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

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*Et al.*

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4<sup>th</sup> Annual University of Massachusetts Center for Clinical and Translational Science Research  
Retreat – abstract submission

March 21, 2013

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  $\geq 4$ . Common clinical conditions included myocardial infarction (24%),  
heart failure (22%), COPD (23%), and major depression (28%). Patients with scores of  $\geq 4$  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.