Reducing Medically Inappropriate Admissions

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The Hospital Payment Monitoring Program (HPMP) is a Centers for Medicare and Medicaid Services (CMS) nationwide initiative to protect the Medicare Trust Fund. The program monitors and reduces inappropriate inpatient payments and ensures that Medicare pays only for services that are medically necessary.

Medicare covers approximately 44 million elderly and disabled Americans.[1] Annual Medicare spending accounts for 12% of the federal budget and 20% of the nation's total healthcare spending.[1]

The pervasiveness of improper payments across Medicare services was first investigated and estimated by the Office of Inspector General (OIG) in 1997. In 2003, CMS implemented the Comprehensive Error Rate Testing (CERT) and HPMP, formerly called the Payment Error Prevention Program, to estimate error rates and improper payment amounts for Medicare fee-for-service (FFS) claims.[2,3] From July 2005 to June 2006, it has been estimated that Medicare hospital inpatient payments accounted for 41% of the Medicare Trust Fund expenditures and 5% of these inpatient payments had been paid in error, with Medicare overpaying approximately $4.4 billion.[3]

Through HPMP, Quality Improvement Organizations (QIOs), 53 federally designated contractors covering all US states, territories, and the District of Columbia, are responsible for monitoring improper payments by ensuring that inpatient coding is accurate and that inpatient acute care hospitalizations are medically necessary. QIOs nationwide have implemented state-specific projects designed to address opportunities for improvement. This article highlights the project implemented in New Jersey. Healthcare Quality Strategies, Inc. (HQSI), the QIO for New Jersey, implemented a project with 15 hospitals that had a high proportion of short hospital stays (1- to 3-day stays) for 9 targeted diagnostic-related groups (DRGs). HQSI conducted baseline and remeasurement case review screening using InterQual® criteria* at the participating hospitals. Hospitals conducted full reviews of cases that failed HQSI screening and issued retrospective admission denials if cases were determined to be medically unnecessary admissions. Hospitals conducted root cause analyses, implemented quality improvement plans, and submitted monthly case review results to HQSI. HQSI provided educational sessions, materials, and individual and collaborative consultation to the hospitals.

Opportunities for Improvement

DRGs for the project were selected using Medicare inpatient paid claims for discharges in New Jersey in fiscal year (FY) 2005 and results from medical record review completed between November 2002 and May 2005. HQSI analyzed these data sets to identify DRGs with a high statewide discharge volume, high admission denial errors identified as a result of HQSI case review, and those representative of more than 50% of short hospital stays. Also taken into account were DRGs known to be associated with high risk for payment errors in 1-day hospital stays[3,4] (Table 1). Additional DRGs (noted in italics in Table 1) were selected because they are recognized as pairing with the targeted DRGs.

*InterQual® is a licensed software product produced by McKesson Health Solutions LLC. InterQual criteria are designed to assist nonphysician reviewers and can be used to determine the appropriateness of an admission and ongoing level of care for patients in multiple healthcare settings including acute hospital inpatients. The criteria are developed using current evidence-based clinical practice to determine if a referral to a physician for further review is indicated so that the physician can use his or her clinical expertise to approve or deny ongoing care in the present place of service and at the current level of care.

Methods of Assessing Improvement

An independent stratified random sample of 600 cases was drawn at baseline from July through December 2005 discharges and compared to another independent stratified random sample of 262 cases drawn at remeasurement from October 2006 through March 2007 discharges. HQSI utilized InterQual 2005 criteria for baseline and InterQual 2006 criteria for remeasurement to assess the appropriateness and medical necessity of each inpatient stay.

HQSI established a performance goal of a 45% reduction in the error rate of inappropriate short hospital stays (Table 2) from baseline to remeasurement, employing a confidence level of 0.01, a power level of 0.9, and a chi-square coefficient to assess the change in proportions.

HQSI staff conducted on-site screenings of medical records using InterQual criteria at each participating hospital. Records were identified as a potential admission denial if any of the preliminary concerns in Table 3 were identified.

Table 1. DRGs Selected for Project Analysis/ Intervention.

DRG	Description
DRG 143	Chest pain
DRGs *182*/183	Esophagitis, gastroenteritis, and miscellaneous digestive disorders age >17 with/without complications or comorbidity
DRG 243	Medical back problems
DRG 296/*297*	Nutritional and miscellaneous metabolic disorders age >17 with/without complications and comorbidity
DRG *014*/*015*/524	DRG 014: intracranial hemorrhages and stroke with infarct DRG 015: nonspecific cerebrovascular accident (CVA) and precerebral occlusion without infarct DRG 524: transient ischemia

Table 2. Indicator

Indicator–Proportion of inappropriate short hospital stays (length of stay [LOS] 1-3 days)

- *Numerator:* Count of records that failed InterQual screening criteria as potentially unnecessary admissions aggregated for all targeted DRGs in all selected hospitals
- *Denominator:* Count of records sampled for case review screening aggregated for all targeted DRGs in all selected hospitals

Table 3. Preliminary Concerns

Description

- Medical condition appears not to require inpatient hospital level of care.
- Services rendered appear not to require hospital level of care.
- Admission solely for a procedure that appears unnecessary.
- Admission solely for a procedure that appears to be noncovered by Medicare.
- Exempt unit—The stay was billed as a nonexempt unit, but was an exempt unit.
- Outpatient care billed as inpatient—The case was billed as inpatient, but it was outpatient.

Interventions

Based on past experience, HQSI knew that success in this project would require support from each hospital's administration. Therefore, HQSI's chief executive officer (CEO) sent individual letters to the CEOs of the project hospitals at the time initial case review began. These letters included information about the project and the reasons the hospital was selected for project participation. After case review screening was completed, HQSI sent a follow-up letter that included the analysis of each respective hospital's relevant data. HQSI guided each hospital in the development and implementation of a quality improvement plan (QIP). The QIP included conducting a root cause analysis to identify facility-specific opportunities that focused on the errors associated with admission denial errors in short hospital stays for the targeted DRGs.[5-7] HQSI also conducted a series of educational sessions and provided materials related to:

- Identifying inappropriate admissions
- Using outpatient observation[8] instead of inpatient admission (Table 4)
- Using Condition Code 44 for In-

patient Admission Changed to Outpatient if patient did not meet inpatient criteria[9,10] (Table 4)

One-on-one consultations, as well as presentations to hospital administrative and medical staff, were used as appropriate. Table 5 highlights activities undertaken by the participating hospitals and HQSI.

Project Results

Five hundred ninety-eight medical records (approximately 40 from each hospital) were screened at baseline. The remeasurement sample was 260 cases. Twelve of the 15 hospitals showed significant improvement ($P<0.05$) in reducing the proportion of inappropriate short hospital stays (LOS 1-3 days). The reduction in error rates ranged from 80.9% to 39.4%, and absolute reduction in inappropriate short hospital stays ranged from 30.6% to 74.9%. The average error rate, which is the project indicator and is defined as the percentage of cases that failed InterQual screening criteria for inpatient stays improved from 77.1% at the baseline to 40.4% at remeasurement. This is a significant absolute change of 36.7% ($P<0.0001$) and a reduction in error rate of 47.6% (36.7% divided by 77.1%), exceeding HQSI's 45% target goal.

An estimated annual savings of $11.3 million to the Medicare Trust Fund was achieved by the project.

Table 4. Definitions of Outpatient Observation and Condition Code 44

Outpatient Observation as Defined by the Medicare Program[8]

- Outpatient observation services are defined as a set of specific, clinically appropriate services, which include ongoing short-term treatment, assessment, and reassessment before a decision can be made regarding whether a patient requires further treatment as a hospital inpatient or if he or she is able to be discharged from the hospital.
- Observation services are furnished by a hospital on the hospital's premises, including the use of a bed and at least periodic monitoring by a hospital's nursing or other staff, which are reasonable and necessary to evaluate a given patient's condition and/or determine the need for a possible admission to the hospital as an inpatient.
- Such services are covered only when provided by the order of a physician or another individual authorized by state licensure law and hospital staff bylaws to admit a patient to the hospital or to order an outpatient test.

Condition Code 44 (Inpatient Admission Changed to Outpatient)[9,10]

Condition Code 44 is for use on outpatient claims only and applies when a physician ordered inpatient services, but on internal utilization review performed before the claim was originally submitted, the hospital determined that the services did not meet its inpatient criteria. All of the following must be met:

- The change in patient status from inpatient to outpatient is made prior to discharge or release while the beneficiary is still a patient of the hospital.
- The hospital has not submitted a claim to Medicare for inpatient admission.
- A physician concurs with the utilization review committee's decision.
- The physician's concurrence with the utilization review committee's decision is documented in the patient's medical record.

Estimated Annual Savings to Medicare Trust Fund

Table 6 presents the estimated dollar amount saved annually among 15 project hospitals. Assuming a sustained level of improvement, the estimated savings to the Medicare Trust Fund for 1 year following the conclusion of the project is approximately $11.3 million.

Throughout the project, it was clear that acute care inpatient hospital and medical staff were unaware of the rules and requirements of observation status versus acute care status. Many of the physicians and staff at the participating hospitals were not utilizing observation status because of medical community concerns that placing a patient on observation would result in a reduced level of care. However, as a result of HQSI's ongoing education on observation, which was designed to educate all levels of hospital staff involved in admitting patients, there was a greater level of acceptance and understanding of observation by the conclusion of the project. This was demonstrated through HQSI's interaction with hospital QI teams as well as the significant reduction in inappropriate admissions.

Discussions/Conclusions

An estimated annual savings of $11.3 million to the Medicare Trust Fund was achieved by the project. The project has demonstrated significant improvement in

Table 5. New Jersey's Short Hospital Stays Project Activities

Hospital Activities
- Organized a multidisciplinary Quality Improvement (QI) Team
- Performed an RCA and developed a Quality Improvement Plan (QIP)
- Implemented the QIP
- Submitted monthly interim monitoring reports (IMRs) to HQSI

HQSI Activities
- Provided guidance to assist each QI team in the RCA process
- Provided baseline, interim, and remeasurement detailed case review screening results and performance reports to assist hospitals in identifying areas needing improvement
- Provided guidance and assistance in QIP development
- Conducted a content analysis of QIPs and identified QI interventions that worked well in previous HQSI short stay projects and provided each selected hospital's QI Team with insights from these analyses
- Provided hospital QI team with a QIP template to guide its QI actions
- Monitored the progress of the hospitals through the IMRs. A target goal of 90% compliance by December 2006 was established for all hospitals.
- Provided the following education:
  - Conducted conference calls with hospitals to discuss best practices
  - Provided educational materials related to methods for identifying inappropriate admissions and the use of outpatient observation versus inpatient admission
  - Conducted a WebEx for physicians, utilization management staff, and billing staff who focused on inpatient admission versus outpatient observation and provided an overview of algorithms for applying the regulations to their facility for observation versus inpatient status
  - Provided case review samples of admission denials for short hospital stays, Frequently Asked Questions about Observation, and pamphlets about observation for physicians and patients
  - Provided an overview of Condition Code 44[9,10]
  - Recruited a physician champion to provide regional- and facility-specific continuing medical education (CME) programs for medical staff, physician advisors, and ED physicians on inpatient admission versus outpatient observation and physician documentation of patient status
  - Provided one-on-one consultation, as well as presentations to hospital administrative and medical staff

Table 6. Projected Post-Remeasurement Annual Savings

	DRG 143	DRG 014/015/ 524	DRG 243	DRG 182/183	DRG 296/297	DRG Total
Number of claims in FY 2005	2341	1661	440	1986	1186	7614
Average payment (based on 15 targeted hospitals for FY 2005 discharges)	$2769	$4961	$3900	$3952	$3956	NA
Percentage of cases failing HQSI baseline screening criteria	87.3%	60.6%	100.0%	79.9%	69.8%	77.1%
Percentage of cases failing HQSI remeasurement screening criteria	42.9%	32.0%	69.2%	40.3%	36.8%	40.4%
Absolute error reduction (baseline to remeasurement)	44.5%	28.6%	30.8%	39.6%	32.9%	36.7%
12 months' post-remeasurement savings*	$2,883,678	$2,353,554	$528,024	$3,106,988	$1,544,912	$11,350,225

* Savings=(Number of claims in 2005)*(Average payment)*(Absolute error reduction)

the knowledge and understanding by participating hospitals and their medical staff on the appropriate use of observation status and assessment of patient status at or prior to admission.

Use of standardized criteria, such as InterQual, has also proven to be effective in reducing inappropriate admissions in participating hospitals. HQSI's use of InterQual screening criteria for inpatient admission has motivated hospitals to use standardized criteria to supplement the clinical expert-

Provider Action

Impact on Hospitals and Those Who Work There

By using observation status, hospital staff can monitor patient status and prevent medically unnecessary admissions. Medically unnecessary admissions can result in admission denials, which become a financial loss to hospitals.

What Hospital Staff Need To Know

Observation is a *status,* not a place of patient care. Outpatient observation can be used to evaluate the need for possible inpatient admission. Observation can be converted to inpatient with a physician order to "admit as inpatient." Condition Code 44 can be used to change inpatient services ordered by physicians that did not meet inpatient criteria to outpatient claims prior to patient discharge or release.

What Hospitals And Their Staff Can Do

- Educate staff to differentiate between inpatient versus outpatient observation status and Condition Code 44.
- Improve physician documentation of admission orders (ie, observation versus acute) and clinically support the condition and treatment being provided.
- Establish observation beds or areas to allow for better follow-up of patient status.
- Develop disease-specific observation protocols.
- Establish routine hospital committee review of unnecessary admissions

ise of the utilization review (UR) and/or case management staff. Education and ongoing updates of standardized criteria are also critical for hospitals' UR/case management staff.

Still problematic for many hospitals is the issue of resource availability to perform timely, concurrent review during off hours and weekends to minimize medically unnecessary admissions. It is suggested that hospitals conduct a cost–benefit analysis regarding the allocation of additional staff who can be used to conduct concurrent review during off hours and weekends. These costs may be substantially offset by a reduction in denial of payment for medically unnecessary short hospital stays.

In replicating this project, an area for immediate focus and intervention in the emergency department (ED). Many patients with questionable acute care admissions arrive through the ED. Interventions that include assessing ED admissions resulting in short hospital stays, implementing education for ED physicians regarding identification of potential cases for observation, and developing systems that encourage early UR/case management review of these cases should provide solutions. ED physicians should be encouraged to recommend placing patients on observation status to the attending physician, in appropriate cases, until the attending physician can evaluate the patients for discharge or acute care admission. MPM

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