Optimizing Clinical Documentation Efficiency

(How to Get Home on Time for Dinner)

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RECENT HISTORY

HITECH Act of 2009

Clinicians given 5 years to implement "Meaningful Use" EHRs
- High stress
- High expense

Partly our fault?

Finance, Retail, Industry had used computers for decades

We were resistant, so it was imposed upon us

FICTION: EHR companies claimed that we could produce high quality notes, efficiently, with their documentation tools.

FACT: Endless clicking to create generic, poor-quality notes.

Every headache patient sounded the same!

Impossible to convey the "nuance" of the patient story, or the individualized care provided

Clinicians complained: "These generic EHR notes don't sound like my patient and they don't sound like me!"

Sudden Realization: *Clinicians had to become typists!*

"Penny Wise & Pound Foolish": The transcription budget has been eliminated BUT…the most highly-trained & expensive staff resources are being used as typists.

CONSEQUENCES:

- Decreased clinician productivity
    - Decreased organizational profits
    - Nation-wide clinician shortages
- Increased clinician frustration
- Poor quality notes (corners get cut)
    - Effects on patient care
    - Legal liability
- Lack of complete documentation for Level of Service coded
    - Insurance audits, reversals of payments, & fines
    - Increased sensitivity to "boilerplate" notes
- Repetitive Strain Injuries
    - Carpal tunnel

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THE SOLUTION?
Speech Recognition Technology (SRT)

- Eliminates transcription costs
- Eliminates clinician typing
- Greatly decreases clicking
- Captures the full patient story
    - In the caregiver's own words
- Produces higher quality notes
    - Improves patient care
- Increases organizational profits
    - Increases clinician productivity
    - Increases documented level of service
        - Especially since ICD-10

SPEECH RECOGNITION TECHNOLOGY: FEARS

Fear: RPMS-EHR Templates "won't work"
Reality: No effect on RPMS-EHR functionality
- SRT simply types for you
- EHR cannot "tell" whether the human is typing or the software is

SPEECH RECOGNITION TECHNOLOGY: FEARS

Fear: Discrete data cannot be collected
Reality: True…to an extent
- Each "click" in a template can be coded data.

Example: "This {click}{click} 24 {click}{click} year old {click}{click} female presents with a {click}{click} 3 {click} {click} day history of {click}{click} fever, {click}{click} headache, and {click}{click} chills."

16 clicks! How useful is this data? At what cost?

- How many of these "clicks" are currently saved from the note as discrete data in RPMS? ("Health Factors")

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DISCRETE DATA COLLECTION

- Collection of discrete data from narrative text is still in its infancy (Natural Language Processing)

- HOWEVER, most useful discrete data is not contained in the clinician's narrative. The narrative is the place for:
    - Minute & subtle details that can impact patient care
    - Clinician's thoughts
    - Subtle communication between clinicians

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DISCRETE DATA COLLECTION

MOST discrete data is located outside of the narrative:

- Medication List
- Problem List
- Vital signs
- Lab results
- ICD-10, CPT codes

Example: Diabetic foot exams are required

- RPMS-EHR has a discrete location where date of completion is recorded.
- Exam goes in clinical note
- (Insurance companies don't care about the exam, they just want to know when it was done)

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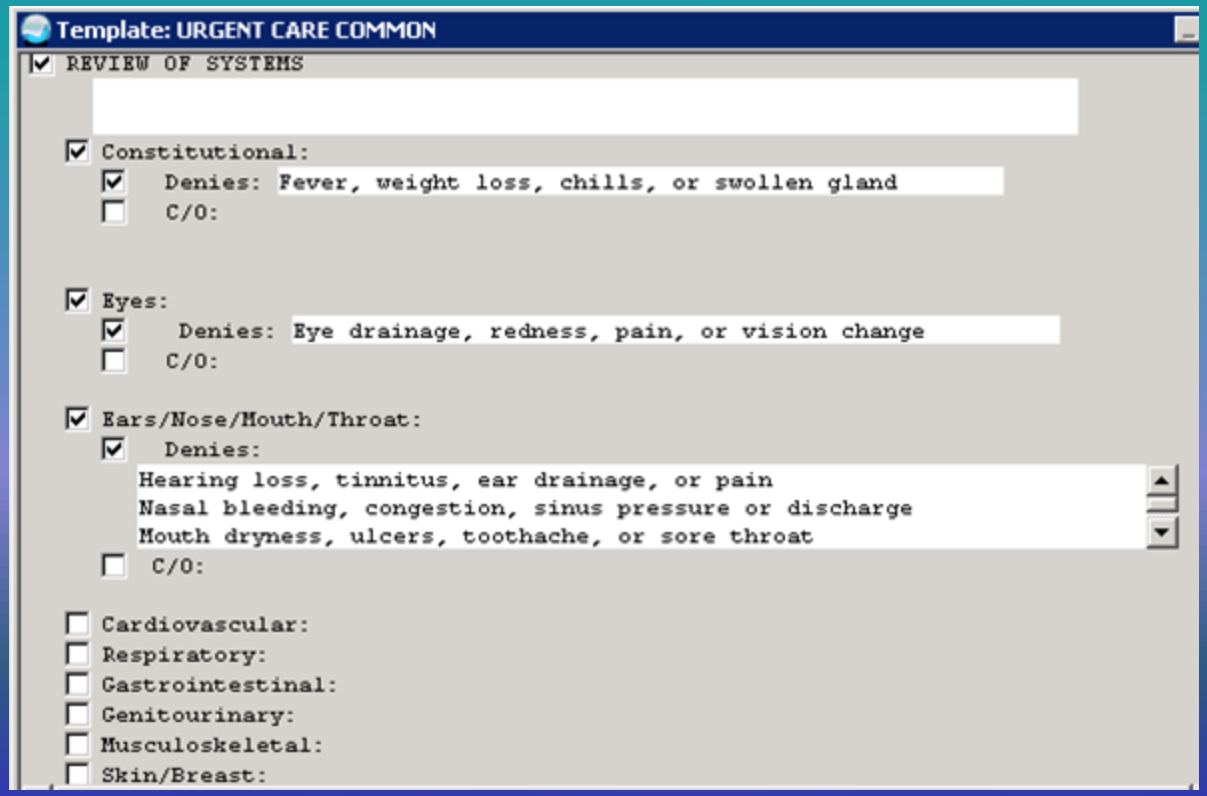
HOW MANY CLICKS FOR A REVIEW OF SYSTEMS?



Typical ROS: 28 clicks! How many are saved as discrete data?

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Speech Recognition Technology in RPMS-EHR

DEMO

SRT Products Available

Microsoft Word

- Not suitable for medical terminology
- Time required to add/train medical terms not cost-effective

M*Modal

- Medical speech recognition integrated with several specific EHRs only (not RPMS)

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SRT Products Available (2)

All of these products allow for:

- Text-to-speech
- Voice commands for navigation, correction
- Correction by voice
    - Improves accuracy over time
- Foreign accents

SRT Products Available (3)

Nuance Communications "Gold standard" (25 yrs.)

- Dragon® NaturallySpeaking
  - Non-medical
  - Time required to add/train medical terms not cost-effective
  - Locks up if used in an EHR
    - Including RPMS-EHR

SRT Products Available (4)

Nuance Communications (Continued)

- Dragon® Medical Enterprise Network Edition (DMENE)
    - Desktop installation
    - Unlimited use/machines per user
    - Updates every 2-3 years, @ extra cost
    - For larger organizations
        - Server-side management tools
- Dragon® Medical Practice Edition
    - Same user-functionality as DMENE
    - Limited to clinics of < 25 MDs

SRT Products Available (5)

Nuance Communications (Continued)

- Dragon® Medical ONE
    - New product
    - Cloud-based
        - Requires reliable Internet connection
    - Monthly subscription (frequent updates)

nVoq “SayIt®”

- Newer company
- Cloud-based
- Monthly subscription (frequent updates)
- Lower cost
- No organizational size restrictions

SRT Products Available (5)

Multiple Other Medical SRT Products

- Use the Dragon®, M*Modal®, or SayIt® medical speech recognition engines
- Rebranded by the EHR manufacturer

SRT Products Available (5)

All Medical SRT applications have:

- Multiple specialty vocabularies
- Speech engines that examine medical context (not just individual words) for increased accuracy
- One license / one voice requirement

All Medical SRT applications need:

- Professional training
  - 99% of self-taught clinicians are only "scratching the surface" of SRT capabilities
- This isn't Turbo Tax!

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CONCLUSION

EHR + SRT = Win-Win

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