation compliance, quality and completeness
  - Meet organizational expectations
- Reduce documentation deficiency and improve timely access to provider documents
- Improve provider satisfaction with EHR Use
  - Ease of use
  - Legibility of documentation
  - Timely access to data for patient care
- Reduce costs associated with transcription services and scanning
- Eliminate paper in charts (scanning is costly and painful)
- Develop Metrics and Comprehensive Reporting
  - Develop reporting system – Measure provider utilization of electronic documentation
  - Monitor for performance improvement opportunities
  - Measure satisfaction / experience
- Set groundwork for Natural Language Processing (NLP)
  - Leverage Speech Recognition and electronic documentation to take advantage of NLP and Computer-Assisted Solutions to further support documentation efficiency and improvement initiatives
Strategy: Electronic Physician Documentation

- Implement efficient documentation templates and Speech Recognition to support provider use of EHR and improve satisfaction
  - Ensure Speech Recognition integrates seamlessly within EHR and documentation templates
  - Set groundwork for Natural Language Processing
  - Rationale: Decrease work effort related to provider documentation while improving the quality and completeness of the final documents

- Collaborate with physician leadership to promote cultural change and gain buy-in

- Identify, engage, and leverage provider champions

- Support provider use of Dynamic Electronic Documentation and Speech Recognition
  - Provide extensive mandatory physician / physician extender provider training
  - Provide ongoing provider support on the units
  - Focus on immediate workstation / technology issue resolution for providers

- Monitor utilization metrics and address opportunities for improvement

- Secure Medical Executive Committee approvals to ban handwritten notes
Completed migration of chart to fully electronic – Implemented advanced provider documentation across all specialties – Acute Care

- **Implemented Electronic Dynamic Documentation**
  - Created a dynamic template-driven system integrating EHR information into provider documents
  - Provided an efficient approach to creating documentation
  - Allowed providers to tag other information in the chart that is pertinent to the patient encounter
  - Integrated fully with Speech Recognition best practice templates

- **Implemented industry-leading Speech Recognition across all provider documentation devices / including content templates**
  - Deployed Speech Recognition to work seamlessly with the EHR
  - Provided best practice templates to support efficiency, greater specificity and context, while allowing providers to customize their Speech Recognition experience
  - Provided PowerMics and Speech Recognition access at all provider workstations / all facilities
  - Monitored performance, metrics, and provider feedback
Implementing the Physician Documentation Strategy
Supported provider use of Dynamic Electronic Documentation and Speech Recognition

- Leveraged close collaboration and partnership with physician leadership and provider champions to ensure success
- Provided extensive mandatory physician / physician extender provider training
  - Health Quest IT training team developed comprehensive classroom and web-based training
  - Classroom training took 4+ hours per provider
  - After class, providers were brought to the units to document electronically in the chart
  - Trainers provided elbow-to-elbow support to providers until they were comfortable
- Provided ongoing provider support on units
  - Health Quest IT provided on-unit provider staff to support the provider’s use of the EHR, electronic documentation, and Speech Recognition
- Focused on immediate workstation / technology issue resolution for providers

Secured Medical Executive Committee approvals to ban handwritten documentation

- Medical Executive Committee approved to ban handwritten notes once 80% utilization for 3 consecutive months achieved
- Realized utilization goal within 9 months of go-live
Implementing the Physician Documentation Strategy

Utilization Metrics (Provider utilization of electronic documentation)

<table>
<thead>
<tr>
<th>Month</th>
<th>Dynamic Doc</th>
<th>PowerNote</th>
<th>Scanned</th>
<th>Transcribed</th>
<th>% Electronic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec 2016</td>
<td>43808</td>
<td>19182</td>
<td>49</td>
<td>1996</td>
<td>96.86%</td>
</tr>
<tr>
<td>Nov 2016</td>
<td>43325</td>
<td>17979</td>
<td>28</td>
<td>2163</td>
<td>96.55%</td>
</tr>
<tr>
<td>Oct 2016</td>
<td>44471</td>
<td>18387</td>
<td>22</td>
<td>2281</td>
<td>96.47%</td>
</tr>
<tr>
<td>Sep 2016</td>
<td>41607</td>
<td>17924</td>
<td>26</td>
<td>2334</td>
<td>96.19%</td>
</tr>
<tr>
<td>Aug 2016</td>
<td>42941</td>
<td>18699</td>
<td>26</td>
<td>2725</td>
<td>95.73%</td>
</tr>
<tr>
<td>Jul 2016</td>
<td>43205</td>
<td>20591</td>
<td>40</td>
<td>2586</td>
<td>96.05%</td>
</tr>
<tr>
<td>Jun 2016</td>
<td>40920</td>
<td>20020</td>
<td>58</td>
<td>3027</td>
<td>95.19%</td>
</tr>
<tr>
<td>May 2016</td>
<td>42686</td>
<td>20841</td>
<td>52</td>
<td>3058</td>
<td>95.33%</td>
</tr>
<tr>
<td>Apr 2016</td>
<td>41390</td>
<td>20586</td>
<td>114</td>
<td>3045</td>
<td>95.15%</td>
</tr>
<tr>
<td>Mar 2016</td>
<td>43968</td>
<td>19576</td>
<td>138</td>
<td>3369</td>
<td>94.77%</td>
</tr>
<tr>
<td>Feb 2016</td>
<td>38463</td>
<td>17037</td>
<td>219</td>
<td>3183</td>
<td>94.22%</td>
</tr>
<tr>
<td>Jan 2016</td>
<td>41144</td>
<td>17438</td>
<td>378</td>
<td>3155</td>
<td>94.31%</td>
</tr>
</tbody>
</table>
Implementing the Physician Documentation Strategy

Utilization Metrics (Provider utilization of electronic documentation)
Rollout Approach

- Leveraged employed hospitalists as the pilot group (controlled group / creates excitement)
- Initially elected to work with the providers to modify documentation templates to support their preferred preferences and workflow
  - Providers found this approach to be challenging as they did not have a frame of reference to recommend changes to the templates (were not yet using the templates and Speech Recognition)
- Elected to go live with standard templates, based on documentation best practices, across all hospitals using a specialty-by-specialty approach
- Maintained close collaboration and partnership with physician leadership and provider champions
Provider Support

- Provided extensive mandatory physician / physician extender provider training
  - Health Quest IT training team delivered comprehensive classroom and web-based training (classroom training took 4+ hours per provider)
  - Accompanied providers to the unit after class to document electronically in the chart
  - Trainers provided elbow-to-elbow support to providers until they were comfortable
- Provided ongoing provider support on units (still in place today)
  - Utilized dashboards to understand where specific providers need more assistance
  - Engaged with providers to seek feedback and offer support if needed
  - Focused on any immediate workstation / technology issue resolution
  - Collaborated with providers regarding customizations of best practice templates
During the final phase of implementation, pre and post-implementation surveys were administered to providers at 385-Bed Vassar Brothers Medical Center:

- Surveys were administered to measure pre-implementation documentation experience, expectations regarding the implementation of electronic documentation with Speech Recognition, and post-implementation documentation experience:
  - 121 pre-implementation surveys completed at training
  - 108 post-implementation surveys completed electronically via email or in person
  - Average months of use for those surveyed post-implementation was 15 months
  - 53 providers completed both pre and post-implementation surveys
- Survey data shows improvement in all categories:
- 400% increase in Physician Satisfaction Score via PRC National Survey results
How likely are you to recommend documentation tools in the EMR (pre) / Speech Recognition, in combination with EMR (post), to document the patient encounter to a colleague?

**Significantly improved Net Promoter Score (NPS)**

- **Pre:** -63% NPS (only 9% are promoters) vs. **Post:** 36% NPS (53% are promoters)
How likely are you to recommend documentation tools in the EMR (pre) / Speech Recognition, in combination with EMR (post), to document the patient encounter to a colleague?

**Significant increase in number of promoters (9-10)**

**Pre:** 5 providers (9%) rated 9 & 10 vs. **Post:** 28 providers (53%) rated 9 & 10
Qualitative Analysis: Provider Satisfaction

A good idea to introduce Speech Recognition for documenting in the medical record:

Significantly exceeded expectation: After deployment, 98% of the respondents agree it was a good idea to introduce Speech Recognition; greatly increased from 77% pre-deployment.
Exceeded expectation: After deployment, 69% of the respondents said the time spending documenting the patient encounter has decreased, while 55% expected it would decrease before deployment.
Speech Recognition has improved/optimized workflow related to clinical documentation:

**Exceeded expectation:** After deployment, **83%** of the respondents agree Speech Recognition has improved/optimized workflow, while **60%** agreed to expecting improved/optimized workflow before deployment.
After the addition of Speech Recognition, when I see a patient, notes from other providers, necessary for optimal care, are available to me sooner:

92% of the respondents said notes from other providers are always/often available to them sooner. None selected rarely or never.
Qualitative Analysis: Provider Satisfaction

After the addition of Speech Recognition, I document more timely after seeing the patient:

More than half (68%) of the respondents said they document more timely.
Currently, regarding Speech Recognition, I am:

90% of the respondents are **satisfied** with Speech Recognition.

Exclude respondents who selected “N/A as I have not used Dragon consistently since training”; N=51
Qualitative Analysis: Provider Satisfaction

Now that you have access to Speech Recognition, would you support the elimination of transcription services?

70% of the respondents would support the elimination of transcription services.

N=53
53 Providers completed both pre and post-implementation surveys. Surveys measured how expectations were met as well as the change in views after using the new method to document. Average months of use for those surveyed post-implementation was 15 months. The data shows improvement in all categories evaluated.

<table>
<thead>
<tr>
<th></th>
<th>PRE</th>
<th>POST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comfort level</td>
<td>83% (EMR)</td>
<td>89% (EMR + Speech Recognition)</td>
</tr>
<tr>
<td>Net Promoter Score: Documentation Tools</td>
<td>-63% (9% promote, 72% detract)</td>
<td>36% (53% promote, 17% detract)</td>
</tr>
<tr>
<td>Solution Improves...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Documentation quality &amp; completeness</td>
<td>72%</td>
<td>76%</td>
</tr>
<tr>
<td>Time spent answering questions or clarifications</td>
<td>55%</td>
<td>59%</td>
</tr>
<tr>
<td>Improve/optimze clinical documentation workflow</td>
<td>60%</td>
<td>83%</td>
</tr>
<tr>
<td>Time spent documenting the patient encounter</td>
<td>55% decrease / 30% increase</td>
<td>69% decrease / 23% increase</td>
</tr>
<tr>
<td>Good idea to introduce Speech Recognition</td>
<td>77%</td>
<td>98%</td>
</tr>
<tr>
<td>Notes from other providers available sooner</td>
<td>N/A</td>
<td>92% always/often; 0% rarely/never</td>
</tr>
<tr>
<td>Document more timely after seeing the patient</td>
<td>N/A</td>
<td>68%</td>
</tr>
<tr>
<td>Satisfied with Speech Recognition</td>
<td>N/A</td>
<td>90%</td>
</tr>
<tr>
<td>Support elimination of transcription services</td>
<td>N/A</td>
<td>70%</td>
</tr>
</tbody>
</table>
Physician Governance Model

**IT / MEDICAL GOVERNANCE**
- IT Medical Executive Committee (MEC) is a subcommittee of facility MEC
- Design decisions were vetted and approved via IT MEC for approval by facility MEC
- IT MEC worked with IT to create implementation recommendations (Phasing, Education, Rollout)
- IT MEC – Reporting / Utilization (specialty level) are reviewed (ongoing)
- IT MEC – Recommendations made to facility MEC
  - IT MEC made recommendations related to banning paper documentation
Physician Governance Model

Review of Health Quest Physician Utilization Reporting System
**Improved Financial Outcomes: $1.3M**

**Transcription Cost Experience – 2013 vs. 2016**

### Additional Economic Benefits:

- **Significant reduction in chart deficiencies** (↑ Cash Flow)
- **Improved documentation** (significant reduction in coding queries) – (↑ Cash Flow / Revenue)
- **Better tracking of Present on Admissions**

### Table: Transcription Cost Experience – 2013 vs. 2016

<table>
<thead>
<tr>
<th></th>
<th>Jan-16</th>
<th>Feb-16</th>
<th>Mar-16</th>
<th>Apr-16</th>
<th>May-16</th>
<th>Jun-16</th>
<th>Jul-16</th>
<th>Aug-16</th>
<th>Sep-16</th>
<th>Oct-16</th>
<th>Nov-16</th>
<th>Dec-16</th>
<th>Saving</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013 Costs (Normalized to 2016 Volumes)</td>
<td>$122,881</td>
<td>$111,770</td>
<td>$119,809</td>
<td>$123,911</td>
<td>$124,786</td>
<td>$118,240</td>
<td>$115,123</td>
<td>$129,025</td>
<td>$117,359</td>
<td>$125,799</td>
<td>$130,106</td>
<td>$131,025</td>
<td>$1,469,835</td>
</tr>
<tr>
<td>Cost 2016</td>
<td>$14,325</td>
<td>$13,749</td>
<td>$15,296</td>
<td>$13,947</td>
<td>$14,108</td>
<td>$13,594</td>
<td>$11,880</td>
<td>$11,211</td>
<td>$10,801</td>
<td>$10,628</td>
<td>$9,288</td>
<td>$149,348</td>
<td></td>
</tr>
</tbody>
</table>

*Note 1: 2013 volumes - Normalized to 2016 volumes*
In order to maximize our investment in physician documentation, Health Quest is committed to the following:

- Inclusion of same comprehensive physician documentation approach for ambulatory setting
- With all of the physicians documentation contained in the EHR, implement a Natural Language Processing application to drive coding completeness and compliance – Real time
- Upgrade our existing Speech Recognition solution with the vendor’s latest offering (SAAS-based)
- Continue to work with providers to reduce any remaining transcription utilization
- Secure Medical Executive Committee policy change to also ban use of transcription unless there is a downtime
- Expand Speech Recognition solution to community-based providers and surgeon’s offices to support electronic documentation from their offices and homes
Determine an approach to analyze, measure, and monitor for optimal rollout and continued compliance

- Speech Recognition and a template-driven documentation system are needed to ensure an efficient approach to provider documentation

- Key drivers to your success:
  - Ensure close collaboration and partnership with physician leadership and provider champions
  - Provide mandatory education with elbow-to-elbow support
  - Maintain ongoing provider support
  - Support IT focus on addressing technology issues (fix critical issues immediately)
  - Develop metrics and a real-time reporting tool to measure provider utilization at a facility, specialty and provider level
  - Address Physician Governance – connected to Medical Executive Committee to support provider use and compliance
  - Encourage ongoing review of templates, content, and continued collaboration
Learning Objectives: In Summary

Explain how an electronic physician documentation implementation must be accompanied by cultural changes to be truly effective

- Key drivers to your success:
  - Collaborate with physician leadership to promote cultural change and gain buy-in
  - Identify, engage, and leverage provider champions
  - Leverage Subject Matter Experts (SMEs) to review and develop content for different specialties and note types
  - Provide extensive training materials and forums for various service lines
  - Maintain ongoing provider support and feedback
  - Monitor utilization metrics, feedback and address opportunities for improvement
  - Ensure Physician Governance – aligned to Medical Executive Committee goals and processes to support provider use and compliance
Discuss the involvement of physicians early in the process to help them understand functionality, design and customization to their specialties

- Key drivers to your success:
  - Engage hospitalists and intensivists (substantial EHR use) as a pilot group to create excitement and serve as provider champions
  - Leverage pilot results and provider feedback to demonstrate value and capitalize on excitement
    - Dictating directly/dynamically (immediately available after note completion) for various note types (H&P, Progress Notes, Consults, Discharges, etc.) results in improved rounding times, timely documentation and access, ease of use, and satisfaction
    - New documentation method used most and viewed as better than other documentation methods due to:
      - Facilitates ease of use, timely access and legibility of the documentation
      - Supports significant improvement in provider satisfaction
      - Enables improved coding, billing, and CDI turnaround times
      - Supports improved patient outcomes / safety (immediate access to documentation, legibility, actionable information)
  - Encourage ongoing review of templates, content, and continued collaboration
  - Set the foundation to leverage Natural Language Processing and Computer-Assisted solutions
A Summary of How Benefits Were Realized for the Value of Health IT

Focusing on ease of use, cultural change, physician compliance, and comprehensive reporting is key to a successful implementation of electronic physician documentation across a health system.

S – Satisfaction – Physician collaboration and buy-in ensured optimal design, customization, training, conversion, and follow-up. Our results, indicating a 400% increase in physician satisfaction and meeting or exceeding all metrics measured, validate the focus placed on this initiative.

T – Treatment/Clinical – Offerings developed in partnership with our physicians to enhance their clinical specialty-specific notes and lead to better treatment for patients.

E – Electronic Secure Data – Eliminating paper documentation and dictation provides timely, clinically relevant documentation. Providers now have the discrete electronic details and narrative available for each patient visit.

P – Patient Engagement and Population Management – The value of an electronic note, which can now be shared throughout the health system, leads to better management of conditions across our patient population.

S – Savings – $1.3 Million reduction in transcription costs; estimated $5.8 Million by 2019.
Questions & Speakers Contact Information

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