Department of Health and Human Services

OFFICE OF INSPECTOR GENERAL

Comparing Medicare Physician Payments To Private Payers

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Inspector General

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OFFICE OF INSPECTOR GENERAL

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DEPARTMENT OF HEALTH & HUMAN SERVICES

Office of Inspector General

JAN 21 2003

Memorandum

Date

From Joseph E. Vengrin
Deputy Inspector General for Evaluation and Inspections
Office of Inspector General

Subject

OIG Final Report: "Comparing Medicare Physician Payments to Private Payers," OEI-06-00-00570

To

Thomas L. Grissom
Director, Center for Medicare Management
Centers for Medicare & Medicaid Services

Attached is a final inspection report which compares Medicare relative values for physician services to similar values paid by private insurance companies, based upon MEDSTAT's MarketScan® database. Specifically, the report describes these relative differences through an analytic data mining technique. The inspection identified 217 procedure codes with relative values that are substantially and consistently different from corresponding Medicare values. These procedures represent 30 percent of the 681 codes analyzed. The reasons for these differences are unclear and may be attributable to errors within the relative values themselves, or to population differences.

Although the Secretary is required to review codes for accuracy every 5 years, only 20 of the 217 codes identified by our analysis were reviewed in the most recent 5-year comprehensive review. The absence of these codes in the 2002 review suggests that augmenting the current system with one or more data driven methods may help to assure appropriate relative value assessments. We conclude that the current process could be improved by supplementing physician efforts with a data-driven method, similar to what we presented in our report.

If you have any questions about this report, please do not hesitate to call me, or have your staff contact John Hapchuk, Director, Program Evaluation Division, at 202-619-0480 or through email [Jhapchuk@oig.hhs.gov]. To facilitate identification, please refer to report number OEI-06-00-00570 in all correspondence.

Attachment

cc: Jacquelyn Y. White
Director, Office of Strategic Operations and Regulatory Affairs
Centers for Medicare & Medicaid Services

EXECUTIVE SUMMARY

OBJECTIVE

To compare Medicare relative values for physician services to similar values paid by private insurance companies, based upon MEDSTAT's MarketScan® database.

BACKGROUND

Accounting for over $40 billion each year, Medicare's physician fee schedule contains more than 7,000 codes for reimbursable services. Each is assigned a relative value (RVU) composed of three factors– Physician Work, Practice Expense, and Professional Liability Insurance, designed to reflect the human and capital resources required for provision of the service. The RVU is multiplied by a constant dollar figure to obtain the fee schedule payment amount. The Secretary is required to review the RVUs for all physician services at least once every 5 years. To help meet this requirement, the American Medical Association's Relative Value Updating Committee (RUC) reviews codes and provides recommendations regarding appropriate changes to the RVUs for consideration by the Centers for Medicare & Medicaid Services (CMS).

This study uses proprietary claims data from MEDSTAT's Marketscan® database to compare service valuation patterns between Medicare and private insurers. A data mining process identifies procedures that consistently appear to have moderate or extreme differences between the two groups. Possible reasons that differences may exist were investigated through interviews and literature reviews.

FINDINGS

Many procedure codes are not included in the current 5-year comprehensive review; a systematic analysis may assist code identification

The Secretary is required to review relative values for all physician services no less than every 5 years to adjust for changes in medical practice or coding and to reflect new data on relative resources. In practice, this requirement means that all codes must be eligible for review. Decisions to include codes in the 5-year review are based on a nomination process. The data mining technique presented in this study provides an alternative source of information that could improve CMS' ability to identify those codes most in need of review.

- ***Of the 681 Medicare services evaluated, 217 are valued differently from private payers***

  Two-hundred seventeen procedures, 30 percent of those reviewed, were identified with consistent and substantial differences in relative value between Medicare and the MEDSTAT database. Ninety-eight procedures appear to be valued higher by Medicare; the remaining 119 appear to be valued lower by Medicare. Reasons for these differences are unclear and may be attributable to errors within the RVU, to population differences, or to differing incentives to review codes.

- ***Only 20 of the 217 codes identified by our analysis were reviewed in the 5-year comprehensive review***

CONCLUSION

Identification of procedures in need of review is almost exclusively based on outside nominations. The process is limited in its ability to identify misvalued, particularly overvalued, procedures. We believe that the current process could be improved by supplementing physician efforts with a data-driven method, similar to that presented in this inspection.

Valuations that differ significantly between Medicare and the private industry may indicate that those resources are not adequately or not efficiently reflected. However, further investigation of individual differences must take into account any changes made since the analysis year (1999) and the difficulties inherent to a comparison between Medicare and the private sector.

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To compare Medicare relative values for physician services to similar values paid by private insurance companies based on MEDSTAT's MarketScan® database.

BACKGROUND

The Resource Based Relative Value System (RBRVS)

Medicare's current physician payment structure, the physician fee schedule, is based on a relative value system known as the Resource Based Relative Value System (RBRVS). The RBRVS assigns a value to services that can be provided by a physician under the Medicare program. The value, measured in relative value units (RVUs), compares each service relative to all other services. For example, one of the most common procedures, an office visit for an established patient, is currently valued as .93 RVUs while a more complex procedure, such as an artery bypass graft, is valued as 46.50 RVUs. This implies that the resources needed to perform the artery bypass graft (including physician training, time, office equipment, and liability insurance) are 50 times those needed for an office visit.

Accounting for more than $40 billion each year, the physician fee schedule contains more than 7,000 codes for services reimbursable by Medicare. Each service is attributed an RVU reflecting the sum of three distinct components:

- **Physician Work** (*Work*) - compensation for the time and skill required of the physician,
- **Practice Expense** (*PE*) - cost of staff time and material resources necessary to perform the service, and
- **Professional Liability Insurance** (*PLI*) - reimbursement for the malpractice insurance carried by the physician.

The value for each component is multiplied by a geographic adjustment factor called the Geographic Practice Cost Index (GPCI)[1] and is then summed to obtain the full RVU total for a service. The total RVU is multiplied by a constant dollar figure, known as the conversion factor, to obtain the fee schedule payment amount. The conversion factor, about $36.20 in 2002, is updated each January to account for inflation, but in a given year remains the same for all services and all specialties.[2] Therefore, any changes to reimbursement for a service must be derived by changes to the RVU of that service.

The formula is:

$$\frac{(\text{WORK} \times \text{GPCI}_{\text{WORK}}) + (\text{PE} \times \text{GPCI}_{\text{PE}}) + (\text{PLI} \times \text{GPCI}_{\text{PLI}})}{\text{TOTAL RVU}} \times \text{CONVERSION FACTOR (CF)} = \text{PAYMENT}$$

Implemented in 1992, the RBRVS was phased in over the following 10 years. The first component, Physician Work, was completely integrated into the system in 1997, and the last component, Practice Expense, was completely integrated in 2002.

Two additional statutory provisions govern the practical implementation of the RBRVS– budget neutrality to limit the impact of administrative adjustments and the sustainable growth rate (SGR) to control aggregate expenditures.[3] In combination, the current provisions for budget neutrality and a sustainable growth rates create a system where RVU changes have little impact on aggregate expenditures. The RVUs act as a system of allocating fixed monetary resources rather than determining expenditures.

The 5-year Comprehensive Review of Work RVUs

The Social Security Act, §1848(c)(2)(B)(i), requires the Secretary to adjust relative values on a yearly basis to account for coding and coverage changes and also to comprehensively review the relative values for all physician services at least once every 5 years to make any needed adjustments. The Centers for Medicare & Medicaid Services (CMS) completed it's second 5-year comprehensive review of the Work component, with the update taking effect January 1, 2002.

For the 5-year comprehensive review, CMS developed a system utilizing the American Medical Association's (AMA's) interdisciplinary medical expertise. Through the Federal Register (FR), CMS solicits requests for particular codes to be reviewed. A list of the requested codes is provided to the AMA's Relative Value Updating Committee (RUC) for recommendations. The CMS reviews the recommendations for consistency within code families and identifies unwanted policy implications. In the most recent review, CMS accepted 792 of the RUC's 857 recommendations (92 percent).[4]

The current process of soliciting codes for the review is limited, particularly in its ability to identify overvalued codes.[5] In an effort to address these limitations, CMS initiated a contract with a private-sector group, Health Economic Research (HER), to develop quantitative methods of identifying Current Procedural Terminology (CPT) codes for review.[6] CMS also used the Federal Register to encourage public comments on the use

of databases and methodologies that might lend themselves to the identification of misvalued procedures. Despite these attempts, no additional methods have been found. By and large, the seven methods proposed by the HER were discarded as not feasible or not applicable to a broad-scale review. The exception is an undertaking for a limited number of surgical codes. CMS is comparing actual time data as it appears on medical records to the time found in survey data collected by the AMA.

Importance of appropriate valuation

The Medicare Payment Advisory Commission's (MedPAC's) 2001 Report to Congress states that "to help ensure beneficiaries' access to high-quality care, Medicare payments should correspond to the cost efficient providers incur in furnishing this care."[7] Payments that do not meet this objective may promote inappropriate incentives for care or create barriers to access. Specifically:

- Differing payment incentives could influence choices between diagnostic and/or treatment plans.

- Some physicians state that reductions in reimbursement will affect the number of Medicare beneficiaries they treat.[8, 9, 10, 11]

- Codes that are not increased from the 5-year comprehensive review and those that were not reviewed at all are deflated. Because the current system is budget neutral, what is given to one code is taken from another. Over time this code deflation could contribute to access limitations for particular specialties.

METHODOLOGY

This study uses a proprietary commercial claims database as a comparison group to identify procedures in Medicare's physician fee schedule whose relative values differ substantially from private payers. We used several methods of comparison, but the primary identification was the result of a data mining process using standardized payment data.

The data

We used MEDSTAT's 1999 MarketScan® database as our primary source of data. This data includes commercial claims and encounters for over 50 different commercial plans and spans the calendar year 1999. We chose this data for its breadth and ability to provide complete claim payment information. No other database provides payment information (as opposed to charge information) at the claim level. For comparability purposes, the data is limited to physician payments within fee-for-service plans.

The MEDSTAT data is not nationally representative; however, it includes over 21 million claims spread throughout all 50 states, plus Puerto Rico and the District of Columbia. The greatest representations are in Georgia, Michigan, and Tennessee, cumulatively accounting for almost 45 percent of the records. Despite limitations for national representation, we determined that this data was the best suited for the needs of this study. A description of population characteristics is provided in Appendix A.

Other data used include: the National Physician Fee Schedule Relative Value File (RVU File), the Geographic Practice Cost Indices (GPCI data), census data, and Medicare claims data. The RVU File and the GPCI data are the actual 1999 values used by Medicare contractors to determine allowable reimbursement rates for physician services and procedures.

Comparing Medicare to the private sector

Unlike private health insurance companies, Medicare is required by law to base payments on resources. For this reason, comparative differences may not necessarily be indicative of errors in the physician fee schedule, but a reflection of a different basis for rate setting. In addition, population differences and the method of comparison must be taken into account. Consequently, we present any findings of payment differences as potential issues to be investigated further, rather than a need for specific change.

Population Differences. Several difficulties exist in comparing Medicare payments to private-sector health insurance payments. First, by definition, Medicare is a unique and distinct population including only seniors over age 65 and individuals meeting certain disability requirements. While most individuals with health insurance are covered by an employer-based policy, Medicare is specifically designed to insure those not likely to be employed. Therefore, population differences between the two groups will be apparent in the type and frequency of medical claims. Further, the extent to which payment methods, e.g., global payments, and the underlying payment structure, e.g., resource-based, differ between the two groups are unknown. A third question exists with regard to market influences on pricing. While MEDSTAT payments are entirely subject to the market, Medicare's resource-based system discounts market influences by basing prices on the costs of inputs, such as the cost of physician time and the cost of supplies, and by deflating the GPCI to reflect only 60 percent of market variation.

Limitations of a dollar comparison. To address issues associated with a dollar comparison, we chose to identify procedures where the *relative* valuation is inconsistent between the private industry and Medicare. A dollar to dollar comparison between the two groups is of limited value. Although procedures can be ranked within each group according to price, the actual payments for procedures are not comparable. First, Medicare need not pay the same as private payers. A difference in payment rate could be the result of an intention to pay providers more or less than Medicare rather than a

different assessment of the procedure's worth in relation to other services. There are further difficulties in using a straight (non-standardized) dollar-figure comparison, such as our inability to account for differences in management practices, e.g., capitation. Unlike the RBRVS, some management practices may distribute reimbursements in ways that are not related to specific procedures, such as per-capita payments, which pay physicians based on the number of individuals they treat or the diagnoses they handle. Such reimbursements are not captured in our data.

Data mining to identify outliers in standardized payment rates

Standardizing payment rates. Standardizing data is a method that provides a common basis of comparison for things that are measured on different scales. In this instance, we want to compare the relative value of procedures between Medicare and private insurers. For our analysis, the entire allowable amount (including copayments and deductibles) for each service provided under a private plan was divided by the total Medicare RVU associated with the service.

This standardization allows us to compare what is, in theory, a constant conversion factor similar to the one found in Medicare's reimbursement formula (shown on page 2). The rationale for a constant conversion factor is that if we assume that Medicare's RBRVS correctly values every service in terms of RVUs, then we can also assume that the entirety of variation in payments would be captured by the RVUs. Consequently, if we divide the allowable charge by the associated RVU, we would identify a constant conversion factor. The same conversion factor would be found regardless of the procedure chosen. If this constancy is not found in our data, the private sector, as demonstrated by the data, does not place relative value between services the same as Medicare.

Data mining process. To identify inconsistencies in assessed value between MEDSTAT's MarketScan® data and Medicare RVU data, we used a process called stepwise elimination. In this process, regression models were used to identify procedures and procedure groups whose standardized payments, or conversion factor, differ significantly from the expected value. Every procedure (681 procedures) and procedure group (111 procedure groups) meeting a minimum sample size and several other data requirements were included in the model as dichotomous variables. Those variables were systematically dropped in accordance with their significance in determining the mean conversion factor. In essence, we are identifying procedures in which the variation that exists in private payments is not captured by Medicare's relative values. A procedure's relative value in the private industry differs from its Medicare RVU to the extent that the conversion factors are different. This process was conducted separately on two independent data partitions. The procedures presented in this report were identified in both partitions.[12] For additional information on the data mining process, see Appendix B: Data cleaning and Appendix C: Data mining methods.

Statistical methods

Stepwise elimination was used as an exploratory data mining technique rather than the more customary hypothesis testing. For this reason, tests of fit are not included. Basic statistical methods, including the F-test, were used to interpret the regression results. A nonresponse analysis is not applicable to this study. However, generalizability of the data is a concern. Representation is limited to those private insurance plans that have proprietary agreements with the MEDSTAT Group. Information on nonparticipating plans is not available.

Qualitative methods

In order to understand potential reasons for the presence of outliers and to fully understand the process of assigning values and updating the fee schedule, we conducted telephone interviews with representatives of particular specialty societies and carrier medical directors, in-depth interviews with CMS staff, and a literature review of relevant government documents and both special interest and academic articles.

Quality standards

This study was conducted in accordance with the *Quality Standards for Inspections* issued by the President's Council on Integrity and Efficiency.

FINDINGS

By applying a data mining technique to a proprietary database of claims for physician services provided in the private sector, we identified procedure codes with relative values that are substantially and consistently different from corresponding Medicare values. Of the 681 codes that we reviewed, 217 exhibit moderate or extreme differences in relative value. Reasons for these differences are unclear and may be attributable to errors within the relative values themselves, or to population differences. Although the Secretary is required to review relative values for accuracy every 5 years, only 20 of the 217 codes identified were included in the most recent 5-year comprehensive review. The absence of so many of these codes in the 2002 Review suggests that augmenting the current system with one or more data driven methods may help to assure appropriate relative value assessments.

MANY PROCEDURE CODES ARE NOT INCLUDED IN THE CURRENT 5-YEAR COMPREHENSIVE REVIEW; A SYSTEMATIC ANALYSIS MAY ASSIST CODE IDENTIFICATION

Section 1848(c)(2)(B)(i) of the Social Security Act requires the Secretary to review relative values for all physician services no less than every 5 years to adjust for changes in medical practice or coding and to reflect new data on relative resources. In practice, this requirement means that all codes must be eligible for review.[13] Decisions to include codes in the review are based on a nomination process, whereby CMS solicits in the Federal Register for codes to include in the review. The process depends almost entirely on outside information to identify codes that may be inappropriately valued. There is an obvious incentive for specialty groups to identify codes that are undervalued, but there may be less of an incentive for them to bring forth codes that have been overvalued.

The data mining technique, presented in this study, provides a supplemental source of information that could improve CMS' ability to identify those codes most in need of review. Without assurance that every code will be reviewed, it would be prudent to have a systematic process in place to identify the codes most in need of review.

Of the 681 Medicare codes evaluated, 217 are valued differently from private payers; 98 appear higher and 119 appear lower than Medicare payment rates

Our data mining process identified 217 procedures that consistently exhibit moderate or extreme differences in value between Medicare and the private industry. Listed in Appendix D, these procedures represent 30 percent of the 681 codes analyzed. Many of the approximately 7,000 codes for reimbursable services were excluded from the review for failure to meet minimum sample size requirements or because data was inadequate for

the chosen analysis. However, the codes reviewed represent over 70 percent of Medicare allowed charges for physician services during the analysis year (1999).

Of the 217 codes, 98 procedures appear to be valued higher by Medicare; the remaining 119 appear to be valued lower by Medicare. These differences were evaluated through the private sector's theoretical conversion factor for each service. With respect to Medicare's payment of $34.73 per RVU (in 1999), the private data reflects a payment range of $1,065.07 per RVU for allergy skin tests – the highest comparative value reflected in the private data, and $0.30 for aspiration of a thyroid cyst – the lowest.

In the assessed value of services, we do expect variability resulting from differences in professional judgment or from differing plan characteristics. However, the procedures presented in this report consistently showed differences that were statistically significant, and thus, raise questions of potential mis-valuation.

While differences in valuation are evident, the reasons are unclear and may be attributable to errors within the RVU or to population differences

The analysis used in this study allows us to recognize which procedures are valued differently between Medicare and private insurers, but is not able to pinpoint the exact source of difference. If our results show that Medicare values a procedure higher than the private industry, either Medicare is paying more than necessary or the private industry is not paying sufficiently, or both. Differences could reflect errors within one or more of the three RVU components, or could reflect market variation that is not captured in the GPCI. Further, no standard exists to determine whether private sector values or Medicare values are correct. Several possibilities exist and further investigation of these procedures will be necessary to determine whether RVU adjustments are indicated.

Only 20 of the 217 codes identified by our analysis were reviewed in the 5-year comprehensive review in 2002

The absence of many of our identified codes in the 2002 review of the Work component indicates that the current process of nomination does not yield the same results as our data-driven method. Only 26 of the identified codes were reviewed in the 1997 5-year comprehensive review. If differences that we identified are indicative of needed adjustment, many of these adjustments would not have been made by CMS.

CONCLUSION

In order to ensure that Medicare beneficiaries have adequate access to services and appropriate treatments, and physician reimbursements are commensurate with the service performed, every reasonable effort should be given to assessing Medicare relative values appropriately. Valuations that differ significantly between Medicare and the private industry may indicate that those resources are not adequately or not efficiently reflected. However, further investigation of individual differences must take into account any changes made since the analysis year (1999) and the difficulties inherent to a comparison between Medicare and the private sector.

The current process of identifying codes that may need adjustment is dependent on the motivation, available time, and resources of individual physicians and physician groups to research and develop arguments supporting change. The process is limited, particularly with respect to the identification of overvalued procedures. Appropriately, the nomination of procedures by independent groups ensures that physicians will have a voice in the process; however, it is important that CMS supplement physicians' efforts with a more systematized method of identification. The data mining method that we have presented in this inspection may provide a feasible method that CMS could utilize in cooperation with the nomination process to better accomplish the task of identifying codes for the 5-year comprehensive review.

ENDNOTES

1. Prior to implementation, the RBRVS was critiqued for not accounting for market variation. GPCIs were created to capture market influences in the cost of resources. Each Medicare locality has its own set of GPCIs that are used to adjust each component of the RVU for market variation. Separate indices are used to measure cost differences for each of the three fee schedule components.

2. Initially, the conversion factor varied between specialties. This was the result of significant variation in payment policies of Medicare carriers. One of the requirements of the Omnibus Budget Reconciliation Act of 1989 was that a single conversion factor should be used for all physicians.

3. SSA§1848(c)(2)(F) and SSA§1848(f)

4. 66 FR 31031 (June 8, 2001)

5. 64 FR 59380 (November 2, 1999)

6. Health Economics Research, "5-year review of Work Relative Value Units"; November 2, 1999. www.hcfa.gov/medicare/wrvu-toc.htm

7. "Report to Congress: Medicare Payment Policy," Medicare Payment Advisory Commission, March 2001: Page 21.

8. "*Doctor Medicare pay faces cut next year; The AMA suggests that the government adjust the way it calculates some figures to make the pay formula fairer*." www.amednews.com: Sept. 17, 2001.

9. "*AMA says slow economy may reduce Medicare payments*," www.kaisernetwork.org: Sept. 13, 2001.

10. Flaherty, Timothy T., MD, "*Payment cuts could mean patient access problems*," www.amednews.com: February 25, 2002.

11. Phalen, Kathleen, "*Opting out: Physicians exiting Medicare program*," AMNews: June 25, 2001.

12. In simulation studies, the duplication of results in two separate partitions of the data were effective in ruling out erroneous identification of procedures.

13. 56 FR 59502 (November 25, 1991)

Appendix A

Data description

Demographics

The demographic information below describes the percent of line item claims in the MEDSTAT data that fit individual characteristics.

Age Range	
0-17	13.6%
18-34	24.2%
35-44	18.2%
45-54	21.1%
55-64	22.7%
65 and older	0.2%

Sex	
Male	47.4%
Female	52.6%

Regional Distribution	
Northeast	16.2%
North Central	25.3%
South	40.9%
West	15.2%
Unknown	2.4%

Source of Data

MEDSTAT data are based on a selection of employer's health benefit packages. Although specific information about companies is not available, the industry with a percentage of claim representation is below. Claims may represent the spouse or dependent of an employee associated with a particular industry.

Oil & Gas Extraction, Mining	3.8%	Retail Trade	0.3%
Manufacturing, Durable Goods	21.7%	Finance, Insurance, Real Estate	5.9%
Manufacturing, Nondurable Goods	30.7%	Services	6.8%
Transportation, Communications, Utilities	23.5%	Missing/Unknown	7.4%

Appendix A

Plan Payment Information

The amount paid may vary within a plan when a provider network is in place. For almost half the data, we do not know if the service was provided within or outside of a plan network, or if a network exists at all. All remaining claims were paid 'in plan' with the exception 7.1 percent paid 'out of plan.' Different plan types were represented in our data as indicated below.

Basic/Major Medical	4.4%
Comprehensive	40.0%
Exclusive Provider Organization (EPO)	2.7%
Point Of Service (POS)	8.2%
Preferred Provider Organization (PPO)	44.1%
Health Maintenance Organization (HMO) - excluded	0%
POS with Capitation - excluded	0%
Missing/Unknown	0.5%

Appendix B

Data cleaning

The proprietary claims data used in this study is subject to all of the problems that are inherent to administrative medical claims data. We conducted broad validity checks to determine the level of accuracy of the data. There was a need for significant 'data cleaning' of the critical data elements prior to analysis. We found that it was necessary to drop large segments of the data for one or more of the reasons described below. As a result, we significantly reduced our number of observations. The process began with 21 million claims divided into three partitions of approximately 7 million each. Line item deletions reduced each partition by almost 40 percent. Although the reduction was considerable, we believe that these modifications were necessary to maintain the integrity of the data and subsequent analysis. Additionally, we found some data that needed adjustment or was unsuitable for review.

Our data cleaning resulted in the following:

1. Deletion of services inconsistent with the needs of the analysis

- Anesthesia services for which Medicare provides reimbursement using a separate conversion factor
- Procedure codes that required modifiers to determine the RVUs attributed to the service (modifier information was not available through MEDSTAT)

2. Deletion of data flaws

- Critical data elements were missing or invalid
- Orphan claims[1] with payments equal to zero or less
- Outliers (defined as line items having a payment amount that were beyond three standard deviations from the mean of the service)

3. Deletion of services that are currently incompatible with Medicare's Physician Fee Schedule

- Procedure codes that are not active
- Procedure codes that are not covered under the Medicare Physician Fee Schedule
- Procedure codes that Medicare pays only as a technical component
- Procedure codes in which payment is not based on the relative value scale
- Procedure codes with a relative value of zero

[1] Orphan claims are line item adjustments that MEDSTAT could not match to the appropriate claim. MEDSTAT advises that these claims be included in aggregate or summary statistics, but need not be included when looking at individual line items.

4. Procedures represented in the MEDSTAT data with fewer than 100 claims remain in the data, but were not reviewed

Similar to the second partition, the first partition contained claims for 4,589 different procedure codes after line item deletions. However, only 681 procedure codes had a sufficient number of claims to be eligible for the review.

5. Differential use of the units variable

In particular cases, the units variable is meaningful and can affect the calculated averages. For this reason, any procedure where more than 5 percent of the billing reflected a unit of greater than one was judged for legitimacy of multiple units. The determination was made with the assistance of a Medicare Contractor Medical Director and also a Private Health Insurance Medical Director.

Appendix C

Data mining methods

Theory of Data Mining

As a relatively new field in analytics, data mining allows us to explore the wealth of data that now exists in almost every industry conceivable. Generally speaking, data mining is the utilization of a number of tools, including statistics, artificial intelligence and pattern recognition, to better understand and describe very large data sets. Data mining is not hypothesis testing, a method that uses data to confirm or reject hypotheses. Rather, it uses data to develop hypotheses in the absence of preconceived theories. With this distinction comes an increased probability of Type I error, i.e., an erroneous finding. However, utilized in its appropriate context, data mining has the ability to find valid patterns and inconsistencies that may not otherwise have been noticed.

Focus

For this particular study, we sought to identify inconsistencies between Medicare and the private industry in the value of services relative to other services from the same payer group. Understanding that absolute differences in reimbursement rates have interpretation problems, we determined that evaluating payments per Medicare-RVU allowed us to compare reimbursement rates among different procedures, thus eliminating the need to make a direct comparison between Medicare and private payments. We are looking at private payments in the context of Medicare RVUs; procedures that do not fit that context smoothly in relation to other procedures may have been evaluated differently in Medicare than in the private industry.

Model

To identify procedures that appear to be evaluated differently between the two sectors, we used two data mining techniques. These techniques were validated through extensive simulation testing. The techniques include stepwise elimination of procedures through linear regression and a requirement for confirmation, whereby a procedure must be identified in two independent partitions.

For the regression model, the theoretical conversion factor is the dependent variable. Independent variables include a dummy (or dichotomous) variable for each individual procedure (N = 681) and procedure group (N = 111)[1] meeting our requirements, as well

[1] Procedure groups are groups of codes representing similar procedures. These groups were defined by MEDSTAT.

as controls – for the health care plan, rural/urban, and specialist/generalist. We did not control for geographic location because the GPCI was adjusted to reflect the full market variation in each Medicare locality.[2] The initial regression model was the same in both partitions (see below).

$$\hat{Y} = \beta_0 + [\beta_1 (X_{proc1}) + \beta_2 (X_{proc2}) + ... + \beta_{681} (X_{proc681})] + [\beta_{682} (X_{group1}) + \beta_{683} (X_{group2}) + ... + \beta_{792} (X_{group111})] + [\beta_{793} (X_{plan1}) + \beta_{794} (X_{plan2}) + ... + \beta_{839} (X_{plan47})] + \beta_{840} (X_{specialist}) + \beta_{841} (X_{\%urban}^2) + \epsilon$$

$$\hat{Y} = (\text{payment for claim}_i / \text{calculated RVU for procedure}_i)$$

The regression was repeated more than 35 times, systematically dropping the independent variables (procedures and procedure groups) that appeared least likely to have a significant influence on the dependent variable (the theoretical conversion factor). After each iteration, we eliminated a pre-determined number of independent variables (i.e., procedures) exhibiting the largest p-value. The number of variables eliminated from each iteration was related to the number of variables remaining in the model, specifically twice the hundredth place of the number of independent variables. The regression sequence ceased at the point when all procedures and procedure groups remaining had a degree of significance that exceeded our threshold of p (where p is solved from: $(1-p)^{\#\text{ variables}} = 0.95$).[3] A further significance level was determined for the combined effect of the procedure and the procedure group on the dependent variable.[4] Procedures with a combined significance of p (where p is solved from: $(1-p)^{\#\text{ of F tests}} = 0.95$) are considered outliers in the distribution of procedures. The elimination process was repeated on a second randomly assigned partition of the MEDSTAT data. (Claims were randomly assigned into one of three independent partitions.) The results of the

[2] The GPCI, by design, reflects only about 60 percent of market variation. Policy makers believed that the Physician Work component of the RVU, reflecting the time and skill required of the physician, is not significantly affected by geographic variation. The CMS provided us with the formula used to squash the variation, so that we could adjust our data to fully reflect geographic variation as measured through the GPCIs.

[3] In data mining, the conventional level of significance does not apply. "Lovell has suggested that if there are c candidate regressors out of which k are finally selected on the basis of data mining, then the true level of significance is related to the nominal level of significance as follows: $\text{alpha}^* = 1-(1-\text{alpha})^{c/k}$ or approximately $\text{alpha}^* = (c/k)\text{alpha}$. For this reason we kept our determining level of significance extremely conservative. So that variables would remain significant." (Source: Guijarati, Damodar N., Basic Econometrics, Third Ed., McGraw-Hill Inc; New York: 1995. P.460-461.)

[4] An F-test using Restricted Least Squares (Testing for Linear Equality Restrictions) was used to determine the significance of the combined beta coefficients for procedure and procedure group.

two stepwise regressions were compared. Only procedures found to be significant in both partitions are reported.

As mentioned, the simulation studies provide support for the accuracy of our findings. Artificial data were created with the same overall structure of the original data. Simulations were conducted in a number of ways. First, data were created with no deviant procedures. Hence, our data mining process should have no remaining variables, or procedures. Additional data was created with manufactured outlier procedures. In those cases, our data mining process should have identified the appropriate outliers. We found that the step-wise regression did yield some erroneous results, but that the requirement of findings to be in two independent partitions eliminated this problem. To further minimize the incidence of erroneous findings, we used exceptionally small p-values. The combination of these two techniques used was successful in eliminating erroneous results.

Interpretation

Identified codes, i.e., codes that remained as variables throughout both stepwise regressions, are the focus of our study. We suggest not that the values are incorrect, but that differences noted give cause for further study. Further, we suggest that a data-driven method is a feasible option in identifying codes for the 5-year review. However, the particular codes identified should be considered within the appropriate context. As these codes are the results of a data mining process, i.e., not standard statistical analysis, no confidence intervals or p-values are reported. Statistical tests of significance are used in the data mining process, but cannot be interpreted as results, for there was no defined hypotheses to test; rather our process identified outlier procedures. These procedures are outliers in the sense that per Medicare RVU payment is consistently different from the average procedure.

Even though the construct of statistics does not uniformly apply, our analysis does use statistical methods. Those methods are susceptible to violations of statistical assumptions. In particular, the regression analysis included multicollinear variables, such that individual procedures are subsets of their respective procedure groups and potentially heteroskedastic variances resulting from any correlation between the plan variables and the residual error term. These limitations were known and considered before analysis began.

Multicollinearity: We chose to include both procedures and procedure groups so that we might be able to identify differences affecting a whole family of codes as well as individual procedures.

Heteroskedasticity: The variance of our dependent variable may be influenced by the plan variable. A dummy variable was included for each plan present in our data, however, this does not capture interactions between plans and individual procedures. We chose not to include interaction variables because our model might have been compromised by a degrees of freedom problem, and also because the processing of such a voluminous model would have been too difficult for parameters of our study. A simulation study is underway to determine the extent to which heteroskedastic variances may have affected our results. Early indications suggest that heteroskedasticity did not influence our results.

Appendix D

Valuation differences

The codes identified in our study as being valued differently between Medicare and the private sector are listed in this Appendix. These services' relative values for the private insurers differ substantially from those of Medicare's RBRVS. Statistics are provided to give contextual information that may assist the reader in interpreting the extent of difference.

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Variable Names and Definitions

CPT™	Current Procedural Terminology Code (used for billing purposes)
Description	Short description of the CPT™ code
N	Frequency of the procedure in the Commercial Claims and Encounters data.
Beta	Combined beta coefficient (from the step-wise regression) for the procedure and procedure group variables. Reflects the procedure's impact on the theoretical conversion factor.
Index Median	The median of an index created for each procedure describing what percent of the Medicare Physician Fee Schedule was actually paid by the private industry, as represented in our data.
Medicare Volume	The dollars (in thousands) allowed by Medicare in 1999 for each service (includes deductibles and co-payments paid by the beneficiary). The total amount allowed for 1999 was $44.7 billion.

The combined beta coefficient (Beta) may be interpreted as an addition or subtraction (as indicated by positive or negative value) to the average theoretical conversion factor. Recall that the conversion factor is the number you would multiply by the RVU to determine the total payment amount. The expected value is the average conversion factor for all services, which was found to be $34.07. This means that the Beta values would substantially add to or subtract from this number. For example, the Beta for CPT™ 10040 (-10.66) implies that the theoretical conversion factor for acne surgery is $23.41 ($34.07 - $10.66). If the RVU used for standardization reflected the entire variation between services, the payment for the service would have been the RVU multiplied by $34.07. As it stands, the payment for the service is the RVU multiplied by $23.41.

Appendix D

CPT™	Description	N	Beta	Index Median	Medicare Volume (in $1,000s)
10040	Acne Surgery	6776	-10.66	62.05%	$1,404
11042	Cleansing of Skin/Tissue	1060	9.9	114.04%	$27,748
11100	Biopsy of Skin Lesion	11171	-4.77	89.74%	$66,232
11200	Removal of Skin Tag	4060	-4.6	86.06%	$4,837
11300	Shave Skin Lesion	2511	-7.11	75.96%	$2,410
11400	Removal of Skin Lesion	2381	-9.59	66.43%	$3,301
11401		3313	-8.38	73.76%	$6,971
11402		2391	-4.26	87.70%	$9,177
11421		1264	-6.33	80.46%	$3,824
11440		1259	-6.77	82.57%	$5,238
11719	Trim Nail(s)	294	-17.02	34.88%	$9,969
11732	Remove Additional Nail Plate	411	7.52	110.62%	$3,396
11750	Removal of Nail Bed	3733	8.72	131.44%	$28,863
11900	Injection into Skin Lesion	2764	-5.22	81.83%	$2,581
12031	Layer Closure of Wound(s)	693	-6.64	83.21%	$2,509
17000	Destruction of Facial Lesion	36014	-3.79	84.46%	$130,619
17003	Destroy Lesions, 2-14	21042	15.04	99.55%	$137,151
17110	Destruction of Skin Lesions	3383	-6.82	77.85%	$2,814
17340	Cryotherapy of Skin	953	-17.03	58.31%	$829
19100	Biopsy of Breast	732	17.36	103.85%	$2,706
19290	Place Needle Wire, Breast	1196	10.67	113.31%	$4,921
20550	Inject Tendon/Ligament/Cyst	11520	-7.93	74.15%	$50,316
20600	Drain/Inject Joint/Bursa	4353	-6.39	74.85%	$16,302
20605		5590	-8.38	68.61%	$20,232
20610		13770	-9.13	79.12%	$133,139
21320	Treatment of Nose Fracture	108	19.81	147.38%	$197

Appendix D

CPT™	Description	N	Beta	Index Median	Medicare Volume (in $1,000s)
29065	Application of Long Arm Cast	334	-15.46	56.39%	$1,041
29075	Application of Forearm Cast	1478	-17.27	47.99%	$4,292
29085	Apply Hand/Wrist Cast	160	-16.57	48.42%	$288
29125	Apply Forearm Splint	811	-8.3	61.31%	$1,500
29405	Apply Short Leg Cast	1073	-14.29	65.34%	$3,272
29425		956	-12.55	58.19%	$3,221
29540	Strapping of Ankle	2545	-6.08	87.97%	$5,028
29880	Knee Arthroscopy/Surgery	505	13.09	140.43%	$24,381
29881		2328	7.91	118.07%	$38,313
29888		694	7.03	112.66%	$822
30130	Removal of Turbinate Bones	304	-10.05	60.64%	$676
31254	Revision of Ethmoid Sinus	357	15.8	147.45%	$2,024
31255	Removal of Ethnoid Sinus	907	21.16	154.11%	$10,402
31256	Exploration Maxillary Sinus	714	12.58	128.28%	$2,408
31575	Diagnostic Laryngoscopy	2460	6.16	114.22%	$31,208
36000	Place Needle in Vein	1273	17.03	133.59%	$1,644
36005	Injection, venography	171	22.16	146.93%	$2,895
36410	Drawing Blood	1414	-5.78	65.78%	$3,666
36425	Drawing Blood	116	-33.15	8.87%	$296
36489	Insertion of Catheter, Vein	453	21.93	154.35%	$54,502
42820	Remove Tonsils and Adenoids	1054	17.41	160.99%	$5
45300	Proctosigmoidoscopy	931	-15.73	49.40%	$5,332
45330	Sigmoidoscopy, Diagnostic	7845	-3.56	70.57%	$42,585
45384	Colonoscopy	1541	21.58	178.26%	$77,739
46083	Incise External Hemorrhoid	177	-13.96	64.19%	$288
50590	Fragmenting of Kidney Stone	1050	11.96	149.77%	$23,062

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CPT™	Description	N	Beta	Index Median	Medicare Volume (in $1,000s)
51700	Irrigation of Bladder	445	-21.45	44.89%	$3,240
51720	Treatment of Bladder Lesion	378	-12.60	62.40%	$17,684
52000	Cystoscopy	3334	4.94	112.29%	$107,817
53660	Dilation of Urethra	228	-21.29	42.52%	$2,222
53661		367	-23.35	36.65%	$3,858
53670	Insert Urinary Catheter	1237	-24.88	33.16%	$6,718
54161	Circumcision	279	14.19	153.56%	$2,728
56501	Destruction, Vulva Lesion(s)	335	-11.2	65.92%	$255
57452	Examination of Vagina	943	7.08	114.72%	$1,075
57454	Vagina Examination & Biopsy	3617	15.64	141.06%	$3,111
57460	Cervix Excision	347	32.86	192.37%	$408
57522	Conization of Cervix	377	24.18	151.27%	$721
58120	Dilation and Curettage (D&C)	935	10.17	116.95%	$7,387
59425	Antepartum Care Only	573	-21.44	17.22%	$146
59426	Antepartum Care Only	1338	-9.76	82.48%	$252
59430	Care After Delivery	602	-6.45	82.27%	$43
60001	Aspirate/Inject Thyroid Cyst	242	-33.77	6.85%	$129
62275	Inject Spinal Anesthetic	185	34.09	159.15%	$4,983
62278		730	22.57	153.63%	$21,919
62279		277	56.68	228.44%	$10,316
62284	Injection for Myelogram	1238	33.87	202.28%	$15,492
62289	Injection into Spinal Canal	2608	20.71	159.76%	$78,602
64443	Injection for Nerve Block	790	19.18	132.45%	$17,781
64450		1295	-6.02	74.23%	$7,723
64550	Apply Neurostimulator	350	22.97	170.08%	$384
64721	Carpal Tunnel Surgery	1074	8.82	117.99%	$30,164

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CPT™	Description	N	Beta	Index Median	Medicare Volume (in $1,000s)
66761	Revision of Iris	189	12.77	137.83%	$19,175
66821	Lasering, Secondary Cataract	562	19.75	167.52%	$198,749
66984	Remove Cataract, Insert Lens	2656	3.37	118.20%	$1,854,895
67210	Treatment of Retinal Lesion	721	7.84	139.16%	$111,761
67800	Remove Eyelid Lesion	405	-17.29	51.81%	$2,711
68761	Close Tear Duct Opening	907	-16.74	51.84%	$18,322
69210	Remove Impacted Ear Wax	4445	-11.56	64.90%	$31,396
69421	Incision of Eardrum	145	29.18	188.88%	$131
69424	Remove Ventilating Tube	116	31.96	127.57%	$75
69436	Create Eardrum Opening	3693	14.7	148.38%	$1,960
69990	Microsurgery Add-on	366	27.17	175.38%	$5,878
77263	Radiation Therapy Planning	1004	16.19	129.89%	$38,249
77336	Radiation Physics Consult	1969	-14.3	60.28%	$44,926
77408	Radiation Treatment Delivery	132	32.62	117.55%	$5,309
77413		4389	3.65	121.32%	$93,484
77414		1133	5.3	122.54%	$40,010
77416		492	9.08	121.32%	$10,224
77419	Weekly Radiation Therapy	262	46	242.31%	$18,071
77420		273	53.28	288.17%	$7,313
77425		252	53.11	241.52%	$11,024
77430		4748	35.42	236.43%	$189,271
80500	Lab Pathology Consultation	455	12.76	148.91%	$1,326
85102	Bone Marrow Biopsy	402	-10.91	64.85%	$10,038
86580	TB Intradermal Test	6925	-10.27	68.29%	$1,010
86585	TB Tine Test	2298	-9.96	70.62%	$189
88141	Cytopath, C/V, Interpret	84.20	-4.4	94.48%	$3,634

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CPT™	Description	N	Beta	Index Median	Medicare Volume (in $1,000s)
88329	Pathology Consult in Surgery	407	18.3	146.70%	$1,914
90781	IV Infusion, Additional Hour	3160	13.85	123.97%	$15,404
90782	Injection (SC)/(IM)	30039	6.56	127.64%	$7,095
90784	Injection (IV)	3177	3.25	116.40%	$1,150
90788	Injection of Antibiotic	3112	7.01	130.54%	$62
90801	Psychiatric Interview	7182	-7.71	79.09%	$111,387
90804	PSYTX, Office, 20-30 Min.	2182	-6.73	89.17%	$31,838
90805	PSYTX, Off, 20-30 Min w/E&M	15060	-4.81	85.17%	$83,314
90806	PSYTX, Off, 45-50 Min	23072	-5.34	84.46%	$281,209
90807	PSYTX, Off, 45-50 Min w/E&M	18329	-3.29	90.03%	$105,222
90847	Special Family Therapy	1920	-7.8	77.86%	$8,280
90862	Medication Management	30111	-2.73	97.31%	$196,791
90870	Electroconvulsive Therapy	538	23.1	146.50%	$13,220
90925	ESRD Related Services, Day	1952	147.56	133.65%	$79,236
90937	Hemodialysis, Repeated Eval.	105	19.61	113.74%	$26,561
92002	Eye Exam, New Patient	1649	-9.44	76.58%	$13,585
92004		6373	-11.54	69.83%	$136,603
92012	Eye Exam, Established Patient	10760	-15.22	59.71%	$238,022
92014		13915	-11.52	71.82%	$431,473
92020	Special Eye Evaluation	938	-9.58	74.63%	$13,013
92225	Special Eye Exam, Initial	1678	-11.17	63.66%	$29,074
92226	Special Eye Exam, Subseq	1996	-12.52	56.96%	$49,906
92504	Ear Microscopy Examination	886	-13.58	63.14%	$2,335
92552	Pure Tone Audiometry, Air	2416	-10.07	71.86%	$1,550
92553	Audiometry, Air & Bone	826	-10.44	71.51%	$1,702
92555	Speech Threshold Audiometry	562	-10.13	74.51%	$122

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CPT™	Description	N	Beta	Index Median	Medicare Volume (in $1,000s)
92556	Speech Audiometry, Complete	387	-10.10	76.67%	$553
92557	Comprehensive Hearing Test	5393	-10.34	71.96%	$36,788
92567	Tympanometry	10426	-11.34	69.93%	$13,189
92568	Acoustic Reflex Testing	1563	-10.40	74.51%	$3,824
93000	Electrocardiogram, Complete	53768	-1.72	88.92%	$260,332
93010	Electrocardiogram Report	20110	14.80	123.24%	$175,713
93016	Cardiovascular Stress Test	5406	14.64	120.38%	$26,600
93018	Cardiovascular Stress Test	6810	34.08	135.89%	$24,606
93041	Rhythm ECG, Tracing	161	46.39	127.68%	$1,078
93042	Rhythm ECG, Report	2097	23.70	167.88%	$14,123
93227	ECG Monitor/Review, 24 hrs	1107	23.43	137.93%	$10,670
93233	ECG Monitor/Review, 24 hrs	235	26.54	146.72%	$4,102
93539	Injection, Cardiac Cath	190	25.07	168.13%	$4,211
93540		206	19.59	172.81%	$6,018
93543	Injection for Heart X-Rays	2372	35.49	163.72%	$20,708
93544	Injection for Aortography	202	49.13	178.22%	$2,469
93545	Injection for Coronary X-Rays	2546	44.44	194.76%	$34,958
93798	Cardiac Rehab/Monitor	1616	8.89	144.86%	$9,304
94668	Chest Wall Manipulation	186	50.35	175.24%	$201
94760	Measure Blood Oxygen Level	7613	-3.19	79.31%	$16,911
95004	Allergy Skin Tests	6378	1031.06	2869.69% %	$13,852
95010	Sensitivity Skin Tests	153	143.13	315.71%	$370424
95015		242	121.88	268.39%	$563
95024	Allergy Skin Tests	5157	406.57	954.58%	$9,722
95027	Skin End Point Titration	171	148.24	85.13%	$301
95028	Allergy Skin Tests	181	327.63	656.18%	$1,817

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CPT™	Description	N	Beta	Index Median	Medicare Volume (in $1,000s)
95044	Allergy Patch Tests	571	154.48	63.36%	$2,481
95115	Immunotherapy, One Injection	83613	-16.15	57.91%	$19,867
95117	Immunotherapy Injections	88880	-14.67	59.21%	$23,785
95144	Antigen Therapy Services	1961	95.58	400.19%	$3,016
95147		213	43.17	126.75%	$304
95148		135	48.26	120.11%	$244
95165		29245	203.57	590.67%	$39,070
95851	Range of Motion Measurements	716	12.06	106.26%	$1,329
96400	Chemotherapy, (SC)/(IM)	1117	13.11	112.66%	$3,955
96408	Chemotherapy, Push Techniques	4828	-3.38	92.95%	$25,300
96412	Chemotherapy, Infusion Method	4897	5.88	99.17%	$49,708
96900	Ultraviolet Light Therapy	858	-8.96	70.88%	$1,075
96910	Photochemotherapy with UV-B	1869	-9.78	67.57%	$3,245
96912	Photochemotherapy with UV-A	1713	-7.98	74.29%	$2,763
97001	PT Evaluation	2043	4.17	107.29%	$25,121
97002	PT Re-Evaluation	699	11.28	139.01%	$2,766
97012	Mechanical Traction Therapy	1813	7.22	116.28%	$3,848
97014	Electric Stimulation Therapy	6823	9.47	118.47%	$26,831
97022	Whirlpool Therapy	1562	8.12	116.72%	$3,003
97032	Electrical Stimulation	3821	8.09	110.13%	$21,704
97033	Electric Current Therapy	1095	17.14	151.31%	$985
97035	Ultrasound Therapy	10195	8.21	110.01%	$41,306
97112	Neuromuscular Re-Education	3178	8.47	117.30%	$20,806
97113	Aquatic Therapy/Exercises	465	41.02	203.42%	$6,296
97116	Gait Training Therapy	443	14.07	141.19%	$5,512
97124	Massage Therapy	2447	10.36	124.67%	$33,919

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CPT™	Description	N	Beta	Index Median	Medicare Volume (in $1,000s)
97140	Manual Therapy	9037	28.54	173.71%	$40,579
97530	Kinetic Therapy	6698	20.84	144.59%	$49,135
97703	Prosthetic Checkout	211	71.65	202.86%	$65
97750	Physical Performance Test	296	18.82	145.75%	$1,897
97770	Cognitive Skills Development	142	78.39	279.50%	$881
99183	Hyperbaric Oxygen Therapy	442	47.64	155.12%	$19,566
99195	Phlebotomy	735	-11.47	71.89%	$941
99201	Office/Outpatient Visit, New	20043	-8.46	82.26%	$22,976
99202		78872	-9.32	76.57%	$151,700
99203		90193	-9.61	75.66%	$299,082
99204		39612	-9.07	76.48%	$287,602
99205		17179	-8.14	79.53%	$160,215
99211	Office/Outpatient Visit, Est.	73020	-11.66	67.99%	$139,113
99212		431696	-8.02	81.68%	$845,031
99213		1002696	-6.74	81.84%	$3,611,097
99214		270251	-7.8	77.89%	$2,219,555
99215	Office/Outpatient Visit, Est.	60972	-6.16	83.73%	$572,393
99231	Subsequent Hospital Care	4122	7.07	114.96%	$836,347
99232		5815	3.83	105.53%	$1,962,425
99241	Office Consultation	6759	-5.09	86.69%	$23,416
99242		17564	-6.52	83.83%	$104,737
99243		32037	-6.24	83.17%	$289,705
99244		29912	-6.39	84.74%	$452,636
99245		12572	-5.64	85.41%	$267,320
99281	Emergency Dept. Visit	2600	17.67	153.51%	$6,106
99282		17006	15.75	139.30%	$49,780

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CPT™	Description	N	Beta	Index Median	Medicare Volume (in $1,000s)
99283		44568	9.77	134.93%	$279,184
99284		21491	9.91	135.33%	$425,949
99285		6531	8.77	118.30%	$462,377
99292	Critical Care, Add'l 30 Min.	152	19.20	128.27%	$26,845
99433	Normal Newborn Care, Hospital	940	7.51	122.42%	$1
A4263	Permanent Tear Duct Plug*	279	29.86	162.74%	$3,038
A4550	Surgical Trays*	7016	30.41	149.25%	$4,647
G0101	CA Screen; Pelvic/Breast Exam	6388	42.36	219.11%	$10,097
Q0091	Scrn Pap Smear Obtain Prep&Con	574	-26.67	22.93%	$8,284

*Codes now bundled with primary service for global payment.

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