Barriers to Interdisciplinary Use of Patient Problem Lists Across an Integrated Health Care Delivery System

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Abstract

- While the benefits of a dynamic patient problem list have been recognized for decades, evidence suggests that the practice of generating and maintaining problem lists is inconsistent, occurs in silos and is frequently not patient-centric. This paper includes a brief review of the literature on patient problem lists and then describes the process, tools and findings from an evaluation of interdisciplinary use of patient problem lists across levels of care in an integrated health care delivery system in the northeastern United States. Recommendations for building systems and processes that are supportive of enterprise wide use of patient problem lists are discussed.

- **Keywords: Problem-Oriented Medical Record, Problem list, Patient-Centered Care, Documentation**

Project Goals

- The goal of the project was to describe “current state” with regard to interdisciplinary use of patient problem lists across Partners’ sites and levels of care and to evaluate the degree to which users perceive that key problem list attributes and benefits are present in existing vendor products.
- An additional goal was to identify barriers and facilitators to an enterprise-wide solution to a common electronic patient problem list.

Study Institutions

- Partners is an integrated health care delivery system located in Northeastern United States and includes academic medical centers, community and specialty hospitals and a network of providers and specialists across the healthcare continuum. Partners' has an enterprise patient problem list that has been a component of legacy ambulatory systems since 1990 (Kuperman et. al, 1995) and as part of the ambulatory Longitudinal Medical Record (LMR) since 2000 (Spurr et. al. 2001). Coded concepts in the Partners problem list dictionary were developed based on evaluation and synthesis of free text terms entered by physicians in the ambulatory setting.21 A paper-based patient record is employed on inpatient units in the Academic Medical Centers (AMCs) and vendor solutions at inpatient community and specialty sites.

Data Collection Methods

- An interview guide was developed from a review of the literature and the work of Campbell (1998) and Warren (1998) and was made available to participants prior to site visits. The interview guide standardized data collection across sessions and sites. Interviews were conducted using one-on-one and interdisciplinary focus group formats and centered on the following:
  1. Information and administrative attributes;
  2. Benefits and facilitators to existing problem list documentation processes;
  3. Barriers to enterprise-wide use of interdisciplinary patient problem lists.
- Participants were identified by hospital leadership due to their clinical leadership roles, expertise with local documentation systems and familiarity with use of patient problem lists.

Results

- Findings indicate that vendor products include many key problem list attributes. However, the degree to which users perceive the attributes and associated benefits to be present varies by site and by user. Of note is the variability of user perception of problem list attributes and benefits even when the vendor product in place is the same.
  - The degree to which problem list functionality and processes across Partners sites include the features and achieve the benefits of a well-designed and well executed problem list (as defined by Campbell et. al (1998)) is reported in **Table 1.**
  - Vendor functionality is summarized on the left side of **Table 1** under the heading, “Vendor Functionality”.
  - The degree to which users perceive key attributes and benefits to be present in inpatient and outpatient settings are summarized by level of care and vendor product versus paper documentation systems on the right side of **Table 1.**

Results

				Outpatient									Inpatient				
	Vendor Functionality			PCP					Specialists			NPP	Interdisciplinary				
				V1									Paper		V2		V3
	V1	V2	V3	PCP1	PCP2	PCP3	PCP4	PCP5	SP1	SP2	SP3	NPP	Site1	Site2	Site3	Site4	Site5
Information Attributes																	
* Clinical focus/Interdisciplinary	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
* Codification	X		X	X	X	X	X	X	X	X	X						
* Resolution	X		X	X		X	X	X		X							
* Historicity	X	X	X			X	X	X			X				X	X	
* Viewability	X	X	X			X	X	X			X						
Administrative Attributes																	
* Workflow Integration	X		X		X	X	X	X		X							
* Administrative Cross-references	X		X							X							
* Clinical Utility	X		X	X	X		X	X			X						
Benefits/Payoffs of																	
* Orient clinician to patient?	X	X	X	X	X	X	X	X	X	X	X		X	X	X		
* Coordinate the processes of care?	X	X	X	X		X		X									
* Improve communication b/t providers?	X	X	X	X	X	X	X	X		X	X			X			
* Comply w/JCAHO/NCQA guidelines?	X	X	X			X	X	X	X			X	X	X	X	X	
* Promote research through case finding and audit?	X		X		X	X	X	X		X							
* Aid student/resident education?	X	X	X	X	X	X	X	X		X			X	X	X	X	
* Assist w/revenue management?	X		X					X									

PCP=Primary Care Provider; **SP**=Specialist; **NPP**=Non-Physician Provider; **V**=Vendor

Table 1: Key problem list attributes by vendor, setting and provider

Results

- The primary barriers to use of a common patient problem list across disciplines and levels of care were identified in this evaluation and classified under the following categories: 1) tools, 2) people and 3) processes.
  1. **Tools:** The systems in place (e.g. electronic or paper documentation systems) designed to facilitate the use of an interdisciplinary patient problem list.
  - Primary Tool-related Barriers:
    1. Lack of interoperability between systems
    2. The inability of outside vendors to employ web-based services
    3. Differences in structure and coding schemes that exist across vendor products limits the ability to execute a sharable list and assure that updates and changes to a patient problem list are reflected across the system.

Results

2. **People:** Include the attitudes and behaviors of users, patients and characteristics of the organizational culture that are facilitators or barriers to interdisciplinary use of a patient problem list.

- **Primary People-related Barriers:**
  1. Attitudes or beliefs related to existing problem list functionality were inconsistent and in some cases inaccurate.
  2. Cultural resistance to “patient-centric” problem lists rather than “discipline-centric” problem lists.

Results

3. **Processes:** Include operations or events within a hospital or healthcare system that facilitate or prevent adoption of common patient problem list (e.g. organizational policy or implementation strategies).

- **Primary Process-related Barriers:**
  1. Institutional policies and implementation strategies
  2. Dual electronic and paper documentation systems

Discussion

- The technical capacity of electronic systems to support key attributes of patient problem list functionality exists in many vendor systems. However, this evaluation suggests that access to advanced functionality does not guarantee that key problem list attributes and associated benefits will be recognized by providers or that problem list functionality will be used enterprise-wide in ways that are patient-centric.

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