

Does Utilization Management Lead to Higher Readmission Rates?

Lessler DS, Wickizer TM. The impact of utilization management on readmissions among patients with cardiovascular disease. Health Serv Res 2000;34:1315-29.

Study Overview

Objective. To determine if length of stay (LOS) reductions that result from utilization review affect likelihood of readmission for patients with cardiovascular disease (CVD).

Design. Retrospective database analysis.

Setting and participants. Participants were patients in 47 U.S. states covered by a managed benefit plan offered by a large commercial insurance carrier. Between 1989 and 1993, 4326 utilization management inpatient reviews were performed on 3195 different patients with CVD requesting inpatient treatment. Of these reviews, 1513 (42%) were for surgery or another procedure and 2813 (58%) were for medical admission. The reviews were performed by trained nurses and physician advisors using the same diagnosis-based criteria, updated annually. If a patient was not authorized for admission or for an outpatient procedure, a physician advisor reviewed the case.

Main outcome measures. LOS reductions calculated as the difference between total days requested by the attending physician and total days approved by utilization review; 60-day readmission rates.

Main results. Requests for admission were rarely denied. Only 1 of the 2813 requests for medical admission and only 4 of the 1513 procedural admissions were denied. LOS was reduced relative to that requested by the treating physician for 17% of medical admissions (10% by 1 day and 7% by 2 days) and for 19% of procedural admissions (11% by 1 day and 8% by 2 days). Cumulative 60-day readmission rates were 9.5% for medical admission and 12.3% for procedural admissions. No relationship was found between LOS reduction and the likelihood of readmission for medical admissions. However, patients admitted for procedures who had their LOS reduced by 2 or more days were 2.6 times as likely to be readmitted within 60 days as those who had no reduction in their LOS (95% confidence interval [CI], 1.3 to 5.1; $P < 0.005$).

Conclusion

Utilization management had little impact on hospital decisions or on subsequent readmissions for CVD patients across the entire cohort; however, utilization management that leads to LOS reduction of 2 days or more may have an adverse impact on the clinical outcomes of some patients.

Commentary

Previous research suggests that CVD may be particularly appropriate for utilization management techniques because of known practice variation and suspected use of unnecessary procedures [1,2]. However, little is known about the impact of utilization review on quality of care and clinical outcomes. The current study begins to fill this knowledge gap. Future research should provide more detailed analyses of care practices over time and a broader review of other utilization management experiences.

It is important to note that the practice patterns of the physicians in this study may have been affected by their awareness of the care guidelines. Perhaps these physicians reduced their requested LOS over time to comply with utilization management guidelines in advance of the prospective review. This could have led the current results to underestimate the effects of utilization management.

Applications for Clinical Practice

As the average LOS for patients with CVD (and other patients) continues to decline, physicians must remain vigilant regarding the needs of their patients. Providers of utilization management should be able to document their guidelines and procedures and engage in a process of continuous updating to ensure that they reflect the latest and best clinical knowledge.

"Outcomes Research in Review" is edited by Chris L. Pashos, PhD, Vice President and Executive Director of Pharmacoeconomics and Outcomes Research, Abt Associates Clinical Trials, Cambridge, MA, and Associate Editor, Health Policy, Journal of Clinical Outcomes Management. Dr. Pashos selects, summarizes, and provides the commentary on the studies that appear in this section.

References

1. Bernstein SJ, Hilborne LH, Leape LL, Fiske ME, Park RE, Kamberg CJ, Brook RH. The appropriateness of use of coronary angiography in New York State. *JAMA* 1993;269:766-9.
2. Guadagnoli E, Hauptman PJ, Ayanian JZ, Pashos CL, McNeil BJ, Cleary PD. Variation in the use of cardiac procedures after acute myocardial infarction. *N Engl J Med* 1995; 333:573-8.

Copyright 2000 by Turner White Communications Inc., Wayne, PA. All rights reserved.