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# MEDICARE

## Access to Home Oxygen Largely Unchanged; Closer HCFA Monitoring Needed



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**Health, Education, and  
Human Services Division**

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The Honorable William V. Roth, Jr.  
Chairman  
The Honorable Daniel Patrick Moynihan  
Ranking Minority Member  
Committee on Finance  
United States Senate

The Honorable Thomas J. Bliley, Jr.  
Chairman  
The Honorable John D. Dingell  
Ranking Minority Member  
Committee on Commerce  
House of Representatives

The Honorable Bill Archer  
Chairman  
The Honorable Charles B. Rangel  
Ranking Minority Member  
Committee on Ways and Means  
House of Representatives

During the first 3 months of 1998, about 550,000 Medicare beneficiaries received supplemental oxygen at home for which Medicare paid about \$385 million.<sup>1</sup> Medicare pays suppliers a fixed monthly fee that covers a stationary, home-based oxygen unit and all related services and supplies, such as tank refills. There is a separate fixed monthly fee for a portable unit, if one is prescribed.<sup>2</sup> Medicare's oxygen payment method is called "modality neutral" because the payment rate is the same regardless of the type of oxygen delivery system prescribed—compressed gas, liquid oxygen, or oxygen concentrator.

In 1997, we reported that Medicare's payment rates for home oxygen exceeded those paid by the Department of Veterans Affairs (VA) by almost 38 percent, even after accounting for differences between the two

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<sup>1</sup>Medicare pays 80 percent of the fee schedule allowance, and Medicare patients are responsible for the remaining 20 percent, which frequently is covered by secondary insurance or some state Medicaid programs. In this report, we refer to the Medicare fee schedule allowance as the "Medicare payment."

<sup>2</sup>Supplies and services for portable units are covered by the monthly fee for the stationary unit.

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programs.<sup>3</sup> Subsequently, the Balanced Budget Act of 1997<sup>4</sup> (BBA) reduced Medicare rates by 25 percent effective January 1, 1998, and by an additional 5 percent effective January 1, 1999.<sup>5</sup> The BBA also (1) required the Secretary of Health and Human Services (HHS) to arrange for peer review organizations (PRO)<sup>6</sup> to evaluate access to and quality of home oxygen equipment; (2) gave HHS the authority to restructure the modality-neutral payment, if warranted; and (3) required HHS to establish service standards for home oxygen suppliers as soon as practicable. The BBA also required that HHS include home oxygen in at least one of the competitive bidding demonstration projects being planned by HCFA.<sup>7</sup> These projects are designed to determine if an alternative approach to the current method of establishing Medicare payment rates can reduce Medicare spending while maintaining access and quality of care.

In a November 1997 report, we made several recommendations to the Health Care Financing Administration (HCFA)—the HHS agency responsible for administering the Medicare program—regarding implementation of the BBA provisions.<sup>8</sup> For example, we recommended that HCFA monitor trends in Medicare beneficiaries' use of the various types of home oxygen equipment and educate prescribing physicians about their right to specify the most appropriate home oxygen system for their patients.

This report responds to a BBA requirement that we study and report on Medicare beneficiaries' access to home oxygen equipment within 18 months of the enactment of the BBA. The report includes our evaluation of (1) changes in access to home oxygen for Medicare patients since the January 1, 1998, payment reduction and (2) actions taken by HCFA to fulfill

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<sup>3</sup>Medicare: Comparison of Medicare and VA Payment Rates for Home Oxygen ([GAO/HEHS-97-120R](#), May 15, 1997) and Medicare: Comparative Information on Medicare and VA Patients, Services, and Payment Rates for Home Oxygen ([GAO/HEHS-97-151R](#), June 6, 1997).

<sup>4</sup>P.L. 105-33, sec. 4552.

<sup>5</sup>Some representatives of home oxygen suppliers cautioned that lower Medicare rates could lead to higher prices for VA. They said that firms bidding on VA contracts were seeking to cover only their marginal costs while relying on Medicare to cover their fixed costs. However, VA officials informed us that the Medicare payment reductions have not had an impact on VA's home oxygen costs. In fact, one VA medical center's costs for a contract that was rebid in the spring of 1998 decreased after the January 1998 cut in Medicare rates; this medical center obtained rates 30 percent lower than in its previous contract.

<sup>6</sup>PROs are entities that HCFA contracts with to provide beneficiary protection and education activities. Nationally, there are 53 such organizations promoting the quality, effectiveness, efficiency, and economy of health care services for Medicare beneficiaries.

<sup>7</sup>P.L. 105-33, sec. 4319 (a), (d); 42 U.S.C. 1395w-3 (a), (d).

<sup>8</sup>Medicare: Home Oxygen Program Warrants Continued HCFA Attention ([GAO/HEHS-98-17](#), Nov. 7, 1997).

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the BBA requirements and respond to our November 1997 recommendations.<sup>9</sup>

We performed our work between August and December 1998, reviewing summarized claims data for home oxygen equipment provided to Medicare patients through June 1998.<sup>10</sup> Therefore, our analysis does not reflect any impact on access from the January 1999 Medicare payment reduction and may not reflect the full impact of the January 1998 reduction. We intend to continue monitoring Medicare beneficiaries' access to home oxygen.

To prepare this report, we reviewed Medicare regulations and payment policies and obtained information from HCFA officials, home oxygen suppliers and their representatives, manufacturers of home oxygen equipment, hospital discharge planners, respiratory therapists, physicians, and patient advocacy groups. To determine the effects of payment cuts on access to home oxygen in rural areas, we visited discharge planners, respiratory therapists, physicians, and suppliers in two states with large areas of low population density—New Mexico and South Dakota. Further, we analyzed utilization rates of different types of oxygen equipment using national Medicare claims data maintained by HCFA and its statistical analysis contractor. We conducted our work in accordance with generally accepted government auditing standards, with one exception: we did not evaluate the internal and data processing controls over the Medicare claims databases.

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## Results in Brief

Preliminary indications are that access to home oxygen equipment remains substantially unchanged, despite the 25-percent reduction in Medicare payment rates that took effect in January 1998. The number of Medicare beneficiaries using home oxygen equipment has been increasing steadily since 1996, and this trend appears to have continued in 1998. While Medicare claims for the first 6 months of 1998 showed a decrease in the proportion of Medicare patients using the more costly stationary liquid oxygen systems, this decline was consistent with the trend since 1995. Hospital discharge planners and suppliers we talked with said that even Medicare beneficiaries who are expensive or difficult to serve are able to get the appropriate systems for their needs. Further, suppliers accepted the Medicare allowance as full payment for over 99 percent of the

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<sup>9</sup>This analysis pertains only to access to home oxygen equipment and services by Medicare beneficiaries in the Medicare fee-for-service program.

<sup>10</sup>Medicare claims are usually filed and processed within 3 months of the service date; therefore, we included in our analysis claims filed through Sept. 1998 for services provided through June 1998.

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Medicare home oxygen claims filed for the first half of 1998. Although these indicators do not reveal access problems caused by the payment reductions, issues such as sufficiency of portable tank refills and equipment maintenance could still arise.

HCFA has responded to only one BBA requirement. As required by the BBA, HCFA has contracted with a PRO for an evaluation of access to, and quality of, home oxygen equipment. Results from this evaluation are not expected before the year 2000. Meanwhile, HCFA has not implemented an interim process to monitor changes in access for Medicare beneficiaries—a process that could alert the agency to problems as they arise. Although not required by the BBA, such monitoring is important because of the life-sustaining nature of the home oxygen benefit. Until HCFA gathers more in-depth information on access and the impact of the payment reductions, HCFA cannot assess the need to restructure the modality-neutral payment. Finally, HCFA has not yet implemented provisions of the BBA that require service standards for Medicare home oxygen suppliers to be established as soon as practicable. Service standards would define what Medicare is paying for in the home oxygen benefit and what beneficiaries should expect from suppliers.

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## Background

Many individuals suffering from advanced chronic obstructive pulmonary disease or other respiratory and cardiac conditions are unable to meet their bodies' oxygen needs through normal breathing. Supplemental oxygen has been shown to assist many of these patients and is considered a life-sustaining therapy. Physicians prescribe the volume of supplemental oxygen required in liters per minute, or liter flow. Medicare covers supplies and equipment necessary to provide supplemental oxygen if the beneficiary has (1) an appropriate diagnosis, such as chronic obstructive pulmonary disease; (2) reduced levels of oxygen in the blood, as documented with clinical tests; and (3) a physician's certificate of medical necessity that documents that supplemental oxygen is required.

There are three methods, or modalities, for the delivery of supplemental oxygen:

- oxygen concentrators, which are electrically operated machines about the size of a dehumidifier that extract oxygen from room air;
- liquid oxygen systems, which consist of both large stationary reservoirs and portable units; and

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- compressed gas systems, which use tanks of various sizes, from large stationary cylinders to small portable cylinders.

For most patients, each of the three modalities is equally effective for use as a stationary unit, and clinicians indicated that concentrators can meet the stationary oxygen needs of most patients.<sup>11</sup> Oxygen concentrators account for about 89 percent of the stationary systems used by Medicare patients.<sup>12</sup> Liquid oxygen systems account for about 11 percent of the stationary systems used by Medicare patients. Liquid oxygen systems are preferred by many pulmonologists and respiratory therapists for the less than 2 percent of patients who need a high liter flow—defined by Medicare as 4 or more liters of oxygen per minute. Liquid systems are also sometimes preferred by highly mobile patients because patients can refill lightweight portable liquid units directly from their home stationary reservoirs. Liquid oxygen is usually the most expensive modality for many reasons, including the cost of equipment and the need to use specially equipped delivery trucks, adhere to various regulatory requirements, and replenish a patient’s supply on a regular basis. Compressed gas accounts for less than 1 percent of the stationary systems used by Medicare patients.

In addition to a stationary unit for use in the home, about 79 percent of Medicare home oxygen patients have portable units that allow them to perform activities away from their stationary unit and outside the home. The most common portable unit is a compressed gas E tank set on a small cart that can be pulled by the user.<sup>13</sup> Pulmonologists and respiratory therapists advise that patients using supplemental oxygen get as much exercise as possible and believe that lightweight portable equipment can facilitate this activity. Such equipment options for active individuals include portable liquid oxygen units and lightweight gas cylinders, which can be carried in a backpack or shoulder bag.

A recent technological improvement in the provision of oxygen is the use of conserving devices, which are more efficient in delivering oxygen and

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<sup>11</sup>Stationary units usually come with about 50 feet of tubing to allow some mobility within the home.

<sup>12</sup>Since oxygen concentrators are electrically operated, backup tanks are needed in the event of a power failure.

<sup>13</sup>While E tanks are considered portable by the National Association for Medical Direction of Respiratory Care, the Association does not believe that they meet the needs of patients whose activity levels require less cumbersome equipment. For these patients, the Association advocates the availability of “ambulatory” equipment, defined as weighing less than 10 pounds and able to support at least 4 hours of activity at a flow rate of 2 liters per minute. Most lightweight gas cylinders and liquid oxygen units meet this definition.

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therefore maximize the time a lightweight gas cylinder can last.<sup>14</sup> Without a conserving device, very small tanks only last between 1 and 2 hours at a flow rate of 2 liters per minute, making them impracticable for all but short trips away from home. However, not all patients who need lightweight equipment can use conserving devices. Pulmonary clinicians recommend that all patients be tested to ensure they are proper candidates for this technology, since some patients cannot maintain adequate blood oxygen levels when using conserving devices.

In 1997, the monthly fee schedule allowance for a stationary oxygen system was about \$300, and in 1998 the allowance was reduced to about \$225.<sup>15</sup> Medicare pays 80 percent of the allowance, and the patient is responsible for the remaining 20 percent. The Medicare oxygen allowance covers use of the equipment; all refills of gas or liquid oxygen; supplies such as tubing; and services such as equipment delivery and setup, training for patients and caregivers, periodic maintenance, and repairs. The Medicare monthly allowance for a portable unit was about \$48 in 1997 and \$36 in 1998.<sup>16</sup> Medicare does not pay an additional allowance for a conserving device, but these devices can lower suppliers' costs by reducing the frequency of deliveries to their patients.

Regardless of the type of oxygen system supplied to a patient, Medicare pays a fixed monthly rate. This type of payment system is intended to give suppliers a financial incentive to lower their costs because they can keep the difference between their Medicare payments and their costs. Suppliers can reduce their costs in various ways, including streamlining operations or utilizing new technology to become more efficient, switching patients to less expensive modalities, and reducing the number or type of patient support services. Some of these approaches can reduce costs while

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<sup>14</sup>Conserving devices reduce the amount of oxygen that is supplied when the patient is not inhaling. There are three main types: (1) reservoirs that allow oxygen to pool until inhaled by the patient, (2) devices that provide oxygen in measured doses at periodic intervals, and (3) devices that sense when a patient breathes in and deliver a dose of oxygen on demand.

<sup>15</sup>The monthly Medicare allowance for oxygen varies by state subject to a national floor and ceiling. As of Jan. 1, 1997, the allowance ranged from a national floor of \$277.84 to a national ceiling of \$326.87, with a midpoint of about \$300. As of Jan. 1, 1998, the allowance ranged from \$208.39 to \$245.16, with a midpoint of about \$225. The Medicare allowance is increased by 50 percent for those beneficiaries whose prescribed liter flow is over 4 liters per minute and decreased by 50 percent for patients whose prescribed liter flow is less than 1 liter per minute. As with other durable medical equipment, the Medicare allowance for home oxygen equipment is subject to the 5-year freeze on inflation adjustments imposed by the BBA.

<sup>16</sup>The monthly allowance for a portable unit varies by state subject to a national floor and ceiling. In 1997, the fee ranged from a national floor of \$43.66 to a ceiling of \$51.37, with a midpoint of about \$48; in 1998, the fee ranged from \$32.75 to \$38.53, with a midpoint of about \$36. As with other durable medical equipment, the Medicare allowance for home oxygen equipment is subject to the 5-year freeze on inflation adjustments imposed by the BBA.



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maintaining the quality and adequacy of services. Others, however, could potentially compromise the effectiveness of home oxygen therapy for some Medicare beneficiaries.

Most suppliers accept Medicare's allowance as full payment for home oxygen equipment and file claims directly with the Medicare program through a process known as "assignment." Suppliers do not have to accept assignment, however, and if they do not, there is no limit to the amount they can charge.<sup>17</sup>

The businesses that supply home oxygen to Medicare beneficiaries are diverse, varying in size from small companies run by one or two respiratory therapists to large publicly traded corporations with branches throughout the country. Home oxygen suppliers also include hospital affiliates, franchises, and nonprofit corporations. Some suppliers specialize in home oxygen and other respiratory services, others provide various types of medical equipment and services such as home infusion, and still others are part of a full-service pharmacy. Medicare is the single largest payer for home oxygen for most suppliers we met with, except those who specialize in VA and other large-volume contracts. Some states require that home oxygen suppliers be licensed and have respiratory therapists on staff, but others do not. Many suppliers are accredited by the Joint Commission for Accreditation of Healthcare Organizations, but this accreditation is not required by the Medicare program.

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## Access to Home Oxygen Equipment Is Substantially Unchanged

Preliminary information indicates that access to home oxygen equipment remains largely unchanged, despite the 25-percent Medicare payment reduction that took effect in January 1998. Medicare claims data revealed little change in use patterns during the first 6 months after the January 1998 payment reduction, and virtually all oxygen suppliers continue to accept assignment for home oxygen. Some beneficiaries are expensive or difficult to serve because they live in rural areas served by few providers, require lightweight portable equipment, or require high-liter-flow liquid oxygen systems. These beneficiaries are, therefore, vulnerable to cutbacks by suppliers. Nevertheless, hospital discharge planners we interviewed said they can still arrange appropriate home oxygen equipment for most patients. In addition, we were told that, in general, the limitations on the availability of certain types of equipment that exist now were present before the payment reductions. Also, although

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<sup>17</sup>In contrast, physicians are subject to limits on what they can bill Medicare beneficiaries for unassigned services.

there has been about a 6.5-percent decrease in the number of Medicare home oxygen suppliers, most Medicare patients can still choose from among competing firms.

### Medicare Home Oxygen Use Has Changed Little

The full range of oxygen modalities continues to be available to Medicare beneficiaries, according to the Medicare claims reports, although oxygen concentrators predominate as the system most commonly provided for home oxygen. As the technology of concentrators continues to improve, oxygen concentrators have been slowly replacing stationary liquid systems. This trend is observed in the aggregate data, which show that claims for liquid stationary systems declined by approximately 12 percent between the first half of 1997 and the first half of 1998. During the same period, the use of portable liquid oxygen systems declined by 11 percent, even though the use of portable systems rose overall. (See table 1.)

**Table 1: Trends in Types of Oxygen Systems Used by Medicare Beneficiaries, 1995-98**

Period	Percentage of Medicare oxygen users			
	Stationary systems <sup>a</sup>		Portable systems	
	Concentrator	Liquid	Gas	Liquid
Jan.-June 1995	85.3	14.7	78.0	22.0
Jan.-June 1996	86.2	13.8	79.4	20.6
Jan.-June 1997	87.7	12.3	82.1	17.9
Jan.-June 1998	89.2	10.8	84.1	15.9

<sup>a</sup>This table excludes the small number of beneficiaries who used stationary gas systems.

Another indication that home oxygen access has not been impaired is that the oxygen supplier assignment rates for all modalities have remained relatively unchanged since the 1998 payment reduction. In fact, the claims data show that assignment rates for home oxygen increased slightly between the first half of 1997 and the first half of 1998, leading us to conclude that the suppliers are willing to furnish home oxygen equipment and services even at the reduced rates.

Although claims data for the first half of 1998 are not final, our claims data analysis from prior periods indicates that use rates established from preliminary data closely approximate the final results. However, subtle shifts in the kinds of oxygen equipment provided are not evident in aggregate claims data. For example, claims data do not identify the types of portable tanks provided to beneficiaries. Therefore, it is not possible to determine from the claims data how many beneficiaries are receiving

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lightweight portable tanks and how many are using the cart-mounted E tanks. Similarly, claims data do not indicate the number of refills provided to patients each month, so we could not determine if the frequency of tank refills has changed since the rate reduction.

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### Home Oxygen Equipment Options Have Not Been Affected in Most Cases

Overall, we found no evidence that home oxygen patients who are more expensive or difficult to serve—such as those who live in rural areas, need lightweight portable equipment, or require high-liter-flow systems—were adversely affected by the payment cuts. In response to the substantial payment reductions, suppliers could have been expected to try to reduce costs, making these higher-cost patients more vulnerable to treatment changes. Although we looked for indications that suppliers had refused to serve these special needs patients, limited the types of equipment made available, or reduced service levels, our interviews with suppliers, discharge planners, patient advocates, and physicians indicated that most Medicare beneficiaries continued to have access to appropriate equipment options.

The only indication of access problems that we found occurred in Anchorage, Alaska, where pulmonary clinicians stated that liquid systems are no longer available on assignment to their Medicare patients.

### Access in Rural Areas

Beneficiaries in rural areas have always faced restrictions on home oxygen options, but their access, according to hospital discharge planners we interviewed, appears unchanged. These beneficiaries are more expensive to serve because they are farther from suppliers' facilities and distances between patients are greater. Suppliers who serve patients in remote areas informed us that it is difficult to support the full range of equipment options because of such factors as vast distances, poor road conditions, and unpredictable weather but that this situation existed before the 1998 payment reductions. Several suppliers told us that they generally cannot provide liquid oxygen to people who live 40 to 60 miles from their facility. However, hospital discharge planners in New Mexico and South Dakota told us that the Medicare payment reduction has not affected their ability to arrange appropriate home oxygen services for their patients, even those who live in the most remote parts of those states.

Another challenge in providing adequate options in rural areas is the number of suppliers and the degree of competition for patients. A patient who lives in an isolated South Dakota town may have only one or two suppliers to choose from. Thus, the need to maintain market share may

not motivate suppliers in these areas to provide certain costlier equipment and services. In contrast, a representative of a major regional supplier in the Washington, D.C., area said that it had begun to evaluate patients more carefully before providing them liquid systems. Nevertheless, the supplier intended to keep liquid oxygen as an option to maintain positive relationships with referral sources, who can choose from numerous suppliers. Discharge planners in a hospital on Cape Cod, Massachusetts, told us they have not had any problems finding suppliers to take Medicare assignment on liquid oxygen for their patients because Boston and Providence are nearby, and there are many suppliers in the area. In many rural areas, the choice of home oxygen supplier is much more limited.

**Access to Lightweight Portable Equipment**

Although the equipment and refill needs of highly mobile patients are more expensive to meet than those of relatively inactive patients, most discharge planners, pulmonary rehabilitation professionals, and suppliers we interviewed believe these patients' needs are increasingly being met with lightweight, portable gas tanks with conserving devices. This relatively new technology can be less expensive than liquid units and, for patients who can tolerate an oxygen conserving device, still provide greater mobility than heavier gas tanks mounted on carts.

**Access to High-Liter-Flow Equipment**

We found no indication that patients who require a high-liter-flow system have less access to the proper equipment now than before the payment reduction, except in Alaska. High-liter-flow patients are more expensive to serve than other patients because they require more frequent deliveries of gas or liquid oxygen. The Medicare payment system recognizes that suppliers' costs are higher for these patients and allows a 50-percent increase in the payment for a stationary unit for patients who require over 4 liters of oxygen per minute. Medicare does not reimburse suppliers separately for the portable unit if the high-liter-flow adjustment is paid, but many of the suppliers we met with agreed that the adjustment adequately compensated them for their added costs. Fewer than 2 percent of paid home oxygen claims were for high-liter-flow patients, which was consistent with information we received from clinicians.

Though advances in technology have made oxygen concentrators more effective at delivering flow rates of up to 6 liters per minute, several pulmonologists and respiratory therapists we met with said that liquid oxygen is the preferred option for these patients. Even before the Medicare payment reductions, many suppliers were not providing liquid oxygen for high-liter-flow patients who lived far from their facilities. For these patients, suppliers sometimes provide a high-liter-flow concentrator,

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link two concentrators together to increase the overall liter flow,<sup>18</sup> or supply compressed gas. The hospital discharge planners and suppliers we talked with said they were able to make arrangements with suppliers for all patients with high-liter-flow needs.

In contrast to our findings looking at the country as a whole, we did identify concerns about lack of access to liquid oxygen systems in the Anchorage, Alaska, area. According to the Pulmonary Education and Research Foundation, letters from Medicare beneficiaries, and interviews with a pulmonologist and respiratory therapists in Anchorage, since the Medicare payment reduction, no home oxygen suppliers there have been willing to accept Medicare assignment for liquid oxygen.<sup>19</sup> While liquid oxygen systems had not generally been available in remote areas of Alaska, as in the remote parts of other states, at least one supplier was providing home liquid oxygen systems to patients in the Anchorage area on assignment before the payment reduction. After the payment reduction, the supplier replaced its liquid systems with concentrators for stationary units and either E tanks or lightweight gas tanks with conserving devices for portable use, depending on the patient's activity level. For most patients, this was an acceptable alternative. However, some patients cannot tolerate the conserving devices or are unable to maneuver E tanks on carts, especially in the snow. Respiratory therapists in Anchorage informed us that some patients are now unable to leave their homes without help. Because there are no suppliers willing to take Medicare assignment for liquid oxygen, these patients have no other options for lightweight portable systems without incurring significant out-of-pocket costs.

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## Industry Make-Up and Business Practices Have Changed Since the Payment Reduction

The mid-1990s was a period of expansion for the home oxygen industry, characterized by growth in the total number of home oxygen suppliers. This trend was reversed in 1998 after the lower Medicare payment rates took effect, as some supply companies merged or left the marketplace. Nevertheless, sufficient competition remained, providing most patients with a choice of suppliers. In addition to industry consolidation, suppliers have implemented a variety of strategies to improve the efficiency of operations and reduce costs.

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<sup>18</sup>Not all the respiratory therapists we talked with approved of linking two concentrators to increase the liter flow.

<sup>19</sup>Medicare claims data show that there were about 460 Medicare patients on home oxygen in Alaska during the first three months of 1998. Of these, about 30 patients were being provided liquid oxygen on assignment. For the comparable period in 1997, 35 of the 490 Medicare patients on home oxygen received liquid oxygen.

Overall, the number of Medicare home oxygen suppliers has declined by about 6.5 percent since the January 1998 payment reduction. The market share of the largest suppliers increased slightly from 40 percent in the first half of 1997 to 43 percent in the first half of 1998. (See table 2.) Many of the suppliers that have stopped submitting claims to Medicare for home oxygen had not previously offered the full range of home oxygen equipment options to beneficiaries but had supplied predominantly oxygen concentrators. In 1994, over 1,300 Medicare suppliers, or 22 percent, received at least 98 percent of their Medicare home oxygen revenues for concentrators and focused on serving the least costly patients. By the first half of 1998, this number had fallen to just over 1,000 firms.<sup>20</sup> (See table 3.)

**Table 2: Medicare Home Oxygen Suppliers and the Market Share of the Top Medicare Suppliers, 1994-98**

Period <sup>a</sup>	Number of Medicare suppliers	Percentage market share of top five Medicare suppliers	Percentage market share of top 100 Medicare suppliers
July-Dec. 1994	6,089	23	38
Jan.-June 1995	6,274	24	39
Jan.-June 1996	6,515	25	40
Jan.-June 1997	6,640	24	40
Jan.-June 1998	6,210	27	43

<sup>a</sup>Medicare market share is based on claims data for the first 6 months of each year, except for 1994, for which market share is based on data for the last 6 months of the year. Reliable claims data are not available for the period before July 1994.

**Table 3: Suppliers That Received Most of Their Medicare Revenues for Concentrators, 1994-98**

Period <sup>a</sup>	Suppliers that provided predominantly concentrators <sup>b</sup>	Percentage of all Medicare suppliers
July-Dec. 1994	1,351	22
Jan.-June 1995	1,384	22
Jan.-June 1996	1,531	24
Jan.-June 1997	1,288	19
Jan.-June 1998	1,011	16

<sup>a</sup>Number of Medicare suppliers is based on claims data for the first 6 months of each year, except for 1994, for which the number is based on data for the last 6 months of the year. Reliable claims data are not available for the period before July 1994.

<sup>b</sup>These suppliers received at least 98 percent of their Medicare home oxygen revenues from payments for oxygen concentrators.

<sup>20</sup>Also, we estimate that only about 10 percent of the patients served by these firms received portable units, compared with the Medicare average of almost 80 percent.

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When we asked suppliers how they have responded to the payment cuts, many said they have developed strategies to improve efficiency and maintain their profitability. These strategies include operational adjustments, such as making less frequent deliveries and service visits, purchasing more reliable equipment, reducing staff, and using fewer credentialed respiratory therapists. According to suppliers and industry representatives, some suppliers have reevaluated their product lines because, prior to the payment cuts, oxygen revenues had often subsidized less profitable medical equipment items. Other suppliers have switched patients from liquid oxygen to less expensive systems or are screening new patients more carefully before setting them up with a liquid unit. These strategies have left overall access to home oxygen equipment substantially the same, but they have changed the way that home oxygen equipment and services are provided to Medicare beneficiaries.

Some suppliers we interviewed said they are maintaining their current levels of service, including providing a range of equipment options and using credentialed therapists for patient visits, for two reasons: their internal standards of patient care and their need to remain competitive with other suppliers. Many other suppliers said that they have reviewed the services they provide to determine where to reduce costs. Their strategies include more completely assessing patients' need for liquid oxygen, carefully planning delivery routes, calling patients in advance to find out what supplies they need, keeping their trucks stocked with supplies to avoid extra trips, and reducing the frequency of maintenance visits. There is also anecdotal evidence that some suppliers, contrary to Medicare rules, have refused to deliver portable tanks when patients need refills or have limited their patients to a fixed number of refills per month. We were unable to document these practices.

One supplier we talked with conducted a review of patients already on liquid oxygen to determine who could be switched to concentrators and portable lightweight gas systems equipped with an oxygen conserving device. This supplier said he consulted every patient's physician and obtained permission to make the equipment change. Further, the patients were tested to ensure that they were able to tolerate the new lightweight portable equipment. Other firms stated that while they will not change the oxygen delivery systems they are currently providing to patients, they will provide liquid systems to new patients only if they have high-liter-flow needs or if their ambulatory needs cannot be met with the compressed gas systems available.

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## HCFA Is Not Doing All It Can to Assess and Ensure Access to Home Oxygen

In a November 1997 report,<sup>21</sup> we made several recommendations to HCFA about its implementation of the BBA provisions, including that it monitor trends in Medicare beneficiaries' access to the various types of home oxygen equipment; restructure the modality-neutral payment, if warranted; educate prescribing physicians about their right to specify the home oxygen systems that best meet their patients' needs; and establish service standards for home oxygen suppliers. HCFA has made only modest beginnings in addressing the BBA provisions and our recommendations.

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## HCFA Has Contracted for an Evaluation of Access to Home Oxygen

As required by the BBA, HCFA has contracted with a PRO to evaluate access to and quality of home oxygen equipment and services provided to Medicare patients. The PRO plans to gather evidence from various sources, including Medicare claims data on equipment use patterns, hospitalization rates, and utilization of home health services by home oxygen patients. An important component of this study will be a survey of beneficiaries, suppliers, and physicians. Changes in supplier practices will be an indicator of the impact of the payment reduction. The PRO will use this information to assess whether the payment reduction has affected the types of equipment and level of services provided to home oxygen patients. HCFA has not decided whether this will be a one-time assessment or an ongoing effort to monitor trends. Results from the PRO study are not expected until January 2000.

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## HCFA Could Do More to Determine If Changes to the Modality-Neutral Payment System Are Warranted

The BBA gave HHS the authority to restructure the modality-neutral payment system for home oxygen, but HCFA has not established an ongoing process for monitoring access to determine if such a restructuring is warranted. HCFA officials said they will use the results of the PRO study and the competitive bidding demonstration project to evaluate the need to restructure the oxygen payment system. However, the PRO study will not be completed until at least January 2000, or 2 years after the first payment reduction, and neither project will provide HCFA information on access problems as they develop.

HCFA has the ability to monitor access indicators but has not done so. For example, HCFA could ask its contractors to track beneficiary complaints, such as insufficient refills of portable tanks or, as occurred in Anchorage, problems with access to liquid oxygen systems. Although HCFA's claims processing contractors can specially code and track beneficiary inquiries

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<sup>21</sup>GAO/HEHS-98-17, Nov. 7, 1997.



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and complaints about specific equipment and services, such as home oxygen, HCFA has not asked them to do so.

Prescribing physicians and patients could better help HCFA identify access problems if they were fully informed about the home oxygen benefit. Although HCFA is able to identify both groups from claims data, HCFA has not provided these groups with information about the Medicare payment cuts or encouraged them to report access problems. For example, the pulmonary physician and therapists at the Anchorage clinic we spoke with did not know what equipment and services the Medicare home oxygen benefit covers. The National Association for Medical Direction of Respiratory Care believes that HCFA has done little to help educate doctors about their options when prescribing home oxygen. Similarly, patients may be unaware that the Medicare allowance covers all their oxygen needs, including home delivery of equipment and needed refills of portable tanks. In contrast, many VA Medical Centers provide brochures to home oxygen patients outlining the responsibilities of both the patient and the supplier.

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### HCFA Has Not Implemented Service Standards for Oxygen Suppliers

Despite the BBA mandate and our recommendations and those of HHS's Office of the Inspector General, HCFA has not developed service standards for oxygen suppliers beyond generic requirements for all durable medical equipment suppliers. In contrast, most VA and managed care contracts specifically define service requirements, such as the frequency of maintenance visits and the level of patient education. Service standards would define what Medicare is paying for and what beneficiaries should expect from suppliers. Standards are even more important as suppliers respond to reduced payment rates. One HCFA official told us that HCFA must address those BBA requirements that have specific target dates, as well as Year 2000 computer issues, before attending to our recommendations and those of the Office of the Inspector General.

HCFA has developed a set of service standards that will apply only to home oxygen suppliers that participate in the competitive pricing demonstration project. HCFA officials informed us that they will consider the effectiveness of these standards in the development of service standards applicable to all home oxygen suppliers. However, some industry representatives have criticized the demonstration project standards as being too limited to ensure an acceptable level of service for home oxygen patients.

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## Conclusions

Early evidence suggests that the reduction in Medicare payment rates for home oxygen has not had a major impact on access. Generally, the access problems that we found existed before the payment reductions occurred. The PRO study HCFA has contracted for will provide a more in-depth look at this issue.

Suppliers are responding in various ways to the lower payment rates. Consolidation continues to occur in the home oxygen industry, leaving fewer small firms that do not provide a full range of oxygen services. Most companies have developed varying strategies to mitigate the impact of the payment reduction, including reevaluations of operations, which have led to increased operating efficiencies and changes in how suppliers provide their patients with equipment and services.

Despite these early indications that access to home oxygen has not diminished since the implementation of the payment reductions, subtle access issues may not be readily apparent, and additional problems could emerge as more and better information becomes available. Given the importance of this benefit to some vulnerable Medicare beneficiaries, especially those who live in rural areas, are highly active, or require a high liter flow, HCFA needs to be vigilant in its efforts to detect any problems. Beyond contracting for the PRO study, HCFA has not established an ongoing method for monitoring the use of this benefit and gathering the information essential to assessments of the modality-neutral payment system. Nor has HCFA developed service standards for home oxygen suppliers as required by the BBA. The continued absence of specific service standards allows suppliers themselves to decide what services they will provide home oxygen patients.

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## Recommendations

We recommend that the Administrator of HCFA do the following:

- monitor complaints about and analyze trends in Medicare beneficiaries' use of and access to home oxygen equipment, paying special attention to patients who live in rural areas, are highly active, or require a high liter flow;
- on the basis of this ongoing review, as well as the results of the PRO study, consider whether to modify the Medicare payment method to preserve access; and
- make development of service standards for home oxygen suppliers an agency priority in accordance with the BBA's requirement to develop such standards.

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## Agency and Industry Comments and Our Evaluation

We provided draft copies of this report to HCFA, representatives of the home oxygen industry, and officials of associations representing respiratory care specialists and physicians who treat patients with chronic lung disease. The reviewers suggested some technical corrections, which we incorporated into the report.

Generally, HCFA agreed with the report's contents and concurred with our recommendations. HCFA emphasized that it has contracted for the BBA-mandated PRO study, which it believes will provide an assessment of access to home oxygen equipment. In the interim, HCFA said it is relying on this report to alert the agency to any immediate access problems. Further, HCFA believes that the payment reduction will not disrupt patient access to the home oxygen benefit, given the previous excessive rates. In light of efforts to address the Year 2000 computer issues confronting the agency and its limited resources, HCFA felt it had adequately addressed the need to monitor access to the home oxygen benefit.

HCFA acknowledged that it has not developed specific service standards for the home oxygen benefit as required by law. However, officials stated that the agency intends to publish new service standards applicable to all durable medical equipment suppliers in the next few months. After that, it plans to develop specific service standards for the home oxygen benefit.

While we acknowledge the extent of HCFA's responsibilities, we believe that waiting for the PRO study to evaluate access issues is not prudent, considering the life-sustaining nature of this benefit to its users. We believe that HCFA could take steps now, with a minimal expenditure of resources, that could not only supplement the results of the PRO study but also alert the agency to access problems before the PRO study is released. HCFA stated that it will have its regional offices and contractors monitor complaints regarding access to home oxygen. The full text of HCFA's comments is included as an appendix.

Industry representatives and directors of associations representing respiratory care specialists and physicians also generally agreed with the report's contents. However, industry representatives believe that our definition of access to home oxygen equipment should include not only the equipment provided Medicare beneficiaries but also the types of services provided them and their frequency. These industry representatives are concerned that any service standards developed by HCFA will be inadequate to ensure an acceptable level of care. They believe that clinical studies of the effects of various services on patient outcomes

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are necessary to fully evaluate the impact of the payment reduction. They also believe that the cost savings resulting from the payment reduction for home oxygen could be offset by higher hospital readmissions or other services used by oxygen users. Finally, they stated that the full impact of the payment reduction has not yet been felt and that monitoring of access should continue.

For the purposes of this report, we based our definition of access on the Medicare coverage guidelines for the home oxygen benefit. HCFA has not defined specific service standards for this benefit, and it would not be appropriate for us to expand HCFA's current definition of what is covered by the home oxygen benefit. Further, while evaluating patient outcomes was beyond the scope of this report, the PRO study will include specific patient outcomes, such as hospital readmissions and use of home health services, in its evaluation.

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We are sending copies of this report to Ms. Nancy-Ann Min DeParle, Administrator, Health Care Financing Administration, and appropriate congressional committees. We will also make copies available to others upon request.

This report was prepared by Anna Kelley, Frank Putallaz, and Suzanne Rubins under the direction of William Reis, Assistant Director. Please call Mr. Reis at (617) 565-7488 or me at (202) 512-7114 if you or your staff have any questions about the information in this report.



William J. Scanlon  
Director, Health Financing  
and Public Health Issues

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## Abbreviations

BBA	Balanced Budget Act of 1997
HCFA	Health Care Financing Administration
HHS	Department of Health and Human Services
PRO	peer review organization
VA	Department of Veterans Affairs

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# Comments From the Health Care Financing Administration



DEPARTMENT OF HEALTH & HUMAN SERVICES

Health Care Financing Administration

The Administrator  
Washington, D.C. 20201

MAR 4 1999

TO: William J. Scanlon  
Director, Health Financing and Systems Issues  
General Accounting Office

FROM: Nancy-Ann Min DeParle *NMD*  
Administrator  
Health Care Financing Administration

SUBJECT: GAO Draft Report, "Medicare: Access to Home Oxygen Substantially Unchanged, But Closer HCFA Monitoring Needed"

We appreciate the opportunity to review your draft report to Congress concerning the access to home oxygen services. We were glad to see that the GAO's preliminary findings about the effect of the price reduction under the Balanced Budget Act are consistent with our expectations that the market would consolidate, suppliers would seek efficiencies, and access would not be a significant problem.

We want all beneficiaries who require home oxygen to get the medically appropriate equipment to meet their medical needs. At the same time, we also must ensure that Medicare pays reasonable amounts for this equipment.

Through our HCFA Regional Offices, we routinely monitor issues about beneficiary access to care. In addition, we have initiated a study by the Peer Review Organizations (PROs) to analyze trends in Medicare beneficiaries' use of and access to home oxygen services, including patients who live in rural areas, patients who are highly active, or patients who require a high liter-flow. After we have the results of this analysis we will evaluate the need for modification to the Medicare payment methodology as GAO recommends.

Enclosure



Comments of the Health Care Financing Administration (HCFA)  
on the General Accounting Office (GAO) Draft Report,  
“Medicare: Access to Home Oxygen Substantially Unchanged,  
But Closer HCFA Monitoring Needed”

Overview

HCFA has long supported a price reduction for oxygen in the Medicare program because research has strongly indicated that Medicare rates were too high. Although the GAO's findings about the effect of the price reduction under the Balanced Budget Act of 1997 (BBA) are preliminary, they are consistent with what we expected -- that the market would consolidate, suppliers would seek efficiencies and access would not be a significant problem.

GAO Recommendation

We recommend that the Administrator of HCFA:

- monitor complaints and analyze trends in Medicare beneficiaries' use and access to home oxygen equipment with special attention to patients who live in rural areas, patients who are highly active, or patients who require a high liter flow. Based on this ongoing review as well as the results of the Peer Review Organization (PRO) study, HCFA should consider whether there should be modifications to the Medicare payment method to preserve access;

HCFA Comment

HCFA agrees with the GAO recommendation and we understand the importance of beneficiaries receiving appropriately the oxygen services they need. We believe that the PRO study, which has been initiated to examine carefully access to oxygen services, will reveal if there are negative systematic impacts on access to oxygen services due to the reduction in prices. Consistent with the preliminary findings of the GAO, HCFA is not aware of significant problems with access to oxygen services.

While we believe the most valid source of information on access must come from the formal study currently underway, we will ask our contractors to report to us the incidence of complaints each has received which is directly related to access issues for oxygen. We will also review our correspondence to identify any trend that may be present related to access to oxygen since the implementation of the BBA provision.

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Through the Regional Offices, HCFA routinely monitors complaints about access to care. At this early state, we have not received complaints that suggest significant access problems as a result of the BBA's reduction of oxygen payments. This is consistent with the GAO's preliminary findings as outlined in its draft report.

We are not currently considering modifications to the Medicare payment method, because we do not have evidence suggesting that current pricing mechanisms significantly affect access to oxygen services. We will reevaluate the need for modifications to preserve access based on the findings of the PRO study.

HCFA incorporated standards for home oxygen suppliers in the Medicare Competitive Bidding Demonstration to assure that price reductions anticipated by HCFA in this new competitive environment would not in anyway undermine, and perhaps would even improve, the quality of oxygen services received by beneficiaries residing in the demonstration area.

GAO Recommendation

- develop service standards for home oxygen supplies as required by the Balanced Budget Act (BBA).

HCFA Comment

We concur with the GAO recommendation. Moreover, we remain committed to our share of ensuring successful implementation of the BBA. This provision of the BBA requires that service standards be established as soon as practicable for Medicare home oxygen suppliers. We note that other pressing priorities and our desire to first establish a framework of standards that would apply to all suppliers of services and items under the durable medical equipment, prosthetics, orthotics and supplies (DMEPOS) benefits have delayed our efforts in promulgating new standards for suppliers of specific DMEPOS items. However, with our expected publication this spring of a final rule implementing new standards for all suppliers, we will be developing additional requirements for specific categories of suppliers, including home oxygen suppliers. As we develop the oxygen service standards required by the BBA of 1997, we will consider the competitive bidding standards used in the subject demonstration. We would adopt these to the degree that they have proven useful in the demonstration and can become a viable tool in the national program. Any standards would, of course, be announced in a notice of proposed rulemaking thus allowing an opportunity for the public to comment.

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