

Using an Electronic Personal Health Record to Empower Patients With Hypertension

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Organization:	Georgia Health Sciences University
Mechanism:	RFA: HS07-007: Ambulatory Safety and Quality Program: Enabling Patient-Centered Care Through Health Information Technology (PCC)
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Project Period:	September 2007 – August 2011, Including No Cost Extension
AHRQ Funding Amount:	\$1,181,369
Summary Status as of:	December 2010

Target Population: Adults, Chronic Care*, Hypertension

Summary: Patient- and family-centered care (PFCC) represents a new paradigm for health care delivery, where patients and their families take an active role in their health care management and decisionmaking. Evidence shows that PFCC improves outcomes including reduction of medication errors, increased compliance, and better disease management. However, implementation of patient-centered care in the ambulatory setting remains elusive for most U.S. clinical practices. An electronic personal health record (ePHR) helps overcome barriers to adoption of PFCC by maximizing patient-clinical collaboration, self-management, and related health outcomes.

The project examines the feasibility, acceptability, and impact of an ePHR for patients with hypertension. The project is using Cerner Health's ePHR, My HealthLink, under the Medical College of Georgia (MCG). To foster personal wellness and chronic condition management, My HealthLink allows consumers to log entries into their ePHR, track progress against their customized care plan, complete health assessments, communicate securely with their providers, access health education content, and check for interactions between medications.

The project team worked with Cerner to iteratively modify My HealthLink to customize it for their local use. The team incorporated the experiences, perspectives, and insights of patients and their families in the design of the ePHR. Patients were enrolled from the MCG Medical Center and researchers conducted two iterative pilot beta tests to evaluate the modified ePHR. Each beta-test session had participants use the ePHR for two weeks. Subsequently, acceptability interviews were conducted and identified themes emerged from the feedback received. Once the modifications suggested by the beta-test participants are fully incorporated, a clustered, randomized controlled trial to compare a group using My HealthLink with those receiving usual care will be conducted. The effectiveness of My HealthLink will be evaluated through questionnaires and biological measurements, including: patient activation and perception of care; biological markers, specifically blood pressure, body mass index, and lipid levels; collaborative patient-physician communication; congruence of medication treatment with guidelines; and frequency-of-use of medical services. The team will also evaluate, via surveys and in-depth interviews, physician and staff perceptions of the ePHR and attitudes towards patient- and family-centered practices.

Specific Aims:

- Improve the application of PFCC elements in an existing ePHR system. **(Achieved)**

- Implement and test the effectiveness of the revised ePHR (My HealthLink) with patients who are being treated for hypertension by a team of physicians, mid-level practitioners, nurse clinicians, and support staff in two ambulatory settings. **(Achieved)**
- Monitor the shift in provider and support staff awareness and incorporation of PFCC concepts as a result of the implementation of the ePHR. **(Ongoing)**

2010 Activities: Two types of patient visits were audio recorded during this period for qualitative data collection. The first type is patient-physician communication recordings in which the actual medical visit is recorded and the second type is the end of the study interview visit with study participants. A total of 51 patient-physician communication visits and 126 Visit 4 end of study interviews were recorded, all of which have been transcribed and will undergo qualitative analysis. Patient follow-ups for visits 2, 3, and 4 were completed during 2010.

Post-trial interviews with participating physicians and staff are complete. A total of eight physicians completed the post-study structured interview and physician perspective of patient empowerment scale (PES-P). Additionally, four staff and nurse focus groups with a total of 14 participants were conducted. A qualitative analysis of the structured interviews and focus groups began as well as an analysis of the post trial PES-P data.

The 2010 culture survey was disseminated in July 2010 (sample= 2,500) and was open until mid-August 2010. Seven hundred, sixty-two people responded and started the survey and 550 completed the survey. Data are being analyzed and will be compared with the 2005 and 2008 culture surveys. In addition, a total of 355 charts were audited by the end of the 2010. Data from the chart audits were entered into a database, have under gone preliminary analysis, and will be used accordingly in the final main trial data comparisons and dissemination of results.

Grantee's Most Recent Self-Reported Quarterly Status (as of December 2010): Project progress and spending are mostly on track. The project is progressing as expected, focusing on continuing implementation activities, collecting, and analyzing data.

Preliminary Impact and Findings: No impacts or findings have yet been reported.

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: Implementation and Use

* *AHRQ Priority Population*