OPTIMIZING STRATEGIES FOR CLINICAL DECISION SUPPORT: MEETING NO. 1
MARCH 16, 2016 • MEETING HIGHLIGHTS

Meeting goal: Explore issues and opportunities to take the real-time application and use of Clinical Decision Support (CDS) to the next level in informing health and health care decision making.

Meeting objectives:
2. Validation: Identify approaches to validating CDS resources.
3. Spread and scale: Consider implementation challenges and strategies at a national scale.

Representative observations
- One of the greatest challenges for scaling CDS adoption is its limited financial business case. It remains difficult to demonstrate the ROI of CDS, especially against many competing priorities at the delivery system level. Potential ideas: reduce CDS costs via interoperability and federal leadership for the CDS marketplace, and development of ROI evidence that’s relevant to health delivery leaders. (Kawamoto)
- Current CDS lacks measurement practices and standards. Evaluation of current and future CDS should ask whether it measurably improves quality, safety, cost, and physician productivity. If not, then those CDS should be discarded or improved. (Weingarten)
- Much like in-person peer learning (e.g. grand rounds with residents), CDS should serve as a tool to help clinicians at the front-line think through options at the point of care. (Bonner)
- An analysis of decision support for discharge referral decisions, conducted through a nursing admission assessment and daily documentation throughout the hospital stay, identified a lack of standardized data, variation in how discharge decisions are made without standards or uniformity, difficulties in getting clinician buy-in or high quality data for CDS, multiple EHRs, and long sales cycles. (Bowles)
- Sixty-two hospitals voluntarily participated in a safety result of CPOE decision support study in which, with almost no relationship with the vendor, simulations detected only 53% of orders which would have been fatal. (Bates)

Collaborative activities for consideration
- In order to move forward in developing and operationalizing a path to real-time application and use of CDS, a goal that was raised throughout the in-person meeting, the Planning Committee will work to develop the first version of a CDS blueprint. The Planning Committee will identify key topic areas relevant to CDS adoption. These topic areas will identify issues of common interest and marshal needed leadership; could lead to action-oriented roadmaps needed for progress; and have the potential to inform future activities — e.g.:
  - CDS authoring (e.g., professional society perspective): standardized approach(es)/ best practices for creating, managing, and curating computable CDS, best model for a CDS learning / coordination center, the federal / ONC role in managing standardization and CDS prioritization, opportunities for funding for CDS authoring
  - CDS distribution: CDS marketplace for content dissemination, business rules to assure a vibrant and successful marketplace, constructs for feedback loops to inform value, the financial business case for CDS
  - Clinical industrial engineering: tools for workflow assessment and representation, creating consistent and reliable team-based CDS workflow insertion points, metrics for measuring and validating CDS implementation (i.e., the people / process / technology interaction)
  - Technical implementation: EHR vendor perspectives, preferred / best practice implementation approaches, data interchange and interoperability foundations and prerequisites, federal / ONC role in managing CDS technical implementation standards
- Small workgroups will each develop 2-3 page reports, with the following sections:
  o Background and Current State (brief recap of the assigned category)
  o Moving Forward (proposed action plan)
  o Milestones (completed table proposed below)
- Meeting #2 (Fall 2016) will include report-backs from the workgroups on the drafts and continued refinement of the proposed action-plans.

Meeting participants
Suzanne Bakken (Columbia University); David Bates (Brigham and Women’s Hospital); Hugh Bonner III (Saint Francis Hospital); Kathryn Bowkes (UPenn School of Nursing); Tejal Gandhi (National Patient Safety Foundation); Thomas Graf (The Chartis Group); Andrew Gettinger (Office of the National Coordinator for Health IT); Leslie Kelly Hall (Healthwise); Amy Helwig (Agency for Healthcare Research and Quality); Meredith Josephs (Privia Health); Kensaku Kawamoto (University of Utah); Edwin Lomotan (Agency for Healthcare Research and Quality); Erin Mackay (National Partnership for Women and Families); John McGreevey (University of Pennsylvania Health System); Blackford Middleton (Apervita, Inc.); Rachel Nelson (Office of the National Coordinator for Health IT); Steve Peters (Mayo Clinic); Jack Starmer (Community Health Systems); James Tcheng (Duke University School of Medicine); Jonathan Tusch (Harvard University and Elsevier Clinical Solutions); Charlotte Weaver (Geniva Health Services); Scott Weingarten ( Cedars-Sinai Health System); Michael Witte (Office of the National Coordinator for Health IT)
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DIGITAL LEARNING COLLABORATIVE

Organizations Participating

American Board of Pediatrics
American Hospital Association
Association of American Medical Colleges
Children’s Hospital Boston
Children’s Hospital of Philadelphia
Cincinnati Children’s Hospital Medical Center
Cleveland Clinic
Clinical Data Interchange Standards Consortium
Duke University Health System
Epic
Geisinger Health System
Harvard Medical School
Harvard Pilgrim Health Care
Healthcare Financial Management Association
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Johns Hopkins Bloomberg School of Public Health
Johns Hopkins Medicine
Kaiser Permanente

Mayo Clinic
Nationwide Children’s Hospital
National Quality Forum
Nemours Children’s Healthcare System
New York Presbyterian/Columbia NorthShore University Health System
OptumLabs
Partners HealthCare System
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