Department of Health and Human Services
OFFICE OF
INSPECTOR GENERAL

MEDICARE COMPLIANCE
REVIEW OF MEDICAL
UNIVERSITY OF SOUTH CAROLINA
FOR THE PERIOD JANUARY 1, 2011,
THROUGH JUNE 30, 2012

Inquiries about this report may be addressed to the Office of Public Affairs at Public.Affairs@oig.hhs.gov.

Lori S. Pilcher
Regional Inspector General

January 2014
A-04-13-03075
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EXECUTIVE SUMMARY

Medical University of South Carolina did not fully comply with Medicare requirements for billing inpatient and outpatient services, resulting in overpayments of approximately $264,140 over 1½ years.

WHY WE DID THIS REVIEW

This review is part of a series of hospital compliance reviews. Using computer matching, data mining, and other data analysis techniques, we identified hospital claims that were at risk for noncompliance with Medicare billing requirements. For calendar year 2011, Medicare paid hospitals $151 billion, which represents 45 percent of all fee-for-service payments; therefore, the Office of Inspector General must provide continual and adequate oversight of Medicare payments to hospitals.

The objective of this review was to determine whether Medical University of South Carolina (the Hospital) complied with Medicare requirements for billing inpatient and outpatient services on selected types of claims.

BACKGROUND

The Centers for Medicare & Medicaid Services (CMS) pays inpatient hospital costs at predetermined rates for patient discharges. The rates vary according to the diagnosis-related group (DRG) to which a beneficiary’s stay is assigned and the severity level of the patient’s diagnosis. The DRG payment is, with certain exceptions, intended to be payment in full to the hospital for all inpatient costs associated with the beneficiary’s stay. CMS pays for hospital outpatient services on a rate-per-service basis that varies according to the assigned ambulatory payment classification.

The Hospital is a 700-bed medical center located in Charleston, South Carolina. According to CMS’s National Claims History data, Medicare paid the Hospital approximately $348 million for 14,336 inpatient and 287,802 outpatient claims for services provided to beneficiaries from January 1, 2011, through June 30, 2012.

Our audit covered $10,630,518 in Medicare payments to the Hospital for 1,307 claims that were potentially at risk for billing errors. We selected for review a stratified random sample of 182 claims with payments totaling $4,653,211. These 182 claims had dates of service from January 1, 2011, through June 30, 2012 (audit period), and consisted of 100 inpatient and 82 outpatient claims.

WHAT WE FOUND

The Hospital complied with Medicare billing requirements for 144 of the 182 inpatient and outpatient claims we reviewed. However, the Hospital did not fully comply with Medicare billing requirements for the remaining 38 claims, resulting in overpayments of $216,455 for the audit period. Specifically, 23 inpatient claims had billing errors resulting in overpayments of
$169,105, and 15 outpatient claims had billing errors resulting in overpayments of $47,350. These errors occurred primarily because the Hospital did not have adequate controls to prevent the incorrect billing of Medicare claims within the selected risk areas that contained errors.

On the basis of our sample results, we estimated that the Hospital received overpayments of at least $264,140 for the audit period.

WHAT WE RECOMMEND

We recommend that the Hospital:

- refund to the Medicare program $264,140 in estimated overpayments for the audit period claims that it incorrectly billed and
- strengthen controls to ensure full compliance with Medicare requirements.

MEDICAL UNIVERSITY OF SOUTH CAROLINA COMMENTS AND OUR RESPONSE

In written comments on our draft report, the Hospital agreed with our findings related to the 7 claims it incorrectly billed for Inpatient and Outpatient Manufacturer Credits for Replaced Medical Devices and the 11 claims it incorrectly billed for Evaluation and Management Services. However, the Hospital disagreed that it incorrectly billed 16 claims for Inpatient Short Stays and 4 claims with High-Severity-Level DRG Codes and stated that it intends to appeal those 20 claims. The Hospital said that it would be providing additional, claim-specific information as part of its appeal of these 20 claims. We maintain that these claims did not comply with Medicare billing requirements.

The Hospital also stated that it had reinforced its processes for identifying replaced medical device cases and had established additional controls to ensure compliant billing. In regard to its Evaluation and Management Services claims, the Hospital said that it had adopted a manual intervention for these claims to ensure compliant billing. However, in its written comments, the Hospital did not describe its reinforced processes, additional controls, or how its manual intervention worked.
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*Medicare Compliance Review of Medical University of South Carolina (A-04-13-03075)*
INTRODUCTION

WHY WE DID THIS REVIEW

This review is part of a series of hospital compliance reviews. Using computer matching, data mining, and other data analysis techniques, we identified hospital claims that were at risk for noncompliance with Medicare billing requirements. For calendar year 2011, Medicare paid hospitals $151 billion, which represents 45 percent of all fee-for-service payments; therefore, the Office of Inspector General (OIG) must provide continual and adequate oversight of Medicare payments to hospitals.

OBJECTIVE

Our objective was to determine whether Medical University of South Carolina (the Hospital) complied with Medicare requirements for billing inpatient and outpatient services on selected types of claims.

BACKGROUND

The Medicare Program

Medicare Part A provides inpatient hospital insurance benefits and coverage of extended care services for patients after hospital discharge, and Medicare Part B provides supplementary medical insurance for medical and other health services, including coverage of hospital outpatient services. The Centers for Medicare & Medicaid Services (CMS) administers the Medicare program.

CMS contracts with Medicare contractors to, among other things, process and pay claims submitted by hospitals.

Hospital Inpatient Prospective Payment System

CMS pays hospital costs at predetermined rates for patient discharges under the inpatient prospective payment system. The rates vary according to the diagnosis-related group (DRG) to which a beneficiary’s stay is assigned and the severity level of the patient’s diagnosis. The DRG payment is, with certain exceptions, intended to be payment in full to the hospital for all inpatient costs associated with the beneficiary’s stay.

Hospital Outpatient Prospective Payment System

CMS implemented an outpatient prospective payment system (OPPS), which is effective for services furnished on or after August 1, 2000, for hospital outpatient services. Under the OPPS, Medicare pays for hospital outpatient services on a rate-per-service basis that varies according to the assigned ambulatory payment classification (APC). CMS uses Healthcare Common Procedure Coding System (HCPCS) codes and descriptors to identify and group the services
within each APC group. All services and items within an APC group are comparable clinically and require comparable resources.

**Hospital Claims at Risk for Incorrect Billing**

Our previous work at other hospitals identified these types of claims at risk for noncompliance:

- inpatient short stays,
- inpatient claims billed with high-severity-level DRG codes,
- inpatient and outpatient manufacturer credits for replaced medical devices,
- inpatient claims paid in excess of charges,
- inpatient claims with cancelled surgical procedures,
- inpatient transfers,
- outpatient claims billed with evaluation and management (E&M) services, and
- outpatient claims billed for Doxorubicin Hydrochloride.

For the purposes of this report, we refer to these areas at risk for incorrect billing as “risk areas.” We reviewed these risk areas as part of this review.

**Medicare Requirements for Hospital Claims and Payments**

Medicare payments may not be made for items and services that “are not reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member” (the Social Security Act (the Act), § 1862(a)(1)(A)). In addition, the Act precludes payment to any provider of services or other person without information necessary to determine the amount due the provider (§ 1833(e)).

Federal regulations state that the provider must furnish to the Medicare contractor sufficient information to determine whether payment is due and the amount of the payment (42 CFR § 424.5(a)(6)).

The *Medicare Claims Processing Manual* (the Manual) requires providers to complete claims accurately so that Medicare contractors may process them correctly and promptly (Pub. No. 100-04, chapter 1, § 80.3.2.2). The Manual states that providers must use HCPCS codes for most outpatient services (chapter 23, § 20.3).

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1 HCPCS codes are used throughout the health care industry to standardize coding for medical procedures, services, products, and supplies.
Medical University of South Carolina

The Hospital is a 700-bed medical center located in Charleston, South Carolina. According to CMS’s National Claims History (NCH) data, Medicare paid the Hospital approximately $348 million for 14,336 inpatient and 287,802 outpatient claims for services provided to beneficiaries from January 1, 2011, through June 30, 2012.

HOW WE CONDUCTED THIS REVIEW

Our audit covered $10,630,518 in Medicare payments to the Hospital for 1,307 claims that were potentially at risk for billing errors. We selected for review a stratified random sample of 182 claims with payments totaling $4,653,211. These 182 claims had dates of service from January 1, 2011, through June 30, 2012 (audit period), and consisted of 100 inpatient and 82 outpatient claims.

We focused our review on the risk areas identified as a result of prior OIG reviews at other hospitals. We evaluated compliance with selected billing requirements and subjected 46 claims to medical review to determine whether the services were medically necessary.

This report focuses on selected risk areas and does not represent an overall assessment of all claims submitted by the Hospital for Medicare reimbursement.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

See Appendix A for the details of our scope and methodology, Appendix B for our sample design and methodology, and Appendix C for our sample results and estimates.

FINDINGS

The Hospital complied with Medicare billing requirements for 144 of the 182 inpatient and outpatient claims we reviewed. However, the Hospital did not fully comply with Medicare billing requirements for the remaining 38 claims, resulting in overpayments of $216,455 for the audit period. Specifically, 23 inpatient claims had billing errors resulting in overpayments of $169,105, and 15 outpatient claims had billing errors resulting in overpayments of $47,350. These errors occurred primarily because the Hospital did not have adequate controls to prevent the incorrect billing of Medicare claims within the selected risk areas that contained errors.

On the basis of our sample results, we estimated that the Hospital received overpayments of at least $264,140 for the audit period.

For the results of our review by risk area, see Appendix D.
BILLING ERRORS ASSOCIATED WITH INPATIENT CLAIMS

The Hospital incorrectly billed Medicare for 23 of the 100 inpatient claims that we reviewed. These errors resulted in overpayments of $169,105.

Incorrectly Billed as Inpatient

Medicare payments may not be made for items and services that “are not reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member” (the Act, § 1862(a)(1)(A)). The Act also precludes payment to any provider without information necessary to determine the amount due the provider (§ 1815(a)). In addition, a payment for services furnished to an individual may be made only to providers of services that are eligible and only if, “with respect to inpatient hospital services … which are furnished over a period of time, a physician certifies that such services are required to be given on an inpatient basis for such individual’s medical treatment…” (§ 1814(a)(3)). Federal regulations state that Medicare Part A pays for inpatient hospital services only if a physician certifies and recertifies, among other things, the reasons for continued hospitalization (42 CFR § 424.13(a)).

For 16 of the 100 inpatient claims, the Hospital incorrectly billed Medicare Part A for beneficiary stays that did not meet Medicare criteria for inpatient status and should have been billed as outpatient. Specifically:

• For three claims, the Hospital incorrectly billed for beneficiaries whose level of care and services provided should have been billed as outpatient or outpatient with observation services. For example, one patient came to the Hospital for imaging studies and a neurologic consultation. The neurologist noted that the patient would be discharged after the studies. The medical records did not document that it was reasonable and necessary for the patient to be admitted to the Hospital as an inpatient.

• For 12 claims, the beneficiary met the level of care and services provided; however, the Hospital incorrectly billed for inpatient services when the medical records did not contain sufficient documentation to support the patient’s admission.

• For one claim, the medical record stated that the patient was not to be admitted as an inpatient but the Hospital billed it as an inpatient admission.

The Hospital did not offer a cause for these errors because it did not believe the claims were billed in error. As a result, the Hospital received overpayments of $144,620.2

2 The Hospital may be able to bill Medicare Part B for all services (except for services that specifically require an outpatient status) that would have been reasonable and necessary had the beneficiary been treated as a hospital outpatient rather than admitted as an inpatient. We were unable to determine the effect that billing Medicare Part B would have on the overpayment amount because these services had not been billed and adjudicated by the Medicare administrative contractor prior to the issuance of our report.
Incorrectly Billed Diagnosis-Related Group Codes

Medicare payments may not be made for items and services that “are not reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member” (the Act, § 1862(a)(1)(A)). The Manual requires providers to complete claims accurately so that Medicare contractors may process them correctly and promptly (chapter 1, § 80.3.2.2).

For 4 of the 100 inpatient claims, the Hospital billed Medicare for incorrect DRG codes. Medical review determined that the secondary diagnosis code was not sufficiently supported in the medical record. The Hospital did not offer a cause for these errors because it did not believe the claims were billed in error. As a result of these errors, the Hospital received overpayments of $21,985.

Manufacturer Credits for Replaced Medical Devices Not Reported

Federal regulations require reductions in the inpatient prospective payment for the replacement of an implanted device if (1) the device is replaced without cost to the provider, (2) the provider receives full credit for the cost of a device, or (3) the provider receives a credit equal to 50 percent or more of the cost of the device (42 CFR § 412.89). The Manual states that to bill correctly for a replacement device that was provided with a credit, a hospital must code its Medicare claims with a combination of condition code 49 or 50 along with value code “FD” (chapter 3, § 100.8).

For 3 of the 100 inpatient claims, the Hospital received reportable medical device credits from a manufacturer for a replaced device but did not adjust its inpatient claims with the proper condition and value codes to reduce payment as required. The Hospital stated that these errors occurred because some of the claims were not identified by its clinical or revenue system departments and, therefore, were not appropriately adjusted. As a result, the Hospital received overpayments of $2,500.

BILLING ERRORS ASSOCIATED WITH OUTPATIENT CLAIMS

The Hospital incorrectly billed Medicare for 15 of the 82 outpatient claims that we reviewed. These errors resulted in overpayments of $47,350.

Manufacturer Credits for Replaced Medical Devices Not Reported or Obtained

Federal regulations require a reduction in the OPPS payment for the replacement of an implanted device if: (1) the device is replaced without cost to the provider or the beneficiary, (2) the provider receives full credit for the cost of the replaced device, or (3) the provider receives partial credit equal to or greater than 50 percent of the cost of the replacement device (42 CFR
§ 419.45. The CMS Provider Reimbursement Manual (PRM) reinforces these requirements in additional detail (Pub. No. 15-1).3

CMS guidance in Transmittal 1103, dated November 3, 2006, and the Manual, chapter 4, section 61.3, explain how a provider should report no-cost and reduced-cost devices under the OPPS. For services furnished on or after January 1, 2007, CMS requires the provider to report the modifier “FB” and reduced charges on a claim that includes a procedure code for the insertion of a replacement device if the provider incurs no cost or receives full credit for the replaced device. If the provider receives a replacement device without cost from the manufacturer, the provider must report a charge of no more than $1 for the device.

For 4 of the 82 outpatient claims, the Hospital incorrectly billed Medicare for medical devices that were under warranty.

- For three claims, the Hospital received full credit for replaced devices but did not report the “FB” modifier and reduced charges on its claims.
- For one claim, the Hospital did not obtain a credit for a replaced medical device for which a credit was available under the terms of the manufacturer’s warranty.

The Hospital stated that these errors occurred because some of the claims were not identified by its clinical or revenue system departments and, therefore, were not appropriately adjusted. The Hospital also said that it could not adjust one claim because the claim did not meet timely filing requirements. In another case, the manufacturer stated that it did not receive the returned medical device, but, as a result of this audit, the manufacturer issued a credit. As a result, the Hospital received overpayments of $46,732.

Incorrectly Billed Evaluation and Management Services

The Manual states that a Medicare contractor pays an E&M service that is significant, separately identifiable, and above and beyond the usual pre- and post-operative work of the procedure (chapter 12, § 30.6.6(B)). In addition, the Act precludes payment to any provider of services or other person without information necessary to determine the amount due the provider (§ 1833(e)).

3 The PRM states: “Implicit in the intention that actual costs be paid to the extent they are reasonable is the expectation that the provider seeks to minimize its costs and that its actual costs do not exceed what a prudent and cost conscious buyer pays for a given item or service” (part I, § 2102.1). Section 2103 further defines prudent buyer principles and states that Medicare providers are expected to pursue free replacements or reduced charges under warranties. Section 2103(C)(4) provides the following example: “Provider B purchases cardiac pacemakers or their components for use in replacing malfunctioning or obsolete equipment, without asking the supplier/manufacturer for full or partial credits available under the terms of the warranty covering the replaced equipment. The credits or payments that could have been obtained must be reflected as a reduction of the cost of the equipment.”
For 11 of the 82 outpatient claims, the Hospital incorrectly billed Medicare for HCPCS codes appended with modifier -25\(^4\) that were incorrect for the services provided.

- For nine claims, medical review determined that, based on the procedure identified in the medical records, E&M services on the same day of the procedure are not allowable.
- For two claims, documents in the medical records were not sufficient to support the E&M services billed.

The Hospital did not offer a cause for these errors because it did not believe the claims were billed in error. As a result of these errors, the Hospital received overpayments of $618.

**OVERALL ESTIMATE OF OVERPAYMENTS**

On the basis of our sample results, we estimated that the Hospital received overpayments totaling at least $264,140 for the audit period.

**RECOMMENDATIONS**

We recommend that the Hospital:

- refund to the Medicare program $264,140 in estimated overpayments for the audit period claims that it incorrectly billed and
- strengthen controls to ensure full compliance with Medicare requirements.

**MEDICAL UNIVERSITY OF SOUTH CAROLINA COMMENTS AND OFFICE OF INSPECTOR GENERAL RESPONSE**

In written comments on our draft report, the Hospital agreed with our findings related to the 7 claims it incorrectly billed for Inpatient and Outpatient Manufacturer Credits for Replaced Medical Devices and the 11 claims it incorrectly billed for Evaluation and Management Services. However, the Hospital disagreed that it incorrectly billed 16 claims for Inpatient Short Stays and 4 claims with High-Severity-Level DRG Codes and stated that it intends to appeal those 20 claims. The Hospital said that it would be providing additional, claim-specific information as part of its appeal of these 20 claims. We maintain that these claims did not comply with Medicare billing requirements.

The Hospital also stated that it had reinforced its processes for identifying replaced medical device cases and had established additional controls to ensure compliant billing. In regard to its

\(^4\) Modifier -25 indicates that on the day of a procedure, the patient’s condition required a significant, separately identifiable E&M service, above and beyond the usual pre- and post-operative care associated with the procedure or service performed.
Evaluation and Management Services claims, the Hospital said that it had adopted a manual intervention for these claims to ensure compliant billing. However, in its written comments, the Hospital did not describe its reinforced processes, additional controls, or how its manual intervention worked. The Hospital’s comments are included in their entirety as Appendix E.
APPENDIX A: AUDIT SCOPE AND METHODOLOGY

SCOPE

Our audit covered $10,630,518 in Medicare payments to the Hospital for 1,307 claims that were potentially at risk for billing errors. We selected for review a stratified random sample of 182 claims with payments totaling $4,653,211. These 182 claims had dates of service from January 1, 2011, through June 30, 2012 (audit period), and consisted of 100 inpatient and 82 outpatient claims.

We focused our review on the risk areas identified as a result of prior OIG reviews at other hospitals. We evaluated compliance with selected billing requirements and subjected 46 claims to medical review to determine whether the services were medically necessary.

We limited our review of the Hospital’s internal controls to those applicable to the inpatient and outpatient areas of review because our objective did not require an understanding of all internal controls over the submission and processing of claims. We established reasonable assurance of the authenticity and accuracy of the data obtained from the NCH file, but we did not assess the completeness of the file.

This report focuses on selected risk areas and does not represent an overall assessment of all claims submitted by the Hospital for Medicare reimbursement.

We conducted our fieldwork at the Hospital from April through August 2013.

METHODOLOGY

To accomplish our objective, we:

- reviewed applicable Federal laws, regulations, and guidance;
- extracted the Hospital’s inpatient and outpatient paid claims data from CMS’s NCH File for the audit period;
- obtained information on known credits for replaced cardiac medical devices from the device manufacturers for the audit period;
- used computer matching, data mining, and analysis techniques to identify claims potentially at risk for noncompliance with selected Medicare billing requirements;
- selected a stratified random sample of 182 claims (Appendix B) totaling $4,653,211 for detailed review;
- reviewed available data from CMS’s Common Working File for the sampled claims to determine whether the claims had been cancelled or adjusted;
• reviewed the itemized bills and medical record documentation provided by the Hospital to support the sampled claims;

• requested the Hospital to conduct its own review of the sampled claims to determine whether the services were billed correctly;

• reviewed the Hospital’s procedures for classifying hospital stays (outpatient, observation, or inpatient admission), case management, coding, and Medicare claim submission;

• used CMS’s Medicare contractor medical review staff to determine whether 46 sampled claims met medical necessity requirements;

• discussed claim errors with Hospital personnel to determine the underlying causes of noncompliance with Medicare requirements;

• calculated the correct payments for those claims requiring adjustments;

• used the results of the sample to estimate the Medicare overpayments to the Hospital (Appendix C); and

• discussed the results of the review with Hospital officials.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.
APPENDIX B: SAMPLE DESIGN AND METHODOLOGY

POPULATION

The population was inpatient and outpatient claims paid to the Hospital for services provided to Medicare beneficiaries during our audit period.

SAMPLING FRAME

According to CMS’s NCH data, for 30 risk areas, Medicare paid the Hospital $348,946,077 for 14,336 inpatient and 287,802 outpatient claims for services provided to beneficiaries during the audit period.\(^5\)

From these 30 risk areas, we selected 8 consisting of 62,212 claims totaling $101,025,599 for further review.

We then removed the following:

- $0 paid claims;
- claims duplicated within individual risk areas by assigning each:
  - inpatient claim that appeared in multiple risk areas to just one category based on the following hierarchy: 1) Inpatient Manufacturer Credits for Replaced Medical Devices, 2) Inpatient Claims Billed With High-Severity-Level DRG Codes, 3) Inpatient Claims Paid in Excess of Charges, 4) Inpatient Short Stays, 5) Inpatient Transfers, and 6) Inpatient Claims With Cancelled Surgical Procedures and
  - outpatient claim that appeared in multiple risk areas to just one category based on the following hierarchy: 1) Outpatient Manufacturer Credits for Replaced Medical Devices, 2) Outpatient Claims Billed With Evaluation and Management Services, and 3) Outpatient Claims Billed for Doxorubicin Hydrochloride; and
- claims under review by the Recovery Audit Contractor as of April 17, 2013.

Removing these claims resulted in a sampling frame of 1,307 unique Medicare claims in 8 risk areas totaling $10,630,518.

\(^5\) Dates of service for claims in the audit period ranged from January 1, 2011, through September 30, 2012. However, we audited only claims that were during the 18-month period of January 1, 2011, through June 30, 2012, because these claims were finalized per NCH.
<table>
<thead>
<tr>
<th>Risk Area</th>
<th>Number of Claims</th>
<th>Amount of Payments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inpatient and Outpatient Manufacturer Credits for Replaced Medical Devices</td>
<td>29</td>
<td>$516,113</td>
</tr>
<tr>
<td>Inpatient Claims Billed With High-Severity-Level DRG Codes</td>
<td>432</td>
<td>6,136,753</td>
</tr>
<tr>
<td>Inpatient Claims Paid in Excess of Charges</td>
<td>16</td>
<td>3,198,620</td>
</tr>
<tr>
<td>Inpatient Short Stays</td>
<td>56</td>
<td>426,014</td>
</tr>
<tr>
<td>Outpatient Claims Billed With Evaluation and Management Services</td>
<td>732</td>
<td>156,416</td>
</tr>
<tr>
<td>Inpatient Transfers</td>
<td>1</td>
<td>30,354</td>
</tr>
<tr>
<td>Inpatient Claims With Cancelled Surgical Procedures</td>
<td>4</td>
<td>35,513</td>
</tr>
<tr>
<td>Outpatient Claims Billed for Doxorubicin Hydrochloride</td>
<td>37</td>
<td>130,735</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,307</strong></td>
<td><strong>$10,630,518</strong></td>
</tr>
</tbody>
</table>

**SAMPLE UNIT**

The sample unit was a Medicare paid claim.

**SAMPLE DESIGN**

We used a stratified random sample. We divided the sampling frame into 8 strata based on risk area.

**SAMPLE SIZE**

We randomly selected 182 claims for review as follows:

<table>
<thead>
<tr>
<th>Stratum</th>
<th>Risk Area</th>
<th>Claims in Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Inpatient and Outpatient Manufacturer Credits for Replaced Medical Devices</td>
<td>29</td>
</tr>
<tr>
<td>2</td>
<td>Inpatient Claims Billed With High-Severity-Level DRG Codes</td>
<td>35</td>
</tr>
<tr>
<td>3</td>
<td>Inpatient Claims Paid in Excess of Charges</td>
<td>16</td>
</tr>
<tr>
<td>4</td>
<td>Inpatient Short Stays</td>
<td>30</td>
</tr>
<tr>
<td>5</td>
<td>Outpatient Claims Billed With Evaluation and Management Services</td>
<td>30</td>
</tr>
<tr>
<td>6</td>
<td>Inpatient Transfers</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Inpatient Claims With Cancelled Surgical Procedures</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>Outpatient Claims Billed for Doxorubicin Hydrochloride</td>
<td>37</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>182</strong></td>
</tr>
</tbody>
</table>
SOURCE OF RANDOM NUMBERS

We generated the random numbers using the Office of Inspector General, Office of Audit Services (OIG/OAS) statistical software.

METHOD FOR SELECTING SAMPLE UNITS

We consecutively numbered the claims within strata 2, 4, and 5. After generating the random numbers for strata 2, 4, and 5, we selected the corresponding claims in each stratum. We selected all claims in strata 1, 3, 6, 7, and 8.

ESTIMATION METHODOLOGY

We used the OIG/OAS statistical software to estimate the total amount of Medicare overpayments paid to the Hospital during the audit period.
APPENDIX C: SAMPLE RESULTS AND ESTIMATES

SAMPLE RESULTS

<table>
<thead>
<tr>
<th>Stratum</th>
<th>Frame Size (Claims)</th>
<th>Value of Frame</th>
<th>Sample Size</th>
<th>Value of Sample</th>
<th>Number of Incorrectly Billed Claims in Sample</th>
<th>Value of Overpayments in Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>29</td>
<td>$516,113</td>
<td>29</td>
<td>$516,113</td>
<td>7</td>
<td>$49,232</td>
</tr>
<tr>
<td>2</td>
<td>432</td>
<td>6,136,753</td>
<td>35</td>
<td>481,831</td>
<td>4</td>
<td>21,985</td>
</tr>
<tr>
<td>3</td>
<td>16</td>
<td>3,198,620</td>
<td>16</td>
<td>3,198,619</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>56</td>
<td>426,014</td>
<td>30</td>
<td>254,337</td>
<td>16</td>
<td>144,620</td>
</tr>
<tr>
<td>5</td>
<td>732</td>
<td>156,416</td>
<td>30</td>
<td>5,709</td>
<td>11</td>
<td>618</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>30,354</td>
<td>1</td>
<td>30,354</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>35,513</td>
<td>4</td>
<td>35,513</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>37</td>
<td>130,735</td>
<td>37</td>
<td>130,735</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>1,307</td>
<td>$10,630,518</td>
<td>182</td>
<td>$4,653,211</td>
<td>38</td>
<td>$216,455</td>
</tr>
</tbody>
</table>

ESTIMATES

**Estimated Value of Overpayments for the Audit Period**

*Limits Calculated for a 90-Percent Confidence Interval*

- Point Estimate: $334,276
- Lower limit: $264,140
- Upper limit: $426,398

\[^6\] In accordance with OAS policy, we did not use the results from stratum 2 in calculating the estimated overpayments. Instead, we added the actual overpayments from stratum 2 ($21,985) to the lower limit ($242,155), which resulted in an adjusted lower limit of $264,140.
## APPENDIX D: RESULTS OF REVIEW BY RISK AREA

<table>
<thead>
<tr>
<th>Risk Area</th>
<th>Selected Claims</th>
<th>Value of Selected Claims</th>
<th>Claims With Over-payments</th>
<th>Value of Over-payments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inpatient</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short Stays</td>
<td>30</td>
<td>$254,337</td>
<td>16</td>
<td>$144,620</td>
</tr>
<tr>
<td>Claims Billed With High-Severity-Level DRG Codes</td>
<td>35</td>
<td>481,831</td>
<td>4</td>
<td>21,985</td>
</tr>
<tr>
<td>Manufacturer Credits for Replaced Medical Devices</td>
<td>14</td>
<td>286,616</td>
<td>3</td>
<td>2,500</td>
</tr>
<tr>
<td>Claims Paid in Excess of Charges</td>
<td>16</td>
<td>3,198,619</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Claims With Cancelled Surgical Procedures</td>
<td>4</td>
<td>35,513</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Transfers</td>
<td>1</td>
<td>30,354</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Inpatient Totals</strong></td>
<td>100</td>
<td>$4,287,270</td>
<td>23</td>
<td>$169,105</td>
</tr>
<tr>
<td><strong>Outpatient</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturer Credits for Replaced Medical Devices</td>
<td>15</td>
<td>$229,497</td>
<td>4</td>
<td>$46,732</td>
</tr>
<tr>
<td>Claims Billed With Evaluation and Management Services</td>
<td>30</td>
<td>5,709</td>
<td>11</td>
<td>618</td>
</tr>
<tr>
<td>Claims Billed for Doxorubicin Hydrochloride</td>
<td>37</td>
<td>130,735</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Outpatient Totals</strong></td>
<td>82</td>
<td>$365,941</td>
<td>15</td>
<td>$47,350</td>
</tr>
<tr>
<td><strong>Inpatient and Outpatient Totals</strong></td>
<td>182</td>
<td>$4,653,211</td>
<td>38</td>
<td>$216,455</td>
</tr>
</tbody>
</table>

**Notice:** The table above illustrates the results of our review by risk area. In it, we have organized inpatient and outpatient claims by the risk areas we reviewed. However, we have organized this report’s findings by the types of billing errors we found at Medical University of South Carolina. Because we have organized the information differently, the information in the individual risk areas in this table does not match precisely with this report’s findings.
December 19, 2013

Ms. Lori S. Pilcher
Regional Inspector General for Audit Services
Office of Inspector General
Department of Health and Human Services
61 Forsyth St. SW
Suite 3T41
Atlanta, GA 30303

Re: Report Number: A-04-13-03075

Dear Ms. Pilcher:

MUSC Medical Center is in receipt of the above referenced draft audit report. In the report, the OIG concludes that 38 claims in five risk areas were submitted by MUSC to Medicare in error. It is our understanding that in previous, similar audits the OIG allowed providers to avail themselves of a more robust appeals process prior to publishing audit results. MUSC has been informed that our results will be published prior to any further appeals process. When we have appealed similar denials under CMS’s Recovery Audit Contractor program, we have experienced an extremely high rate of claims being overturned in our favor. We are confident we will see similar results after we are given the opportunity to appeal these cases through that process. Below is our response to the OIG’s findings in each risk area.

1) Short Stay: We respectfully disagree with the OIG’s findings on all 16 claims in this category ($144,620) and plan to appeal each of them. We will be happy to share the results of the appeals on these claims once that process is complete.

2) DRG: As is the case with the short stay claims, we respectfully disagree with the findings on the four claims in this category ($21,985) and plan to appeal each of them. We will be happy to share the results of the appeals on these claims once that process is complete.

3) Replaced Medical Devices - Inpatient: We agree with the OIG’s findings on the three claims in this category ($2,500). We have reinforced our processes for identifying replaced medical device cases, and have established additional controls to ensure compliant billing in this area.

4) Replaced Medical Devices - Outpatient: We agree with the OIG’s findings on the four claims in this category ($46,732). See #3.

5) Evaluation and Management Services: We agree with the OIG’s findings on the 11 claims in this category ($618). We have adopted a manual intervention for these claims to ensure compliant billing in this area.
In summary, we are in agreement with 18 claim findings ($49,850), and we disagree with 20 claim findings ($166,605). We will be providing additional, claim-specific information as part of our appeal for those claims on which we disagree. We want to thank you for the professional way in which the audit was conducted, and for carefully considering our comments in meetings and in prior drafts.

Best Personal Regards,

[Signature]

Reece H. Smith
Chief Compliance Officer

cc: Stephen Hargett, Chief Financial Officer
    S. David McLean, Senior Legal Counsel