Using MedPAR Data as a Measure of Urinary Tract Infection Rates: Implications for the Medicare Inpatient DRG Payment System

by Jerry Stringham and Nancy Young

Abstract

A valuable metric of hospital performance is the rate of nosocomial infections, particularly urinary tract infections (UTIs). Current measurement techniques are expensive to administer and are not widely available. Determining a measurement index of nosocomial UTI incidence using Medicare Provider Analysis and Review (MedPAR) data to make recommendations may better align hospital payment with delivery of quality healthcare. There is significant variation among hospitals' calculated nosocomial UTI rates. In a sample hospital, the hospital received an estimated $675,000 in additional payments from Medicare due to payments for secondary nosocomial UTIs. The Comparative MedPAR Nosocomial UTI Index is a meaningful tool for determining nosocomial UTI rates as a measure of hospital quality. Additional improvements to the tool include incorporating risk factors based upon initial 3diagnosis, Major Diagnostic Category (MDC), and other diagnoses. Patients would benefit if the Centers for Medicare and Medicaid Services (CMS) discontinued the practice of paying hospitals for hospital-acquired infections, as this practice discourages adoption of infection-reducing initiatives.

Key Words: Nosocomial UTI, Quality Measurement, MedPAR Claims Analysis

Introduction

Healthcare regulators and payers are increasingly interested in having statistical tools to assess the relative performance of hospitals in treating illness and reducing preventable complications. Currently, the Medicare payment system provides pay for services rather than for results, with adjustments made annually to coincide with the underlying costs of services. Medicare's Diagnosis-Related Group (DRG) payment system contains a disincentive for improvement because it provides additional payment for complications, even if those complications might have been prevented through quality enhancements. The Medicare Payment Advisory Commission (MedPAC) has promoted tying hospital payment to better quality.[1] For the first time, the Centers for Medicare and Medicaid Services (CMS) proposed a system to pay hospitals a bonus of 0.4 percent higher than their standard payment based upon reporting quality criteria. This proposed move of paying a bonus based upon quality criteria would represent a departure from the current service-based system and would eventually provide an additional incentive to improve quality. This paper addresses utilizing existing MedPAR data to determine nosocomial urinary tract infection (UTI) rates at Medicare hospitals and assesses how this potentially preventable complicating condition may affect payment levels to these hospitals.

Background

An important aspect of paying for quality is measuring quality; however, most quality tools proposed for use with Medicare patients would be burdensome to hospitals. A valuable metric of hospital performance is the nosocomial infection rate, particularly the rate of UTIs. The urinary tract remains a significant site for hospital-acquired infections, with 66 percent to 86 percent of UTIs being associated with urinary catheterization.[2] The prevention of UTIs represents a potentially rich opportunity to reduce the incidence of hospital-acquired infections.

Recent literature has indicated that it may be possible to use Medicare discharge data to obtain a meaningful measure of hospital quality performance. In their recent 11-state study, Needleman et al. discussed the applicability of Medicare discharge data as a substitute for measuring hospital quality for ten adverse patient reactions, including UTIs. Needleman et al. discussed the correlation of Medicare data to non-Medicare data and demonstrated that Medicare data are a strong proxy for data from

the entire population.[3] While Needleman et al. established the validity of using Medicare inpatient data to measure hospital complications, they did not address the issue of which hospitals are doing well in the prevention of UTIs or the role of Medicare's national payment system in providing incentives to reduce UTIs.

If a reliable metric could be developed, hospitals could take a number of steps to reduce their UTI rates among the Medicare patient population.[4] Needleman et al. indicated through regression analysis that increased nurse-to-patient ratios resulted in fewer hospital-acquired UTIs.[5] A number of studies have demonstrated that the use of silver-alloy coated urinary drainage catheters rather than standard urinary drainage catheters can lead to a reduction in UTIs.[6,7] Hospital training and safety practices have been linked to a reduction of nosocomial UTI rates.[8] Hospitals could evaluate the potential benefit of different programs based upon cost and quality effectiveness and then choose accordingly.

Research Question and Hypothesis

Existing Medicare data may provide a resource for determining hospital-specific nosocomial UTI rates for Medicare hospitals and a foundation to assess Medicare payments for nosocomial UTI infections. Because Medicare's current DRG payment system incorporates a disincentive for quality improvement related to complications, this paper examines whether nosocomial UTI rates vary significantly among Medicare hospitals and whether Medicare payments are shifted to higher-paying DRGs due solely to nosocomial UTIs.

Methods

The Medicare program is a national health insurance program intended for people aged 65 or older, some people under age 65 with disabilities, and people with end-stage renal disease. The national Medicare Provider Analysis and Review (MedPAR) file contains records of Medicare-covered inpatient discharges in the United States. Each patient record contains up to nine diagnosis codes, up to six procedure codes, claim costs and charges, the DRG, the length of stay, and many other admission-specific parameters. Each claim also contains the hospital's provider number, making it possible to correlate diagnoses with providers. MedPAR tracks discharges rather than patients, making a distinct record available for each patient encounter. For example, if a patient is admitted and discharged in January and is again admitted and discharged in September, MedPAR will produce two records for this patient. This permits analysis based on hospital encounters rather than on patients. To determine a measure of the potential number of preventable UTIs, we examined the principal and secondary diagnosis fields in the MedPAR data for specific UTI diagnosis codes.

Our analysis encompassed all patients discharged during the fiscal year ending September 30, 2002, as reported in the MedPAR data set. As a first step, we identified all claims in which the patient had a UTI diagnosis in any of the nine diagnosis fields, using ICD-9-CM diagnosis codes. The codes that we tracked to UTI are Urinary tract infection (599.0) and Infection and inflammatory reaction due to indwelling urinary catheter (996.64).

Determining MedPAR-Derived Hospital-Specific UTI Rates

Our formula to calculate the UTI rate was developed in a number of steps. We began with the following basic formula:

$$\frac{\text{Number of UTIs}}{\text{Number of Discharges}}$$

As a simple measure of UTI rate, we could use the above calculation. While this calculation does provide the percentage of patients who had a diagnosis of UTI (for fiscal year 2002, this figure is 10.14 percent), we are most interested in using MedPAR data to provide a valuable metric of nosocomial UTI rates per hospital.

Although the ICD-9-CM diagnosis codes do not lend themselves to distinguishing between nosocomial infections and infections unrelated to the quality of care at the hospital, MedPAR does distinguish between diagnoses by creating nine separate diagnosis fields. These fields are numbered sequentially, with the first diagnosis also known as the principal diagnosis. The principal diagnosis is defined as the diagnosis that most immediately caused the patient to be hospitalized. For example, if a diabetic patient breaks a hip and has hip surgery, the fracture would be the cause of the hospitalization, and the diabetes, which may complicate treatment, would be a secondary diagnosis. Other analyses have adjusted the number of UTIs by eliminating claims in which the patient was admitted with a principal diagnosis of UTI.[9]

Therefore, as a second step, we eliminated from our analysis all claims in which the principal diagnosis was UTI. If the patient was admitted with a UTI, the hospital could not have prevented the UTI, making it obvious that the UTI was not nosocomial. Thus, these claims were eliminated from both the numerator and the denominator of the formula. We refined the analytical data set by eliminating claims that included either of the ICD-9-CM UTI diagnosis codes as the principal diagnosis. Our revised formula became

$$\frac{[\text{Number of Total UTIs}] - [\text{Number of Principal-Diagnosis UTIs}]}{([\text{Number of Discharges}] - [\text{Number of Principal-Diagnosis UTIs}])}$$

For 2002, this resulted in a national figure of 8.69 percent.

Additionally, we reviewed patterns of secondary UTIs. We determined that a substantial number of these infections occurred in patients with diagnoses in Major Diagnostic Category (MDC) 18, Infectious and Parasitic Diseases. Of 311,891 patients in the 2002 data set assigned to DRGs within MDC 18, 101,428 (32.5 percent) had a secondary UTI. We concluded that hospitals with a high number of admissions within MDC 18 would have a bias toward less favorable UTI statistics and therefore MDC 18 UTI rates should be examined separately. There were no significant differences in secondary UTI rates among the other MDCs. Thus, to fairly compare hospital performance, we did not include claims associated with MDC 18 in establishing the comparative hospital-specific UTI metric.

The principal diagnoses associated with the 101,428 secondary UTIs in MDC 18 that were separated are shown in Table 1. Table 1 includes the ICD-9 diagnosis code, its description, and the number of discharges having UTI as a secondary diagnosis, as reported in the 2002 MedPAR data.

TABLE 1: MDC† 18 Principal Diagnoses (Separated from Data Analysis)

Principal Diagnosis	Diagnosis Description*	Number of Secondary UTIs‡ in 2002
0020	Typhoid Fever	1
0031	Salmonella Septicemia	58
00329	Local Salmonella Inf Nec	3
0038	Salmonella Infection Nec	1
0039	Salmonella Infection Nos	11
0051	Botulism	3
01795	Tb Of Organ Nec-Histo Dx	1
01805	Ac Miliary Tb-Histo Dx	2
01806	Ac Miliary Tb-Oth Test	1
01890	Miliary Tb Nos-Unspec	5
01892	Miliary Tb Nos-Exam Unkn	1
01893	Miliary Tb Nos-Micro Dx	2
0218	Tularemia Nec	1
0219	Tularemia Nos	1
0239	Brucellosis Nos	1
024	Glanders	1
0270	Listeriosis	28
0272	Pasteurellosis	4
0312	Dmac Bacteremia	6

0318	Mycobacterial Dis Nec	2
0319	Mycobacterial Dis Nos	1
03289	Diphtheria Nec	1
0329	Diphtheria Nos	1
0362	Meningococcemia	13
037	Tetanus	2
0380	Streptococcal Septicemia	4,477
03810	Staphylcocc Septicem Nos	1,297
03811	Staph Aureus Septicemia	6,916
03819	Staphylcocc Septicem Nec	3,488
0382	Pneumococcal Septicemia	583
0383	Anaerobic Septicemia	478
03840	Gram-Neg Septicemia Nos	1,784
03841	H. Influenae Septicemia	69
03842	E Coli Septicemia	17,768
03843	Pseudomonas Septicemia	1,746
03844	Serratia Septicemia	171
03849	Gram-Neg Septicemia Nec	7,125
0388	Septicemia Nec	3,193
0389	Septicemia Nos	42,664
0398	Actinomycosis Nec	9
0399	Actinomycosis Nos	1
0400	Gas Gangrene	21
04089	Bacterial Diseases Nec	11
04101	Streptococcus Group A	1
04102	Streptococcus Group B	1
04104	Enterococcus Group D	17
04105	Streptococcus Group G	1
04110	Staphylococcus Unspcfied	6
04111	Staphylococcus Aureus	41
04119	Other Staphylococcus	5
0412	Pneumococcus Infect Nos	1
0413	Klebsiella Infect Nos	9
0414	E. Coli Infect Nos	42
0416	Proteus Infection Nos	8
0417	Pseudomonas Infect Nos	14
04183	Clostridium Perfringens	1
04184	Other Anaerobes	5
04185	Oth Gram Negatv Bacteria	10

04186	Helicobacter Pylori	14
04189	Oth Specf Bacteria	10
0419	Bacterial Infection Nos	6
0527	Varicella Complicat Nec	1
0528	Varicella Complicat Nos	1
0529	Varicella Uncomplicated	12
05379	H Zoster Complicated Nec	59
0538	H Zoster Complicated Nos	2
0545	Herpetic Septicemia	2
05479	H Simplex Complicat Nec	6
0578	Viral Exanthemata Nec	1
061	Dengue	8
0661	Tick-Borne Fever	3
0663	Mosquito-Borne Fever Nec	67
0729	Mumps Uncomplicated	1
0739	Ornithosis Nos	1
075	Infectious Mononucleosis	13
0785	Cytomegaloviral Disease	33
07889	Oth Spec Dis Viruses	10
0792	Coxsackie Virus Inf Nos	1
0796	Resprtry Syncytial Virus	1
07989	Oth Specf Viral Infectn	4
07999	Viral Infection Nos	362
0820	Spotted Fevers	9
08240	Ehrlichiosis Nos	14
08241	Ehrlichiosis Chafeensis	1
08249	Ehrlichiosis Nec	4
0839	Rickettsiosis Nos	1
0840	Falciparum Malaria	1
0842	Quartan Malaria	1
0848	Blackwater Fever	1
0879	Relapsing Fever Nos	1
08881	Lyme Disease	20
08882	Babesiosis	5
0889	Arthropod-Borne Dis Nos	1
0919	Secondary Syphilis Nos	1
0920	Early Syph Latent Relaps	1
0929	Early Syphil Latent Nos	1
0958	Late Sympt Syphilis Nec	1

096	Late Syphilis Latent	2
0970	Late Syphilis Nos	1
0971	Latent Syphilis Nos	8
0979	Syphilis Nos	4
1009	Leptospirosis Nos	4
1125	Disseminated Candidiasis	267
11289	Candidiasis Site Nec	19
1129	Candidiasis Site Nos	2
1143	Progress Coccidioid Nec	6
11590	Histoplasmosis Nos	3
11599	Histoplasmosis Nec	2
1160	Blastomycosis	6
1173	Aspergillosis	75
1175	Cryptococcosis	51
1176	Allescheriosis	1
1177	Zygomycosis	6
1179	Mycoses Nec & Nos	90
1259	Filariasis Nos	1
1288	Helminthiasis Nec	1
1307	Toxoplasmosis Site Nec	2
1318	Trichomoniasis Nec	1
1368	Infect/Parasite Dis Nec	1
1369	Infect/Parasite Dis Nos	41
4878	Flu W Manifestation Nec	19
7806	Fever	1,283
78559	Shock W/O Trauma Nec	526
7907	Bacteremia	3,231
7908	Viremia Nos	14
7953	Nonspec Positive Culture	2
9583	Posttraum Wnd Infec Nec	37
99851	Infected Postop Seroma	68
99859	Other Postop Infection	2,777
9993	Infec Compl Med Care Nec	82

† Major Diagnostic Category

*Short ICD-9-CM diagnosis descriptions as used by the Centers for Medicare and Medicaid Services (http://www.cms.hhs.gov/providers/pufdownload/default.asp#icd)

‡ Urinary Tract Infections

The comparative hospital-specific nosocomial UTI rate calculation then became

$$\frac{[\text{Number of Discharges with Secondary But Not Principal UTI}] - [\text{Number of Secondary UTIs in MDC 18}]}{[\text{Number of Total Discharges}] - [\text{Number of Principal UTIs}] - [\text{Number of Discharges in MDC 18}]}$$

This calculation led to a national average nosocomial UTI rate of 8.10 percent for the fiscal year ending September 30, 2002.

Results

Of the 13,021,642 discharges in the 2002 MedPAR database, 12,502,700 were used in the nosocomial UTI rate calculations for each hospital. Approximately 200,000 were not used because the patient was admitted with a principal diagnosis of UTI, and approximately 310,000 were not used because the patient had a principal diagnosis in MDC 18, Infectious and Parasitic Diseases. Overall, there were 1,012,041 qualifying UTIs out of the 12,502,700 discharges, or a national rate of 8.10 percent.

Hospital Performance

The analysis showed that there is significant variation among hospitals' nosocomial UTI rates. We obtained data from every hospital in the MedPAR database having at least one UTI reported in any of the diagnosis fields. Using this measure, which we call the Comparative MedPAR Nosocomial UTI Index, and examining just 1,000 of the largest hospitals in the United States (as measured by the total number of discharges reported in the data set), the top ten lowest secondary UTI rates ranged from 3.10 percent to 4.09 percent (Table 2), and the top ten highest secondary UTI rates ranged from 13.42 percent to 15.49 percent (Table 3).

TABLE 2: Top 10 by Lowest Secondary Urinary Tract Infection Rate

Hospital	Location	Rate
Memorial Hospital for Cancer	New York, NY	3.10%
Rochester Methodist Hospital	Rochester, MN	3.29%
EMH Regional Medical Center	Elyria, OH	3.32%
St. Francis Hospital	Roslyn, NY	3.33%
University of Texas M. D. Anderson Cancer Center	Houston, TX	3.36%
St. Vincent Healthcare	Billings, MT	3.46%
St. Patrick Hospital Corp.	Missoula, MT	3.57%
Mercy Medical Center–Dubuque	Dubuque, IA	3.69%
Wheeling Hospital	Wheeling, WV	3.96%
St. Vincent's Hospital	Birmingham, AL	4.09%

TABLE 3: Top 10 by Highest Secondary Urinary Tract Infection Rate

Hospital	Location	Rate
Northside Hospital	St. Petersburg, FL	15.49%
Thomas Memorial Hospital	South Charleston, WV	15.37%
DePaul Health Center	Bridgeton, MO	14.49%
Palm Springs General Hospital	Hialeah, FL	14.41%
Good Samaritan Hospital	Baltimore, MD	14.33%
Oakwood Heritage Hospital	Taylor, MI	14.15%
Mercy Hospital & Medical Center	Chicago, IL	13.92%
Our Lady of Mercy Medical Center	Bronx, NY	13.86%
Memorial Medical Center	New Orleans, LA	13.66%

Brooklyn-Caledonian Hospital	Brooklyn, NY	13.42%

Implications for Medicare Reimbursement

Medicare pays hospitals using a payment algorithm whereby similar diagnoses and procedures are lumped into DRGs. The predominant belief among healthcare professionals is that hospitals are paid a given amount under this system regardless of the quality of care that is provided. However, the DRG payment system has a quality disincentive contained within the payment formula. The payment system frequently provides hospitals with additional payment if the patient acquires a UTI. This occurs when the principal diagnosis could be assigned to one of two DRGs, where one DRG is for a condition with complication or comorbidity (CC) and the other is for the same condition without CC.

As an example, transurethral resection of prostate (TURP; ICD-9-CM procedure code 60.29) is performed on two patients without comorbid conditions, and the patients subsequently receive temporary urinary drainage catheters. The hypothetical first patient receives catheter A and is treated at a hospital that has implemented an infection-reducing clinical practice program. The patient does not develop a UTI. The hospital is paid for DRG 337, Transurethral prostatectomy without CC. The hypothetical second patient receives the less-expensive catheter B in a hospital that does not have an infection-reducing program, and the patient develops a UTI. The hospital codes the UTI as a secondary diagnosis and is paid for DRG 336 (Transurethral prostatectomy with CC) because of the CC. In this case, Medicare pays an extra 44 percent for the potentially preventable secondary UTI diagnosis.

Hospitals can employ a combination of technologies, expenditures, and staff training to reduce UTI rates. In Saint's meta-analysis, he concluded that improved catheter technologies, such as silver-alloy urinary catheters that cost approximately $6 more than standard catheters, may be worth the additional cost.[1] While we cannot say with certainty that the patient who had a UTI would not have had a UTI if a different catheter had been used, randomized controlled studies do show a marked reduction in the incidence of UTIs in patients who receive anti-infective (silver-alloy) Foley catheters.[11-12]Hospitals with higher nurse-to-staff ratios have a lower incidence of UTIs.[13] Likewise, training programs have been shown to reduce the rate of nosocomial UTIs.[14-16]

Net Impact of DRG Shifts

To illustrate the net impact of DRG shifts on hospital reimbursement, we previously examined New York Hospital in detail.[17] Out of 9,987 total discharges having DRGs for which with-CC and without-CC options exist, we identified 784 claims at this hospital with a secondary UTI diagnosis (2001 MedPAR data). For each claim, we calculated the net financial impact of the complication, assuming the UTI complication was responsible for moving payment from the lower-paying (without-CC) DRG to the higher-paying (with-CC) DRG. For example, there were 17 claims in DRG 1 with a secondary UTI. Had these UTIs not been present, New York Hospital would have received approximately $14,439 less for each of these 17 claims, assuming no other CCs existed. The total difference in payment is over $245,000. Continuing this exercise for each DRG pair and then adding up the payment differences for all DRGs resulted in UTI-related complication payments of $4.5 million for this hospital.

Because a patient may have more than one complication or comorbid condition, we further analyzed how many of these claims would shift from a lower-paying DRG to a higher-paying DRG even if a UTI was not on the claim. As we had to examine each claim individually to make this assessment, we examined claims for three randomly selected DRGs. An analysis of New York Hospital's specific claims for three DRGs is detailed in Table 4. This table lists the DRG, the number of discharges with a secondary UTI, the number of discharges with a CC that is due to the secondary UTI, the percentage of discharges with a CC due to the secondary UTI, and the additional payment as a result of the CC due to the secondary UTI.

TABLE 4: New York Hospital-Additional Payments Related to Change in DRG*

DRG	Number of Discharges with Secondary UTI†	Number of Discharges with CC‡ Due to Secondary UTI†	Percentage of Discharges with CC‡ Due to Secondary UTI†	Additional Payment for CC‡
1	17	2	11.8%	$28,879
141	13	9	69.2%	$14,507
336	5	0	0.0%	$0

Total	35	11	31.4%	$43,386

* Diagnosis-Related Group
† Urinary Tract Infection
‡ Complication or Comorbidity

In this sample, the number of claims affected (i.e., claims for which the DRG shift was attributed solely to the secondary UTI) was reduced to 31 percent of the original number, and payment was reduced to 16 percent of the original potential dollar impact. Even if only 15 percent of the original claims shifted due to this change, a payment shift of $675,000 is a huge disincentive to investing in UTI reduction programs. By way of comparison, the cost to the hospital of converting to a more-expensive urinary drainage catheter would be about $50,000 for this group of 9,987 patients. If the results obtained in the anti-infective (silver-alloy) Foley catheter clinical studies followed the sample modeled results for this hospital, New York Hospital would stand to lose approximately $300,000 in reimbursement in addition to having to pay for the more-expensive urinary drainage catheters.

Discussion

The existing payment disincentive scenario works against the spirit of the DRG system. Hospitals' payments for identical patients receiving identical procedures should be the same. Hospitals could then base decisions on technology acquisition and quality improvement programs solely on the analysis of costs to be averted rather than factoring in lost revenue. Providing hospitals with incremental payment for nosocomial infections, especially when the infection might be preventable, is not good policy. This is particularly true for UTI, an often-preventable complication. Hospitals should have every financial incentive to improve patient care by making every possible effort to reduce the incidence of hospital-acquired infections.

CMS announced that it intends to provide a bonus for superior outcomes to hospitals based upon hospital performance measures. While it is advisable to measure nosocomial infection rates to influence hospitals' behavior by tying a portion of their payment directly to adverse reactions and quality, it is more urgent to remove the direct payments for adverse events under the Medicare DRG system. In the case of New York Hospital, total payments increased by an estimated $675,000 (for the 2001 fiscal year) because of higher payments for DRGs with complications or comorbidity. Such a financial system discourages the consideration and implementation of infection-reducing strategies. The UTI disincentive could be removed from the current system by excluding ICD-9-CM diagnosis codes 599.0 and 996.64 as complications in CMS's CC list. CMS should reconsider the advisability of a CC list in the inpatient payment system at all.

The measurement index described in this report is easily duplicated on a real-time basis. It provides a simple measurement for comparing hospital performance and evaluating outcomes for patients in the Medicare system.

The measurement does depend critically upon hospitals using similar criteria to code for UTIs. It is possible that the UTI diagnosis codes may be omitted from claims due to field limitation constraints or for nefarious reasons, such as to affect quality measurements. Even when coding is consistent, our analysis, like other analyses using national data sets, is limited in that we did not and could not distinguish between secondary diagnoses that were present upon admission and those that appeared after admission.[18-21] Lawthers et al. indicated that in 13 percent of surgical cases, the condition represented by a complicating condition (not just UTI) in their Complications Screening Program (CSP) was judged to be present upon admission and therefore not due to the patient's hospitalization.[22] The calculated UTI rate still may overstate the true number of nosocomial UTIs. The process does typically remove readmissions for recurrence of a prior UTI, as UTI is most frequently the principal diagnosis for such readmissions. Therefore, these patients are not included.

The inclusion of the date of onset of a complicating condition would be helpful in differentiating secondary diagnoses present upon admission from diagnoses acquired during the hospital stay. Our efforts to include procedures such as catheter placement in our formula were not successful, as hospitals do not typically include this procedure on the bill and it is not one of the six procedures reported on the claim. Ultimately, using data on hospitals' acquisition of specific drugs and number of urinary drainage catheters purchased may be helpful in developing more accurate estimates.

Conclusion

This paper discusses a new tool for measuring nosocomial UTI rates as a possible indicator of hospital quality. Hospitals showed marked differences in UTI rates. Since it is important to know whether hospitals use equivalent approaches to coding, additional studies comparing actual UTI rates to those derived from MedPAR data warrant further study. Additional improvements in the MedPAR-derived tool could be achieved by incorporating risk factors based upon initial diagnosis, MDC, other diagnoses, age, and source of admission. Analyzing an age cohort (e.g., all patients over 85 years of age) may also provide additional insight, particularly as the population continues to live longer. The UTI measurement system described here provides a meaningful comparative measure of hospitals' performance in preventing infections. Comparison between hospitals of UTI rates in patients with MDC 18 diagnoses may provide additional insight into the potential to reduce nosocomial UTI rates for these patients as well. Finally, patients would benefit if CMS discontinued the practice of paying hospitals for hospital-acquired urinary tract infections through the presence of CC codes in the DRG payment system. Such a system discourages adoption of infection-reducing initiatives in America's hospitals.

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Notes

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