
CONFERENCE ABSTRACT

Effects of integrated care transition program on readmissions after discharge in high risk patients

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Background: Dedicated care transitions programs target patients after hospitalization to improve care and prevent complications and readmissions. Programs vary widely in the specific intervention, patient population, and implementation.

Objective: We compared short-term (30day) and long-term (180day) utilization of participants enrolled in a care transitions program (CTP) versus a matched cohort of eligible but not enrolled. We then sought to determine the effect of baseline characteristics and core interventions objectives on the primary outcome of 30 day readmission.

Methods: Retrospective cohort study of 365 patients discharged Jan 1, 2011 till Jun 30, 2013 in a primary care academic practice. Patients at high risk for hospital readmission, an elder risk assessment score over 16 and age (>60) were assigned to CTP follow up by a multidisciplinary team. This included an initial home visit by a nurse practitioner who performed medication reconciliation, assessed functional and cognitive status and safety, identified community resources, created an action plan, discussed goals of care and surrogate decisionmaker. Further support was provided via phone and home visits as needed. The primary outcome was 30, 90, and 180-day readmissions automatically abstracted from the electronic medical record. Predictors assessed were: demographics, baseline characteristics, comorbid illness, medications (number, changes and class), completion and timing of program process measures and healthcare utilization. Cox-proportional hazard models using propensity score matching were used to assess rehospitalization. Predictors were analyzed using time to event with censoring at death, palliative care, lost to follow up.

Results: Compared to referent (n=365), CTP patients exhibited a lower 30-day rehospitalization rate; 12.4% (95%CI 8.9–15.7) versus 20.1% (95%CI 15.8–24.1%), respectively (P=0.002). At 180-days, there was no difference. Significant predictors of lower rehospitalization included completion of advance care planning (HR=0.416, (0.263-0.659)), COPD (HR=0.599; (0.372-0.965)). More than one medication change (HR= 1.619; (1.042-2.514)) and use of opioids (HR=1.609; (1.023-1.529)) predicted higher rehospitalization rate.

Conclusions: We observed a reduction in 30 day rehospitalization rates among those enrolled in CTP compared to referent. However, this effect was not sustained at 180 days. Advance

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care planning lowered the risk of hospitalization while medication changes and high risk medications increased risk of readmissions. Further work to determine factors that promote sustainability and validation of these predictors are needed to design the most effective CTP and prevent hospitalization and bad outcomes in this high risk group.

Keywords: care transition; readmission; elderly; high risk
