Outpatient Therapy Alternative Payment Study 2 (OTAPS 2) Task Order

CY 2006 Outpatient Therapy Edit Tables

Prepared for:
Centers for Medicare & Medicaid Services (CMS)

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Contract Number: GS-23F-8029H
Task Order Number: HHSM-500-2007-00322G

April 14, 2008

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1.0 Introduction

On September 28, 2007, the Centers for Medicare & Medicaid Services (CMS) awarded a contract to Computer Sciences Corporation (CSC) to perform professional services that build upon prior outpatient therapy studies[1]. The Statement of Work (SOW) asks CSC to perform follow-on analysis using CY 2006 claims data and comparing trends to prior years. The project name is the *Outpatient Therapy Alternative Payment Study 2*, or OTAPS 2. This represents the third of a series of reports under this contract. The first report titled "CY 2006 Outpatient Therapy Services Utilization Report" was submitted to CMS on February 1, 2008[2]. The second report titled "CY 2006 Outpatient Therapy Cap Report" was submitted to CMS on March 21, 2008[3].

1.1 History

Outpatient therapy services include all services meeting Medicare requirements under a physical therapy (PT), occupational therapy (OT), or speech-language pathology (SLP) plan of care as described in Medicare manuals[4,5]. The Balanced Budget Act of 1997 enacted financial limitations (therapy caps) on outpatient PT and SLP services combined, and outpatient OT services separately.

The caps applied to all outpatient therapy services in all settings except outpatient hospital. The therapy caps were implemented throughout calendar year (CY) 1999, however, they were subsequently under various Congressional moratoria from CY 2000 through CY 2005 (with the exception of implementation from September 1 – December 7, 2003). Although the moratoria expired, exceptions to the caps beginning on January 1, 2006 were enacted by the Deficit Reduction Act (DRA) of 2005. Recently, the Medicare, Medicaid, and SCHIP Extension Act of 2007 extended the exceptions process through June 30, 2008.

Section 5107 of the DRA also required the implementation of clinically appropriate code edits to eliminate improper payments for outpatient therapy services. On July 28, 2006, based in part upon data analysis previously performed by CSC, CMS issued instructions to contractors announcing new code edits for fifteen therapy evaluation procedures, with an effective date of January 1, 2007.

Under the prior Task Orders, CSC (formerly AdvanceMed/DynCorp) performed analytic activities using a 100% file of outpatient therapy claims in order to describe utilization patterns, particularly as they related to payment policy changes, including the therapy caps. Additional activities performed also addressed: identifying potential claim edits, identifying the feasibility of using claims data as the foundation for a condition-based alternative payment system, identifying beneficiary characteristics and clinical factors (for CMS to consider collecting in order to identify therapy need and potential outcomes), and short term policy support activities

[1] Contract Number: *GS-23F-8029H*, Task Order Number: *HHSM-500-2007-00322G*.
[2] Ciolek, D.E. and Hwang, W. *CY 2006 Outpatient Therapy Services Utilization Report*, February 1, 2008. Contract Number *GS-23F-8029H*, Task Order Number *HHSM-500-2007-00322G*.
[3] Ciolek, D.E. and Hwang, W. *CY 2006 Outpatient Therapy Cap Report*, March 21, 2008. Contract Number *GS-23F-8029H*, Task Order Number *HHSM-500-2007-00322G*.
[4] Pub 100-02 *Medicare Benefit Policy Manual*, Chapter 15, Sections 220 and 230.
[5] Pub 100-4 *Medicare Claims Processing Manual*, Chapter 5.

such as the development of the therapy caps exceptions process by CMS. The analytic activities are described in numerous reports at: *www.cms.hhs.gov/TherapyServices/SAR* on the CMS website.

These prior studies are referred to on the website as the:

- *Utilization and Edit Report*[6],
- *Pilot Report*[7],
- *Edit Report*[8];
- *Costliest Report*[9];
- *Model Report*[10];
- *Final Report*[11], *and*
- *Outpatient Therapy Utilization Report*[12].

1.2 Purpose

The report tables provide an updated high-level analysis of therapy HCPCS code utilization per claim line. The analytic assumption is that for each individual HCPCS code, there is a threshold in the number of units of that procedure that can be appropriately billed per claim line. At this threshold, any additional HCPCS units billed either; violates the definition of the HCPCS code itself, or becomes clinically improbable, regardless of the condition being treated on that date of service. Claims processing edits placed at these thresholds could theoretically help further satisfy the DRA Section 5107 requirement for clinically appropriate code edits to eliminate improper payments for outpatient therapy services

We used a method similar to our prior analysis of the therapy HCPCS codes from CY 2004 claims to analyze each individual HCPCS code line from CY 2006 outpatient therapy claims. We determined how often individual HCPCS codes were billed in a claim line for 1 unit, 2 units, etc. through 10+ units per claim line. For example, for HCPCS code 97110 – Therapeutic exercise, how many claim lines were billed at 1 unit? How many at 2 units? How many 3 units? This was repeated up to 10+ units for that HCPCS code. The results were placed onto EXCEL tables where outlier analysis could be performed. Similar to the prior edit analysis, the 98th-99th percentiles remained as the initial baselines for identifying outliers.

Example edit thresholds were to be determined by comparing the HCPCS unit utilization per claim line to: the HCPCS code definition, the clinical thresholds for these codes previously

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[6] Ciolek, D. E. and Hwang, W. *Outpatient Therapy Services Utilization and Edit Report*, May 17, 2006. Contract Number *GS-35F-4694G*, Task Order Number *HHSM-500-2005-00192G*.
[7] Ciolek, D.E., Carter, S, MacIsaac, J, and Hwang, W. *Outpatient Therapy Services Pilot Report 2006*. July 28, 2006. Contract Number *GS-35F-4694G*, Task Order Number *HHSM-500-2005-00192G*.
[8] Ciolek, D.E. and Hwang, W. *Feasibility and Impact Analysis: Application of Various Outpatient Therapy Service Claim HCPCS Edits*, November 15, 2004. Contract Number PSC 500-99-0009/0009.
[9] Ciolek, D.E. and Hwang, W. *Utilization Analysis: Characteristics of High Expenditure Users of Outpatient Therapy Services CY 2002*. November 22, 2004. Contract Number 500-99-0009/0009.
[10] Ciolek, D.E. and Hwang, W. *Development of a Model Episode-Based Payment System for Outpatient Therapy Services: Feasibility Analysis Using Existing CY 2002 Claims Data*. November 3, 2004. Contract Number 500-99-0009/0009.
[11] Ciolek, D.E. and Hwang W. *Final Project Report*. November 15, 2004. Contract Number 500-99-0009/0009.
[12] Olshin, J, Ciolek, D.E., and Hwang, W. *Study and Report on Outpatient Therapy Utilization: Physical Therapy, Occupational Therapy, and Speech-Language Pathology Services Billed to Medicare Part B in all Settings in 1998, 1999, and 2000*. September 16, 2002. Contract Number 500-99-0009/0002.

suggested by various national therapy stakeholder associations, and to EXCEL percentile tables that identified outlier billing patterns for individual HCPCS codes.

Similar to the prior edit analysis, dollar impact estimates of the example edit thresholds were developed to determine the financial impact should they to be applied by CMS in the future. Finally, summary conclusions and policy options discussed as a result of the findings of this more current edit analysis.

Appendix A '*Acronyms*' provides definitions of acronyms used throughout this report.

2.0 Data Analysis Methodology

For the most part, the claims analysis methodology used within this study replicated the methodology described in CSC's prior analysis of CY 2002 - 2004 therapy claims. Analytic models were used to identify outpatient therapy services paid under the Medicare Physician Fee Schedule (MPFS), and the individual beneficiaries who received these services. The methodology used to identify therapy services and provider settings was consistent with CMS policy as it applied in CY 2006. Appendix B '*OTAPS 2 Therapy HCPCS Analysis Logic*' provides a visual representation of how the characteristics of the individual HCPCS codes, provider type identifiers, and therapy service modifiers were used to identify outpatient therapy service claims. Once claims attributable to individuals were identified, individual identifiers were encrypted, and the various analyses were performed.

2.1 Source of Data for Analysis

CSC was able to obtain 100% of outpatient therapy claims data (with 2006 dates of service) processed from January 2006 through June 2007 replicating the innovative procedures established and described in the prior studies. These claims data were later merged with CMS provided Medicare Denominator files for CY 2006. This data was installed onto the OTAPS 2 Therapy Database server for analysis.

2.2 Creation of Therapy Data Sets for Analysis

The programming logic used to extract the outpatient therapy data mirrored those used to extract CY 2002-2004 data in the prior studies with the following exceptions. The current extraction included outpatient therapy HCPCS codes that were introduced after CY 2004, and excluded HCPCS codes that no longer were considered outpatient therapy services in CY 2006. CSC was then able to successfully extract, test and validate all of the CY 2006 outpatient therapy claims data. The data was then placed in tables for a variety of analytic activities.

Appendix C '*Index of Attached EXCEL Data Files*' identifies the location of detailed data tables that are the basis for this summary. The tables describe the HCPCS utilization patterns by outpatient therapy type and setting and the dollar impact per number of units billed per line.

2.3 Analytic Assumptions: Basis of Example Edits Impact Estimates

The basis for the example edits presented is described thoroughly in the prior CSC report titled "Outpatient Therapy Services Utilization and Edit Report.[6]" In that study, we provided HCPCS utilization tables describing CY 2004 patterns to various outpatient therapy professional organizations for feedback and their suggested edit ranges. The potential application of various options was discussed and the stakeholder feedback contributed to the edit options submitted.

The largest barrier to establishing 'clinically appropriate' code edits based upon claim information is that there is insufficient claim level information to determine, in specific situations, if the amount of units billed was medically necessary on any given treatment day. However, as offered by the therapy stakeholders, atypical billing patterns could also suggest preventable coding errors and egregious use. In the end, the most feasible option proposed was for CMS to consider various edits at the claim line.

The example edit limit for untimed HCPCS codes was generally proposed as 1 unit, due in part to the HCPCS definition of the code, and observed utilization patterns. CSC acknowledged that although uncommon, some untimed codes could describe separate and distinct medically necessary procedures (e.g. twice per day treatment or multiple body locations), and that higher thresholds, or modifier requirements might be considered by CMS as alternatives to the one unit (or higher) threshold in these cases. CMS has since adopted the suggested claim line edits for untimed therapy evaluation procedures, as described in the Medicare Claim Processing Manual, Chapter 5, Section 20.2.D, which became effective January 1, 2007. CMS edits for non-evaluation untimed HCPCS codes have not been established, although various Medicare contractors have such limits described in their local policies.

The example edit limits for timed HCPCS codes were based in part upon therapy association stakeholder feedback and upon utilization patterns. Generally, the edit example threshold limits represented claim lines with outlier billing patterns beyond the 98-99th percentile and were often adjusted upwards or downwards based upon the stakeholder feedback. In other words, if 98-99 percent of all claim lines for an individual timed HCPCS code were billed at a frequency of 4 units or less, and the limit was similar to stakeholder suggestions, then the example edit was set at limiting payment to no more than 4 units per line. Again, acknowledging the potential for uncommon but medically necessary utilization on a given day, CSC suggested that if the edit limits were to be adopted, CMS should also consider that the edit policy permit payment for clinically necessary exceptions to the timed HCPCS edit. CMS edits for timed HCPCS codes has not been established, although various Medicare contractors have such limits described in their local policies.

In this study, we utilized the same thresholds of stakeholder suggested edit ranges and example edits used in the prior study in order to permit a comparison of the estimated impact of the example edits from CY 2004 to CY 2006. The estimated impact of the example edit was calculated by setting the maximum line payment for all claim lines per HCPCS code at the mean paid per claim line at the edit threshold. For example, of the mean paid per claim line for a 4 unit threshold was $80, and the mean paid per claim line for 5 units was $100, then we would be reporting a $20 edit impact (per 5 unit line) because the maximum payment permitted by the edit would be $80 for that line.

3.0 Results

The edit analysis results for outpatient therapy services for CY 2006 demonstrate a remarkable change from the previous pattern observed in CY 2004. Although the CY 2006 MPFS price per procedure was nearly identical to CY 2004, and the example edit threshold limits used were identical to our prior analysis of CY 2004, there was an overall reduction in potential edit impact by 47 percent. In other words, if the example edits were applied in CY 2004, over $54 million in payments would have been denied, while if the same edits were applied in CY 2006, only about $29 million would have been denied. SLP services saw the greatest reduction at 51 percent followed by PT services at 50%. OT services saw a 28 percent reduction in edit impact from CY 2004 to CY 2006. In general, this change appears to be driven by a notable reduction in the variance in the number of units per HCPCS code billed per line from CY 2004 to CY 2006, particularly for the untimed HCPCS codes.

Table 1. Comparison of example edit dollar impact CY 2004 vs. CY 2006

	CY 2004	CY 2006	Change
Total	$54,533,092	$28,711,085	-47%
PT	$31,005,878	$15,431,418	-50%
OT	$7,656,048	$5,495,707	-28%
SLP	$15,871,166	$7,783,960	-51%

Summary tables indicating the potential impact of the edit examples by individual HCPCS code and by provider setting are included in the attached EXCEL files labeled:

- A_PT HCPCS Edit Examples per Claim Line_CY 2006
- B_OT HCPCS Edit Examples per Claim Line_CY 2006
- C_SLP HCPCS Edit Examples per Claim Line_CY 2006

Detailed tables indicating the utilization patterns per each individual HCPCS code from 1-10+ units per line and by provider setting are included in the attached EXCEL files labeled:

- D_HCPCS_Units per Line_by Setting_PT_CY 2006_Edit
- E_HCPCS_Units per Line_by Setting_OT_CY 2006_Edit
- F_HCPCS_Units per Line_by Setting_SLP_CY 2006_Edit

4.0 Summary and Conclusions

These tables were developed as part of ongoing CMS activities directed at developing a more refined understanding of beneficiary use of outpatient therapy services under Medicare. The purpose of these tables is to provide an updated analysis specifically targeting the impact of example claim line HCPCS procedure code edits had they been implemented during calendar year (CY) 2006.

The results using example edit unit threshold amounts applied to CY 2006 outpatient therapy claims that were identical those used in the prior CY 2004 analysis resulted in a 47 percent reduction in total dollar impact of the example edits. During this time the HCPCS procedure code pricing had negligible changes. This suggests that from CY 2004 to CY 2006 there was a change in provider per claim line HCPCS billing patterns that resulted in less billing variation, fewer extreme outliers of high numbers of units billed per line, and an overall reduction of the potential impact of the example edits.

Several factors may have contributed to this change in outpatient therapy provider billing patterns per claim line during CY 2006. They include:

- In November 2004, CMS released the first CSC (formerly under AdvanceMed) outpatient therapy edit report describing CY 2002 utilization on the CMS web site that informed providers of national billing patterns for therapy HCPCS codes. Such information may have resulted in updated provider guidance from professional associations regarding practice guidelines and appropriate coding and billing. It may also have informed Medicare contractors as they reviewed and updated Local Coverage Determination (LCD) policies, which may have included the application of local claim line edits.
- During June 2005, CMS released major outpatient therapy policy instructions in the Medicare *Benefit Policy* and *Claims Processing Manuals* that provided detailed clarifications on the definition of qualifying therapy services as well as what constituted reasonable and necessary therapy services. The impact of these manual changes on the utilization reductions in CY 2006 is difficult to quantify, however, the increased emphasis on supporting medical necessity with outcomes evidence and detailed documentation may have impacted provider treatment decisions regarding the amount of therapy services delivered on a given day. In addition, the additional medical necessity guidance may have enhanced Medicare contractor medical review scrutiny.
- This was followed up with the implementation of the therapy caps again in CY 2006 along with new therapy cap exceptions process instructions published during February 2006 in these two manuals, as well as the Medicare *Program Integrity Manual*. These new instructions provided additional detailed guidance regarding required documentation to support medical necessity. The impact of these manual changes on the utilization reductions in CY 2006 is difficult to quantify, however, the implementation of the caps themselves and the increased emphasis on supporting medical necessity with outcomes evidence and detailed documentation to support the exceptions may have impacted provider treatment decisions regarding the amount of therapy services delivered on a given day. Also, although the exceptions process permitted medically necessary services beyond the cap limits, providers may have been reluctant to perform additional procedures on a given day in order to ration the number of treatment days under the cap limit. In addition, the additional medical

necessity guidance may have enhanced Medicare contractor medical review scrutiny and therefore increasing provider reluctance to bill high numbers of units on a claim line.

- In July of 2006 CMS issued updated Claims Processing Manual instructions that established edit limits for fifteen outpatient therapy evaluation HCPCS codes that were to be effective on January 1, 2008. The impact of these manual changes on the utilization reductions in CY 2006 is difficult to quantify, however, providers may have changed billing practices and/or charge masters early in order to comply with the CY 2007 implementation date.
- In October 2006 CMS released on their website the updated CSC edit analysis of CY 2004 outpatient therapy utilization. Although this may have impacted only a small part of the year, it may have reinforced provider efforts at complying with the new untimed evaluation code edits that were to be implemented in CY 2007.

Policy Options

The findings from this analysis of outpatient therapy claim line HCPCS utilization patterns during CY 2006 demonstrates provider billing patterns for HCPCS procedure codes is becoming more standardized and predictable as compared to analysis or earlier years. There are far fewer claim lines with atypically high numbers of units being billed. In addition, the billing patterns are more consistent with the edit ranges suggested by therapy association stakeholders during the prior CY 2004 analysis.

During CY 2007, CMS implemented new edits on fifteen untimed evaluation HCPCS codes that were most easily clinically justifiable due to the code descriptions and stakeholder association support. The question at this point is whether additional edits could be applied to other therapy HCPCS codes to further satisfy the Section 5107 DRA requirements and be justified as cost effective and clinically appropriate.

We do not believe that additional edits at the edit example thresholds would be appropriate for the remaining untimed and timed therapy HCPCS at this time for the following reasons:

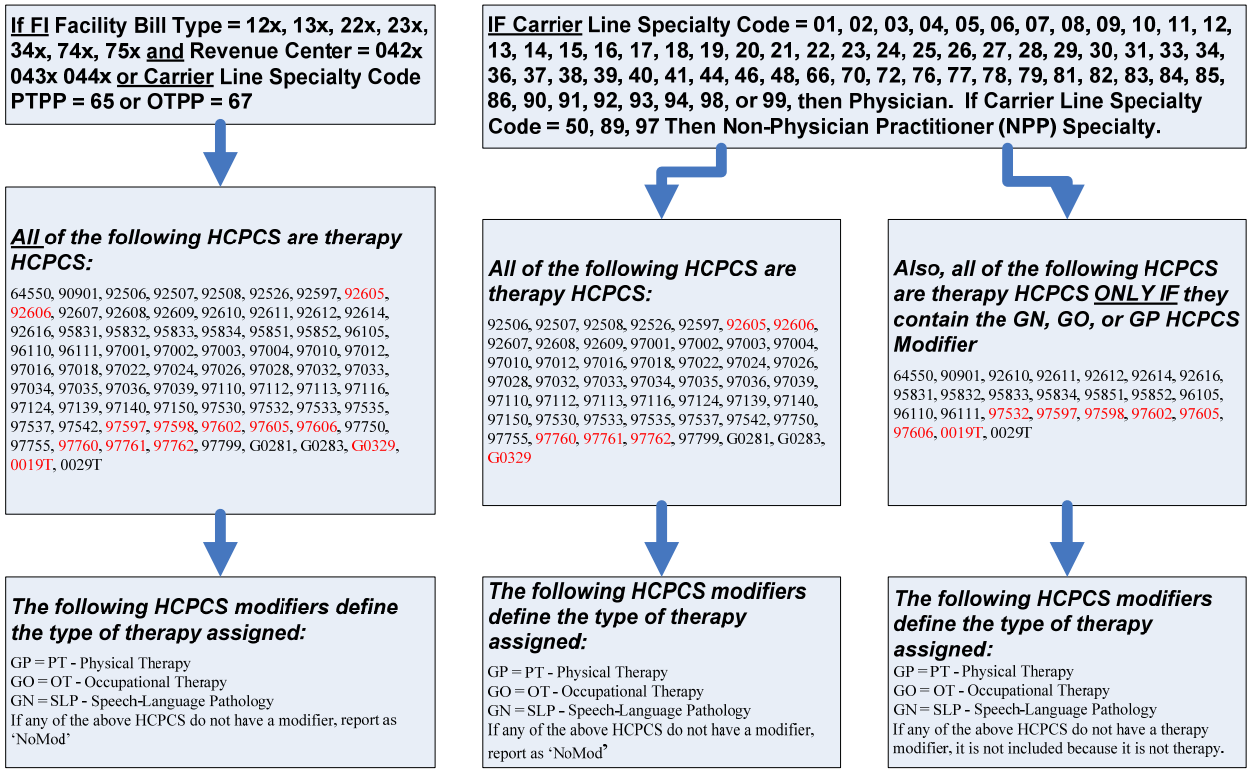
- The estimated savings of $28,711,085 of the example edits represents only 0.7% of the $4.1 billion in outpatient therapy payments during CY 2006, and the effort of implementing system edits on up to 60 additional HCPCS codes may not be cost effective.
- The non-evaluation untimed HCPCS code edit examples were often set at one unit per line. We had suggested that if the threshold were set at one, then CMS should consider a policy to permit additional units for clinically appropriate additional units consistent with the code description (e.g. twice a day treatment or multiple body sites). For many of these codes, over 98 to 99 percent of provider claim lines already fall within a 1-2 unit threshold. Therefore, the resulting estimated financial impact of the example edit for many of these codes, especially if 2 units were permitted, is negligible.
- The timed HCPCS code edit examples were often set at the 98-99th percentile unit threshold, or at comparable threshold amounts suggested by therapy association stakeholder representatives. Due to the billing pattern changes that were observed in CY 2006 with more providers now billing at or below the example edit limits, the resulting estimated financial impact of the example edit for many of these codes is now negligible.
- Unlike clearly defined evaluation codes, that usually represent a single event, or single activity, treatment code HCPCS units may represent different events during the same day

(untimed HCPCS), different and distinct body parts or pathology (untimed HCPCS) , or clinically appropriate multiple 15-minute increments of a single treatment session (most timed HCPCS). It may be more plausible to use the HCPCS utilization patterns for these treatment codes as part of further discussions with stakeholder representatives in the development of treatment guidelines rather than as stand-alone edit limits at this time.

Appendix A: Acronyms

Acronym	Definition
AMA	American Medical Association
CMS	Centers for Medicare and Medicaid Services
CORF	Comprehensive Outpatient Rehabilitation Facility
CPT	Current Procedural Terminology
CSC	Computer Sciences Corporation
CWF	Common Working File
CY	Calendar Year
DRA	Deficit Reduction Act of 2005
HCPCS	Healthcare Common Procedure Coding System
HHA	Home Health Agency
ICD-9	International Classification of Disease, 9th Edition
LCD	Local Coverage Determination
MPFS	Medicare Physician Fee Schedule
NPP	Non-Physician Practitioner
ORF	Outpatient Rehabilitation Facility
OT	Occupational Therapy Services
OTAPS	Outpatient Therapy Alternative Payment Study
OTPP	Occupational Therapist in Private Practice
PT	Physical Therapy Services
PTPP	Physical Therapist in Private Practice
SLP	Speech-Language Pathology Services
SNF	Skilled Nursing Facility
SOW	Statement of Work

Appendix B: OTAPS 2 Therapy HCPCS Analysis Logic



Appendix C: Index of Attached EXCEL Data Files

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