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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 poster 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

Introduction

The significance of the patient problem list as a key component of the medical record is well established. In 1968, Lawrence Weed described the value of the problem list with regard to its ability to enable the physician to systematically address patient problems. Weed viewed the problem list as the organizing feature of the medical record and in his seminal paper entitled, *Medical Records That Guide and Teach,* Weed (1968) described the problem list as the "dynamic 'table of contents' of the patient's chart, which can be updated at any time" (p. 597)[1]. Weed coined the phrase "problem oriented medical record" (POMR) to describe a patient record characterized by the presence of a complete and dynamic problem list that is informed by a structured, systematically collected database.

An important premise of the POMR is that the structure of the record (e.g. chronologically by problem) is more patient-centric than the traditional approach of structuring the medical record chronologically by discipline. The POMR facilitates integration of data entered by the interdisciplines and ubiquitous access to data, goals, orders, plans, and progress notes related to a particular problem. However, to achieve generalizable integration, a standardized taxonomy and approach to coding problems is needed. Significant barriers exist to capturing patient problem data in a structured, coded format. At present, a clinically useful, controlled medical terminology that adequately represents the range of problems encountered in clinical settings does not exist. Evaluation studies testing the adequacy of existing controlled vocabularies for representing clinician-generated problem statements found that that they are inadequate and require enhancement with additional terms to meet the needs of providers at the point of care.[1-3] An additional barrier to the use of an interdisciplinary patient problem list is the variability in approaches to design and function of the patient problem list that lead to lack of interoperability and preclude data reuse and sharing.

Data collection

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

The degree to which 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**.[4] 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**. 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 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. In this context, tools are defined as the systems in place (e.g. electronic or paper documentation systems) designed to facilitate the use of an interdisciplinary patient problem list. The concept of people includes 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. 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).

Tool-related barriers include: 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.

People-related barriers include: 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.

Process-related barriers include: 1) Institutional policies and implementation strategies and 2) dual electronic and paper documentation systems.

Conclusion

Barriers to use of a common patient problem list noted in this evaluation include the use of paper-based documentation systems, the execution and functionality of vendor products, and local documentation policy and practices. As organizations continue the transition from paper to electronic systems, it is important that careful consideration is given to EHR design so that systems include key information and administrative attributes of well designed problem lists and the problem list functionality is usable within the context of busy patient care workflows.

References

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Table 1 - Perceived problem list functionality and processes

				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