



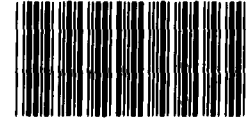
UNITED STATES GENERAL ACCOUNTING OFFICE  
WASHINGTON, D.C. 20548

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HUMAN RESOURCES  
DIVISION

September 28, 1984

B-216611



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The Honorable Margaret M. Heckler  
The Secretary of Health and Human Services

Dear Madam Secretary:

Subject: Excessive Respiratory Therapy Cost and  
Utilization Data Used in Setting Medicare's  
Prospective Payment Rates (GAO/HRD-84-90)

Until October 1, 1983, Medicare paid hospitals their allowable cost of providing covered services to program beneficiaries. Because of general concern that this cost reimbursement system did not provide hospitals with incentives to hold down their cost increases, the Congress enacted a prospective payment system under which hospitals are paid a predetermined amount, irrespective of their costs, for each Medicare discharge based on the diagnosis related group (DRG)<sup>1</sup> into which the patient falls. This system is designed to provide hospitals with incentives to hold down their costs because, if costs exceed the predetermined payment, the hospital suffers a loss while it makes a profit if its costs are less than the payment. The prospective payment system is being phased in over 3 years and when fully implemented in fiscal year 1987, all hospitals will receive the same payment (adjusted to reflect local wage differences, urban or rural location, and teaching status) for patients in the same DRG.

To establish the DRG payment rates, the Department of Health and Human Service's (HHS') Health Care Financing Administration (HCFA) used 1981 data on the costs of treating Medicare patients. The accuracy of the computation of the payment rates was, therefore, dependent on the accuracy of the Medicare data base. To get an idea of how accurate the data base was, we decided to review cost and utilization data for one type of service provided by hospitals in 1981. We selected 33 hospitals that contracted

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<sup>1</sup>Each DRG includes a number of diagnoses that are expected to require similar hospital resources to treat the patient.

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in 1981 with other entities for respiratory therapy services<sup>2</sup>-- about 800 of the approximately 6,000 participating hospitals contracted for these services--and reviewed their Medicare cost reports. At eight of these hospitals, the entity responsible for making Medicare medical necessity reviews also reviewed a random sample of at least 50 claims for us. The results were as follows:

- Cost reports for 26 of the 33 hospitals contained unallowable or inappropriate costs which resulted in an average overstatement for the 33 hospitals of respiratory service costs of 38 percent and of total hospital costs of 1 percent. Medicare's cost report audits did not discover or disallow these overstatements because auditors either did not properly apply HCFA guidelines or the guidelines themselves permitted auditors to allow expenses which were either not actually incurred or were excessive.
- The medical reviews of the sample claims at each of eight hospitals found that about 4.6 percent of the respiratory therapy charges were for medically unnecessary services and that an additional 30 percent of the charges were for services that did not meet Medicare requirements. Medicare had paid for these services. These findings indicate that the eight hospitals' total costs were overstated by about 1.3 percent.

Also, in a previous review<sup>3</sup> conducted at 16 hospitals we found that 6.1 percent of the charges for respiratory therapy services were medically unnecessary.

Although the results of our review cannot be projected to the universe of hospitals, these findings indicate that the data base used to set the DRG payment rates included unallowable costs related to respiratory therapy and the costs of unnecessary services. This, in turn, indicates that the DRG payment rates were

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<sup>2</sup>Respiratory therapy (also known as oxygen therapy, inhalation therapy, or respiratory care) are those medical services prescribed by a physician for the assessment, treatment, monitoring, and management of breathing problems which may result from an illness or injury. Respiratory therapy encompasses all non-surgical efforts to maintain, improve, or restore lung function.

<sup>3</sup>Need to Eliminate Payments for Unnecessary Hospital Ancillary Services (GAO/HRD-83-74, Sept. 30, 1983).

set at a level above that envisioned by the prospective payment system's methodology.

Medicare law--section 1886(e)(4) of the Social Security Act--requires adjustments to the DRG payment rates beginning in fiscal year 1986 to "take into account amounts necessary for the efficient and effective delivery of medically appropriate and necessary care of high quality." Our work illustrates that the data base used to initially set the rates included the costs of unnecessary respiratory services and, thus, does not meet these criteria.

The law (section 1886(d)(4)(c)) also required HHS to periodically update the DRG payment rates "to reflect changes in treatment patterns, technology, and other factors which may change the relative use of hospital resources." The prospective payment system provides hospitals incentives to change treatment patterns by reducing, for example, unnecessary respiratory therapy services and also provides incentives to reduce unreasonable respiratory therapy costs such as those we found.

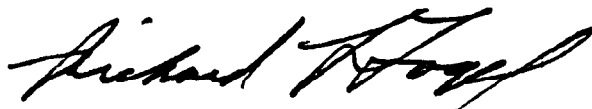
We believe that for HHS to meet the two requirements of the above cited law, it will have to use the most current data available when updating DRG payment rates. Use of such data would help reflect changes that hospitals have made to reduce unreasonable costs and unnecessary services. We also believe that, because the initial DRG rates were based on data that reflected, to some extent, unreasonable costs and unnecessary services, the incentives of the prospective payment system for hospitals to eliminate unnecessary costs were somewhat diminished. Therefore, we believe it is necessary for HHS to have programs to audit hospital cost data and the use of services to help assure excessive costs included in the initial DRG rates are not perpetuated.

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Details on our objectives, scope, methodology, and findings are included in enclosure I.

We are sending copies of this report to your Inspector General, the Administrator of HCFA, and other interested parties.

Sincerely yours,



Richard L. Fogel  
Director

Enclosure

RESULTS OF REVIEW OF COSTS AND UTILIZATIONOF RESPIRATORY THERAPY SERVICES AT SELECTED HOSPITALSOBJECTIVES, SCOPE, AND METHODOLOGY

We conducted this review to evaluate the accuracy of the data base used by the Health Care Financing Administration (HCFA) to establish Medicare's hospital prospective payment rates. Because evaluation of the overall data base would have represented a very large undertaking, we decided to review only respiratory therapy--which typically accounts for about 4 percent of total hospital costs--at hospitals that contract with outside entities to provide these services in the hospital. About 13 percent of the hospitals participating in Medicare in 1981--the year represented by the data used to compute the prospective rates--contracted for respiratory therapy. Our objectives were to examine (1) the allowability and reasonableness of the costs included in the selected hospitals' Medicare cost reports and (2) the medical necessity of the respiratory therapy services provided and whether Medicare coverage requirements were met.

We performed work at the HCFA headquarters and its regional offices in Atlanta and Boston; 7 Medicare intermediaries in California, Colorado, Florida, Georgia, and Massachusetts; 7 PSROs in the above states except Colorado; and 33 hospitals in 5 states that contracted for respiratory therapy services (7 in California, 7 in Colorado, 8 in Florida, 5 in Georgia, and 6 in Massachusetts). We judgmentally selected the 33 hospitals to ensure that we visited large and small urban and rural hospitals with a variety of contractors. We examined records, gathered data and interviewed HCFA, intermediary, PSRO, hospital, contractor, and other personnel who were knowledgeable of the respiratory therapy and government health insurance fields. We also used information obtained during an earlier GAO review of hospital ancillary services.<sup>1</sup> We reviewed and assessed the HCFA Atlanta Regional Office's aberrant cost studies which identified contracting problems similar to the ones discussed in this report.

We surveyed 79 Medicare fiscal intermediaries throughout the nation to determine the extent of contracted respiratory therapy services. Sixty-six intermediaries responded that during fiscal years 1980, 1981, and 1982, 989 hospitals

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<sup>1</sup>Need to Eliminate Payments for Unnecessary Hospital Ancillary Services (GAO/HRD-83-74, Sept. 30, 1983).

contracted for these services in at least one of those years. In 1981 there were approximately 800 hospitals with respiratory therapy contracts in effect.

In the hospitals that we visited, we interviewed hospital and contractor employees involved in providing respiratory therapy services, purchasing respiratory therapy supplies, or managing the hospital. In addition, we

- reviewed fiscal year 1981 cost reports;
- obtained total fiscal year 1981 respiratory therapy charges to Medicare;
- determined total costs of supplies, including the cost of oxygen and the per item costs for several specific supply items;
- reviewed the contracting arrangements for respiratory therapy services including data on payments made to the contractor and wages paid by the contractor to its personnel;
- obtained the data needed to calculate Medicare's contract service cost limitation screens; and
- reviewed the documentation supporting respiratory therapy charges billed to Medicare beneficiaries.

We used 1981 cost reports because 1981 was the most recent year for which most fiscal intermediaries had completed their annual audits. Cost reports ended in 1981 were also the ones HCFA used to calculate the prospective payment rates.

At 8 of the 33 visited hospitals (1 in California, 3 in Florida, and 2 each in Georgia and Massachusetts), we reviewed a random sample of at least 50 medical records and patient billings. The sampling process was conducted in accordance with standard random sampling techniques. The samples were selected from the universe of the hospital's Medicare admissions for which there was a respiratory therapy department charge during the hospital's 1981 fiscal year. For each case, we (1) compared respiratory therapy services billed to services ordered and performed, (2) reviewed physicians' orders and documentation supporting the need for therapy, (3) evaluated the documentation of therapy performance and results, and (4) determined whether contractor or hospital employees performed the services. In addition, cognizant PSRO or fiscal intermediary medical personnel

reviewed the medical necessity of therapy services provided. Statistical projections were made of the case review results to the universe of all claims for each hospital and for the eight hospitals together. Because the hospitals were selected judgmentally, we cannot project the findings beyond the eight hospitals.

We analyzed our data in light of the new prospective payment system. We determined the extent to which total hospital costs used in calculating prospective payment rates were overstated by unallowable and inappropriate payments for respiratory therapy and the amount of costs representing unnecessary respiratory therapy services. Because HCFA generally used 1981 hospital cost data to set the new rates, our analysis of that data provided direct evidence as to the adequacy of that data base.

Our work was performed in accordance with generally accepted government audit standards.

#### RESPIRATORY THERAPY AND MEDICARE

Respiratory therapy services (also known as oxygen therapy, inhalation therapy, or respiratory care) are those medical services prescribed by a physician for the assessment, treatment, monitoring, and management of breathing problems which may result from an illness or injury. Respiratory therapy encompasses all nonsurgical efforts to maintain, improve, or restore lung function. It includes diagnostic procedures, such as pulmonary function tests and blood gas analyses; life-sustaining procedures, such as mechanical ventilation with a respirator; therapeutic bronchial hygiene procedures, such as chest percussion, intermittent positive pressure breathing, deep breathing, and coughing exercises; and patient education in the use of mechanical breathing devices and breathing exercises.

In 1983 Medicare paid its approximately 6,000 participating hospitals over \$36 billion for providing inpatient care. About \$1.5 billion or 4 percent of that amount was for respiratory therapy. Hospitals provide respiratory therapy services by either hiring employees or contracting with an outside respiratory therapy service company. In 1981 about 800 Medicare hospitals contracted for inpatient respiratory therapy services at a cost to Medicare of over \$81 million.

HCFA, with the contracted assistance of intermediaries (Blue Cross Plans and commercial insurance companies), administers Medicare part A benefits furnished by hospitals and other institutional providers. Until fiscal year 1984, Medicare intermediaries generally made interim payments to hospitals

during the year based on an estimate of their costs. Final settlements were made retrospectively after the end of each hospital's cost reporting year, and the final reimbursement amount was limited to those costs found by intermediary auditors to be reasonable and for services which were covered by the program.

A hospital's cost report was the auditor's basis for determining the costs allowable. Allowable costs for contracted services were limited to the in-house costs the hospital would have incurred had it provided the services with its own personnel. Auditors used special audit guidelines to determine these in-house costs.

The Social Security Amendments of 1983 (Public Law 98-21) required that on October 1, 1983, Medicare begin phasing in over a 3-year period a new payment system for reimbursing inpatient hospital costs. This new system is prospective in that the amount Medicare pays a hospital is determined before costs are incurred and payments are not adjusted retrospectively to reflect actual cost. Payments are made according to the Diagnosis Related Group (DRG) classification into which the case falls. Each of the 468 DRGs is designed to include cases similar in the amount of resources usually devoted to treating patients. If treatment under a particular DRG usually requires respiratory therapy, then the payment rate includes an amount for such services.

An important step in HCFA's methodology for calculating the DRG rates was to develop an average cost per Medicare case using 1981 cost reports for short stay acute care hospitals. Consequently, the rates, although prospective in nature, were developed from historical hospital costs. As rates are adjusted in the future they will continue to be based on historical hospital costs--either 1981 costs or cost reports for subsequent years.

#### 1981 RESPIRATORY THERAPY COSTS OVERSTATED

We visited 33 hospitals in 5 states which had respiratory therapy contracts. We identified \$1.3 million in these hospitals' 1981 cost reports that intermediary auditors failed to disallow because they made errors in applying HCFA regulations. We also found about \$2 million in inappropriate costs which auditors did not detect because of weaknesses in the regulations and audit guidelines themselves. Because the costs associated with these two factors overlapped considerably, the net overstated costs equaled about \$2.5 million. The hospitals' respiratory therapy costs were overstated by about 38 percent due to a combination of these auditor errors and regulatory weaknesses, and the hospitals' total costs were overstated by 1 percent.

At eight of the hospitals we examined statistical samples of medical records and identified \$151,000 in unallowable costs claimed for services that were either medically unnecessary or did not meet other requirements for Medicare coverage. These unallowable services overstated the eight hospitals' total costs by 1.3 percent.

Costs overstated due  
to audit errors

The Social Security Act (as amended by Public Law 92-603, section 251(c)) established the criteria governing cost limitations on contracted hospital services, such as respiratory therapy. The law states that the cost of these services:

"shall not exceed an amount equal to the salary which would reasonably have been paid for such services (together with any additional costs that would have been incurred by the provider or other organization) to the person performing them if they had been performed in an employment relationship with such provider or other organization (rather than under such arrangement) plus the cost of such other expenses (including a reasonable allowance for travel time and other reasonable types of expense related to any differences in acceptable methods of organization for the provision of such therapy) incurred by such person, as the Secretary may in regulations determine to be appropriate."

HCFA's regulations (42 C.F.R. 405.432) and Provider Reimbursement Manual (part I, chapter 14), which implemented the law, required fiscal intermediary auditors to compare the amount paid the contractor (which is the amount the hospital claims as its costs) to the in-house costs the hospital would have incurred had it provided the service with its own personnel, equipment, and supplies.

The regulation and manual provide that in-house costs are determined by multiplying the number of hours contractor therapists worked by the salary equivalency rates HCFA publishes for that state. To that figure is added other allowable expenses incurred by the contractor. Medicare pays the lower of the actual contract cost or the auditor's constructed in-house cost.



As part of our review to determine compliance with regulatory requirements, we examined the 1981 in-house costs for the 29 contracted hospitals in which the guidelines applied.<sup>2</sup> We compared allowable in-house costs with the costs in each hospitals' audited cost reports. For 26 hospitals we found unallowable costs that auditors did not identify because they either made errors in applying or failed to apply HCFA's regulations. There were primarily three types of errors:

- Use of an incorrect number of hours worked in computing allowable personnel costs.
- Inclusion of expenses in the analyses which HCFA guidelines do not allow.
- Failure to include pertinent contractor compensation in computations.

The following example illustrates how intermediary auditors missed all three types of errors in one cost report.

One hospital paid its respiratory therapy contractor a total of \$548,758, which was included in its cost report and Medicare payments were based on that amount. Our calculation of in-house cost, however, showed that the allowable Medicare costs were considerably less.

In calculating in-house personnel costs, the hospital included personnel hours which, under the guidelines, are not allowed. The guidelines specify that only hours actually worked by contractor personnel who provide patient treatment are multiplied by HCFA's salary rates. The rates include compensation for other hours, such as holidays, vacations, and sick leave, along with compensation for clerical, secretarial, and corporate management support. Therefore, such hours should not be included in the calculation of in-house personnel costs. However, this hospital included, and auditors did not detect, such hours in the computation. The hospital used 20,054 hours of contractor personnel time as being related to patient treatment; however, only 17,236 hours were actually spent in patient treatment. Thus, 2,818 excess hours were included, resulting in an overstatement of approximately \$39,000. Ten other hospitals also used an incorrect number of hours worked in computing allowable personnel costs.

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<sup>2</sup>The contracts in the other four hospitals were for respiratory therapy management services which are not covered by the regulations.

In addition, the auditors added unallowable office supply expenses to their in-house cost calculation. Supply and equipment expenses directly associated with medical care can be added as part of the constructed in-house costs. Such overhead costs as office supplies are provided for in HCFA's salary rates and are not allowable as separately added items. Nevertheless, the auditors failed to remove \$3,098 related to office supplies from the \$24,572 this hospital claimed as its supply and equipment costs. This type of error also occurred in five other hospitals.

Finally, the auditors did not include pertinent contractor compensation in comparing in-house costs with contracted costs. Although the hospital paid its contractor a total of \$548,758, this total was actually for three types of services--\$362,569 for respiratory therapy, \$160,670 for performing and interpreting electrocardiograms, and \$25,519 for pulmonary function laboratory services. The cost of each service was reported in different cost centers in the cost report.<sup>3</sup>

Medicare auditors calculated the hospital's in-house cost using personnel time and supply costs for all three services. This resulted in a computed allowable in-house cost of \$450,952. An error occurred when the computed in-house cost was compared with the actual contract cost. Instead of comparing the total contract cost of \$548,753 with the \$450,952 computed in-house cost, auditors compared only the \$362,569 portion of the contract reported in the respiratory therapy cost center. Thus, the auditors erroneously concluded that the amount the hospital reported as having been paid the contractor was totally allowable. If the auditors had used the total cost of \$548,758 in the comparison, they would have found that only \$450,952 was allowable. Three other hospitals we visited also failed to include pertinent contractor compensation in their computations and the auditors did not detect those errors.

At eight hospitals Medicare overpayments were large enough to meet intermediary criteria for reopening cost reports. We requested those intermediaries to confirm the overpayments we had calculated and to seek recovery as appropriate. They had not completed this work as of September 25, 1984.

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<sup>3</sup>Pulmonary laboratory and electrocardiogram costs were reported in the respiratory therapy cost center in other hospitals we visited.

Costs overstated due to guideline weaknesses

Medicare guidelines have allowed certain hospital contractor costs to be paid which we believe are inappropriate. The methodology HCFA requires auditors to use to determine oxygen and in-house personnel costs sometimes inflates these costs, and HCFA's requirement that a standard travel allowance be included whether or not travel costs are actually incurred has the effect of allowing expenses which many contractors do not incur.

Under 25 of the 33 respiratory therapy contracts we reviewed, contractors received as payment a percentage of the amount the hospital charged the patient for respiratory therapy. Under 7 additional contracts, the contractor received a fee for each service provided which, in effect, is the contractor's charge to the hospital. Under both of these arrangements the hospitals included as their cost of respiratory therapy, the payments to the contractor. Thus, the hospitals' Medicare cost reports reflect charges for respiratory services, not costs.

Medicare's audit guidelines for contracted therapy services were designed to determine the reasonableness of reported therapy costs by constructing an estimated in-house cost of providing the services. Where in-house personnel costs are computed by multiplying the number of contractor employee hours worked by a salary rate published by HCFA, oxygen costs are included at the amount the hospital paid the contractor--not the actual costs the hospital would have incurred by buying the oxygen directly. Respiratory therapy bills normally separate the charges for services and the charges for oxygen.

Because the oxygen charges to patients do not represent costs but rather cost plus a markup and because the Medicare guidelines result in allowing charges to be included as costs under the two contractor payment arrangements cited above, Medicare, in effect, allowed reimbursement for charges instead of cost. We attempted to determine how much costs were overstated because of this. For 19 of the 33 reviewed hospitals we were able to obtain sufficient information to make a determination and we found that oxygen costs had been overstated by \$1,987,485. This cost overstatement resulted in Medicare overpayments of \$1,283,984. At most of the 19 hospitals, the amount Medicare allowed for oxygen was many times its actual cost. For example, one hospital paid its contractor \$260,466 for oxygen which cost \$15,626.

A second weakness in the guidelines is that the travel allowance, which auditors are required to include in in-house cost computations, is inappropriate under many respiratory

therapy contracts. Authorizing legislation (Public Law 92-603, section 251(c)) provides that in addition to the amount a hospital would have incurred to provide the contracted services, contractors are also entitled to other reasonable expenses incurred in providing the services, such as employee travel time. However, none of the contractors serving the hospitals we visited incurred such travel time expenses. Their therapists' travel patterns were the same as those of the hospitals' employees in that they traveled only between their residences and the hospital and no travel was required to or from other work locations. In no case did the contractor pay such expenses or allow its employees travel time. The total cost of such allowances included in the in-house cost computations we reviewed was \$75,534, or about 1.2 percent of the hospitals' total respiratory therapy. We believe the travel allowance, while clearly required by the guidelines, was not appropriate.

Costs overstated due to unnecessary  
or poorly documented therapy

HCFA regulations (42 C.F.R. 466.1 and 421.100) state that Medicare will pay only for covered, medically necessary hospital services. With assistance from the Professional Standards Review Organization (PSRO) or the intermediary responsible for medical necessity reviews, we examined a statistical sample of cases at eight of the hospitals we visited. We used Medicare coverage criteria to determine whether the charges were payable. These criteria generally define covered charges as those that are for services documented in the medical record as having been properly ordered by a physician, performed by qualified therapists, and medically necessary.

The Professional Standards Review Organizations and intermediaries' medical necessity reviews of sample claims, when projected to the universe of claims at the eight hospitals, showed that 4.6 percent, or \$151,000, of the eight hospitals' \$3,315,000 in respiratory therapy charges were unnecessary from a medical standpoint. Another 30.3 percent, or \$1,003,000, of the charges were for services that did not meet other technical aspects of Medicare's criteria for covering medically necessary services. Generally, these latter charges were for services that were poorly documented as having been authorized by a physician and provided by qualified therapists.

All of the eight hospitals had paid their contractor a portion of each charge and reported these payments to Medicare as costs. Thus, the portion paid the contractor for unallowable services was also an unallowable cost to Medicare. Such unallowable costs caused the eight hospitals' total 1981 costs to be overstated by about 1.3 percent.

The following case illustrates how medical services are sometimes provided unnecessarily. An individual, hospitalized for 17 days, received respiratory therapy treatments for the entire 17-day period. Based on evidence in the medical record, however, the patient no longer needed any treatment after the 6th day. The last 10 days' charges of \$930.50 were therefore medically unnecessary.

In the other cases with poorly documented services, we were unable to evaluate medical necessity. However, we did determine that the associated costs did not meet the requirements for Medicare reimbursement. In some cases services were provided without physician's orders. In others, the required written justification for such services was not in the patient records. Yet in others, services were charged to the patient, but we found no record that a therapist had actually provided the service.

UNALLOWABLE AND INAPPROPRIATE COSTS  
INFLATE PROSPECTIVE PAYMENT RATES

Under Medicare's prospective payment system, hospitals are paid a predetermined amount for most of Medicare's patient discharges. However, the historical cost of providing hospital care is the basis for these payments. The amount is based on the average cost of 1981 hospital discharges updated for inflation. This average cost was computed by dividing the total costs reported in 1981 hospital Medicare cost reports by the total number of the hospitals' discharges for that period. Prior to paying a hospital, the applicable average cost is adjusted for differences in urban and rural wage rates, inflation, and the relative difference in resources needed to care for patients in each of the 468 DRGs. Because DRG rates are based on 1981 hospital costs, the accuracy of those costs is of critical importance to the credibility of the rates.

Our work showed that respiratory therapy costs were overstated 1 percent in the 33 hospitals where we examined cost reports due to audit errors and guideline weaknesses, and 1.3 percent in the 8 hospitals where we examined medical records due to unnecessary medical care or inadequate documentation of care.<sup>4</sup>

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<sup>4</sup>A previous GAO report (GAO/HRD-83-74, Sept. 30, 1983) on ancillary services showed that 6.1 percent of the respiratory charges in 16 hospitals in seven states were for medically unnecessary services.

We were unable to determine the extent to which these two amounts overlap and represent the same medical services; however, they reflect a substantial cost which should not have been included in the prospective payment data base. Nevertheless, HCFA used the data in these cost reports along with those of other hospitals when it calculated the average cost per case. As a result, the average DRG rates are inflated and hospitals are being paid more than intended under the prospective payment methodology. Furthermore, they will continue to be overpaid until appropriate adjustments are made.