Adopting Electronic Health Records Without Losing Physician Productivity

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Objectives

➤ Outline challenges inherent to Electronic Health Record (EHR) system conversions

➤ Demonstrate a new model that supports physician productivity while improving administrative efficiency

➤ Outline a process that allows surgeons and facilities to automatically share and bill from the same document
Physician Supply vs. Demand

Required physician supply growth to meet demand:

- Primary care: 20%
- Medical specialties: 29%
- Surgical & other specialties: 21%

Federal health reform will accelerate patient demand through 32 million new insured members.
EMR Challenges

17.5%

Physician Documentation Time After EMR Adoption
Current Challenges

- Maximize Productivity
- Timely Chart Completion
- Manage Data & Reduce Lost Records
- Costs
  - Administrative
  - Technology
Clinical Documentation - Traditional Model

1. Pick-up Phone and Enter Physician ID
2. Enter or Dictate Patient ID and Info
3. Dictate Clinical Notes
4. Send to Transcription Service (24-72 hrs)
5. Sign Completed Document
6. Manually Import Document to EMR
7. Fax/Mail/E-mail Elsewhere
Clinical Documentation - Current EMR Model

1. Physician Logs into EMR
2. Physician Documents in EMR Templates
3. Physician Types Where More Detail is Needed
4. Physician Uses Desktop Speech Recognition
5. Physician Self-Edits Documentation
6. Physician Signs Document
7. Fax/Mail/E-mail Elsewhere
Case Study: *The Surgical Clinic*

- William Edwards, Jr. MD, MBA
- Nashville, TN
- 25 providers
- Multi-specialty surgical group
Preface

✓ I am not opposed to EMRs

✓ I do see major productivity loss in most providers that start using EMRs

✓ Culprit: The way in which information is transmitted from physicians brain to EMR
My Experience With EMRs

✓ Began to look at electronic medical records

✓ Personally experienced unsuccessful hospital deployment

✓ Promptly shut down by physicians

✓ It destroyed their productivity so badly they refused to use it
The Surgical Clinic: Our Problem

- 2004: 16 surgeons, 5 locations
- Paper charts required at patient's clinic visit but also needed in billing office
- Clinical needs trumped billing, yet billing frequently delayed
- Simultaneously, payer requirements for documentation increased
- Large medical records staff
Goals for Our Ambulatory EMR

1. Minimize the disruption in deployment

2. Accomplish our access issues by allowing simultaneous access across multiple sites

3. Mimic physician work flow and look of our paper charts

4. Set up record to replicate look and feel of our paper chart
Trade-offs Evaluated

○ Looked at how the physicians would interact with the EMR

○ Looked at tablet PCs and laptop computers in the exam room

○ Decided this was too distracting

○ Settled on simple desktop computers for each physician around a pod of 3-4 rooms
Deployment

- Deployed the EMR a few physicians at a time
- Hand picked early adopter physicians to champion it
- Allowed us to work out the kinks
- To minimize productivity loss we scanned into EMR only the charts to be used next day

- Forced physicians who wanted to see old records to access the computer
Our New Environment

- Eventually physicians using EMR as we wanted

- Our electronic chart mimicked our paper record

- Physicians called a commercial transcription service, entered demographic data, dictated
Our New Environment (cont’d)

We could bill quicker but we realized no physician productivity improvement

Solving the chart access problem created a new problem that made matters worse

We converted our paper chasers and chart filers into electronic document chasers and filers
Our New Environment: The Problem of Mistaken Identity

- Physician enters chart number incorrectly
- Transcriptionist types chart # incorrectly
- Filer files document incorrectly
The New Problem

1) Filing of document in wrong place in chart made it frequently inaccessible

2) Had slew of people constantly chasing misfiled documents

3) Had not altered number of people required to manage those files

4) Began to explore how we could increase productivity around medical records
Epiphany

💡 Human interaction = potential mistakes

💡 Old process of handling medical records needed to change

💡 Could have changed to full EMR

💡 We felt that productivity lost would be untenable
Ways to Enter Information into EMR

a) Drop-down boxes with point-and-click

b) Free-text typing

c) Traditional dictation

d) Desktop voice recognition
Front-End Desktop Voice Recognition

• Many EMRs offer front-end voice recognition

• Problem with process is the reliance on provider as editor

  • *Takes highest-paid person and gives them most menial job*

• Essentially they do the work twice

• We wanted solution that did not rely on this lost productivity
Our Quest Continued

- Information entry methods besides dictation were not a cultural option
- Began seeking solution to automatically file records
- Tagging document with an identifier
- Placing in appropriate chart and appropriate location in chart
Solution—Selected

- Back-End Voice Recognition interfaced with scheduling system

- Generated jobs based on physician's workflow preference

- Doctor would then dictate the job already stamped with appropriate demographic identifiers AND patient ID
Solution—Selected

➤ These voice files then transmitted to voice-recognition engine

➤ Digital file available for final corrections by editor

➤ Final document automatically routed into EMR
The Surgery Clinic Ambulatory Routing

- **Centricity Scheduling**
- **HL7**
  - Scheduling & Demographics Data
- **Job Import**
  - Placed into chart based on Allscripts Import Rules
- **Allscripts EMR**
- **Physician Dictates from Jobs List**
  - Creates physician specific jobs
- **Editing & Completed Jobs**
  - Completed job returned to EMR
- **Rules and Interface Engine**
  - Interacts with various components
- **Internet**

Your Gateway to the Electronic Health Record
Results

$ Reduced transcription cost by 30%

$ Reduced medical records by 4 FTEs

$ Our group (now 25 physicians) saved over $230,000 per year

$ Saved 1.5 hours/week per physician
Conclusions - TSC Case Study

➢ For EMRs to be successfully adopted, an efficient data entry method must be used

➢ Dictation is traditional way physicians have learned data entry

➢ For most, dictation is natural and they are most productive doing it

➢ The most expensive editor anyone can hire is their physicians
Conclusions - TSC Case Study (cont’d)

- Human interaction introduces errors
- Seamless integration is key to error-free filing of documentation into EMR
- The challenge is to maintain physician workflow and satisfaction
EHRs and Physician Productivity

“The activity that takes the longest is writing notes, and a key branch point is whether to capture these via dictation or coded entry.”

*Health Affairs*, 24, no. 5 (2005): 1180-1189
Keys to Efficient Chart Completion

1. Provide Multiple Options for the Physician to document encounters

2. Embrace mobility

3. Eliminate old-school dictation options

4. Work hard to automate documentation flow throughout the chain to eliminate human touches

5. Automate document review and multi-distribution
Patient Worklist

34567  Burns, Frank  
Vascular  02/18/2010  08:00 AM  M

34567  Burns, Frank  
Medical Letter  02/18/2010  08:00 AM...

23456  Houlihan, Margaret  
Medical Letter  12/29/2009  09:00 AM  F

23456  Houlihan, Margaret  
H and P  12/29/2009  09:00 AM  F

12345  Pierce, Hawkeye  
Medical Letter  11/05/2009  09:30 AM...

12345  Pierce, Hawkeye  
H and P  11/05/2009  09:30 AM  M

34567  Burns, Frank  
H and P  02/18/2010  08:00 AM  M

Select Patient

Recorder

MRN: 11112222  Stat: OFF
Date: 12/1/2008
DOB:  Sex:  Type: Medical Letter  Change Type
Ambulatory Surgery Center Workflow

- **ASC Schedule**
- **HL7**
- **Job Import**
- **ASC Clinical Repository**
- **Rules & Routing Engine**
  - Routing to clinic physician
  - Completed job returned for chart completion
  - Placed into chart based on client preference

- **Physician Dictates Op Note**
- **Editing & Completed Jobs**
- **Internet**
- **Clinic**
  - Clinic review and approval
  - Copy saved for clinic

Create physician specific jobs.

Job return for chart completion.

Rules & Routing Engine.

Clinic review and approval.

Copy saved for clinic.
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A copy of this case study is available at
www.entradahaha.com