Surveying Problem List Perceptions and Use in the Electronic Health Record

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Introduction

With the increased adoption of Electronic Health Record (EHR) systems, there has been renewed interest in the problem list and improving its use in the EHR. Several reports have described challenges for implementation and maintenance of problem lists, including the need for standardized coding, content, and use[1,2]. The goal of this survey-based study was to gain a better understanding of problem list perceptions and use at the University of Vermont Medical Center (UVMMC) for informing system improvements, user training, and policies.

Methods

A survey was designed and implemented using REDCap (Research Electronic Data Capture). Recruitment emails were sent to medical students and providers (physicians, nurse practitioners, physician assistants, fellows, and residents) at UVMMC in February 2013 and data collection was completed in March 2013. For closed-ended questions, basic statistics and graphs were generated; for open-ended questions, analysis involved developing and applying coding schemes for characterizing the contents of the free-text responses and identifying common themes.

Results

A total of 191 responses (~10% response rate) were received of which 160 (84%) were complete. Respondents represented a range of specialties with family medicine and primary care internal medicine as the most frequent; inpatient and outpatient settings; and, primarily attending physicians and residents/fellows. When asked to indicate where a particular condition should be documented in the EHR (problem list [PL], past medical history [PMH], past surgical history [PSH], family history [FH], social history [SH], or other), a variety of responses were provided for the 21 specified conditions. For example, 73% selected PL, 12% PMH, 73% SH, and 1% other for "ongoing tobacco use." Several themes emerged from coding free-text responses to questions regarding problem list definitions, perceived barriers, and suggested improvements (κ>0.8 was achieved by two reviewers for a subset of responses). Overall, responses for definitions included the words "active" or "current" as well as referred to the problem list's utility in healthcare decision-making. Some responses advocated for listing PSH, FH, or SH that have been deemed "important." Overarching themes for perceived barriers included use of PL versus PMH, inconsistent use by providers leading to inaccuracy, and lack of ownership by providers. Overarching themes for suggested improvements included identifying one provider as "keeper of the list" (e.g., PCP) and building "hard stops" in the EHR to ensure that the list is updated by providers (e.g., at admission).

Discussion

The results from this survey are consistent with those reported in prior studies[3,4]. By evaluating both where in the EHR respondents would document specified conditions as well as their open-ended responses for problem list definitions and perceived barriers, varying perceptions and uses were observed. These findings provide further insights and guidance for standardizing problem list use, training, and policies.

References

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