Revisiting Hospital Readmissions

Phil B. Fontanarosa, MD, MBA
Robert A. McNutt, MD

The Patient Protection and Affordable Care Act1 is intended to ensure that all Americans have access to quality, affordable health care and to slow the rate of increase in the cost of health care services provided. Section 3025 of the Affordable Care Act established the Hospital Readmissions Reduction Program (HRRP), whereby Medicare Inpatient Prospective Payment System reimbursements would be reduced for hospitals that have “excess readmissions.”1

To the Centers for Medicare & Medicaid Services (CMS), a readmission is an admission to a hospital that occurs within 30 days of a discharge from the same or another hospital. Excess readmissions are measured as a ratio of a hospital’s readmission performance compared with the national average for the set of patients with an applicable condition, and it is based on 3 previous years of discharge data and a minimum of 25 cases of patients with the specified conditions.2

For fiscal year (FY) 2013 the readmission penalties apply to 3 conditions: acute myocardial infarction, heart failure, and pneumonia. By 2015, the policy is expected to include readmissions for chronic obstructive pulmonary disease, coronary artery bypass graft surgery, percutaneous coronary interventions, and other vascular procedures. In FY 2013, the maximum payment reduction for hospitals with excess ratios of actual to expected readmission rates is 1% but increases to 2% in FY 2014, and to 3% for FY 2015 and beyond.3 In the first year of the program (which began October 1, 2012), 2217 US hospitals will incur “readmission penalties,” including approximately 300 that will be penalized the maximum amount and will lose 1% of their regular Medicare reimbursements for the coming year.4 These penalties translate to an estimated savings of approximately $300 million for CMS,4 which reflects a small proportion of the estimated $555 billion in total Medicare spending for 2012.5 However, as more conditions are added to the Medicare Inpatient Prospective Payment System and as the potential penalties also increase, billions of dollars are potentially at stake.

Given the implications of these policies for patients, physicians, and hospitals, this issue of JAMA has been devoted to the topic of readmissions. The issue includes 4 research reports, 2 other editorials, and 4 Viewpoints that provide new data and important insights directly relevant to this topic.

Two articles in this issue provide data that inform the reasons for hospital readmissions. The study by Dharmarajan and colleagues6 examined diagnoses and timing of readmissions among Medicare beneficiaries admitted in 2007 through 2009 and included not only readmissions, but also 30-day all-cause readmissions among Medicare beneficiaries who were discharged from hospitals with the highest rates of readmissions. They found that 13 million Medicare beneficiaries experienced a hospitalization with a readmission within 30 days for heart failure (more than 1.3 million hospitalizations, with 24.8% readmitted), acute myocardial infarction (more than 500,000 hospitalizations, with 19.9% readmitted), and pneumonia (more than 1.1 million hospitalizations, with 18.3% readmitted), but noted that the proportions of patients readmitted with the same diagnosis as the index admission for these 3 conditions were 35.2%, 10.0%, and 22.4%, respectively. These findings underscore the complex nature of many of these patients, most of whom have comorbidities that not only increase the risk of readmission but also make prevention of 30-day all-cause readmissions more difficult.

The report by Vashi and colleagues7 analyzed more than 5 million hospitalizations among adults (age ≥18 years, mean age 53.4 years) in 3 states from July 2008 through September 2009 and included not only rehospitalizations, but also 30-day hospital-based acute care utilization, including emergency department (ED) visits. The authors found that approximately 18% of hospital discharges were followed by

Author Affiliations: Dr Fontanarosa (phil.fontanarosa@jamanetwork.org) is Executive Editor and Dr McNutt is Contributing Editor, JAMA. Dr McNutt is also with the Department of Medicine, Rush University School of Medicine, Chicago, Illinois.
at least 1 hospital-based acute care encounter within 30 days, including 147.6 readmissions and 97.5 ED treat-and-release visits for every 1000 discharges. They also found that for the most common hospital discharge diagnoses, the reason for the ED visit was most frequently related to the index admission.

Another study in this issue, in which Brock and colleagues report findings from a major quality improvement (QI) initiative involving implementation of multifaceted approaches to improve care transitions for Medicare beneficiaries, illustrates the challenges of measuring and reducing readmissions. In this CMS-funded, multimillion-dollar, community-wide project, the rates of 30-day readmissions and all-cause hospitalizations per 1000 beneficiaries (assessed using before vs after, differences-in-differences measurement) were modestly reduced following implementation of the QI initiative in 14 communities compared with rates in 50 comparison communities. However, there was no significant difference in the change in rates of the more widely used measure of all-cause 30-day rehospitalizations as a proportion of hospital discharges.

As Williams points out in an accompanying editorial, these studies illustrate that there is no single solution to address the issues contributing to rehospitalizations (in part because many readmissions are not attributed to the same condition as the index admission). Williams also suggests that the findings support a more patient-centered approach to care because a disease-specific care model may not effectively reduce readmissions.

Although hospitals that provide care primarily for children are not included in the HRRP, the report in this issue of JAMA by Berry and colleagues provides informative data about readmissions for hospitalized children. In their analysis of more than 560,000 index hospitalizations at 72 children’s hospitals from July 2009 through June 2010, the authors found an overall 30-day readmission rate of 6.5% (substantially lower than the rates for Medicare beneficiaries or adults reported by Dharmarajan et al and Vashi et al). The authors found that a substantial proportion of rehospitalizations (27.7%) were accounted for by a relatively small number of admission diagnoses (n = 10), and they also documented wide variation in readmission rates across hospitals. In an accompanying editorial, Srivastava and Keren suggest that efforts to address readmissions should focus on conditions and patient characteristics associated with the higher readmission rates and greatest variation across hospitals, such as children with medical complexity. The authors suggest that at least for now, pediatric hospital readmission rates should not be considered as a hospital quality measure.

Four scholarly Viewpoints in this issue also provide novel insights about hospital readmissions. In their article on readmissions for heart failure, Vaduganathan and colleagues ask the provocative question, “What makes 30 days so special?” The authors suggest that because the 30-day readmission measure does not appear to be data driven or patient focused, this metric has the potential to result in more harm than benefit for patients with heart failure. In another Viewpoint, Jha suggests that for hospital pay-for-performance to be effective, 3 major issues need to be addressed: incentive size, incentive structure, and metric choice. Jha notes that effort should be focused on what is most important, ie, improving key clinical outcomes and giving hospitals the license to innovate and redesign care in a way that achieves that goal.

In a related Viewpoint, Farmer and colleagues point out that tension exists among quality measurement, public reporting of quality information, and pay for performance (all of which are involved with efforts to reduce hospital readmissions). The authors discuss how hospitals respond to the performance-related incentives and penalties have the potential to reduce the reliability of the administrative data on which these metrics are based. McCarthy and colleagues propose that readmissions should be considered within the broader systems and community contexts and suggest that risks and rewards emanating from policies intended to reduce readmissions should be shared among all entities that have a stake in improving care coordination, such as hospitals, ambulatory care practitioners, and community organizations. Taken together, these Viewpoints express important caveats about several fundamental aspects of approaches designed to reduce readmissions.

Collectively, the articles in this issue of JAMA contribute new information to the discussion surrounding 30-day hospital readmissions and raise the possibility that current well-intended policies designed to reduce readmissions may do more harm than good. However, further research and evaluation will be needed to address important questions and emerging issues, such as What are reasonable readmission rates? Are the comparison rates against which the readmission ratios are estimated set correctly to be valid metrics of quality of care? Considering the numerous comorbid diagnoses among many elderly patients, should a 30-day “one-size-fits-all” time frame be used as a standard measure for readmissions, or should readmission time frames be calibrated based on disease processes and patient characteristics? How well do readmission rates truly reflect hospital quality of care or processes of care? Given that the HRRP focuses on hospitals, but that interventions and services to reduce hospitalization also require involvement of non-hospital-based community resources and agencies, how will readmission penalties affect these entities?

Other important issues include the unintended consequences of efforts to reduce readmissions. For instance, the CMS diagnosis related group policy that pays fixed amounts for hospital care may have led to reductions in hospital length of stay that may in turn have contributed to higher readmission rates. This lesson suggests that policy makers should think of policies in concert to ensure providing the best of care, rather than creating individual mandates to save money.
Will this readmission penalty now result in increased hospital lengths of stay to ensure that patients are sufficiently stable and postcare transitions are in place prior to discharge? Will ED visits become longer and more complex as recently hospitalized patients are subjected to more extensive evaluations and possibly preferentially kept longer in observation units rather than being readmitted? How will shifting resource use be measured, such as expenditures for increased utilization of outpatient services, home health care, and community agencies? Will hospitals that care for largely poor, previously uninsured patients be excessively penalized? How will hospitals balance the potential revenue loss from incurring penalties for high readmission ratios against the investments necessary to enhance efforts to reduce readmissions, and what other opportunities will hospitals not be able to pursue because of these investments? If overall hospitalization rates decline, and hospitals cannot increase their market share, what will happen to inpatient-dependent intensive services, such as cardiology, radiology, and hospitalist care? Should children’s hospitals be involved in using this quality metric? And, perhaps the most important issue, how will patient outcomes and quality of life be affected by more stringent policies about readmissions as well as by increased efforts to improve care transitions and reduce fragmentation of health care services?

As the Patient Protection and Affordable Care Act continues to be implemented, the priority for physicians and other health care professionals, as well as for hospitals and other health care organizations, entities, and agencies, will be to make certain that patient care and well-being are of highest priority. Even though the incentives and penalties in provisions of the act such as those in the HRRP most likely will be effective in ensuring that Medicare and the health system can provide more “affordable care,” it will be even more important to ensure that programs such as these truly result in “patient protection” and higher-quality care.

**Conflict of Interest Disclosures:** The authors have completed and submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest and none were reported.

**REFERENCES**