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Medicare Hospital Readmissions at the Community Level

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Abstract

The Medicare Hospital Readmissions Reduction Program has been implemented in the United States for a five-year period. This study reviewed data associated with Medicare readmissions in the metropolitan area of Syracuse, New York during 2015 and 2016, the latest years available. The study data demonstrated that the total number of annual Medicare readmissions for the Syracuse hospitals increased from 2132 to 2202, while chain readmission rates declined from 8.30 to 7.65 as the at-risk population increased. The data also demonstrated that readmissions for diagnosis and procedure categories used in the Medicare program accounted for only 15 - 21 percent of total Medicare readmissions. The study suggested that the program should be expanded by including all Medicare readmissions and that it should employ more current data.

Keywords

Hospital, Hospital Readmissions, Medicare

1. Introduction

In recent years, interest in the relationship between increased health care efficiency and improved outcomes has increased in the United States. It has been demonstrated that more efficient care related to hospital admissions, lengths of stay, and readmissions is frequently associated with lower expenses [1].

Inpatient readmissions have been a major focus of interest in the improvement of hospital efficiency and outcomes. Beginning in 2012, Medicare implemented the Hospital Readmissions Reduction Program, which levied financial penalties on hospitals with readmission rates within 30 days that were higher than expected. The original list of conditions included readmissions for acute

myocardial infarction, heart failure and pneumonia. This list was expanded to include chronic obstructive pulmonary disease, total hip replacement, total knee replacement, and coronary artery bypass surgery [2] [3] [4].

The Medicare program has generated large amounts of fines from the hospitals that have received penalties. It has been estimated that Medicare has withheld approximately $1.9 billion from these acute care facilities [5]. It has been notable that efforts to repeal the Affordable Health Care Act have not included this program [4].

Available evidence indicates that the Medicare program has resulted in substantial reductions in hospital readmissions for the diagnoses and procedures that it includes. It also appears that it may be associated with some reductions in readmissions for other conditions and other health care payers [6] [7]. While this is a positive result for Medicare and its beneficiaries, more can be done.

2. Method

This case study evaluated the impact of the Medicare Hospital Readmissions Reduction Program in the acute care facilities of Syracuse, New York during 2015 and 2016. This area includes three acute care facilities, Crouse Hospital (19,478 discharges, 2016), St. Joseph's Hospital Health Center (25,101 discharges, 2016), and Upstate University Hospital (30,359 discharges, 2016).

The hospitals provide primary and secondary acute care to a population of approximately 600,000 and tertiary services to an eleven county region with a population of 1,400,000. Within these areas, approximately 15.5 percent of the population is aged 65 years and over.

Historically, the Syracuse hospitals have worked cooperatively to improve the outcomes and efficiency of care in the community. A number of these studies, with ethical clearance, have been conducted through the Hospital Executive Council.

All three of the Syracuse hospitals have received the Medicare readmission penalties through all five years of the program. Each of them has worked to reduce readmissions through various mechanisms.

This case study identified numbers of inpatient readmissions for the specific diagnoses and procedures included in the Medicare Program, pneumonia, chronic obstructive pulmonary disease, acute myocardial infarction, heart failure, hip replacement, knee replacement, and coronary artery bypass graft by quarter for January - December 2015 and 2016 in the Syracuse hospitals. These were the latest twelve month periods for which complete data were available. Because the Medicare penalty measurement periods are significantly retrospective, these data do not include the penalty periods. It also identified the total number of readmissions with Medicare as payor for each time period.

For each population, the data were identified by readmission chains, defined as an initial admission followed by at least one readmission within 30 days. The rates were computed by dividing the numbers of readmission chains for the diagnoses and procedures used in the Medicare Hospital Readmissions Reduction

Program by total Medicare hospital discharges excluding readmissions and expired patients.

The study data were developed using the Potentially Preventable Readmissions system developed by 3 M™ Health Information Systems. This is not the system that has been used in the Medicare program, but it was developed for use with all patients, regardless of payor [8].

3. Results

The study data are summarized in Table 1. They include combined readmissions for the specific Medicare diagnoses and procedures for the combined hospitals. They also include readmissions for the total Medicare population of the combined Syracuse hospitals.

The data demonstrated that the number of readmission chains for the combined diagnoses and procedures in the Medicare Hospital Readmissions Reduction Program ranged between 68 and 120 during the two year period. They produced readmission rates that ranged between 5.67 and 9.08 percent. The data demonstrated that the largest sources of readmissions were two chronic diseases, heart failure and chronic obstructive pulmonary disease.

The study data also demonstrated that the total numbers of Medicare readmission chains in the Syracuse hospitals ranged between 451 and 582 during the two year period. They produced readmission rates that ranged between 6.95 and 9.28 percent.

The data identified some seasonal variation in the readmissions and readmission rates for both the specific diagnoses and procedures and the total Medicare populations. In both cases, the lowest occurrence of readmissions occurred in the fourth quarter and the highest occurred in the first quarter.

The data indicated that, in the Syracuse hospitals, the numbers of Medicare readmissions for the specific diagnoses and procedures used in the Medicare Hospital Readmission Reduction Program comprised a limited percentage of

Table 1. Potentially Preventable Readmissions, primary acute care payor-Medicare, Syracuse hospitals, 2015-2016.

	2015					2016				
	Jan-Mar	Apr-Jun	Jul-Sept	Oct-Dec	Total	Jan-Mar	Apr-Jun	Jul-Sept	Oct-Dec	Total
Medicare Diagnosis & Procedures										
Readmission Chains	112	107	86	68	373	120	105	107	104	436
At Risk Population	1,238	1,287	1,126	1,199	4,850	1,322	1,329	1,331	1,372	5,354
Chain Readmission Rate	9.05	8.31	7.64	5.67	7.69	9.08	7.90	8.04	7.58	8.14
Total Medicare										
Readmission Chains	582	581	518	451	2,132	577	561	548	516	2,202
At Risk Population	6,271	6,503	6,438	6,490	25,702	7,031	7,276	7,205	7,270	28,782
Chain Readmission Rate	9.28	8.93	8.05	6.95	8.30	8.21	7.71	7.61	7.10	7.65

Source: Hospital Executive Council

total Medicare readmissions. In 2015, they accounted for 15.1 - 19.2 percent of the total. In 2017, they generated 18.7 - 20.8 percent of the total.

4. Discussion

The Medicare Hospital Readmissions Reduction Program is an effort to improve the efficiency and outcomes of health care. The Program effectively provides financial incentives to hospitals to reduce Medicare readmissions by penalizing those with the highest readmission rates. During its initial five years, the Program was associated with reductions in readmissions for the diagnoses and procedures that it addresses.

The data from this case study describe Medicare readmissions under the Program in the hospitals of Syracuse, New York. The data demonstrated that readmission rates were below 10 percent and that at least 90 percent of Medicare patients were not readmitted within 30 days.

The study data also demonstrated that the Program included only 15 - 21 percent of Medicare inpatient readmissions in the Syracuse hospitals. This information suggests that, five years after its initial implementation, the Program is addressing a relatively small proportion of Medicare readmissions.

The data also indicated that Medicare chain readmission rates for the diagnoses and procedures included in the Program were lower than those of the total Medicare population for four of the three month periods evaluated and higher than the other four. This information also suggested that the program is having a positive but limited impact within Medicare.

5. Conclusions

These data, along with the history of the Medicare Hospital Readmissions Reduction Program, suggest that Medicare needs to consider expanding this program to a much broader set of unplanned rehospitalizations, up to and including all of its inpatient utilization. This process could include adjustments in hospital financial penalties based on the experience of the current program.

The need to expand the Medicare Program is also supported by the relatively slow pace at which diagnoses and procedures have been added to it during the initial five years. Application of the initiative to all Medicare inpatients would permit inclusion and evaluation of its impact on a full range of conditions and support system wide improvements aimed at benefiting all patients rather than the selected disease specific efforts. System based efficiencies in the discharge process effect all patients. Improved communications, streamlined information sharing and improved continuity across care settings will improve patient outcomes across all populations and conditions. This should be promoted by CMS (Centers for Medicare and Medicaid Services).

Expansion of the Medicare readmissions program would also result in publication of more complete data which represent this indicator on hospitals. The current indicators are useful, but represent a very limited number of chronic disease and surgery populations. This approach would also result in a more fair

presentation of Medicare readmissions for hospitals.

Expansion of the Program might also open the possibility to provide more current information than is currently available. The provision of more recent readmission data would support hospital efforts to evaluate and improve readmissions and related outcomes.

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