Advances in Surgery 49 (2015) 15–29
ADVANCES IN SURGERY

Hospital Readmissions
Are They Preventable?

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Keywords

• Readmission • Health care reform • Surgery

Key points

- Thirty-day hospital readmission is common after general surgical procedures.
- Complex surgical procedures, preoperative patient comorbidities, and occurrence of postoperative complications are strongly associated with an increased risk of unplanned readmission.
- There is a need for further research to identify successful interventions to decrease readmission rates among surgical patients.

INTRODUCTION

Admission to a health care facility is intended to address an acute change in a person's health (either planned or unplanned), with discharge based on the presumption that the patient has returned to a health status no longer requiring the resources of inpatient level of care. Unfortunately, readmission is a common event with significant impact for both the patient and the health care system. The landmark study by Jencks and colleagues [1] highlights the prevalence of readmissions nationwide. One-fifth of Medicare patients hospitalized for treatment were readmitted within 30 days of discharge. Furthermore, a staggering 67.1% of patients discharged after medical treatment and 51.5% of patients discharged after surgery had either been rehospitalized or died within 1 year of discharge from the index hospitalization. The same study estimated

The authors have nothing to disclose.

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0065-3411/15/$ – see front matter
http://dx.doi.org/10.1016/j.yasu.2015.03.013

the annual financial burden of unplanned readmissions among Medicare patients to be more than $17 billion.

In the face of these sobering numbers, the Affordable Care Act set to reduce unnecessary readmissions by enacting the Hospital Readmissions Reduction Program [2]. Implemented in October of 2012, the program began by reducing reimbursement payments to hospitals with higher than expected 30-day readmission rates for patients with congestive heart failure, myocardial infarction, and pneumonia. For the fiscal year 2015, penalties were set to begin for chronic obstructive pulmonary disease and hip and knee arthroplasty, the first surgical procedures to be included under the measure. Reimbursement cuts for readmission after coronary artery bypass grafts are slated to begin in 2017. These financial penalties are based on a supposition that higher than expected rates of readmission are due to the provision of lower than average quality of care, and can be changed to reduce or avoid the penalties.

This supposition has ignited a flurry of research to characterize, identify causes of, and potentially reduce the prevalence of readmission. However, some have begun to question whether readmission rates are truly a marker of quality medical care. Although it is undeniable that hospital readmissions have a significant impact on our patients and the health care system, it is not entirely clear whether efforts to reduce readmission rates are the best way to improve the quality of care clinicians provide. This article analyzes the current literature on surgical readmissions to characterize the issue and provide insight into whether the rate of hospital readmission can be lowered through the identification of events that truly are preventable.

SURGICAL READMISSIONS

Numerous studies across the United States have investigated hospital readmissions among medical and surgical patients. Readmission rates among medical patients remain consistently higher than those for surgical patients [1,3]. Medical conditions most susceptible to readmission, such as congestive heart failure and chronic obstructive pulmonary disease, are chronic problems characterized by acute exacerbations to be managed, whereas surgery is more often a single intervention aimed at disease elimination. In fact, many rehospitalizations after surgery are attributed to medical conditions unrelated to the index surgical procedure. The interplay between physiologic events attributable to surgery and exacerbation of underlying comorbidities is sufficiently difficult that causal relationships cannot be concretely determined; however, readmission after surgery remains a significant burden to our patients regardless of the cause.

Several studies that have examined readmission rates for general surgery patients have found that the rate of 30-day readmission is anywhere from 7% to 16% (Table 1) [1,4–7]. Tsai and colleagues [7] examined 30-day readmissions among Medicare patients undergoing coronary artery bypass grafting, pulmonary lobectomy, endovascular repair of abdominal aortic aneurysm (AAA), colectomy, and hip replacement, and found that nearly 1 in 7 patients were readmitted within 30 days of discharge. Although readmission rates