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 all 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 in order to reduce waste, abuse, and mismanagement and to promote economy and efficiency throughout HHS.

**Office of Evaluation and Inspections**

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

**Office of Investigations**

The Office of Investigations (OI) conducts criminal, civil, and administrative investigations of allegations of wrongdoing in HHS programs or to HHS beneficiaries and of unjust enrichment by providers. The investigative efforts of OI lead to criminal convictions, administrative sanctions, 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 in OIG's internal operations. OCIG imposes program exclusions and civil monetary penalties on health care providers and litigates those actions within HHS. OCIG also represents OIG in the global settlement of cases arising under the Civil False Claims Act, develops and monitors corporate integrity agreements, develops compliance program guidances, renders advisory opinions on OIG sanctions to the health care community, and issues fraud alerts and other industry guidance.
OBJECTIVE

To determine the extent to which Medicare Part B surgical debridement services in 2004 met Medicare program requirements.

BACKGROUND

Surgical debridement is the removal of dead or unhealthy tissue from a wound using a sharp instrument, such as a curette or scalpel. The purpose of surgical debridement is to promote wound healing by removing sources of infection and other impediments.

Medicare Part B payments for surgical debridement services have increased in recent years. Between 2001 and 2005, Medicare-allowed payments grew by 44 percent, from $140 million to $202 million.

We conducted a medical record review of 368 surgical debridement services from the Centers for Medicare & Medicaid Services’ (CMS) National Claims History file that had a date of service in 2004. Physicians with experience in wound care and certified professional coders reviewed the medical records to determine whether they met Medicare program requirements. In addition, we interviewed staff from the 17 carriers that processed Part B claims in 2004. We also reviewed the carriers’ local coverage determinations that provided additional guidance about surgical debridement services.

FINDINGS

Sixty-four percent of surgical debridement services in 2004 did not meet Medicare program requirements, resulting in approximately $64 million in improper payments. Medicare allowed approximately $188 million in 2004 for surgical debridement services. An estimated 64 percent of these services did not meet one or more Medicare program requirements. As a result, Medicare allowed an estimated $64 million in improper payments in 2004. Higher cost services were less likely to meet program requirements than lower cost services.

Reviewers determined that 39 percent of surgical debridement services were billed with a code or modifier that did not accurately reflect the service provided. Twenty-nine percent of services had no documentation or insufficient documentation to determine whether the
services were medically necessary or were coded accurately. One percent of all surgical debridement services in 2004 were not medically necessary.

Most carriers had local coverage determinations and edits in place but conducted limited medical review of surgical debridement services. Twelve of the seventeen carriers had at least one local coverage determination (LCD) in 2004 that addressed surgical debridement services. These LCDs addressed medical necessity and the debridement codes but in somewhat different ways. For example, 1 carrier’s LCD was significantly different from the other 11 carriers’ LCDs and, according to reviewers, was inconsistent with Medicare coding guidelines. Twelve of the seventeen carriers had edits in place for surgical debridement services at the time of our review. However, only 8 of the 17 carriers conducted any medical review of surgical debridement services within the past 5 years.

RECOMMENDATION

Based on the results of our review, we recommend that CMS:

Strengthen program safeguards to prevent improper payments for surgical debridement services. CMS should either develop a National Coverage Determination or instruct carriers to develop more uniform policy guidance that defines surgical debridement and clarifies how to most appropriately code the services provided. The guidance should also clarify what information needs to be documented in the medical record to meet Medicare program requirements. CMS should also instruct carriers to implement edits, such as frequency edits, as appropriate.

In addition, CMS should instruct carriers to conduct additional medical reviews and education efforts on surgical debridement services. Carriers should focus their reviews on common coding errors, higher cost services, and/or providers who have aberrant billing patterns. Education should focus on what services are considered surgical debridement, how these services should be correctly coded, and when modifiers may be used.

Lastly, CMS should work with the carrier that has the LCD that is different from the others to ensure that this policy is consistent with current Medicare coding guidelines.
In addition to these recommendations, we will forward information on the miscoded, insufficiently documented, and medically unnecessary services in our sample to CMS for appropriate action.

**AGENCY COMMENTS AND OFFICE OF INSPECTOR GENERAL RESPONSE**

CMS generally concurs with our recommendations for more review and guidance with a focus on coding, billing, and education. CMS believes that development of LCDs by Medicare contractors, as opposed to a National Coverage Determination, provides the best method of strengthening program safeguards. In particular, CMS concurs with our recommendation that guidance on surgical debridement by Medicare contractors would help standardize clinical approaches to surgical debridement and promote appropriate utilization. CMS also agrees that additional provider education on appropriate coding and modifiers is necessary. Lastly, CMS will encourage Medicare contractors to use proactive data analysis to determine areas where medical review should be increased.

In addition, CMS notes that in response to the initiation of our review, many of the Medicare contractors developed LCDs in 2005 and 2006 that offer more explicit guidance on surgical debridement. We encourage CMS to continue to work with the contractors, particularly those that do not currently have LCDs, to ensure uniform and consistent policy guidance on surgical debridement services.
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OBJECTIVE
To determine the extent to which Medicare Part B surgical debridement services in 2004 met Medicare program requirements.

BACKGROUND
Surgical debridement is the removal of dead or unhealthy tissue from a wound using a sharp instrument, such as a curette or scalpel. The purpose of surgical debridement is to promote wound healing by removing sources of infection and other impediments. Surgical debridement is commonly performed on patients who have diabetes. In 2004, 52 percent of Medicare claims for surgical debridement were for patients with a diagnosis of diabetes.\(^1\)

Medicare Part B payments for surgical debridement services have increased in recent years. Between 2001 and 2005, Medicare-allowed payments for these services grew by 44 percent, from $140 million to $202 million. In addition, the incidence of diabetes has risen significantly in recent years and is expected to continue to increase.\(^2\) As a result, it is reasonable to assume Medicare payments for surgical debridement services will also continue to increase.

Surgical Debridement
Medicare’s Supplementary Medical Insurance (Part B) covers physician services and outpatient care, including surgical debridement. Physicians use codes from the American Medical Association’s Current Procedural Terminology (CPT) to bill Medicare for these services. There are five CPT codes for surgical debridement which are based on the level of skin, tissue, muscle, or bone removed. These CPT codes are:

- 11040 – Debridement: skin, partial thickness;
- 11041 – Debridement: skin, full thickness;
- 11042 – Debridement: skin and subcutaneous tissue;
- 11043 – Debridement: skin, subcutaneous tissue, and muscle; and
- 11044 – Debridement: skin, subcutaneous tissue, muscle, and bone.

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\(^1\) This analysis is based on Medicare Part B claims for Current Procedural Terminology codes 11040 through 11044 from Centers for Medicare & Medicaid Services’s National Claims History file.

Medicare covers and pays for surgical debridement services furnished by physicians and other licensed practitioners within the scope of their practice under State law. In some States, this includes nonphysician practitioners, such as nurse practitioners and physicians’ assistants. For the purposes of this report, we refer to all practitioners as physicians.

Surgical debridement services may be performed by different types of physicians. In 2005, podiatrists performed 66 percent of surgical debridement services covered by Medicare, while general surgeons performed 10 percent. The remaining 24 percent of surgical debridement services were performed by other types of physicians and practitioners, including vascular surgeons, family practitioners, internists, and plastic surgeons.

Surgical debridement services may be performed in a variety of settings. In 2005, 60 percent of surgical debridement services took place in physicians’ offices, 24 percent in outpatient facilities, and 6 percent in nursing facilities or skilled nursing facilities. The remaining 10 percent of services were performed in other settings, such as inpatient hospitals and custodial care facilities.

Medicare Program Requirements
General provisions of the Social Security Act (the Act) govern Medicare reimbursement for all services, including surgical debridement.

- Section 1862(a)(1)(A) of the Act states that no payment may be made for 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.”
- Section 1833(e) of the Act requires that physicians furnish “such information as may be necessary in order to determine the amounts due” to receive Medicare payment.

Regulations that reflect these provisions of Medicare law appear at 42 CFR §§ 411.15 and 424.5(a)(6).

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4 This analysis is based on Medicare Part B claims for CPT codes 11040 through 11044 from the Centers for Medicare & Medicaid Services’s National Claims History file.
5 Ibid.
7 42 U.S.C. § 1395l(e).
In addition, the Centers for Medicare & Medicaid Services’ (CMS) “National Correct Coding Policy Manual for Part B Medicare Carriers” (the Coding Manual) addresses the use of CPT codes and modifiers. It states that, “[p]rocedures should be reported with the [CPT] codes that most comprehensively describe the services performed.” The Coding Manual also states that, “[i]t is very important that . . . modifiers only be used when appropriate.” Modifiers are two-digit codes that are attached to the end of the CPT code to further describe the service performed. Under certain circumstances, physicians may use modifiers to bypass software-based controls—known as edits—that identify services that generally should not be billed together, such as two services performed on the same patient on the same day, by the same physician.

**Medicare Payments**

Medicare reimburses physicians for outpatient surgical debridement services according to the Medicare Physician Fee Schedule. The fee schedule amounts vary by geographic location and by the setting in which the service is rendered, i.e., a facility or nonfacility setting, such as a physician’s office. Carriers adjust the fee schedule amount based on several additional factors to determine the payment for each service. For example:

- When multiple services are performed by the same physician on the same day, the highest-value service is reimbursed at 100 percent of the fee schedule amount and the other services are reimbursed at 50 percent of the fee schedule amount.\(^\text{10}\)

- Services provided by nurse practitioners and physician assistants are reimbursed at 85 percent of the fee schedule amount when billed by these individuals.\(^\text{11}\)

Table 1 on the next page shows the average fee schedule amounts for surgical debridement services provided in nonfacility settings in 2004.

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Carriers are responsible for implementing program safeguards to reduce payment errors. To accomplish this, carriers may develop local coverage determinations (LCD) or instructional articles, which provide additional guidance to physicians about specific services. Carriers may also implement edits to prevent improper payments. Additionally, carriers are responsible for conducting medical reviews. As part of this function, carriers analyze data and conduct provider education and training, among other activities.

METHODOLOGY

We based this study on data from several sources: (1) a medical record review of a stratified simple random sample of allowed Part B surgical debridement services, (2) a review of carrier policies and other documentation, and (3) structured telephone interviews with carrier staff. A detailed description of the sample selection and medical review is provided in Appendix A.
We selected a stratified simple random sample of 400 claim line items for surgical debridement services from CMS’s National Claims History file. We identified all of the allowed claims with CPT codes 11040, 11041, 11042, 11043, and 11044 that had service dates in 2004 and allowed reimbursements of at least $15. At the start of our review, 2004 was the most recent full year of Medicare claims data available. The population consisted of approximately three million claims that represented about $188 million in allowed payments.

To improve our estimates of improper payments, we stratified our population based on Medicare allowed payments. The first stratum included all claims with allowed payments greater than $100. The second stratum included all claims with allowed payments less than or equal to $100 and at least $15. We looked for differences in the error rates between the two strata.

Our sample of 400 claims included a total of 402 services for review. We requested the medical record from the physician for each of these services. We based our review on 368 of the 402 services, corresponding to a 92-percent response rate. We did not include the other 34 services in our analysis because we were unable to locate current addresses for the physicians.

We used a contractor to conduct the medical review. The reviewers included three physicians with experience in wound care and three certified professional coders. In collaboration with the reviewers, we developed a review instrument that was based on Medicare program requirements. One physician and one coder reviewed each of the medical records: the physician determined whether the service was medically necessary, and the coder determined the appropriate CPT code and modifier(s) for the service.

In addition, we reviewed the carriers’ LCDs that addressed surgical debridement services. We compared these LCDs to assess their similarities and differences. We also reviewed documentation provided by the carriers about the safeguards they had in place related to surgical debridement services.

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12 Multiple claim line items may be billed within a single claim. For this report, we refer to claim line items as claims.

13 Multiple services may be billed within a single claim line item.
Lastly, we conducted structured telephone interviews with staff at each of the carriers that were responsible for overseeing coverage and payment issues. Our questions focused on any policies and safeguards they had to prevent improper payments for surgical debridement services. We conducted these interviews between December 2005 and February 2006.

**Standards**

Our review 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.
FINDINGS

Sixty-four percent of surgical debridement services in 2004 did not meet Medicare program requirements, resulting in approximately $64 million in improper payments.

Medicare allowed approximately $188 million in 2004 for surgical debridement services. An estimated 64 percent of these services did not meet one or more Medicare program requirements. As a result, Medicare allowed an estimated $64 million in improper payments in 2004.

Additionally, we found that higher cost services were less likely to meet program requirements than lower cost services. Specifically, 75 percent of services that were greater than $100 did not meet requirements, compared to 63 percent of services that were less than or equal to $100. \(^\text{14}\) Table 2 describes the error rates. Appendix B provides the confidence intervals for key estimates.

### Table 2

<table>
<thead>
<tr>
<th>Error Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miscoded</td>
<td>39%</td>
</tr>
<tr>
<td>Insufficient Documentation</td>
<td>29%</td>
</tr>
<tr>
<td>Medically Unnecessary</td>
<td>1%</td>
</tr>
<tr>
<td>(Overlapping Error)</td>
<td>(5%)</td>
</tr>
<tr>
<td><strong>Total Error</strong></td>
<td><strong>64%</strong></td>
</tr>
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</table>


Thirty-nine percent of surgical debridement services were miscoded

An estimated 39 percent of surgical debridement services in 2004 were billed with a code and/or modifier that did not accurately reflect the service provided. Specifically, 21 percent were “upcoded,” meaning that the service was reimbursed at a higher rate than appropriate. Another 7 percent were “downcoded,” meaning the service was reimbursed at a lower rate than appropriate. The remaining 10 percent were coded with an incorrect modifier, but there was no effect on payment. \(^\text{15}\) In total,

\(^\text{14}\) In a two-tailed test, this difference was significant at the 95-percent confidence level.

\(^\text{15}\) Note that these percentages do not add to 39 percent due to rounding.
these miscoded services represented an estimated $19 million in improper payments in 2004.\textsuperscript{16}

Of those services that were miscoded, almost half (47 percent) were not actually surgical debridement. In fact, 20 percent of miscoded services were actually routine foot care which should not have been covered by Medicare.\textsuperscript{17} In all of these cases, the physician removed a benign hyperkeratotic lesion, such as a corn or callus, and billed it as surgical debridement.

One-third of the services that were miscoded (33 percent) were billed with an inappropriate modifier. In these cases, physicians submitted a claim with a modifier that was not necessary or did not accurately describe the circumstances of the service. For example, several physicians submitted claims with modifier 59 when it was not needed. Modifier 59 indicates that the service was the second of two distinct services and that it should be paid at 50 percent of the fee schedule amount. Several physicians used this modifier when they provided only one service.\textsuperscript{18}

The remaining 20 percent of the services that were miscoded were billed with a surgical debridement code that did not accurately reflect the level of tissue, muscle, or bone removed during the debridement. For example, the medical record indicated that tissue was debrided to (but not including) muscle, yet physicians billed CPT 11043—debridement of skin, subcutaneous tissue, and muscle. As one reviewer noted, physicians frequently coded the level of debridement based on the depth of the wound, as opposed to the extent of the tissue removed.

**Twenty-nine percent of surgical debridement services were insufficiently documented**

An estimated 29 percent of services in 2004 were either not documented or insufficiently documented. In all of these cases, the physician did not

\textsuperscript{16} The $19 million in improper payments represents the difference between the total amount of overpayments and underpayments.

\textsuperscript{17} Routine foot care includes such services as the cutting and removal of corns and calluses, the trimming of nails, and the cleansing and soaking of feet. See “Medicare Benefit Policy Manual,” chapter 15, section 290(B)(2). Except under specific circumstances, routine foot care is excluded from coverage under Medicare Part B. These exceptions are outlined in sections 290F and 290G of the Manual.

\textsuperscript{18} A recent Office of Inspector General report, “Use of Modifier 59 to Bypass the Medicare’s National Correct Coding Initiative Edits” (OEI-03-02-00771), found that 40 percent of code pairs billed with modifier 59 in fiscal year 2003 did not meet Medicare program requirements, resulting in $59 million in improper payments.
furnish enough information to determine the amount due, and therefore Medicare should not have paid for these services. In total, these services represented an estimated $49 million in improper payments in 2004.

For the services that were not documented, physicians failed to submit any documentation for the sampled services. For the services that were insufficiently documented, the records did not have enough information to determine whether the services were medically necessary or were coded accurately. For example, one medical record indicated that the physician changed the wound dressings but did not provide enough information to determine whether the physician actually debrided the wound.

The reviewers also noted that some of the services that were not sufficiently documented may have been part of an inappropriate pattern. Although the reviewers did not determine whether each of these other services was appropriate because they were not in the sample, they noted that the number of services provided to some beneficiaries may have been excessive. For example, reviewers noted that one patient had 43 debridements involving muscle within a 9-month period.

One percent of surgical debridement services were not medically necessary

Reviewers determined that about 1 percent of surgical debridement services in 2004 were not medically necessary. For these services, the medical records indicated that the wounds did not need to be debrided. For example, one record showed that the ulcer required dressing changes but not surgical debridement. Another record contained a description of a wound with healthy pink tissue and no evidence of infection.

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19 42 U.S.C. § 1395l(e).
20 We did not report an estimate of improper payments for the medically unnecessary services because the confidence interval contained zero.
Most carriers had local coverage determinations and edits in place but conducted limited medical review of surgical debridement services. Based on interviews with staff at each carrier and a review of documentation, we found that most carriers had LCDs and edits in place to prevent improper payments for surgical debridement. However, the carriers performed only limited medical review of surgical debridement services in the past 5 years. Table 3 describes the types of safeguards that each carrier had in place.

Table 3

<table>
<thead>
<tr>
<th>Carrier</th>
<th>LCD</th>
<th>Edits for Frequency</th>
<th>Edits for Diagnosis</th>
<th>Limited Medical Review*</th>
<th>Widespread Medical Review*</th>
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<td>3</td>
<td>10</td>
<td>8</td>
<td>3</td>
</tr>
</tbody>
</table>


*The carrier has conducted this activity within the past 5 years.

Local Coverage Determinations. In 2004, 12 of the 17 carriers had at least one LCD that addressed surgical debridement services. The remaining five carriers did not have LCDs that addressed surgical debridement services.
FINDINGS

All of the 12 carriers that had LCDs addressed medical necessity and the debridement codes but in somewhat different ways. For example, all 12 carriers considered surgical debridement to be medically necessary for patients with certain diagnosis codes; however, the number of diagnosis codes varied significantly from 3 to 128. Further, all addressed the codes. However, 8 of the 12 carriers explained when it was appropriate to use the surgical debridement codes, while 3 other carriers outlined when it was not appropriate to use these codes. The remaining carrier only listed the codes.

In addition, 1 carrier had an LCD that was significantly different from the other 11 carriers’ LCDs. According to the reviewers, this LCD was also inconsistent with the CPT Manual. Specifically, this LCD allowed physicians to bill for the removal of keratotic lesions using CPT code 11040 (debridement—skin, partial thickness) under certain circumstances. The CPT Manual contains a different series of codes—CPT 11055, 11056, and 11057—for the removal of these lesions. These codes are considered routine foot care and are generally not covered by Medicare.

Edits. Twelve of the seventeen carriers had edits in place for surgical debridement services at the time of our review. Three carriers had edits that limited the frequency with which surgical debridement may be billed. Ten carriers had edits that ensured that surgical debridement services are billed with the diagnosis codes that are designated in their LCDs.

Medical Reviews. Nine of the seventeen carriers reported that they had not conducted any medical review of surgical debridement services in the past 5 years. Five carriers conducted only limited reviews of surgical debridement services that generally targeted physicians with aberrant billing patterns. For example, one of these five carriers had conducted medical reviews of only two physicians within the past 5 years. Three other carriers had conducted both limited and more widespread reviews of over 100 claims.

21 For more information see the National Heritage Insurance Company’s LCD entitled “Foot Care” (L21861).
22 According to the LCD, to bill CPT code 11040, a keratotic lesion must directly or indirectly contribute to perilesional soft tissue inflammation and/or pain.
24 One carrier had both types of edits in place.
Our review found that almost two-thirds of all surgical debridement services in 2004 did not meet Medicare program requirements. As a result, Medicare allowed an estimated $64 million in improper payments in 2004. This finding demonstrates the need for CMS to take steps to ensure that these services meet Medicare program requirements and are paid appropriately.

Based on the results of our review, we recommend that CMS:

**Strengthen program safeguards to prevent improper payments for surgical debridement services**
CMS should either develop a National Coverage Determination or instruct carriers to develop more uniform policy guidance, such as LCDs and instructional articles, that defines surgical debridement and clarifies how to most appropriately code the services provided. The guidance should also clarify what information needs to be documented in the medical record to meet Medicare program requirements. CMS should also instruct carriers to implement edits, such as frequency edits, as appropriate.

In addition, CMS should instruct carriers to conduct additional medical reviews and education efforts on surgical debridement services. Carriers should focus their reviews on common coding errors, higher cost services, and/or providers who have aberrant billing patterns. Education should focus on what services are considered surgical debridement, how these services should be correctly coded, and when modifiers may be used.

Lastly, CMS should work with the carrier that has the LCD that allows the removal of keratotic lesions to be billed as surgical debridement to ensure that this policy is consistent with current Medicare coding guidelines.

In addition to these recommendations, we will forward information on the miscoded, insufficiently documented, and medically unnecessary services in our sample to CMS for appropriate action.

**AGENCY COMMENTS AND OFFICE OF INSPECTOR GENERAL RESPONSE**
CMS generally concurs with our recommendations for more review and guidance with a focus on coding, billing, and education. CMS believes that development of LCDs by Medicare contractors, as opposed to a National Coverage Determination, provides the best method of
strengthening program safeguards. In particular, CMS concurs with our recommendation that guidance on surgical debridement by Medicare contractors would help standardize clinical approaches to surgical debridement and promote appropriate utilization. CMS also agrees that additional provider education on appropriate coding and modifiers is necessary. Lastly, CMS will encourage Medicare contractors to use proactive data analysis to determine areas where medical review should be increased.

In addition, CMS notes that in response to the initiation of our review, many of the Medicare contractors developed LCDs in 2005 and 2006 that offer more explicit guidance on surgical debridement. We encourage CMS to continue to work with the contractors, particularly those that do not currently have LCDs, to ensure uniform and consistent policy guidance on surgical debridement services. The full text of CMS’s comments is provided in Appendix C.
Detailed Description of Sample Selection and Medical Review

Sample Selection

We selected a stratified simple random sample of 400 claim line items for surgical debridement services from CMS’s National Claims History file. To do this, we identified all of the allowed claims with CPT codes 11040, 11041, 11042, 11043, and 11044 that had service dates in 2004. We included only claims that had allowed reimbursements of at least $15 to focus our review on higher dollar claims. The population consisted of 3,139,435 claims that represented $188,262,601 in allowed payments.

To improve our estimates of improper payments, we stratified the population by allowed amount. We also looked for differences in the error rates between the two strata. Table 1 below shows the two strata and the number of claims we selected from each.

<table>
<thead>
<tr>
<th>Stratum</th>
<th>Number of Claims in Population</th>
<th>Number of Claims in Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Allowed reimbursement greater than $100</td>
<td>233,643</td>
<td>150</td>
</tr>
<tr>
<td>2 - Allowed reimbursement less than or equal to $100 and at least $15</td>
<td>2,905,792</td>
<td>250</td>
</tr>
<tr>
<td>Total</td>
<td>3,139,435</td>
<td>400</td>
</tr>
</tbody>
</table>


The 400 claims in our sample included 412 services. (For six claims in our sample, the physicians billed multiple services on the same claim line items.) We excluded 10 services from our sample. Five of these services were excluded because of an ongoing investigation by the Office of Inspector General. Another five services were excluded because the claims were not for physician’s services and therefore should not have been included in our sample. Our final sample included a total of 402 services.

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25 Multiple claim line items may be billed within a single claim. For this report, we refer to claim line items as claims.

26 We did not include claims from outside the 50 States and the District of Columbia.

27 Claims reimbursed at less than $15 represented less than 1 percent of claims and allowed dollars in the population.
**Medical Record Request**

We used a contractor to conduct the medical review. We requested all documentation from the initial evaluations of the wounds through 30 days after the dates of service. We also requested that physicians furnish all documentation relevant to the sampled service such as the patient’s diagnoses and treatment plan (if applicable), any pressure relief prescribed, operative notes, pathology reports, and x-rays.

We worked with a contractor to collect the medical records for each of the sampled services. The contractor made at least three attempts to contact each physician. The contractor mailed two request letters and made one telephone inquiry. In cases in which the contractor was able to verify the address, we sent a third request letter via certified mail.

Our review was based on a total of 368 of the 402 services, corresponding to a 92-percent response rate. We received and reviewed medical records for 354 services. For another 14 services, either the physician did not produce any documentation in response to our third request letter sent via certified mail or the documentation that the physician produced did not contain any information relevant to our sampled service. In our analysis, we considered these services to be undocumented. We did not include the remaining 34 services in our analysis because we were unable to locate current addresses for the physicians.

**Medical Record Review**

To conduct the medical review, we contracted with independent medical reviewers. The reviewers included three physicians (two podiatrists and one vascular surgeon) and three professional coders. The two podiatrists were board certified in foot surgery by the American Board of Podiatric Surgery. The vascular surgeon was board certified in general and vascular surgery by the American Board of Surgery. The physicians all had experience reviewing medical records and each had a minimum of 20 years of wound care experience. All of the coders were Certified Professional Coders and each had a minimum of 9 years of experience.28

We developed a review instrument in collaboration with the reviewers. The instrument was based on Medicare program requirements and included questions about the existence and nature of the wound, as well

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28 The coders were certified by the American Academy of Professional Coders.
as the service provided. In developing the instrument, we reviewed the American Medical Association’s manual on Current Procedural Terminology and the LCDs that addressed surgical debridement services that were in effect in 2004. Staff from CMS also reviewed and provided feedback on the instrument.

**Test review.** To test our review instrument and further train our reviewers, we conducted a preliminary medical review of 30 claims that we randomly selected from the universe of claims in 2004. This sample was separate from the sample we used in our review.\(^{29}\)

**Final sample review.** Using the final review instrument, one physician and one coder reviewed each of the records. The physician reviewer determined whether the sampled service was medically necessary. The coder determined the appropriate CPT code and modifier(s) for the sampled service. If the service provided was routine foot care, the physician reviewer referred to the “Medicare Benefit Policy Manual” to determine whether or not the service should have been covered by Medicare.\(^{30}\)

**Calculation of improper payments.** We analyzed the information from the medical reviewers using SAS and SUDAAN. For the services that were not medically necessary, insufficiently documented, or not covered by Medicare, we counted the entire amounts Medicare allowed for the services as improper. For services that were upcoded or downcoded, we calculated the amount based on the CPT code and modifier(s) that the reviewers determined were correct. We used the 2004 Medicare’s Physician Fee Schedule for the CPT code and adjusted this payment amount based on the modifier, the place of service, and physician specialty. We then subtracted this amount from the amount Medicare allowed for the service to determine the amount overpaid or underpaid. Finally, we calculated the total net difference for all services and projected it to the universe of surgical debridement services in 2004.

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\(^{29}\) All claims in 2004 were given a chance for selection in both samples. There was no overlap of claims between the samples.

\(^{30}\) “Medicare Benefit Policy Manual,” chapter 15, sections 290F and 290G.
Confidence Intervals for Selected Estimates

**Table 1: Estimates of All Errors**

<table>
<thead>
<tr>
<th>Estimate Description</th>
<th>Point Estimate</th>
<th>95-Percent Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of all surgical debridement services that did not meet Medicare program requirements</td>
<td>64.2%</td>
<td>58.3 – 70.1%</td>
</tr>
<tr>
<td>Percentage of services that were miscoded</td>
<td>38.7%</td>
<td>32.8 – 44.6%</td>
</tr>
<tr>
<td>Percentage of services that were insufficiently documented</td>
<td>29.1%</td>
<td>23.5 – 34.6%</td>
</tr>
<tr>
<td>Percentage of services that were medically unnecessary*</td>
<td>0.9%</td>
<td>0.3 – 3.2%</td>
</tr>
<tr>
<td>Percentage of services with overlapping errors</td>
<td>(4.5%)</td>
<td></td>
</tr>
</tbody>
</table>

*Confidence interval calculated using the logit transformation.


**Table 2: Estimates of Miscoded Errors**

<table>
<thead>
<tr>
<th>Estimate Description</th>
<th>Point Estimate</th>
<th>95-Percent Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of all services that were upcoded</td>
<td>21.3%</td>
<td>16.4 – 26.2%</td>
</tr>
<tr>
<td>Percentage of all services that were downcoded</td>
<td>7.1%</td>
<td>3.9 – 10.3%</td>
</tr>
<tr>
<td>Percentage of all services that were miscoded with no effect on payment</td>
<td>10.3%</td>
<td>6.6 – 14.0%</td>
</tr>
<tr>
<td>Percentage of miscoded services that were not surgical debridement</td>
<td>46.5%</td>
<td>36.8 – 56.2%</td>
</tr>
<tr>
<td>Percentage of miscoded services that were routine foot care that should not have been covered by Medicare</td>
<td>20.3%</td>
<td>12.2 – 28.3%</td>
</tr>
<tr>
<td>Percentage of miscoded services billed with inappropriate modifiers</td>
<td>33.3%</td>
<td>24.1 – 42.4%</td>
</tr>
<tr>
<td>Percentage of miscoded services billed with CPT codes that did not accurately reflect the level of tissue, muscle, or bone removed during debridement</td>
<td>20.2%</td>
<td>12.9 – 27.5%</td>
</tr>
</tbody>
</table>

### Table 3: Estimates of Improper Payments

<table>
<thead>
<tr>
<th>Estimate Description</th>
<th>Point Estimate</th>
<th>95 Percent Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount allowed for all surgical debridement services that did not meet Medicare program requirements</td>
<td>$64,004,113</td>
<td>$52,540,327 – $75,467,899</td>
</tr>
<tr>
<td>Amount allowed for services that were miscoded</td>
<td>$19,344,984</td>
<td>$11,205,351 – $27,484,618</td>
</tr>
<tr>
<td>Amount allowed for services that were insufficiently documented</td>
<td>$49,389,222</td>
<td>$40,088,836 – $58,689,608</td>
</tr>
<tr>
<td>Amount allowed for services that were medically unnecessary</td>
<td>$1,507,694</td>
<td>confidence interval contains zero</td>
</tr>
<tr>
<td>Amount allowed for services with overlapping errors</td>
<td>($6,237,787)</td>
<td></td>
</tr>
</tbody>
</table>

APPENDIX - C

Agency Comments

DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Medicare & Medicaid Services

DATE: APR 26 2007
TO: Daniel R. Levinson
   Inspector General
FROM: Leslie V. Norwalk, PE
       Acting Administrator

Thank you for the opportunity to review and comment on the subject OIG draft report. We appreciate OIG’s efforts to ensure that the Medicare program is paying appropriately for surgical debridement of wounds.

The Centers for Medicare & Medicaid Services (CMS) is in general agreement with the recommendations for more review and guidance with focus on coding, billing and education. Due to a wide-ranging lack of standardization in the application of wound care treatments across the country and the significant paucity of evidence, CMS believes that development of local coverage determinations (LCDs) by Medicare contractors, as opposed to development of a national coverage determination (NCD), provides the best method of strengthening program safeguards as proposed in the report.

CMS is committed to ensuring that providers correctly bill the Medicare program. CMS and its contractors provide participating physicians, providers, and suppliers with a variety of program instructions through multiple manuals and related educational materials such as MLN Matters articles to help guide the billing process. Our contractors also are required to perform medical review of claims after they have been submitted, which further guides providers to make appropriate coding decisions. Despite these efforts, we recognize that providers do not always correctly follow our requirements. Consequently, the OIG conducted a medical and coding review of claims for surgical debridement services and found in this report that 64 percent of the surgical debridement allowed by Medicare in 2004 did not meet program requirements, resulting in approximately $64 million in improper payments. Miscoding and insufficient documentation accounted for 39 percent and 29 percent respectively. One percent of all surgical debridement services in 2004 were not medically necessary.

OIG Recommendation:

The CMS should either develop a NCD or instruct contractors to develop more uniform policy guidance that defines for practitioners surgical debridement and appropriate coding and documentation practices. Also, it was recommended that CMS should instruct carriers to conduct additional medical reviews on surgical debridement services.
with focus on common coding errors, higher cost services and providers with aberrant billing patterns. CMS should also instruct Medicare carriers to clarify relevant criteria for documentation for physicians and other appropriate practitioners.

**CMS Response:**

The CMS has researched the evidence regarding the treatment modalities associated with the broad topic of wound care, including debridement, and found little evidence on which to base a NCD. In an attempt to stimulate quality research for the treatment of wounds and obtain information on standards of day-to-day care, CMS held a Medicare Coverage Advisory Committee (MCAC) meeting on the Usual Care of Chronic Wounds in March 2005. The consensus of the MCAC panel and invited speakers was that the quality of information addressing wound care is generally poor, leading to a significant variation in reporting the use of specific modalities, including surgical debridement. They also cited a general lack of standardization in the approach to wound treatment, including methods of debridement, across the country. As such, CMS believes that the most appropriate level for setting wound care coverage policies is with the individual Medicare carriers.

The CMS concurs with the OIG recommendation that guidance on surgical debridement by Medicare contractors would help to standardize clinical approaches to surgical debridement and promote appropriate utilization. In response to the initiation of the OIG inquiry, many of the Medicare contractors have developed local coverage determinations (LCDs) regarding wound care. These LCDs, developed in 2005 and 2006, offer definitions and descriptions of surgical debridement and more explicit guidance for surgical debridement services and other treatment modalities that accompany wound treatment. Guidance may also be found in various locations in the CMS Manual System.

The CMS agrees that additional provider education on appropriate use of coding and modifiers is necessary when submitting claims for surgical debridement services and will advise contractors to make this a part of the ongoing focused coding and documentation education. To help identify areas of concern, some Medicare contractors have instituted a rotating specific prepay audit for surgical debridement Current Procedural Terminology (CPT) codes 11040-11043. The utilization of 11044 did not necessitate inclusion in an audit. In order to monitor compliance, CMS will also encourage Medicare contractors to use proactive data analysis to determine areas where medical review should be increased on a post-pay basis, with attention to higher cost services and aberrant billing patterns.

We appreciate the OIG's efforts in conducting its investigation of Medicare payments for Part B surgical debridement services in 2004 and we will increase our physician/practitioner education efforts in this area as part of our ongoing efforts to improve the accuracy of Medicare payments.

**Attachment**
ACKNOWLEDGMENTS

This report was prepared under the direction of Jodi Nudelman, Regional Inspector General for Evaluation and Inspections in the New York regional office, and Meridith Seife, Deputy Regional Inspector General.

Miriam Anderson served as the team leader for this study. Other principal Office of Evaluation and Inspections staff from the New York regional office who contributed to this report include David Rudich and Thomas Zimmerman. Central office staff who contributed include Kevin Farber, Scott Horning, Doris Jackson and Barbara Tedesco.