
Repricing Specialty Hospital Outpatient Services Using Ambulatory Surgery Center Prices

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This article explores whether Medicare pays more for the same outpatient services provided in an acute specialty hospital than in an ambulatory surgery center (ASC). How financially dependent a specialty hospital is on ASC-eligible services is also investigated. Medicare outpatient claims in 43 orthopedic and 12 surgical specialty hospitals in 2004 were repriced using ASC pricing software. Payments for the same surgical procedure were 43 and 64 percent higher in specialty surgical and orthopedic outpatient departments, respectively, compared with simulated ASC payments. Non-ASC-eligible outpatient services were 18–35 percent of all Medicare outpatient payments varying by type of specialty hospital.

INTRODUCTION

Section 1877 of the Social Security Act (commonly referred to as the Stark anti-self-referral law) generally prohibits physicians from referring Medicare patients to entities in which they have financial interests. However, two exceptions are permitted under this law: the whole hospital exception, in which physicians who have an ownership interest in an entire hospital, and any ASC, in which physician ownership is deemed a safe harbor. Physician owners of ASCs still cannot refer laboratory and radiology services to facilities that they own.

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Opponents of physician-owned specialty hospitals have argued that physician owners can achieve financial gains by directing referrals and by cream-skimming the healthier patients to their own facility (Devers, Brewster, and Casalino, 2003; Mitchell, 2005; Kahn, 2006; Medicare Payment Advisory Commission, 2005; Guterman, 2006; Greenwald et al., 2006).

Responding to these concerns and the rapid proliferation of specialty hospitals, in 2005 Congress mandated two studies of specialty hospitals by the Medicare Payment Advisory Commission (MedPAC), and CMS (Cromwell et al., 2005). Based on the findings, CMS lifted the 18-month moratorium it had imposed by the 2003 Medicare Prescription Drug, Improvement, and Modernization Act in June 2005.

MedPAC and CMS studies focused on inpatient referrals of financially lucrative patients. Another alleged incentive that favors a specialty hospital over an ASC is the higher average facility payment under the outpatient prospective payment system (OPPS) for hospitals compared with the ASC facility fee schedule for the same procedure.¹

Whether outpatient hospital payment rates are actually higher in specialty hospitals is an empirical question. Winter (2003) showed that the highest volume ASC services were actually paid more under the ASC fee schedule than under the OPPS. Yet, if high volume procedures in specialty hospitals are more complex and paid more

¹ The physician's Part B payment for procedures is usually identical in either location. It is only the Part A facility payment that might be different.

under OPSS, physicians may still take advantage of pricing arbitrage by setting up hospitals instead of ASCs.

Another financial incentive in favor of organizing as a specialty hospital is in providing highly profitable laboratory and radiology services that are prohibited by the Stark self-referral laws in physician-owned ASCs. These laws prohibit physicians in ASCs from referring patients for ancillary services to any facility in which they have an ownership interest. Physicians owning part of a specialty hospital, by contrast, can refer patients to their hospital for magnetic resonance imaging (MRIs), computed tomography (CT) scans, and other potentially profitable services.

In this article, we determined the revenue increases to specialty hospitals of higher outpatient prices compared with ASCs and ancillary self-referrals. We applied Medicare's ASC pricing software to 2004 claims submitted by the majority of cardiac, orthopedic, and surgical specialty hospitals. Because the 20 cardiac specialty hospitals in our study averaged only 180 ASC-eligible outpatient visits annually per facility compared with 1,750 per orthopedic hospital and 1,562 per surgical hospital, we do not report their results in this article.

In contrast to Winter, our approach answers a different question: What would the revenues have been in specialty hospitals if they had been paid ASC prices? This is different from asking what the gains would be if a specialty hospital performed the same mix of procedures as in ASCs. The latter would likely underestimate the gains because of the more complex mix of procedures performed in a specialty hospital and the many ASC-ineligible services they provide. We also draw on recently completed research on inpatient revenue flows (Greenwald et al., 2006; Cromwell et al., 2005) to show how financially

dependent specialty hospitals are on their outpatient departments. Physicians and other investors in specialty hospitals that are more dependent on inpatient services would be less influenced by outpatient pricing differentials.

METHODS AND DATA

The primary data file used in this analysis was the 2004 National Claims History 100 Percent Part B Outpatient Claims File. From this file, we extracted all the Medicare fee-for-service outpatient claims for the national census of cardiac, orthopedic, and surgical specialty hospitals in 2004 (Cromwell et al., 2005). The 2004 Census included 94 specialty hospitals with at least 45 percent of all Medicare charges in orthopedic major diagnosis category (MDC 8) or surgical diagnostic related groups (DRGs).² After hospital deletions due to insufficient claims in 2004 and non-matches with outpatient claims, we had 43 orthopedic and 12 surgical specialty hospitals for analytic purposes.

We further limited our analysis to claims where Medicare was the primary payor. As a result, we deleted 1.75 percent of the outpatient claims. Medicare reimburses ASC and hospital outpatient services under vastly different systems. Unlike Medicare's OPSS with 820 ambulatory payment classes (APCs), over 2,450 HCFA Common Procedure Coding System (HCPCS) codes are uniquely assigned to 1 of just 9 ASC payment classes. Average national facility payments in 2004 ranged from \$333 for ASC (Class 1) to \$1,339 for (Class 9). Most classes bundle a few hundred procedures into a single average payment. Average payments per procedure will vary by provider because of discounts for multiple procedures in the same visit. Payments

² For sampling details refer to Cromwell et al., 2005.

are also adjusted by the hospital's area wage index.

Medicare's hospital OPSS is much more complex than for ASCs. Multiple APCs may appear on one claim with separate payments, some of which may require diminished payment. Many medical and ancillary APCs without a procedure are not eligible for payment in an ASC (e.g., MRI exams). In general, the more costly non-surgical procedures are paid separately under OPSS, thereby enhancing total hospital payments relative to ASC payments. Sometimes these extra payments will be associated with a claim that also has an ASC-eligible procedure; if not, they appear as non-ASC-eligible payments. Finally, several types of services on a hospital outpatient claim are paid for on a fee schedule or other payment system; these include ambulance services; clinical diagnostic laboratory services, non-implantable prosthetic and orthotic devices, erythropoietin for end stage renal disease (ESRD) patients; physical, occupational, and speech therapy, routine dialysis services for ESRD patients, and diagnostic and screening mammography. We lacked the resources and software to properly price these non-OPSS outpatient services using ASC rates, and they are not included in the analysis.

Because the ASC pricer program is not designed to accept OPSS claims, it was necessary to reconfigure the outpatient claims to be compatible with the pricer input format. The key inputs to the ASC pricer program are the provider, State, revenue center codes, service line count, the HCPCS codes and modifiers, metropolitan statistical area (MSA) code, MSA Lugar code, and admission (from) date. As part of this step, we added two additional variables to the OPSS claims that the ASC pricer required: (1) the hospital's MSA wage index; and (2) the MSA code.

Both variables come from the Inpatient Provider PROV File.³ After reformatting the outpatient claims to conform to the ASC pricer input software, we performed two detailed checks to verify our programming. In one check, we manually repriced several outpatient claims and then compared the results with the pricer output. In a second check, we verified that the program was assigning each HCPCS in the outpatient claims to the proper ASC group by using the ASC2004codes.xls file on the CMS Web site. We also verified that the ASC pricer was discounting multiple procedures appropriately.

Next, we created an analytical file by merging the ASC prices back onto the outpatient claims by line item using claim ID and revenue center. We then calculated an OPSS-ASC pricing differential by subtracting the ASC price from the OPSS allowed payment. (Note that any overall average differences in prices will be automatically weighted by specialty hospital, not ASC volumes.)

In contrast to the ASC pricer program, the hospital outpatient payment system reports program and beneficiary obligations separately. For comparability, we summed OPSS hospital payments, beneficiary copayments, and deductibles by revenue center then compared them with total program and beneficiary payments from the ASC pricer program. Under the ASC fee schedule, copays are 20 percent of the fees. Under the OPSS, copays are subject to the 1997 Balance Budget Act changes that require copays to be initially set at 20 percent of the national median.⁴ The effective copay percentage in the OPSS claims

³ A few hospital provider numbers were either not in the PROV File or did not have wage index MSAs. These providers were assigned their geographic MSA as the wage index MSA.

⁴ Section 4523 also changed the way beneficiary coinsurance is determined by (a) basing it on the national median APC charge, and (b) limiting it to the inpatient deductible. Information is available at: <http://www.cms.hhs.gov/HospitalOutpatientPPS/>.

used in this analysis is approximately 30 percent.

RESULTS

Figures 1 and 2 show the distribution of Medicare outpatient payment shares for 43 orthopedic and 12 surgical specialty hospitals respectively. Orthopedic specialty hospital Medicare outpatient revenue shares range from a low of 9 percent to a high of 85 percent (mean share = 42 percent). Some of the variation can be explained by service mix. Some orthopedic hospitals specialize in hip and knee surgery while others specialize in back surgery that requires less inpatient care. Consequently, care must be taken when generalizing the revenue impacts

from OPSS-ASC payment differences to particular orthopedic specialty hospitals.

Surgical hospitals, on average, rely more on outpatient than inpatient services for their Medicare revenues, but there was still some variation (Figure 2). Surgical hospital outpatient shares of Medicare revenues range from a low of 47 percent to a high of 97 percent (mean share = 72 percent). Only two surgical hospitals have outpatient shares of less than 60 percent and could have been classified as orthopedic hospitals in a different time period. Outpatient shares varied more as a function of inpatient revenues (in the denominator of the share) than the absolute size of outpatient revenues. In fact, the entire difference in surgical specialty hospital outpatient shares is explained by the amount

Figure 1
Orthopedic Specialty Hospitals: Outpatient Share of Medicare Total Revenues: 2004

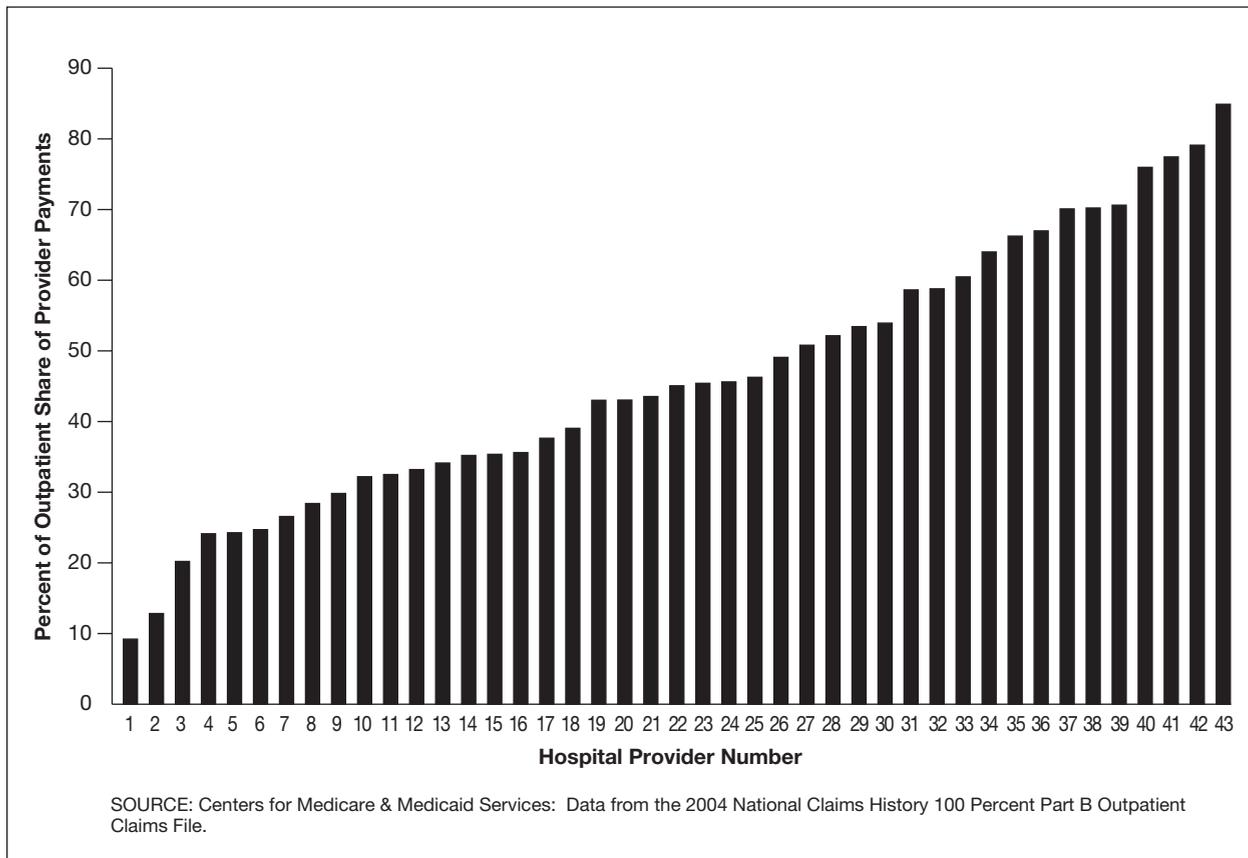
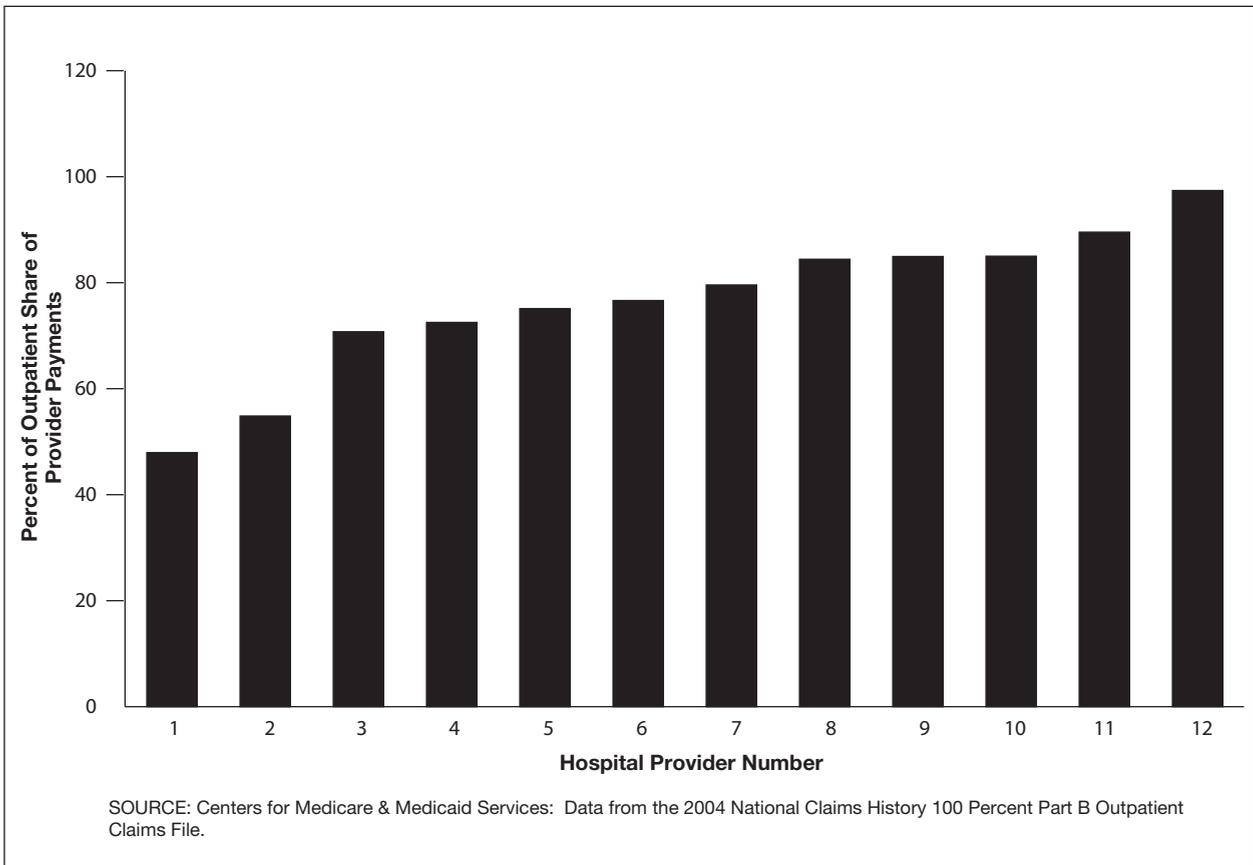


Figure 2
Surgical Specialty Hospitals: Outpatient Share of Medicare Total Revenues: 2004



of inpatient activity, implying similar outpatient activity, but quite different levels of inpatient care.

The basic source of potential revenue gain from OPPS repricing comes from higher average outpatient payments for the specific procedures eligible for payment under ASC pricing. We call these ASC-covered HCPCS procedures. There can be large differences in payments for a specific procedure between the OPPS and ASC pricing systems. The principal reason is that there are only 9 ASC groups, but more than 800 APC groups. As a result, within a single ASC class and fixed payment amount, some OPPS procedures are paid far more and some far less.

Table 1 reports the procedure frequency and average OPPS payments relative to (hypothetical) ASC payments by nine

ASC categories for orthopedic and surgical specialty hospitals. The number of ASC-covered line item procedures in 2004 was 75,228 and 18,749, respectively, in orthopedic hospitals (average 1,750/hospital) and surgical hospitals (average 1,562/hospital). Average OPPS increases over ASC prices were 43 percent in surgical specialty hospitals and slightly over 60 percent in orthopedic hospitals. Higher OPPS payment differentials were greatest in ASC categories 3 and 4 ranging from 2.11 to 2.81, implying OPPS procedure payments double or nearly triple those received in an ASC. Of the 18 potential payment cells in Table 1(9 categories by 2 specialty hospital types), 9 had OPPS/ASC payment ratios of 1.5 or greater, and only 1 had a ratio less than 1.0. OPPS/ASC payment ratios were lowest in ASC Category 1.

Table 1

Percent of Medicare Outpatient Cases and the Ratio of OPPS Average Procedure Payments¹ Over ASC Payments², by ASC Category, and Specialty Hospital: 2004

ASC Category	Specialty Hospital			
	Orthopedic (N=75,228)		Surgical (N=18,749)	
	Percent of Cases	Ratio: OPPS to ASC Payment ³	Percent of Cases	Ratio: OPPS to ASC Payment ³
1	50.7	1.04	16.7	0.95
2	15.7	2.65	38.6	1.29
3	10.6	2.81	11.5	2.37
4	6.8	2.10	8.0	2.11
5	3.6	1.73	3.2	1.64
6	0.1	1.33	0.1	1.25
7	1.3	1.92	1.7	1.82
8	10.7	1.25	19.8	1.20
9	0.5	1.04	0.4	1.02
Total	100.0	1.61	100.0	1.43

¹ Includes only OPPS line item procedures eligible for ASC payment. Excludes other ancillary ambulatory payment class.

² ASC payments exclude any extra durable medical equipment device payment that may or may not be included in the OPPS line item payment.

³ Ratio of volume-weighted average OPPS versus repriced ASC payment.

NOTES: OPPS is outpatient prospective payment system. ASC is ambulatory surgery center. N=total number of procedure line items.

SOURCE: Centers for Medicare & Medicaid Services: Data from the 2004 National Claims History 100 Percent Part B Outpatient Claims File.

It is not obvious why many procedures should be paid double or more in a hospital's outpatient department versus an ASC. For example, a carpal tunnel neuroplasty (HCPCS code number 64721) is paid more than double in an orthopedic hospital versus an ASC. The same is true of an abrasion knee arthroplasty (HCPCS 29881) and a partial claviclectomy excision (HCPCS 23120).

In terms of procedure volumes, two-thirds of orthopedic procedures performed in a specialty hospital outpatient department would be paid under the two lowest paying ASC categories compared with 55 percent in surgical hospitals. As many as one-in-five procedures in surgical specialty hospitals were in the high-paying ASC Category 8 (eye procedures).

Results showing systematically higher paid procedures under OPPS versus ASC payment systems differ from results published by Winter (2003) who found that

“...ASC rates are higher than outpatient department rates for eight of the ten procedure codes with the highest share of Medicare payments to ASCs.” Our research suggests that the service mix in specialty hospitals involves higher OPPS payment rates than procedures performed in ASCs. Of Winter's top 10 ASC procedures, only 4 were among the top 10 of specialty hospitals' outpatient departments. Specialty hospitals tend to perform procedures in the higher paid ASC categories where the absolute dollar difference in OPPS and ASC rates are greatest. Specialty hospitals likely are able to perform more complex and costly procedures because they have inpatient beds for back-up care.⁵

Table 2 summarizes the four revenue sources that distinguish a specialty hospital from an ASC. Orthopedic specialty hospitals averaged \$1.6 million in Medicare

⁵ Other differences are due to use of 2004 claims versus 2003 for Winter, our sample being limited to specialty hospital claims, and ASC payments adjusted for geographic price differences.

Table 2
Decomposition of Orthopedic and Surgical Specialty Hospital Outpatient and Inpatient Medicare Revenues Incorporating ASC Repricing: 2004

Revenue Stream	Specialty Hospital					
	Orthopedic (N=43)			Surgical (N=12)		
	Mean	Outpatient	Total Facility	Mean	Outpatient	Total Facility
Outpatient Revenues (Total)	\$1,602,471	100.0	42.0	\$1,880,945	100.0	71.9
ASC-Eligible Procedures Paid Under OPPTS ¹	1,246,210	77.8	32.7	1,149,674	61.1	43.9
Repriced Under ASC ²	<u>-761,821</u>	—	—	<u>-804,368</u>	—	—
Repricing Gain	484,389	—	—	345,306	—	—
Extra OPPTS Payments for ASC-Eligible Procedures ³	61,320	3.8	1.6	68,434	3.6	2.6
ASC-Ineligible Services Paid Under OPPTS ⁴	294,942	18.4	7.7	662,837	35.3	25.3
Inpatient Revenues	2,214,602	—	58.0	739,929	—	28.3
Total Facility Revenues	3,817,074	—	100.0	2,620,874	—	100.0

¹ Payments for OPPTS line items with ASC-eligible HCPCS codes.

² Payments for procedure line items using ASC prices.

³ Includes all HCPCS payments besides payments for the surgical procedure itself during same visit.

⁴ Outpatient payments for all services not covered in an ASC.

NOTES: ACS is ambulatory surgery center. OPPTS is outpatient prospective payment system. HCPCS is HCFA Common Procedure Coding System.

SOURCE: Centers for Medicare & Medicaid Services: Data from the 2004 National Claims History 100 Percent Part B Outpatient Claims File.

outpatient OPPTS payments in 2004, which amounted to 42 percent of all Medicare payments. Of this amount, almost four-fifths (\$1.25 million) were from procedures also eligible for payment in an ASC. When these procedures are repriced using ASC rates, the revenue gain from OPPTS over ASC prices averaged \$484,389 per hospital, or 64 percent more than under ASC prices. The repricing gain was 30 percent of the \$1.6 million in OPPTS revenues (12.7 percent of all Medicare revenues).

In addition, orthopedic hospitals averaged \$61,320 in additional OPPTS payments per facility for other services associated with an ASC-eligible procedure but were paid separately from the procedure itself, i.e., medical visits, laboratory and radiology tests. These extra revenues, which are not paid for separately in ASC rates, comprised 3.8 percent of all OPPTS revenues and 1.6 percent of all Medicare revenues.

In addition to repriced revenue gains from ASC-eligible procedures, orthopedic specialty hospitals also received \$294,942 in OPPTS payments for visits with no ASC-eligible procedure. Again, these services would not have been paid for in an ASC because they are not linked to a reimbursable procedure. Laboratory and radiology services, (current procedural terminology 70,010–89,350) comprised \$163,000 of these additional ancillary and ASC-ineligible revenues.⁶ Various MRI scans comprised the top five HCPCS procedures in this non-ASC-eligible category.

Finally, orthopedic specialty hospitals generated an additional \$2.2 million, on average, in Medicare inpatient revenues. When added to outpatient revenues, total Medicare payments averaged \$3.8 million. Every \$1 in Medicare outpatient

⁶ This figure also includes a small amount for ASC-eligible cases as well.

revenues was associated with \$1.40 in inpatient revenues, although this ratio varies considerably across facilities (Figure 1).

Surgical specialty hospitals in 2004 averaged slightly more Medicare outpatient revenues (\$1.9 million) than did orthopedic hospitals, although their total Medicare revenues are approximately 30 percent less (\$2.6 versus \$3.8 million) when inpatient revenues are also included. For every \$1 in outpatient revenues, these hospitals generated \$0.39 in inpatient revenues. Of total Medicare outpatient revenues, 61 percent came from individual procedures that were also eligible for payment in ASCs. When repriced using ASC rates, the gain from OPPS over ASC prices for the procedures itself was \$345,306. This amounts to a 43-percent increase over ASC-repriced Medicare payments. The repricing gain was 18.3 percent of all their OPPS revenues and 13.2 percent of all Medicare revenues. The smaller percentage repricing gain in surgical specialty hospitals than in orthopedic specialty hospitals is due to their lower paid mix of outpatient surgery. In addition to the repricing gain, surgical hospitals received an additional \$68,434, on average, from other services provided during an ASC-eligible visit.

What particularly distinguishes a surgical from an orthopedic specialty hospital outpatient department is the number of ASC-ineligible procedures and tests performed. These extra Medicare revenues in surgical hospitals amounted to \$662,837, on average, or over one-third of all of their Medicare outpatient revenues and one-quarter of all their Medicare revenues. Radiology services, alone, accounted for \$313,000 of their ASC-ineligible outpatient payments. CT and MRI scans were the top five HCPCS revenue codes for patients not undergoing an ASC-eligible procedure.

CONCLUSIONS

Our findings support the concern that higher payments under Medicare's hospital outpatient payment system for the same procedure provide revenue enhancement incentives to open or convert an ASC to an orthopedic or surgical specialty hospital. The extra Medicare revenues from performing the same procedure in the outpatient versus ASC setting was 18–30 percent more, on average. Revenue increases, admittedly, are not equivalent to profit gains if specialty hospitals are incurring additional costs in performing ASC-eligible procedures. Orthopedic and surgical specialty hospitals may be performing many of the same procedures as in ASCs, but on more complex and costly outpatients. Winter (2003) found that beneficiary risk scores were generally 5-10 percent higher in hospital outpatient departments for the top 10 ASC procedures. Modestly higher risk scores, however, would not seem enough to justify 50 percent to over 200 percent greater OPPS-ASC payment differences found in our study. Specialty hospitals also appear to be performing a more complex, higher paying, mix of procedures within most of the nine ASC payment categories—procedures that occasionally require inpatient beds as backup. This should raise the standby inpatient costs for outpatient hospital surgery. Covering stand-by costs might be best addressed with severity adjustments to the inpatient DRG payment rates. Although inpatient DRG payments do include emergency room costs, these likely do not capture the full severity and additional costs of patients treated then admitted through the emergency room.

A second concern that physician-owned specialty hospitals are avoiding the Stark prohibition against self-referrals of profitable laboratory and radiology services

is also supported, on average, by our findings. Extra ancillary and medical consultation revenues averaged approximately 20-40 percent of specialty hospital total Medicare revenues. Again, greater outpatient ancillary revenues are not pure profits because of the additional costs of purchasing and operating expensive radiology and laboratory equipment.

The revenue gains from ancillary self-referrals are much greater in surgical than orthopedic specialty hospitals, on average, because the former rely far more in both absolute and relative terms on outpatient (particularly radiology) services. One-in-three orthopedic hospitals received 70 percent or more of their Medicare revenues from inpatients. Thus, OPSS-ASC pricing differentials or ASC-prohibited ancillary self-referrals likely play a small role in the physician's preference for investing in many orthopedic specialty hospitals.

Although our analysis focused on specialty hospitals, higher Medicare payment rates for many services provided in outpatient departments rather than ASCs inadvertently promote hospitals over ASCs. Any payment differences across provider type, regardless of physician ownership, should be justified on quantifiable differences in patient complexity and type of procedure performed (Winter, 2003). Hence, a more fundamental and equitable correction than prohibiting physician-owned specialty hospitals and restricting competition would be to equalize the rates paid in different locations for the same patient severity and procedure. Toward the goal of rate equalization, as of January 1, 2007, Medicare adjusted the ASC rates in accordance with the cap imposed by the Deficit Reduction Act of 2005 that mandated that ASC payments cannot exceed payments made under the hospital OPSS. CMS also implemented a finer-grained

severity adjustment to DRG payment in the fall of 2007.

LIMITATIONS

Any comparison of provider revenue incentives under the OPSS and ASC payment systems is not straightforward and will have limitations. First, it is difficult to directly compare payment for specific services in the outpatient facility or ASC. Under OPSS, sometimes the same service is packaged and not paid separately; other times, it is paid separately. By contrast, the ASC payment system pays a single price for packaged services that can vary in content by individual patient and across facilities. Thus, we could not be entirely sure what extra services in the ASC were provided beyond the surgical procedure. Moreover, payments may be discounted or not paid at all under both OPSS and ASC pricing if the same procedure is performed multiple times. At best, we can compare payments aggregated across Medicare patients.

Second, using just OPSS claims, we sometimes calculate a pricing differential where one does not exist because ASCs perform very few, if any, of a particular procedure. Using OPSS weights produces an unknown upward bias in the actual gains to ASC repricing, at least from the ASC's perspective.

Third, we are not able to compare the marginal increase in profits to the specialty hospital under ASC pricing because we do not have actual cost data in either facility type. Additional specialty hospital outpatient surgery and ancillary revenues clearly overstate total profitability gains given the hospital's extra costs incurred in providing the service—both in terms of maintaining costly standby beds and in purchasing expensive ancillary equipment.

Finally, our analysis was based only on Medicare payment comparisons between specialty hospitals and ASCs. Critics of specialty hospitals also are concerned about the additional revenue gains from non-Medicare outpatient services as well.

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REFERENCES

Cromwell, J., Adamache, W., Bernard, S., et al.: Specialty Hospital Evaluation. Final Report. Centers for Medicare & Medicaid Services. Contract Number 500-00-0024 (TO-12). September 2005.

Devers, K., Brewster, L., and Casalino, L.: Changes in Hospital Competitive Strategy: A New Medical Arms Race? *Health Services Research* 38(1):447-469. February 2003.

Greenwald, L., Cromwell, J., Adamache, W., et al.: Specialty Versus Community Hospitals: Referrals, Quality, and Community Benefits. *Health Affairs* 25(1):106-118. January/February 2006.

Guterman, S: Specialty Hospitals: A Problem or a Symptom? *Health Affairs* 25(1):95-105, January/February 2006.

Kahn, C.: Intolerable Risk, Irreparable Harm: The Legacy of Physician-Owned Specialty Hospitals. *Health Affairs* 25(1):130-133, January/February 2006.

Medicare Payment Advisory Commission: *Report to Congress: Physician-Owned Specialty Hospitals*. Medicare Payment Advisory Commission, Washington, DC. 2005.

Mitchell, J.: Effects of Physician-Owned Limited-Service Hospitals: Evidence from Arizona. Web Exclusive. *Health Affairs*, October 25, 2005.

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