

Shifting the Dialogue From Hospital Readmissions to Unplanned Care

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Objectives: To propose a new measurement strategy to evaluate the intended impact of hospital readmission reduction programs on healthcare utilization.

Study Design: In Rhode Island, Healthcentric Advisors, the Medicare Quality Improvement Organization, has implemented a readmissions reduction program since 2008. We use data from this program to illustrate our proposed use of a bundled measure of unplanned post-hospital care.

Methods: We examined Medicare Part A claims for all Rhode Island fee-for-service Medicare beneficiaries from January 1, 2009, through December 31, 2011. To capture potential cost shifting, we evaluated emergency department (ED) visits, observation stays, and hospital admission and readmission rates annually, and in the 30 days after discharge from an inpatient stay. We also aggregated these data into 2 composite measures: acute-care utilization and post-hospital unplanned care.

Results: From 2009 through 2011 Rhode Island's annual and post-hospital ED and inpatient admissions rates decreased, while the corresponding observation stay rates (annual and post-hospital) increased. Both the acute-care utilization and post-hospital unplanned care decreased.

Conclusions: These data highlight the need to examine impact in the context of temporal trends and other environmental factors. Because readmissions are common and costly, national readmission reduction programs are proliferating. However, readmission rates provide an incomplete picture of unplanned care and costs and may lead to unintended consequences, such as increased observation stay rates. Our findings strengthen our argument that payers and policy makers should broaden their focus from readmission measures to unplanned care composite measures.

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For author information and disclosures,
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Hospital readmissions are both common and costly: approximately 19% of hospitalized Medicare beneficiaries are readmitted within 30 days for any cause,¹ and these readmissions account for an estimated \$15 billion in annual healthcare expenditures.² Current evidence suggests that interventions can reduce unnecessary readmissions and curb rising expenditures.² As a result, 30-day readmission rates have emerged as a national focus. Medicare targets readmissions via multiple quality improvement programs, including the Quality Improvement Organization (QIO) Program's 10th Scope of Work and the Partnership for Patients. Medicare also has payment strategies that incentivize providers to collaborate to reduce readmissions (ie, the Bundled Payments for Care Improvements Initiative) or penalize hospitals for readmissions (ie, the Readmissions Reduction Program).

However, focusing solely on readmissions provides an incomplete picture of unplanned care and costs and may lead to unintended consequences. For example, increases in observation stay rates¹ may reflect hospitals' strategies to replace funds lost due to Medicare's long-standing nonpayment policy for inappropriate admissions, or to its more recent nonpayment policy for unplanned readmissions. Increased observation stay rates can result in cost shifting rather than reduction, and can also increase patients' out-of-pocket costs for the care episode and for subsequent skilled nursing facility care, which is only covered after a qualifying 3-day hospital stay.

Proposing a Solution

We propose that a composite measure of unplanned care (including readmission, observation stays, and emergency department [ED] visits) will better capture those post-hospital services most likely to be avoided by better transition management and help to ensure that programs and policies have the intended effect of improving post-hospital care transitions and decreasing overall unplanned care, not simply reducing inpatient readmissions.

To illustrate our proposed solution, we use data from a readmissions reductions program in Rhode Island. Healthcentric Advisors, the state's Medicare QIO, has successfully implemented the program since 2008, when the organization was one of 14 Medicare QIOs to receive a competitive Medicare contract to pilot interventions to reduce hospital readmissions. The Safe Transitions Project sought to improve patient care transitions by implementing

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patient and provider interventions, such as standardized communication and the patient coaching model known as the Care Transitions Intervention (CTI).³ Healthcentric Advisors' local implementation of the CTI reduced the odds of re-admission 39% among Medicare patients who received coaching compared with those eligible but not approached for the intervention.⁴ Overall, Rhode Island's statewide annual all-cause 30-day readmission rates have decreased 3.7 per 1000 Medicare beneficiaries since the project began piloting patient- and system-level interventions such as the CTI (57.8 per 1000 in 2009 to 54.2 per 1000 in 2011).

Using Composite Measures of Unplanned Care

When Healthcentric Advisors launched the Safe Transitions Project in 2008, the project's leadership team recognized the need to demonstrate efficacy by reducing both readmission rates and overall costs. We hypothesized that our program would reduce 30-day hospital readmission rates and result in a net decrease in 30-day unplanned care.

To capture potential cost shifting, the authors evaluated ED visits, observation stays, and hospital admission rates among Medicare beneficiaries, in addition to 30-day readmission rates. We also aggregated these data into 2 unplanned care composite measures. The first captured overall acute-care use, including ED visits, observation stays, and hospital admissions, using Medicare fee-for-service claims for any diagnosis at facilities in Rhode Island during a calendar year. The second examined unplanned care by counting ED visits, observation stays, and hospital readmissions in the 30 days after discharge from an inpatient stay.

Examining Data and Results

We present Rhode Island data for 2009 through 2011 (Table). The data source is Medicare Part A claims for all Rhode Island fee-for-service (FFS) Medicare beneficiaries from January 1, 2009, through December 31, 2011. We calculated all rates as population-based rates per 1000 FFS Medicare beneficiaries, to account for changes in the denominator (admissions) and FFS Medicare market penetration over time, and use 12-month time periods to remove the effects of seasonality. We used SAS version 9.1 (SAS Institute, Inc, Cary, North Carolina) for all analyses.

From 2009 through 2011 Rhode Island's ED use decreased 4.4 visits per 1000 beneficiaries per year and inpatient admission rates decreased 12.1 per 1000. These decreases counterbalance a sharp increase in the rate of observation stays (+13.6 per 1000 beneficiaries). The composite acute care

Take-Away Points

National programs targeting hospital readmission rates are proliferating, and accurate measurement strategies are necessary to ensure that these programs have the intended impact on unplanned care and costs. Focusing narrowly on hospital readmission may lead to unintended consequences, such as increased observation stay rates. A bundled measure of unplanned post-hospital care could more accurately evaluate the intended impact on utilization.

measure decreased (–3.0 per 1000 beneficiaries). Our findings are similar for unplanned care within 30 days of discharge, with decreases in both ED visits (–3.1 per 1000 beneficiaries) and hospital readmissions (–3.7 per 1000 beneficiaries), and an increase in observation stays (+1.9 per 1000 beneficiaries), but an overall decrease in post-hospital unplanned care episodes (–4.9 per 1000 beneficiaries).

Broadening the Dialogue From Readmissions

These data highlight the need to examine the overall impact of readmissions reduction programs in the context of temporal trends and other environmental factors. For example, although our 30-day post-hospital observation stay and readmission findings are consistent with research observing a “substitution” of observation days for inpatient admissions,⁵ we need to assess the reasons for the observed increase in observation stays to avoid such unintended consequences (eg, incentivizing cost shifting from readmissions to observation stays) and to accurately estimate overall impact.

As with many quality improvement projects, we cannot directly attribute improvement in readmissions or the bundled composites of unplanned care to the program itself, rather than secular trends or concurrent activities. In fact, Healthcentric Advisors encourages healthcare providers and stakeholders to initiate or participate in multiple, interrelated interventions targeting identified root causes of poor transitions. It is not possible to separate these activities, which are collectively intended to change the culture of care and ensure sustainable systems change. Additionally, the overall Medicare population increased during this time, which may affect the risk pool if newly enrolled beneficiaries are younger or healthier than existing beneficiaries. The data points selected for comparison can also affect data interpretation.

Limitations

Our analyses have several additional limitations. First, we focus on 30-day unplanned care. We selected this time window to align with national readmission programs and policies, but unplanned care obviously can occur at any time and research is also needed to measure trends after 30 days. Second, we focus on unplanned care in certain hospital settings and

■ **Table.** Utilization Measures for FFS Medicare Patients in Rhode Island, 2009 to 2011

| Measure | 2009 | 2010 | 2011 | Difference, 2009 to 2011 ^a |
|---|--|----------------|----------------|--|
| | (N = 114,887) | (N = 119,767) | (N = 121,465) | |
| | Count (Rate per 1000 Medicare Beneficiaries) | | | |
| All acute-care utilization^b | | | | |
| 1. Emergency care | 47,225 (411.1) | 48,627 (406.0) | 49,391 (406.6) | -4.4 |
| SE | 1.45 | 1.42 | 1.41 | |
| 2. Observation stays | 6140 (53.4) | 7517 (62.8) | 8138 (67.0) | +13.6 |
| SE | 0.66 | 0.70 | 0.72 | |
| 3. Admissions | 33,648 (292.9) | 34,335 (286.7) | 34,107 (280.8) | -12.1 |
| SE | 1.34 | 1.31 | 1.29 | |
| Post-acute care composite measure | 87,013 (757.4) | 90,479 (755.5) | 91,636 (754.4) | -3.0 |
| SE | 1.26 | 1.24 | 1.24 | |
| 30-day unplanned utilization^c | | | | |
| 1. Emergency care | 9193 (80.0) | 9678 (80.8) | 9338 (76.9) | -3.1 |
| SE | 0.80 | 0.79 | 0.76 | |
| 2. Observation stays | 1089 (9.5) | 1271 (10.6) | 1381 (11.4) | +1.9 |
| SE | 0.29 | 0.30 | 0.30 | |
| 3. Readmissions | 6640 (57.8) | 6793 (56.7) | 6577 (54.2) | -3.7 |
| SE | 0.69 | 0.67 | 0.65 | |
| 30-day unplanned composite measure | 16,922 (147.3) | 17,742 (148.1) | 17,296 (142.4) | -4.9 |
| SE | 1.05 | 1.03 | 1.00 | |

Source: Authors' analysis of Medicare Part A claims for all Rhode Island fee-for-service Medicare beneficiaries from January 1, 2009, through December 31, 2011.

SE indicates standard error; FFS, fee-for-service.

^aMay not sum to baseline and remeasurement rates due to rounding.

^bFFS Medicare claims for any diagnosis or cause at any facility in Rhode Island. Excludes index hospitalizations with patients transferred to another acute-care hospital on the same day and those with patients who died during the index hospitalization or before 31 days after discharge.

^cFFS Medicare claims for any diagnosis or cause at any facility in any state, before 31 days after an inpatient admission at an acute-care facility in Rhode Island.

exclude outpatient (clinic and office) care because the latter are usually “planned.” Third, we have omitted the cost implications of this service use in order to keep this note brief, but note that hospital inpatient admissions are more costly than ED visits and observation stays and decreases in admissions and readmissions likely drive much of the cost avoidance. Finally, we do not know whether increased observation stays reflect changes in the acuity of the population or in hospitals' classification of patients as observation stays rather than inpatient admissions for payment reasons.

CONCLUSIONS

We propose that a composite unplanned care measure that includes hospital readmission, observation stays, and ED visits may be more informative and a more sensitive measure of post-hospital transition failures than focusing solely on hos-

pital readmission. The measure we suggest here is illustrative rather than definitive, and we expect further development to be fruitful.

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