MONITORING MEDICARE
PART B DRUG PRICES:
A COMPARISON OF AVERAGE
SALES PRICES TO AVERAGE
MANUFACTURER PRICES

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EXECUTIVE SUMMARY

OBJECTIVE
To determine whether average sales prices (ASP) for individual Medicare Part B prescription drugs exceed average manufacturer prices (AMP) by at least 5 percent.

BACKGROUND
Expenditures for Medicare Part B drugs have tripled over the past several years, increasing from approximately $3.3 billion in 1998 to over $10 billion in 2004. In 2005, Medicare Part B began paying for most covered drugs using a new methodology based on ASPs. Manufacturers report ASPs by national drug code (NDC) and must provide the Centers for Medicare & Medicaid Services (CMS) with the ASP and volume of sales for each of their NDCs on a quarterly basis.  

Although manufacturers submit ASP data by NDCs, CMS does not reimburse Medicare providers for drugs using NDCs. Instead, CMS uses Healthcare Common Procedure Coding System (HCPCS) codes. More than one NDC may meet the definition of a particular HCPCS code; therefore, CMS uses NDC-level information submitted by the manufacturers to calculate an ASP for each covered HCPCS code. When CMS calculates payment amounts for HCPCS codes, it must weight ASPs at the NDC level by the amount of the drug sold during the quarter. Under the ASP pricing methodology, Medicare’s allowance for most Part B drug codes is equal to 106 percent of the volume-weighted ASP for those HCPCS codes.

However, according to a recent Office of Inspector General (OIG) report entitled “Calculation of Volume-Weighted Average Sales Price for Medicare Part B Prescription Drugs” (OEI-03-05-00310), the way that CMS calculates a volume-weighted ASP is incorrect. In that report, we proposed an alternate method for calculating a volume-weighted ASP and recommended that CMS adopt this alternate method for calculating volume-weighted ASP.

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1An NDC is an 11-digit identifier that indicates the manufacturer, the product dosage form, and the package size of a drug.

2CMS established the HCPCS to provide a standardized coding system for describing the specific items and services provided in the delivery of health care.
Section 1847A(d)(2)(B) of the Social Security Act (the Act) mandates that OIG compare ASPs with AMPs. Pursuant to section 1847A(d)(3) of the Act, the Secretary of the Department of Health and Human Services may disregard the ASP for a drug or biological that exceeds the AMP for the product by at least 5 percent.

For this inspection, we obtained CMS's volume-weighted ASPs for the first quarter of 2005, which it calculated based on data submitted by manufacturers for the third quarter of 2004. We also obtained AMP data from CMS from the third quarter of 2004. We used these AMP data to calculate volume-weighted AMPs using both CMS's and OIG's methods. Ultimately, we compared volume-weighted ASPs to volume-weighted AMPs for 364 HCPCS codes, and identified codes for which the ASP exceeded the AMP by at least 5 percent according to either CMS's calculation or OIG's calculation.

**FINDING**

**ASPs for certain HCPCS codes exceeded AMPs by at least 5 percent; however, the HCPCS codes that met the threshold differed depending on the method used to calculate volume-weighted ASP and AMP.** Based on our analysis of data from the third quarter of 2004, a total of 51 HCPCS codes had an ASP that exceeded the AMP by at least 5 percent as a result of CMS's calculation. However, according to OIG’s method for calculating volume-weighted ASPs and AMPs, only 38 HCPCS codes met the 5-percent threshold.

For 34 HCPCS codes, the volume-weighted ASPs exceeded the volume-weighted AMPs by at least 5 percent regardless of whether CMS’s or OIG’s calculation was used. An additional 4 HCPCS codes met the 5-percent threshold using OIG’s calculation but not CMS’s calculation. Another 17 HCPCS codes met the 5-percent threshold using CMS’s calculation but not OIG’s calculation.

**SUMMARY**

For the purpose of monitoring new prices based on ASPs, sections 1847A(d)(2)(B) and 1847A(d)(3) of the Act mandate that OIG perform comparisons between ASPs and AMPs to identify drugs for which the ASP exceeds the AMP by at least 5 percent. This review is the first of

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3CMS collects AMPs as part of its Medicaid rebate agreements with manufacturers and as required by section 1927 of the Act.
such comparisons. We found that certain HCPCS codes did, in fact, meet the 5-percent threshold specified in the Act. However, the number of codes that met the threshold, and the monetary differences between ASPs and AMPs for those codes, depended on the method used to calculate volume-weighted ASPs and volume-weighted AMPs. Although 34 HCPCS codes met the 5-percent threshold regardless of whether CMS’s or OIG’s calculation was used, other codes only met the threshold using one calculation or the other.

Pursuant to section 1847A(d)(3) of the Act, the Secretary has authority to lower the reimbursement amount for a drug with an ASP that exceeds the AMP by the 5-percent threshold. Therefore, differences between the results of CMS’s calculation and OIG’s calculation could affect whether published reimbursement amounts for certain Medicare Part B drugs are adjusted. This, in turn, affects manufacturers, providers, and Medicare beneficiaries. It is therefore critical that CMS modify its calculation as soon as possible, both to ensure that reimbursement amounts are calculated correctly and to ensure that future comparisons between ASPs and AMPs yield the most meaningful results.

AGENCY COMMENTS

Overall, CMS indicated that the information in our report is helpful in its continuing efforts to monitor payment adequacy under the ASP methodology. However, CMS noted that OIG’s review was conducted using data submitted during the initial implementation phase of the ASP methodology. According to CMS, much of the estimated savings identified in the report did not persist in subsequent quarters, and payment limits for many codes have since been revised.

Although CMS acknowledges the Secretary’s authority to adjust the ASP payment limits when certain conditions are met, it believes that other issues should be considered, including the timing and frequency of pricing comparisons, stabilization of ASP reporting, the effective date and duration of rate substitution, and the accuracy of the ASP and AMP data.

OFFICE OF INSPECTOR GENERAL RESPONSE

This report found that comparisons between ASPs and AMPs yield different results depending on the method used to calculate volume-weighted ASPs and volume-weighted AMPs. Although CMS indicated
that our report is helpful, CMS’s comments on the draft report addressed neither the incorrect calculation nor the impact that it has on the comparison between ASPs and AMPs. We continue to believe that CMS is calculating volume-weighted ASPs incorrectly, and that this incorrect calculation results in reimbursement amounts that are inaccurate and inconsistent with the ASP payment methodology set forth in section 1847A(b) of the Act. Furthermore, we believe that the incorrect calculation affects the results of mandated comparisons between ASPs and AMPs, and could continue to do so in the future.

We acknowledge CMS’s concern that our findings should be examined in light of other important considerations. However, we are unsure of what, if any, specific steps CMS plans to take as a result of the report.
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INTRODUCTION

OBJECTIVE
To determine whether average sales prices (ASP) for individual Medicare Part B prescription drugs exceed average manufacturer prices (AMP) by at least 5 percent.

BACKGROUND

Medicare Part B Coverage of Prescription Drugs
Medicare Part B covers only a limited number of outpatient prescription drugs. Covered drugs include injectable drugs administered by a physician; certain self-administered drugs, such as oral anticancer drugs and immunosuppressive drugs; drugs used in conjunction with durable medical equipment; and some vaccines.

Medicare Part B Payments for Prescription Drugs
The Centers for Medicare & Medicaid Services (CMS) contracts with private companies, known as carriers, to process and pay Medicare Part B claims, including those for prescription drugs. Claims for drugs that are used with medical equipment are typically processed by one of four durable medical equipment regional carriers (DMERC). Claims for other types of covered drugs are processed by local carriers. To obtain reimbursement for covered outpatient prescription drugs, physicians and suppliers submit claims using procedure codes that are associated with covered drugs. CMS established the Healthcare Common Procedure Coding System (HCPCS) to provide a standardized coding system for describing the specific items and services provided in the delivery of health care. Each HCPCS code for outpatient prescription drugs defines the drug name and dosage size but does not specify manufacturer information or package size data.

Expenditures for Part B drugs have tripled over the past several years, increasing from approximately $3.3 billion in 1998 to over $10 billion in 2004. Although Medicare covers over 550 outpatient prescription drug HCPCS codes, the majority of spending for Part B drugs is concentrated on a relatively small subset of those codes. In 2004, 43 codes represented 90 percent of the expenditures for Part B drugs, with only 9 of these drugs representing half of the total Part B drug expenditures.
Reimbursement Methodology for Part B Drugs and Biologicals in 2005

In 2005, Medicare began paying for most drugs using an entirely new methodology based on ASPs.\textsuperscript{1} Section 1847A(c) of the Social Security Act (the Act), as added by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA), Public Law 108-173, defines an ASP as a manufacturer’s sales of a drug to all purchasers in the United States in a calendar quarter divided by the total number of units of the drug sold by the manufacturer in that same quarter. The ASP is net of any price concessions such as volume discounts, prompt pay discounts, and cash discounts; free goods contingent on purchase requirements; chargebacks; and rebates other than those obtained through the Medicaid drug rebate program. Sales that are nominal in amount are exempted from the ASP calculation, as are sales excluded from the determination of “best price” in the Medicaid drug rebate program.\textsuperscript{2,3}

Manufacturers report ASPs by national drug codes (NDC), which are 11-digit identifiers that indicate the manufacturer of the drug, the product dosage form, and the package size. Manufacturers must provide CMS with the ASP and volume of sales for each NDC on a quarterly basis, with submissions due 30 days after the close of each quarter.\textsuperscript{4}

Given that Medicare reimbursement for outpatient drugs is based on HCPCS codes rather than NDCs, and that more than one NDC may meet the definition of a particular HCPCS code, CMS has developed a file that “crosswalks” manufacturers’ NDCs to HCPCS codes. CMS uses information in this crosswalk to calculate volume-weighted ASPs for covered HCPCS codes.

Third-quarter 2004 ASP submissions from manufacturers served as the basis for first-quarter 2005 Medicare allowances for most covered drug codes. Under the ASP pricing methodology, the Medicare allowance for

\textsuperscript{1}For 2004, the reimbursement amount for most covered drugs was based on 85 percent of the average wholesale price (AWP) as published in national pricing compendia such as the “Red Book.” Prior to 2004, Medicare Part B reimbursed for covered drugs based on the lower of either the billed amount or 95 percent of the AWP.

\textsuperscript{2}Pursuant to section 1927(c)(1)(C)(i) of the Act, “best price” is the lowest price available from the manufacturer during the rebate period to any wholesaler, retailer, provider, health maintenance organization, nonprofit entity, or governmental entity within the United States, with certain exceptions.

\textsuperscript{3}Section 1847A(c) of the Act.

\textsuperscript{4}Section 1927(b)(3) of the Act.
most Part B drugs is equal to 106 percent of the ASP for the HCPCS code. Medicare beneficiaries are responsible for 20 percent of this amount in the form of coinsurance.

**The Medicaid Drug Rebate Program and AMPs**

In order for Federal payment to be available for outpatient drugs covered under Medicaid, sections 1927(a)(1) and (b)(1) of the Act mandate that drug manufacturers enter into rebate agreements with the Secretary of the Department of Health and Human Services (Secretary) and pay quarterly rebates to State Medicaid agencies. Under these rebate agreements, and pursuant to section 1927(b)(3) of the Act, manufacturers must provide CMS with the AMP for each of their NDCs on a quarterly basis. As defined in section 1927(k)(1) of the Act, the AMP is the average unit price paid to the manufacturer by wholesalers in the United States for drugs distributed to the retail pharmacy class of trade, minus customary prompt pay discounts. The AMP is calculated as a weighted average of prices for all of a manufacturer’s package sizes of a drug sold during a given quarter, and is reported for the lowest identifiable quantity of the drug (e.g., 1 milligram, 1 milliliter, one tablet, one capsule).

**Office of Inspector General’s Monitoring of ASPs and AMPs**

Section 1847A(d)(2)(B) of the Act mandates that the Office of Inspector General (OIG) compare ASPs with AMPs. If OIG determines that the ASP for a drug exceeds the AMP by at least 5 percent, the Secretary has authority to substitute the payment amount for that drug product with 103 percent of the AMP for the drug.5

**Related Work by the Office of Inspector General**

Section 303(c)(3) of MMA also mandated that OIG determine whether physician practices in the specialties of hematology, hematology/oncology, and medical oncology could obtain drugs and biologicals for the treatment of cancer patients at 106 percent of the ASP. OIG completed this study in September 2005 and issued the report, “Adequacy of Medicare Part B Drug Reimbursement to Physician Practices for the Treatment of Cancer Patients,” (A-06-05-00024). According to this report, physician practices in the specialties of hematology, hematology/oncology, and medical oncology could generally purchase drugs for the treatment of cancer patients at or below the reimbursement rate established under the ASP payment methodology.

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5Section 1847A(d)(3) of the Act.
Recently, OIG issued another report discussing the method CMS uses to calculate a reimbursement amount for a HCPCS code. This report will be described in greater detail in the Methodology.

**METHODOLOGY**

We obtained CMS’s volume-weighted ASPs for the first quarter of 2005, which it calculated based on NDC-level data submitted by manufacturers for the third quarter of 2004. In addition, we obtained the file that CMS used to crosswalk NDCs to their corresponding HCPCS codes. Both the volume-weighted ASPs and the crosswalk file were updated as of January 13, 2005. We also obtained AMP data from CMS for the third quarter of 2004.

**Calculation of Volume-Weighted Average Sales Price**

As mentioned previously, Medicare does not base reimbursement for covered drugs on NDCs; instead, it uses HCPCS codes. Therefore, CMS uses the ASP information submitted by manufacturers for each NDC to calculate a volume-weighted ASP for each covered HCPCS code. When calculating these volume-weighted ASPs, CMS only includes NDCs with ASP submissions that are deemed valid. We did not examine the NDCs that CMS opted to exclude from its calculation, nor did we verify the accuracy of CMS’s crosswalk files.

As of January 13, 2005, CMS had established prices for 459 HCPCS codes based on the ASP reimbursement methodology. This total excludes HCPCS code J3490, which is defined as “unclassified drugs.” Reimbursement amounts for the 459 HCPCS codes were based on ASP data for 2,399 NDCs.

To calculate the volume-weighted ASPs for these 459 codes, CMS used an equation that involves the following variables: the ASP for the NDC as reported by the manufacturer, the volume of sales for the NDC as reported by the manufacturer, and the number of billing units in the NDC as determined by CMS. The amount of the drug contained in an NDC may differ from the amount of the drug specified by the HCPCS code that providers use to bill Medicare. Therefore, the number of billing units in an NDC describes the number of HCPCS code units that are in that NDC. For instance, an NDC may contain a total of 10 milliliters of Drug A, but the corresponding HCPCS code may be defined as only 5 milliliters of Drug A. In this case, there are two billing units in the NDC. CMS calculates the number of billing units in each 11-digit NDC when developing its crosswalk files. A more detailed
description of CMS’s method of calculating volume-weighted ASP is provided in Appendix A.

In a recent OIG report entitled “Calculation of Volume-Weighted Average Sales Price for Medicare Part B Prescription Drugs” (OEI-03-05-00310), OIG stated that CMS’s method for calculating volume-weighted ASP is incorrect because CMS does not use billing units consistently throughout its equation. As a result, many HCPCS codes have a reimbursement amount that is higher or lower than the amount that would have been calculated if billing units were used consistently. In the above-referenced report, OIG proposed an alternate equation that we believe uses billing units correctly. We used this equation to calculate an alternate volume-weighted ASP for each of the 459 HCPCS codes. To determine what the Medicare reimbursement amount would be according to OIG’s calculation, we then multiplied OIG’s volume-weighted ASPs for the 459 codes by 1.06. A more detailed description of OIG’s calculation is presented in Appendix A.

Analysis of Average Manufacturer Price Data
An AMP is reported for the lowest identifiable quantity of the drug contained in the NDC (e.g., 1 milligram, 1 milliliter, one tablet, one capsule). In contrast, an ASP is reported for the entire amount of the drug contained in the NDC (e.g., for 50 milliliters, for 100 tablets). To ensure that the AMP would be comparable to the ASP, it was necessary to convert the AMP for each NDC so that it represented the total amount of the drug contained in that NDC.

In making these conversions, we examined AMPs only for those 2,399 NDCs that CMS used in its calculation of volume-weighted ASP for the 459 HCPCS codes. If AMP data were not available for one or more of these NDCs, we excluded the corresponding HCPCS code from our analysis. Ultimately, we excluded 80 HCPCS codes (718 NDCs). The other 379 HCPCS codes had AMP data for every NDC that CMS used in its calculation of volume-weighted ASPs. These 379 HCPCS codes represented 1,681 NDCs.

We then multiplied the AMPs for these 1,681 NDCs by the total amount of the drug contained in each NDC, as identified by sources such as the CMS crosswalk file, the “Red Book,” manufacturer Web sites, and the Food and Drug Administration’s NDC directory. We will refer to the resulting amounts as converted AMPs. For 27 NDCs, we could not successfully identify the amount of the drug reflected by the ASP and therefore could not calculate a converted AMP. These 27 NDCs were
crosswalked to 15 HCPCS codes. We did not include these 15 HCPCS codes (140 NDCs) in our final analysis.

Using the converted AMPs for the remaining 1,541 NDCs, we then calculated two different volume-weighted AMPs for each of the codes: one using the method that CMS used to calculate a volume-weighted ASP, and the other using the method that OIG used to calculate a volume-weighted ASP. We calculated volume-weighted AMPs for a total of 364 HCPCS codes. We did not verify the accuracy of manufacturer-reported ASP and AMP data.

**Comparing Volume-Weighted ASPs to Volume-Weighted AMPs**

For each of the 364 HCPCS codes included in our study, we then compared the volume-weighted ASPs and AMPs that resulted from CMS’s calculation. We also compared the volume-weighted ASPs and AMPs that resulted from OIG’s calculation. We identified codes with an ASP that exceeded the AMP by at least 5 percent according to either CMS’s or OIG’s calculation.

For those HCPCS codes that met or exceeded the 5-percent threshold, we conducted a review of the associated NDCs to verify the accuracy of the billing units information. According to our review, eight of the codes that met the 5-percent threshold had associated NDCs with potentially inaccurate billing units. Given that volume-weighted ASPs and AMPs were calculated using this billing unit information, we could not be certain that the results for these eight codes were correct. Therefore, we did not include these eight codes in our findings.

For the remaining HCPCS codes, which both met the 5-percent threshold and had NDCs with accurate billing units, we then estimated the monetary impact of lowering reimbursement to 103 percent of the AMP. For each of the HCPCS codes that met the 5-percent threshold using CMS’s equation, we calculated 103 percent of CMS’s volume-weighted AMP and subtracted this amount from the first-quarter 2005 reimbursement amount for the HCPCS code, which is equal to 106 percent of CMS’s volume-weighted ASP. For each of the codes that met the 5-percent threshold using OIG’s calculation, we subtracted

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6NDCs for these eight codes had billing unit information in CMS’s crosswalk file that may not have accurately reflected the number of billing units actually contained in the NDC.

7Pursuant to section 1847A(d)(3) of the Act, if OIG determines that the ASP for a drug exceeds the AMP by a threshold of 5 percent, the Secretary has authority to substitute the ASP-based payment with 103 percent of AMP.
INTRODUCTION

103 percent of OIG’s volume-weighted AMP from the alternate reimbursement amount for the HCPCS code (106 percent of OIG’s volume-weighted ASP). We then multiplied the differences by the number of services that were allowed by Medicare for each HCPCS code in 2004, as reported in CMS’s Part B Extract and Summary System (BESS). This estimate assumes that the volume-weighted ASP for each HCPCS code will remain consistent throughout the year 2005. However, the ASP amounts submitted by manufacturers may actually vary from quarter to quarter.

To determine how the differences between OIG’s and CMS’s calculations might affect the results of the mandated comparison between ASPs and AMPs, we then compared the HCPCS codes that met the 5-percent threshold using CMS’s calculation to the codes that met the threshold using OIG’s calculation.

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.

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8At the time of extraction, the BESS data were 96 percent complete for HCPCS codes processed by local carriers and 91 percent complete for HCPCS codes processed by the DMERCs.
ASPs for certain HCPCS codes exceeded AMPs by at least 5 percent; however, the HCPCS codes that met the threshold differed depending on the method used to calculate volume-weighted ASPs and AMPs.

ASPs for a particular drug exceed the AMP by a threshold of 5 percent. However, the HCPCS codes that meet this threshold may differ depending on whether CMS's method or OIG's method is used to calculate volume-weighted ASPs and volume-weighted AMPs.

According to CMS's calculation, a total of 51 HCPCS codes had an ASP that exceeded the AMP by at least 5 percent in the third quarter of 2004. According to OIG's calculation, only 38 HCPCS codes met the 5-percent threshold.

The difference between CMS's calculation and OIG's calculation could also affect whether published reimbursement amounts for Medicare Part B drugs are adjusted. Sections 1847A(d)(3)(A) and (B) of the Act grant the Secretary authority to disregard the ASP pricing methodology for a drug with an ASP that exceeds the AMP by at least 5 percent. If that criterion is met, the Secretary has authority to lower the reimbursement amount for the drug to 103 percent of the AMP. If reimbursement amounts for the 51 HCPCS codes identified by CMS's calculation had been lowered to 103 percent of the AMP, Medicare allowances would have been reduced by an estimated $164 million in 2005. Although fewer HCPCS codes met the 5-percent threshold using OIG’s calculation, lowering the reimbursement amounts for those 38 codes would have actually reduced Medicare allowances by a greater amount—an estimated $172 million in 2005.

As shown in Table 1, some HCPCS codes met the 5-percent threshold regardless of whether CMS's or OIG’s calculation was used. Other codes only met the 5-percent threshold according to one calculation or the other.

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9Section 1847A(d)(3)(C) of the Act.
Table 1: Results of the Comparison Between ASPs and AMPs Using CMS’s and OIG’s Calculations

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<th>Number of HCPCS Codes</th>
<th>Reduction in Reimbursement (in millions)</th>
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<td>Met 5-percent threshold</td>
<td>51</td>
<td>$164</td>
</tr>
<tr>
<td>According to CMS’s Calculation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Met Threshold According to OIG’s Calculation</td>
<td>38</td>
<td>$172</td>
</tr>
<tr>
<td>Met Threshold According to CMS’s Calculation Only</td>
<td>17</td>
<td>$3</td>
</tr>
<tr>
<td>Met Threshold According to OIG’s Calculation Only</td>
<td>4</td>
<td>$3</td>
</tr>
</tbody>
</table>

For 34 HCPCS codes, the volume-weighted ASPs exceeded the volume-weighted AMPs by at least 5 percent regardless of whether CMS’s or OIG’s calculation was used

According to our analysis, 34 HCPCS codes met the 5-percent threshold using either CMS’s or OIG’s calculation. However, the extent to which ASPs exceeded AMPs may have been different depending on which calculation was used.

For example, CMS’s calculation for one HCPCS code resulted in a volume-weighted ASP of $4.82 and a volume-weighted AMP of $4.42. The difference between these two prices is 9 percent, which exceeds the 5-percent threshold specified in the Act. According to OIG’s calculation for the same HCPCS code, the volume-weighted ASP should be $3.48 and the volume-weighted AMP should be $3.30. Here, the ASP exceeds the AMP by exactly 5 percent. Although this HCPCS code meets the 5-percent threshold regardless of which calculation is used, the prices themselves, and the percentage difference between those prices, can vary depending on whether CMS’s or OIG’s method is followed. This, in turn, could affect how much providers would receive in reimbursement, particularly if the reimbursement amount were lowered to 103 percent of the AMP.

According to CMS’s calculation, lowering reimbursement for these 34 HCPCS codes to 103 percent of the AMP would have reduced Medicare allowances by an estimated $161 million in 2005. Using OIG’s calculation for the same 34 codes, however, would have reduced Medicare allowances by an additional $8 million, for an estimated total of $169 million in 2005.

A list of all 34 HCPCS codes is presented in Appendix B.
FINDING

Four additional HCPCS codes met the 5-percent threshold using OIG’s calculation but not CMS’s calculation

For four HCPCS codes, the volume-weighted ASP exceeded the AMP by at least 5 percent using OIG’s calculation but not CMS’s calculation. If the reimbursement amounts for these four codes had been lowered to 103 percent of the AMP, we estimate that Medicare allowances would have been reduced by $2.7 million in 2005. These savings can be attributed almost entirely to one code, J0256.10 A list of these four HCPCS codes is presented in Appendix C.

Another 17 HCPCS codes met the 5-percent threshold using CMS’s calculation but not OIG’s calculation

For 17 HCPCS codes, the volume-weighted ASPs exceeded AMPs by at least 5 percent using CMS’s calculation but not OIG’s calculation. Lowering the reimbursement amounts for these 17 HCPCS codes to 103 percent of the AMP would have reduced Medicare allowances by an estimated $2.7 million in 2005. The vast majority of these savings can be attributed to three HCPCS codes: J3301, J1080, and J1550.11 A list of all 17 HCPCS codes is presented in Appendix D.

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10HCPCS code J0256 represents an injection of alpha 1-proteinase inhibitor–human, 10 milligrams (mg).

11HCPCS code J3301 represents an injection of triamcinolone acetonide, per 10 mg; HCPCS code J1080 represents an injection of testosterone cypionate, 1cc, 200 mg; and HCPCS code J1550 represents an injection of gamma globulin, intramuscular, 10 cc.
For the purpose of monitoring new prices based on ASPs, sections 1847A(d)(2)(B) and 1847A(d)(3) of the Act mandate that OIG perform comparisons between ASPs and AMPs to identify drugs for which the ASP exceeds the AMP by at least 5 percent. This review is the first of such comparisons. We found that certain HCPCS codes did, in fact, meet the 5-percent threshold specified in the Act. However, the number of codes that met the threshold, and the monetary differences between the ASPs and AMPs for those codes, depended on the method used to calculate volume-weighted ASPs and volume-weighted AMPs. Although 34 HCPCS codes met the 5-percent threshold regardless of whether CMS’s or OIG’s calculation was used, other codes only met the threshold using one calculation or the other.

Pursuant to section 1847A(d)(3) of the Act, the Secretary has authority to lower the reimbursement amount for a drug with an ASP that exceeds the AMP by the 5-percent threshold. Therefore, differences between the results of CMS’s calculation and OIG’s calculation could affect whether published reimbursement amounts for certain Medicare Part B drugs are adjusted. This, in turn, affects manufacturers, providers, and Medicare beneficiaries. It is therefore critical that CMS modify its calculation as soon as possible, both to ensure that reimbursement amounts are calculated correctly and to ensure that future comparisons between ASPs and AMPs yield the most meaningful results.\(^{12}\)

**AGENCY COMMENTS**

Overall, CMS indicated that the information in our report is helpful in its continuing efforts to monitor payment adequacy under the ASP methodology. However, CMS noted that OIG’s review was conducted using data submitted during the initial implementation phase of the ASP methodology. According to CMS, much of the estimated savings

\(^{12}\text{Issues with CMS’s calculation of volume-weighted ASP are discussed in greater detail in the OIG report, “Calculation of Volume-Weighted Average Sales Price for Medicare Part B Prescription Drugs” (OEI-03-05-00310). This report found that CMS’s method for calculating volume-weighted ASP is incorrect because CMS does not use billing units consistently throughout its equation. Therefore, OIG recommended that CMS adopt an alternate method for calculating volume-weighted ASP, which does use billing units consistently.}
identified in the report did not persist in subsequent quarters, and payment limits for many codes have since been revised.

Although CMS acknowledges the Secretary’s authority to adjust the ASP payment limits when certain conditions are met, it believes that other issues should be considered, including the timing and frequency of pricing comparisons, stabilization of ASP reporting, the effective date and duration of rate substitution, and the accuracy of the ASP and AMP data.

The full text of CMS’s comments can be found in Appendix E.

OFFICE OF INSPECTOR GENERAL RESPONSE

This report found that comparisons between ASPs and AMPs yield different results depending on the method used to calculate volume-weighted ASPs and volume-weighted AMPs. Although CMS indicated that our report is helpful, CMS’s comments on the draft report addressed neither the incorrect calculation nor the impact it has on the comparison between ASPs and AMPs. We continue to believe that CMS is calculating volume-weighted ASPs incorrectly, and that this incorrect calculation results in reimbursement amounts that are inaccurate and inconsistent with the ASP payment methodology set forth in section 1847A(b) of the Act. Furthermore, we believe that the incorrect calculation affects the results of mandated comparisons between ASPs and AMPs, and could continue to do so in the future.

We acknowledge CMS’s concern that our findings should be examined in light of other important considerations. However, we are unsure of what, if any, specific steps CMS plans to take as a result of the report.
Equations Used by CMS and OIG to Calculate Volume-Weighted ASPs and AMPs

1. The Equation Used by CMS to Calculate a Volume-Weighted ASP

In the following equation, a “unit” is defined as the entire amount of the drug contained in the NDC:

\[
\text{Volume-Weighted ASP for the Billing Unit of HCPCS Code} = \frac{\text{Sum of } \left( \frac{\text{ASP for NDC}}{\text{Billing Units in NDC}} \times \text{Number of NDCs Sold} \right)}{\text{Sum of Number of NDCs Sold}}
\]

2. The Equation Used by OIG to Calculate a Volume-Weighted ASP

We suggest that CMS’s calculation should be modified by multiplying the number of NDCs sold by the number of billing units in the NDC in both the numerator and denominator of the equation:

\[
\text{Volume-Weighted ASP for the Billing Unit of HCPCS Code} = \frac{\text{Sum of } \left( \frac{\text{ASP for NDC}}{\text{Billing Units in NDC}} \times \text{Number of NDCs Sold} \times \text{Billing Units in NDC} \right)}{\text{Sum of } (\text{Number of NDCs Sold} \times \text{Billing Units in NDC})}
\]

However, the terms “Billing Units in NDC” in the numerator of the equation cancel each other out:

\[
\text{Volume-Weighted ASP for the Billing Unit of HCPCS Code} = \frac{\text{Sum of } \left( \text{ASP for NDC} \times \text{Number of NDCs Sold} \times \text{Billing Units in NDC} \right)}{\text{Sum of } (\text{Number of NDCs Sold} \times \text{Billing Units in NDC})}
\]

Therefore, OIG’s equation is written in the following way:

\[
\text{Volume-Weighted ASP for the Billing Unit of HCPCS Code} = \frac{\text{Sum of } (\text{ASP for NDC} \times \text{Number of NDCs Sold})}{\text{Sum of } (\text{Number of NDCs Sold} \times \text{Billing Units in NDC})}
\]
**Thirty-Four HCPCS Codes With an ASP That Exceeded the AMP by at Least 5 Percent Regardless of Whether CMS’s or OIG’s Calculation Was Used**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>J0360</td>
<td>Injection, hydralazine HCl, up to 20 mg</td>
</tr>
<tr>
<td>J0470</td>
<td>Injection, dimercaprol, per 100 mg</td>
</tr>
<tr>
<td>J0770</td>
<td>Injection, colistimethate sodium, up to 150 mg</td>
</tr>
<tr>
<td>J1110</td>
<td>Injection, dihydroergotamine mesylate, per 1 mg</td>
</tr>
<tr>
<td>J1180</td>
<td>Injection, dipyridamole, up to 500 mg</td>
</tr>
<tr>
<td>J1240</td>
<td>Injection, dymenhydrinate, up to 50 mg</td>
</tr>
<tr>
<td>J1250</td>
<td>Injection, dobutamine, HCl, per 250 mg</td>
</tr>
<tr>
<td>J1364</td>
<td>Injection, erythromycin lactobionate, per 500 mg</td>
</tr>
<tr>
<td>J1940</td>
<td>Injection, furosemide, up to 20 mg</td>
</tr>
<tr>
<td>J1955</td>
<td>Injection, levocarnitine, per 1 g</td>
</tr>
<tr>
<td>J2324</td>
<td>Injection, nesiritide, 0.25 mg</td>
</tr>
<tr>
<td>J2501</td>
<td>Injection, paricalcitol, 1 mcg</td>
</tr>
<tr>
<td>J2545</td>
<td>Pentamidine isethionate, inhalation solution, per 300 mg</td>
</tr>
<tr>
<td>J2675</td>
<td>Injection, progesterone, per 50 mg</td>
</tr>
<tr>
<td>J2690</td>
<td>Injection, procainamide HCl, up to 1 g</td>
</tr>
<tr>
<td>J2730</td>
<td>Injection, pralidoxime chloride, up to 1 g</td>
</tr>
<tr>
<td>J3364</td>
<td>Injection, urokinase, 5,000 IU vial</td>
</tr>
<tr>
<td>J3365</td>
<td>Injection, IV, urokinase, 250,000 IU vial</td>
</tr>
<tr>
<td>J3415</td>
<td>Injection, pyridoxine HCl, 100 mg</td>
</tr>
<tr>
<td>J3487</td>
<td>Injection, zoledronic acid, 1 mg</td>
</tr>
<tr>
<td>J7517</td>
<td>Mycophenolate mofetil, oral, 250 mg</td>
</tr>
<tr>
<td>J7644</td>
<td>Ipratropium bromide, inhalation solution administered through DME, unit dose form, per mg</td>
</tr>
<tr>
<td>J9060</td>
<td>Cisplatin powder or solution, per 10 mg</td>
</tr>
<tr>
<td>J9185</td>
<td>Fludarabine phosphate, 50 mg</td>
</tr>
<tr>
<td>J9202</td>
<td>Goserelin acetate implant, per 3.6 mg</td>
</tr>
<tr>
<td>J9219</td>
<td>Leuprolide acetate implant, 65 mg</td>
</tr>
<tr>
<td>J9300</td>
<td>Gemtuzumab ozogamicin, 5 mg</td>
</tr>
<tr>
<td>J9320</td>
<td>Streptozocin, 1 g</td>
</tr>
<tr>
<td>J9360</td>
<td>Vinblastine sulfate, 1 mg</td>
</tr>
<tr>
<td>J9370</td>
<td>Vincristine sulfate, 1 mg</td>
</tr>
<tr>
<td>J9375</td>
<td>Vincristine sulfate, 2 mg</td>
</tr>
<tr>
<td>J9380</td>
<td>Vincristine sulfate, 5 mg</td>
</tr>
<tr>
<td>Q0164</td>
<td>Prochlorperazine maleate, 5 mg, oral</td>
</tr>
<tr>
<td>Q0175</td>
<td>Perphenazine, 4 mg, oral</td>
</tr>
</tbody>
</table>

*Source: OIG Analysis of the ASP and AMP Data, 2005.*
Four HCPCS Codes With an ASP That Exceeded the AMP by at Least 5 Percent Using OIG’s Calculation but not CMS’s Calculation

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>J0256</td>
<td>Injection, alpha 1-proteinase inhibitor – human, 10 mg</td>
</tr>
<tr>
<td>J1790</td>
<td>Injection, droperidol, up to 5 mg</td>
</tr>
<tr>
<td>J2993</td>
<td>Injection, reteplase, 18.1 mg</td>
</tr>
<tr>
<td>Q0178</td>
<td>Hydroxyzine pamoate, 50 mg, oral. FDA approved prescription anti-emetic, for use as a complete therapeutic substitute for an IV anti-emetic at the time of chemotherapy treatment, not to exceed a 48-hour dosage regimen</td>
</tr>
</tbody>
</table>

Source: OIG Analysis of the ASP and AMP Data, 2005.
Seventeen HCPCS Codes With an ASP That Exceeded the AMP by at Least 5 Percent Using CMS’s Calculation but not OIG’s Calculation

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>J1080</td>
<td>Injection, testosterone cypionate, 1 cc, 200 mg</td>
</tr>
<tr>
<td>J1460</td>
<td>Injection, gamma globulin, intramuscular, 1 cc</td>
</tr>
<tr>
<td>J1470</td>
<td>Injection, gamma globulin, intramuscular, 2 cc</td>
</tr>
<tr>
<td>J1480</td>
<td>Injection, gamma globulin, intramuscular, 3 cc</td>
</tr>
<tr>
<td>J1490</td>
<td>Injection, gamma globulin, intramuscular, 4 cc</td>
</tr>
<tr>
<td>J1500</td>
<td>Injection, gamma globulin, intramuscular, 5 cc</td>
</tr>
<tr>
<td>J1510</td>
<td>Injection, gamma globulin, intramuscular, 6 cc</td>
</tr>
<tr>
<td>J1520</td>
<td>Injection, gamma globulin, intramuscular, 7 cc</td>
</tr>
<tr>
<td>J1530</td>
<td>Injection, gamma globulin, intramuscular, 8 cc</td>
</tr>
<tr>
<td>J1540</td>
<td>Injection, gamma globulin, intramuscular, 9 cc</td>
</tr>
<tr>
<td>J1550</td>
<td>Injection, gamma globulin, intramuscular, 10 cc</td>
</tr>
<tr>
<td>J1560</td>
<td>Injection, gamma globulin, intramuscular, over 10 cc</td>
</tr>
<tr>
<td>J1630</td>
<td>Injection, haloperidol, up to 5 mg</td>
</tr>
<tr>
<td>J1885</td>
<td>Injection, ketorolac tromethamine, per 15 mg</td>
</tr>
<tr>
<td>J3301</td>
<td>Injection, triamcinolone acetonide, per 10 mg</td>
</tr>
<tr>
<td>J3410</td>
<td>Injection, hydroxyzine HCl, up to 25 mg</td>
</tr>
<tr>
<td>J3420</td>
<td>Injection, vitamin B-12 cyanocobalamin, up to 1,000 mcg</td>
</tr>
</tbody>
</table>

Source: OIG Analysis of the ASP and AMP Data, 2005.
APPENDIX E

Comments from the Centers for Medicare & Medicaid Services

TO: Daniel R. Levinson
Inspector General

FROM: Mark B. McClellan, M.D., Ph.D.
Administrator


Thank you for the opportunity to review and comment on the Office of Inspector General’s (OIG) draft report entitled, “Monitoring Medicare Part B Drug Prices: A Comparison of Average Sales Price to Average Manufacturer Price.” We appreciate the OIG’s efforts in examining this issue.

The OIG report compares manufacturers’ reported drug prices under the Medicare and Medicaid programs for the third calendar quarter of 2004 to identify drug billing codes for which the volume weighted average sale price (ASP) exceeds the volume weighted average manufacturer price (AMP) by at least 5 percent. The OIG found that for certain billing codes the ASP payment limit exceeds the volume weighted AMP by 5 percent. The number of billing codes identified and the monetary differences between the ASPs and AMPs for those billing codes depends on the method used to calculate the volume weighted average prices.

The OIG’s review was conducted using data submitted during the initial implementation phase of the ASP methodology. The Centers for Medicare & Medicaid Services (CMS) continues to work with manufacturers to improve ASP and AMP reporting consistency. We reviewed the OIG’s findings and note that half of the estimated savings is attributable to one product for which the AMP varied significantly from subsequent periods. We also found that over 92 percent of the estimated savings do not persist in comparing ASP and AMP data from subsequent quarters. Furthermore, CMS revised the first quarter 2005 payment limits for several of the identified billing codes. In addition, earlier this year, we addressed a data conversion issue that impacted J0256 as well as a majority of the billing codes listed in Appendix D. These changes are evidence of our continued progress in refining ASP calculations.
While the Secretary has authority to adjust the ASP payment limit when certain conditions are met, we believe it is important to bear in mind timing, stabilization of ASP reporting, and other important considerations as we further examine the findings of this report. Other issues for consideration include future timing and frequency of ASP and AMP comparisons, effective date and duration of the rate substitution, and evaluation of the accuracy of ASP and AMP data.

Thank you very much for your work on this report. The information it contains is helpful in our efforts to monitor payment adequacy under the new ASP methodology.
ACKNOWLEDGMENTS

This report was prepared under the direction of Robert A. Vito, Regional Inspector General for Evaluation and Inspections in the Philadelphia regional office, and Linda M. Ragone, Deputy Regional Inspector General. Other principal Office of Evaluation and Inspections staff who contributed include:

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Linda Boone Abbott, *Program Specialist*