Department of Health and Human Services
OFFICE OF INSPECTOR GENERAL

CONSECUTIVE MEDICARE STAYS INVOLVING INPATIENT AND SKILLED NURSING FACILITIES

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EXECUTIVE SUMMARY

OBJECTIVES
To assess services provided to beneficiaries with consecutive Medicare stays involving inpatient and skilled nursing facilities (SNF) to determine whether:

1. problems existed with the quality of patient care,
2. services were fragmented across consecutive stay sequences,
3. care was medically necessary and appropriate, and
4. documentation was sufficient to determine appropriateness of care.

BACKGROUND
In June 2005, the Office of Inspector General issued a report entitled “Consecutive Medicare Inpatient Stays” (OEI-03-01-00430) which found that Medicare paid an estimated $267 million for sequences of Medicare inpatient stays in fiscal year 2002 that were associated with quality-of-care problems and/or fragmentation of services. This current study is similar to that 2005 study but assesses stay sequences that include at least one SNF stay. For purposes of this review, we defined the term “consecutive stay sequence” as a sequence of three or more individual inpatient and SNF stays for the same Medicare beneficiary for which the admission date for each successive stay occurred within 1 day of the discharge date for the preceding stay.

Fiscal intermediaries ceased performing routine medical reviews of inpatient hospital services in 1982, when the organizations now known as Quality Improvement Organizations (QIO) were created. These organizations were responsible for routinely reviewing items or services provided to Medicare beneficiaries to determine whether the quality of services met professionally recognized standards of care. However, QIOs do not currently conduct routine case reviews of sequences of services for the purpose of identifying potential quality-of-care concerns.

We reviewed calendar year (CY) 2004 Medicare inpatient and SNF services and identified 489,730 consecutive stay sequences. We selected a stratified-cluster sample of 140 consecutive stay sequences. Three internal medicine physicians with geriatric experience reviewed these medical records and determined whether care met professionally recognized standards of care, such as standards relating to quality of care, fragmentation of services, and medically necessary and appropriate admissions, treatments, and discharges. They made these
determinations both for the consecutive stay sequences and for the individual stays within the sequences.

**FINDINGS**

**Thirty-five percent of consecutive stay sequences were associated with quality-of-care problems and/or fragmentation of services.**

Quality-of-care problems were defined in this review as medical errors, accidents, or patient care that did not meet professionally recognized standards which significantly contributed to the need for multiple stays. Fragmentation of services, in this review, was defined as cases for which care provided across consecutive stay sequences may have been necessary and appropriate but should have been consolidated into fewer stays. Medicare paid an estimated $4.5 billion in CY 2004 for consecutive stay sequences associated with quality-of-care problems and/or fragmentation of services.

**Eleven percent of individual stays within consecutive stay sequences involved problems with quality of care, admissions, treatments, or discharges.** Medicare paid an estimated $1.4 billion in CY 2004 for individual stays associated with quality-of-care problems and stays associated with medically unnecessary admission, unnecessary treatment, and inappropriate treatment, care setting, and discharge.

**Twenty percent of individual stays lacked documentation sufficient for reviewers to determine whether appropriate care was rendered.** Reviewers noted that medical documentation that facilities submitted for 20 percent of individual stays was not sufficient to enable reviewers to render a judgment as to whether the admission, treatment, and discharge were appropriate. Medicare paid an estimated $3.1 billion for individual stays associated with insufficient documentation.

**RECOMMENDATIONS**

In this report, medical review of consecutive stay sequences revealed instances of problems with quality of patient care and fragmentation of health care services across multiple stays. Physician reviewers’ examination of medical records for consecutive stays sequences enabled the reviewers to analyze and identify the broader impacts of quality-of-care problems and fragmentation of services beyond the level of an individual inpatient stay.
EXECUTIVE SUMMARY

We recommended in our June 2005 report “Consecutive Medicare Inpatient Stays” (OEI-03-01-00430) that CMS (1) direct QIOs to monitor the quality of inpatient services provided within sequences of consecutive Medicare inpatient stays, (2) encourage QIOs, as appropriate, to monitor the medical necessity and appropriateness of inpatient services provided within these sequences of consecutive Medicare inpatient stays, and (3) reinforce efforts to educate providers about the appropriate uses of skilled nursing swing beds.

The findings from this report are consistent with the quality-of-care problems and fragmentation of care that we found in our June 2005 report. Therefore, we recommend that CMS:

- Direct QIOs to monitor for fragmentation and quality of care across consecutive stay sequences and the quality of care provided during the individual stays within those sequences.

- Encourage both QIOs and fiscal intermediaries, as appropriate, to monitor the medical necessity and appropriateness of services provided within these consecutive stay sequences.

- Collaborate with providers to improve systems of care based on review results.

- Reinforce efforts to educate medical providers on their responsibility for ensuring that medical records provide such information as may be necessary to determine the quality, medical necessity, and medical appropriateness of care provided, thus supporting the Medicare payments due.

AGENCY COMMENTS

CMS concurred with our recommendations. The agency noted that it will place growing emphasis on continuity-of-care issues in all settings and on measuring the rate of events such as hospital readmissions. CMS is also considering incorporating interventions in the upcoming Ninth Statement of Work for the QIO program. The agency also noted its efforts with the American College of Physicians to increase understanding of the “medical home” concept and the agency is considering folding this concept into the QIO program. CMS will also ask QIOs to categorize complaints by type to provide better data on lapses in care continuity with an emphasis on documentation. CMS’s technical comments were incorporated into the report.
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INTRODUCTION

OBJECTIVES
To assess services provided to beneficiaries with consecutive Medicare stays involving inpatient and skilled nursing facilities (SNF) to determine whether:

1. problems existed with the quality of patient care,
2. services were fragmented across consecutive stay sequences,
3. care was medically necessary and appropriate, and
4. documentation was sufficient to determine appropriateness of care.

BACKGROUND
In June 2005, the Office of Inspector General (OIG) issued a report entitled “Consecutive Medicare Inpatient Stays” (OEI-03-01-00430). Medical reviewers determined that 20 percent of consecutive stay sequences in fiscal year 2002 were associated with (1) quality-of-care problems that significantly contributed to the need for multiple inpatient stays and/or (2) fragmentation of health care services across multiple inpatient stays. In that study, OIG defined consecutive inpatient stays as “three or more individual Medicare inpatient facility stays for the same Medicare beneficiary, where the admission date for each successive stay occurs within 1 day of the discharge date for the preceding stay.” Further, OIG defined fragmentation in this study as a pattern of unnecessary discharges or transfers across multiple stay sequences when the same levels and types of service could have been consolidated into fewer stays. The prior OIG study sampled from a population of 63,345 sequences, for which Medicare paid approximately $1.9 billion. These sequences specifically excluded skilled nursing facility (SNF) stays. OIG estimated that Medicare paid $267 million for the consecutive stay sequences with quality-of-care problems and/or fragmentation. Additionally, 10 percent of the individual stays that made up the sequences involved problems with the quality of patient care, for which Medicare paid an estimated $171 million.

In the current study, OIG examined consecutive stay sequences that included both inpatient stays and SNF stays. The addition of SNF stays

1 Inpatient facility stays included acute hospitals, rehabilitative hospitals, psychiatric hospitals, and skilled nursing swing beds.
increased the number of consecutive stay sequences and dollars associated with these sequences by approximately eight times. Medicare Part A payments for stays in all facility types included in this review totaled $120 billion in calendar year (CY) 2004, the most recent year for which data were available at the start of this study. Nearly $16.7 billion of these payments were for 489,730 consecutive stay sequences, accounting for 1,981,459 individual stays. (See Table 1.)

Table 1: Medicare Payments for Inpatient and Skilled Nursing Facility Stays, CY 2004

<table>
<thead>
<tr>
<th>Type of Facility Stay</th>
<th>Consecutive Stays</th>
<th>All Stays</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Stays</td>
<td>Medicare Payments</td>
</tr>
<tr>
<td>Acute Care Hospital</td>
<td>935,508</td>
<td>$8,952,499,534</td>
</tr>
<tr>
<td>Rehabilitation Unit</td>
<td>72,715</td>
<td>$91,306,176</td>
</tr>
<tr>
<td>Skilled Nursing Swing Beds</td>
<td>43,286</td>
<td>$215,388,291</td>
</tr>
<tr>
<td>Psychiatric Unit</td>
<td>31,067</td>
<td>$257,771,449</td>
</tr>
<tr>
<td>Long Term Hospital</td>
<td>29,409</td>
<td>$946,601,983</td>
</tr>
<tr>
<td>Critical Access Hospitals</td>
<td>29,059</td>
<td>$152,308,409</td>
</tr>
<tr>
<td>Other</td>
<td>591</td>
<td>$4,440,495</td>
</tr>
<tr>
<td><strong>SNF</strong></td>
<td><strong>839,824</strong></td>
<td><strong>$5,161,047,560</strong></td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>1,981,459</strong></td>
<td><strong>$16,681,363,897</strong></td>
</tr>
</tbody>
</table>


**Medicare Payment Systems**

Medicare Part A provides insurance for inpatient care in acute care and other types of hospitals and in SNFs. All Medicare payment amounts presented in this report reflect payments made from the Medicare Hospital Insurance Trust Fund and do not include any payments from beneficiaries. Medicare beneficiaries are responsible for payment of deductibles and coinsurance. Medicaid or private insurance policies may cover these costs. The following payment systems are in place for the Medicare-covered stays in our population.

**Acute care hospitals.** Section 1886(d)(1)(A) of the Social Security Act (the Act) established a prospective payment system (PPS) for Medicare acute care hospital services effective October 1, 1983. Under this system, the Centers for Medicare & Medicaid Services (CMS) pays hospitals a fixed, predetermined amount for each acute care stay, depending on the payment category code (i.e., diagnosis related group (DRG)) assigned to the stay.
Rehabilitation units in acute care hospitals. Section 1886(j) of the Act requires a PPS to reimburse care in inpatient rehabilitation units. This requirement became effective October 1, 2002.

Swing beds in acute care hospitals. Section 1888(e) of the Act requires that skilled nursing swing beds be incorporated into the SNF PPS. This requirement became effective July 1, 2002. Swing beds are located in hospitals that have special approval to use these beds, as needed, to provide either acute care or skilled nursing care.

Psychiatric hospitals. CMS published its final rule on a per diem PPS for inpatient psychiatric facilities in 69 Federal Register 66922 (2004). This requirement became effective on January 1, 2005.

Long term care hospitals. CMS published its final rule on a per discharge PPS approach for long term care hospitals with a DRG-based patient classification system that reflects the differences in patient resources and costs in long term care hospitals in 71 Federal Register 27798 (2006). This requirement became effective October 1, 2002, and was fully implemented on October 1, 2006.

Critical access hospitals. Critical access hospitals are paid 101 percent of their reasonable costs.

Skilled nursing facilities. Section 1888(e) of the Act required a per diem PPS for SNFs. This requirement became effective July 1, 1998. Payment is adjusted for case mix and geographic variation in wages.

Conditions of Payment for Beneficiary Services
Section 1156(a) of the Act states “[it shall be the obligation of any health care practitioner and any other person (including a hospital or other health care facility, organization, or agency) who provides health care services for which payment may be made (in whole or in part) under this Act, to assure, to the extent of his authority that services or items ordered or provided by such practitioner or person to beneficiaries and recipients under this Act—(1) will be provided economically and only when, and to the extent, medically necessary; (2) will be of a quality which meets professionally recognized standards of health care; and (3) will be supported by evidence of medical necessity and quality in such form and fashion and at such time as may reasonably be required by a reviewing peer review organization in the exercise of its duties and responsibilities.”

Federal regulation defines professionally recognized standards of health care as “Statewide or national standards of care . . . that professional
peers . . . recognize as applying to those peers practicing or providing care within a State.\textsuperscript{2} For the purposes of this review, standards of care involved such issues as quality of care; fragmentation of services; and medically necessary and appropriate admissions, treatments, and discharges. Additionally, section 1862(a)(1)(A) of the Act limits Medicare coverage to services that are medically necessary. Finally, section 1833(e) of the Act requires that providers furnish “such information as may be necessary in order to determine the amounts due” to receive Medicare payment. Thus, Medicare should pay only for services that meet professionally recognized standards of care, are medically necessary, and are sufficiently documented.

**Monitoring Responsibilities**

**Fiscal intermediaries.** Pursuant to section 1816(a) of the Act and 42 CFR § 421.100, CMS contracts with fiscal intermediaries to pay claims for health care services provided to beneficiaries by hospitals and other inpatient facilities and to ensure that the services rendered by these facilities are covered by the program. Fiscal intermediaries are also responsible for ensuring that services are medically necessary and reasonable and are billed and paid appropriately, as required by 42 CFR § 421.100 and Chapter 1, section 1.2, of the “Medicare Program Integrity Manual.”

**Quality Improvement Organizations.** Under the authority of the Peer Review Improvement Act of 1982, CMS contracts with groups of licensed physicians in each State to ensure that quality, effective, efficient, and economical hospital care is provided to Medicare beneficiaries. Section 1154(a) of the Act stipulates that Peer Review Organizations, now called Quality Improvement Organizations (QIO), must review health care services rendered by all types of Medicare providers to ensure that the quality of services meets professionally recognized standards of health care. QIOs are also responsible for ensuring that acute care hospital services provided to Medicare beneficiaries are medically necessary and reasonable and are billed correctly.

Section 1886(f)(2) of the Act provides specific actions that the Secretary of the Department of Health and Human Services may take when QIOs determine that a PPS hospital takes an action with the intent of

\textsuperscript{2} 42 CFR § 1001.2(d).
circumventing the PPS. Actions circumventing the PPS could include admitting patients unnecessarily, unnecessary multiple admissions of the same individual, or engaging in inappropriate practices designed to circumvent the PPS. Section 4255(C) of the “Quality Improvement Organization Manual” specifies prohibited actions that are considered circumventions of the PPS, including inappropriate discharges, inappropriate transfers, and inappropriate or early readmissions. If a QIO establishes that an acute care hospital has been taking actions with the intent of circumventing the PPS, the QIO may deny admissions, initiate a sanction report and recommendation, or refer the case to OIG for potential termination of its Medicare provider agreement. QIOs are required to conduct specific types of case reviews to fulfill mandatory requirements, including reviews of beneficiary complaints, alleged antidumping violations, and gross and flagrant violations.\(^3\) Some of the triggers of case reviews (e.g., beneficiary complaints) require the QIO to review quality of care.

QIOs do not currently conduct routine case reviews of sequences of inpatient hospital services for the purpose of either identifying potential quality-of-care concerns or potential circumventions of the PPS.

**Related Office of Inspector General Work**

In addition to the 2005 report, OIG has conducted a number of other reviews of consecutive Medicare stays, including studies to determine whether acute care hospitals were engaged in activities to circumvent PPS rules. These reviews have focused on the implementation of Medicare’s post-acute care transfer policy and readmissions to the same acute care hospital on the same day. In a report issued in August 2002, “Review of Medicare Same-Day, Same-Provider Acute Care Readmissions in Pennsylvania During Calendar Year 1998” (A-03-01-00011), OIG examined a sample of medical records and found that 63 of 98 readmissions were billed incorrectly because beneficiaries were, in fact, admitted to nonacute care units within the hospitals or were never actually discharged from the initial admissions.

In a February 2000 OIG report, “Analysis of Readmissions Under the Medicare Prospective Payment System for Calendar Years 1996 and 1997” (A-14-99-00401), OIG identified a large percentage of cases in which beneficiaries had three or more multiple, continuous

\(^3\) 42 CFR § 1004.1.
readmissions to the same hospitals. OIG made several recommendations, including that CMS review the claims for these multiple, continuous readmissions.

**METHODOLOGY**

The methodology for this evaluation was composed of two parts: (1) an analysis of Medicare claims for all CY 2004 inpatient and SNF services and (2) a medical record review of a sample of inpatient and SNF stays.

**Analysis of Medicare Claims**

We accessed CMS’s Medicare Provider Analysis and Review (MedPAR) file to analyze data for all Medicare inpatient and SNF stays in CY 2004, the most recent data available at the time of our review.4

We defined Medicare consecutive stay sequences as three or more individual stays including at least one inpatient facility stay (i.e., acute care, rehabilitative, skilled nursing swing bed, psychiatric, long term hospital, critical access hospitals, or other type of inpatient facility) and at least one SNF stay for the same Medicare beneficiary for which the admission date for each successive stay occurred on the same day or within 1 day of the discharge date of the preceding stay. In each consecutive stay sequence, the first stay terminated after January 1, 2004, and the last stay terminated before December 30, 2004. See Figure 1 (next page) for an example of a consecutive stay sequence.

4 The MedPAR file is made up of final action records for all Medicare beneficiaries using inpatient facility services. Each record summarizes services provided to a beneficiary during an inpatient facility stay from the time of admission to the time of discharge. The file is created quarterly from CMS’s National Claims History 100 Percent Nearline File.
Sample Design for Medical Review
The sampling frame for this evaluation consisted of sequences of three or more consecutive inpatient and SNF stays for the same beneficiary.

Analysis of CY 2004 MedPAR data indicated that Medicare payments for consecutive stay sequences, including both inpatient and SNF stays, ranged from a low of $1 to a high of $1,262,242. Therefore, we stratified the population of 489,730 consecutive stay sequences based on Medicare payment amounts of low (less than $30,000), medium (between $30,000 and $55,999), and high ($56,000 or more). For sampling purposes, each consecutive stay sequence was considered a cluster, or grouping, of individual stays. As shown in Table 2, we selected a stratified-cluster sample of 140 consecutive stay sequences (580 individual stays).
Table 2: Sampling Frame Values and Sample Sizes for Medical Review by Strata

<table>
<thead>
<tr>
<th>Stratum Number</th>
<th>Stratum Definition</th>
<th>Total Medicare Payments in Sampling Frame</th>
<th>Number of Sequences in Sampling Frame</th>
<th>Number of Sequences in Sample Review</th>
<th>Number of Individual Stays in Sample Review</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sequences with Medicare payments less than $30,000</td>
<td>$5,359,801,140</td>
<td>276,612</td>
<td>45</td>
<td>159</td>
</tr>
<tr>
<td>2</td>
<td>Sequences with Medicare payments from $30,000 to $55,999</td>
<td>$6,262,248,663</td>
<td>157,338</td>
<td>50</td>
<td>201</td>
</tr>
<tr>
<td>3</td>
<td>Sequences with Medicare payments of $56,000 or more</td>
<td>$5,059,314,094</td>
<td>55,780</td>
<td>45</td>
<td>220</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td></td>
<td><strong>$16,681,363,897</strong></td>
<td><strong>489,730</strong></td>
<td><strong>140</strong></td>
<td><strong>580</strong></td>
</tr>
</tbody>
</table>


Data Collection for Medical Review
Between March 1 and May 31, 2006, an independent medical review contractor collected medical records from inpatient facilities and SNFs. This contractor’s physicians performed medical reviews of these records from April 1 to August 31, 2006.

Medical records. We identified the names and addresses of the facilities that billed Medicare for all stays in each sample consecutive stay sequence. We then prepared a series of letters requesting copies of electronic and paper-based medical records in support of each stay in the sample consecutive stay sequences, and the contractor mailed these medical record requests to inpatient facilities and SNFs. The contractor received medical records for all 140 sampled consecutive stay sequences (579 individual stays), for a 100-percent consecutive stay sequence response rate.5

5 The medical record for one individual stay was not received. The Medicare payment for this stay was $0. The physician medical reviewer was able to render conclusions about this sequence without this particular stay. Neither the stay nor the sequence was included in the estimates because of the omission.
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Medical review. The contractor employed three physicians of internal medicine with geriatric medical experience to review the medical records for the sampled consecutive stay sequences. These reviewers used a medical review instrument that OIG and the contractors jointly developed that was pretested on 10 sample consecutive stay sequences prior to the review of the full sample. The reviewers answered specific questions pertaining to each individual stay in the sampled consecutive stay sequences. Then, to analyze the nature of these stays, the reviewers answered questions about each sequence of stays in its entirety as a single episode of care. The medical review instrument enabled the reviewers to explain their responses in narrative form.

Issues for medical review. The reviewers first reviewed the clinical records for each individual stay in the sample of consecutive stay sequences to determine whether:

- there were problems with the quality of patient care during the stay (e.g., care that did not meet professionally recognized standards, medical errors, or accidents);
- the care setting was medically appropriate;
- the admission and treatment were medically reasonable and necessary;
- the treatment provided during the stay was appropriate to the type of unit or hospital where it occurred; and
- the patient was discharged or transferred appropriately.

The reviewers then considered each sequence of stays as a whole and used their clinical judgment to determine whether:

- problems with quality of care significantly contributed to the need for multiple stays in the sequence,
- services were fragmented across multiple stays in the sequence, and
- an inappropriate discharge significantly contributed to the need for multiple stays in the sequence.

Data Analysis

Medical review results. We aggregated the medical review results to identify the proportion of consecutive stay sequences, and individual stays within those sequences, that physicians cited for quality-of-care problems, fragmentation of care, medically inappropriate care setting,
medically unnecessary admission, medically unnecessary or unreasonable treatment, treatment that was not appropriate to the type of setting where it occurred, or inappropriate discharge. We analyzed the proportion of stays cited for a particular problem by facility type (no results found). We estimated total Medicare payments associated with these consecutive stay sequences and individual stays.

We used SUDAAN software to produce weighted estimates of proportions and total payments by error category. These estimates reflect the complex sample design. Point estimates and confidence intervals for all statistics presented in the findings of this report are provided in Appendixes A, B, and C.

**Standards**
This study was conducted in accordance with the “Quality Standards for Inspections” issued by the President’s Council on Integrity and Efficiency and the Executive Council on Integrity and Efficiency.
Thirty-five percent of consecutive stay sequences were associated with quality-of-care problems and/or fragmentation of services. The majority of reviewed Medicare consecutive stay sequences were medically reasonable and necessary. However, reviewers determined that 35 percent of consecutive stay sequences in CY 2004 were associated with (1) quality-of-care problems that significantly contributed to the need for multiple stays and/or (2) fragmentation of health care services across multiple consecutive stays in a sequence. Quality-of-care problems were defined in this review as medical errors, accidents, or patient care that did not meet professionally recognized standards. Fragmentation of services in this review was defined as a pattern of unnecessary discharges or transfers across multiple stay sequences when the same levels and types of service could have been consolidated into fewer stays. Medicare paid an estimated $4.5 billion in CY 2004 for consecutive stay sequences associated with quality-of-care problems and/or fragmentation of services. This dollar figure represents 27 percent of the total Medicare payments in CY 2004 for consecutive stay sequences involving both inpatient and SNF stays. See Appendix A for point estimates and confidence intervals.

Twenty-three percent of consecutive stay sequences were associated with quality-of-care problems that contributed to multiple stays. Medicare paid an estimated $2.7 billion for consecutive stay sequences that were associated with quality-of-care problems. Quality-of-care problems that reviewers found included medical errors, accidents, failure to treat patients in a timely manner, inadequate monitoring and treatment of patients, inadequate care planning, and inappropriate discharges.

Some examples of quality-of-care problems identified by reviewers include the following:

- A patient known to have aspiration problems aspirated a thin liquid that a nursing student accidentally provided to him. The patient was later transferred to a specialty hospital for rehabilitation. Several more transfers followed, including moves to a SNF, an acute care hospital, and finally back to a SNF. Had the nursing student not made the error in providing the patient the thin liquid, it is unlikely the patient would have required multiple stays.
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- A patient suffered a stroke and was admitted to an acute care hospital. Later, he was discharged to a SNF. The SNF staff failed to adequately monitor the patient’s blood-thinning medication. The patient had to be transferred to an emergency room, where he was found to have gastrointestinal bleeding and abnormal clotting because of the blood-thinning medication. Had the SNF staff adequately monitored the patient’s medication, the complications may have been avoided.

- A patient was admitted to an acute care hospital and later transferred to a SNF without adequate monitoring of blood sugars to ensure stability. The SNF was not alerted that closer than usual monitoring was advisable. The patient’s low blood sugar was mismanaged and the patient’s condition was compounded because a transfer back to the hospital emergency department was delayed. Had the blood sugar been managed appropriately during the first stay, one or more stays could have been avoided.

Twenty percent of consecutive stay sequences were associated with fragmentation of services across multiple stays

Medicare paid an estimated $2.7 billion for consecutive stay sequences that were associated with fragmentation of care. fragmentation can result from medical mistakes or inappropriate transfers or discharges. Reviewers found fragmentation in many consecutive stay sequences involving both rehabilitation units and SNFs. Typically, patients who were discharged from acute care hospitals to rehabilitation units during a sequence of stays were later discharged directly to SNFs. A reviewer commented that transfers and discharges “... can be potentially inappropriate, specifically when dealing with physical and occupational rehabilitation.” Rehabilitation requires a patient who is alert, motivated to work hard, and physically capable of at least 3 hours of rehabilitation every day. The vast majority of patient records reviewed indicated that the patients lacked one or more of these prerequisites.

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6 Because some sequences were associated with both quality-of-care problems and fragmentation of services, the sum of the dollars paid in each subgroup ($2.7 billion and $2.7 billion = $5.4 billion) exceeds the total ($4.5 billion). See Appendix A for overlapping projections.
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Thus, the most appropriate transfer from the acute care hospital would have been directly to a SNF.

Some examples of fragmentation identified by reviewers include the following:

- A patient who had suffered a stroke had stays in three separate facilities—an acute care hospital, a rehabilitation unit, and a SNF. Both admissions subsequent to the acute care hospital stay were for rehabilitation. The reviewer noted, “I believe the same outcome could have been achieved had the patient been directly transferred to a SNF . . . .”

- After a stay in an acute care hospital for abdominal surgery complicated by heart rhythm problems, respiratory failure, and antibiotic-induced diarrhea, a patient was discharged to a rehabilitation unit. Because the patient was not making progress, the patient was later discharged to a SNF. The patient was later transferred from the SNF back to an acute care hospital for care. The patient was ultimately transferred back to the SNF. The reviewer believed care could have been provided in an outpatient setting rather than being readmitted to the acute care hospital.

- A patient was admitted to an acute care hospital for a hip fracture and dislocated shoulder. The patient was later transferred to a rehabilitation hospital and later to a SNF for rehabilitation. The patient was then readmitted to the acute care hospital because of a failed fracture fixation. The patient was then again transferred to a SNF for rehabilitation. At the time of transfer to the first SNF, it was already known that the hip surgery had failed and plans could have been made for repeat surgery without additional stays.

Eleven percent of individual stays within consecutive stay sequences involved problems with quality-of-care, admissions, treatments, or discharges. Medicare paid an estimated $1.4 billion in CY 2004 for individual stays associated with quality-of-care problems, inappropriate discharges, medically unnecessary treatments, medically unnecessary admissions, inappropriate treatments for the setting, and inappropriate settings. This dollar figure represents 9 percent of total Medicare payments for
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individual stays associated with sequences. See Appendix B for confidence intervals.

Eight percent of individual stays were associated with quality-of-care problems
Medicare paid an estimated $986 million for individual stays within consecutive stay sequences associated with quality-of-care problems. Quality-of-care problems found included medical staff failing to monitor patients; exhibiting poor clinical knowledge; providing poor discharge instructions; or failing to properly evaluate, diagnose, and treat patients.7

Reviewers described specific medical errors that resulted in quality-of-care problems. Examples of these medical errors included drug overdoses, failure to notice worsening symptoms, inadequate monitoring of clotting factors leading to gastrointestinal bleeding, inadequate monitoring of blood sugar, failure to control blood pressure, and electrolyte imbalances.

Five percent of individual stays were associated with medically unnecessary admission and treatment, inappropriate treatment and setting of care, and inappropriate discharge
Medicare paid an estimated $510 million8 for individual stays associated with problems such as medically unnecessary admission or treatment, treatment that was not appropriate for the setting, and inappropriate discharge.9

Reviewers noted several instances of unnecessary admission and treatment, inappropriate treatment, and inappropriate discharge. Examples of these included rehabilitative treatments performed in the acute rehabilitation setting where the SNF setting would have been more appropriate, care the patient needed that was beyond the scope of the facility, care of a custodial nature that could have been provided in a

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7 The quality-of-care problems that reviewers found in the individual stays often contributed to the need for multiple stays in related sequences; however, there were instances in which quality-of-care problems did not lead to multiple stays. Of the $986 million associated with quality-of-care problems in individual stays, $335 million was associated with individual stays only.

8 Relative precision of the estimate exceeds 50 percent.

9 Because some stays were associated with both quality-of-care and other issues, the sum of the dollars paid for each subgroup ($986 million + $510 million = $1.5 billion) exceeds the total ($1.4 billion). See Appendix B for overlapping projections.
“home setting” rather than in a SNF, a patient whose mental status was such that there was little prospect of benefit from an acute rehabilitation setting, providers’ failures to document plans of care, and discharges that occurred before patients were stable.

Twenty percent of individual stays lacked documentation sufficient for reviewers to determine whether appropriate care was rendered

Reviewers noted that medical documentation that facilities submitted for 20 percent of individual stays was not sufficient to enable reviewers to render a judgment as to whether the admission, treatment, and discharge were appropriate. Medicare paid an estimated $3.1 billion for individual stays associated with insufficient documentation. Comments that demonstrate reviewers’ inability to render judgments because of insufficient documentation include the following:

- It was unclear from the record why the patient could not have been treated in the nursing home.
- The reviewer saw no documentation for the discharge or readmission. The reviewer also saw no indication of a clinical status change on the day leading to the readmission.
- The medical record provided no indication of any acute event or any transfers. There was no documentation of a hospital admission between this and the last SNF stay.

In 45 percent of individual stays with documentation problems, reviewers were unable to render judgments in more than one area. For example, a reviewer was unable to determine both quality of care and medically necessary treatment for the same individual stay.

Reviewers could not determine the following (dollars and percentages are estimates associated with each bulleted item):

- Quality of care – $1.6 billion or 10 percent of individual stays,\(^{11}\)

---

\(^{10}\) Because some stays were associated with both quality-of-care and other issues, the sum of the dollars paid in each subgroup (sum of individually identified documentation problems = $5.0 billion) exceeds the total overall dollar estimate ($3.1 billion). See Appendix C for overlapping projections.

\(^{11}\) Relative precision of the estimate exceeds 50 percent.
FINDINGS

- Appropriateness of Discharge – $1.0 billion or 6 percent of individual stays,
- Medically Necessary Treatment – $897 million or 7 percent of individual stays,\(^{12}\)
- Appropriateness of Treatment Setting – $820 million or 6 percent of individual stays, and
- Medically Necessary Admissions – $720 million or 5 percent of individual stays.\(^{13}\)

\(^{12}\) Relative precision of the estimate exceeds 50 percent.

\(^{13}\) Relative precision of the estimate exceeds 50 percent.
RECOMMENDATIONS

In this report, medical review of consecutive stay sequences revealed instances of problems with quality of patient care and fragmentation of health care services across multiple stays. Physician reviewers’ examination of medical records for consecutive stays sequences enabled the reviewers to analyze and identify the broader impacts of quality-of-care problems and fragmentation of services beyond the level of an individual inpatient stay.

We recommended in our June 2005 report “Consecutive Medicare Inpatient Stays” (OEI-03-01-00430) that CMS (1) direct QIOs to monitor the quality of inpatient services provided within sequences of consecutive Medicare inpatient stays, (2) encourage QIOs, as appropriate, to monitor the medical necessity and appropriateness of inpatient services provided within these sequences of consecutive Medicare inpatient stays, and (3) reinforce efforts to educate providers about the appropriate uses of skilled nursing swing beds.

The findings from this report are consistent with the quality-of-care problems and fragmentation of care that we found in our June 2005 report. Therefore, we recommend that CMS:

- Direct QIOs to monitor for fragmentation and quality of care across consecutive stay sequences and the quality of care provided during the individual stays within those sequences.
- Encourage both QIOs and fiscal intermediaries, as appropriate, to monitor the medical necessity and appropriateness of services provided within these consecutive stay sequences.
- Collaborate with providers to improve systems of care based on review results.
- Reinforce efforts to educate medical providers on their responsibility for ensuring that medical records provide such information as may be necessary to determine the quality, medical necessity, and medical appropriateness of care provided, thus supporting the Medicare payments due.

AGENCY COMMENTS

CMS concurred with our recommendations. The agency noted that it will place growing emphasis on continuity-of-care issues in all settings and on measuring the rate of events such as hospital readmissions. CMS is also considering incorporating interventions in the upcoming Ninth Statement of Work for the QIO program. The agency also noted
RECOMMENDATIONS

its efforts with the American College of Physicians to increase understanding of the “medical home” concept and the agency is considering folding this concept into the QIO program. CMS will also ask QIOs to categorize complaints by type to provide better data on lapses in care continuity with an emphasis on documentation. CMS’s technical comments were incorporated into the report. The full text of CMS comments can be found in Appendix D.
### Estimates and Confidence Intervals for Consecutive Stay Sequences

#### Sequence Counts, Point Estimates, and Confidence Intervals for Consecutive Stay Sequences (n=140 Sequences)

<table>
<thead>
<tr>
<th>Estimate Description</th>
<th>Point Estimate</th>
<th>95-Percent Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicare payments for sequences associated with quality-of-care problems</td>
<td>$2,688,654,896</td>
<td>$1,687,361,526 - $3,689,948,265</td>
</tr>
<tr>
<td>Percentage of sequences associated with quality-of-care problems</td>
<td>22.6%</td>
<td>14.2% - 31.0%</td>
</tr>
<tr>
<td>Medicare payments for sequences associated with fragmentation of services</td>
<td>$2,709,903,725</td>
<td>$1,655,689,690 - $3,764,117,761</td>
</tr>
<tr>
<td>Percentage of sequences associated with fragmentation of services</td>
<td>19.6%</td>
<td>11.7% - 27.5%</td>
</tr>
<tr>
<td>Total Gross Overlapping Payments</td>
<td>$5,398,558,621</td>
<td></td>
</tr>
<tr>
<td>Total Gross Overlapping Rates</td>
<td>42.2%</td>
<td></td>
</tr>
<tr>
<td>(Payment Overlap)</td>
<td>($872,077,767)</td>
<td></td>
</tr>
<tr>
<td>(Sequence Overlap)</td>
<td>(7.2%)</td>
<td></td>
</tr>
<tr>
<td>Medicare payments for sequences associated with quality-of-care problems and/or fragmentation of services</td>
<td>$4,526,480,859</td>
<td>$3,299,063,111 - $5,753,898,598</td>
</tr>
<tr>
<td>Percentage of sequences associated with quality-of-care problems and/or fragmentation of services</td>
<td>35.0%</td>
<td>25.6% - 44.4%</td>
</tr>
<tr>
<td>Percentage of Medicare payments for sequences associated with quality-of-care problems and/or fragmentation of services</td>
<td>27.4%</td>
<td>20.0% - 34.9%</td>
</tr>
</tbody>
</table>
## APPENDIX B

Estimates and Confidence Intervals for Individual Stays

### Stay Counts, Point Estimates, and Confidence Intervals (n=579 Individual Stays)

<table>
<thead>
<tr>
<th>Estimate Description</th>
<th>Point Estimate</th>
<th>95-Percent Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicare payments for stays associated with quality-of-care problems</td>
<td>$986,477,670</td>
<td>$513,855,548 - $1,459,099,811</td>
</tr>
<tr>
<td>Percentage of stays associated with quality-of-care problems</td>
<td>7.5%</td>
<td>4.1% - 10.9%</td>
</tr>
<tr>
<td>Medicare payments for stays associated with inappropriate discharges, medically unnecessary treatments, medically unnecessary admissions, inappropriate treatments for the setting, and inappropriate settings</td>
<td>$510,250,017</td>
<td>$184,846,299 - $835,653,735</td>
</tr>
<tr>
<td>Percentage of stays associated with inappropriate discharges, medically unnecessary treatments, medically unnecessary admissions, inappropriate treatments for the setting, and inappropriate settings</td>
<td>4.8%</td>
<td>2.1% - 7.6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Estimate Description</th>
<th>Point Estimate</th>
<th>95-Percent Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Gross Overlapping Payments</td>
<td>$1,496,727,687</td>
<td></td>
</tr>
<tr>
<td>Total Gross Overlapping Rates</td>
<td>12.3%</td>
<td></td>
</tr>
<tr>
<td>(Payment Overlap)</td>
<td>($80,965,640)</td>
<td></td>
</tr>
<tr>
<td>(Sequence Overlap)</td>
<td>(1.2%)</td>
<td></td>
</tr>
<tr>
<td>Medicare payments for stays associated with quality-of-care problems, inappropriate discharges, medically unnecessary treatments, medically unnecessary admissions, inappropriate treatments for the setting, and inappropriate settings</td>
<td>$1,415,762,047</td>
<td>$852,393,116 - $1,979,130,977</td>
</tr>
<tr>
<td>Percentage of stays associated with quality-of-care problems, inappropriate discharges, medically unnecessary treatments, medically unnecessary admissions, inappropriate treatments for the setting, and inappropriate settings</td>
<td>11.1%</td>
<td>7.0% - 15.2%</td>
</tr>
<tr>
<td>Percentage of Medicare payments for stays associated with quality-of-care problems, inappropriate discharges, medically unnecessary treatments, medically unnecessary admissions, inappropriate treatments for the setting, and inappropriate settings</td>
<td>8.6%</td>
<td>5.1% - 12.0%</td>
</tr>
</tbody>
</table>
Estimates and Confidence Intervals for Individual Stays With Inadequate Documentation

<table>
<thead>
<tr>
<th>Stay Counts, Point Estimates, and Confidence Intervals (n=579 Individual Stays)</th>
<th>Estimate Description</th>
<th>Point Estimate</th>
<th>95-Percent Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicare payments associated with stays for which quality of care could not be determined</td>
<td>$1,565,752,796</td>
<td>$1,017,283,102 - $2,114,222,490</td>
<td></td>
</tr>
<tr>
<td>Percentage of stays for which quality care could not be determined</td>
<td>10.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicare payments associated with stays for which appropriateness of discharge could not be determined</td>
<td>$1,000,347,511</td>
<td>$511,142,511 - $1,489,552,511</td>
<td></td>
</tr>
<tr>
<td>Percentage of stays for which appropriateness of discharge could not be determined</td>
<td>6.3%</td>
<td>3.7% - 8.9%</td>
<td></td>
</tr>
<tr>
<td>Medicare payments associated with stays for which medically necessary treatment could not be determined</td>
<td>$896,734,826</td>
<td>$394,294,530 - $1,399,175,122</td>
<td></td>
</tr>
<tr>
<td>Percentage of stays for which medically necessary treatment could not be determined</td>
<td>6.9%</td>
<td>3.3% - 10.5%</td>
<td></td>
</tr>
<tr>
<td>Medicare payments associated with stays for which medical appropriateness of setting could not be determined</td>
<td>$820,031,234</td>
<td>$432,682,287 - $1,207,380,181</td>
<td></td>
</tr>
<tr>
<td>Percentage of stays for which medical appropriateness of setting could not be determined</td>
<td>6.0%</td>
<td>3.1% - 8.8%</td>
<td></td>
</tr>
<tr>
<td>Medicare payments associated with stays for which medically necessary admissions could not be determined</td>
<td>$719,852,375</td>
<td>$359,083,147 - $1,080,621,604</td>
<td></td>
</tr>
<tr>
<td>Percentage of stays for which medically necessary admissions could not be determined</td>
<td>5.2%</td>
<td>2.6% - 7.7%</td>
<td></td>
</tr>
</tbody>
</table>

| Total Gross Overlapping Payments | $5,002,718,752 |
| Total Gross Overlapping Rates   | 34.4%         |
| (Payment Overlap)              | ($1,874,844,887) |
| (Sequence Overlap)             | (14.3%)       |

| Medicare payments associated with stays for which quality of care, appropriate discharges, medically necessary treatments, medically necessary admissions, appropriateness of treatments at the setting, and appropriate settings could not be determined | $3,127,873,855 | $2,292,587,972 - $3,963,159,737 |
| Percentage of stays for which quality of care, appropriate discharges, medically necessary treatments, medically necessary admissions, appropriateness of treatments at the setting, and appropriate settings could not be determined | 20.1%       | 14.7 - 25.5% |

| Percentage of stays for which reviewers were unable to render a judgment in more than one area | 44.9%       | 33.1% - 56.8% |
in all settings and on measuring the rate of events such as hospital readmissions. In fact, we are considering incorporating interventions to address this problem in the upcoming 9th Statement of Work for the QIO program.

We place great emphasis on working with providers to improve care where problems are identified, and this review reinforces that emphasis. For example, we have worked with the American College of Physicians to learn more about its “medical home” concept, in which care is coordinated for a patient through a single site. We have considered folding such concepts into the QIO program because we believe this concept could lead to greater continuity of care for beneficiaries.

Finally, we agree that the problem of documentation is important. We believe that our new emphasis on communication across care settings for patients with consecutive episodes of care will contribute to improving this problem. In addition, the CMS survey process enforces hospital conditions of participation, which require both the assessment of the need for discharge planning and the provision of planning to those with need. We are asking QIOs to categorize complaints by type, which will give us better data on lapses in care continuity and how we can improve from a beneficiary perspective.

Conclusion

We appreciate the OIG’s efforts in conducting its investigation of consecutive stays for Medicare beneficiaries and expect to make significant progress on problems identified.
ACKNOWLEDGMENTS

This report was prepared under the direction of Brian T. Pattison, Regional Inspector General for Evaluation and Inspections in the Kansas City regional office, and Gina C. Maree, Deputy Regional Inspector General.

Brian Whitley served as the team leader for this study. Other principal Office of Evaluation and Inspections staff from the Kansas City regional office who contributed to the report include Linda Paddock and Zula Crutchfield; central office staff who contributed include Doris Jackson and Kevin Farber.