Early Discharge May Benefit Patients with Infections

Eron LJ, Passos S. Early discharge of infected patients through appropriate antibiotic use. Arch Intern Med 2001;161:61–5.

Study Overview

Objective. To compare outcomes of patients with infections cared for by an infectious diseases (ID) hospitalist versus internal medicine (IM) hospitalists.

Design. Observational study.

Setting and participants. Patients admitted to a single hospital during a 15-month period were eligible for the study. Inclusion criteria required patients to have an expected length of hospital stay of less than 6 days, as determined by a triaging physician. A single ID hospitalist cared for patients admitted between 8 AM and 3 PM Monday through Friday and between 8 PM and 8 AM Sunday through Thursday. IM hospitalists (number not stated in article) admitted infected patients at other times. 111 patients with community-acquired pneumonia (CAP), urinary tract infection (UTI), or cellulitis were admitted to the ID hospitalist's care and discharged from the hospital early in their clinical course. These subjects were compared with 112 patients who were admitted by IM hospitalists and discharged from the hospital according to conventional standards of care. IM patients were matched to ID patients first by admitting diagnosis, then by comorbid diagnoses, and finally by age and gender.

Main outcome measures. Average length of hospital stay, readmission to the hospital within 30 days with the same diagnosis, patient satisfaction with discharge program, and time to return to normal daily activities.

Main results. The majority of patients included in the study (58%) were men, with an average age of 62 years. 45% had a CAP, 28% had a UTI, and 39% had cellulitis. In addition, 45% of study patients had one or more comorbidities. Patients cared for by the ID hospitalist were discharged within an average of 1.3 days, compared with 3.0 days for IM patients ($P < 0.001$). Members of the ID group were more likely than those in the IM group to "strongly agree" (versus "agree," "disagree," or "strongly disagree") that timing of discharge and home environment aided in their recovery (60% versus 28% and 56% versus 29%, respectively; *P* not stated). Only 1 patient was readmitted to the hospital for the same problem within 30 days of discharge. It was not noted whether any patients died.

Conclusion

Aggressive discharge practices for patients with common infectious illnesses may reduce length of hospital stay while maintaining or improving outcomes.

Commentary

This study should be viewed as hypothesis generating rather than hypothesis proving. Overall, the methodology was poor, as this was not quite a case-control study or a cohort study. Moreover, the lead author was the ID hospitalist whose practice was examined. IM patients were admitted in the late afternoon, early evening, and on weekends, while ID patients were admitted at specific times. All of these factors may have introduced bias to the study. Given that only one ID hospitalist was observed, results cannot be generalized for all ID specialists. Despite multiple design flaws and lack of generalizability, however, this study does raise some important questions, including whether typical indications for discharge (eg, defervescence, complete symptom resolution, and 24 hours on oral antibiotics) may unduly delay the return home for many patients.

Applications for Clinical Practice

Although Eron and Passos's study does not provide definitive answers to the problem of reducing length of hospital stay while maintaining quality of care, it does suggest areas that may be fruitful to explore. Hospitals may want to try using ID hospitalists or developing guidelines to support early discharges.

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