May 22nd, 4:30 PM - 6:00 PM

Technological Resources and Personnel Costs Required to Implement an Automated Alert System for Primary Care Physicians When Patients Transition from Hospitals to Home

Terry S. Field
University of Massachusetts Medical School

Et al.

TECHNOLOGICAL RESOURCES AND PERSONNEL COSTS REQUIRED TO IMPLEMENT AN AUTOMATED ALERT SYSTEM FOR PRIMARY CARE PHYSICIANS WHEN PATIENTS TRANSITION FROM HOSPITALS TO HOME

Terry S. Field[1, 2], DSc; Lawrence Garber[2], MD; Shawn J. Gagne[2], BA; Jennifer Tjia[1, 2], MD; MSCE; Peggy Preusse[2], RN; Jennifer L. Donovan[1, 2, 3], PharmD, RPh; Abir O. Kanaan[1, 2, 3], PharmD, RPh; Jerry H. Gurwitz[1, 2], MD

[1]University of Massachusetts Medical School, [2]Meyers Primary Care Institute – a joint endeavor of the University of Massachusetts Medical School, Reliant Medical Group, and Fallon Community Health Plan, [3]Massachusetts College of Pharmacy and Health Sciences

Corresponding Author: Terry S. Field, DSc, Associate Professor, Department of Medicine, Division of Geriatric Medicine, University of Massachusetts Medical School; Associate Director, Meyers Primary Care Institute; Phone, 508-791-7392; Email, terry.field@meyersprimary.org

Abstract:

Background

With the adoption of electronic medical records by medical group practices, there are opportunities to improve the quality of care for patients discharged from hospitals. However, there is little guidance for medical groups outside of integrated hospital systems to automate the flow of patient information during transitions in care.

Objective

To describe the technological resources, expertise and time needed to develop an automated system providing information to primary care physicians when their patients transition from hospitals to home.

Development

Within a medical group practice, we developed an automated alert system that provides notification of discharges, reminders of the need for follow-up visits, drugs added during in-patient stays, and recommendations for laboratory monitoring of high risk drugs. We tracked components of the information system required and the time spent by team members. We used US national averages of hourly wages to estimate personnel costs.

Application

Critical components of the information system are notifications of hospital discharges through an admission, discharge and transfer registration (ADT) interface, linkage to the practice's scheduling system, access to information on pharmacy dispensing and lab tests, and an interface engine. Total personnel cost was $76,314. Nearly half (47%) was for 614 hours by physicians who developed content,

provided overall project management, and reviewed alerts to ensure that only “actionable” alerts would be sent.

Conclusion

Implementing a system to provide information about patient transitions requires strong internal informatics expertise, cooperation between facilities and ambulatory providers, development of electronic linkages, and extensive commitment of physician time.