Recommendations for Clinical Guideline Developers Regarding CDS-related Standards

Dean F. Sittig, PhD
Adam Wright, PhD
Lana Tsurikova, MSc, MA
Blackford Middleton, MD, MPH, MSc

University of Texas, Houston,
Brigham & Women’s Hospital, Partners Healthcare

There is intense pressure to adopt CDS-enabled EHRs…

• EHRs must be paired with CDS to effectively influence physician behavior and impact healthcare processes and outcomes
• Necessary for transformational improvements in patient safety, quality, and efficiency
Advance understanding of how to incorporate CDS into healthcare...

- 2008 AHRQ funded.
  - GLIDES: Guidelines Into Decision Support
  - CDSC: Clinical Decision Support Consortium
- Explore how the translation of clinical knowledge into CDS can be routinized and taken to scale to improve the quality of healthcare delivery in the U.S.

Rapid Assessment Process...

- Anthropological approach provides fast, cost-effective way to evaluate HIT projects
- Develop a fieldwork guide
- Select observation sites and participants
- Prepare for site visits
- Partner with local collaborators
- Collect data using multiple researchers & methods;
- Analyze & report data in a collaborative and structured manner
Conducted 9 site visits using Rapid Assessment Process

- Sites completed extensive CDS / KM survey
- Remote demo of the system
- Interviewed key stakeholders
  - Administrators, clinician leaders, IT professionals
- Observed clinicians as they worked
- Analyzed transcripts & field notes

CDS Consortium: Institutions Visited

- Partners HealthCare, Boston, MA
- Regenstrief Institute, Indianapolis, IN
- Veterans Health Administration, Indianapolis, IN
- Kaiser Permanente, Portland, OR
- NextGen – Mid-Valley IPA, Salem, OR
- GE Healthcare – UMDNJ, New Brunswick, New Jersey
- Zynx, First Data Bank, UpToDate
Recommendations for Clinical Guideline Development Organizations Re: CDS

- Increase clarity and internal consistency of all guideline logic
  - All knowledge should be available in both a human- and machine-readable format

- Identify standard data triggers
  - Review access to existing input data
  - Specify relevant controlled vocabularies

- Standardize offered choices, or actions recommended
Recommendations for Clinical Guideline Development Organizations Re: CDS

- Standardize methods for customizing CDS based upon considerations of local care delivery
- Develop guidelines that can be parsed and tagged to support explanation of CDS at the point of care
- Suggest appropriate personnel & insertion points in the clinical workflow for CDS interventions
- Guideline developers should include well-trained, experienced clinical informaticians

If guideline developers incorporated these recommendations...

- Healthcare organizations could develop and implement more CDS features
- Transform both the quality and safety of the current healthcare system
- Achieve the “meaningful use” targets established by the Department of Health & Human Services
Thank you

Dean.F.Sittig@uth.tmc.edu