

Department of Health and Human Services

**OFFICE OF
INSPECTOR GENERAL**

**MEDICARE AND
BENEFICIARIES COULD
REALIZE SUBSTANTIAL
SAVINGS IF THE DRG
WINDOW WERE EXPANDED**



Daniel R. Levinson
Inspector General

February 2014
OEI-05-12-00480

EXECUTIVE SUMMARY: MEDICARE AND BENEFICIARIES COULD REALIZE SUBSTANTIAL SAVINGS IF THE DRG WINDOW WERE EXPANDED

OEI-05-12-00480

WHY WE DID THIS STUDY

The “DRG window” policy defines when outpatient services related to inpatient admissions are not paid for separately, but rather are considered to be included in the inpatient lump-sum payment. (This payment is known as the Medicare Severity Diagnosis Related Group (DRG) payment, hence the term “DRG window.”) Under the current DRG window, Medicare and beneficiaries do not pay separately for related outpatient services delivered within 3 days of an inpatient admission in a setting owned by the admitting hospital. Services that are provided by hospitals that share a common owner (i.e., multiple hospitals owned by the same corporation, hereinafter called affiliated hospitals) are not subject to the DRG window.

HOW WE DID THIS STUDY

We used 2010 and 2011 claims to identify the number of related outpatient services delivered both on the days prior to the DRG window at settings owned by admitting hospitals and on the days prior to the inpatient admission at affiliated hospital groups. We also used 2010 and 2011 claims to calculate the amounts Medicare and beneficiaries paid for these services.

WHAT WE FOUND

Medicare and beneficiaries could realize substantial savings if the DRG window were expanded. In 2011, Medicare and beneficiaries paid an estimated \$263 million for 4.3 million related outpatient services provided at settings owned by admitting hospitals in the 11 days prior to the DRG window. Medicare and beneficiaries could also realize savings if the DRG window were applied to other hospital ownership structures. In 2011, Medicare and beneficiaries paid an estimated \$45 million for 777,000 related outpatient services provided at hospitals affiliated with, but not owned by, admitting hospitals during the 3 days prior to inpatient admissions. Finally, Medicare and beneficiaries could realize additional savings if an expanded DRG window were applied to other hospital ownership structures. In 2011, Medicare and beneficiaries paid an estimated \$10 million for 157,000 related outpatient services provided at affiliated hospitals during the 11 days prior to the start of the DRG window.

WHAT WE RECOMMEND

DRG payments include many related outpatient services, but millions of related outpatient services are being paid for as separate services, even when they are provided in settings owned by admitting hospitals or at affiliated hospitals. To better ensure that more related outpatient services are covered by the DRG window, we recommend that CMS seek legislative authority to (1) expand the DRG window to include additional days prior to the inpatient admission and (2) expand the DRG window to include other hospital ownership arrangements, such as affiliated hospital groups. CMS did not concur with either recommendation.

TABLE OF CONTENTS

Objectives	1
Background	1
Methodology	5
Findings.....	12
Medicare and beneficiaries could realize substantial savings if the DRG window were expanded	12
Medicare and beneficiaries could realize savings if the DRG window were applied to other hospital ownership structures	15
Conclusion and Recommendations	18
Agency Comments and Office of Inspector General Response.....	20
Appendixes	21
A: Types of Inpatient and Outpatient Diagnosis Code Matches ...	21
B: Related Outpatient Services Provided at Settings Owned by Admitting Hospitals	22
C: Related Outpatient Services Provided at Affiliated Hospitals .	24
D: Agency Comments	26
Acknowledgments.....	28

OBJECTIVE

To determine how much money Medicare and its beneficiaries paid in 2011 for services related to inpatient admissions but not captured by the current DRG window policy.

BACKGROUND

The “DRG window” policy defines when outpatient services related to an inpatient admission are not paid for separately, but rather are considered part of the inpatient lump-sum payment.^{1, 2} This lump-sum payment, known as the Medicare Severity Diagnosis Related Group (hereinafter referred to as the “DRG”) payment, represents all operating costs associated with the inpatient admission, including costs for routine nursing services, radiology services, and laboratory services.³

DRG Window Criteria

If a Medicare beneficiary receives an outpatient service just prior to an inpatient admission, Medicare considers the service to be an extension of the inpatient admission and does not pay for it separately. Generally, Medicare does not pay separately for outpatient services so long as the services are (1) delivered within 3 days of an inpatient admission in an acute care hospital, (2) related to the upcoming inpatient admission, and (3) delivered in a setting wholly owned or operated by the admitting hospital.⁴ Payment for these outpatient services is included in the DRG payment for the inpatient admission.

Preadmission Services Delivered More Than 3 Days Before the Inpatient Admission

Although Congress determined that the DRG window should include services delivered within 3 days of the inpatient admission, 3 days is not a medical standard. The medical community has identified benefits to providing certain preadmission services weeks and sometimes months prior to an inpatient stay, notably for surgical inpatient admissions. For example, hematology experts from Stanford University encourage physicians to provide diagnostic services 30 days prior to a surgery.

¹ Ambulance services and maintenance renal dialysis services are the only outpatient services excluded from this rule. The Centers for Medicare & Medicaid Services (CMS) separately pays for ambulance services and maintenance renal services and never bundles these services into the DRG payment.

² Certain hospitals (such as psychiatric hospitals, rehabilitation hospitals, and children’s hospitals) are subject only to a 1-day DRG window. Social Security Act §§ 1886(a)(4) and (d)(1)(B).

³ 42 CFR § 412.2(c).

⁴ Ibid.

They claim this timeframe enables physicians to better identify and manage blood diseases such as anemia.⁵ Similarly, physicians from Yale University state that certain diagnostic services could be delivered 30 (and sometimes 90 or 180) days prior to a surgery.⁶

Services Related to the Inpatient Admission

Preadmission services can be either diagnostic or nondiagnostic. Diagnostic services are used to make diagnoses and include services such as laboratory testing and imaging services. Nondiagnostic services are used to treat diseases and include services such as minor surgical procedures. CMS defines diagnostic services using specific revenue codes and Current Procedural Terminology (CPT) codes.^{7,8} All services that CMS does not define as diagnostic are considered nondiagnostic.

CMS uses different methods to determine whether diagnostic or nondiagnostic services are related to an inpatient admission. The agency considers all diagnostic services performed within 3 days of an inpatient admission to be related to the inpatient admission.⁹ CMS considers all nondiagnostic services performed within 3 days of an inpatient admission to be related to the inpatient admission, unless the hospital indicates on the claim that the service is unrelated.¹⁰

Settings Subject to the DRG Window

Three types of settings are subject to the current DRG window: settings that are wholly owned by admitting hospitals, settings that are wholly operated by admitting hospitals, and admitting hospitals themselves.

A setting is wholly owned by the hospital if the hospital is the sole owner.¹¹ An example of a setting that is wholly owned is an outpatient clinic that is owned by a hospital.

A setting is wholly operated by the hospital if the hospital has exclusive responsibility for conducting and overseeing the setting's routine operations, regardless of whether the hospital also has policymaking

⁵ L.T. Goodnough, et al., "Management of preoperative anaemia in patients undergoing elective surgery," *ISBT Science Series*, Vol. 5, pp. 120–124, 2010.

⁶ Thomas M. Halaszynski, M.D., et al., "Optimizing postoperative outcomes with efficient preoperative assessment and management," *Critical Care Medicine*, Vol. 32, No. 4, 2004.

⁷ Revenue codes describe hospital accommodations and services. CPT codes are a set of codes, descriptions, and guidelines that describe procedures and services performed by physicians and other qualified health care providers.

⁸ CMS, *Medicare Claims Processing Manual*, Pub. No. 100-04, ch. 3 § 40.3.

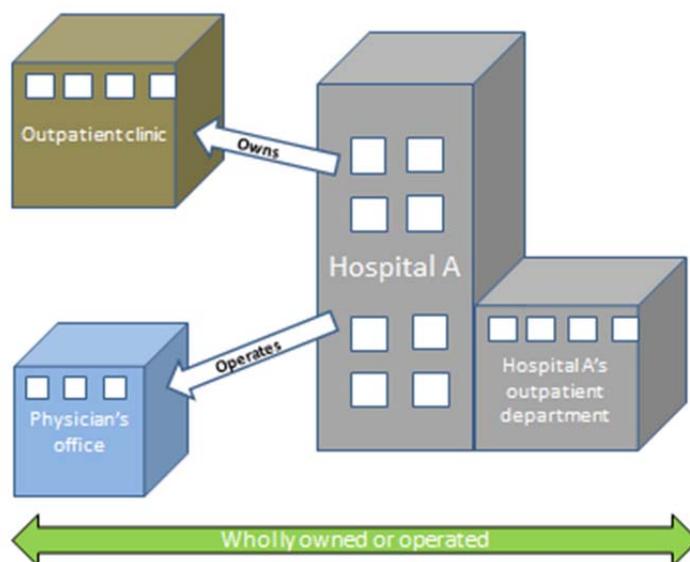
⁹ 42 CFR § 412.2(c)(5)(ii).

¹⁰ 42 CFR § 412.2(c)(5)(iv).

¹¹ 42 CFR § 412.2(c)(5)(i).

control over the setting.¹² An example of a wholly operated setting is a hospital-operated physician office. See Figure 1 for an example of settings wholly owned or operated by a hospital.

Figure 1: Example of Settings Wholly Owned or Operated by a Hospital



Source: Office of Inspector General (OIG) interpretation of CMS definition of “wholly owned or operated.”

For the remainder of this report, we will refer to all three of these settings (wholly owned by the admitting hospital, wholly operated by the admitting hospital, and the admitting hospital itself) as “owned by admitting hospitals.”

CMS uses different methods to determine whether hospital outpatient settings or physicians’ offices are owned by admitting hospitals. For hospital outpatient settings, CMS staff said they use an identification number unique to each hospital to identify claims where the outpatient setting is owned by the admitting hospital. In July 2012, CMS began requiring physicians’ offices to indicate whether the offices are owned by the admitting hospital when billing for a service that is subject to the DRG window policy.¹³ Physicians’ offices indicate this by placing a modifier on the claim.

¹² Ibid.

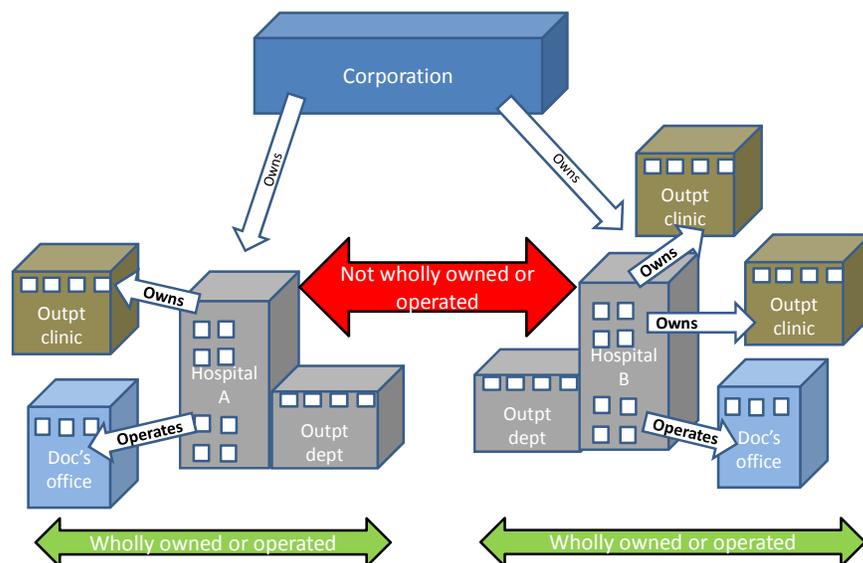
¹³ CMS, *Medicare Claims Processing Manual*, Pub. No. 100-04, ch. 12 §§ 90.7 and 90.7.1.

Other Hospital Ownership Structures

The current DRG window does not apply to at least one common ownership structure: hospitals that are owned by the same organization (hereinafter called affiliated hospitals).¹⁴

Affiliated hospitals make up an increasing portion of the current hospital market. In 2011, almost half of all acute-care hospitals and critical access hospitals reported being part of a chain organization.¹⁵ Further, an analysis of hospital acquisitions found that hospital consolidation had increased from 2009 to 2011.¹⁶ See Figure 2 for an example of a group of affiliated hospitals.

Figure 2: Example of a Group of Affiliated Hospitals



Source: OIG interpretation of CMS definition of “wholly owned or operated” and “not wholly owned or operated.”

Related Reports

OIG has a body of work related to the DRG window, spanning over 20 years. In this body of work, OIG has documented savings for Medicare if the DRG window were expanded beyond 3 days. In 1994, OIG found that Medicare and its beneficiaries could save a total of \$121 million on hospital outpatient services if Medicare expanded the DRG window to

¹⁴ 76 Fed. Reg. 73026, 73286 (Nov. 28, 2011).

¹⁵ OIG analysis of fiscal year (FY) 2011 cost reports. We considered an organization to be a “chain organization” if it owned more than one hospital.

¹⁶ Irving Levin Associates Inc., *The Health Care Acquisition Report: 18th Edition*, 2012.

7 days prior to an inpatient admission.¹⁷ In 2003, OIG found that Medicare and Medicare beneficiaries could save a total of \$72 million on hospital outpatient services for 10 select DRGs if the DRG window were expanded to 14 days.¹⁸

In both reports, OIG recommended that CMS consider seeking legislative authority to expand the DRG window. CMS concurred with this recommendation in 2003. However, CMS has not sought legislative authority to expand the DRG window beyond 3 days.

METHODOLOGY

We analyzed inpatient and outpatient claims and Medicare cost reports to identify how much Medicare and beneficiaries paid in 2011 for services related to inpatient admissions but not captured by the current DRG window policy. We included two types of services not captured by the current DRG window policy in our analysis: (1) those provided in settings owned by admitting hospitals on the days preceding the start of the DRG window and (2) those provided by hospitals affiliated with, but not owned by, admitting hospitals on the days preceding the inpatient admissions.

Scope

For this evaluation, we analyzed related services delivered in hospital outpatient settings. We did not analyze related services delivered in physicians' offices, as we were unable to confidently determine which physicians' offices were owned by admitting hospitals in 2011.

Sample Selection

The population we sampled consisted of all inpatient admissions to acute-care hospitals in the 2011 inpatient Standard Analytic File (SAF) that met the following four conditions:

1. The hospitals were subject to the 3-day DRG window (i.e., we excluded hospitals subject only to a shorter, 1-day DRG window, such as psychiatric hospitals, and hospitals not subject to any DRG window policy, such as critical access hospitals).^{19, 20}

¹⁷ OIG, *Expansion of the Diagnosis Related Group Payment Window*, A-01-92-00521, July 1994.

¹⁸ OIG, *Expansion of the Diagnosis Related Group Payment Window*, A-01-02-00503, August 2003.

¹⁹ Hospitals that were not subject to any DRG window policy were excluded from our analysis only when we identified inpatient admissions. They were included in our analysis when we searched for related outpatient services. Hospitals that were subject to a shorter, 1-day DRG window were not included when we searched for either inpatient admissions or related outpatient services.

²⁰ Critical access hospitals are small rural hospitals that are paid 101 percent of their reasonable costs for most inpatient and outpatient services.

2. The hospitals were located in one of the 50 U.S. States or Washington, D.C.
3. The beneficiaries were not enrolled in a Medicare managed-care plan.
4. Medicare paid for the admission.

The population consisted of 10.6 million inpatient admissions and 6.6 million Medicare beneficiaries. From this population, we selected a sample of 76,742 beneficiaries associated with 122,868 inpatient admissions by selecting all claims for approximately 1 percent of beneficiaries, using the eighth and ninth digits of the beneficiaries' Medicare numbers to identify members of our sample. We treated this sample as a simple random sample to make population estimates.

Data Collection

Standard Analytic File. We used the 2010 and 2011 outpatient SAF to identify outpatient services delivered up to 14 days prior to the inpatient admissions in our sample. We also used the 2010 and 2011 outpatient SAF to describe the types of related outpatient services provided outside the DRG window.

Medicare cost reports. We used FY 2011 cost-report data to identify groups of affiliated hospitals.²¹

Data Analysis

Identifying related outpatient services provided at settings owned by admitting hospitals outside the DRG window. We used the following steps to identify related outpatient services provided at settings owned by admitting hospitals outside the DRG window:

1. We identified all 2011 acute care inpatient admissions subject to the DRG window.
2. Using these inpatient admissions, we identified any outpatient services delivered between 4 and 14 days prior to an inpatient admission to the same beneficiary. We selected this timeframe because OIG had previously recommended expanding the DRG window to 14 days prior to the inpatient admission. We performed this analysis using the Medicare number, date of admission for the

²¹ Hospitals submit cost reports based on their fiscal years rather than calendar years. Because the start of fiscal years varies across hospitals, cost reports are submitted at different times.

inpatient claim, and the date of service for the corresponding line item on the outpatient claim.²²

3. Next, for these outpatient services, we determined whether they were provided at settings owned by admitting hospitals. We did this by using an exact match of the hospital identification number on the outpatient and inpatient claims. According to CMS staff, the agency uses the hospital identification number in its claims processing systems to determine whether claims submitted during the DRG window were performed at outpatient settings owned by admitting hospitals.
4. Using the same outpatient services identified previously, we determined whether these services were related to the upcoming inpatient admission. We made this determination on the basis of a match of the first three digits of the admitting, primary, or secondary diagnosis codes for hospital inpatient and outpatient claims.²³ We did not match all five digits of the diagnosis codes for two reasons. First, the World Health Organization (the body that develops diagnosis codes) states that the first three digits of a diagnosis code appropriately describe the major disease category, while the fourth and fifth digits provide additional detail and specificity.²⁴ Second, CMS believes that the five-digit match would “impermissibly limit” the number of outpatient services related to an inpatient admission.²⁵ Approximately 50 percent of related outpatient services were identified because the primary diagnosis code on the outpatient claim matched the primary diagnosis code on the inpatient claim. See Appendix A for the number and percentage of each combination of inpatient and outpatient diagnosis code matches included in this dataset.

We relied on these four steps, rather than other data in the claims or current CMS policies, to determine whether diagnostic and nondiagnostic services were related to inpatient admissions beyond the DRG window. In the DRG window, CMS considers all diagnostic services to be related to

²² Multiple line items can be billed on a claim. Each line item represents a unique service.

²³ A match between the first three digits of the admitting, primary, or first-listed secondary diagnosis codes on the inpatient claim and the first three digits of the primary or first-listed secondary diagnosis codes on the outpatient claim were classified as related for this analysis.

²⁴ World Health Organization, *International Statistical Classification of Diseases and Related Health Problems 10th Revision Volume 2 Instruction Manual*, ch. 6.8.

²⁵ Prior to June 2010, CMS used a five-digit match to determine whether nondiagnostic services were related to an inpatient admission. 76 Fed. Reg. 51476, 51707 (August 18, 2011).

the inpatient admission. Additionally, in the DRG window, CMS considers nondiagnostic services to be related to an inpatient admission unless hospitals indicate that a service is unrelated using a specific code on the claim. Hospitals do not use this code outside the DRG window.

We ultimately identified 50,475 related outpatient services provided at settings owned by admitting hospitals and matched them to 5,662 inpatient admissions. These inpatient admissions represent 5 percent of all admissions in our sample.

Identifying related outpatient services provided at affiliated hospitals. We used the steps previously described to identify related outpatient services provided at affiliated hospitals outside the DRG window, with the following exceptions:

1. We used chain ownership information provided in each hospital's FY 2011 cost report to identify groups of affiliated hospitals. We considered hospitals to be affiliated with one another if they provided the name and address of the same chain owner.
2. In step 2, we did not limit our matches to services delivered 4 or more days prior to the admissions. Rather, we included services provided on the date of admission and on the 14 days prior to admission (or, all services delivered within the timeframe of the DRG window, as well as during the 11 days prior to the start of the DRG window).
3. In step 3, we matched hospital identification numbers that were in the same group of affiliated hospitals, instead of using exact matches of the hospital identification numbers to find settings owned by admitting hospitals. We excluded exact matches so that settings owned by admitting hospitals were not included in this analysis.

FY 2011 cost reports were not available for 249 of the 4,029 hospitals in our sample. We considered each of these hospitals as not belonging to an affiliated group. Of the remaining 3,780 hospitals in our sample, 2,135 reported being owned by 1 of 326 separate chain owners.

We ultimately identified 10,929 related outpatient services provided at affiliated hospitals and matched them to 790 inpatient admissions. These inpatient admissions represent 0.6 percent of all admissions in our sample.

Approximately 54 percent of related outpatient services were identified because the primary diagnosis code on the outpatient claim matched the primary diagnosis code on the inpatient claim. See Appendix A for the number and percentage of each combination of inpatient and outpatient diagnosis code matches included in this dataset.

Number of related outpatient services provided outside the DRG window at settings owned by admitting hospitals and at affiliated hospitals. Using the matched dataset described above, we counted the number of related outpatient services to calculate the number of services provided at settings owned by admitting hospitals on the 11 days preceding the DRG window and at affiliated hospitals on the 14 days preceding the inpatient admission. We calculated point estimates and 95-percent confidence intervals to make population estimates from the sample counts for:

1. the total number of related services provided at settings owned by admitting hospitals during the 11 days preceding the DRG window;
2. the total number of related services provided at settings owned by admitting hospitals on each of the 11 days preceding the DRG window;
3. the total number of related services provided at affiliated hospitals during the time period of the DRG window (the day of the inpatient admissions and the 3 days prior);
4. the total number of related services provided at affiliated hospitals on each day covered by the DRG window, including the day of the inpatient admissions and the day immediately preceding the inpatient admissions, and on the 2nd and 3rd days preceding the inpatient admissions;
5. the total number of related services provided at affiliated hospitals during the 11 days preceding the DRG window; and
6. the total number of related services provided at affiliated hospitals during both the timeframe of the DRG window and during the 11 days preceding the DRG window.

We present point estimates and confidence intervals for multiple days to increase the precision of these estimates, as the sample sizes for some individual days were too small to calculate reliable estimates.

Amounts that Medicare and beneficiaries paid for related outpatient services provided at settings owned by admitting hospitals and at affiliated hospitals. Using the matched dataset described above, we summed Medicare payments to providers to calculate the amount Medicare paid for related outpatient services. These related outpatient services were provided at settings owned by admitting hospitals on the 11 days preceding the DRG window or at affiliated hospitals on the days included in the DRG window and the 11 days preceding the DRG window.

Similarly, we summed beneficiary deductible and coinsurance payments to providers to calculate the amount beneficiaries paid for related outpatient services provided at settings owned by admitting hospitals on the 11 days preceding the DRG window or at affiliated hospitals on the days included in the current DRG window and the 11 days preceding the DRG window. We calculated 95-percent confidence intervals for figures in the six scenarios described previously.

Types of related outpatient services provided at settings owned by admitting hospitals and at affiliated hospitals. We used the matched dataset described above and a list of diagnostic services from CMS to classify services as diagnostic or nondiagnostic. Then, we counted the number of each type of service provided at settings owned by admitting hospitals during the 11 days preceding the DRG window and at affiliated hospitals during the timeframe of the current DRG window, as well as during the 11 days preceding the DRG window. Finally, we calculated 95-percent confidence intervals for figures in the six scenarios described previously.

Additionally, we grouped the Healthcare Common Procedures Coding System (HCPCS) codes into Berenson-Eggers Type of Service (BETOS) categories.²⁶ We then summed the number of services in each BETOS category to identify the most common types of diagnostic and nondiagnostic services provided at settings owned by admitting hospitals on the 11 days preceding the DRG window and at affiliated hospitals on the days included in the current DRG window, as well as on the 11 days preceding the DRG window.

Limitations

We likely underestimated the number of services provided outside the DRG window. This happened for three reasons. First, as previously stated, we excluded physicians' offices owned by admitting hospitals from our analysis. Second, we were likely unable to identify all settings owned by admitting hospitals. CMS staff have acknowledged that there may be instances when a hospital outpatient setting is owned by the admitting hospital but bills using a separate identification number. Third, we may not have identified all related outpatient services by matching diagnosis codes on the inpatient and outpatient claims. We did not perform a medical record review on the claims in our sample to ensure that we had identified all related outpatient services provided outside the DRG window.

²⁶ HCPCS codes are used to describe outpatient services on claims. BETOS categories are used to group similar types of HCPCS codes into broad classes of services.

We may also have included some services in our analysis that were not related to the inpatient admission. We believe that our diagnosis code matching criteria resulted primarily in the identification of services that were related to the inpatient admission. However, as mentioned previously, we did not perform a medical record review on the services included in this analysis to confirm that the matching successfully identified related services in all cases. The number of services that we excluded from our analysis likely outweighs the number of nonrelated services that we may have included.

Finally, we likely underestimated the number of services that were provided at affiliated hospitals. FY 2011 cost reports were not available for 249 of the 4,029 hospitals in our sample. We were unable to determine whether these hospitals were affiliated with any other hospitals.

Standards

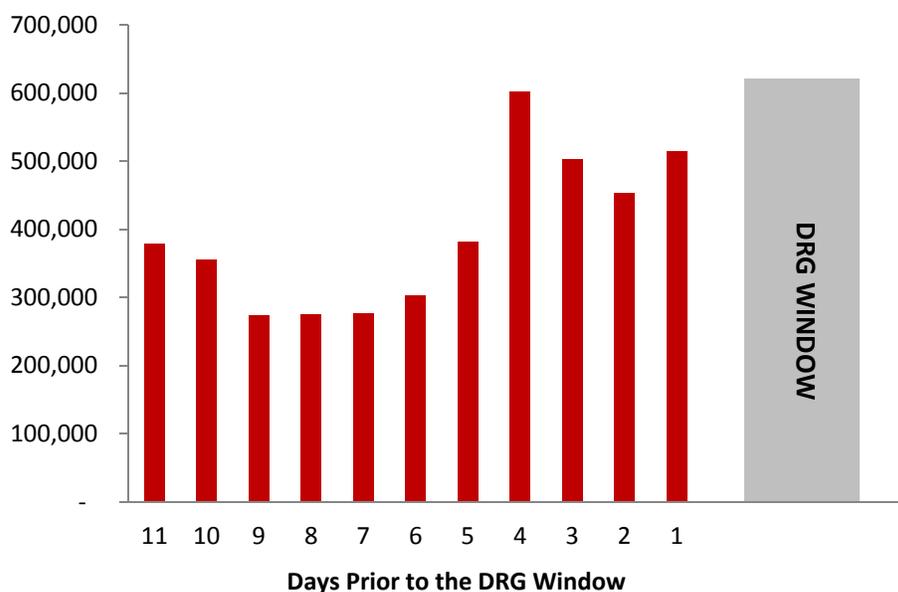
This study was conducted in accordance with the *Quality Standards for Inspection and Evaluation* issued by the Council of the Inspectors General on Integrity and Efficiency.

FINDINGS

Medicare and beneficiaries could realize substantial savings if the DRG window were expanded

If the DRG window were expanded to include more days preceding the inpatient admission, Medicare and beneficiaries could realize substantial saving by no longer paying for some outpatient services related to inpatient admissions. During the 11 days prior to the DRG window in 2011, Medicare and beneficiaries paid an estimated \$263 million for an estimated 4.3 million services provided at outpatient settings owned by admitting hospitals. See Figure 3 for per-day estimates of related services provided at settings owned by admitting hospitals. Additionally, see Appendix B for estimates of the number of services provided, the number of diagnostic and nondiagnostic services provided, and the amounts paid by Medicare and beneficiaries for related outpatient services provided at settings owned by admitting hospitals during the 11 days prior to the DRG window in 2011.

Figure 3: Estimated Number of Related Services Provided at Settings Owned by Admitting Hospitals During the 11 Days Prior to the DRG Window



Source: OIG analysis of inpatient and outpatient claims, 2013.

Medicare and beneficiaries would likely realize the highest cost savings during the 4 days immediately preceding the start of the DRG window. During the first 4 days preceding the DRG window, Medicare spent an

estimated average of \$24 million per day for related outpatient services, compared to an estimated average of \$15.9 million per day for services provided on the remaining days. Similarly, beneficiaries spent an estimated average of \$6.5 million per day for related outpatient services provided on the 4 days immediately preceding the DRG window, compared to an estimated average of \$4.3 million per day for services provided on the remaining days. See Table 1 for the point estimates and confidence intervals for the amounts Medicare and beneficiaries spent on the first 4 days compared to the remaining days preceding the DRG window. Additionally, see Figure 4 for estimates of per-day Medicare and beneficiary payments for related services provided at settings owned by admitting hospitals.

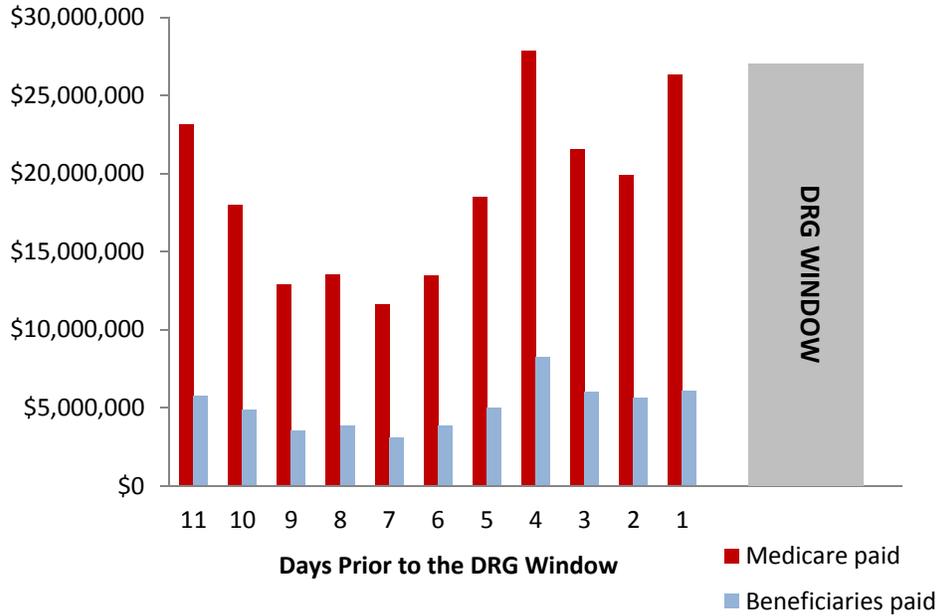
Table 1: Estimated Average Daily Amounts Paid by Medicare and Beneficiaries for Related Services Provided at Settings Owned by Admitting Hospitals During the 11 Days Prior to the DRG Window

Amount paid by	First 4 days immediately prior to the DRG window		Remaining days prior to the DRG window	
	Point estimate	95% confidence interval	Point estimate	95% confidence interval
Medicare	\$23,900,828*	\$21,270,201– \$26,531,456	\$15,881,926*	\$14,462,994– \$17,300,859
Beneficiaries	\$6,494,965*	\$5,931,567– \$7,058,364	\$4,286,652*	\$3,953,269– \$4,620,036

Source: OIG analysis of inpatient and outpatient claims, 2013.

*These point estimates are significantly different at the 95-percent confidence level.

Figure 4: Estimated Amounts Paid by Medicare and Beneficiaries for Related Services Provided at Settings Owned by Admitting Hospitals During the 11 Days Prior to the DRG Window



Source: OIG analysis of inpatient and outpatient claims, 2013.

Medicare and beneficiaries paid more for related nondiagnostic services than for diagnostic services during the 11 days prior to the DRG window even though beneficiaries received more related diagnostic services during that period. Of the estimated \$263 million Medicare and beneficiaries paid, an estimated \$180 million was for 1.4 million related nondiagnostic services. Examples of such services include the administration of drugs, minor procedures, and emergency room or office visits. The remaining \$83 million was for 2.9 million related diagnostic services. Examples of these services include laboratory tests, electrocardiograms, and imaging. See Table 2 for the point estimates and confidence intervals for the number of services received and amounts paid by Medicare and beneficiaries for diagnostic and nondiagnostic services.

Table 2: Estimated Services Received and Amounts Paid by Medicare and Beneficiaries for Diagnostic and Nondiagnostic Services Provided at Settings Owned by Admitting Hospitals During the 11 Days Prior to the DRG Window

	Services received by beneficiaries		Amounts paid by Medicare and beneficiaries	
	Point estimate	95% confidence interval	Point estimate	95% confidence interval
All services	4,315,769	4,149,200– 4,482,339	\$262,763,221	\$244,474,290– \$281,052,151
Diagnostic services	2,940,366*	2,831,977– 3,048,756	\$82,819,478*	\$77,983,456– \$87,655,500
Nondiagnostic services	1,375,403*	1,296,801– 1,454,005	\$179,943,743*	\$163,120,038– \$196,767,447

Source: OIG analysis of inpatient and outpatient claims, 2013.

*These point estimates are significantly different at the 95-percent confidence level.

Medicare and beneficiaries could realize savings if the DRG window were applied to other hospital ownership structures

If the current, 3-day DRG window policy were applied to groups of affiliated hospitals, Medicare and beneficiaries could save millions by no longer paying for some outpatient services that are related to inpatient admissions. During the timeframe of the current DRG window (the date of the inpatient admission and the preceding 3 days), Medicare and beneficiaries paid an estimated \$45 million for an estimated 777,000 related outpatient services provided at affiliated hospitals. See Appendix C for estimates of the number of services provided, the number of diagnostic and nondiagnostic services provided, and the amounts paid by Medicare and beneficiaries for those services provided at affiliated hospitals during the timeframe of the current DRG window in 2011.

Most of the services provided at affiliated hospitals were provided on the day of the inpatient admission or on the day immediately preceding the inpatient admission. On those 2 days, Medicare and beneficiaries paid an estimated \$42 million for an estimated 723,000 services. See Table 3 for the point estimates and confidence intervals for the amounts spent by Medicare and beneficiaries on the first 2 days compared to the remaining days preceding the inpatient admission.

Table 3: Estimated Average Daily Amounts Paid by Medicare and Beneficiaries for Related Services Provided at Affiliated Hospitals During the Timeframe of the Current DRG Window

	The day of the inpatient admission and the day immediately preceding it		The remaining 2 days in the DRG window timeframe	
	Point estimate	95% confidence interval	Point estimate	95% confidence interval
Amount paid by Medicare and beneficiaries	\$42,448,200*	\$37,736,578– \$47,159,823	\$2,858,334*	\$1,779,369– \$3,937,299

Source: OIG analysis of inpatient and outpatient claims, 2013.

*These point estimates are significantly different at the 95-percent confidence level.

Medicare and beneficiaries paid more for related nondiagnostic services than for diagnostic services during the timeframe of the current DRG window, even though beneficiaries received more diagnostic services during that period. Of the estimated \$45 million that Medicare and beneficiaries paid, an estimated \$27 million was for 293,000 related nondiagnostic services. Examples of such services provided during these 4 days include minor procedures, the administration of drugs, and emergency room or office visits. The remaining \$18 million was for 484,000 related diagnostic services. Examples of these services include laboratory tests, electrocardiograms, and imaging. See Table 4 for the point estimates and confidence intervals for the number of services received and the amounts spent by Medicare and beneficiaries for diagnostic and nondiagnostic services provided at affiliated hospitals.

Table 4: Estimated Services Received and Amounts Paid by Medicare and Beneficiaries for Diagnostic and Nondiagnostic Services Provided at Affiliated Hospitals During the Timeframe of the Current DRG Window

	Services received by beneficiaries		Amounts paid by Medicare and beneficiaries	
	Point estimate	95% confidence interval	Point estimate	95% confidence interval
All services	777,223	702,135–852,312	\$45,306,534	\$40,366,899–\$50,246,170
Diagnostic services	484,461*	436,511–532,410	\$18,465,170*	\$16,084,467–\$20,845,873
Nondiagnostic services	292,763*	262,517–323,009	\$26,841,365*	\$23,722,530–\$29,960,199

Source: OIG analysis of inpatient and outpatient claims, 2013.

*These point estimates are significantly different at the 95-percent confidence level.

Finally, Medicare and beneficiaries would realize even more savings if an expanded DRG window were applied to groups of affiliated hospitals. In 2011, an estimated 157,000 related outpatient services were provided at hospitals other than the admitting hospitals during the 11 days preceding the DRG window. These other hospitals were affiliated with the admitting hospitals. Medicare and beneficiaries paid an estimated \$10 million for these services. See Appendix C for a description of the number of services provided, the number of diagnostic and nondiagnostic services provided, and the amounts paid by Medicare and beneficiaries for those services provided at affiliated hospitals during the 11 days prior to the DRG window.

CONCLUSION AND RECOMMENDATIONS

The DRG window was intended to ensure that Medicare and beneficiaries were not paying the same organization twice for preadmission services that had been included in the DRG payment. However, the DRG window does not capture all preadmission services, as Medicare and beneficiaries paid the same organizations for millions of services that were related to inpatient admissions during the 11 days prior to the start of the DRG window in 2011. The DRG window may not have captured these related services because of evolving medical practices (e.g., performing preadmission services further from the date of admission to allow for treatment of any issues discovered).

Medicare and beneficiaries are paying admitting hospitals for related outpatient services provided on the days immediately preceding the start of the DRG window. In 2011, Medicare and beneficiaries paid \$263 million for related outpatient services provided at settings owned by admitting hospitals during the 11 days prior to the DRG window.

Medicare and beneficiaries are also paying organizations that own groups of affiliated hospitals for related outpatient services provided at hospitals affiliated with, but not owned by, admitting hospitals. In 2011, Medicare and beneficiaries paid \$55 million for related outpatient services provided at affiliated hospitals both during the timeframe of the current DRG window and during the 11 days prior.

If the DRG window policy were expanded to include more days, or expanded to include other hospital ownership structures, the policy would cover more related outpatient services. As a result, Medicare and beneficiaries could save money. To better ensure that the DRG window covers more related outpatient services, we recommend that CMS:

Seek legislative authority to expand the DRG window to include additional days prior to the inpatient admission

Medicare and beneficiaries would realize millions of dollars in savings for each additional day that the DRG window covered. In 2011, more than 4.3 million related outpatient services were provided at settings owned by admitting hospitals in the 11 days preceding the DRG window. The majority of those services were performed during the 4 days immediately preceding the start of the DRG window.

Although CMS has concurred with previous OIG recommendations to include additional days in the DRG window, CMS has also expressed concern that doing so may compromise beneficiaries' quality of care—specifically, that adding more days to the DRG window may incentivize providers to perform preadmission services too far in advance of the

admission date to be useful. However, guidance from the medical community suggests performing many preadmission services weeks or months in advance of an admission so that any problems can be identified and corrected. This guidance suggests that expanding the DRG window may not compromise the quality of care Medicare beneficiaries receive.

Seek legislative authority to expand the DRG window to include other hospital ownership arrangements, such as affiliated hospital groups

Almost half of all acute-care hospitals in the United States belong to a group of affiliated hospitals. However, services provided at affiliated hospitals are not covered by the current DRG window. CMS should expand the DRG window to treat affiliated hospital groups the same as settings owned by admitting hospitals. This would help to ensure that Medicare and beneficiaries are not paying the same organization—here, the chain owner of the affiliated hospital group—separately for related outpatient services.

AGENCY COMMENTS AND OFFICE OF INSPECTOR GENERAL RESPONSE

CMS did not concur with our first recommendation, to seek legislative authority to expand the DRG window to include additional days prior to the inpatient admission. CMS noted that adopting this recommendation would require legislation and that such a proposal is not currently included in the FY 2014 President's Budget. CMS also noted that we did not specify the number of days that the DRG window should be expanded.

CMS also did not concur with our second recommendation, to seek legislative authority to expand the DRG window to include other hospital ownership arrangements. CMS noted that adopting this recommendation would require legislation and that such a proposal is not included in the FY 2014 President's Budget.

We continue to recommend that CMS draft, and submit for review, two legislative proposals—one that expands the DRG Window to include additional days and one that expands the DRG Window to include other hospital ownership arrangements—for consideration for inclusion in future budget and legislative agendas. While CMS cannot dictate what legislative proposals are included in the President's Budget, CMS does have the authority to develop legislative proposals for Medicare. We look forward to CMS's final management decision in light of this clarification of the intent of our recommendations.

We leave the number of days that should be included in an expanded DRG window to CMS's discretion. Any number of days added to the DRG window would likely result in savings to Medicare and beneficiaries.

For the full text of CMS's comments, see Appendix D.

APPENDIX A

Types of Inpatient and Outpatient Diagnosis Code Matches

Table A-1: Types of Inpatient and Outpatient Diagnosis Code Matches in the Datasets Used To Identify Related Services Performed Outside of the DRG Window

Type of match (inpatient to outpatient)	Dataset used to identify related services performed outside the DRG window at:	
	Settings owned by the admitting hospitals	Settings affiliated with the admitting hospitals
Primary to primary	25,183 (50%)	5,888 (54%)
Primary to secondary	12,556 (25%)	1,531 (14%)
Admitting to primary	7,473 (15%)	2,411 (22%)
Admitting to secondary	3,478 (7%)	829 (8%)
Secondary to primary	754 (2%)	161 (2%)
Secondary to secondary	1,031 (2%)	109 (2%)

Source: OIG analysis of inpatient and outpatient claims, 2013.

APPENDIX B

Related Outpatient Services Provided at Settings Owned by Admitting Hospitals

Table B-1: Related Outpatient Services Provided at Settings Owned by Admitting Hospitals During the 11 Days Prior to the DRG Window

		Total number of related services	Amount paid by Medicare	Amount paid by beneficiaries	Total number of related diagnostic services	Total number of related nondiagnostic services
Day	N	Point estimate (95% confidence interval)	Point estimate (95% confidence interval)	Point estimate (95% confidence interval)	Point estimate (95% confidence interval)	Point estimate (95% confidence interval)
1	785	514,045 (466,190–561,899)	\$26,327,570 (\$18,514,191–\$34,140,949)	\$6,108,497 (\$5,129,731–\$7,087,263)	353,213 (318,918–387,509)	160,831 (141,600–180,063)
2	749	452,824 (410,321–495,328)	\$19,876,918 (\$16,794,375–\$22,959,462)	\$5,631,796 (\$4,716,881–\$6,546,710)	305,588 (275,909–335,267)	147,236 (128,018–166,455)
3	863	502,587 (459,311–545,864)	\$21,547,899 (\$18,024,613–\$25,071,184)	\$5,994,013 (\$5,028,420–\$6,959,607)	357,831 (325,894–389,768)	144,757 (126,190–163,323)
4	956	602,284 (553,204–651,364)	\$27,850,926 (\$23,503,372–\$32,198,481)	\$8,245,554 (\$6,883,178–\$9,607,930)	426,490 (390,109–462,870)	175,794 (154,691–196,898)
5	659	381,087 (342,380–419,795)	\$18,512,217 (\$15,058,849–\$21,965,585)	\$5,008,833 (\$4,095,940–\$5,921,725)	253,089 (226,432–279,747)	127,998 (108,873–147,124)
6	488	302,938 (266,754–339,121)	\$13,475,968 (\$11,094,171–\$15,857,766)	\$3,868,070 (\$3,116,785–\$4,619,356)	198,709 (173,476–223,943)	104,228 (87,649–120,808)
7	486	276,517 (243,181–309,854)	\$11,619,738 (\$9,782,853–\$13,456,624)	\$3,072,185 (\$2,557,819–\$3,586,551)	181,609 (158,200–205,018)	94,908 (80,409–109,408)
8	478	275,577 (243,029–308,125)	\$13,531,657 (\$10,706,588–\$16,356,726)	\$3,860,863 (\$3,074,076–\$4,647,650)	181,780 (158,735–204,825)	93,797 (79,134–108,460)
9	510	274,379 (242,567–306,192)	\$12,888,968 (\$9,990,899–\$15,787,037)	\$3,534,244 (\$2,811,478–\$4,257,009)	194,263 (170,281–218,245)	80,116 (67,253–92,980)
10	595	354,923 (317,271–392,576)	\$17,988,444 (\$14,221,441–\$21,755,448)	\$4,905,350 (\$4,034,026–\$5,776,675)	234,193 (208,026–260,360)	120,730 (103,038–138,423)
11	625	378,608 (340,480–416,735)	\$23,156,489 (\$17,513,902–\$28,799,076)	\$5,757,020 (\$4,777,269–\$6,736,772)	253,602 (226,549–280,656)	125,006 (107,427–142,584)

Source: OIG analysis of inpatient and outpatient claims, 2013.

Table B-2: Summary of Related Outpatient Services Provided at Settings Owned by Admitting Hospitals During the 11 Days Prior to the DRG Window

		Total number of related services	Amount paid by Medicare and beneficiaries	Total number of related diagnostic services	Total number of related nondiagnostic services
Day	n	Point estimate (95% confidence interval)			
All days	5,279	4,315,769 (4,149,200–4,482,339)	\$262,763,221 (\$244,474,290–\$281,052,151)	2,940,366 (2,831,977–3,048,756)	1,375,403 (1,296,801–1,454,005)

Source: OIG analysis of inpatient and outpatient claims, 2013.

APPENDIX C

Related Outpatient Services Provided at Affiliated Hospitals

Table C-1: Related Outpatient Services Provided at Affiliated Hospitals During the Timeframe of the Current DRG Window

		Total number of related services	Amount paid by Medicare and beneficiaries	Total number of related diagnostic services	Total number of related nondiagnostic services
Day	n	Point estimate (95% confidence interval)	Point estimate (95% confidence interval)	Point estimate (95% confidence interval)	Point estimate (95% confidence interval)
Inpatient Admission and DRG day 1	509	723,014 (651,598–794,430)	\$42,448,200 (\$37,736,578–\$47,159,823)	449,404 (403,816–494,992)	273,610 (244,834–302,386)
DRG days 2-3	67	54,209 (36,008–72,410)	\$2,858,334 (\$1,779,369–\$3,937,299)	35,056 (23,282–46,830)	19,153 (11,727–26,578)

Source: OIG analysis of inpatient and outpatient claims and cost reports, 2013.

Table C-2: Summary of Related Outpatient Services Provided at Affiliated Hospitals During the Timeframe of the Current DRG Window

		Total number of related services	Amount paid by Medicare and beneficiaries	Total number of related diagnostic services	Total number of related nondiagnostic services
Day	n	Point estimate (95% confidence interval)	Point estimate (95% confidence interval)	Point estimate (95% confidence interval)	Point estimate (95% confidence interval)
All days	551	777,223 (702,135–852,312)	\$45,306,534 (\$40,366,899–\$50,246,170)	484,461 (436,511–532,410)	292,763 (262,517–323,009)

Source: OIG analysis of inpatient and outpatient claims and cost reports, 2013.

Table C-3: Summary of Related Outpatient Services Provided at Affiliated Hospitals During the 11 Days Prior to the DRG Window

		Total number of related services	Amount paid by Medicare and beneficiaries	Total number of related diagnostic services	Total number of related nondiagnostic services
Day	n	Point estimate (95% confidence interval)	Point estimate (95% confidence interval)	Point estimate (95% confidence interval)	Point estimate (95% confidence interval)
All days	223	157,240 (124,627–189,853)	\$9,561,618 (\$7,225,066–\$11,898,169)	98,671 (79,129–118,212)	58,570 (41,439–75,700)

Source: OIG analysis of inpatient and outpatient claims and cost reports, 2013.

Table C-4: Summary of Related Outpatient Services Provided at Affiliated Hospitals During the Timeframe of the DRG Window and the 11 Days Prior to the DRG Window

		Total number of related services	Amount paid by Medicare and beneficiaries	Total number of related diagnostic services	Total number of related nondiagnostic services
Day	n	Point estimate (95% confidence interval)			
All days	741	934,463 (849,140–1,019,787)	\$54,868,152 (\$49,233,160–\$60,503,144)	583,131 (529,478–636,784)	351,332 (314,825–387,840)

Source: OIG analysis of inpatient and outpatient claims and cost reports, 2013.

APPENDIX D

Agency Comments



DEPARTMENT OF HEALTH & HUMAN SERVICES

Centers for Medicare & Medicaid Services

Administrator
Washington, DC 20201

DATE: DEC 13 2013

TO: Daniel R. Levinson
Inspector General

FROM: Marilyn Tavenner /S/
Administrator

SUBJECT: Office of Inspector General (OIG) Draft Report: "Medicare and Beneficiaries Could Realize Substantial Savings If the Diagnosis Related Group Window (DRG) Were Expanded, OEI-05-12-00480"

The Centers for Medicare & Medicaid Services (CMS) appreciates the opportunity to review and comment on above subject OIG Draft Report. OIG's objective for this report was to identify how much money Medicare and its beneficiaries paid in 2011 for services related to inpatient admissions but not captured by the current DRG window policy. Under the current DRG window, Medicare's hospital inpatient prospective payment system includes payment for all diagnostic services and related non-diagnostic services provided by the hospital (or by an entity wholly owned or operated by the hospital) to the patient during the 3-days immediately preceding the date of the patient's admission. The study calculated the potential savings associated with expanding the 3-day payment window to include more days preceding the inpatient admission and expanding it to affiliated hospitals.

OIG determined that in 2011, Medicare and beneficiaries paid \$263 million for related outpatient services provided at settings owned by admitting hospitals during the 11-days prior to the DRG window. Medicare and beneficiaries are also paying organizations that own groups of affiliated hospitals for related outpatient services provided at hospitals affiliated with, but not owned by, admitting hospitals. In 2011, Medicare and beneficiaries paid \$55 million for related outpatient services provided at affiliated hospitals both during the timeframe of the current DRG window and during the 11-days prior.

The OIG recommendations and CMS responses to those recommendations are discussed below.

OIG Recommendation

The OIG recommends that CMS seek legislative authority to expand the DRG window to include additional days prior to the inpatient admission.

CMS Response

The CMS does not concur with this recommendation. As OIG's recommendation indicates, adopting this recommendation would require legislation and such a proposal is not currently

included in the President’s Budget. We note that the report did not provide a specific number of days for expanding the 3-day payment window and a rationale to support that selection.

OIG Recommendation

The OIG recommends that CMS Seek legislative authority to expand the DRG window to include other hospital ownership arrangements, such as affiliated hospital groups.

CMS Response

The CMS does not concur with this recommendation. The 3-day payment window applies to services provided by the hospital or an entity wholly owned or operated by the hospital. To expand the 3-day payment window to other ownership arrangements would require a legislative proposal that is not currently included in the President’s Budget.

The CMS thanks the OIG for their efforts on this issue and looks forward to working with OIG on this and other issues in the future.

ACKNOWLEDGMENTS

This report was prepared under the direction of Ann Maxwell, Regional Inspector General for Evaluation and Inspections in the Chicago regional office; Thomas Komaniecki, Deputy Regional Inspector General; and Laura Kordish, Deputy Regional Inspector General.

Lisa Minich served as the team leader for this study, and Beth McDowell served as the lead analyst. Other Office of Evaluation and Inspections staff from the Chicago regional office who conducted the study include Elliot Curry and Brian Jordan. Central office staff who provided support include Kevin Farber, Kevin Manley, Christine Moritz, and Sherri Weinstein. Consolidated Data Analysis Center staff who provided support include Mara Werner.

Office of Inspector General

<http://oig.hhs.gov>

The mission of the Office of Inspector General (OIG), as mandated by Public Law 95-452, as amended, is to protect the integrity of the Department of Health and Human Services (HHS) programs, as well as the health and welfare of beneficiaries served by those programs. This statutory mission is carried out through a nationwide network of audits, investigations, and inspections conducted by the following operating components:

Office of Audit Services

The Office of Audit Services (OAS) provides auditing services for HHS, either by conducting audits with its own audit resources or by overseeing audit work done by others. Audits examine the performance of HHS programs and/or its grantees and contractors in carrying out their respective responsibilities and are intended to provide independent assessments of HHS programs and operations. These assessments help reduce waste, abuse, and mismanagement and promote economy and efficiency throughout HHS.

Office of Evaluation and Inspections

The Office of Evaluation and Inspections (OEI) conducts national evaluations to provide HHS, Congress, and the public with timely, useful, and reliable information on significant issues. These evaluations focus on preventing fraud, waste, or abuse and promoting economy, efficiency, and effectiveness of departmental programs. To promote impact, OEI reports also present practical recommendations for improving program operations.

Office of Investigations

The Office of Investigations (OI) conducts criminal, civil, and administrative investigations of fraud and misconduct related to HHS programs, operations, and beneficiaries. With investigators working in all 50 States and the District of Columbia, OI utilizes its resources by actively coordinating with the Department of Justice and other Federal, State, and local law enforcement authorities. The investigative efforts of OI often lead to criminal convictions, administrative sanctions, and/or civil monetary penalties.

Office of Counsel to the Inspector General

The Office of Counsel to the Inspector General (OCIG) provides general legal services to OIG, rendering advice and opinions on HHS programs and operations and providing all legal support for OIG's internal operations. OCIG represents OIG in all civil and administrative fraud and abuse cases involving HHS programs, including False Claims Act, program exclusion, and civil monetary penalty cases. In connection with these cases, OCIG also negotiates and monitors corporate integrity agreements. OCIG renders advisory opinions, issues compliance program guidance, publishes fraud alerts, and provides other guidance to the health care industry concerning the anti-kickback statute and other OIG enforcement authorities.