Medicare Payment for Hospital Outpatient Services: A Historical Review of Policy Options

A study conducted by RAND Health for the Medicare Payment Advisory Commission

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June 2005 • No. 05-3

WORKING
PAPER

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WR-267-MedPAC

June 2005

Prepared for the Medicare Payment Advisory Commission

HEALTH

PREFACE

The Medicare prospective payment system for hospital outpatient services has been subject to continuing debate since it was implemented August 1, 2000. Policy issues include how the unit of payment is defined, how the payment rate is established, and how the costs of new technology and expensive drugs are recognized. In addition, there are concerns over using different payment methodologies across ambulatory settings and the lack of an effective mechanism to control aggregate Medicare expenditures for ambulatory services. This study reviews the alternative approaches that were considered for payment of hospital outpatient services when the outpatient prospective payment system was designed and considers their relevance today. The intended audience is policymakers considering refinements to the current payment system.

This study was funded by the Medicare Payment Advisory Commission under Contract ACT-EE-2135.

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SUMMARY

The Medicare prospective payment system for hospital outpatient services has been subject to continuing debate since it was implemented August 1, 2000. Policy issues directly related to how payment is determined under the under the current system include:

- The ambulatory payment classification (APC) system used to group procedures for payment purposes,
- The items and services that are packaged into the APC payment,
- The methodology used to determine the costliness of one APC relative to other APCs, and
- The treatment of new technology and high cost drugs.

In addition, there are concerns over using different payment methodologies across ambulatory settings and the lack of an effective mechanism to control aggregate Medicare expenditures for ambulatory services.

The purpose of this study was to identify the alternative approaches that were considered for payment of hospital outpatient services when the outpatient prospective payment system (OPPS) was designed and to consider their relevance today.

STUDY APPROACH

The study focuses on the policy development period preceding the initial implementation of the OPPS. It begins with the first mandate for a prospective payment system for hospital outpatient services in the Omnibus Budget Reconciliation Act of 1986 (OBRA-86) and ends with the implementation of the OPPS in August 2000. A two-fold approach was taken to identifying the issues and policy alternatives that were considered during the period. First, government documents and research reports dating from this period were collected and reviewed. Second, individuals who were involved at various stages and in different roles in the development and implementation of the OPPS were interviewed.

SUMMARY OF FINDINGS AND IMPLICATIONS

The rapid growth of hospital outpatient services following the implementation of the PPS for acute care hospital inpatient services in 1983 led to interest in creating payment incentives to promote more efficient delivery of outpatient services. Most hospital outpatient services were paid the lesser of the hospital's reasonable cost or customary charges for services furnished to Medicare beneficiaries. Over time, service-based payment methodologies were developed for certain types of services, including fee schedules for clinical laboratory tests and for durable medical equipment, prosthetics, orthotics, and supplies (DMEPOS). Payments for ambulatory surgical procedures and for radiology and other diagnostic tests were based on a blend of the hospital's aggregate Medicare costs for these services and Medicare's payments for similar services in other ambulatory settings. In all, there was a confusing mix of at least eight different payment methodologies by the time the OPPS was implemented in 2000.

OBRA-86 spurred the development of an OPPS. The legislation required the Department of Health and Human Services (HHS) to develop and report to Congress on a fully prospective payment system for hospital outpatient services in two stages. The first stage was to focus on ambulatory surgical procedures and, to the extent practical, was to provide for an all-inclusive rate for the services. The second stage was to develop a model system for other hospital outpatient services. Subsequent legislation provided additional requirements for the full OPPS. The final statutory requirements for the OPPS were established by the Balanced Budget Act of 1997 (BBA) and the Balanced Budget Refinement Act of 1999 (BBRA).

Reports to Congress by the HHS Secretary and the Prospective Payment Assessment Commission (ProPAC) articulated common policy goals for the OPPS.[1] The overall goal was to provide incentives for the efficient delivery of high quality medically necessary outpatient care to Medicare beneficiaries. Other important attributes were whether the system provided similar financial incentives for care across ambulatory

[1] ProPAC was one of the predecessor agencies to the Medicare Payment Advisory Commission (MedPAC).

settings, administrative simplicity, predictability, limited opportunities for "gaming", and incentives for controlling total program expenditures.

The policy debate in the reports to Congress on the OPPS raised three basic issues related to defining the unit of payment:

- *Grouping*. One issue was the extent to which clinically similar procedures should be grouped for payment purposes and the logic that should be used for the groupings. The advantages of grouping were that it created a manageable number of units of payment and provided a method for pricing low-volume procedures. Commonly cited disadvantages were that it created units of payment that were inconsistent with the procedure-level fee schedules already in use in other ambulatory settings and reduced procedure-level payment accuracy for higher volume procedures.
- *Packaging*. A second issue was the extent to which ancillary services associated with a significant procedure should be packaged into a single payment for the procedure. Packaging was seen as a way to create incentives for efficiency. Commonly cited disadvantages of extensive packaging were that it was inconsistent with the fee schedules already in use in other ambulatory settings, reduced payment accuracy, and potentially created incentives for "gaming" by shifting the delivery of packaged ancillary services to other settings.
- *Bundling*. The third issue was the extent to which multiple significant procedures related to an outpatient encounter or to an episode of care should be bundled into a single unit of payment. This issue included the question of whether services prescribed during an outpatient encounter but furnished in a non-hospital setting should be bundled into the payment. Bundling was seen as a way to create incentives for efficiency comparable to the inpatient PPS. The policy disadvantages were similar to those applicable to packaging. The technical policy issues related to developing and implementing a bundling policy

that involved services provided over a span of time and by different providers made bundling a long-term policy objective.

A prospective payment system relies on an "averaging" concept, so that payment may be more or less than the estimated costs of providing particular services, but on average it is adequate to assure access to high quality care. The policy decisions regarding grouping, packaging and bundling involved a trade-off between establishing incentives for efficiency through larger units of payment and payment accuracy. Different aspects of payment accuracy were raised in the OPPS policy debate:

- One aspect relates to establishing an accurate payment rate for unit each of payment. Here, a major issue is the use of *accounting costs* to reflect differences in resource costs. Accounting costs refers to a method of determining the costs of outpatient services using annual cost reports filed by hospitals. Direct and indirect costs are allocated to each ancillary service department through a cost finding methodology and then apportioned to Medicare based on a ratio of Medicare charges to total charges for the ancillary service department. The methodology relies on accurate cost finding and on charges that are consistently related to costs. Other issues include: the use of median or mean costs to determine payment rates; the reliability of cost data for low-volume procedures; assigning ancillary procedures when multiple significant procedures are performed; and, combining services that were separately billed into a single unit of payment.
- A second aspect relates to the amount of cost variation within the payment groupings. There is variation across hospitals in the cost of providing a particular procedure. Additional variation is introduced through broad procedure groupings, packaging of associated ancillary services with the primary procedure, and bundling of multiple procedures related to an outpatient encounter into a single payment (or bundling of all procedures performed over a period of time into a single per

episode of care payment). Here, the issue is the likelihood that on average the payment will be accurate given the amount of cost variation within the grouping. Increased cost variation does not necessarily reduce payment accuracy at the hospital-level unless there are systematic differences across hospitals in the services included in the unit of payment. However, it reduces service-level payment accuracy and could create inappropriate incentives for "gaming" by shifting higher cost services to alternative ambulatory settings.

The two aspects of payment accuracy are somewhat inter-related. If the unit of payment is relatively large, there is more room for balancing inaccuracies in establishing the cost of the services covered by the rate than if the rate covers a small unit of payment such as an individual procedure.

The HHS report to Congress on the OPPS was issued in 1995. The report recommended using Ambulatory Payment Group (APG)-like procedure groupings as the basic unit of payment (which the Health Care Financing Administration (HCFA) later called APCs). The groupings consisted of procedures that were similar clinically and with respect to resource costs. Four general areas were identified as requiring additional research: defining the unit of payment (bundling and packaging policies), determining how well accounting costs reflect resource costs, examining use of the procedure groupings in other ambulatory settings, and accounting for legitimate cost differences across classes of hospitals. The report indicated that as further research was completed and better data became available, the OPPS could evolve to include more extensive packaging of ancillary services and to cover services in other ambulatory settings. The report made no recommendations regarding mechanisms to control aggregate expenditures.

The 1995 HHS report to Congress also raised a major concern with beneficiary coinsurance. The law required that beneficiaries pay 20 percent of submitted charges for hospital outpatient services paid on a cost-related basis. Hospital charges substantially exceeded Medicare's

cost-based payment amount. As a result, beneficiaries typically paid substantially more than 20 percent of Medicare's payment amount.

The beneficiary coinsurance issue created an impetus for adopting an OPPS as soon as possible. Adopting policies that were technically feasible to implement in the short-run and were unlikely to involve protracted policy development and debate became overriding considerations in the initial PPS design. Articulated policy goals that were deferred as implementation became the paramount concern were:

- Creating financial incentives for the efficient use of ambulatory services through packaging and bundling policies;
- Establishing consistent payment policies across ambulatory settings; and,
- Controlling aggregate expenditures for hospital outpatient services.

The perceived advantages and disadvantages of alternative policies that were considered when OPPS was initially implemented generally remain relevant. However, as the OPPS has evolved, concerns over the payment accuracy for services furnished to particular patients have been given precedence over creating incentives for efficient delivery of care. The "averaging" concept that underlies the inpatient PPS and the initial OPPS-construct has eroded as the OPPS payments have become increasingly less packaged and the procedure groupings have narrowed. Arguably, unpackaging further increases the importance of payment accuracy since there is increasingly less room within the payment to offset higher costs for some items and services with lower costs (or no usage) for others.

Goals such as administrative simplicity and financial incentives for efficient use of ancillary services have been given less attention in the post-implementation period. At the same time, the OPPS payment policies increasingly resemble those for other ambulatory settings. Indeed, the more fee schedule-like appearance of the OPPS rates coupled with other developments——such as growth of ambulatory surgical center (ASC) services, implementation of the resource-based relative value scale for the practice expense component of the physician fee schedule,

improved coding on hospital outpatient claims——suggest that progress might still be made on rationalizing the payment systems across ambulatory settings. Updating the research on differences in resource costs for high volume procedures across ambulatory settings should be considered as part of this initiative. In using accounting costs to set the APC relative weights, the OPPS depends on hospital charges being consistently related to costs. Hospital charges have been increasing rapidly relative to costs and there is evidence of substantial differences in hospital markups across hospitals and by type of services. Current hospital charging practices challenge more than ever the assumption that accounting costs accurately reflect a hospital's costs for specific items and services.

Several issues that have created extensive policy debate during the post-implementation stage——new technology, devices and expensive drugs—— received minimal attention in the initial PPS development. As a result, there is little information on alternatives that were considered for new technology during the OPPS design period.

The reports produced by HHS and ProPAC during the pre-implementation period envisioned that work would proceed towards the longer-term policy goals after the initial PPS was implemented and that the payment system would evolve to include more packaging and to expand to other ambulatory settings. However, other priorities and the resource demands imposed by the current system over the years, particularly with continuing legislative changes, interfered with research and policy development activities on the longer-term goals. When the OPPS is viewed independently, the individuals that were interviewed for this study seemed to believe that for the most part the OPPS payment system was maturing and stabilizing. However, when OPPS is considered within the broader context of ambulatory care payment, the goals of rationalizing payment methodologies across ambulatory settings and using financial incentives to control aggregate ambulatory expenditures remain important but unrealized.

ACKNOWLEDGMENTS

This report would not have been possible without individuals sharing their perspectives on the development of the initial hospital outpatient prospective payment system. I appreciate the willingness of the following individuals to participate and openly share their different views of the initial OPPS: Richard Averill, Thomas Ault, George Greenberg, Thomas Gustafson, William Kelly, Anne Marie Lynch, James Mathews, Henry Miller, Steven Sheingold, Deborah Williams, Janet Wellham, and Mark Wynn.

The study benefited from the guidance of Chantal Wortzala, the initial MedPAC project officer for the study, and Rachel Schmidt, who assumed this role and provided insightful comments on an earlier version of the report.

I would also like to thank Kathryn Khamsi for her administrative assistance in scheduling the interviews and preparing the report.

GLOSSARY

Symbol	Definition
APC	Ambulatory Payment Classification
APG	Ambulatory Payment Groups
ASC	Ambulatory Surgical Center
AVG	Ambulatory Visit Groups
AWP	Average Wholesale Price
BBA	Balanced Budget Act
BBRA	Balanced Budget Refinement Act
CMHC	Community Mental Health Center
CMS	Centers for Medicare and Medicaid Services
CPT-4	Common Procedure Terminology——Version 4
DME	Durable Medical Equipment
DMEPOS	Durable Medical Equipment, Prosthetics, Orthotics, and Supplies
DRG	Diagnosis-related Groups
ESRD	End-stage Renal Dialysis
HCFA	Health Care Financing Administration
HCPCS	HCFA Common Procedure Coding System
HHS	Department of Health and Human Services
HOPD	Hospital Outpatient Department
ICD-9-CM	International Classification of Diseases——Version 9 Clinical Modifications
IOL	Intraocular Lens
MB	Market Basket
MedPAC	Medicare Payment Advisory Commission
OBRA-86	Omnibus Budget Reconciliation Act of 1986
OPPS	Outpatient Prospective Payment System
PAC	Products of Ambulatory Care
PACS	Products of Ambulatory Care and Surgery
PAS	Products of Ambulatory Surgery
PPS	Prospective Payment System
ProPAC	Prospective Payment Assessment Commission

SRG	**Sustainable Growth Rate**
VPS	**Volume Performance Standard**

1. BACKGROUND

PURPOSE OF THIS STUDY

The Medicare prospective payment system for hospital outpatient services has been subject to continuing debate since it was implemented August 1, 2000. Policy issues directly related to how payment is determined under the under the current system include:

- The Ambulatory Payment Classification (APC) system used to group procedures for payment purposes,
- The items and services that are packaged into the APC payment,
- The methodology used to determine the costliness of one APC relative to other APCs, and
- The treatment of new technology and high cost drugs.

In addition, there are concerns over using different payment methodologies across ambulatory settings and the lack of an effective mechanism to control aggregate Medicare expenditures for ambulatory services.

The purpose of this study was to:

- Identify the alternative approaches that were considered for payment of hospital outpatient services when the outpatient prospective payment system (OPPS) was designed.
- Outline the strengths and weaknesses of the alternative approaches and consider their relevance today.
- Identify the policy arguments used to support the final design of the initial outpatient PPS and consider their relevance today.

STUDY APPROACH

The study focus was on the policy development period preceding the initial implementation of the OPPS. It begins with the first mandate for a prospective payment system for hospital outpatient services in the Omnibus Budget Reconciliation Act of 1986 (OBRA-86) and ends with the implementation of the OPPS in August 2000. A two-fold approach was taken to identifying the issues and policy alternatives that were considered during this period. First, written materials dating from this period were collected and reviewed.

The review covered government documents such as reports to Congress issued by the Prospective Payment Assessment Commission (ProPAC- one of the predecessor agencies to the Medicare Payment Advisory Commission) and the Secretary of Health and Human Services (HHS), the enabling legislation, and the proposed and final rules for the initial OPPS. The review also included research reports that investigated issues related to a new payment system for hospital outpatient services. Some research studies focused specifically on the design of the payment system. Other studies were broader examinations of differences across ambulatory settings in the cost of providing services or in the existing payment methodologies. The review concentrated on the reports that focused on OPPS design issues. An annotated listing of the main documents that were relied on in developing this report is in Appendix A.

Second, 12 individuals were interviewed who were involved at various stages and in different roles in the development and implementation of the OPPS. The interviews started with an initial list of persons who had been involved from different perspectives as researchers, policy analysts and decision-makers, legislative analysts, and industry representatives. A "snowball" technique was used to identify other individuals who interviewees believed had key roles in bringing the initial OPPS into being. A semi-structured interview process was used that concentrated on the interviewee's role in the development of the outpatient PPS, the stages at which that involvement occurred, and the research and/or policy issues that the individual was involved in. Because considerable time had elapsed between the developmental period for the OPPS and our interviews in March 2005, the letter asking individuals to participate in an interview identified the areas that have been identified as issues and included a summary of the payment system. A copy of the letter sent to potential interviewees is included in Appendix B. None of the individuals who were contacted declined to participate; however, the study team was unable to contact one individual whose perspective on the OPPS final design would have enriched the findings.

ORGANIZATION OF THIS REPORT

The remainder of this report is divided into three chapters. Chapter 2 provides a chronological overview of the development of the OPPS. It begins with the mandate in the Omnibus Budget Reconciliation Act of 1986 that the Secretary of Health and Human Services (HHS) develop a model PPS. It ends

with a description of the policies in the final rules implementing the OPPS and the changes required by the Balanced Budget Refinement Act of 1999 (BBRA). Chapter 3 presents the study findings with respect to key design considerations during the development and implementation of the OPPS. Chapter 4 summarizes the findings and discusses the implications and relevancy for refining the current OPPS.

2. CHRONOLOGICAL OVERVIEW OF THE DEVELOPMENT OF THE OUTPATIENT PROSPECTIVE PAYMENT SYSTEM (OPPS)

A. DEVELOPMENT OF THE OPPS: FROM OBRA-86 TO THE 1995 HHS REPORT TO CONGRESS

This section provides a chronological overview of the development of the OPPS. It begins with the mandate in OBRA-86 that the Secretary of HHS develop a model PPS for hospital outpatient services. It ends with the mandated HHS report to Congress that was submitted in 1995. The details of the OPPS design that were examined during this period are covered in the next chapter.

The rapid growth of outpatient hospital services following the implementation of the PPS for acute care hospital inpatient services in 1983 led to interest in creating payment incentives to promote more efficient delivery of services. The inpatient PPS created incentives for efficiency by making a pre-determined per discharge payment for facility services provided during an inpatient stay. Most hospital outpatient services were paid based on the lesser of the hospital's reasonable cost or customary charges for the services furnished to Medicare beneficiaries. Reasonable costs were determined on a departmental basis by applying a ratio of Medicare charges to total charges for all patients to the department's total allowed costs. The payment methodology provided no incentives to contain costs. Over time, service-based payment methodologies were developed for certain types of services, including fee schedules for clinical laboratory tests and for DMEPOS. Blended payment rates were established for ambulatory surgical procedures and for radiology and other diagnostic tests based on a blend of the hospital's aggregate Medicare costs for these services and Medicare's payment rates for similar services in other ambulatory settings. In all, there was a confusing mix of at least eight different payment methodologies by the time the OPPS was implemented in 2000 (see Table 2.1).

Table 2.1

Medicare Payment Methodologies for Hospital Outpatient Services Prior to the BBA

Services Furnished in Hospital Outpatient Department (HOPD)	Medicare Payment Amount
ASC approved surgical procedures	Lesser of 1) cost payment amount [reasonable cost or customary charges less 20% customary charges (not to exceed 80% reasonable cost] and 2) blended rate [42% cost payment amount and 58% ASC rate amount].
Other surgical and non-surgical procedures (including ambulance, emergency room, drugs, clinic visits, and physical therapy)	Lesser of reasonable cost or customary charges less 20% customary charges (not to exceed 80% reasonable cost)
Renal dialysis	80% of prospective composite rate
Radiology (facility component) and other diagnostic tests other than clinical diagnostic tests	Lesser of 1) cost payment amount [reasonable cost or customary charges less 20% customary charges (not to exceed 80% reasonable cost] and 2) blended rate [42% cost payment amount and 58% physician fee schedule technical component for radiology tests; 50% cost payment and 50% fee schedule for other diagnostic tests].
Laboratory	100% of clinical laboratory fee schedule amount
Intraocular Lenses	80% of DMEPOS fee schedule amount
Durable Medical Equipment (DME)	80 % of DMEPOS fee schedule amount

Note: A 10% reduction applied to payments for capital-related costs and a 5.8% reduction applied to other cost-based payments

OBRA-86 spurred the development of an OPPS. The legislation required HHS to develop and report to Congress on a fully prospective payment system for hospital outpatient services in two stages:

- The first stage was to focus on ambulatory surgical procedures. To the extent practicable, there was to be an all-inclusive payment rate that included all services commonly furnished in connection with ambulatory surgical procedures exclusive of physician services. The rates were to take into account the costs of performing the procedures in hospital outpatient

departments and in ambulatory surgical centers and the extent to which differences in costs were justified. An interim report on the development of a fully prospective payment system for these services was due April 1, 1988 and the final report by April 1, 1989.

- The second stage was to develop a model system for other hospital outpatient services. The legislation did not elaborate on the considerations for the model system. The report to Congress on the model system was due January 1, 1991.

Importantly, OBRA-86 also required changes in hospital billing for outpatient services to facilitate the development of OPPS. First, hospitals were required effective July 1, 1987 to begin using the Health Care Financing Administration (HCFA) Common Procedure Coding System (HCPCS) instead of the International Classification of Diseases Version 9-Clinical Modifications (ICD-9-CM) procedure codes on outpatient claims. This coding system is based on the Common Procedure Terminology——Version 4 (CPT-4) and is used to pay for physician and other Part B services.[2] Second, the requirement that hospitals bill for all services furnished during an inpatient stay was extended to outpatient services effective October 1, 1987. The intent was to associate all services furnished during an outpatient visit for purposes of setting OPPS rates; however, technical issues delayed implementation until the final OPPS rule was issued in April 2000.[3]

The Omnibus Budget Reconciliation Act of 1989 (OBRA-89) required ProPAC to issue a report examining the sources of growth in spending for hospital outpatient services and cost differences across ambulatory settings. ProPAC's report included a set of principles that the

2 While this requirement established a coding system across ambulatory settings, hospitals billed for services by revenue center code rather than procedure code. An individual claim could include only the portion of the services provided during an encounter or services from multiple encounters.

3 As a result, outpatient claims used to establish the initial OPPS payment rates did not include services that were ordered during an outpatient stay but performed by another entity, such as diagnostic tests provided by an independent laboratory or free-standing imaging center.

Commission would use to evaluate OPPS alternatives (see Figure 2.1). Overall, the criteria were whether the OPPS provided incentives for the efficient delivery of high quality medically necessary care to Medicare beneficiaries. Other important attributes were whether the system provided similar financial incentives for care across ambulatory settings, administrative simplicity, predictability, and limited opportunities for "gaming" (ProPAC, 1990).

1. *The system should provide incentives for controlling total expenditures.*

2. *The system should maintain general access to high quality care for Medicare beneficiaries.*

3. *The system should not inhibit appropriate care or encourage unnecessary services because of differing incentives for physicians and hospitals. It should encourage quality care at the lowest reasonable costs overall.*

4. *The system should recognize alternative sites and changing methods of providing care and provide similar financial incentives for this care as well as care offered on the hospital outpatient setting.*

5. *The system should recognize justifiable differences in costs of furnishing services.*

6. *The system should limit the opportunity for provides to influence payment rates through billing strategies or changes in medical record documentation. It should promote predictability and administrative simplicity. Finally, the system should accommodate appropriate changing medical practice patters and new technologies. The system should provide incentives for controlling total expenditures.*

Source: ProPAC (1990).

Figure 2.1——Factors Identified by ProPAC to Evaluate Proposals for OPPS

The Omnibus Budget Reconciliation Act of 1990 (OBRA-90) set out a range of policy issues that the HHS Secretary was to consider in developing the OPPS, including: the need for limits on outpatient expenditures, the classification system and packaging policies that should be used to establish the unit of service, the facility-level adjustments, and the appropriateness of varying payment across different settings. The legislation required that research reports on the OPPS still be submitted by January 1991 but extended the deadline for the

report to Congress on the OPPS to September 1991. ProPAC was required to submit analysis and comments on the proposal six months later.

HCFA-sponsored external research for the OPPS was conducted largely during the period 1986-1991, and reports from various OPPS studies were submitted to Congress in December 1991. These studies investigated different approaches that might be considered in establishing the OPPS and examined differences in payment methodologies and costs across ambulatory settings.

HCFA completed a draft report to Congress on the OPPS in 1992, but the report was not cleared and submitted to Congress until 1995. The report followed the two-stage implementation anticipated in OBRA-86. It recommended that the OPPS be phased in, starting with ambulatory surgical procedures, radiology and other diagnostic tests using an Ambulatory Payment Group (APG)-like classification system with limited packaging. The specified services were subject to the blended payment methodology. As a result, the data quality and packaging issues were less problematic for these services than for medical visits. The report made no recommendations regarding issues such as the extent of packaging and bundling procedures, classification of medical visits, outlier policies, or mechanisms to control aggregate expenditures. Four general areas were identified as requiring additional research: defining the unit of payment (packaging and bundling policies), determining how well accounting costs reflect resource costs, examining the use of APGs in other ambulatory settings, and accounting for legitimate cost differences across classes of hospitals. The report indicated that as further research was completed and better data became available, the OPPS could evolve to include more extensive packaging of ancillary services and to cover services in other ambulatory settings.

The 1995 HHS report to Congress also raised a major concern with beneficiary coinsurance. The law required that beneficiaries pay 20 percent of submitted charges for hospital outpatient services paid on a cost-related basis. HCFA found through its payment simulation models that hospital charges substantially exceeded Medicare's cost-based payment amount. As a result, beneficiaries typically paid substantially more than 20 percent of Medicare's payment amount. If the OPPS

coinsurance amount were set at 20 percent of the prospective payment rate, a substantial increase in Medicare expenditures would have been required to maintain the total aggregate payment levels for hospital outpatient services. A related problem with the existing blended payment formula was also identified that resulted in an unintended increase in Medicare payments (the so-called "formula-driven" overpayment) (HHS, 1995).

The 1995 HHS report included five premises that had been used to evaluate the alternative payment systems that were generally comparable to those recommended in the earlier ProPAC report (Figure 2.2). A new premise was that the OPPS should provide a basis for addressing the beneficiary coinsurance issue. The need to find an equitable solution to the beneficiary coinsurance problem became paramount and dwarfed other design considerations. The cost of correcting the beneficiary coinsurance problem stalled further legislative action on OPPS until the BBA of 1997.

1. *The system should be fairly simple to understand and to administer, preferably using a similar payment methodology for all hospital outpatient services.*

2. *The system should be fair and equitable to providers, beneficiaries, and the Medicare program.*

3. *The system should have the potential to be extended to all outpatient providers. To the extent feasible, payments should be based on type of services rendered, not on type of provider or supplier rendering the services. However, in applying this "level playing field" approach, the system must be able to recognize legitimate cost differences among settings.*

4. *Any patient classification system used to group services should be based on clinically coherent categories and, at the same time, should reflect resource utilization. This would limit opportunities to "upcode" or "game" the system.*

5. *The system should provide incentives to furnish services as efficiently as possible without sacrificing the quality of care or limiting access to care.*

Source: HHS (1995).

Figure 2.2—Factors Identified by HHS to Evaluate Proposals for OPPS

ProPAC's analysis of the 1995 HHS proposal identified three major concerns. First, the Commission recommended against a phased implementation. ProPAC argued that a phase-in:

- Entailed implementation costs without the benefits of administrative simplification,
- Created incentives to shift overhead costs to services that continued to be paid on a cost basis, and
- Might make it more difficult to expand the system to other services in the future since there would be "winners and losers".

Second, ProPAC concluded that a prospective payment system based on fee-for-service payments should be accompanied by a strategy to control volume growth. The Commission recommended that the HHS Secretary explore methods that would rely on payment incentives and on administrative controls. Third, ProPAC recommended that beneficiary coinsurance be set at 20 percent of the payment rate and that savings from the formula-driven overpayment be used to offset the cost to Medicare of reducing beneficiary coinsurance. The Commission also recommended that the Congress require HHS to submit full specifications for a comprehensive OPPS as soon as possible.

B. INITIAL IMPLEMENTATION OF OPPS: FROM THE BBA TO THE FINAL OPPS RULE

Section 4523 of the BBA of 1997 required the establishment of a prospective payment system for hospital outpatient services effective January 1, 1999. The proposed rule was issued in September 1998. Subsequently, the BBRA made changes in the OPPS statutory provisions in response to issues that had been raised following publication of the proposed rule and postponed the effective date because of Y2K concerns. The final rule was issued in April 2000 and the new payment system was effective August 1, 2000. This section presents an overview of the basic OPPS design and the issues that were raised during the rulemaking process. The major characteristics of the system and how they changed through the legislative and rulemaking processes are summarized in Table

2.2 and form the basis for the analysis of the alternatives discussed in greater detail in the next chapter.

Table 2.2

Major Features of the OPPS: From the BBA through the April 2000 Final Rule

Feature	BBA	Proposed Rule	BBRA	Final Rule
Services subject to the OPPS	Services designated by the Secretary; excluded ambulance and therapies	Exclude services already subject to a fee schedule or PPS	Include implantable prosthetics and DME and tests associated with the implants	Excluded corneal tissue acquisition costs
Unit of Payment	Service-based	Service-based	Service-based	Service-based
Classification System	Secretary to develop groups of services that are comparable clinically and with respect to resource use	346 Ambulatory Payment Classification (APC) groups; 121 medical visit groups based on body system and HCPCS codes grouped into three levels	Highest median (or mean cost) for item or service in group can't exceed 2x the lowest; exception for low-volume items/services	Services Covered
Bundling	[Main provision in OBRA-86] Expanded physician assistant exemption to NPs and clinical nurse specialists	Dropped earlier proposal that had required the hospital to bill for all diagnostic tests furnished outside the hospital ordered during an outpatient encounter	No provision	Minimal changes from proposed rule
Packaging	No specific provision	Operating and recovery room, anesthesia, supplies, observation, pharmaceuticals other than chemotherapy, IOLs, casts and splints, corneal tissue acquisition cost, incidental procedures	No provision other than transitional pass-through	Eliminated packaging for casts and splints; corneal tissue; blood and blood products; items subject to the transitional pass-through

Feature	BBA	Proposed Rule	BBRA	Final Rule
Payment Rate				
Relative Weights	Based on median hospital costs for group	Based on median costs from single procedure claims using cost reports beginning in FY 1995 and 1995 single procedure claims	Secretary has authority to base on either mean or median hospital costs from most recent cost reports and claims	Based on median costs from 1996 single procedure claims using cost reports beginning in FY 1997
Conversion Factor	Based on amounts Medicare would have paid in 1999 (including extension of cost reductions)	Budget neutral to 1999 with cost reduction provisions and behavioral offset	Eliminated cost reductions effective with implementation of PPS	Based on amounts that Medicare would otherwise paid in 1999 updated by MB-1 with no behavioral offset
Standard facility Adjustments	Wage adjustment and other factors Secretary finds necessary	Wage adjustment only	No provision	No change
Special Payment Provisions	Other adjustments determined necessary for equitable payment	No other adjustments	No provision	No change
Outliers	Authorized but no specific provision	No provision	Required budget neutral outlier payments capped at 2.5% before 2004 and 3% thereafter	Set at 2% of total payments; payment set at 75% of estimated cost in excess of 2.5 times standard payment
Type of hospital	Cancer hospitals exempt 1st year and may have a unique conversion factor	Solicited comment on transition policy for rural hospitals	Transitional corridors through 2003 with rural hospitals and cancer hospitals held-harmless	Implemented BBRA provisions

Feature	BBA	Proposed Rule	BBRA	Final Rule
Drugs	No specific provision	Packaged other than chemotherapy	Budget neutral transitional pass-through for 2-3 years capped at 2.5% before 2004 and 2.0% thereafter for certain new drugs and devices.	Implemented new drug pass-through on an item-by-item basis.
Devices	No specific provision	Packaged except implantable devices paid under DMEPOS	See drug provision above. Packaged implantable devices.	Implemented new device pass-through on an item-by-item and packaged devices.
New technology	No specific provision	Assign to existing APC most closely resembling the new item or service	No provision other than for drugs and devices.	Created new technology APCs for items and services not qualifying for transitional pass-through.
Update Provisions	Periodic revision authorized.	Annual revision to wage index	Review of all components not less than annually	Implemented BBRA.
Rates	MB (except MB-1 through 2002)	Same as BBA.	Same as BBA.	Same as BBA.
Groupings and weights	Periodically	Revise groupings as needed; solicited comment on frequency of recalibration	Use outside advisory panel to review groupings and weights	Implemented BBRA.
Volume Control	Secretary to develop method for controlling unnecessary increases	Sustainable growth rate-like approach for 2000 only based solely on OPD services	No provision	No provision

Balanced Budget Act of 1997 (BBA)

In laying out the overall design for the OPPS, the BBA drew on the 1995 HHS Report to Congress. Critical features of the system needed to determine OPPS budget impacts were spelled out. These included policies

related to the budget neutrality target for setting the relative weights and the process for phasing down beneficiary coinsurance amounts to 20 percent of the payment over time. However, many of the specific details of the system were left to the Secretary's discretion, including: the services that would be covered by the system, whether the unit of payment should be individual services or groups of services, bundling and packaging policies, facility adjustments and other special payment adjustments. The discretionary policies subsequently created the most policy debate and are of interest for this study. The study does not examine the budget baseline or coinsurance issues.[4]

Proposed Rule Implementing the OPPS

The proposed rule implementing the OPPS and the OBRA-86 bundling rules was published in the *Federal Register* in September 1998.[5] The rule provided for grouping procedures into 346 APG-like ambulatory payment classification (APC) groups of services that were comparable clinically and with respect to resource use. Comment was explicitly solicited on the classifications for medical visits. The proposed APCs packaged services that "are recognized as contributing to the cost of services in an APC," but which Medicare did not separately pay for as a service. Packaged items included: operating and recovery room, anesthesia, medical/surgical supplies, pharmaceuticals (other than chemotherapy drugs which had separate APCs), observation services, blood, intraocular lenses, casts and splints, donor tissues, and various incidental services such as venipuncture. The packaging policy was generally consistent with the packaging rules already in place for ambulatory surgical procedures, radiology and other diagnostic tests.

The BBA gave the Secretary authority to designate the services covered by the OPPS but specifically excluded ambulance and outpatient therapy services. These services were to be paid under separate fee

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4 The major budget baseline issue pertained to continuation of provisions reducing Medicare payments for capital and diagnostic tests for purposes of determining the budget neutrality target for 1999. This issue was addressed by the BBRA, which eliminated the cost reductions effective with the implementation of the OPPS.

5 An extensive correction notice was published in June 1999.

schedules that were also established by the BBA. The proposed rule excluded other services paid under existing fee schedules applicable in all settings, e.g., clinical diagnostic laboratory services, DMEPOS, and End-stage Renal Dialysis (ESRD) services covered by the composite rate.

As noted in Table 2.2, the rule was fairly straightforward in that there were minimal facility adjustments or special payment policies. The only facility adjustment was the BBA-mandated adjustment for area differences in hospital wage levels. The Secretary's authority to provide other adjustments was not exercised. HCFA solicited comment on whether a transitional payment policy should be established for small rural hospitals that would be adversely affected by the OPPS but did not propose such a policy.

With regard to volume control measures, an update in the 1999 budget neutrality target was proposed as a CY 2000 expenditure target using the sustainable growth rate policy used in the physician fee schedule as a model. The 1999 budget neutrality target would be adjusted to reflect inflation, changes in the number of Medicare Part B fee-for- service enrollees, and an allowance for new technology. If actual calendar year 2000 expenditures exceeded the target, HCFA proposed to adjust the CY2002 conversion factor.

A proposed rule implementing the OBRA-86 bundling provision for outpatient services had been published in August 1988 but had not been finalized. The proposal was republished as part of the OPPS proposed rule with one major change. The initial proposal was developed at a time HCFA was considering more extensive packaging under the OPPS. It had required that the hospital bill for any diagnostic tests performed outside the hospital that had been ordered during an outpatient encounter. This policy was dropped in the OPPS proposed rule. The revised policy required hospitals to bill only for services that were provided on the hospital premises on the same day as an outpatient encounter.

The proposed rule noted that the complexity of the Y2K issues would preclude implementation any earlier than January 2000. The proposed rule originally provided for a 60-day comment period. It was extended four times and ultimately closed on July 30, 1999.

Balanced Budget Refinement Act of 1999 (BBRA)

The BBRA was enacted in November 1999 after the comment period for the proposed rule closed. Section 201 of the BBRA contained provisions that affected the OPPS. There were budget neutral provisions to require outlier payments for services whose costs exceed a given threshold and to establish a temporary transitional pass-through for certain medical devices, drugs and biologicals. Implantable devices were explicitly covered under the OPPS and packaged into the APC for the associated procedure. The proposed rule had excluded and paid for implantable devices under the DMEPOS fee schedule.

The BBRA also included provisions that affected the APC classification system and relative weights. The Secretary of HHS was given discretion to base the relative weights on either the median or average cost of the procedures within the APC. The amount of variation within a given APC was limited so that the highest cost procedure could not be more than two times the cost of the lowest cost procedure within the APC. Exceptions were allowed for low volume procedures. The Secretary was also required to review the groupings and relative weights (as well as other payment factors) annually and to consult with an expert outside advisory panel in doing so. The panel was authorized to use non-HHS data in its review.

Another change affected payments through the transition. A provision applicable to all hospitals partially offset reductions in Medicare aggregate payments though 2003 based on each hospital's payment-to-cost ratio in the base year (cost reporting periods ending in 1996) compared to the PPS year. Cancer hospitals and rural hospitals with fewer than 100 beds were held harmless under the provision and paid at no less than the base year payment-to-cost ratio.

Final Rule Implementing the OPPS

A final rule with comment period implementing the OPPS was published in April 2000 and was initially to become effective July 1, 2000. The comment period pertained to the provisions implementing the BBRA provisions. For the most part, the April 2000 rule clarified

issues that had been raised in public comments and implemented the BBRA provisions. Other policy changes included:

- Corneal acquisition costs were excluded from the OPPS and paid on a reasonable cost basis.
- Packaging was no longer required for casts and splints, blood and blood products; and,
- The proposal for a volume control measure was indefinitely deferred.

Two additional notices followed the April 2000 notice. A July 2000 interim final rule with comment period modified the policies for the transitional pass-through and delayed the effective date of the OPPS to August 1, 2000. A third interim rule published in November 2000 addressed the comments on the BBRA changes and was effective January 1, 2001.

3. MAJOR DESIGN CONSIDERATIONS FOR THE OPPS

This chapter focuses on alternatives that were considered during the development and implementation of the OPPS that relate to on-going issues with the payment system. These issues include:

- How the unit of payment is defined.
- How relative weights are established for procedure groupings.
- How new technology and drugs are accounted for in the rate-setting process.
- The consistency of payment for facility services across ambulatory settings.
- Volume controls on Part B expenditures.

This report does not discuss the transition payment issues. These policies have now expired and are no longer relevant except with respect to rural hospitals, where current studies are already underway. Also, the report does not examine issues related to outlier payments because they received little attention during the design of OPPS and were recently examined by MedPAC in its March 2004 report.

In examining the alternative policies that were considered in designing the OPPS, the limitations of the data that could be used to establish the initial payment system should be kept in mind.

- The sheer volume of the claims and codes that needed to be handled in the rate-setting process posed challenges. There were 80 million claims for outpatient services in 1996 (the claims year used to establish the rates) that matched to a cost report and could potentially be used to establish payment rates. More than 10,500 HCPCS codes were in use, of which over 5,000 described services that the Secretary designated as covered by the OPPS.
- All services associated with an outpatient encounter were not necessarily on a single bill. If a patient was seen in several departments on the same day, there might have been multiple claims, which could have been for treatments for the same

condition or for different conditions. Conversely, a single claim could include services over multiple visits over a period of time and/or for multiple conditions.

- Not all the services associated with the outpatient encounter may have been billed by the hospital. Services may have been ordered during an encounter that were performed and billed by another entity, such as a freestanding radiology treatment center.
- There was considerable evidence of poor diagnosis and procedure coding practices, particularly for medical visits where the coding did not affect payment. Some hospitals did not differentiate between levels of clinic visits and used a single code for all visits.
- Hospitals charged for their services by revenue centers rather than procedure codes. To estimate procedure costs, revenue center charges needed to be cross-walked into ancillary departments or cost centers used on the hospital cost report so that departmental cost-to-charge ratios could be applied. Charging practices for some services, including ambulance services (where only total charges were reported instead of base charges and mileage rates) and therapy services (where multiple procedures are typically performed during a single session) made developing service-based rates for these services particularly problematic.
- Only single procedure bills could be used to establish relative weights for procedures. This is because packaged items and services could not be assigned to a procedure if multiple procedures were reported on the same bill. For example, if two surgical procedures were reported on the same claim and there were charges for an operating room, there was no basis for allocating the operating room charges between the two procedures. Of the 80 million claims that were matched with a cost report in establishing the initial OPPS rates, 34.6 million had multiple procedures and could not be used to calculate the median costs for the APC. After discarding about 24 million

single procedure claims for services that were not subject to OPPS (e.g., laboratory service only), the final relative weights were based on 21.4 million single procedure claims.

A. TYPE OF SERVICES COVERED BY THE OPPS

Starting with the early discussions on the OPPS onward, a policy goal was to move payment for all hospital outpatient services from cost-based reimbursement to prospectively determined rates. Prospectively determined rates provide an incentive to control the costs that reasonable cost reimbursement does not. Further, a mix of reasonable cost and fee schedule payments was seen as adding administrative complexity and creating incentives to shift overhead costs to the services that remained cost-reimbursed. The 1995 HHS report recommendation that the OPPS be phased in beginning with ambulatory surgical centers, radiology and other diagnostic tests was based on the state of research at the time the report was written rather than policy considerations. As research progressed and it became feasible to establish prospective rates for medical services, the question of whether certain types of services should remain on a cost-related basis received minimal attention. The beneficiary coinsurance issue and concerns that partial implementation would add administrative complexity and create incentives for cost-shifting provided impetus to assure all services were paid on a prospectively determined rate. The policy issue was primarily which services should be covered under the OPPS and which should be covered by other fee schedules.

By the time the OPPS was implemented, prospective rates or fee schedules already applied to several types of services furnished by HOPDs, including clinical diagnostic laboratory tests, DMEPOS and, with the enactment of the BBA, ambulance services and outpatient therapy services. The issue that received some attention was whether the OPPS should apply to all services furnished by hospitals to outpatients or whether existing fee schedules should be utilized where the services were not packaged with an OPPS-payable service. The issue involved a trade-off between the administrative simplicity of having a single payment system for HOPD services and the long-term goal of "leveling the

playing field" between hospitals and others who provided the same services. Establishing an OPPS payment for individual services that were already paid across ambulatory settings under an existing fee schedule was perceived as a step backward. The BBA explicitly excluded ambulance and outpatient therapy services from the OPPS and established new fee schedules for those services. Hospital cost data and charges were by revenue center and developing individual service-based rates for these services from cost report data was problematic. The ambulance and outpatient therapy services fee schedules were seen as a way to both establish a service-based payment for individual services and create a more level playing field.

Two types of services received attention between the proposed rule and the final rule.

- The proposed rule excluded implantable devices from the OPPS and paid for them using the DMEPOS fee schedule. The proposal was consistent with how the items were currently paid, statutory language that appeared to give the DMEPOS precedence over other fee schedules, and ASC payment rules. Responding to concerns that the DMEPOS did not account for new technology in a timely way, the BBRA required that implantable devices be paid under the OPPS. The BBRA conference report stated that the current DMEPOS fee schedule was not appropriate for certain implantable medical items such as pacemakers, defibrillators, cardiac sensors, venous grafts, drug pumps, stents, neurostimulators, and orthopedic implants as well as items that come into contact with internal human tissue during invasive medical procedures, but are not permanently implanted.
- The proposed rule explicitly noted that there were regional variations in corneal acquisition costs and raised the issue of whether these costs should be covered by a prospective payment rate or reimbursed on a reasonable cost basis (as inpatient organ acquisition costs were). The final rule provided for payment based on reasonable cost to assure access was not adversely affected in those areas of the country with higher costs.

B. DEFINING THE UNIT OF PAYMENT

Much of the policy debate surrounding the OPPS has revolved around issues related to defining the product——or the unit of payment——that would be used in the system. Researchers and policymakers examined three basic questions:

- *Grouping*. The extent to which clinically similar procedures should be grouped for payment purposes and the logic that should be used for the groupings
- *Packaging*. The extent to which ancillary services associated with a significant procedure should be packaged into a single payment for the procedure
- *Bundling*. The extent to which multiple significant procedures over a period of time should be bundled into a single unit of payment.

A prospective payment system relies on an "averaging" concept, so that payment may be more or less than the estimated costs of providing particular services, but on average it is adequate to assure access to high quality care. The policy decisions regarding grouping, bundling, and packaging involved a trade-off between establishing incentives for efficiency through larger units of payment and payment accuracy. Different aspects of payment accuracy were raised in the OPPS policy debate:

- One aspect related to establishing an accurate payment rate for unit each of payment. Here, a major issue is the use of *accounting costs* to reflect differences in resource costs. Accounting costs refers to a method of determining the costs of outpatient services using annual cost reports filed by hospitals. Direct and indirect costs are allocated to each ancillary service department through a cost finding methodology and then apportioned to Medicare based on a ratio of Medicare charges to total charges for the ancillary service department. The methodology relies on accurate cost finding and on charges that are consistently related to costs. Other issues include: the use of median or mean costs to determine payment rates; the

reliability of cost data for low-volume procedures; assigning ancillary procedures when multiple significant procedures are performed; and, the combining services that were separately billed into a single unit of payment.

- A second aspect relates to the amount of cost variation within the unit of payment (or procedure groupings). There is variation across hospitals in the cost of providing a particular procedure. Additional variation is introduced through broad procedure groupings, packaging of associated ancillary services with the primary procedure, and bundling of multiple procedures related to an outpatient encounter into a single payment (or bundling of all procedures performed over a period of time into a single per episode of care payment). Here, the issue is the likelihood that on average the payment will be accurate given the amount of cost variation within the grouping. Increased cost variation does not necessarily reduce payment accuracy at the hospital-level unless there are systematic differences across hospitals in the services included in the unit of payment. However, it reduces service-level payment accuracy and could create inappropriate incentives for "gaming" by shifting higher cost services to alternative ambulatory settings.

The two aspects of payment accuracy are somewhat inter-related. If the unit of payment is relatively large, there is more room for balancing inaccuracies in establishing the cost of the services covered by the rate than if the rate covers a small unit of payment such as an individual procedure.

The final OPPS provided for using APCs to group individual procedures that were similar clinically and with respect to resources with minimal bundling and packaging of ancillary services; namely, those ancillary services that were an integral part of the procedure and furnished on the same day in the hospital were included in the APC payment for the procedure.

Procedure Groupings

An initial assumption in designing the OPPS was that some type of mechanism was needed to group the procedures for purposes of setting prospective payment rates. It was thought that the large number of procedure codes that could be used by hospitals, many of which were very low volume, required procedure groupings. Early research on potential ways to group procedures examined classification systems ranging from the diagnosis-related groups used to pay for inpatient hospital services to ones that were based on resource requirements with no clinical considerations, such as the ASC payment groupings. The 1995 HHS report to Congress discussed five potential classification systems: Diagnosis-related Groups (DRGs), Ambulatory Visit Groups (AVGs), Products of Ambulatory Care (PAC) and Products of Ambulatory Surgery (PAS), ASC payment groups, and APGs. These groups were among the systems that had been evaluated by the Urban Institute and Brandeis University (see Appendix A). The evaluation focus was on potential classification systems for surgical services because of the phased approach to OPPS in OBRA-86. Little work had been done to assess the suitability of the classification systems for non-surgical services before the 1995 HHS report to Congress was drafted. However, one of the evaluation criteria that HHS used was whether the system could be expanded to include other outpatient services.

The DRG classification system and the AVGs, both of which had been developed by Yale University, were found to have problems in the grouping logic for ambulatory surgery. Of the three systems that were seen with some potential for use in the OPPS (APGs, the ASC payment groups, and PAS), the 1995 HHS report concluded that the APGs held the most promise. The APG system used approximately 300 groups of clinically similar significant procedures and ancillary procedures based on CPT-4 codes and medical visits based on ICD-9-CM diagnosis codes.[6] Unlike the DRG system, where a patient is classified into a single DRG during an inpatient stay, outpatients could be assigned to more than one APG. The perceived advantages of APGs were:

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6 Version 2.0 of the APGs had 139 procedure, 83 medical, 58 ancillary, 2 incidental and 8 error APGs.

- The APGs were designed to include the full range of hospital outpatient services and were developed using Medicare hospital outpatient data.
- The APG classification logic assigns each surgery code in a single group and grouped procedures based on clinical coherency and resource considerations, thereby eliminating the potential gaming created by some of the other systems. Gaming can occur under systems that group based solely on resource considerations when clinically similar procedures are assigned to different payment groups.
- The groupings are flexible enough to accommodate different bundling and packaging decisions and to implement changes in those policies over time. They could also be extended to other ambulatory settings in the future.
- By being clinically based, the unit of payment could also be used for clinical management and quality assurance.

While the APGs took into account both clinical and resource considerations, the ASC payment groupings took into account only resource costs. There were eight payment groups (now nine) that were developed using $75 intervals of estimated wage-adjusted median ASC costs (derived from applying cost-to-charge ratios to procedure charges). The ASC payment groups were potentially attractive because the classification system was simple and already in use both to pay ASCs and in the blended payment methodology. Several disadvantages were identified:

- The payment groups include only approved ASC procedures. The payment categories did not include medical visits, ancillary tests and services.
- The payment groups were based on ASC cost structures and were not necessarily appropriate for hospital outpatient services. The Urban Institute study found that some procedures are more costly when performed in an HOPD than in an ASC while others are less costly.
- The system is not clinically based.

The Urban Institute examined ways to adapt the ASC payment methodology to a broader range of services. One approach assigned additional services to the payment groups based on their estimated costs. Another approach created charge-based decile payment groupings for ambulatory procedures based on estimated average charges. The researchers concluded that establishing large payment groupings based solely on similar estimated costs was not advisable because it would be easy to game the system and change groups to increase payment. This is because clinically similar procedures were assigned to different payment groups.

The Products of Ambulatory Care (PAC) and Products of Ambulatory Surgery (PAS) were developed by the New York State Department of Health for use in its Medicaid program. The PAC was attractive because it was actually in use and packaged ancillary services with medical visits. Disadvantages were that the PAC included physician as well as facility services, contained groupings that were not relevant for the Medicare population, and did a relatively poor job of explaining cost variation in facility services.

The PAS was a relatively straightforward 42-group system that categorized surgery into 18 surgical categories that were further subdivided where appropriate based on whether the procedure was therapeutic, diagnostic, or reconstructive. Procedures requiring substantially different resources could be grouped together since the grouping logic was based on clinical considerations only. The PAS classification logic and unique assignment of codes provided less opportunity for gaming than the ASC payment groupings. While the 1995 HHS report suggested the PAC and PAS systems should be given consideration, there do not appear to have been further investigation of their potential use for the Medicare OPPS. Instead, analyses concentrated on evaluating and refining the APGs and exploring related packaging and bundling issues.

As the work progressed on designing a payment system based on APG-like groupings, concerns were expressed regarding the extent to which procedures, particularly high volume procedures, should be grouped for rate-setting purposes. The arguments favoring grouping centered

primarily on the manageability of setting rates for a large number of procedures, payment accuracy and price stability for low-volume procedures, ease of pricing new services and technologies, and face validity. Individual pricing revealed some aberrant cost patterns where procedures that should require comparable costs had substantially different median costs because of differences in hospital coding and charging practices.

MedPAC's March 1998 report argued against procedure groupings and recommended that the payment rates be based on individual services to help ensure consistent payments across ambulatory settings. The main arguments against groupings were that:

- Payment accuracy is diminished for procedures that are more costly or less costly than the average cost for the procedures assigned to the grouping. The groupings could unfairly reward or penalize hospitals that systematically performed procedures that were below or above the average cost procedure in the grouping.
- Groupings mask questionable cost data for new and low volume procedures.
- Groupings impose more administrative burden than a fee schedule for individual services because new software and educational training may be required.
- A fee schedule for individual services would make it easier to "level the playing field" across ambulatory sites in the future.

Alternative approaches that were suggested for low-volume procedures included:

- Price high volume procedures individually and establish prices for groupings of the remaining low-volume procedures;
- Assign high volume procedures to unique payment groups and assign low-volume procedures that were clinically similar (in the same code series) to that grouping.

In the proposed rule implementing the OPPS, HCFA proposed to use Ambulatory Payment Classifications (APCs). These were essentially

Version 2 APGs with additional refinements using more current cost data and minimal packaging. The agency reiterated the arguments in favor of grouping procedures and took issue with several arguments that had been advanced against groupings:

- Separate groupings for low-volume procedures would either require deviation from the principle of groupings based on clinical coherency and resource considerations or result in a large expansion in the number of APCs.
- Grouping closely related services discourages the upcoding that occurs when clinically similar services have disparate median costs.
- The APCs did not increase administrative burden because the grouping was made transparent to hospitals. The same relative weight was assigned to the multiple HCPCS codes that grouped to a given APC. As a result, hospitals did not need to group the procedure codes to the appropriate APC to determine payment.

HCFA specifically invited comment on the decision to group procedures for purposes of determining the payment amount. Alternatives recommended by commenters included:

- Fee schedule payments based on individual services. New codes could be priced based on costs of comparable services and/or through consulting with the Relative Value Update Committee or similar group. [7]
- Expand the number of APCs by tightly controlling the amount of cost variation within an APC.

The final regulation contained extensive changes in the APC classifications. Some changes were based on public comment or additional HCFA analyses. However, most changes were made to comply with the BBRA's limit on variation within groups. The BBRA provided that the median cost of the highest cost procedure assigned to a

[7] The American Medical Association's Relative Value Update Committee provides input to CMS on the relative values for the work component of the physician fee schedule.

particular APC could not exceed two times the median cost of the lowest cost procedure assigned to the APC. The BBRA limit was a significant factor in the final APC groupings. HCFA expressed concern at the time that the BBRA limit may have required some unnecessary (and possibly ill-advised) splits in the groupings. The exception to the two times rule was used for 20 APGs. The exceptions were based on factors such as low procedure volume (less than 2 percent of claims in the APG), suspect or incomplete cost data, concerns about inaccurate or incomplete coding, or compelling clinical reasons. The changes in the number of groupings are shown in Table 3.1. In addition to the APC classification changes, there were 161 new APCs that were specific to a particular drug (or radio-pharmaceutical, blood product or brachytherapy seeds that were also eligible initially for a temporary pass-through).

Table 3.1

Comparison of the Number of APGs by Service Category in the Proposed and Final OPPS Rules

Major APC Category	Proposed Rule	Final Rule
Medical Visits	120	7
Surgical Procedures	133	149
Significant Procedures	47	79
Ancillary Services	40	39
Partial Hospitalization	1	1
New Technology	0	15
Drugs, Biologicals, Blood, etc.	4	161
Total	**345**	**451**

Medical Visit Classification Logic

As originally developed, the Version 2 APG classification logic used ICD-9-CM diagnosis codes to establish 80 APGs with several groups for each body system. The groups were designed to accommodate extensive packaging and became less useful in differentiating costs when HCFA

decided to use minimal packaging in the initial OPPS. The most costly APC was only 4.5 times more costly than the least costly APC and co-mingled resource-intensive and less resource-intensive encounters within a single APC.

HCFA discussed three potential medical visit groupings in the proposed rule: the diagnosis based visit groupings, a classification logic based on CPT-4 codes only, and a hybrid approach that used both diagnosis and body system to classify medical visits.

- An argument in favor of the diagnosis groupings was that payment would be based on the type of patient treated.
- Classification based on CPT-4 codes was seen a way to differentiate service intensity consistent with the physician fee schedule. HCFA considered grouping clinic visits and emergency room visits separately by three intensity levels (low, mid-, and high-level) and creating a separate APC for critical care. CPT-4 groupings were used instead of individual codes because the data showed little cost differentiation between several codes. A problem in using only CPT-4 codes to construct relative weights was that the range of costs reflected hospital billing patterns and were more determined by hospital chargemasters than the actual resources required to treat the patient. Some hospitals did not differentiate for service intensity in their charge structure and used a single code to describe all medical visits.
- The hybrid approach used a matrix of the CPT groupings and the body system to introduce more cost variation between the groupings while reducing cost variation within the groupings. There were 121 groupings in total. The hybrid approach was also seen as a way to improve diagnosis coding in HOPDs, which was critical for expanding packaging in the future. A concern was that it would make it more difficult to establish more consistent payments for the facility service payment for HOPD clinic visits and the practice expense component of physician office visits in the future.

HCFA proposed using the hybrid approach but explicitly solicited on how medical visits should be classified. Industry commenters argued that none of the alternatives discussed in the proposed rule adequately captured differences in patient resource use and expressed concern that using diagnosis in the classification logic added administrative complexity. One CPT code——high-level emergency room visit, major signs, symptoms and findings——was seen as contributing to most of the cost differentiation using the hybrid approach. One suggestion was to use diagnosis in setting rates for this code but to pay for other medical visits based on the CPT-4 code only. In its 1999 March report, MedPAC noted that diagnoses at the time services are delivered are not likely to be a good patient-level adjustor and recommended that the Secretary study means of adjusting base PPS rates for patient characteristics such as age, frailty, co-morbidities and coexisting conditions. The recommendation was made in the context of rationalizing payment differences across ambulatory settings, but has applicability to the issue of establishing appropriate rates for HOPD medical visits. The final rule dropped the hybrid approach and implemented the groupings based solely on CPT-4 codes.

Packaging

Under the inpatient PPS, all services related to an inpatient stay are packaged into the per discharge unit of payment. The packaging creates an incentive to eliminate unnecessary services. Drawing on this model, the concept of packaging most services related to a given procedure into a single payment was identified as an OPPS policy goal during the developmental stage. From the outset, however, the feasibility of doing so was uncertain given the diversity of outpatient sites, variation in why patients receive HOPD care, and the high percentage of medical service costs associated with ancillary services. A concern was that there might be considerable variation in the services provided during an outpatient encounter. The policy options that were considered ranged from full packaging of all services provided during an outpatient encounter to minimal packing consistent with the ASC and physician fee schedules. Under these fee schedules, only the medical

and surgical supplies that were an integral part of the service were packaged into the payment for the significant procedure. Separate payment was made for other ancillary services. The ASC payment rate also packaged the operating and recovery room services and anesthesia supplies that were not separately payable under the DMEPOS.

When researchers at Urban Institute looked at this issue for surgical procedures, they found that almost 60 percent of outpatient surgery claims had charges for ancillary services that accounted on average for 15% of the charges. Some patterns of ancillary usage were identified, with respect to both the surgeries that generally involve laboratory or radiology procedures and the types of laboratory and radiology services associated with particular surgical procedures. The researchers concluded that any bundling of ancillary services should be as an add-on for particular procedures, and that more expensive and less routinely performed ancillary services should be reimbursed separately. This would reduce the likelihood of underpayment when the less common ancillary services are furnished. More extensive packaging would put hospitals at risk for medically necessary services.

The developers of the APG system evaluated three packaging options in their final report on the Version 2 APGs. Medical supplies and drugs other than chemotherapy and incidental services were always packaged. A limited packaging option only packaged anesthesia services. The simple packaging option added simple ancillary tests. The full packaging option added some additional frequently performed ancillary services and some minor medical services. An all-inclusive packaging option was not examined because it put providers at risk for high-cost infrequently performed ancillary services. The researchers evaluated how much of the variation in costs was explained when using full versus limited packaging. Simple and full packaging explained about the same amount of cost variation.[8] For medical claims, full packaging explained less cost variation than limited packaging.[9] The lower amount of explained variation for medical claims was attributed to the combined effect of

[8] The R^2 was 0.757 for full or simple packaging vs. 0.773 for limited packaging.

[9] The R^2 was 0.588 for full packaging vs. 0.745 for limited packaging.

more variability in the use of ancillary services in medical encounters and the higher percentage of costs attributable to ancillary services. The researchers recommended that full packaging be used because of the incentives it would create for efficient use of ancillary services. The impact analysis indicated that there would be some redistributional impacts across classes of hospitals, with teaching hospitals with resident-to-bed ratios > 0.25 gaining 3.3% in payments relative to a limited packaging option. Medicare dependent small rural hospitals and sole community hospitals would have gained 1.8 % and 0.7% respectively, but rural referral centers would have lost 0.7% relative to the limited packaging option.

Although packaging was attractive as an incentive for controlling ancillary usage, it raised a number of policy and operational issues:

- Packaging adds administrative complexity to the payment system and would require more complex billing and claims processing systems.
- There is less payment accuracy with packaging, particularly with a uniform policy that applies across all procedures and groupings. The alternative is a procedure-specific or APC-specific packaging policy based on clinical considerations. It adds additional administrative complexity to the system and is more prone to gaming than a uniform policy.
- Since ambulatory services can be provided in multiple settings, packaging could encourage shifts in where ancillary services are furnished. To protect the integrity of the payment system, bundling policies would need to be developed to require the hospital to bill for services that are ordered for an outpatient but performed by non-hospital entities and the claims processing system would need to be able to identify these services.
- Extensive packaging is inconsistent with the way services are paid under the ASC and physician fee schedules.
- While packaging helps control common low-cost ancillary usage, hospital outpatient expenditures are heavily influenced by the volume of visits and the use of higher cost ancillary services.

As responsibility for the OPPS moved from the research to the policy-side of HCFA, support for extensive packaging in the initial PPS waned. The Administration's main focus was on getting an OPPS established as quickly as possible so that the beneficiary coinsurance issue could be addressed. When it became clear that packaging posed a number of policy and operational issues would need to be addressed before it could be implemented, there was concern that packaging might complicate and delay the development of a comprehensive OPPS proposal. Also, the hospital associations favored a simple system without any special software to group claims and opposed packaging beyond that already used in the blended rate payment methodologies. HHS was able to garner more support for the OPPS with minimal packaging than with more extensive packaging methodologies.

The 1998 proposed rule for the implementation of the PPS proposed a minimal packaging policy that packaged items and services that are directly related and integral to performing a procedure or furnishing a service and are not separately payable. The packaged items included the use of an operating suite, procedure room or treatment room, recovery room or observation bed; anesthesia supplies and equipment; medical and surgical supplies and equipment; casting, splinting, and strapping services; blood and blood products; pharmaceuticals other than chemotherapy agents; surgical dressings; intraocular lenses; tissue acquisition costs, and incidental services such as venipuncture.

In response to comments, the final rule made dropped several categories of packaged items and services and created new APC groups that allowed separate payment to be made for these services. The services that were not packaged in the final rule were:

- Corneal tissue acquisition costs (separate payment for these acquisition costs is based on a hospital's reasonable costs incurred to acquire corneal tissue);
- Blood and blood products, including anti-hemophilic agents;
- Immunosuppressive drugs for patients following organ transplant; and,

- Certain other high cost drugs that are infrequently administered and that were not included in the transitional pass-through payment provision (see discussion below).

In developing the initial OPPS, analysis of costs for individual drugs was complicated by the lack of consistent data. Based on the Version 2 APG groupings, which had packaged all drugs other than chemotherapy drugs, HCFA had only required that chemotherapy drugs be reported using HCPCS codes and allowed hospitals to continue to bill for other drugs using only revenue codes. This precluded identification of particular drugs and their associated charges. As a result, the costs of individual drugs could not be isolated when the APCs were constructed. The proposed rule packaged all pharmaceuticals other than chemotherapy drugs. The final rule adopted the same policy but acknowledged the likelihood that the APCs might not reflect the costs of some very expensive, infrequently used drugs, which might put the hospitals that furnish them at financial risk. HCFA noted that many of these drugs were relatively new and would be paid for under the new technology pass-through established by the BBRA.

Bundling

For purposes of this study, the term bundling is used in conjunction with policies related to the span of services covered by the prospective rate. The bundling options range from the separate payments for each significant procedure or service furnished by the hospital on the same day to more expanded bundles involving services furnished over time or multiple settings.

Various bundling alternatives were discussed during the design of the OPPS. Two alternatives were considered primarily as mechanisms to prevent "gaming" by shifting the timing or location of packaged ancillary services. The alternatives were not mutually exclusive and were seen as increasing in importance as packaging became more extensive. The first alternative was to establish a time window for packaged ancillary services. For example, the APG developers examined a 3-day and 7-day window of time around the visit and included any

packaged ancillaries that were furnished during this window. Expanding the bundle had no substantial impact on amount of variation in costs explained by the APGs. The percentage of APG costs accounted for by the packaged ancillaries increased only slightly (from 15.4% in a same day bundle to 16.3% in a 7-day bundle in a full packaging approach). The second alternative was to include packaged ancillaries ordered for a hospital outpatient but performed outside the hospital by a non-hospital entity. This alternative was considered unnecessary when the minimal packaging policy was adopted since all services that were an integral part of the procedure should have been furnished at the time the service was provided.

An alternative recommended by MedPAC was intended to increase payment consistency across ambulatory settings. The 1999 MedPAC report recommended that the unit of payment be defined consistently across all ambulatory settings and include limited follow-up care if integral to the primary service. HCFA indicated that it was not adopting "limited follow up" visits in the final rule because of the difficulty of matching the costs for the follow-up services with the primary encounter.

The most comprehensive alternative was to bundle all care provided into a single "episode of care" payment. This alternative was mentioned in the HHS reports to Congress as a way to provide incentives for efficient delivery of care comparable to the DRG payments for inpatient care. It was the most complex and resource intensive of the alternatives to analyze since it would involve multiple providers and require substantial database development and analysis. Creating episodes of care for surgical encounters (the day of surgery plus pre- and post- surgery windows) was suggested as more feasible than medical encounters and consistent with global billing policies for physician services (Miller and Sulvetta 1995). Other than a cataract demonstration that combined all pre-and post-surgical facility and physician services, further work was not initiated on constructing episodes of care.

C. ESTABLISHING THE STANDARD PAYMENT RATE

During the developmental stage of the OPPS, the issue of consistent payment methodologies and rates across ambulatory settings also received considerable attention. In the end, the BBA required that the OPPS payment parameters be based solely on hospital utilization and cost data. This decision was largely driven by available cost data and need for additional research before informed policy decisions could be made regarding appropriate payment differentials, if any, across ambulatory settings.

The BBA required that the standard payment for a service be based a relative weight for the group of procedures (or procedure) multiplied by a conversion factor that has been adjusted for wage differentials and other factors needed to assure appropriate payment. The relative weight is a measure of the relative costliness of a group of procedures (or procedure) to a reference group of procedures. The BBA specified that the relative weights should be derived from median HOPD costs and that the conversion factor should result in aggregate payment levels that were budget neutral to aggregate payments for hospital outpatient services under the previous payment methodologies.

Leveling the Playing Field

In its 1995 report to Congress, HHS explored several alternatives for establishing the payment rates for the ambulatory surgical services, radiology and other diagnostic tests (those services that would initially be paid under the Secretary's OPPS proposal). In addition to evaluating payments based solely on hospital costs, the report investigated alternatives that considered the fee schedule payment for facility services in other ambulatory settings:

- The lesser of the hospital median cost for the procedures in the APC or a weighted average of the ASC facility fee or radiology technical component, as applicable;
- A blend of the hospital cost-based and fee schedule amounts; and,
- Fee schedule amounts for cataracts and plain film X-rays and hospital cost-based amounts for other services.

The report recommended that the payment rates be based solely on hospital costs. A primary reason for the recommendation was that the hospital cost data were superior to the data used to set the payment rates for ASC facility services and the technical component of radiology services. After eliminating cataract surgeries, ASCs provided 1-2 percent of the remaining ambulatory surgical procedures. The technical component of radiology procedures was charged-based rather than resource-based in 1995 and therefore was not as good a measure of cost as the hospital data. The report discussed potential expansion of the APG system to other ambulatory settings. It suggested that rates based solely on hospital costs were most appropriate until more information was available on comparative costs across ambulatory settings. There was an expectation was that results from studies examining differences in resource costs across ambulatory settings would inform future refinements and expansion of the OPPS.

During the 1990's, the Center for Health Policy Studies conducted several studies using resource-costing techniques to look at differences in the costs of selected procedures in different ambulatory settings. Resource costing identifies each component of a health care activity, the type and amount of resources used for each component, and attaches unit costs to each resource so that the cost of each component and the overall cost of the activity can be calculated. It is an expensive cost finding methodology, and the studies used small provider samples to explore the feasibility of using this methodology in the OPPS. The sample size limitations meant that the findings were suggestive but not definitive (see Appendix A). The methodology allows for actual cost comparisons by component (e.g., direct and indirect, salaries, drugs, etc.) for individual procedures independent of charging practices and is most feasible for high volume procedures. A major disadvantage is the large sample sizes needed to develop payment rates for infrequently performed procedures. A further limitation is that the methodology does not account for any differences in patient characteristics that might affect the resources required to perform the procedure and where it is performed.

Establishing Relative Weights

Most research on OPPS alternatives used estimated costs to determine the relative weights for procedure groupings. To calculate costs for services, only single-procedure bills were used. Claims that included more than one HCPCS code were excluded because it was not possible to specifically allocate charges or costs for packaged items and services to a particular procedure when more than one significant procedure or medical visit was billed on a claim. Costs were determined by applying departmental cost-to-charge ratios to the revenue center charges. Using charges instead of estimated costs to determine relative weights, as HCFA did for the DRG relative weights, was discarded as an alternative methodology early in the developmental stage when it was determined charges introduced more variation into the system and had distributional impacts. Researchers at 3M/HIS found that the cost-to-charge ratio in ancillary departments tended to be lower than other departments. Charge-based relative weights for ancillary services are higher than cost-based weights. They would increase payments to hospitals that deliver ancillary services as their primary outpatient services and decrease payments to hospitals whose primary services are clinic and emergency room visits.

The cost-to-charge ratio methodology yielded an estimate of the accounting costs of providing various services. Work by the Center for Health Policy Studies found that hospital charges were not consistently related to resource costs and that lower charge procedures were more closely related to cost than higher charge procedures (i.e., the latter had higher markups). The researchers concluded that use of accounting cost-to-charge ratios to establish relative values would overpay expensive procedures and underpay inexpensive procedures. The researchers also found that hospitals had shifted accounting costs from inpatient services to outpatient services after the implementation of the inpatient PPS. This had implications for making comparisons across ambulatory settings using hospital accounting cost data.

While relative weights based on resource costs were seen as a long-term policy goal, they were not feasible in the short-run (or in the long run for low-volume procedures). Reflecting current research and

development activities related to the OPPS, the BBA required that the relative weights be derived from the median cost of the group of procedures (or procedure). The BBRA allowed the relative weights to be based on either median costs or mean costs. The final rule continued to use median costs to establish the relative weights. The cited advantage of using median costs was that it limited the extent to which infrequently performed services with suspect costs could affect the payment rate of an APC group. Evaluating the impact of using mean costs would have delayed issuing the final rule and implementation of the OPPS. Some commenters on the proposed rule expressed concern that the median failed to account for relatively high cost procedures within an APG and that the geometric mean would be a preferred way to account for these procedures.

D. NEW TECHNOLOGY

The issue of new technology received little attention during the development of the OPPS, other than a general acknowledgement that periodic evaluation of the APGs and recalibration of the relative weights would be needed to take into account new technology. The implications of the proposed OPPS for access to new and expensive technology was not explicitly addressed in the proposed policies for the new payment system. Appropriate payment for new technology and other high items has been a major issue since the implementation of the OPPS.

Pass-through for Drugs, Devices and Biologicals

The BBRA provided for transitional pass-through payments for certain drugs, pharmaceuticals, and biologicals. The proposed rule had packaged these items (except for cancer therapy drugs) in the APC payment for the service or procedure with which they were used.[10] Under

[10] Under the pass-through provision, an additional payment was also to be made for current orphan drugs, current cancer therapy drugs, biologicals, and brachytherapy, and current radiopharmaceutical drugs and biological products. "Current" referred to those drugs and biologicals for which payment was made on the OPPS effective date and included the following: 1) orphan drugs; 2) cancer therapy drugs and biologicals, including chemotherapeutic agents, antiemetics, hematopoietic growth factors, colony stimulating factors, biological response modifiers, bisphosphonates, and a device of brachytherapy (seeds); and, 3) radiopharmaceutical drugs and biological products. The pass-through for these

the pass-through provision, an additional payment was to be made new or innovative medical devices, drugs or biologicals whose costs are "not insignificant" in relation to the APC payment for the group of services with which they are used and were not reflected in the cost data used to establish the relative weights. The BBRA limited the pass-through to 2-3 years (until the new technology would be reflected in the cost data used to establish the relative weights). The BBRA required that for drugs and biologicals, the additional payment would be the difference between 95 percent of average wholesale price (AWP) and the portion of the OPPS rate associated with the pass-through items. The additional payment for devices would be the difference between a hospital's charges adjusted to costs and the portion of the applicable hospital outpatient department fee schedule amount associated with the device. Aggregate pass-through payments were limited to not more than 2.5 percent of total outpatient PPS payments through 2003, and to not more than 2.0 percent thereafter. A pro-rata reduction was to apply if HCFA prospectively determined that pass-through payments would otherwise exceed the aggregate cap. HCFA established interim requirements for new covered drugs, biologicals and devices to be eligible for the pass-through in the April 2000 interim final rule.[11] These interim criteria, which were subject to comment, are summarized in Figure 3.1. In setting out its criteria for determining whether the cost of a new technology was significant, HCFA indicated an intent to reduce administrative burden by limiting the pass-through to those items that were significantly more costly and by excluding new technologies whose costs were not large enough relative to the APG payment amount to provide a disincentive for their use in the short term. Comments received during the rulemaking process ultimately led to policies that allowed more items to qualify for the pass-through payments. The most significant changes were to reduce the cost threshold for determining whether an items cost was "not insignificant" from 25 percent to 10 percent and to drop the requirement

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items has expired and the on-going provision for new drugs and devices is discussed in the body of this report.

11 Drugs that can be self-administered are not covered under Part B of Medicare (with specific exemptions for certain oral chemotherapeutic agents and antiemetics, blood-clotting factors, immunosuppressives, and erythropoietin for dialysis patients).

that a device must remain with the patient when he or she is discharged from the HOPD. The latter change allowed pass-through payments for non-prosthetic devices that are temporarily inserted during an outpatient procedure (e.g., cardiac catheters and stents). Commenters recommended that a category-specific approach be used instead of an item-by-item approach to establishing eligibility for pass-through payments. They argued that this would allow additional payments to start as soon as the FDA approved a new device and lessen the competitive disadvantages for new devices. HCFA did not agree with this alternative. The agency indicated in its response that the item-by-item approach provided better information on the cost and use of particular new devices, permitted finer discrimination in the pass-through decisions, and gave new devices the full period for pass-through status. (The Beneficiary Improvement and Protection Act of 2000 subsequently required that pass-through eligibility be determined by categories of new devices). Some commenters also suggested that the more expansive definition of a device in the Federal Food, Drug and Cosmetic Act be used. This definition, which would have included some items that are treated as supplies, reusable items, or capital equipment by the Medicare payment systems, was not adopted.

APCs for New Technology Services

Many commenters on the 1998 proposed rule implementing the OPPS expressed concern about the inadequate recognition of new technology. The April 2000 interim final rule provided special treatment for new technology that did not qualify for a pass-through. The rule established separate APC groups to which HCFA could temporarily classify new technology services while it gathered additional data and gained pricing experience. There were 15 new technology groups with a payment range from about $25 in the lowest cost group to about $5,500 in the highest cost group. In contrast to other APC groups, the new technology APC groups include services that are similar only with respect to costs and may not be clinically similar. As with the pass-through payments, a qualifying new technology service would be eligible for the special payment for at least two years, but not more than three.

- *The item was not paid as an outpatient service prior to January 1, 1997(and therefore was not reflected in the cost data used for rate-setting).*
- *A cost for the drug or device was significant relative to the APC if all of the following criteria are met:*
  (1) the expected reasonable cost of the new drug, biological, or device exceeds 25 percent of the applicable fee schedule amount for the associated service;
  (2) its expected reasonable cost exceeds the portion of the fee schedule amount determined to be associated with the drug, biological, or device by 25 percent; and
  (3) the difference between the expected reasonable cost of the item and the portion of the hospital outpatient department fee schedule amount determined to be associated with the item exceeds 10 percent of the applicable hospital outpatient department fee schedule amount.
- *A determination must be made that the item is reasonable and necessary for the diagnosis or treatment of an illness or injury or to improve the functioning of a malformed body member.*
- *In addition, a qualifying device must be an integral and subordinate part of the procedure performed, used for one patient only, surgically implanted or inserted, and remain with that patient after the patient is released from the hospital outpatient department. It could not be:*
  (1) equipment, instruments, apparatuses, implements, or such items for which depreciation and financing expenses are recovered as depreciable assets;
  (2) materials and supplies such as sutures, clips, or customized surgical kits furnished incident to a service or procedure;
  (3) materials such as biologicals or synthetics that may be used to replace human skin.
- *The amount of the applicable fee schedule amount associated with the relevant drug, biological, or device would be determined on an item-by-item basis using hospital outpatient department claims data to the extent possible but external*

Figure 3.1——Criteria Used in the April 2000 Interim Final Rule for the New Technology Pass-Through

Quarterly Updates to Recognize New Technology

In the April 2000 rule, HCFA also stated its intention to reflect new technology "on an ongoing basis as expeditiously as our systems permit." Due to claims processing systems requirements, however, the agency indicated it would make changes only at the beginning of a calendar quarter and projected that its process and systems requirements would impose a time-lag of at least six months and perhaps as long as nine months before a new technology was actually recognized in a payment change.

E. VOLUME CONTROLS

A common theme among those involved with the design of the OPPS was that the system would not be able to control expenditure growth for hospital outpatient services unless the fee-for-service payment system were coupled with some type of volume controls. The 1995 HHS report discussed three ways to control volume expenditure growth but made no recommendation. The alternatives were:

- Expand the volume performance standard (VPS) for physician services to include HOPD services. The rationale was that physicians rather than facilities largely drive HOPD volume.
- Develop a VPS method that applied directly to OPD payments. The cited drawbacks to this approach was that it would unfairly penalize hospitals for physician-controlled volume and that setting the target would be complicated because of shifts in site of care.
- Expand the physician VPS by adding a facility value for all ambulatory services and link it to all ambulatory facility payments. This approach was seen as more closely aligning physician and facility incentives but also potentially unfairly affecting certain providers for growth in other types of services (unless there was policy discretion in how the standard was applied).

The ProPAC analysis of the HHS proposal also stressed the importance of controlling volume and reviewed several alternatives. The Commission had previously recommended including hospital outpatient services in the physician VPS to the same extent they would be if they were furnished in physician offices. (This would generally be the technical component of referred laboratory and radiology services under the HHS two-stage approach for OPPS). ProPAC recommended that HHS consider both methods that rely on financial incentives, such as volume performance standards and capitation payment, and administrative controls such as utilization review and practice guidelines. With respect to expenditure targets, ProPAC made several points but no recommendations:

- The risk pool for the expenditure target could be hospitals only, all providers of ambulatory services, or physicians who order the services. Establishing an expenditure control specific to HOPD services might create an incentive to shift services to other ambulatory care settings. Putting physicians at risk would be a more powerful incentive.
- The larger the risk pool, the weaker the incentives to control expenditures. The physician VPS was designed to provide a collective incentive to control volume through, for example, educational programs. Reductions in the size of the risk pool by geographic region or physician specialty had been suggested but raised several issues:
    - It could change the distribution of Medicare payments among geographic regions and could ultimately lead to payment rates that are increasingly unrelated to resource costs of producing identical services.
    - It would be difficult to set meaningful expenditure targets for smaller pools.

The BBA required that the Secretary develop a method for controlling unnecessary increases in service and provided for an adjustment to the update to the conversion factor if the Secretary determined that the volume of services has increased beyond amounts established through the methodology. The 1998 proposed rule provided for a sustainable growth rate (SGR)-like approach for 2000 only based solely on OPD services that took into account inflation, changes in Part B fee-for-service enrollment, and an allowance for increases in service intensity and new technology. The rule indicated that a method for determining expenditure targets in the future would be proposed after further study. While this was deemed the most feasible approach in the short term, the proposed rule indicated that a more integrated approach that also addressed ASCs and physicians would be preferable but might require statutory changes. Commenters objected to the proposed volume control measure, arguing that it would not be a reliable way to distinguish the growth of necessary from unnecessary services, could

penalize hospitals for increases attributable to technological changes that shift service delivery from inpatient to outpatient settings, and could reduce payments to an inadequate level that adversely affects access to care. Another objection was that expenditure caps should affect the physicians who order and control services instead of hospitals. HCFA dropped the proposal in the final rule.

4. IMPLICATIONS FOR REFINING THE CURRENT OPPS

Many policy decisions affecting the initial design of the OPPS were influenced in the short run by what was feasible technically and acceptable to the policy process. The beneficiary coinsurance issue created an impetus for establishing an OPPS as soon as possible. Adopting policies that were technically feasible to implement in the short-run and which would not require protracted policy development and debate became overriding considerations in the initial PPS design. Articulated policy goals that were deferred as implementation became the overriding concern were:

- Creating financial incentives for the efficient use of ambulatory services through extensive ancillary packaging and comprehensive bundling policies;
- Establishing consistent payment policies across ambulatory settings; and,
- Controlling aggregate expenditures for hospital outpatient services.

The complexities of ambulatory care made progress on the prerequisite research and policy development for these goals problematic during the development of the initial OPPS. These complexities remain. Care is provided in multiple ambulatory settings, patients seek the same ancillary and medical services for different reasons, and an episode of care is difficult to define. Differences in patient characteristics, services and cost structures across ambulatory settings are still not well understood.

The perceived advantages and disadvantages of alternative policies that were considered when OPPS was initially implemented generally remain relevant. However, as the OPPS has evolved, the accuracy of the payment rate for services furnished to particular patients has become an increasingly important policy objective and has overridden some of the other goals that were considered important when the payment system was implemented. The "averaging" concept that underlies the inpatient PPS

and the initial OPPS-construct has eroded as OPPS payments have become increasingly less packaged and the procedure groupings have narrowed. Arguably, unpackaging further increases the importance of payment accuracy since there is increasingly less room within the payment to offset higher costs for some items and services with lower costs (or no usage) for others. As a result, goals such as administrative simplicity and financial incentives for efficient use of ancillary services have assumed less importance. At the same time, the OPPS payment policies increasingly resemble those for other ambulatory settings. Indeed, the more fee schedule-like appearance of the OPPS rates coupled with other developments——such as growth of ASC services, implementation of the resource-based practice expense component of the physician fee schedule, improved coding on HOPD claims——might facilitate progress on rationalizing the payment systems across ambulatory settings. However, more current research on differences in resource costs for high volume procedures should be considered as part of this initiative. In using accounting costs to set the APC relative weights, the OPPS depends on hospital charges being consistently related to costs. Hospital charges have increased rapidly relative to costs and there is evidence of substantial differences in hospital markups across hospitals and by type of service. Current hospital charging practices, which are largely driven by arrangements with payers, challenge more than ever the assumption that accounting costs accurately reflect a hospital's costs for specific items and services.

Several issues that have created considerable policy debate during the post-implementation stage——new technology, devices and expensive drugs——received minimal attention in the initial PPS development. There are probably several reasons for this:

- HCPCS codes were only being used for chemotherapy drugs, which were known to have substantial cost variation. Other expensive drugs could not be readily identified and their costs evaluated.
- Devices were paid under the DMEPOS fee schedule so issues such as cost variation and differential markups were not considered or evaluated for these items.

The rapid technological advances that were affecting the shift of services to the outpatient setting and the provision of expensive new technology were not appreciated. As a result, the timeliness of recognizing high cost new technology was not an issue during the design phase.

One implication is that there is little information on alternatives that were considered for new technology. After the proposed rule was issued, policy development for new technology proceeded on two tracks. The BBRA provided for transitional pass-through payments for high cost new drugs and devices. HCFA proceeded to develop the new technology APCs and elected to keep them in the final rule. It is not clear that both policies are needed. The new technology APCs (expanded to include services that qualify for the transitional pass-through) might be preferable since they involve less administrative burden by keeping all services on a prospectively determined rate.

The reports produced by HHS and MedPAC envisioned that work would proceed towards the longer-term policy goals after the initial PPS was implemented. That is, the payment system would evolve to include more packaging and to expand to other ambulatory settings. However, other priorities and the resource demands imposed by the current system and continuing legislative changes interfered with research and policy development activities on the longer-term goals. When the OPPS is viewed independently, the individuals who were interviewed for this study seemed to believe that the OPPS payment system for the most part was maturing and stabilizing. However, when OPPS is considered within the broader context of ambulatory care payment, the goals of rationalizing the payment systems across ambulatory settings and using financial incentives to control aggregate ambulatory expenditures remain important but unrealized.

APPENDIX A: KEY DOCUMENTS IN OPPS DEVELOPMENT

I. LEGISLATIVE PROVISIONS IMPACTING DEVELOPMENT AND IMPLEMENTATION OF OPPS

a. Omnibus Budget Reconciliation Act of 1986 (P.L. 99-509)

Section 9343(f): Payments for Ambulatory Surgery: Development of a Prospective Payment Methodology for Hospital Outpatient Services

PPS for Ambulatory Surgical Procedures

Requires a fully prospective payment system for ambulatory surgical procedures performed on hospital outpatients. The system to the extent practicable shall provide for an all-inclusive payment rate that encompasses payment for facility services and all medical and other health services, other than physician services, that are commonly furnished in connection with the procedure. The system shall provide for appropriate payment rates that take into account:

- The costs of hospitals providing ambulatory surgical procedures;
- The costs to Medicare (i.e., payments) for such procedures performed in ambulatory surgical centers (ASCs);
- The extent to which any differences in costs are justified.

Reports

- Requires an interim report to Congress on the development of the system by April 1, 1988.
- Requires a final report to Congress by April 1, 1989 that includes recommendations for implementation.

Comprehensive OPPS

Requires the Secretary to develop a model payment system for other hospital outpatient services and to submit a report to Congress by January 1, 1991.

b. Omnibus Budget Reconciliation Act of 1987

Section 4068(b): Development of a Prospective Payment Methodology for Hospital Outpatient Services

Amends the OBRA-86 provisions to require that the Secretary:

- Consider whether a differential payment rate is appropriate for specialty hospitals; and,
- Solicit the views of the Prospective Payment Assessment Commission in developing the proposals for a prospective payment system for hospital outpatient surgical services and for a comprehensive OPPS.

c. Omnibus Budget Reconciliation Act of 1990 (Public Law 101-508)

Section 4151 (b)(2): Payments for Hospital Outpatient Services: Development of a Proposal

Requires the Secretary of HHS to develop a proposal to pay for hospital outpatient services on the basis of prospectively determined rates. In developing the proposal, the Secretary is to consider:

- The need to provide for appropriate limits on increases in expenditures under the Medicare program;
- The need to adjust prospectively determined rates to account for changes in a hospital's outpatient case mix, severity of illness of patients, volume of cases, and the development of new technologies and standards of medical practice;
- Providing hospitals with incentives to control the costs of providing outpatient services;
- The feasibility and appropriateness of including payment for outpatient services not currently paid on a cost-related basis under the Medicare program (including clinical diagnostic laboratory tests and dialysis services) in the system;
- The need to increase payments under the system to hospitals that treat a disproportionate share of low-income patients, teaching hospitals, and hospitals located in geographic areas with high wages and wage-related costs;

- The feasibility and appropriateness of bundling services into larger units, such as episodes or visits, in establishing the basic unit for making payments under the system; and
- The feasibility and appropriateness of varying payments under the system on the basis of whether services are provided in a freestanding or hospital-based facility.

Reports

- The Administrator of the Health Care Financing Administration is required to submit research findings relating to prospective payments for hospital outpatient services to the Congress by January 1, 1991.
- The Secretary of HHS is required to submit the OPPS proposal to Congress by September 1, 1991.
- The Prospective Payment Assessment Commission is required to submit an analysis of and comments on the Secretary's proposal by March 1, 1992.

d. Balanced Budget Act of 1997

Section 4523: Prospective Payment System for Hospital Outpatient Department Services

Establishes a prospective payment system (OPPS) for hospital outpatient department (HOPD) services effective January 1, 1999. The services included under the OPPS will be (1) OPD services designated by the Secretary (but not including therapy services and ambulance services), and (2) services covered under part B that are provided to hospital inpatients who have exhausted Part A benefits or are not entitled to Part A.

OPPS Requirements

- The Secretary will develop a classification system consisting of groups of services so that services within each group are comparable clinically and with respect to the use of resources.
- The Secretary will establish relative payment weights for each group based on median hospital costs and estimated frequencies of utilization of services in 1999.

- The Secretary will also establish a wage adjustment factor as well as other adjustments determined to be necessary to ensure equitable payments, such as outlier adjustments or adjustments for certain classes of hospitals.
- The Secretary may periodically review and revise the groups, the relative payment weights, and the wage and other adjustments to take into account changes in medical practice, changes in technology, the addition of new services, new cost data, and other relevant information and factors. Such adjustments must be made in a budget neutral fashion

Calculation of OPPS Fee Schedule Amounts

- The Secretary will estimate the sum of (1) the total amount that would otherwise be paid by Medicare for OPD services in 1999, and (2) the total amount of co-payments that are estimated to be paid under the OPPS (see below).
- A conversion factor will be used to convert the weights into fee schedule amounts. This conversion factor will be calculated in a manner so that the sum of the products of the fee schedule amounts and the frequencies equals the aggregate sum of Medicare payments and co-payments estimated above.
- For each group, the OPD fee schedule amount will equal the conversion factor multiplied by the weight.
- In future years, the conversion factor will be updated by the hospital market basket (except that for 2000-2002, the update will be equal to the hospital market basket reduced by 1 percentage point)

Calculation of Co-payment Amounts

- An "unadjusted co-payment amount" will be established for each OPD group based on 20 percent of the national median of the charges for services in the group furnished during 1996, and updated to 1999 using the Secretary's estimate of charge growth. If the unadjusted co-payment amount results in an amount that is less than 20 percent of the OPD fee schedule amount, then the co-payment amount will be established to be 20 percent of the OPD fee schedule amount.

- A pre-deductible payment percentage will be calculated for each group in each year. It will be equal to the ratio of (I) the OPD fee schedule amount minus the unadjusted co-payment amount to (II) the OPD fee schedule amount.
- To determine payment for a particular group in a particular area:
  (1) The OPD fee schedule amount for the group will be adjusted by the wage adjustment factor and other factors determined to he necessary by the Secretary;
  (2) The Medicare portion of the OPD fee schedule amount will be equal to the adjusted OPD fee schedule amount multiplied by the pre-deductible payment percentage;
  (3) The amount of beneficiary co-payment will be equal to the adjusted OPD fee schedule amount in (1) minus the Medicare portion of the payment calculated in (2).
- In each year, the unadjusted co-payment amount remains unchanged. The pre-deductible payment percentage and the Medicare payment, however, will continue to be calculated in the same manner so that Medicare assumes a larger portion of the total OPD fee schedule amount each year.
- At the point in time when the co-payment amount for a group equals 20 percent of the OPD fee schedule amount, the co-payment amount will be maintained each year at 20 percent of the fee schedule.
- The Secretary is required to establish a procedure whereby a hospital could elect to reduce the co-payment amount for some or all OPD services to a lower amount (but not less than 20 percent of the fee schedule amount).

Other Provisions

- Volume Adjustment. The Secretary is required to develop a method for controlling unnecessary increases in the volume of services. If the Secretary determines under such a methodology that the volume of services has increased beyond amounts established through such methodology, the Secretary may adjust the update to the conversion factor.

- Cancer Hospitals. The PPS for OPD services shall not apply to cancer hospitals until January 1, 2000. The Secretary may establish a separate conversion factor for their services that specifically takes into account the unique costs incurred by them by virtue of their patient population and service intensity.
- Limitation on Review. There shall be no administrative or judicial review of the development of the classification system, wage adjustment factors, other adjustments, and volume performance methodologies, the calculation of base amounts, periodic adjustments, and the establishment of a separate conversion factor for cancer hospitals.

e. Balanced Budget Refinement Act of 1999

Section 201. Outlier Adjustment and Transitional Pass-Through for Certain Medical Devices, Drugs, and Biologicals.

Outlier Adjustment

- Requires an additional payment for each covered OPD service (or group of services) for which a hospital's charges, adjusted to cost, exceed (i) a fixed multiple of the sum of the applicable fee schedule amount and (ii) any transitional pass-through payment and (iii) any such fixed dollar amount as the Secretary may establish.
- The amount of the additional payment shall approximate the marginal cost of care beyond the applicable cutoff point.
- The total additional payments may not exceed 2.5% of total aggregate payments for a year before 2004 and 3.0% beginning in 2004.
- For services furnished before 2002, the additional payments may be determined on a bill basis rather than for a specific group of services and may use an overall cost-to-charge ratio rather than ratios for specific hospital departments.

Transitional Pass-Through for Additional Costs of Innovative Medical Devices, Drugs, and Biologicals.

Requires an additional payment for current orphan drugs, current cancer therapy drugs and biologicals and brachytherapy, current radiopharmaceutical drugs and biological products, and new medical devices, drugs, and biologicals if:

- Payment for the device, drug or biological was not being made as a outpatient hospital service as of December 31, 1996 and
- The cost of the item is not insignificant.

The payment applies for 2-3 years beginning the later of the effective date of the provision or the date payment is first made for the new medical devices, drug or biological. It shall be based the difference between the cost (or 95 % of the average wholesale price, in the case of drugs) for the service and the portion of the OPD payment that is associated with the service. Total aggregate payments for the transitional pass-through shall not exceed 2.5 percent for a year before 2004 and 2.0 percent in 2004 and thereafter. The additional payments will be budget neutral and a uniform pro rata reduction is to be made if the estimated payments would otherwise exceed the aggregate limit.

Inclusion of Certain Implantable Items Under System

Requires that implantable items be included in the OPPS and classified to the group that includes the service to which an item relates.

Classification Groups and Relative Weights

- Authorizes the weights to be based on either median or mean hospital costs.
- Limits the variation within a group so that the highest median cost (or mean cost) for an item or service in the group is no more than two times the lowest median cost (or mean cost). The Secretary may make exceptions in unusual cases, such as low volume items.
- Requires consultation with an expert outside advisory panel composed of an appropriate selection of representatives of providers to review and advise the Secretary concerning the clinical integrity of the

groups and weights. The panel may use data collected or developed by outside organizations in conducting the review.

Annual Review of OPD PPS Components

Requires review at least annually of the parameters used to establish the payment amounts.

Sec. 202. Establishing a Transitional Corridor for Application of OPD PPS.

Sec. 203. Study and Report to Congress Regarding the Special Treatment of Rural and Cancer Hospitals in Prospective Payment System for Hospital Outpatient Department Services.

II. MAJOR RESEARCH REPORTS RELATED TO THE DESIGN OF OPPS

a. Averill, Richard, Norbert Goldfield, Laurence Gregg, Thelma Grant and Boris Shafir, *Design and Evaluation of a Prospective Payment System for Hospital Based Outpatient Care*, 3M Health Information Systems, 1995 (HCFA Cooperative Agreement 17-C-90057/5-01).

The study presented the results from the development of the Ambulatory Payment Groupings (Version 2.0) and simulation of various policy options. Version 2.0 had 290 APGs: 139 procedure APGs, 83 medical APGs (based on body system and diagnosis), 2 incidental APGs and 8 error APGs. The simulations examined 5 components of the payment system:

- *Basis of the payment weights*. The study found that cost-based and charge-based weights explained the same amount of cost variation. However, hospital mark-ups vary considerably across hospital departments and that the choice of charge-based versus cost-based weights had distributional implications. Charge-based relative weights for ancillary services are higher than cost-based weights and would increase payments to hospitals that deliver ancillary services as their primary outpatient services and decrease payments to hospitals whose primary services are clinic and emergency room visits.
- *Ancillary packaging.* The report found that the amount of packaging affected the amount of cost variation explained by the APGs . The report examined three packaging options that always packaged medical supplies and drugs other than chemotherapy and incidental services.
    - A *limited* packaging option only packaged anesthesia services.
    - The *simple* packaging option added simple ancillary tests to the packaging option.
    - The *full* packaging option added some additional frequently performed ancillary services and some minor medical services.

  An all-inclusive packaging option was not examined because it put providers at risk for high-cost infrequently performed ancillary

services. Simple and full packaging explained about the same amount of cost variation.[12] For medical claims, full packaging explained less cost variation than limited packaging.[13] The lower amount of explained variation for medical claims was attributed to the combined effect of more variability in the use of ancillary services in medical encounters and the higher percentage of costs attributable to ancillary services. The report recommended that full packaging be used because of the incentives it would create for efficient use of ancillary services. The impact analysis indicated that there would be some redistribution impacts across classes of hospitals, with teaching hospitals with resident-to-bed ratios > .25 gaining 3.3% in payments relative to a limited packaging option. Medicare dependent small rural hospitals and sole community hospitals would have gained 1.8 % and .7% respectively, but rural referral centers would have lost .7% relative to the limited packaging option.

- *Outlier policy.* The report examined three outlier payment options: no outlier set-aside, one percent of total payments set-aside for outliers, and a three percent set-aside. There was a small reduction in the amount of cost variation explained in moving from 3% to 1% outlier payments but a large reduction for medical claims if outliers were eliminated entirely.[14] The distributional impacts of the different policies across hospitals were minimal. The report recommended a one percent set aside.
- *Ancillary discounting.* The report examined the impact of a 20 percent discounting where there are multiple ancillaries in the same APG. (Discounting when there were multiple significant procedures was assumed throughout, i.e., the highest value significant procedure was paid at 100 percent and the remainder at 50 percent). The ancillary discounting had minimal effect on the

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[12] The R^2 was .757 for full or simple packaging vs. .773 for limited packaging.

[13] The R^2 was .588 for full packaging vs. .745 for limited packaging.

[14] The R^2 for the medical visit APGs was .804 , .439 and .745 using a 3%, 1% and no outlier set aside, respectively. The R^2 for all services was .823, .773, and .721 using a 3%, 1% and no outlier set aside, respectively.

amount of cost variation explained by the APGs. Discounting of the ancillary services was not recommended because it would add administrative complexity with little benefit in payment accuracy.

- *Time period for bundling*. The report examined same day, three day, and 7 day windows for packaging ancillary services. The percentage of APG cost from packaged ancillaries increased slightly as the time window expanded. The report concluded that although a broad time span would be desirable to preclude "gaming", moving beyond same day services would impose a substantial administrative burden because the current billing form did not indicate the physician who ordered the ancillary service.

The report also made recommendations for modifications to the claims (such as date of service reporting for services and requiring identification of the ordering physician). These were seen as important tools for monitoring and enabling potential expansion of the time frame for bundling.

b. Sulvetta, Margaret, Lisa Dubay, Colin Flynn, John Holahan and Mark Miller, *Prospective Payment for Medicare Outpatient Services: Final Report,* Washington, DC: The Urban Institute, August 1992.

The study was originally focused on outpatient surgery but was later expanded to encompass all hospital outpatient procedures. Other than the first task, which used 1985 data, 1987 claims data were used to investigate various issues that would need to be considered in designing a prospective payment system for hospital outpatient services.

- *Impact of casemix on outpatient surgery costs*- Hospital case mix indices for outpatient surgery and other explanatory variables were regressed using the log of hospital costs for surgical procedures as the dependent variable. A surgery case mix index was highly significant, implying that a set of weights based on procedure codes could be used in a payment system. Other factors that help explain cost variation were wages, size (larger hospitals had lower costs than smaller hospitals) and specialization (hospitals that specialize have lower costs than hospitals that provide a wide range of

procedures. Surgery costs were also lower in more competitive markets.

- *Packaging of ancillary services into surgery payment*- Hospital bills for radiology and laboratory services were associated with high volume surgery procedures. Almost 60 percent of outpatient surgery claims had charges for ancillary services that accounted on average for 15% of the charges. Some patterns of ancillary usage were identified, both with respect to the surgeries that generally involve laboratory or radiology procedures and the types of radiology and the types of laboratory and radiology services associated with particular procedures. The researchers concluded that any packaging of ancillary services should be as an add-on for particular procedures, and that more expensive and less routinely performed ancillary services should be reimbursed separately.
- *Descriptive analysis of HOPD services*- The analysis used single procedure code claims to look at patterns of usage, charges and costs. Finding that relatively few procedures drive Medicare HOPD spending, the researchers concluded that relatively few payment groups should be sufficient for an OPPS. Much of the volume and spending was for ancillary services, which suggested to the researchers that "bundling" should be considered since it offers some control over volume growth. Nevertheless, the researchers also found high variation around average costs and suggested that an outlier policy be considered. Rural and small hospitals had higher case-mix adjusted costs than other hospitals. The research also highlighted the issue of whether "referred" ancillary services (those services ordered by a community physician over which the hospital has little control) should be included in the OPPS and the implications that the site of service differential might have on where care is delivered.
- *Evaluation of alternatives for outpatient surgery*- The study examined seven potential prospective payment classification systems for outpatient surgery in terms of appropriateness for the Medicare population, explained variance, stability, administrative complexity, and provider incentives:

- *Diagnosis-related Groups* – 475 groups used to pay for Medicare inpatient hospital services based on principal and secondary diagnoses, surgical procedures, and age.
- *Ambulatory Visit Groups*- 570 groups designed for use in physician offices that were formed by sorting primary diagnostic codes into 19 Major Ambulatory Diagnostic Categories which were further divided into medical clusters.
- *Products of Ambulatory Surgery*- A 42-group classification developed by New York State for the Medicaid population that first classified patients into 18 major surgical categories which were further subdivided where appropriate based on whether the procedure was therapeutic, diagnostic, or reconstructive.
- *Ambulatory Surgical Center* (ASC) *payment groups*- Groupings of procedures based on estimated costs developed by HCFA to pay for approved surgical procedures in ASCs. A four-group, six-group- and eight-group system was evaluated.
- *Ambulatory Surgical Center* (ASC) *methodology*-ASC grouping methodology expanded to include all HOPD surgical procedures regardless of whether they were on the ASC list of approved procedures.
- *Charge-based decile system*- Ten groups of procedures developed by Urban Institute using arrayed average procedure-level charges, which each grouping containing about 10 percent of all procedures.
- *Type of Service system*- Developed by Urban Institute to classify CPT-4 services into types of service. Only the classification for surgical procedures was evaluated with eye procedures disaggregated into cataract and other eye procedures.

In examining how well the potential classification systems explained cost or charge variation, the R-square ranged from .43 for the Type of Service system to .65 for the decile system. The AVGs, ASC methodology and charge-based decile systems performed nearly equally, and were superior to the remaining systems. The DRG, PAS and

ASC were next and tightly clustered with an R-square range of .53-.56. Each of the systems had high coefficients of variation in group-level charges in many of its groups, which the researchers attributed to charge variation at the procedure level as well as group level. The DRGs and AVGs were judged inferior because using diagnosis as the first logic for grouping does not provide unique group assignments for a given procedure code and were judged to have too many groups with low volumes of claims. The ASC payment groups were rejected because they contained less than half of all outpatient procedures. Using subjective criteria, the researchers concluded that the Products of Ambulatory System and the Type of Service systems held the most promise. They were administratively simple, held less opportunity for gaming than the decile or ASC methodology, incorporated some measure of case complexity, covered the full range of outpatient services, and should be transportable to other ambulatory settings.

- *Econometric Analysis of HOPD Services* – The study developed charge-based and cost-based relative weights for high volume OPD services at the procedure code level and "catch-all" groupings for the remaining procedures. Much of the variation in average costs among hospitals was found to be attributable to case-mix, with no class of hospitals more than 6 percent above or below the national average. Using charges introduced more variability into the system. Small and rural hospitals had higher costs than other hospitals, with sole community hospitals 5 percent above average. Teaching was significant and positive for all services but disproportionate share hospitals had lower than average costs.
- *Comparing ASCs and HOPDs*- The analysis simulated what payments would be if the ASC payment rates were used to pay for HOPD surgery. The researchers found that ASCs and HOPDs perform different types of surgery, that HOPDs perform a broader range of surgeries, and that using the ASC payment rates would reduce aggregate payments to hospitals by 15 percent but that there was variation by body system regarding which setting had lower payments and payments for low cost procedures would increase.

- *Evaluating APGs*- Version 1.0 of the groupings developed by 3M/HIS were evaluated and found to effectively classify outpatient claims and to explain more variation that the other systems that were examined. The latter would be expected since there can be multiple APGs per claim whereas the other systems used one group per claim. The researchers suggested that the APCs raised three areas of concern:
    - The complexity of the collapsing of codes through consolidation, packaging and discounting obscures the incentives to provide cost-effective care.
    - The bundles could create incentives to provide multiple visits.
    - Implementing the APCs for HOPD services only could create incentives to shift site of service.

c. Miller, Henry, Brian Balicki, and Maureen Nuschke, *Replication of 1982 Study of Resource Costs in 25 Hospitals, Final Report,* Center for Health Policy Studies. Contract No. DHHS-100-88-0038. April 6, 1990.

The study replicated an earlier resource costing study in 25 hospitals to assess the impact that the inpatient PPS had on hospital costs, productivity and accounting practices. It also included a study of ambulatory surgery in hospitals and freestanding centers. Hospitals were found to overstate outpatient clinic costs at a more substantial rate than previously, primarily because of increased indirect cost allocations. The researchers concluded that differences between resource costs and reported accounting costs varied so greatly that a uniform reduction (such as the 5.8% that was later implemented for the Medicare program) would not result in accurate payment levels. Neither charges nor reported costs were seen as an appropriate way to establish outpatient prices.

Hospital costs were lower than ASC costs. The researchers identified two reasons for this: higher productivity (staff handle more cases and space is used more productively) and procedure volume. The

ASCs were operating at less than full capacity and were not able to achieve the same economies of scale as hospitals.

d. Miller, Henry, William Kelly, Horen Boyagian, John McCue and JoAnna Burnette, *Outpatient Resource Costing Final Report,* Center for Health Policy Studies, August 7, 1995.

The purpose of the study was to examine the feasibility of resource or micro-costing as a method of identifying the costs of specific health services in HOPD, ASCs, and physician offices. This method identifies the component of a health care activity, the type and amount of resources used for each component, and attaches unit costs to each resource so that the cost of each component and the overall cost of the activity can be calculated. High volume procedures within APGs for surgical, radiology, laboratory and medical visits were selected for study. The study involved a random sample of 35 hospitals and 32 ASCs and a convenience sample of 25 physicians' offices.

Indirect costs. The researchers found that indirect costs comprised a larger portion of total costs in ASCs (52%) than in HOPDs (42%). Indirect costs are spread over a lower volume of procedures in ASCs and many hospitals consider ambulatory surgery as a joint product with inpatient surgery and are able to realize more efficiencies with indirect costs. Indirect costs also had less impact on hospital radiology costs relative to physician offices.

Direct costs. Little differences in direct costs between ASCs and HOPDs were identified for surgical procedures. There were no substantial differences in nursing salaries or fringe benefits. Differences in the costs of IOLs were identified that were due only in part to volume but not fully understood. The researchers concluded that there were no reasons why costs would vary systematically since the both perform the actual procedures similarly.

Physician offices appeared to be the least costly of all settings but the small sample size did not provide sufficient confidence levels to support the conclusion for most procedures. Lower costs were consistently tied to the use of fewer and often lower salaried staff to perform supportive services. Physicians also have less equipment and

overhead costs. Surgical procedures performed in a physician's office (such as excision) were more costly when performed in an ASC or HOPD, which the researchers attributed to patterns of care in non- physician office settings, such as two nurses in the operating room and facility protocols for recovery from surgery.

Volume. No consistent relationship between volume and either direct or indirect costs was found.

Multiple procedures. Three combinations of surgical procedures were examined. The results suggested that the cost of performing a second surgical procedure was about 30 percent of the costs of performing it separately- but were not definitive given the small sample sizes.

Hospital markups. Hospital charges did not display a consistent relationship to resource costs. Lower charge procedures were more closely related to cost than higher charge procedures (i.e., the latter had higher markups). The researchers conclude that use of accounting cost-to-charge ratios to establish relative values will overpay expensive procedures and underpay inexpensive procedures.

Sample size. The small sample precluded establishing confidence levels for infrequently performed procedures. However, the researchers suggested that to have an adequate sample for these procedures a far larger study would be required and that modest expansions in sample size would not be sufficient.

III. REPORTS TO CONGRESS ON DESIGN AND IMPLEMENTATION OF OPPS

a. Reports submitted by the Secretary of Health and Human Services

Interim Report to Congress: Development of Prospective Payment Methodology for Outpatient Hospital Surgical Services. Submitted by Otis R. Bowen April 1988.

This was an interim report that summarized differences in payment policies for ambulatory surgical procedures between ASCs and hospital outpatient departments, reviewed the OBRA-86 statutory provisions affecting payment for ambulatory surgery, and summarized both prior and on-going research examining issues related to the design of a prospective payment system for ASC services. The on-going research included:

- New York Ambulatory Care Prospective Payment Project
- Brandeis University evaluation of Ambulatory Visit Groups and DRGs (both developed by Yale University) for use in an OPPS for ambulatory surgical services; and,
- Urban Institute examination of cost and utilization patterns to inform issues such as the classification system, bundling, and facility adjustments.

Goals relevant to the development of the system and the issues that would need to be addressed were identified, but were not analyzed in any depth nor were any recommendations made.

Medicare Hospital Outpatient Prospective Payment. Submitted by Donna Shalala on March 17, 1995.

The report recommended that the OPPS be implemented in two phases, beginning with surgery, radiology, and other diagnostic tests using APG-like procedure groupings for the patient classification system and hospital cost data to set the relative weights. The report indicated that HCFA was ready to implement the system for the recommended services, and as further research was conducted, the system could evolve to include more extensive packaging of services and all HOPD services.

The cited advantages of the APG system was that it covered the full range of HOPD services, was clinically based, reflected Medicare resource use, and could accommodate packaging.

The report concluded that other payment classification systems were flawed:

- Diagnosis-related groups (DRGs) were developed for inpatient use and were inappropriate for HOPD services.
- The ambulatory surgical center (ASC) payment groups were not clinically based and covered about 2,300 of the 7,000 codes that can be used to HOPDs.
- The Ambulatory Visit Groups (AVGs) contained more groups than necessary and were subject to manipulation since a procedure code can be assigned to different groups based on diagnosis.
- The medical groups in the Products of Ambulatory Care and Surgery system were so broadly defined so that 80 percent of HOPD medical visits fall into only four groupings and do not explain cost variation well.

The report also suggested that a payment system based on individual procedure codes would be problematic because hospitals could receive different payment amounts for similar procedures and would have an incentive to upcode. In addition, it would be difficult to set accurate rates for low-volume procedures.

No recommendations were made regarding the extent of packaging, discounting of multiple procedures, classification of medical visits, or outlier policies. In addition, four general areas were identified as requiring additional research: defining the unit of payment (packaging), determining how well accounting costs reflect resource costs, examining use of APGs in other ambulatory settings, and accounting for legitimate cost differences across classes of hospitals.

The report also discussed three ways to control volume expenditure growth:

- Expand the volume performance standard (VPS) for physician services to include HOPD services since physicians rather than facilities largely drive HOPD volume.

- Develop a VPS method that applied directly to HOPD payments. The cited drawbacks to this approach was that it would unfairly penalize hospitals for physician-controlled volume and that setting the target would be complicated because of shifts in site of care.
- Expand the physician VPS by adding a facility value for all ambulatory services and link it to all ambulatory facility payments. This approach was seen as more closely aligning physician and facility incentives but also creating the potential for unfairly affecting certain providers for growth in other types of services (unless there was policy discretion in how the standard was applied).

In addition to making recommendations on the OPPS, the report called attention to the beneficiary coinsurance issue and the formula-driven overpayment for service paid on the blended payment methodology.

b. Report Submitted by the Prospective Payment Assessment Commission

Pettengill, Julian, Green, Tim, Kelly, Dana, Lynch, Ann-Marie and Claire Sharda. *Analysis of the Secretary's Proposal for Medicare Payment for Hospital Outpatient Services*, Washington, DC: Prospective Payment Assessment Commission, July 1995 (C-95-01).

ProPAC's analysis of the HHS proposal identified three major concerns. First, ProPAC recommended against a phased implementation, arguing that it entail implementation costs without the benefits of administrative simplification, could create incentives to shift overhead costs to services that continued to be paid on a cost basis, and might make it more difficult to expand the system to other services. Second, ProPAC concluded that a prospective payment system based on fee-for-service payments should be accompanied by a strategy to control volume growth and recommended that the Secretary explore methods that would rely on payment incentives. Third, the Commission recommended that beneficiary coinsurance be set at 20 percent of the payment rate and that savings from the formula-driven overpayment be used to offset the cost to Medicare of reducing beneficiary coinsurance. The Commission recommended that the Congress require HHS to submit full specifications for a comprehensive OPPS as soon as possible.

The report discussed design issues and alternatives but did not make specific recommendations.

APPENDIX B: MATERIALS SENT TO INTERVIEWEES

I. LETTER SENT TO POTENTIAL INTERVIEWEES

Dear XXX ,

MedPAC is thinking about doing some analytical work on outpatient PPS and has asked me to interview individuals who were involved development of the initial payment systems to identify the various issues and alternatives that were considered when outpatient PPS was initially developed. Would you be willing to be interviewed? I anticipate it will take about 1-11/2 hours.

The objective for the interviews is to identify the alternative approaches that were considered for payment of hospital outpatient services when the outpatient PPS was designed. I will be particularly interested in your perceptions of the most important issues and alternatives that were considered between the first mandate for a prospective payment system for hospital outpatient services (OBRA-86) and the implementation of the OPPS in August 2000. As part of our study, we will be identifying the strengths and weaknesses of the alternative approaches, the policy rationale for the final design of the initial PPS, and the relevance of both the alternatives and the policy considerations today. Any input you might have on the alternatives will be greatly appreciated. MedPAC has also asked us to see if you might still have any analyses that examined alternative policies during the developmental period that you would be willing to share. We already have collected some research reports, the reports to Congress and the rulemaking documents.

I'll be interested in understanding your role in the development of the outpatient PPS, the stages at which your involvement occurred, and

the research and/or policy issues that you were involved in. These issues might have included:

- Scope of the payment system, i.e., which services are covered by the payment system
- Unit of payment (how big a bundle)
- Classification system used to map specific services to payment categories (e.g., APCs, or ASC groupings)
- Standard payment methodology
- Method and data for setting rates
- Aggregate payment level
- Special issues (e.g., drugs, devices, rural hospitals, transition policies)

If you're like me, you may be rusty on the policy issues 4-6 years after your involvement in the implementation of OPPS and have attached a Centers of Medicare and Medicaid Services (CMS)-prepared fact sheet on the key provisions in the OPPS final rule as a reminder.

I'm hoping to be able to schedule an interview with you within the next two weeks and hope that we will be able to find a convenient time for you. My Administrative Assistant, Kathryn Khamsi, will be contacting you to set up a time. Alternatively, she can be reached at 703-413-1100, ext. 5169 or khamsi@rand.org.

I'm looking forward to catching up with you and "reliving" some Medicare payment history.

Barbara Wynn
Senior Health Policy Researcher
RAND Health

II. LETTER ENCLOSURE: MEDICARE HOSPITAL OUTPATIENT SYSTEM

Source: http://www.cms.hhs.gov/media/press/release.asp

Fact Sheet

For Immediate Release:	Contact:
Saturday, April 01, 2000	CMS Office of Public Affairs 202-690-6145

For questions about Medicare please call 1-800-MEDICARE or visit www.medicare.gov.

A new Medicare payment system for hospital outpatient services has been announced in a final regulation. The system is designed to ensure the program and its beneficiaries pay appropriately for services and to encourage more efficient delivery of care.

The final regulation discusses the Health Care Financing Administration's implementation of the prospective payment system (PPS) enacted in the Balanced Budget Act of 1997. A proposed regulation discussing HCFA's proposal to implement the PPS was published on Sept. 9, 1998. The final regulation was published in the *Federal Register* on April 7, 2000. HCFA expects to implement the new payment system on July 1, 2000.

Outpatient PPS will save beneficiaries billions of dollars in coinsurance over the next several years, while assuring more accurate and equitable payments under Medicare. Hospitals should find the PPS less complicated than the current system, with more predictable revenues. The new payment system also will encourage hospitals to become more efficient, while continuing to provide quality care for Medicare beneficiaries.

Background

Medicare payment for services performed in the hospital outpatient setting is now primarily cost-based. Hospitals are paid under a number of different payment methods, including fee schedules for diagnostic laboratory tests, and payments based on blends of hospital costs and the

rates paid in other ambulatory settings or physician offices for certain procedures. For most other services, payments are based on costs.

On average, beneficiary coinsurance now accounts for about 50 percent of the total payments to hospitals for outpatient services. Beneficiary coinsurance is based on 20 percent of the hospital's billed charges for the outpatient services, while Medicare's payment for the same services is typically based on costs.

The Balanced Budget Act of 1997 required HCFA to replace the cost-based system with the PPS, which will pay hospitals specific predetermined payment rates for outpatient services. The law also changed the way beneficiary coinsurance is determined for services under the PPS.

Generally, under the new PPS, coinsurance amounts will be based on 20 percent of the national median charge billed by hospitals for the service.

The Balanced Budget Refinement Act of 1999 (BBRA) also contained a number of major provisions affecting the hospital outpatient PPS. These changes, which have been incorporated in the regulation, help ensure a smoother transition to the new system for hospitals and establish special payments for new drugs and technologies.

Overview of the Outpatient Hospital PPS

PPS will cover all Medicare participating hospitals, except critical access and Indian Health Service hospitals and hospitals in Maryland. (Indian Health Service hospitals will be excluded only temporarily and will eventually be paid under the PPS). Community Mental Health Centers (CMHCs) that provide partial hospitalization services to Medicare beneficiaries will also be paid under the PPS. In addition, antigens, vaccines, casts and splints furnished by home health agencies; antigens, splints and casts furnished by hospices; and vaccines furnished by comprehensive outpatient rehabilitation facilities will be paid under the PPS.

The new PPS will include most hospital outpatient services and Medicare Part B services furnished to hospital inpatients who have no Part A coverage. A new fee schedule is being developed for ambulance

services, which are excluded from PPS by law. HCFA will continue to use fee schedules to pay for physical, occupational, and speech therapies; durable medical equipment; clinical diagnostic laboratory services; and non-implantable orthotics and prosthetics.

The payments will be based on the ambulatory payment classification (APC) system, which divides all outpatient services included in the new payment schedule into 451 groups. The services within each group are clinically similar and require comparable resources.

Each APC is assigned a relative payment weight based on the median cost of the services within the APC. The APC payment rates are initially determined on a national basis. The rates actually paid to hospitals in an area will vary, depending on the area's wage level. To adjust for wage differences across geographic areas, the labor-related portion of the payment rate (60 percent) will be wage adjusted, using an individual hospital's wage index.

Some incidental items and services will be packaged into the APC payment for the services, including anesthesia, certain drugs, supplies, recovery room and observation services. A hospital may furnish a number of services to a beneficiary on the same day and receive an APC payment for each service.

(However, multiple surgical procedures performed on the same day will be discounted. Full payment will be made for the highest paid procedure and 50 percent will be paid for each additional surgical procedure. Beneficiary coinsurance will also be discounted for multiple surgical procedures.)

Effect of BBRA Amendments on the PPS

BBRA contains a number of major provisions that affect the PPS, which have been incorporated in the regulation including:

- annual updating of the APC payment weights, rates, payment adjustments, and groups;
- annual consultation with an expert provider advisory panel in the review and updating of payment groups;
- budget-neutral outlier adjustments based on the charges, adjusted to costs, for all PPS services included on the

submitted outpatient bill for services furnished before January 1, 2002, and thereafter, based on the individual services billed;

- transitional payments for the additional costs of new and current medical devices, drugs, and biologicals for at least 2 years but not more than 3 years;
- payment under the PPS for implantable devices, including durable medical equipment, prosthetics and those used in diagnostic testing;
- transitional payments to limit providers' losses for the first 32 years under the PPS for community mental health centers and most hospitals. For small rural hospitals, losses will be fully replaced during the first 32 years. The 10 cancer centers that are excluded from hospital inpatient PPS will be protected permanently from any reduced Medicare payments.
- limits on beneficiary coinsurance for an individual service paid under the PPS to the inpatient hospital deductible.

Because these provisions have not previously been subject to public comment, they will be open for comment for a 60-day period, and the agency may make revisions in response to comments at a later time.

HCFA's Educational Activities

HCFA has been working on a cooperative basis with representatives of the hospital industry as the agency developed the detailed program instructions for PPS' implementation. HCFA is also planning to monitor the progress of hospitals as they make the changes necessary to implement the PPS, and HCFA will continue working closely with the hospital associations to address any unanticipated problems that may arise as implementation draws closer.

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