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Reducing Rehospitalizations through Automated Alerts to Primary Care Providers and Staff When Older Patients are Discharged from the Hospital: A Randomized Trial

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Background: Inadequate continuity of care places older patients at very high risk during transitions from the hospital to ambulatory setting. Methods: We conducted a randomized controlled trial of an HIT-based transitional care intervention in patients aged 65 and older discharged from hospital to home. All patients were senior plan members of a Massachusetts-based health plan, and cared for by a multispecialty medical group using the EpicCare Ambulatory Medical Record. In addition to notifying providers about the patient’s recent transition, the system provided information about new drugs added during the inpatient stay, warnings about drug-drug interactions, recommendations for dose changes and laboratory monitoring of high-risk medications, and reminded the primary care provider’s support staff to schedule a post-hospitalization office visit. Randomization occurred at the time of hospital discharge during a one-year intervention period beginning in August 2010. Alerts were automatically delivered to the provider and staff in-basket within the EMR. The primary outcomes were: 1) having an outpatient office visit with the primary care provider within 30 days following discharge; and 2) having a rehospitalization within 30 days following discharge. Results: The study included 3667 discharges of which 1877 discharges were randomly assigned to the intervention arm. Forty-nine percent of discharges in the intervention arm were followed by office visits with the primary care provider within 30 days, compared to 51% in the comparison arm (RR 0.96, 95% CI 0.90, 1.03). Eighteen percent of discharges in the intervention arm were followed by a rehospitalization within 30 days compared to 20% in the comparison arm (RR 0.92, 95% CI 0.80, 1.05). Conclusions: This HIT-based intervention was not effective in increasing the percentage of hospital discharges of older patients that were followed by timely office visits to primary care providers or reducing the percentage with rehospitalization.