

SECTION  
2F

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**Outpatient dialysis services**

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# R E C O M M E N D A T I O N

For calendar year 2003, the Congress should update the composite rate payment for outpatient dialysis services by 2.4 percent.

**\*YES: 14 • NO: 0 • NOT VOTING: 1 • ABSENT: 2**

**\*COMMISSIONERS' VOTING RESULTS**

# SECTION 2F

## Section 2F: Outpatient dialysis services

Current aggregate Medicare payments for outpatient dialysis services appear to be adequate. MedPAC's best estimate for 2002 is that payments for composite rate services and separately billable medications together exceed providers' costs by about 3 percentage points; however, neither payments for composite rate services nor payments for medications outside the payment bundle accurately reflect efficient providers' costs. Although composite rate payments did not cover the costs of providing dialysis services, payments for separately billable medications significantly exceeded providers' costs. We have no evidence that the current cost base for composite rate services is inappropriate, as providers' costs for these services have grown at about the same rate as growth in input prices. Other indicators, such as market conditions and beneficiaries' access to care, also suggest that total payments for outpatient dialysis are adequate, relative to providers' costs. Based on this evidence, we see no need to adjust the base rate for composite rate services. To account for changes in providers' costs in the coming year, we recommend that the composite rate for outpatient dialysis services be updated by 2.4 percent in 2003.

### In this section

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- Assessing payment adequacy
  - Accounting for cost changes in the coming year
  - Update recommendation
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In this section, we apply our two-part framework for updating payments for outpatient dialysis services. First, we assess the adequacy of current outpatient dialysis payments. Second, we examine factors that will change efficient providers' costs in the coming year and recommend an update to payments that will account for these factors.

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## Assessing payment adequacy

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To determine the update for outpatient dialysis services, we assessed the adequacy of aggregate Medicare payments for dialysis services relative to the costs of providing these services. We estimated current Medicare payments and costs by considering both dialysis services and separately billable medications because both are important sources of payments and costs for dialysis facilities. In 2000, for freestanding dialysis facilities, total allowed charges for providing composite rate services were \$3.0 billion and total allowed charges for injectable medications were \$1.9 billion. We also looked at several indicators, including growth in the volume of dialysis services furnished, growth in the capacity of providers to furnish dialysis, and changes in the financial health of dialysis providers, to determine whether current payments are adequate relative to efficient providers' costs.

MedPAC concludes that total payments for outpatient dialysis services were adequate in 2000 and that no adjustment for payment adequacy is needed as part of the 2003 update for outpatient dialysis services. Combined payments for composite rate services and separately billable drugs exceeded costs by about 5 percentage points in 2000 and our best estimate of the payment-to-cost ratio for 2002 is about 3 percentage points, 2 points lower than the 2000 level (reflecting 2001

and 2002 payment rules). Payment-to-cost ratios at this level appear to be within the zone of payment adequacy, especially given the broad indicators of the financial health of dialysis providers. Specifically, providers responded to increased demand for dialysis services in the 1990s by opening new facilities. Between 1993 and 2000, the number of facilities—which increased at an average rate of 7 percent annually—kept pace with the increase in the number of dialysis patients, which grew at the same annual rate. Data from the Centers for Medicare & Medicaid Services (CMS) show that providers continue to improve the quality of care furnished to beneficiaries, as assessed by measures of dialysis adequacy and anemia management. Finally, the large for-profit multi-center dialysis companies (chains), which provide dialysis for about 55 percent of all end-stage renal disease (ESRD) patients, appear to have adequate access to capital, as evidenced by continued growth in the number of facilities.

## Current payments and costs

Traditionally, the Commission evaluated the adequacy of outpatient dialysis payments by calculating a Medicare payment-to-cost ratio, which compares the composite rate payments providers receive from Medicare with their Medicare-allowable costs. In our March 2001 report, however, we expanded our analysis to include payments and costs for injectable medications administered during dialysis treatment for which providers receive separate payments from Medicare. We modified our approach because the use of and payments for injectable medications, which include erythropoietin and iron dextran used to treat anemia, antibiotics, and vitamin D analogues, have increased significantly throughout the 1990s. Consequently, their effect on the financial performance of dialysis providers is significant. Including the payments and costs for separately

billable medications gives a more accurate picture of the financial performance of dialysis providers.

In 2000, composite rate payments to freestanding facilities did not cover the costs of providing dialysis services.<sup>1</sup> The payment-to-cost ratios for dialysis, including in-center and home hemodialysis and the two major forms of peritoneal dialysis, fell from 1.01 in 1997 to 0.96 in 2000 (Table 2F-1). All types of facilities showed a decline in payment-to-cost ratios during this time. The decline occurred because providers' costs increased by 2.2 percent annually, on average, but the composite rate was increased only once, by 1.2 percent in 2000.

A different picture of financial performance emerges when we compare the aggregate payments providers receive for both composite rate services and separately billable medications with their Medicare-allowable costs. In 2000, Medicare's payments for composite rate services and injectable medications exceeded providers' costs by about 5 percentage points.<sup>2</sup> All types of dialysis facilities benefited from the positive payment margins from separately billable medications, suggesting that the positive payment margins of erythropoietin and other separately billable drugs are subsidizing the lower payment margins under the composite rate.

Although the payment-to-cost ratio for composite rate services and injectable medications together was 1.05 in 2000, it fell from 1.09 in 1997. This drop probably occurred because of the real decline in the composite rate and the increase in providers' costs for composite rate services during this time. In addition, the manufacturer of erythropoietin raised the price by 3.9 percent in 2000.

To assess providers' financial performance in 2002, we estimated the payment-to-cost ratio for composite rate

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1 The Commission uses only Medicare cost report data from freestanding facilities. No current evidence suggests that the costs incurred by freestanding and hospital-based facilities differ based on differences in practice patterns or patient acuity.

2 The payment-to-cost ratio for composite rate services and injectable medications is calculated by linking data from providers' cost reports with claims from the institutional outpatient file.

**TABLE  
2F-1**

**Payment-to-cost ratios for composite rate services and separately billable drugs for freestanding dialysis facilities, 1997-2000**

	1997	1998	1999	2000
<b>Composite rate services for in-center and home dialysis</b>				
All facilities	1.01	0.99	0.98	0.96
Small	0.92	0.90	0.88	0.86
Medium	1.00	0.97	0.96	0.95
Large	1.05	1.03	1.02	1.00
Nonprofit	0.98	0.95	0.93	0.94
For profit	1.02	1.00	0.99	0.97
Urban, in an MSA	1.02	1.00	0.98	0.97
Rural	0.99	0.97	0.97	0.94
<b>Composite rate services for dialysis and separately billable drugs</b>				
All facilities	1.09	1.08	1.07	1.05
Small	1.01	0.99	1.00	0.97
Medium	1.08	1.06	1.06	1.05
Large	1.11	1.11	1.10	1.07
Nonprofit	1.06	1.05	1.03	1.04
For profit	1.09	1.08	1.08	1.05
Urban, in an MSA	1.09	1.08	1.07	1.05
Rural	1.08	1.06	1.08	1.04

Note: MSA (metropolitan statistical area, as defined by the U.S. Office of Management and Budget). The calculations represent mean payment-to-cost ratios, weighted by the number of dialysis sessions at each facility. The size of the facility is defined in each year based on the 25<sup>th</sup> and 75<sup>th</sup> percentile of dialysis sessions. Small facilities are defined as those reporting dialysis sessions less than or equal to the 25<sup>th</sup> percentile of all dialysis sessions, medium facilities are defined as those reporting dialysis sessions greater than the 25<sup>th</sup> percentile but less than the 75<sup>th</sup> percentile of all dialysis sessions, and large facilities are defined as having greater than or equal to the 75<sup>th</sup> percentile of all dialysis sessions. Although our analysis shows how well Medicare does in covering the costs it is legally obligated to pay for, this approach does not measure how much providers actually gain or lose from caring for Medicare patients.

Source: Data compiled by MedPAC from 1997-2000 CMS cost reports and the institutional outpatient files obtained from CMS.

services and injectable medications by assuming that providers' costs will grow at the same rate predicted by MedPAC's dialysis market basket in 2001 and 2002 and applying the composite rate update in law for 2001.<sup>3</sup> Based on these assumptions, payments for composite rate services and injectable medications

relative to providers' costs are likely to be about 2 percentage points lower than the 2000 level.

Although the payment-to-cost ratio for composite rate services and injectable medications is the most comprehensive measure we currently have to assess the financial performance of dialysis

facilities, it does not account for the profitability of other services associated with outpatient dialysis. For example, several national dialysis chains own laboratories and receive Medicare payments for laboratory tests outside the composite rate payment bundle. The General Accounting Office (GAO) has noted that facilities can influence the tests physicians order through the use of so-called standing orders, lists of tests periodically performed on all patients unless the ordering physician overrides them (GAO 1997). The agency found wide variation in the rate of laboratory tests ordered for patients with ESRD and suggested this may lead to excessive use, with some patients receiving too frequent or unnecessary tests.

Our current analysis shows how well Medicare covers the costs for which it is legally obligated to pay, but it does not measure how much providers actually gain or lose, on average, from caring for Medicare beneficiaries. As discussed in the introduction to this chapter, the Commission's analysis of the current costs of providers is designed to include only Medicare-allowable costs.

However, a portion of the costs included in this analysis will most likely be found to be non-allowable because the cost reports for 1997 to 2000 have not yet been audited by CMS. Unlike other institutional providers such as hospitals, the Secretary was not required to audit the cost reports of dialysis providers regularly until 1996.<sup>4</sup> CMS is currently auditing cost report data from 1996 and preliminary results show that the allowable cost per treatment for composite rate services for freestanding facilities was about 96.0 percent of the reported cost of treatment.<sup>5</sup> Excluding non-allowable costs affects the relationship of Medicare's payments to providers' costs. For example, payment-to-cost ratios for composite rate services in 1996 would

3 The Congress increased the composite rate by 2.4 percent in 2001.

4 The Balanced Budget Act of 1997 required the Secretary to audit the cost reports of each dialysis provider at least once every 3 years beginning in 1996.

5 An earlier audit performed by CMS in 1988 indicated that the allowable cost per treatment for freestanding facilities was 88.2 percent of the reported cost per treatment (ProPAC 1993).

increase by 3 percentage points if we excluded the costs that CMS found to be non-allowable.

Finally, our finding that neither payments for services in the prospective payment bundle nor payments for medications outside the payment bundle accurately reflect efficient providers' costs partly stems from the design of the outpatient dialysis payment system. MedPAC has previously found deficiencies in the size and content of the composite rate payment bundle, the lack of a classification system, and needed adjustments to the rate. As a result, we recommended that the outpatient dialysis payment system be revised to reflect the services furnished during dialysis and to account for the costs of efficient providers (MedPAC 2001). The Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000 (BIPA) requires the Secretary to develop a payment bundle that includes diagnostic laboratory tests and medications routinely used in furnishing dialysis care (but currently billed separately) and to report on the expanded bundle to the Congress by July 2002.

### **Appropriateness of current costs**

Because the composite rate pays predetermined rates for services, dialysis providers have an incentive to keep costs below the payment rate. In contrast, because injectable medications are paid based on their cost, providers have little incentive to improve efficiency. At issue is whether aggregate dialysis costs provide a reasonable representation of the costs of efficient providers. To address this issue, the Commission considered the growth in providers' costs for furnishing composite rate services and injectable medications. We find no evidence that providers' costs for composite rate services were too high between 1997 and 2000. However, our finding that payments for separately billable medications

significantly exceeded providers' costs suggests that Medicare pays too much for certain injectable medications.

Most of the pressure experienced by dialysis providers to contain costs has come from Medicare, the predominant purchaser of dialysis services in the United States. The 1972 amendments to the Social Security Act extended Medicare benefits to individuals with ESRD who are fully or currently insured under Social Security or Railroad Retirement programs, entitled to monthly benefits under one of these programs, or the spouse or dependent child of an eligible person. Once eligibility is established, Medicare coverage begins after a three-month waiting period.<sup>6</sup> Data from the 2000 annual survey of dialysis facilities show that 83 percent of all in-center hemodialysis patients were enrolled in Medicare and an additional 7 percent of patients had an application pending with Medicare.

The pressure to contain costs from private payers, however, has increased in recent years because the Congress extended the Medicare secondary payer provisions for incident ESRD patients who have employer group health coverage. Specifically, the Congress extended the period during which Medicare is the secondary payer from 18 months to 30 months in 1997. Analysis of providers' cost report data indicates that the proportion of in-center hemodialysis treatments paid for by Medicare has declined from 81 percent in 1996 to 73 percent in 2000.

### **Costs for composite rate services**

Providers' costs for composite rate services grew as predicted by the Commission's dialysis market basket over the 1997–2000 period. Providers' costs increased by 2.2 percent annually, on average, and the market basket increased by 2.1 percent annually, on average.

Our finding that payments for composite rate services did not cover providers' costs could imply that payments are too low or that costs are too high. Many experts believe that Medicare overpaid for dialysis services for much of the 1980s and early 1990s. For example, the composite rate payment exceeded providers' allowable costs by more than 10 percentage points in the early 1990s (MedPAC 1999). Despite providers' productivity improvements, particularly during the first half of the decade, providers' costs for composite rate services appear to have caught up with Medicare's payment rate because the Congress did not update the payment rate between 1991 and 2000.

### **Costs for separately billable medications**

Providers' costs per dialysis treatment for separately billable medications increased by about 10 percent annually, on average, over the 1997–2000 period. This cost growth has occurred both because of how Medicare pays for these services and because of the effect of other factors on providers' costs. Medicare uses cost-based methods to pay for separately billable medications.<sup>7</sup> As a result, providers have no incentive to improve efficiency. In contrast, prospective payment methods encourage providers to control costs because payment is based on a predetermined rate unaffected by incurred costs or posted charges. In addition, substituting new, more costly drugs for older, less expensive medications has increased providers' costs for injectable medications per dialysis treatment during the 1997–2000 period. For example, the price of a vitamin D analogue (paricalcitol) newly approved in 2000 is twice that of the older agent it has displaced (calcitriol). We do not know to what extent new injectable medications would be adopted if Medicare paid for them prospectively. Finally, increases in the prices charged for medications by manufacturers also have increased providers' cost per treatment.

<sup>6</sup> This period is waived for beneficiaries who elect to participate in a self-care dialysis training program.

<sup>7</sup> Dialysis facilities are paid 95 percent of the average wholesale price for all injectable medications other than erythropoietin. Medicare pays \$10 per 1,000 units for erythropoietin administered either intravenously or subcutaneously.

Our finding that payments for injectable medications not included in the payment bundle significantly exceeded providers' costs between 1997 and 2000 could imply that payments are too high or costs are too low. Given providers' lack of incentive to reduce costs, it is highly probable that Medicare pays too much for certain injectable medications. Two studies by the Office of Inspector General (OIG) reached this same conclusion (OIG 2000, OIG 1997). In addition, the GAO recently published a study showing that physicians are able to obtain Medicare-covered drugs at prices from 13 to 34 percent below current Medicare payments (GAO 2001).

### **Relationship of payments to appropriate costs**

We assessed the relationship of payments to appropriate costs for outpatient dialysis services and found that aggregate Medicare payments appear to be sufficient. We based this conclusion on evidence about market conditions throughout the 1990s that shows: 1) the average annual growth in the number of hemodialysis treatments has kept pace with the average annual growth in the number of hemodialysis patients; 2) there has been a significant increase in the use of injectable medications furnished during dialysis; 3) there has been no widespread access or quality problems for beneficiaries; and 4) there has been no change in providers' access to capital, as evidenced by continued growth in the number of providers and their capacity to furnish dialysis.

### **Changes in volume**

Between 1993 and 2000, growth in the number of in-center hemodialysis treatments generally kept pace with growth in the number of dialysis patients. The number of dialysis treatments increased, on average, by 9 percent annually; by comparison, the number of dialysis patients increased, on average, by 7 percent during this time. The slightly greater growth in the number of treatments compared with patients could

reflect providers' efforts to improve the quality of care by improving patients' compliance with their dialysis regimen.<sup>8</sup>

Use of certain injectable drugs has significantly increased in the 1990s. Recent data from CMS show the mean dose of erythropoietin administered intravenously increased to 81.0 units per kilogram in 1999 from 65.6 units per kilogram in 1997 (HCFA 2000). Earlier data from Greer et al. (1999) also show increases between 1990 and 1998 in mean erythropoietin dose per unit administered to dialysis patients (from 2,700 units to 5,472 units per dose). Total allowed charges for erythropoietin furnished by freestanding dialysis facilities increased from \$255 million in 1990 to \$1.3 billion in 2000. Claims for injectable drugs other than erythropoietin submitted by freestanding dialysis facilities also show significant growth in payments, from \$281 million in 1997 to \$605 million in 2000.

The importance of the revenue derived from injectable medications relative to that for composite rate services for dialysis facilities has increased. Injectable medications represented about 33 percent of total allowed charges for dialysis facilities in 1997; by 2000, injectable medications represented nearly 40 percent of total allowed charges.

Use of injectable medications has grown for several reasons. First, many agents—including erythropoietin and iron dextran—were only approved by the Food and Drug Administration in the early 1990s. Since their approval, their use has been advocated in clinical guidelines set forth by the National Kidney Foundation (NKF). The use of many of these medications has enhanced the quality of care furnished to dialysis beneficiaries. For example, the increased use of erythropoietin has reduced the proportion of dialysis patients suffering from anemia, which contributes to morbidity if not treated effectively. However, the profitability of certain injectable

medications may have influenced how they are used. For example, Medicare pays \$10 per 1,000 units for erythropoietin administered either intravenously or subcutaneously. This policy promotes the use of the intravenous form, which requires higher average doses (more units) to achieve target hematocrit levels. The predominant use of intravenous erythropoietin persists despite the publication of the NKF's Dialysis Outcome Quality Initiative Clinical Practice Guideline for the treatment of anemia, which advocated subcutaneous administration (NKF 1997a). The Department of Veteran Affairs (VA) reported that substantial cost savings might be achieved if use of the subcutaneous form increased among patients treated at their facilities. The VA found that the average erythropoietin dose needed to maintain a hematocrit of 30 to 33 percent is one-third lower with subcutaneous administration than with intravenous administration (Kaufman et al. 1998).

### **Entry and exit of providers**

The number of dialysis facilities in the United States continues to grow, keeping pace with the growth in the number of dialysis patients. The number of dialysis facilities and the number of in-center hemodialysis patients each grew by about 7 percent between 1993 and 2000 (Table 2F-2, p. 107). The proportion of facilities located in rural areas slightly increased from 22.7 percent of all facilities in 1993 to 24.9 percent in 2000.

The composition of dialysis providers, in terms of their profit status and affiliation, has changed in the 1990s. Freestanding and for-profit facilities grew at the expense of hospital-based and nonprofit facilities. Between 1993 and 2000, freestanding facilities increased to 82 percent of all facilities from 70 percent, while for-profit facilities increased to 78 percent of all facilities from 61 percent. In addition, dialysis chains continue to acquire independently operated facilities.

<sup>8</sup> Patients who skip dialysis treatments or leave dialysis treatments early are less likely to receive adequate dialysis compared with patients who are compliant.

MedPAC estimates that about 55 percent of all facilities were operated by one of the four largest for-profit chains in 2000.

The growth in the number of dialysis facilities masks the fact that 406 facilities closed between 1993 and 2000. Facilities that closed were more likely to be smaller, as measured by the number of in-center hemodialysis stations available and the average number of hemodialysis treatments furnished. This finding is consistent with our analysis of providers' financial performance that showed that payment-to-cost ratios varied primarily according to facility size (Table 2F-1). Between 1997 and 2000, the payment-to-cost ratios for small facilities were about 13 percentage points lower than large facilities. This finding may reflect difficulty in competing with larger facilities with greater economies of scale. Facilities that closed also were more likely to be nonprofit (42 percent versus 26 percent) and hospital-based (58 percent versus 24 percent) than were facilities that remained open. Facilities that closed were not different than facilities that remained open in terms of the proportion of in-center dialysis treatments paid for by Medicare (81 percent versus 79 percent) or rural location (24 percent each). This analysis represents the worst-case scenario for trends in facilities closing because we did not consider whether another facility was available in the general proximity of a closed facility.

The Commission finds that providers have kept up with the demand for dialysis by increasing the number of facilities rather than increasing capacity within facilities. We based this finding on our analysis of trends in:

- average hemodialysis stations per facility,
- average in-center hemodialysis treatments per facility, and
- average in-center hemodialysis treatments per dialysis station.<sup>9</sup>

The total number of in-center hemodialysis treatments provided by dialysis facilities has increased by about 8 percent per year between 1997 and 2000, but the average number of hemodialysis stations per facility has remained relatively constant at about 22 per facility. Average total in-center hemodialysis treatments also have remained relatively constant, ranging from 15,500 to 16,000, as have average treatments per station, ranging from 641 to 661, during the same time period.

### **Beneficiaries' access to high-quality care**

A review of the published literature shows no hard evidence of beneficiaries facing problems in obtaining needed dialysis care. Reports of facility closings tend to be linked to local issues, such as rising real estate prices in certain areas, shortages of technicians and nurses to staff facilities, and states' certificate of need regulations.

Clinical performance indicators collected by CMS show continued improvements in the quality of dialysis care, as measured by the percent of hemodialysis patients receiving adequate dialysis and suffering from anemia (Table 2F-3). One quality of care issue of concern to some beneficiaries is the practice of reusing synthetic dialyzer membranes. This practice is followed by more than 80 percent of dialysis facilities in an attempt to contain costs (USRDS 2000). The NKF found no evidence to substantiate the notion that reuse of membranes affects morbidity or mortality and has taken no position for or against dialyzer reuse (NKF 1997b). However, the proportion of facilities practicing reuse is expected to decline when the largest for-profit chain begins to phase-in single-use dialyzers in 2003.

### **Access to capital**

Access to capital is necessary for dialysis facilities to improve their equipment and open new facilities to accommodate growth in the number of patients requiring dialysis. About 80 percent of all dialysis facilities are for profit, and the four largest for-profit chains account for about 55 percent of all facilities. These chains appear to have adequate access to capital, as demonstrated by growth in the number of clinics, the number of patients they treat, and their earnings. Data from industry sources show that growth in revenues between 1996 and 2000 for these four chains ranged from 36 percent to 62 percent. A bond analyst described the sector as having no problems with access to capital and ratings for the bonds of two of the largest chains, although below investment grade, are not expected to change appreciably in the near future. In addition, industry reports have cited that revenues for dialysis are fairly predictable, given the recurring requirement for treatment. However, they also have noted that dialysis providers: 1) face potential pressures from private payers, and 2) are highly susceptible to any future changes in Medicare's payment policies. Finally, the stocks of these for-profit chains have in large part enjoyed positive ratings by financial analysts over the last year.

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### **Accounting for cost changes in the coming year**

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As noted earlier, the Commission accounts for expected cost changes in the coming year primarily through the forecast of input price inflation. CMS has not developed a market basket index for outpatient dialysis services.<sup>10</sup> Consequently, MedPAC uses an index for dialysis services comprising components from price indexes for hospitals, skilled nursing facilities, and home health agencies. MedPAC's index indicates that the prices dialysis facilities

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9 For our analysis, we weighted average hemodialysis stations per facility, treatments per facility, and treatments per dialysis station by the number of dialysis sessions at each facility.

10 In our March 2000 report, MedPAC recommended that the Congress instruct CMS to consider a periodic update for outpatient dialysis services. The BIPA instructed the Secretary to submit a report on methods to update the outpatient dialysis payment system, including a market basket for dialysis services, by July 2002.



**TABLE  
2F-2**

**Characteristics of dialysis facilities, 1993–2000**

	1993	1994	1995	1996	1997	1998	1999	2000
Total number of dialysis facilities	2,343	2,502	2,732	2,940	3,172	3,394	3,619	3,805
	<b>Percent of all facilities</b>							
For profit	60.8%	62.2%	64.6%	67.4%	71.1%	75.0%	77.3%	78.3%
Nonprofit	33.4	32.2	30.3	28.1	25.2	21.9	19.8	19.1
Government	5.8	5.6	5.0	4.4	3.8	3.2	2.9	2.7
Freestanding	70.0	71.6	73.7	75.1	77.0	78.8	80.7	81.6
Hospital-based	30.0	28.4	26.3	24.9	23.0	21.2	19.3	18.4
Urban, in an MSA	77.3	76.8	76.8	76.2	75.6	75.1	75.1	75.1
Rural, total	22.7	23.2	23.2	23.8	24.4	24.9	24.9	24.9
Adjacent to an MSA								
Includes a town with at least 10,000 people	6.7	6.8	6.5	6.8	6.7	6.6	6.6	6.5
Does not include a town with at least 10,000 people	5.0	5.4	5.5	5.8	6.1	6.5	6.6	6.8
Not adjacent to an MSA								
Includes a town with at least 10,000 people	6.6	6.4	6.4	6.3	6.1	6.1	5.9	5.7
Does not include a town with at least 10,000 people	4.4	4.5	4.8	5.0	5.5	5.8	5.9	5.9

Source: MSA (metropolitan statistical area, as defined by the U.S. Office of Management and Budget). Data compiled by MedPAC from the 1993–2000 CMS facility survey file.

pay for their inputs included in the composite rate will rise an estimated 2.4 percent between calendar years 2002 and 2003.

Other factors that may affect providers' costs in the next payment year include scientific and technological advances and productivity improvements. Our review of the literature on medical advances

suggests that the costs associated with these advances will be offset by improvements in providers' productivity.

**TABLE  
2F-3**

**Clinical performance indicators, 1994–1999**

Performance indicator	Year					
	1994	1995	1996	1997	1998	1999
Percent of hemodialysis patients receiving inadequate dialysis	51%	41%	32%	28%	26%	20%
Percent of hemodialysis patients suffering from anemia	N/A	N/A	N/A	57	41	32
Percent of hemodialysis patients who are malnourished	20	16	19	16	18	20

Note: N/A (not available). Patients receiving inadequate dialysis are those with urea reduction ratios of less than 65 percent. Patients suffering from anemia are those with hemoglobin levels less than 11 gm/dL. Patients malnourished are those with serum albumin levels less than 3.5 gm/dL.

Source: HCFA 2000.

**Update recommendation**

Based on our review of the adequacy of payments for outpatient dialysis services and expected cost changes in the coming year, the Commission recommends the following:

**RECOMMENDATION**

**For calendar year 2003, the Congress should update the composite rate payment for outpatient dialysis services by 2.4 percent. ■**

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