

# 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



Clinical Decision Support Consortium



## 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...

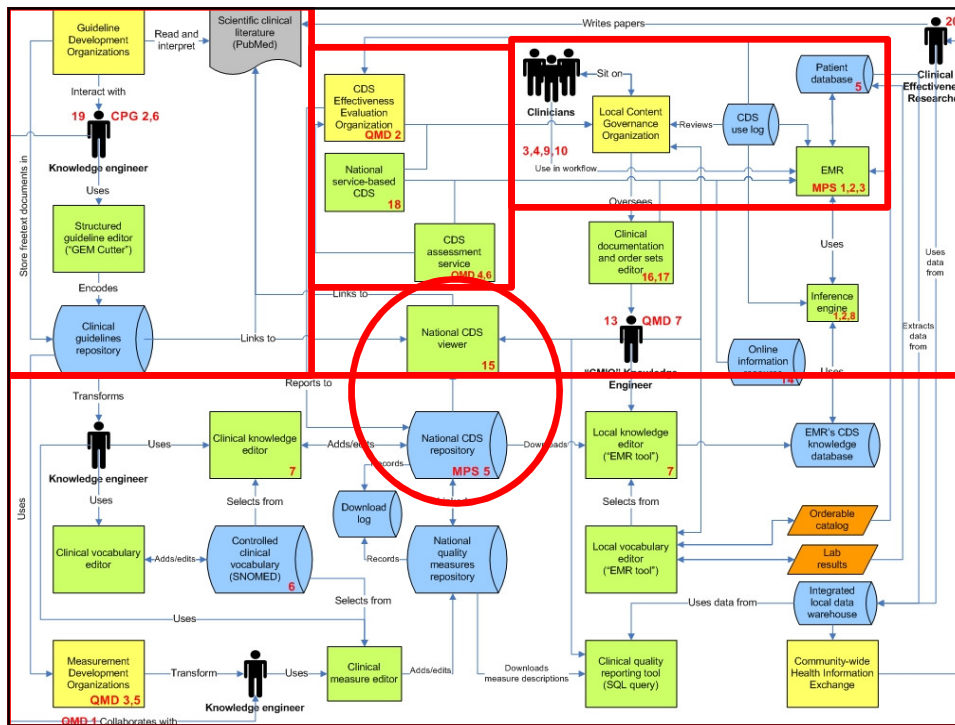
- Anthropological approach provides fast, cost-effective way to evaluate HIT projects
- Develop a fieldwork guide
- Select observation sites and participants
- Prepare for site visits
- Partner with local collaborators
- Collect data using multiple researchers & methods;
- Analyze & report data in a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



Clinical Decision Support Consortium CDS consortium

## 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](mailto:Dean.F.Sittig@uth.tmc.edu)

