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

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**Presenter Information**

Terry S. Field, Lawrence D. Garber, Shawn J. Gagne, Jennifer Tjia, Peggy Preusse, Jennifer L. Donovan, Abir O. Kanaan, and Jerry H. Gurwitz

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

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## **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.