

Evaluation of Computer-Generated After-Visit Summaries to Support Patient-Centered Care

Principal Investigator:	Pavlik, Valory, Ph.D.
Organization:	University of New Mexico
Contract Number:	290-07-10007-2
Project Period:	September 2009 – March 2012
AHRQ Funding Amount:	\$496,788

Summary: The office visit remains a cornerstone of primary care and health information delivery. Yet studies have shown that by the time the patient leaves a facility, he or she may forget as much as 50 percent of the information relayed during the visit, which can negatively affect the patient's care.

Electronic medical records (EMRs) can provide patients with information about their clinical visits through personalized handouts that summarize the topics and recommendations covered during the visit. These after-visit summaries (AVS) have the potential to improve a patient's retention of information and followup instructions, leading to better adherence to treatment plans. An AVS can also facilitate the transfer of information between health settings. However, the content and formatting of an AVS that will optimize patients' information retention and satisfaction is still unknown.

Through a contract with the University of New Mexico, Dr. Valory Pavlik and her team from the Baylor College of Medicine, Department of Family Practice, provided expertise and guidance throughout the term of the project.

This project employed qualitative methods to gather patient and physician input into the AVS development. The research team then developed three AVS versions with varying amounts of included information. The three experimental versions were evaluated in a randomized trial to examine the effects of differences in information content on patient recall and satisfaction. A fourth group of patients received the standard AVS used in each clinic. The study took place in four clinics in Texas that use a common EMR and serve an ethnically and socioeconomically diverse patient population. The research team included experts in study design and analysis, medical informatics, bilingual and bicultural patient information transfer, qualitative analysis, and clinical practice-based research.

Project Objectives:

- Ascertain patient attitudes, preferences, and needs regarding the delivery of information at a visit with a primary care physician. **(Achieved)**
- Identify primary physicians' attitudes about the utility, content, and value of the AVS. **(Achieved)**
- Develop and test three different versions of an AVS. **(Achieved)**
- Prepare an implementation guide to assist practices in developing and implementing an AVS. **(Achieved)**

2012 Activities: Final data collection and analysis were completed during this period. The project team

developed an implementation guide for dissemination. The project ended in March 2012.

Impact and Findings: A total of 272 patients participated in the evaluation phase, with equal numbers of Spanish and English speakers. Two phone interviews were conducted: the first between 1-3 days after a visit, and the second between 14-21 days after. The purpose of the interviews was to assess the patient's general AVS content recall, medication recall, satisfaction with the AVS, and self-reported adherence to treatment.

Recall of content of the AVS was low, with the highest proportion of information recalled in the group who received the shortest AVS version. However, recall of individual components that were common across AVS versions did not differ among the group. Although health literacy was lower in the Spanish-speaking population, the team did not find any significant difference in recall of medications between the groups. Overall, patients were happy with the format of the AVS, and indicated that the medication list and instructions were the most important components. Not surprisingly, Spanish-speaking patients indicated their preference for an AVS in Spanish. The mean adherence score did not differ between groups.

The project team concluded that patients liked receiving an AVS, but the amount and range of the included information did not impact their recall of health-related visit information or their perception of the information's usefulness. However, given the low levels of recall of content, it is not likely that patients retain much of the information on the AVS. The team concluded that the AVS must be supplemented with efforts to directly remind patients about important information and not rely solely on the summary.

Target Population: Adults

Strategic Goal: Develop and disseminate health IT evidence and evidence-based tools to support patient-centered care, the coordination of care across transitions in care settings, and the use of electronic exchange of health information to improve quality of care.

Business Goal: Knowledge Creation
