



# Qualitative analysis of VA personnel experiences with the electronic medical record

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# Overview

- Provide context of VA EHR
- Increase understanding of VA personnel evaluation of advantages, disadvantages and barriers associated with VA EHR
- Discuss potential solutions



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By ROBERT PEAR  
Published: June 7, 2010

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# Background

- **Emphasis on EHR potential to**
  - Improve quality of care
  - Improve cost-effectiveness
  - Facilitate communication
  - Empower patients
- **Concerns**
  - Over-reliance on templates
  - Time management
  - Loss of interpersonal relationships
  - Unintended consequences



# Create poll

- Have you/do you use CPRS?
  - Yes
  - No



# VA EHR

- Implemented beginning in mid-1990's
- Near-universal today
- Provides
  - Documentation
  - Decision support
  - Support for billing, scheduling and orders



# Create poll

- What is your favorite feature of CPRS?
  - Tracking patient progress over time
  - Exchanging information with other providers
  - Placing orders and consults
  - Other



# Context

- TIDES: Collaborative care for depression in 10 VAMCs/CBOCs in 3 VISNs
- COVES (Cost and Value of Evidence-based Solutions for depression) was evaluation of TIDES implementation



# Participants

- Front-line clinicians, clinical managers, and other stakeholders (n=72; 67 in person, 5 phone)
- Physicians, nurses, psychologists, administrators
- Results not broken down by participant type



# Methodology

- Semi-structured interviews
- Interviewers: Psychiatrist, psychologist, social worker, 2 health services researchers
- VA patients were interviewed but rarely mentioned informatics and were not included in this paper



# Example interview questions

- How similar/dissimilar do you believe depression is to other chronic illnesses such as diabetes and heart disease?
- Can you tell me what your facility did as part of the TIDES program?
- Did you ever have a suggestion for how to improve the program or something you thought might not have been working?



# Qualitative analysis

- Qualitative analysis: themes derived from reading interview transcripts
- 22 top-level codes were developed based on these themes
- Interviews analyzed as a whole
- Atlas.ti used to manage the coding process
- Coding team: 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> author & another member of project team
- Subcoding team: 1<sup>st</sup> & 2<sup>nd</sup> authors



# Coding consistency

- Authors reviewed transcripts for coding consistency
- Conducted word searches to ensure that content was not missed



# Results

- Results included information about implementation, quality improvement, and role of informatics
  - Informatics support was a tool in TIDES, but
  - Discussion of informatics was not specifically about TIDES



# Results: Benefits

VA employees value the ability of the clinical informatics system to

- speed documentation
- improve communication
- improve quality



# Results: Concerns

VA employees have strong concerns about the informatics system

- interfering with the provider-patient relationship
- consuming time that would otherwise have been available for clinical tasks



# Benefits: communication

- “[O]ur computerized record system ... makes it awfully easy for the mental health, primary care to work with the other...”



# Benefits: quality of care

- “[the clinical reminder] reminds us to talk with...people and ask... are you feeling depressed... if we didn't have the reminders, we may not take the time to do that.”
- “[Y]ou can have a consult form that asks questions or builds in information ... and has force fields so you say ... here are the diagnostic criteria, here are the screening criteria, has your patient met these?... Have you done this kind of assessment?... Do they have contraindications? Have you tried this initial intervention?”



# Barriers: time

- “CPRS is great, but it takes time to use ... [Providers] have to see very complicated patients in 20 minutes, and... With every point and click on a computer it's less time they spend with a patient. They generally just want to take care of the patients.”
- “...how many clicks it took to take care of a diabetic patient...I clicked through all the reminders...it's hundreds.”



# Barriers: impersonality

- “All these...checklists, clerks should be doing that... Doctors need to sit there and look someone in the eye... What's really bothering you?”
- “I'm asking physicians...to know me and trust me simply by what they have read in my progress notes ... and most of them have not met me personally.”



# Concerns: misuse

- “There have been a couple of times...the providers will respond back to me as if they're forgetting that they're in a patient's medical record and will say what would you like me to do where that's not ... appropriate”



# Concerns: context

- “We don't flunk in depression screening...we flunk in follow up...”
- “[I]f the providers are overwhelmed with clinical reminders, they become somewhat numb to them ... It's also a system issue”

**Valued attributes and functions of the EHR**

**Barriers and concerns about use of the EHR**

Asynchronous communication allows VA personnel to send and receive information at a time convenient for them

Time required to complete reminders

Support for appropriate documentation

Inappropriate conversations becoming part of medical record

Can easily alert other providers about a patient's status

Impersonality: with colleagues--trust

Reminders prompt providers to initiate important conversations

Impersonality: with patients

Structured consults and reminders provide guidance to providers about evidence-based priorities

Systems issues: reminders are a first step in a process of evidence-based care but are not the complete process

Adapted from Bonner et al. (2010) Implementation Science 5:63

## **Barriers**

## **Recommended facilitators**

Concerns about time

Emphasize efficiency, potential time savings (for example, asynchronous communication, templated notes if appropriate)

Concerns about effect on relationship with patients

1. Physical positioning of computers to minimize disruption of eye contact
2. Emphasize positive effects on relationship (reminders opening up important conversations)

Concerns about effect on relationship with colleagues

Emphasize benefits of improved communication

Adapted from Bonner et al. (2010) Implementation Science 5:63



# Summary

- **Emphasis on EHR potential to**
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  - Facilitate communication
  - Empower patients
- **Concerns**
  - Over-reliance on templates
  - Time management
  - Loss of interpersonal relationships
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# Directions for the future

- EHR will continue to be important
- Relationship with technology is evolving
- New issues will include appropriate role of social media
- Ongoing assessment of interplay between technology and clinical relationships is recommended



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# References

- Bonner LM, Simons CE, Parker LE, Yano EM, Kirchner JE. (2010). 'To take care of the patients': Qualitative analysis of Veterans Health Administration personnel experiences with a clinical informatics system. *Implementation Science*, 5:63
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