Development of a Proposed Analytical Framework for Patient-centered CDS
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ABSTRACT

The Patient-Centered Clinical Decision Support Learning Network (PCDSS Learning Network) is bringing together stakeholders to address the opportunities and challenges around dissemination of evidence-based findings through patient-centered clinical decision support (PCDSS). Its central focus is providing a forum for stakeholders to address opportunities and challenges around PCDSS. To this end, the Learning Network has developed an Analytic Framework for Action (AFA) to facilitate the translation of evidence (such as PCOR findings) into PCDSS for clinical practice.

The PCDSS Learning Network is promoting PCDSS, which supports care and decision-making for individual patients with information regarding PCOR findings, patient-specific data (e.g., patient-generated data and patient-reported outcomes) at the point of care between a patient, provider, and/or patient caregiver. To explore the key factors affecting PCDSS throughout its lifecycle, we developed the Analytical Framework for Action (AFA) based on iterative discussions with numerous stakeholders. The AFA has been a valuable means for identifying areas of opportunity and challenge to PCDSS, as well as a valuable conceptual tool for framing discussions with a diverse group of constituencies.

INTRODUCTION

There is great potential for disseminating evidence-based findings through clinical decision support (CDS) to improve patient-centered care, healthcare quality, and a learning health system. Although CDS in general has been shown to provide discrete benefits, despite the seminal work from Wennberg and Mulley,1 there has not been widespread adoption of CDS or other health technologies for promoting shared medical decision making or disseminating patient-centered outcomes research. PCDSS is a new approach to disseminating evidence-based findings (including PCOR) through CDS. However, a conceptual model of PCDSS is needed to help elucidate what PCDSS is and how it can be operationalized. To promote advances in this area, we developed a “springboard for action” to foster an ecosystem that allows all stakeholders to engage in promoting the friction of turning knowledge from patient-centered findings into CDS-enabled actions to produce better care and outcomes. The PCDSS Analytic Framework for Action (AFA) identifies the steps in this process that must be addressed to make progress.

METHODS

The AFA was developed from iterative discussions with multiple stakeholder groups that make up the Learning Network including patient advocates, provider organizations, payers, CDS content and electronic health record vendors to name a few. The final version and its key factors was approved by the Learning Network’s Steering Committee. See the defined key factors in the colored bars at right.

RESULTS

Prioritizing: Applying objective measures of evidence for identifying and prioritizing findings that are to be transformed and disseminated via PCDSS, assessing or defining their implementability, and defining stewardship and governance requirements.

Authoring: Applying accepted data and knowledge standards for translating findings into one or more PCDSS intervention types that support key decisions, actions, and communications that are essential to ensuring that the findings improve care and outcomes.

Implementing: Applying standardized, best practice methods and architectures for operationalizing PCDSS interventions into clinical workflows that deliver the right information to the right user in the right format through the right channel at the right time (“CDS Five Rights”).

Measuring: Ensuring that PCDSS interventions measurably improve clinician and patient decision-making, care processes, and outcomes.

Learning: Aggregating local PCDSS-related outcomes and effectiveness measures to facilitate both local and system-level learning from identified gaps in PCOR knowledge, and lessons learned from authoring, implementing, and using PCDSS in clinical practice to enhance care and outcomes.

External Factors: External factors including the marketplace, policy, legal, and governance issues that impact development, dissemination, and implementation processes for PCDSS.

REFERENCES


For more information, visit: www.pcdss-ln.org

• PCOR CDS-LN Leadership Team: PI Barry Blumenfeld, MD, MS, Blackford Middleton, MD, MPH, MSc; Jerome Osheroff, MD; and Kensaku Kawamoto, MD, PhD, MHS
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• AHRQ Grant details: o Program Official: Edwin Lomotan o Grant No: U18 HS24849-01 o Period of performance: 4/1/2016 – 1/31/2020