Title: Intervention to Reduce Adverse Outcomes among Older Adults Discharged from Skilled Nursing Facilities to Home

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Abstract:

Background: Older adults may be at risk for adverse outcomes after discharge from skilled nursing facilities (SNF), but little research has focused on this transition.

Objective: To assess the impact of an alert system on the rates of adverse outcomes among older adults discharged from SNFs to home.

Methods: Within a multispecialty group practice, we tracked 30-day re-hospitalizations after SNF discharges during an intervention that provided discharge alerts to primary care physicians. We compared them to discharges from the pre-intervention period matched on age, gender and SNF. For the first 100 intervention discharges and their matches, we performed chart reviews to identify adverse drug events (ADEs). Multivariate analyses controlled for age, gender and intervention status.

Results: We matched 313 intervention SNF discharges to 313 previous discharges. There was a slight reduction in the rate of 30-day re-hospitalization (30% vs. 31%) adjusted. Within the ADE study, 30% of the discharges during the intervention period and 30% of matched discharges had ADEs within 45 days. Among the 83 ADEs identified, 28% were deemed preventable; 69% resulted in symptom duration more than one day; 69% occurred within the first 14 days after discharge. This was a highly vulnerable population: mean age 82.5 (standard deviation (SD) 6.7); mean number of prescribed medications 11.9 (SD 8); 17% had Charlson Comorbidity Scores of ≥4. Common clinical conditions included myocardial infarction (24%), heart failure (22%), COPD (23%), and major depression (28%). Patients with scores of ≥4 were more likely to experience an ADE than those with lower scores (adjusted OR 2.5 (CI 1.2, 5.5), RD 0.21).

Conclusion: Simply providing alerts when these vulnerable patients are discharged from SNFs is not sufficient to lower rates of adverse outcomes. Further research is required to track trajectories and identify additional points for interventions.