Postdischarge Physician Follow-Up: Does It Matter by Whom?

van Walraven C, Mamdani M, Fang J, Austin PC. Continuity of care and patient outcomes after hospital discharge. J Gen Intern Med 2004;19:624–31.

Study Overview

Objective. To determine if postdischarge outcomes differ for patients who are seen in follow-up by the physician who cared for them during hospitalization.

Design. Population-based cohort study.

Setting and participants. Three administrative databases were used to select and follow 938,833 adults from Ontario, Canada, after they were discharged from a nonelective medical or surgical hospitalization between 1 April 1995 and 1 March 2000. It was determined when patients were seen after discharge by physicians who treated them in the hospital, when physicians treated them 3 months prior to admission (community physician), and when they were treated by specialists.

Main outcome measures. Combined death or nonelective readmission to hospital in the first 30 days after discharge. Subset analysis also was performed showing the varying relationship between diagnoses and readmission and survival.

Main results. Overall, 7.7% of the study patients died or were readmitted within 30 days of hospital discharge. With each additional visit to a hospital physician rather than a community physician or specialist, the adjusted relative risk of death or readmission decreased by 5% (95% confidence interval [CI], 4%–5%) and 3% (95% CI, 2%–3%), respectively. The effect of hospital physician visits was cumulative, with the adjusted risk of 30-day death or nonelective readmission reduced to 7.3%, 7.0%, and 6.7% if patients had 1, 2, or 3 visits, respectively, with a hospital rather than a community physician. The effect was consistent across patient age, Charlson score, admission type, hospital teaching status, and other subgroups.

Conclusion. Patient outcomes may be improved if early postdischarge visits are with physicians who treated them in hospital rather than with other physicians. Follow-up visits with a hospital physician can be a modifiable factor to improve patient outcomes following discharge from hospital.

Commentary

The advent of hospitalists over the last several years is changing inpatient medical care delivery [1] and raises concerns about effective postdischarge care. As patients are being discharged with improving but yet unresolved problems, transfer of information regarding hospital course and treatment to community physicians providing follow-up is inadequate and can hinder care [2]. Previous studies have identified factors that are associated with increase readmission risk such as age, gender, length of stay, comorbidities [3], and particular diagnosis [4]. By linking 3 Ontario administrative databases during a 5-year period, van Walraven and colleagues demonstrated that, while the previous factors are largely immutable, continuity of care (defined by follow-up with the physician[s] that cared for the patient during hospitalization) is a modifiable factor that can impact readmission rates.

Using a proportional hazards model and adjusting for demographic, prehospitalization, hospitalization, and time-dependent covariates, van Walraven et al showed that patients were significantly less likely to die or be readmitted 30 days postdischarge if they were seen in follow-up by the physician who cared for them during hospitalization rather than a community physician (hazard ratio, 0.95 [CI, 0.95–0.96]) or specialist who did not (hazard ratio, 0.97 [CI, 0.97–0.98]). Subgroup analysis showed that follow-up with the same physician during hospitalization was protective for all subgroups except for those with diagnosis risk scores greater than 1.26 (number of observed deaths and readmissions divided by expected deaths and readmissions for each diagnosis), patients more than age 75 years, and those with previous

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hospitalizations. While this study does not absolutely prove a cause-and-effect relationship between hospital physician follow-up and better outcomes, it demonstrated a dose-response improvement of outcomes with each additional hospital physician visit that is consistent across multiple populations.

Applications for Clinical Practice

This study reminds us that hospital course influences follow-up care, and follow-up with the same treating physician independently provides a small but significant protection for death or readmission within 30 days. While current trends for hospitalist medicine in the United States may preclude follow-up care by the same hospital physician, this study exhorts all of us to improve inpatient-outpatient communication for better quality of care. Hopefully, as we move toward the use of electronic health records, a repeat analysis may show diminishing effect as total information transparency is realized.

–Review by Mark S. Horng, MD

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