EDITORIAL COMMENT

PUBLISHED BY ELSEVIER INC.

What's Harder: Seeing a Doctor or Reducing Readmissions?*



Adrian F. Hernandez, MD, MHS, †‡ Adam D. DeVore, MD†‡

s our nation increasingly emphasizes value-based health care, reducing hospital readmissions has become a central target for policy makers and health care systems. In 2008 and 2009, analyses of Medicare claims data highlighted the scope of the problem: nearly 1 in 5 Medicare beneficiaries were readmitted within 30 days of hospital discharge. Among those rehospitalized, the most common reason cited for the index hospitalization was heart failure (HF) (1,2). On the basis of what was paid to Medicare in 2005, the total estimated annual spending on preventable HF readmissions was nearly \$1 billion (1).

In hope of addressing this readmission problem, a number of federal policy changes ensued. In 2009, the Centers for Medicare and Medicaid Services (CMS) began public reporting of hospital readmission rates. In 2010, the Affordable Care Act was passed, which contained provisions aimed at improving the quality and value of health care in the United States. This Act included the Hospital Readmission Reduction Program, which contained provisions for cuts that CMS began imposing in 2012 on total Medicare reimbursements for higher-than-predicted readmission rates. Currently, CMS is testing new models of transitional care (3) and of reimbursement for

hospital-based care, such as bundled payments and accountable care organizations (4,5).

As public attention has surged toward preventing readmissions, there have been modest improvements in readmission rates. For example, unplanned risk-adjusted 30-day readmissions for Medicare beneficiaries with HF declined from 23.4% (25th to 75th percentile: 18.7 to 30.2) in 2010 to 21.9% (25th to 75th percentile: 17.0 to 28.2) in 2013 (6).

Despite these small victories, many questions remain. For example, which interventions work and which do not? Are there any truly scalable, equitable, efficient, and economical interventions? When trying to prevent readmissions, is it possible that there are unintended consequences for safe and effective care, such as "gaming the system" by placing barriers for readmission? Because it is often difficult to focus on the highest-risk patients, what patients should we focus on? Even with highly predictive tools that target patients at highest risk for readmission, it is challenging to integrate these tools into the flow of health care delivery, not to mention the institutional culture. Regrettably, there is no silver bullet capable of preventing rehospitalizations for the highest-risk patients (7,8).

SEE PAGE 765

In this issue of *JACC: Heart Failure*, Baker et al. (9) make a unique contribution to the field of transitional care, highlighting how "off-target" effects may be the most critical for reducing readmissions. Baker et al. (9) evaluated outcomes of Medicare patients discharged from hospitals participating in the Southeast Michigan "See You in 7" Collaborative. This Collaborative included 11 previously unaffiliated hospitals that volunteered to participate in a quality improvement program organized around strategies to encourage patient follow-up with a provider within 7 days of discharge, with the ultimate goal of reducing

*Editorials published in *JACC: Heart Failure* reflect the views of the authors and do not necessarily represent the views of *JACC: Heart Failure* or the American College of Cardiology.

From the †Department of Medicine, Duke University School of Medicine, Durham, North Carolina; and the ‡Duke Clinical Research Institute, Duke University School of Medicine, Durham, North Carolina. Dr. Hernandez has received honoraria from Amgen, AstraZeneca, Janssen, Merck, and Novartis; and research support from the Agency for Healthcare Research and Quality, American Heart Association, Amgen, AstraZeneca, Novartis, Merck, the National Heart Lung and Blood Institute, and Patient Centered Outcomes Research Institute. Dr. DeVore has received research funding from Amgen, American Heart Association, Maquet, Novartis, and Thoratec; and has consulted for Maquet.

HF readmissions. This initiative was based on a previous observational study of hospitalized HF patients that demonstrated how hospitals with high rates of early follow-up (i.e., outpatient follow-up within ≤7 days) were associated with lower rates of 30-day readmission than hospitals with more inconsistent early follow-up (10). Current guidelines now recommend scheduling provider follow-up examinations early after discharge (11), and recent quality improvement interventions have found an association between early follow-up for HF patients and reduced readmission rates (8,12). Hospitals participating in the See You in 7 Collaborative were given an American College of Cardiology See You in 7 toolkit to evaluate and improve early follow-up. This toolkit included process metrics (e.g., identifying patients with HF before discharge), a self-assessment tool, and resources like risk-assessment tools and tip sheets. Quality improvement champions at each site met regularly for learning sessions designed to share best practices.

The current investigators should be congratulated for a well-designed intervention that was multifaceted, allowing hospitals to experiment locally with the innovations that proved most useful to the individual health care environment. Unfortunately, hospitals in the collaborative were unable to significantly increase 7-day follow-up over the course of 1 year; 7-day follow-up only rose from 31% to 34% compared with 32% to 34% in matched hospitals in Michigan. Even 14-day follow-up was ≤50% for various hospital groups in the study. These rates are consistent with other national data (10) and are an important reflection of the current state of health care in the United States, yet it remains unclear why it is so difficult to move that needle. Possibly, our legacy fee-for-service system incentives full clinic schedules, thereby creating limited access for patients to make follow-up appointments. Furthermore, not all health care systems have fully integrated outpatient care networks, making transitional care challenging. In addition, considerations before hospital discharge, such as arranging transportation for follow-up visits or assessing a patient's ability to afford clinic copayments, are uncommon for many hospitals. Finally,

little is known about best practices for comprehensive follow-up. Regardless of the discharge-related timing, what we do know is that no patient benefits from fragmented or negligent care. When all these factors are taken into consideration, the passive recommendation to "follow-up in 1 week" does not seem so straightforward.

Despite the lack of improvement in early follow-up, all-cause 30-day risk-standardized readmission rates decreased more in Collaborative hospitals (from 31.5% to 28.5%) than in other hospitals in Michigan (from 26.7% to 26.1%) during the 1-year study, including a cohort of hospitals matched for size, region, and demographics. Nevertheless, it is unclear which tools in the toolkit led to this improvement. Due to other changes noted in the environment, these results were possibly due to overall cultural or environmental attention toward readmission among more motivated hospitals. To address this important source of bias, future studies should consider randomization schemes of different interventions, such as cluster-randomized trials or embedded randomization. A rigorous evidence base will be necessary going forward, as more attention is directed toward population health and accountable care. Although some may think meticulous studies of this nature are nearly impossible, there are many demonstrations of successful pragmatic trials emerging within health care delivery systems, such as the National Institutes of Health Collaboratory (13). There will undoubtedly be more opportunities to establish a better evidence base by leveraging national, reusable research infrastructure such as the National Patient-Centered Clinical Research Network (PCORnet), which can serve as a platform for testing new health system delivery models (14).

ACKNOWLEDGMENT The authors thank Erin Hanley, MS, for editorial contributions to this manuscript. Ms. Hanley did not receive compensation for contributions, apart from employment at the institution where this editorial comment was generated.

REPRINT REQUESTS AND CORRESPONDENCE: Dr. Adrian F. Hernandez, Department of Cardiology, Duke Clinical Research Institute, PO Box 17969, Durham, North Carolina 27715. E-mail: adrian.hernandez@duke.edu.

REFERENCES

- **1.** Medicare Payment Advisory Commission. June 2008 report to the Congress: reforming the delivery system. June 2008. Available at: http://www.amcp.org/WorkArea/DownloadAsset.aspx?id=11845. Accessed July 10, 2015.
- **2.** Jencks SF, Williams MV, Coleman EA. Rehospitalizations among patients in the Medicare fee-for-service program. N Engl J Med 2009;360: 1418-28.
- **3.** Centers for Medicare and Medicaid Services. Community-based care transitions program. Available
- at: http://innovation.cms.gov/initiatives/CCTP/. Accessed July 10, 2015.
- **4.** Centers for Medicare and Medicaid Services. Bundled payments for care improvment (BPCI) initiative. Available at: http://innovation.cms.gov/initiatives/bundled-payments/. Accessed July 10, 2015.

OCTOBER 2015:774-6

- 5. Centers for Medicare and Medicaid Services. Accountable care organizations: general information. Available at: http://innovation.cms.gov/ initiatives/ACO/. Accessed July 10, 2015.
- 6. Centers for Medicare and Medicaid Services. Medicare hospital quality chartbook: performance report on outcome measures. Available at: http:// www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/Down loads/Medicare-Hospital-Quality-Chartbook-2014. pdf. Updated September 2014. Accessed July 10, 2015.
- 7. Hansen LO, Young RS, Hinami K, Leung A, Williams MV. Interventions to reduce 30-day rehospitalization: a systematic review. Ann Intern Med 2011;155:520-8.
- 8. Bradley EH, Curry L, Horwitz LI, et al. Hospital strategies associated with 30-day readmission

- rates for patients with heart failure. Circ Cardiovasc Qual Outcomes 2013;6:444-50.
- 9. Baker H, Oliver-McNeil S, Deng L, Hummel SL. Regional hospital collaboration and outcomes in Medicare heart failure patients: See You in 7. J Am Coll Cardiol HF 2015;3:
- 10. Hernandez AF, Greiner MA, Fonarow GC, et al. Relationship between early physician follow-up and 30-day readmission among Medicare beneficiaries hospitalized for heart failure. JAMA 2010; 303:1716-22.
- 11. Yancy CW, Jessup M, Bozkurt B, et al. 2013 ACCF/AHA guideline for the management of heart failure: a report of the American College of Cardiology Foundation/American Heart Association Task Force on practice guidelines. J Am Coll Cardiol 2013;62:e147-239.
- 12. Ryan J, Kang S, Dolacky S, Ingrassia J, Ganeshan R. Change in readmissions and follow-up visits as part of a heart failure readmission quality improvement initiative. Am J Med 2013;126: 989-94.e1.
- 13. NIH Collaboratory. Website. Available at: www. nihcollaboratory.org/Pages/default.aspx. Accessed July 10, 2015.
- 14. PCORnet Health Systems Demonstration Projects. Web site. Available at: http://www.pcori.org/ funding-opportunities/announcement/pcornethealth-systems-demonstration-projects. Accessed July 10, 2015.

KEY WORDS heart failure hospital readmission, Medicare, transitional care