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Medicare Program; Prospective Payment System for Inpatient Rehabilitation Facilities; Proposed Rule

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Health Care Financing Administration

42 CFR Parts 412 and 413

[HCFA–1069–P]

RIN 0938–AJ55

Medicare Program; Prospective Payment System for Inpatient Rehabilitation Facilities

AGENCY: Health Care Financing Administration (HCFA), HHS.

ACTION: Proposed rule.

SUMMARY: This proposed rule would establish a prospective payment system for Medicare payment of inpatient hospital services provided by a rehabilitation hospital or by a rehabilitation unit of a hospital. This proposed rule would implement section 1886(j) of the Social Security Act (the Act), as added by section 4421 of the Balanced Budget Act of 1997 (Public Law 105–33) and as amended by section 125 of the Balanced Budget Refinement Act of 1999 (Public Law 106–113), which authorizes the implementation of a prospective payment system for inpatient rehabilitation hospitals and rehabilitation units. It also authorizes the Secretary to require rehabilitation hospitals and rehabilitation units to submit such data as the Secretary deems necessary to establish and administer the prospective payment system. The prospective payment system described in this proposed rule would replace the reasonable cost-based payment system under which the rehabilitation hospitals and rehabilitation units are currently paid.

DATES: We will consider comments if we receive them at the appropriate address, as provided below, no later than 5 p.m. on January 2, 2001.

ADDRESSES: Mail written comments (one original and three copies) to the following address ONLY:

Health Care Financing Administration, Department of Health and Human Services, Attention: HCFA–1069–P, P.O. Box 8010, Baltimore, MD 21244–8010.

If you prefer, you may deliver your written comments (one original and three copies) to one of the following addresses:

Room 443–G, Hubert H. Humphrey Building, 200 Independence Avenue, SW, Washington, DC 20201; or Room C5–14–03, Central Building, 7500 Security Boulevard, Baltimore, MD 21244–1850.

Comments mailed to the delivery addresses may be delayed and could be considered late.

FOR FURTHER INFORMATION CONTACT:

Robert Kuhl, (410) 786–4597 (General information).

Pete Diaz, (410) 786–1235 (Requirements for completing the Minimum Data Set for Post Acute Care (MDS–PAC), and other MDS–PAC issues).

Jacqueline Gordon, (410) 786–4517 (Payment system, the case-mix classification methodology, transition payments, relative weights/case-mix index, update factors, transfer policies, payment adjustments).

Nora Hoban, (410) 786–0675 (Calculation of the payment rates, relative weights/case-mix index, wage index, payment adjustments).

SUPPLEMENTARY INFORMATION:

Comments, Procedures, Availability of Copies, and Electronic Access

Because of staffing and resource limitations, we cannot accept comments by facsimile (FAX) transmission. In commenting, please refer to file code HCFA–1069–P.

Comments received timely will be available for public inspection as they are received, generally beginning approximately 3 weeks after publication of a document, in Room 443–G of the Department's office at 200 Independence Avenue, SW., Washington, DC, on Monday through Friday of each week from 8:30 a.m. to 5 p.m. (Phone: (202) 690–7890).

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In addition, because of the many terms to which we refer by acronym in this proposed rule, we are listing these acronyms and their corresponding terms in alphabetical order below:

ADL—Activities of Daily Living
BBA—Balanced Budget Act of 1997, Public Law 105–33
BBRA—Balanced Budget Refinement Act of 1999, Public Law 106–113
CMGs—case-mix groups
CMI—case-mix index
COS—Clinical Outcomes Systems
DRGs—diagnosis-related groups
FIM—functional independence measure
FIM—FRG-functional independence measurement-function related group
FRG—Function Related Group
FY—Federal fiscal year
HCFA—Health Care Financing Administration
HHAs—home health agencies
HMO—health maintenance organization
IRF—inpatient rehabilitation facilities
MDCN—Medicare Data Collection Network
MDS—PAC-Minimum Data Set for Post Acute Care
MedPAC—Medicare Payment Advisory Commission
MEDPAR—Medicare provider analysis and review
MPACT—MDS–PAC Tool—Minimum Data Set for Post Acute Care Tool
OASIS—Outcome and Assessment Information Set
ProPAC—Prospective Payment Assessment Commission
RICs—Rehabilitation Impairment Categories
SNF—skilled nursing facility
TEFRA—Tax Equity and Fiscal Responsibility Act of 1982, Public Law 97–248
UDSmr—Uniform Data Set for medical rehabilitation
Y2K—Year 2000/Millennium

I. Background

When the Medicare statute was originally enacted in 1965, Medicare payment for hospital inpatient services was based on the reasonable costs incurred in furnishing services to Medicare beneficiaries. The statute was later amended by section 101(a) of the Tax Equity and Fiscal Responsibility Act of 1982 (Public Law 97–248) to limit payment by placing a limit on allowable costs per discharge. Section 601 of the Social Security Amendments of 1983 (Public Law 98–21) added a new section 1886(d) to the Social Security Act (the Act) which replaced the reasonable cost-based payment system for most hospital inpatient services. Section 1886(d) of the Act provides for a prospective payment system for the operating costs of hospital inpatient stays effective with hospital cost reporting periods beginning on or after October 1, 1983.

Although most hospital inpatient services became subject to a prospective payment system, certain specialty hospitals were excluded from that system. As discussed in detail in section I.A.1 of this preamble, rehabilitation hospitals and distinct part rehabilitation units in hospitals were among the excluded facilities. Subsequent to the implementation of the hospital inpatient prospective payment system, both the number of excluded rehabilitation facilities, particularly distinct part units, and Medicare payments to these facilities grew rapidly. In order to control escalating costs, the Congress, through enactment of section 4421 of the Balanced Budget Act of 1997 (BBA) (Public Law 105–33) and section 125 of the Balanced Budget Refinement Act of 1999 (BBRA) (Public Law 106–113), provided for the implementation of a prospective payment system for inpatient rehabilitation facilities.

Section 4421 of the BBA amended the Act by adding section 1886(j), which authorizes the implementation of a prospective payment system for inpatient rehabilitation services. This proposed rule would implement a Medicare prospective payment system, as authorized by section 1886(j) of the Act, for inpatient rehabilitation hospitals and units. We refer to these inpatient rehabilitation hospitals and units as ''inpatient rehabilitation facilities'' or ''IRFs'' throughout this proposed rule.

The statute provides for the prospective payment system for IRFs to be implemented for cost reporting periods beginning on or after October 1, 2000. The statute also provides for a new prospective payment system for home health services for cost reporting periods beginning on or after October 1, 2000, along with modifications to the existing prospective payment systems for acute care hospitals and skilled nursing facilities.

Although we are working very hard to implement the extensive changes required by the statute, the demands of simultaneously implementing new prospective payment systems (for example, outpatient hospital and home health) and modifying existing payment systems are significant. The creation of each new payment system or modification to an existing payment system requires an extraordinary amount of lead time to develop and implement the necessary changes to our existing computerized claims processing systems. In addition, it requires additional time after implementation to ensure that these complex changes are properly administered. After an extensive analysis of the changes required to HCFA's systems, we have concluded that it is infeasible to implement the IRF prospective payment system as of October 1, 2000. Therefore, we plan to implement the IRF prospective payment system for cost reporting periods beginning on or after April 1, 2001. We believe that this implementation date is the earliest feasible date given the scope and magnitude of the implementation requirements associated with this and other mandated provisions.

In this proposed rule, we provide a number of discussions useful in understanding the development and implementation of the IRF prospective payment system. These discussions include the following:

- An overview of the current payment system for IRFs.
- A discussion of research on IRF patient classification systems and prospective payment systems, including prior and current research performed by the RAND Corporation.
- A discussion of statutory requirements for developing and implementing an IRF prospective payment system.
- A discussion of the proposed requirement that IRFs complete the Minimum Data Set for Post Acute Care (MDS–PAC) (a patient assessment instrument) as a part of the data collection deemed necessary by the Secretary to implement and administer the IRF prospective payment system.
- A discussion of the IRF patient classification system using case-mix groups (CMGs).
- A detailed discussion of the proposed prospective payment system including the relative weights and payment rates for each CMG, adjustments to the payment system, additional payments, and budget

neutrality requirements mandated by section 1886(j).

- An analysis of the impact of the IRF prospective payment system on the Federal budget and inpatient rehabilitation facilities, including small rural facilities.

Finally, we are proposing conforming changes to existing regulations as well as new regulations that are necessary to implement the proposed IRF prospective payment system.

A. Overview of Current Payment System for Inpatient Rehabilitation Facilities

1. Exclusion of Certain Facilities From the Hospital Inpatient Prospective Payment System

Although payment for operating costs of most hospital inpatient services became subject to a prospective payment system when the hospital inpatient prospective payment system was implemented in October 1983, certain types of specialty hospitals and units were excluded from that payment system. As set forth in section 1886(d)(1)(B) of the Act, the following hospitals were originally excluded from the hospital inpatient prospective payment system: psychiatric, rehabilitation, children's, and long-term care. Effective with cost reporting periods beginning on or after October 1, 1989 cancer hospitals were added to this list by section 6004(a) of the Omnibus Budget Reconciliation Act of 1989 Public Law (101–239). In addition, psychiatric and rehabilitation distinct part units of hospitals are excluded from the hospital inpatient prospective payment system.

These specialty hospitals were excluded by the Congress from the hospital inpatient prospective payment system because they typically treat cases that involve lengths of stay that are, on average, longer or more costly than would be predicted by the diagnosis related group (DRG) system and, therefore, could be systematically underpaid if the DRG system was applied to them. These exclusions were the result of concerns that DRGs—the classification system on which payment under the hospital inpatient prospective payment system is based—might not accurately account for the resource costs for the types of patients treated in those facilities.

The concern that DRGs might not accurately account for costs in excluded hospitals arose because the hospital inpatient prospective payment system was developed from the cost and utilization experience of general hospitals, which typically provide acute care for a variety of medical conditions. The hospital inpatient prospective payment system is a system of average-based payments that assume that some patient stays will consume more resources than the typical stay, while others will demand fewer resources.

Thus, an efficiently operated hospital should be able to deliver care to its Medicare patients for an overall cost that is at or below the amount paid under the hospital inpatient prospective payment system. In a *Report to Congress: Hospital Prospective Payment for Medicare* (1982), the Department of Health and Human Services stated that the ''467 DRGs were not designed to account for these types of treatment'' found in the four special classes of hospitals, and noted that ''including these hospitals will result in criticism * * * (and) their application to these hospitals would be inaccurate and unfair.''

Accordingly, this report to the Congress suggested that a DRG system might not work as well for these treatment classes as they did for other medical specialties. One concern was that the resource needs of patients in these excluded hospitals were not solely correlated with diagnoses. A second concern was that the mix of service intensities provided by these specialty hospitals significantly differed from that of general medical/surgical hospitals. The legislative history of the 1983 amendments to the Act stated that the ''DRG system was developed for short-term acute care general hospitals and as currently constructed does not adequately take into account special circumstances of diagnoses requiring long stays.'' (Report of the Committee on Ways and Means, U.S. House of Representatives, to Accompany HR 1900, H.R. Rep. No. 98–25, at 141 (1983)).

Following enactment in April 1983 of the Social Security Amendments of 1983, we undertook a number of initiatives to ensure implementation of the hospital inpatient prospective payment system by October 1, 1983. Important activities included the publication of the rules and regulations for the hospital inpatient prospective payment system. The interim final rule was published in the September 1, 1983 **Federal Register** (48 FR 39752). We published a final rule in the January 3, 1984, **Federal Register** (49 FR 234) following a public comment period, evaluation of comments received, and formulation of responses to and regulatory revisions to the regulations based upon the comments. Updates and modifications of the regulations are published annually in the **Federal Register**. Together, the initial statutory mandate and the published regulations addressed several important program issues. One program issue was the implementation of the criteria for hospitals that are seeking to be excluded from the hospital inpatient prospective payment system under one of the specialty classes, including IRFs. The regulations concerning exclusion from the hospital inpatient prospective payment system, in part 412, subpart B, are discussed below.

2. Requirements for Inpatient Rehabilitation Facilities To be Excluded From the Hospital Inpatient Prospective Payment System

Under section 1886(d)(1)(B) of the Act, the prospective payment system for hospital inpatient operating costs set forth in section 1886(d) of the Act does not apply to several specified types of entities, including a rehabilitation hospital ''as defined by the Secretary'' or, ''in accordance with regulations of the Secretary,'' a rehabilitation unit of a hospital which is a distinct part of the hospital ''as defined by the Secretary.'' In general, existing regulations in part 412, subpart B provide that to be excluded from the hospital inpatient prospective payment system, an IRF must—(1) Have a provider agreement or be a unit in an institution that has in effect an agreement to participate as a hospital under part 489; and (2) except for newly participating hospitals seeking to be excluded, demonstrate that they serve an inpatient population of whom at least 75 percent require intensive rehabilitative services for the treatment of 1 or more of 10 specified conditions. The specified conditions are stroke, spinal cord injury, congenital deformity, amputation, major multiple trauma, hip fracture, brain injury, polyarthritis including rheumatoid arthritis, neurological disorders, and burns. Patients in IRFs require frequent physician involvement, rehabilitation nursing, and care from a coordinated group of professionals. (All IRFs that meet the requirements in §§ 412.23(b), 412.25, and 412.29 would be paid under the IRF prospective payment system proposed in this rule.)

3. Payment System Requirements Prior to the Balanced Budget Act of 1997

Hospitals that are excluded from the hospital inpatient prospective payment system are paid for inpatient operating costs under the provisions of section 1886(b) of the Act. Until the IRF prospective payment system is implemented, IRFs are paid on the basis of Medicare reasonable costs limited by a facility-specific target amount per discharge. Each facility has a separate

payment limit or target amount that is calculated for that facility based on its cost per discharge in a base year, subject to caps. The target amount is adjusted annually by an update factor called the rate-of-increase percentage. Facilities whose costs are below their target amounts receive bonus payments equal to the lesser of half of the difference between costs and the target amount, up to a maximum of 5 percent of the target amount. For facilities whose costs exceed their target amounts, Medicare provides relief payments equal to half of the amount by which the hospitals costs exceeded the target amount up to 10 percent of the target amount. Facilities that experience a more significant increase in patient acuity can also apply for an additional amount under the regulations for Medicare exception payments.

4. Strengths and Weaknesses of the Current Payment System

Utilization of post-acute care services has grown rapidly in recent years. Since the implementation of the hospital inpatient prospective payment system, average length of stay in acute care hospitals has decreased and patients are increasingly being discharged to post-acute care settings such as IRFs, skilled nursing facilities (SNFs), home health agencies (HHAs), and long-term care hospitals to complete their course of treatment. The increased utilization of post-acute care providers, including excluded facilities, has fueled the rapid growth in payments in recent years. With increased utilization and the incentives associated with the reasonable-cost based payment system, discussed below, the number of IRFs has also increased significantly.

In its March 1999 Report to the Congress the Medicare Payment Advisory Commission (MedPAC) (formerly the Prospective Payment Assessment Commission (ProPAC)) stated, ''Aggregate spending has increased at a fairly rapid pace, reflecting increased patient volume rather than increased payments per discharge. Aggregate Medicare operating payments to rehabilitation facilities rose 18 percent annually between 1990 and 1996, from $1.9 billion to $4.3 billion. Since 1990, payments per discharge have risen less than the rate of inflation, reaching $10,500 in 1996.'' (p. 90.) The MedPAC report explains that the—

> TEFRA system has remained in effect longer than expected partly because of difficulties in accounting for the variation in resource use across patients in exempted facilities. The unintended consequences of sustaining that system have included a steady growth in the number of prospective payment system-exempt facilities and a substantial payment inequity between older and newer facilities. In particular, the payment system encouraged new exempt facilities to maximize their costs in the base year to establish high cost limits. Once subject to its relatively high limit, a recent entrant could reduce its costs below its limit, resulting in reimbursement of its full costs. * * * By contrast, facilities that existed before they became subject to TEFRA could not influence their cost limits. Given the relatively low limits of older facilities, they are more likely to incur costs above their limits and thus receive payments less than their costs. (p. 72)

To address concerns such as the historical growth in payments and disparity in payments to existing and newly excluded hospitals and units, the BBA mandated several changes to the current payment system. These changes are outlined in section I.C.1 of this preamble. In addition, we and other organizations have conducted research since the inception of the hospital inpatient prospective payment system to determine if alternate prospective payment systems are feasible for these excluded hospitals.

B. Research for Alternate Prospective Payment Systems for Inpatient Rehabilitation Facilities Prior to the Balanced Budget Act of 1997

Below is a discussion of research projects and other analyses concerning prospective payment systems that are relevant to the development of the IRF prospective payment system that we are proposing to implement in this rule.

The methods and tasks that must be undertaken in order to develop an IRF prospective payment system include development of a patient classification system that accounts for differences in patient case mix. A patient classification system is developed by classifying patients into mutually exclusive groups based on similar clinical characteristics and similar levels of resource use. A factor to weight differences in patient case mix can be developed by measuring the relative difference in resource intensity among the different groups. We are proposing to implement a payment system that uses case-mix groups and weighting factors that account for the intensity of services delivered to IRF Medicare patients.

1. Early Studies

In October 1984, as mentioned in the 1987 Report to the Congress: Developing a Prospective Payment System for Excluded Hospitals (1987), the Medical College of Wisconsin and the RAND Corporation (RAND) began a joint effort to investigate the feasibility of a prospective payment system for excluded hospitals including IRFs. The RAND Corporation is a nonprofit institution with extensive health care background in improving policy and decision making through research and analysis. This joint effort was under a HCFA cooperative agreement with the RAND Corporation. The Medical College of Wisconsin collected data from a survey of patient records that included standard discharge data, diagnostic condition, functional status and other impairment measures, billing data, and facility information gathered from telephone interviews. RAND assisted in the design and analysis of the survey data and obtained a 20 percent sample of the HCFA patient billing file for FY 1984—the implementation year of the hospital inpatient prospective payment system.

The data were used to analyze the delivery systems of rehabilitation care. The Report to the Congress stated that care in IRFs ''emphasizes the treatment of functional limitations and disability''. Functional limitations could be measured by the patient's ability to perform activities of daily living such as locomotion, dressing, eating, bathing, etc. The patient's level of performing these activities of daily living is referred to as the patient's functional status. The results of this analysis showed that ''diagnostic condition explained little, whereas functional status measures explained substantially more, of the variance in total charges for a rehabilitation stay.'' However, at the time of this analysis, a nationally-accepted set of functional status measures had not been developed for application in a classification system for IRFs.

2. Functional Status Studies

While numerous studies involved developing and assessing functional status, several researchers (for example, Batavia 1988; Johnston 1984) suggested using functional status as the basis for a rehabilitation payment system. Functional status, as measured by a patient's ability to perform activities of daily living and by mobility, can be evaluated at admission and discharge or any time during the stay. In addition, change in functional status (the difference in functional status from admission to discharge) can be measured.

Researchers evaluated several methods of using functional status at different stages of the patient's stay to develop a payment system. For the most part, the use of these methods resulted in payment systems that appeared to be inadequate in creating the proper incentives to care for high resource use

patients and to produce quality outcomes. Basing a payment system on expected improvement in a patient's functional limitations requires a scale that is sensitive to changes in functional status. In addition, precise data describing the functional status of the patient would have to be collected on admission and at periodic intervals until discharge (Hosek et al.; 1986).

The development of a patient classification system for a case-mix adjusted prospective payment system was hindered by the lack of an appropriate and widely accepted functional status measure for inpatient rehabilitation. The functional independence measure (FIM) was developed to fill this need (Hamilton *et al.,* 1987). The functional independence measure addresses a patient's functional status covering six domains—self-care, sphincter control, mobility, locomotion, social cognition, and communication. There are two national sources of functional independence measures. The Uniform Data Set for Medical Rehabilitation (UDSmr) is operated within the Center for Functional Assessment Research, U. B. Foundation Activities, Inc. The UDSmr collects data on patient age, sex, living situation prior to hospitalization, the impairment that is the primary reason for admission to the IRF, and functional status at admission and discharge. It also includes patient admission and discharge information as well as hospital charges. The Clinical Outcomes System (COS) is operated by Caredata.com, Inc. (formerly Medirisk Inc.), located in Atlanta, Georgia. The COS contains the same type of patient information as UDSmr. However, we have been notified that the COS has been discontinued as of July 2000.

3. Studies on Patient Classification Systems

In 1991, Nancy Diane Harada presented a study in her dissertation titled ''The Development of a Resource-Based Patient Classification Scheme for Rehabilitation.'' This study developed a clinically-based, diagnosis-specific patient classification system for rehabilitation hospital services. The final classification system in this study includes 33 patient classification groups. The patient classification groups are referred to as Rehabilitation Functional Related Groups.

Harada believed that, at the facility level, the rehabilitation functional related groups could be viewed as a managerial tool to monitor the quality of care, as well as the resources expended in the treatment of rehabilitation patients. From a policy perspective, use of the rehabilitation functional related groups could minimize the adverse incentives for IRFs to underserve certain groups that may arise from the lack of case-mix index adjusted payments in the current cost limit payment system. The results of this study found that rehabilitation functional related group methodology may provide an appropriate basis for the prospective payment of rehabilitation services.

Using FIM data reported to UDSmr, a team of researchers from the University of Pennsylvania developed a patient classification system, Function Related Groups (FRGs), referred to as the FIM–FRGs (Stineman *et al.,* 1994). The American Rehabilitation Association (currently known as the American Medical Rehabilitation Providers Association) funded the development of a prototype of function related groups. Further work and revisions were funded by the Agency for Health Care Research and Quality, formerly known as the Agency for Health Care Policy and Research and the National Center for Medical Rehabilitation Research at the National Institutes of Health.

As FIM–FRGs were refined, they were reframed using the International Classification of Impairments, Disabilities and Handicaps to ensure a better measure of the consumption of rehabilitation resources, prognosis, and outcome (Stineman, 1997). These classifications were designed to be related to the major categories of the DRGs and indirectly linked to the ICD–9–CM with focus on disabilities and impairment categorization.

This original work on a FIM–FRG patient classification system identified 21 clinically defined rehabilitation impairment categories (RICs) such as stroke, traumatic brain dysfunction, non-traumatic brain dysfunction, and non-traumatic spinal cord injury. The RICs were then subdivided into FIM–FRGs using the FIM motor score, FIM cognitive score, and age. Accordingly, the FIM–FRG patient classification system first sorted patients into a RIC and then used assessments of patient functional and cognitive abilities and age to classify them into a FIM–FRG.

4. HCFA-Sponsored Analysis by RAND

In 1994, we contracted with RAND for analyses designed to: (1) examine the stability of the original FRGs; (2) extend the FRGs to take account of previously unexamined cases (re-admissions), previously unused information (interrupted stays), and newly available data (Medicare data on comorbidities and complications); and (3) evaluate the performance of FRGs when cost rather than length of stay is used to form groups and when only Medicare cases rather than all cases are used to form groups.

RAND's analyses: (1) evaluated the suitability of the FIM–FRG patient classification system; (2) evaluated a prospective payment system for inpatient rehabilitation facilities based on the FIM–FRGs; and (3) prepared final reports describing the evaluation of the UDSmr, FIM, and FIM–FRGs. This analysis used more current data to replicate and update previous work performed by RAND in 1990.

Two data systems—the UDSmr and Medicare program information—were the primary sources for these analyses. UDSmr provided RAND with functional status and demographic information for rehabilitation discharge data on 139,360 cases from 352 IRFs from calendar year 1994. The Medicare program information included Medicare bill and cost report data for 1994.

The first step of the analysis involved matching UDSmr cases with Medicare records using patient and facility identifiers. Because patient and facility identifiers on the UDSmr records were encrypted, it was necessary to use a sophisticated matching probability technique to match Medicare records to a corresponding UDSmr case. In addition, several thousand of the Medicare discharges corresponded to part of an interrupted rehabilitation stay. For the purposes of this analysis, a rehabilitation stay interrupted by a single admission to an acute care hospital is treated as two rehabilitation discharges, one interrupted by two admissions to an acute care hospital is treated as three rehabilitation discharges, and so on. Using this definition of ''interrupted stays'', RAND stated that the 139,360 cases found in the UDSmr data corresponded to 144,719 Medicare discharges. A file with the matched patient data was created.

RAND then subjected this patient data to a rigorous and complex statistical algorithm to test the predictive power of resource use to classify these patients into RICs and corresponding FIM–FRGs. As a result, RAND recommended that the number of FRGs per RIC be limited to a maximum of 5 and proposed a total of 70 FRGs. Facility level data from the hospital cost report information system file was used to test the feasibility of using the resulting FIM–FRGs to develop an IRF prospective payment system.

The results of the RAND study were released in September 1997 and are contained in two reports available through the National Technical

Information Service (NTIS). The reports are—

• Classification System for Inpatient Rehabilitation Patients—A Review and Proposed Revisions to the Function Independence Measure-Function Related Groups, NTIS order number PB98–105992INZ; and

• Prospective Payment System for Inpatient Rehabilitation, NTIS order number PB98–106024INZ. These reports can be ordered by calling the NTIS sales desk at 1–800–553–6847 or by e-mail at *orders@ntis.fedworld.gov*.

RAND found that, with limitations, the FIM–FRGs were effective predictors of resource use based on the proxy measurement: length of stay. FRGs based upon FIM motor scores, cognitive scores, and age remained stable over time (prediction remained consistent between the 1990 and 1994 data). Researchers at RAND developed, examined, and evaluated a model payment system based upon FIM–FRG classifications that explains approximately 50 percent of patient costs and approximately 60 to 65 percent of costs at the facility level. Based on this analysis, RAND concluded that a rehabilitation prospective payment system using this model is feasible. RAND's design of a rehabilitation prospective payment system aimed to achieve the following three important goals:

• To provide hospitals with incentives for efficiency.

• To ensure access to high quality and appropriate care for all Medicare beneficiaries.

• To distribute Medicare payments to hospitals in an equitable way.

RAND needed to account adequately for each hospital's patient mix and for other appropriate factors that affect costs. This aspect of the analysis was based on the notion that Medicare should not pay hospitals more for inefficiency or even for a greater intensity of care than is typically received by patients with similar clinical characteristics and social support levels.

Two technical advisory panels provided advice concerning this research. The first panel reviewed the reliability of the FIM scoring process and the second panel provided guidance on the development of the patient classification system. These panels raised some major concerns about the FIM–FRG research.

First, the UDSmr data represented only 24 percent of IRFs and accounted for 40 percent of all Medicare cases in IRFs. Second, the UDSmr data over-represented free-standing rehabilitation hospitals and under-represented excluded units with a slight over-representation of teaching hospitals. Third, while the FIM–FRG system is a good predictor of length of stay, more work was needed to determine the system's ability to predict the intensity of services furnished during a stay. Fourth, hospital charges might not accurately reflect actual resource use in this context, so relative weights based on hospital charges might be distorted. This problem would be further exacerbated because there is evidence of unexplainable distorted charging patterns among facilities under the current payment limits, which have been in effect for a prolonged period of time.

5. Prospective Payment Assessment Commission Analysis for 1997 Report to Congress

In its 1997 Report to Congress, the Prospective Payment Assessment Commission (ProPAC) recommended that a prospective payment system for IRFs based on patient case mix should be implemented as soon as possible. ProPAC stated that RAND's work on the FIM–FRGs could be an adequate basis for prospective payment, and that implementation of a system in the near future is feasible. (ProPAC's March 1, 1997 report was published as Appendix F to our proposed rule ''Medicare Program; Changes to the Hospital Inpatient Prospective Payment Systems and Fiscal Year 1998 Rates'' published in the June 2, 1997 **Federal Register** (62 FR 29902).)

In response to this recommendation, we cited in our final rule ''Medicare Program; Changes to the Hospital Inpatient Prospective Payment Systems and Fiscal Year 1998 Rates'' published in the August 29, 1997, **Federal Register** (62 FR 45966), the concerns raised by the technical advisory panels and our review of the RAND analysis as issues that needed to be further addressed before implementing a prospective payment system using the FIM–FRG patient classification system. In addition, we stated that our preference is to focus on developing a coordinated payment system for post-acute care across all settings that relies on a core assessment tool. Accordingly, one of our goals in developing a prospective payment system would be that it is based on the characteristics of the patient and their needs rather than the characteristics or type of provider of care.

C. Requirements of the BBA and the BBRA for Inpatient Rehabilitation Facilities

1. Provisions for the Current Payment System

The following BBA provisions relating to the current payment system were explained in detail and implemented in our final rule published in the August 29, 1997 **Federal Register** (62 FR 45966).

Section 4411 describes the update of payments for specific fiscal years (FYs) using the market basket effective for cost reporting periods beginning on or after October 1, 1997.

Section 4412 describes the reduction of capital payments for FYs 1998 through 2002, effective October 1, 1997.

Section 4413 describes the provisions for rebasing a facility's target amount for cost reporting periods beginning during FY 1998.

Section 4414 describes the requirement to cap and update the rate-of-increase limits for cost reporting periods beginning on or after October 1, 1997.

Section 4415 describes the provisions regarding bonus and relief payments effective for cost reporting periods beginning on or after October 1, 1997.

Section 4419 eliminates the exemptions from the target amounts effective for cost reporting periods beginning on or after October 1, 1997.

2. Provisions for a Prospective Payment System

Section 4421(a) of the BBA amended the Act by adding a new section 1886(j) to the Act that provides for the implementation of a Medicare prospective payment system for all IRFs. For cost reporting periods beginning on or after the implementation date and before October 1, 2002, payment to IRFs will be based on a blend of—(1) the amount that would have been paid under Part A with respect to these costs if the prospective payment system were not implemented and (2) the IRF Federal prospective payment. For cost reporting periods beginning on or after October 1, 2002, IRFs will be paid under the fully implemented Federal prospective payment system.

Under the prospective payment system, rehabilitation facilities will be paid based on predetermined amounts. These prospective payments will encompass the inpatient operating and capital costs of furnishing covered rehabilitation services (that is, routine, ancillary, and capital costs) but not for costs of approved educational activities, bad debts, and other costs not subject to the provisions of the IRF prospective

payment system. Covered rehabilitation services include services for which benefits are provided under Part A (the hospital insurance program) of the Medicare program.

Section 1886(j)(1)(A) of the Act provides that, notwithstanding section 1814(b) of the Act and subject to the provisions of section 1813 of the Act regarding beneficiary deductibles and coinsurance responsibility, the amount of payment for inpatient rehabilitation hospital services equals an amount determined under section 1886(j) of the Act. Sections 1886(j)(1)(A)(i) and (ii) of the Act provide for a transition phase covering cost reporting periods that begin during the first two Federal fiscal years under the prospective payment system. During this transition phase, IRFs will receive a payment rate comprised of a blend of the ''TEFRA percentage'' of the amount that would have been paid under Part A with respect to those costs if the prospective payment system had not been implemented, and the ''prospective payment percentage'' of payments using the IRF prospective payment system rate.

Section 1886(j)(1)(B) of the Act sets forth a requirement applicable to all facilities for the payment rates under the fully implemented system. Notwithstanding section 1814(b) of the Act and subject to the provisions of section 1813 of the Act regarding beneficiary deductibles and coinsurance responsibility, the amount of the payment with respect to the operating and capital costs of a rehabilitation facility for a payment unit in a cost reporting period beginning on or after October 1, 2002, will be equal to the per unit payment rate established under this prospective payment system for the fiscal year in which the payment unit of service occurs.

Sections 1886(j)(1)(C)(i) and (ii) of the Act set forth the applicable TEFRA and prospective payment rate percentages during the transition period. For a cost reporting period beginning on or after April 1, 2001 and before October 1, 2001, the ''TEFRA percentage'' is 66⅔ percent and ''the prospective payment percentage'' is 33⅓ percent; and on or after October 1, 2001, and before October 1, 2002, the ''TEFRA percentage'' is 33⅓ percent and ''prospective payment percentage'' is 66⅔ percent.

Section 1886(j)(1)(D) of the Act contains the definition of ''payment unit.'' Until the passage of the BBRA, ''payment unit'' was defined by the statute as ''a discharge, day of inpatient hospital services, or other unit of payment defined by the Secretary''. However, section 125(a)(1) of the BBRA amended section 1886(j)(1)(D) of the Act by striking ''day of inpatient hospital services, or other unit of payment defined by the Secretary.'' Accordingly, the payment unit utilized in the IRF prospective payment system will be a discharge.

Section 125(a)(3) of the BBRA also amended the Act by adding a new section 1886(j)(1)(E) to the Act that states: ''(E) CONSTRUCTION RELATING TO TRANSFER AUTHORITY.—Nothing in this subsection shall be construed as preventing the Secretary from providing for an adjustment to payments to take into account the early transfer of a patient from a rehabilitation facility to another site of care.'' We invite comments on the proposed transfer policy discussed in section V. of this preamble.

Section 1886(j)(2)(A) of the Act, as added by the BBA, directed the Secretary to establish case-mix groups based on the factors as the Secretary deems appropriate, which may include impairment, age, related prior hospitalization, comorbidities, and functional capability of the patient. This section also requires the Secretary to establish a method of classifying specific patients in rehabilitation facilities within these groups. The BBRA amended section 1886(j)(2)(A)(i) of the Act to describe the classification system to read as follows: ''Classes of patient discharges of rehabilitation facilities by functional-related groups (each in this subsection referred to as a 'case mix group'), based on impairment, age, comorbidities, and functional capability of the patient and such other factors as the Secretary deems appropriate to improve the explanatory power of functional independence measure-function related groups.''

Section 1886(j)(2)(B) of the Act provides that the Secretary will assign each case-mix group a weighting factor reflecting the facility resources used for patients within the group as compared to patients classified within other groups.

Section 1886(j)(2)(C)(i) of the Act directs the Secretary to adjust ''from time to time'' the case-mix classifications and weighting factors ''as appropriate to reflect changes in treatment patterns, technology, case-mix, number of payment units for which payment is made under this title, and other factors which may affect the relative use of resources.'' Such periodic adjustments shall be made in a manner so that changes in aggregate payments are a result of real changes in case-mix, not changes in coding that are unrelated to real changes in case-mix. Section 1886(j)(2)(C)(ii) of the Act provides that, if the Secretary determines that adjustments to the case-mix classifications or weighting factors resulted in (or are likely to result in) a change in aggregate payments that does not reflect real changes in case-mix, the Secretary shall adjust the per payment unit payment rate for subsequent years so as to eliminate the effect of the coding or classification changes.

Section 1886(j)(2)(D) of the Act authorizes the Secretary to require rehabilitation facilities to submit such data as the Secretary deems necessary to establish and administer the IRF prospective payment system.

Section 1886(j)(3)(A) of the Act describes how the prospective payment rate will be determined. A prospective payment rate will be determined for each payment unit for which an IRF is entitled to payment under the prospective payment system. The payment rate will be based on the average payment per payment unit for inpatient operating and capital costs of IRFs, using the most recently available data, and adjusted by the following factors:

- Updating the per-payment unit amount to the fiscal year involved by the applicable percentage increase (as defined by section 1886(b)(3)(B)(ii) of the Act) covering the period from the midpoint of the period for such data through the midpoint of fiscal year 2000 and by an increase factor specified by the Secretary for subsequent fiscal years;
- Reducing the rate by a factor equaling the proportion of Medicare payments under the prospective payment system as estimated by the Secretary based on prospective payment amounts which are additional payments relating to outlier and related payments;
- Accounting for area wage variations among IRFs;
- Applying the case-mix weighting factors; and
- Adjusting for such other factors as determined necessary by the Secretary to properly reflect variations in necessary costs of treatment among IRFs.

Section 1886(j)(3)(B) of the Act directs the Secretary to establish IRF prospective payment system payment rates during fiscal years 2001 and 2002 at levels such that, in the Secretary's estimation, total payments under the new system will equal 98 percent of the amount that would have been made for operating and capital costs in those years if the IRF prospective payment system had not been implemented. In establishing these payment amounts, the Secretary shall consider the effects of

the prospective payment system on the total number of payment units from IRFs and other factors.

Section 1886(j)(3)(C) of the Act addresses the annual increase factor, to be applied beginning with FY 2001. This factor shall be based on an appropriate percentage increase in a market basket of goods and services comprising services for which payment is made under section 1886(j) of the Act.

Under section 1886(j)(4)(A) of the Act, the Secretary is authorized but not required to provide for an additional payment to a rehabilitation facility for patients in a case-mix group, based upon the patient being classified as an outlier based on an unusual length of stay, costs, or other factors specified by the Secretary. The amount of the additional payment must approximate the marginal cost of care above what otherwise would be paid and must be budget neutral. The total amount of the additional payments to IRFs under the prospective payment system for a fiscal year may not be projected to exceed 5 percent of the total payments based on prospective payment rates for payment units in that year.

Section 1886(j)(4)(B) of the Act establishes that the Secretary is authorized but not required to provide for adjustments to the payment amounts under the prospective payment system as the Secretary deems appropriate to take into account the unique circumstances of IRFs located in Alaska and Hawaii.

Section 1886(j)(5) of the Act provides for the Secretary to publish in the **Federal Register**, on or before August 1 of each fiscal year, the classifications and weighting factors for the IRF case-mix groups and a description of the methodology and data used in computing the prospective payment rates for that fiscal year.

Section 1886(j)(6) of the Act provides that the Secretary shall adjust the proportion (as estimated by the Secretary from time to time) of IRFs' costs that are attributable to wages and wage-related costs, of the prospective payment rates for area differences in wage levels by a factor (established by the Secretary) reflecting the relative hospital wage level in the geographic area of the IRF compared to the national average wage level for such facilities. Additionally, the Secretary is required to make a budget-neutral update to the area wage adjustment factor no later than October 1, 2001, and at least once every 36 months thereafter. The budget neutral update is based on information available to the Secretary (and updated as appropriate) of the wages and wage-related costs incurred in furnishing rehabilitation services.

Sections 1886(j)(7)(A), (B), (C) and (D) of the Act establish that there shall be no administrative or judicial review under sections 1869 and 1878 of the Act or otherwise of the establishment of case-mix groups, of the methodology for the classification of patients within these groups, the weighting factors, the prospective payment rates, outlier and special payments and area wage adjustments.

Section 125(b) of the BBRA provides that the Secretary shall conduct a study of the impact on utilization and beneficiary access to services of the implementation of the IRF prospective payment system. A report on the study must be submitted to the Congress not later than 3 years after the date the IRF prospective payment system is first implemented.

D. Policy Objectives in Developing a Prospective Payment System for Inpatient Rehabilitation Facilities

In developing the prospective payment system for IRFs, we identified policy objectives to evaluate the relative merits of the various policy options considered. The objectives we identified include the following:

- The creation of a beneficiary-centered payment system that promotes quality of care, access to care, and continuity of care and is administratively feasible while controlling costs.
- The provision of incentives to furnish services as efficiently as possible without diminishing the quality of the care or limiting access to care.
- The creation of a payment system that is fair and equitable to facilities, beneficiaries, and the Medicare program.
- The IRF prospective payment system must be able to recognize legitimate cost differences among various settings furnishing the same service; and any patient classification system used to group patients and services should be based on clinically coherent categories and, at the same time, reflect similar resource use. This would limit opportunities to ''upcode'' or ''game'' the system.

In its March 1999 Report to the Congress, MedPAC recommended in detail the type of prospective payment system it believed should be implemented for IRFs. As will be discussed further in this proposed rule, MedPAC's recommendations share much with our approach and policy objectives for the development of an IRF prospective payment system. Both HCFA and MedPAC believe the IRF prospective payment system should include the use of a comprehensive patient assessment instrument such as the MDS-PAC. HCFA and MedPAC both seek sufficient data to devise a patient classification system that effectively predicts resource use. HCFA and MedPAC believe the prospective payment system should be based on reliable and valid payment weights using functional and other diagnostic data. We agree with MedPAC's recommendation to use a per discharge unit of payment. Also, there is a shared belief that a discharge-based system provides an inherent incentive to discharge patients prematurely, and that this impetus could be overcome by implementing sound transfer and short-stay policies as part of the prospective payment system. Accordingly, we have taken steps to initiate the appropriate research to meet our immediate needs in developing this proposed rule and in implementing an IRF prospective payment system, as well as to collect data for the future that may reflect actual facility resources used to meet the needs of Medicare beneficiaries.

E. Discussion of Evaluated Options for the Prospective Payment System for Inpatient Rehabilitation Facilities

We used the objectives identified above in section I.D. of the preamble to evaluate policy options under consideration. The IRF prospective payment system we are proposing consists of the following major components: the patient assessment instrument; the patient classification system; the unit of payment; and the data used to construct the payment rates. A brief discussion of the major issues and options considered in preparing this proposed rule follows.

1. Patient Assessment Instrument

Data from a patient assessment instrument will allow us to: (1) Group patients into a CMG for payment under the prospective payment system; and (2) monitor the effects the prospective payment system has on the access and the quality of patient care. We have reviewed the data elements of the UDSmr and COS instruments and the MDS–PAC. We are proposing to use the MDS–PAC because we believe it contains the data elements that will better enable us to implement and administer the IRF prospective payment system required by section 1886(j) of the Act. In section III of this preamble, we will discuss in detail the reasons for our proposal to use the MDS–PAC patient assessment instrument.

2. Patient Classification System

The patient classification system is another important component of the prospective payment system. We initially considered two primary patient classification systems—one similar to the hospital inpatient prospective payment system and the other similar to the one used in the skilled nursing facility prospective payment system. Ideally, we would like to maintain similar classification systems for those entities delivering comparable services. We recognize a unified classification system would have to recognize patient needs and facilitate appropriate compensation across various post-acute care settings. Section 125(a) of the BBRA mandated the use of a per discharge payment unit and established classes of patients by functional-related groups. Therefore, in implementing the IRF prospective payment system we will use CMGs, consistent with section 1886(j)(2) of the Act.

3. Unit of Payment

Under the provisions of section 1886(j)(1)(D) as added by the BBA, we considered using either a per diem or a per discharge unit of payment. The vast majority of rehabilitation episodes begin with an acute event. The goal of inpatient rehabilitation is functional improvement that will allow the patient to return to independent living in the community, and, as evidenced by ongoing research, the majority of cases are, in fact, discharged to a community setting. Further, a discharge is also the current unit of payment under the TEFRA payment system. Finally, as noted above, the BBRA amends the Act to provide that the ''payment unit'' under the IRF prospective payment system is the discharge. Therefore, we propose to use a per discharge payment unit in accordance with section 1886(j)(1)(D) of the Act.

4. Data Used to Construct Payment Rates

We gave careful consideration in deciding which data to use to create the proposed relative weights and payment rates. Two sources of data were considered: (1) Medicare bill and corresponding UDSmr/COS data; and (2) patient level staff time measurements. The methodology we are proposing to use to calculate the relative weights of each CMG attempts to account for the cost variations among rehabilitation facilities and focus on variations among patient types. Further, the payment rates we are proposing are established in a budget neutral manner in accordance with section 1886(j)(3)(B) of the Act. Section V of the preamble describes the methodology that we are proposing to use to develop relative weights and payment rates.

Under the current payment system, payment limits are based on historical costs in a base period. Accordingly, payments to a given facility for a given year might not accurately reflect the facility's actual costs in that year. Creating a new payment system based on costs that are a product of the existing payment methodology raises concerns that these costs may not adequately reflect actual resource use. In order to develop a prospective payment system that is more reflective of the actual costs of delivering care, further work is needed to identify these costs and the services and resources required by patients. The IRF data from calendar years 1996 and 1997 bills and FY 1997 cost reports contain the most recent available data we have to create the new IRF prospective payment system rates.

We will continue to explore other options, including the use of staff time measurements, later Medicare bill and UDSmr/COS data, and other data to improve the explanatory power of the CMGs and to derive payments that more directly reflect the resources used to produce services delivered in the IRFs.

F. Inpatient Rehabilitation Facility Prospective Payment System—General Overview

In accordance with the requirements of section 1886(j) of the Act, we are proposing to implement a prospective payment system for IRFs that will replace the current reasonable cost-based payment system. The new prospective payment system will utilize information from a patient assessment instrument to classify patients into distinct groups based on clinical characteristics and expected resource needs. Separate payments are calculated for each group with additional case and facility level adjustments applied, as described below.

1. Patient Assessment Provisions

We are proposing to require IRFs to complete the MDS–PAC patient assessment instrument for all Medicare patients admitted or discharged on or after April 1, 2001. In accordance with our proposed assessment schedule, the MDS–PAC would be completed on the 4th, 11th, 30th, and 60th day from the admission date of a Medicare patient and upon the discharge of a Medicare patient. In general, a 3-day observation period would be required prior to the completion of the MDS–PAC. Data from the MDS–PAC will be used to—

- Determine the appropriate classification of a Medicare patient into a CMG for payment under the prospective payment system (using data from only the MDS–PAC completed on the fourth day);
- Implement a system to monitor the quality of care furnished to Medicare patients; and
- Ensure that appropriate case-mix and other adjustments can be made to the proposed patient classification system.

A computerized MDS–PAC data collection system will be developed. Facilities will be required to input the MDS–PAC data into the data system. In general, this system consists of a computerized patient grouping software program (grouper software) and data transmission software.

Upon the discharge of the patient, the existing Medicare claim form will be completed with the appropriate CMG indicated on the claim form so that the prospective payment can be made. The operational aspects and instructions for completing and submitting Medicare claims under the IRF prospective payment system will be addressed in a Medicare Program Memorandum once the final system requirements are developed and implemented.

Further details about the MDS–PAC patient assessment instrument and data collection system are discussed in section III of this preamble.

2. Patient Classification Provisions

We are proposing a patient classification system that uses case-mix groups called CMGs. The CMGs classify patient discharges by functional-related groups based on a patient's impairment, age, comorbidities, and functional capability. We began the development of the CMGs by using the FIM–FRG classification system and, with the most recent data available, we identified clinical aspects of the FIM–FRG system that could be improved to increase the ability of the CMGs to predict resource use. Further details of the proposed CMG classification system are discussed in section IV of this preamble.

3. Payment Rate Provisions

The payment unit for the proposed IRF prospective payment system for Medicare patients will be a discharge. The payment rates will encompass inpatient operating and capital costs of furnishing covered inpatient rehabilitation hospital services, including routine, ancillary, and capital costs, but not the costs of bad debts or of approved educational activities.

Beneficiaries may be charged only for deductibles, coinsurance amounts, and

non-covered services (for example, telephone, and television, etc.). They may not be charged for the differences between the hospital's cost of providing covered care and the proposed Medicare prospective payment amount.

The prospective payment rates that we are proposing to implement are determined using relative weights to account for the variation in resource needs among CMGs. We would adjust the payment rates to account for area differences in hospital wages. We would update the per discharge payment amounts annually. During FYs 2001 and 2002, the prospective payment system will be ''budget neutral'', in accordance with the statute. That is, total payments for IRFs during these fiscal years will be projected to equal 98 percent of the amount of payments that would have been paid for operating and capital costs of IRFs had this new payment system not been enacted. This is discussed in detail in section V of this preamble.

Based on our analysis of the data, we are proposing to adjust the payment rates for facilities located in rural areas and for costs associated with treating low income patients.

We are proposing to make additional payments to IRFs for discharges meeting specified criteria as ''outliers.'' For the purposes of this proposed rule, outliers are cases that have unusually high costs when compared to the cases classified in the same CMG. We are proposing outlier payments that are projected to equal 3 percent of total estimated payments.

In conjunction with an outlier policy, we are proposing payment policies regarding short stay cases and for cases that expire. In addition, we are proposing to implement a transfer policy, consistent with section 1886(j)(1)(E) of the Act, as added by the BBRA. (A detailed description of these policies appears in section V of the preamble.)

4. Implementation of the Prospective Payment System

The statute provides for a 2-year transition period. During that time, 2 payment percentages will be used to determine an IRF's total payment under the prospective payment system as follows. For a cost reporting period beginning on or after April 1, 2001 and before October 1, 2001, the total prospective payment will consist of 66⅔ percent of the amount based on the current payment system and 33⅓ percent of the proposed Federal prospective payment. For a cost reporting period beginning during FY 2002, the total prospective payment will consist of 33⅓ percent of the amount based on the current payment system and 66⅔ percent of the proposed Federal prospective payment. For cost reporting periods beginning on or after October 1, 2002, Medicare payment for IRFs will be determined entirely under the proposed Federal prospective payment methodology.

G. Applicability of the Inpatient Rehabilitation Facility Prospective Payment System

This proposed rule would not change the criteria for a hospital or hospital unit to be classified as a rehabilitation hospital or a rehabilitation unit that is excluded from the hospital prospective payment systems under sections 1886(d) and 1886(g) of the Act, nor would it revise the survey and certification procedures applicable to entities seeking this classification. Accordingly, for cost reporting periods beginning on or after April 1, 2001, hospitals or hospital units that are classified as rehabilitation hospitals or rehabilitation units under subpart B of part 412 of the regulations will be paid under the proposed IRF prospective payment system (except for IRFs that are paid under the special payment provisions at § 412.22(c) of the regulations) as described below.

The following rehabilitation hospitals and rehabilitation units, that are currently paid under section 1886(b) of the Act, would be paid under the proposed IRF prospective payment system for cost reporting periods beginning on or after April 1, 2001:

1. Excluded Rehabilitation Hospitals and Rehabilitation Units

We are proposing that the IRF prospective payment system apply to inpatient rehabilitation services furnished by Medicare participating entities that are classified rehabilitation hospitals or rehabilitation units under §§ 412.22, 412.23, 412.25, 412.29 and 412.30.

2. Excluded Rehabilitation Hospitals and Rehabilitation Units Outside the 50 States and the District of Columbia

Excluded rehabilitation hospitals and rehabilitation units located in Puerto Rico, Guam, the Virgin Islands, American Samoa, the Northern Marianas, and the District of Columbia will be subject to the IRF prospective payment system.

The following hospitals are paid under special payment provisions, as described in § 412.22(c), and, therefore, are *not* subject to the proposed IRF prospective payment system rules:

- Veterans Administration hospitals.
- Hospitals that are reimbursed under State cost control systems approved under 42 CFR part 403.
- Hospitals that are reimbursed in accordance with demonstration projects authorized under section 402(a) of Public Law 90–248 (42 U.S.C. 1395b–1) or section 222(a) of Public Law 92–603 (42 U.S.C. 1395b–1 (note)).

II. Current Research To Support the Establishment of the Inpatient Rehabilitation Prospective Payment System—Update of the RAND Analysis

A. Overview of the Updated Work for the Proposed Rule

In July 1999, we contracted with the RAND Corporation (RAND) to update their previous research discussed in section I of this proposed rule. The update included an analysis of FIM data, the FRGs, and the model rehabilitation prospective payment system using more recent data from a greater number of IRFs. The purpose of updating the previous research is to develop the underlying data necessary to assist us in designing, developing, implementing, monitoring, and refining the proposed Medicare IRF prospective payment system based on case-mix groups. In addition, RAND expanded the scope of their previous research to include the examination of several payment elements, such as comorbidities and facility-level adjustments, as well as focus on implementation issues, including evaluation and monitoring. The update is restricted to Medicare patient data and the payment system is designed for payment of Medicare inpatient operating and capital costs only.

Specifically, for this proposed rule, RAND performed the following tasks:

- Constructed an updated data file, using the most recent data available from UDSmr, COS, HCFA, and other data sources.
- Determined the extent to which the UDSmr and COS data are representative of the Medicare population.
- Identified factors or variables that may be used to help us design and implement the payment system.
- Developed data on the elements of the payment system regarding the patient classification system, relative weights and payment rates for each case-mix group, facility-level adjustments, and patient-level adjustments.
- Developed data to examine the joint performance of all of the payment system elements by simulating facility payments for our analysis of the impact of implementing the payment system.

• Developed data to assist in identifying specific issues in connection with implementing the payment system.

• Presented options regarding the design and development of a system to monitor the effects of the payment system and other changes in the health care market on IRFs and on other post-acute care providers, including home health agencies and skilled nursing facilities, by measuring factors such as access, utilization, quality, and cost of care.

B. Construction of Data File for Analysis

Using the methodology in its previous research, RAND constructed a data file that was used to develop the proposed CMG patient classification system and the resulting payment weights, rates, and payment adjustments using more recent data. The analysis of this data file forms the basis of our discussion on the patient classification methodology and the structure of the payment system proposed in this rule. We expect that further analysis of the data file and review of the comments that we receive in response to this proposed rule may result in refinements to some patient CMGs and corresponding weights and rates.

C. Description of Sources of the Data File

The essential sources of the data file are Medicare program information and patient case-mix data. The Medicare program information includes patient discharge files (patient demographic, clinical, and financial information) and facility-level files (facility characteristics and financial information). Patient case-mix data is collected by IRFs using a patient assessment instrument. We are proposing to require the use of the MDS–PAC patient assessment instrument that includes patient case-mix data similar to the data collected on the UDSmr and COS, as described in section III of this preamble. However, the availability of MDS–PAC data records is limited to the sample of providers that participated in the pilot and field tests during its development. Therefore, to initially establish the IRF prospective payment system, we will be using a larger number of data records (as compared to the 1994 data used in RAND's previous study) from UDSmr and COS to represent more adequately the total number of IRFs.

1. Medicare Program Data

For this proposed rule, RAND used calendar year 1996 and 1997 Medicare Provider Analysis and Review (MEDPAR) files. The MEDPAR file contains the records for all Medicare hospital inpatient discharges (including discharges for rehabilitation facilities). The data in the MEDPAR file include patient demographics (age, gender, race, residence zip code), clinical characteristics (diagnoses and procedures), and hospitalization characteristics (admission date, discharge date, days in intensive-care wards, charges by department, and payment information).

The Medicare cost report data is contained in the Health Care Provider Cost Report Information System (HCRIS). The cost report files contain information on facility characteristics, utilization data, and cost and charge data by cost center. For this proposed rule, RAND used the HCRIS file containing the most current available cost data for cost reporting periods beginning during FYs 1996 and 1997. Supplementary information to this file includes—(1) The wage data for the area in which an IRF is located, (2) data on the number of residents assigned to rehabilitation units and the distribution of resident time across inpatient and outpatient settings, (3) data on the number of Medicare cases at each IRF that represent Supplemental Security Income (SSI) beneficiaries, and (4) information about payments under the current reasonable cost payment system.

The Online Survey, Certification and Reporting System (OSCAR) file retains a list of all IRFs that are currently Medicare certified. For this proposed rule, RAND used the OSCAR file to identify instances in which we may be missing facility-level data.

2. Patient Case-Mix Data

We entered into agreements with the University at Buffalo Foundation Activities, Inc. and Caredata.com, Inc. to retrieve UDSmr and COS data, respectively, for RAND's updated research. For this proposed rule, RAND used both UDSmr and COS data that describe rehabilitation stays in participating hospitals for calendar years 1996 and 1997. The data include demographic descriptions of the patient (birth date, gender, zip code, ethnicity, marital status, living setting), clinical descriptions of the patient (condition requiring rehabilitation, ICD–9–CM diagnoses, functional independence measures at admission and discharge) and the hospitalization data (encrypted hospital identifier, admission date, discharge date, charges, payment source, and an indicator of whether this is the first rehabilitation hospitalization for this condition, a readmission, or a short stay for evaluation).

D. Description of the Methodology Used To Construct the Data File

Under a separate contract, we contracted with RAND in September 1998 to construct a data file that linked the 1996 and 1997 UDSmr and COS patient records with patient records on the respective MEDPAR files that describe the same discharge. Under this contract, RAND determined the Medicare provider number(s) that correspond to each UDSmr/COS facility code. Next, RAND matched the UDSmr/COS and MEDPAR patients within the paired facilities.

Because of the proprietary and sensitive nature of the UDSmr and COS patient records, certain data fields that specifically identify the patient and the servicing IRF were encrypted. Therefore, as in RAND's previous study (see section I of this preamble), it was necessary to subject the UDSmr, COS, and MEDPAR records to a sophisticated and complex matching probability technique. The result produces the most statistically valid match of patient/facility records and a data file that contains the characteristics of each Medicare beneficiary and his or her servicing IRF.

Because of the complex scope and nature of the matching technique used, we have included in Appendix A of this proposed rule a technical discussion of each step taken to create the data file. The tables contained in Appendix A show the actual effects of applying the matching technique on both the patient and facility records.

E. Representativeness of the Data File

It is extremely important to examine the quality of the resulting match, including the extent to which the linked MEDPAR and UDSmr/COS records are representative of the MEDPAR universe. After constructing the data file described in Appendix A, we believe that the file contains the best available data to construct a prospective payment system for all IRFs within the parameters of the statutory requirements. Our analysis of the data file allows us to develop the proposed CMG patient classification and payment system, described below in sections IV and V of this preamble.

F. Analyses To Support Future Adjustments to the Payment System

The principal goal of the analysis described above is to determine the extent to which measurable patient characteristics permit classification of patients into identifiable groups that accurately predict the use of resources in inpatient rehabilitation facilities. The

research to date indicates that CMGs are effective predictors of resource use as measured by proxies such as length of stay and charges. The use of these proxies is necessary because data that measures actual nursing and therapy time spent on patient care, and other resource use data, are not available. The scientifically structured collection of data on patient characteristics and patient-specific resource use may enhance our ability to refine the CMGs in a manner that supports our policy objectives for implementing a IRF prospective payment system. Accordingly, we have contracted with Aspen Systems Corporation to collect actual resource use data in a sample of IRFs. The data collected by Aspen will be submitted to RAND for analysis to determine if it can be used to support future refinements to the CMGs.

III. The Minimum Data Set for Post-Acute Care (MDS–PAC) Patient Assessment Instrument

A. Implementation of the MDS–PAC

Under section 1886(j)(2)(D) of the Act, ''The Secretary is authorized to require rehabilitation facilities that provide inpatient hospital services to submit such data as the Secretary deems necessary to establish and administer the prospective payment system under this subsection.'' The collection of patient data is indispensable for the successful development and implementation of the IRF prospective payment system. A comprehensive, reliable system for collecting standardized patient assessment data is necessary for: (1) The objective assignment of Medicare beneficiaries to appropriate IRF CMGs; (2) the development of a system to monitor the effects of an IRF prospective payment system on patient care and outcomes; (3) the determination of whether future adjustments to the IRF CMGs are warranted; and (4) the development of an integrated system for post-acute care in the future.

The MDS–PAC is the standardized patient assessment instrument we are proposing to use under the IRF prospective payment system. We acknowledge that the nature of the patient data we would collect may evolve over time. We believe that the present structure of independent Medicare post-acute benefits, which includes payment systems, coverage requirements, and quality assessment instruments based primarily on site of care, may provide incentives that result in reduced access and choice for beneficiaries and may contribute to inappropriate care. As a result of this fragmentation in the payment and delivery of post-acute care under Medicare, we are reevaluating the payment and delivery of post-acute services with the objective of developing a more integrated approach focusing on the entire post-acute episode of care and each patient's care needs regardless of setting. We believe the MDS–PAC will help to move Medicare toward our long term objective of creating a more integrated post acute care payment and delivery system that facilitates improved quality, choice and access to care for beneficiaries.

Our goal of ultimately establishing a common system to assess patient characteristics and care needs for post-acute providers was endorsed by MedPAC in its March 1999 report to the Congress. MedPAC recommended that the Secretary collect a core set of patient assessment information across all post-acute settings. (Recommendation 5A). In the narrative supporting this recommendation, MedPAC ''commends HCFA's development of the MDS–PAC and encourages its refinement and use. The instrument will facilitate greatly comparisons of patient characteristics and service use across inpatient post-acute settings. Insights gleaned from these data should inform future prospective payment system policies, as well as longer term policy considerations about post-acute care.'' We share MedPAC's opinion of the utility of a common patient data system across post-acute settings. We believe that future refinements in the design and application of the MDS–PAC will provide us with essential information to inform policy decisions related to post-acute care users and their characteristics, quality, and payment.

The implementation of the per-case prospective payment system based on the ''functional-related group'' methodology requires the use of a standardized data collection instrument that contains the elements required to classify a patient into a distinct CMG. To classify a patient into a distinct CMG the data collection instrument must first assign the patient into one of the various high level categories that are based principally on ICD–9–CM diagnoses plus some additional patient information. These high level categories are called Rehabilitation Impairment Categories. After that initial classification step a patient's comorbidity data (which is also based on the ICD–9–CM codes), the level of the patient's impairment as determined by the patient's motor and cognitive function scores, and the age of the patient are used to classify a patient into a distinct CMG within the higher level Rehabilitation Impairment Group. Additional data elements are required to identify the patient and for monitoring the quality of care furnished to patients in IRFs.

Several approaches to the collection of these data elements are available. These include—(a) the development of a new data collection instrument, the MDS–PAC (as proposed in this rule); (b) adoption of an instrument closely modeled on the Uniform Data Set for Medical Rehabilitation (UDSmr) and the Caredata.com Clinical Outcome Set (COS) that would contain the needed data elements exactly as they have been recorded in the past and as used in the development of the FIM–FRG classification of patients; and (c) the incorporation verbatim into the new instrument (MDS–PAC) of the UDSmr/COS data elements that are relevant to payment. We are proposing the first option, the MDS–PAC, for the reasons outlined in the section below.

1. Use of MDS as Foundation

The basis of the MDS–PAC system is the Minimum Data Set (MDS)/Resident Assessment Instrument (RAI). The MDS/RAI was one of the key provisions of the nursing home reform legislation enacted by the Omnibus Budget Reconciliation Act of 1987 (OBRA), Pub. L. 100–203, and the first standardized assessment instrument that the Congress required to be used in a post-acute care setting. The MDS is a core set of screening and assessment elements, including common definitions and coding categories, which forms the foundation of a comprehensive assessment (the RAI). OBRA mandated that we develop the MDS and require its use for all residents of certified long-term care facilities as a condition of participating in Medicare or Medicaid.

We originally implemented the MDS/RAI in 1990 through 1991 in the approximately 17,000 certified long-term care facilities nationwide. The MDS/RAI has been used by long-term care facilities to assess all residents at specific points during their stay, regardless of payer source. Residents are assessed upon admission to the facility, after experiencing a significant change, and at least annually, with a review of key items required every 90 days. Regulations requiring all certified long-term care facilities to encode and transmit MDS data to the State and HCFA became effective June 22, 1998 ((62 FR 67174) ''Resident Assessment In Long Term Care Facilities''). As of March 3, 2000, there were 23,829,196 records for 4,576,748 residents submitted to our national MDS repository.

Long-term care facilities use the assessment system as the basis of developing an individualized plan of care. However, the design of our long-term care facility payment and quality of care systems relies on use of the resident characteristic, health status, and service use information derived from the MDS to support a number of our programs. For example, the SNF prospective payment system implemented in July 1998 relies on MDS data to classify patients into the appropriate case-mix categories. In addition, in July 1999, we began to use MDS data to generate quality indicators for use in the long-term care facility survey process. Also, long-term care facilities may request real-time MDS-based quality indicator reports, from the HCFA-sponsored State-level MDS data system, that compare the facility's performance in key care areas with the performance of other facilities within the State. These reports can be used for internal quality assurance and improvement activities. Our Peer Review Organizations (PROs) are using MDS data to conduct long-term care facility quality improvement activities in a number of areas, including pain management, pressure ulcers, and urinary incontinence.

In keeping with our commitment to the nursing home industry to refine the MDS/RAI system over time to incorporate advances in assessment technology and changes in the nursing home population, we developed a second generation instrument, known as the MDS version 2. The MDS 2 was implemented nationally in 1996. Shortly thereafter, we agreed to begin work on a post-acute version of the MDS, in response to the long-term care industry's concerns that the MDS had not been constructed to address the characteristics and needs of the increasing numbers of short stay patients admitted to SNFs for rehabilitation and medically complex care.

Before we started work on the MDS–PAC, however, we made a policy decision that our goal was to establish a common instrument to assess patients receiving services by all Medicare institutional post-acute providers. This broadened the scope of the instrument to include freestanding rehabilitation hospitals and hospital-based rehabilitation units, as well as long-term care hospitals. Our policy decision was based on a belief that there is considerable overlap among the patient populations and services rendered by post-acute care providers. The March 1999 MedPAC report to Congress indicated that prior distinctions in the types of patients and services provided across settings have become less clear for a number of reasons (p. 82), and that lack of uniform patient-level data across settings severely restricts our ability to identify where differences and overlaps occur.

This hypothesis regarding the overlap of patient populations was tested by collecting MDS 2 data for patients of rehabilitation and long-term care hospitals and comparing that data with MDS records for SNF patients. The SNF database included records for long-stay nursing home residents who had been readmitted after a hospitalization and now qualified for a period of skilled care. There were 1,535 SNF patient records collected from initial MDS assessments in 1996. Of these patient records, 517 (34 percent) of the patients were expected to be discharged within 30 days of admission. An additional 248 (16 percent) were expected to be discharged in 31 to 90 days. For the remaining patient records, discharge status was unknown, not anticipated or (in a limited number of cases) the discharge variable was missing. This activity was also conducted in order to provide us with information about the characteristics, health status, and service utilization of rehabilitation and long-term care hospital patients, as part of our initial activities to inform development of the MDS–PAC.

Staff from participating rehabilitation hospitals, rehabilitation units of acute care hospitals, and long-term care hospitals were trained in the use of the MDS 2.0, and were asked to complete it for a sample of their newly admitted patients during June through October 1998. Data were received for 614 patients in 26 rehabilitation hospitals and units, and for 479 patients in 26 long-term care hospitals. Of the 52 providers participating in the baseline data collection, 38 were recruited using a random sample of Medicare-certified providers.

We found many similarities in the characteristics, health status, medical diagnoses, and service utilization patterns of SNF and rehabilitation hospital patients. We note that our focus groups indicated to us that many rehabilitation hospitals and self-proclaimed ''subacute'' SNFs have as a criteria for admission the patient's potential ability to be discharged from the facility within a certain time period. Thus, for comparative purposes we differentiated between the MDS records of SNF patients expected to be discharged and those of SNF patients not expected to be discharged. As illustrated below by Table 1C, patients in rehabilitation hospitals and SNF patients who were expected to be discharged demonstrated similar levels of activity of daily living (ADL) overall impairment, as measured by the MDS 2, while a greater number of SNF patients who were not expected to be discharged experienced impairment in ''late loss'' ADLs or were fully dependent.

TABLE 1C.—PERCENT OF PATIENTS WITH ADL IMPAIRMENT BY FACILITY TYPE

ADL score (hierarchical)	LTC hospital	Rehab hospital	SNF discharge expected	SNF discharge not expected
0—Independent	3.1	.8	4.2	3.4
1—Supervision	4.4	9.5	6.5	5.6
2—Limited	12.8	25.4	29.3	17.9
3—Early Loss ADL—extensive or dependent	4.2	14.8	8.2	9.8
4—Mid late loss ADL—extensive assistance late loss ADL	8.0	21.1	20.9	15.9
5—Mid late-some late loss ADL dependency	34.8	22.5	27.3	33.8
6—Full dependency	32.9	5.9	3.7	13.5

In addition, fewer SNF patients were reported to have symptoms of delirium as compared to rehabilitation hospital patients. While the number of SNF patients not expected to be discharged who experienced memory problems was higher, the overall cognitive performance score (a composite measure based on several MDS items) for patients across the four populations was remarkably similar, except for the higher number of long-term care hospital patients rated as a ''6'' (that is, very severely cognitively impaired). A comparison of cognitive impairment by facility type can be seen in Table 2C.

TABLE 2C.—PERCENT OF PATIENTS WITH COGNITIVE IMPAIRMENT BY FACILITY TYPE

Condition	LTC hospital	Rehab Hospital	SNF discharge expected	SNF discharge not expected
Delirium Symptoms—New				
Easily Distracted	12.0	15.4	3.1	1.7
Altered Perceptions	9.7	5.9	2.6	2.2
Disorganized Speech	8.8	10.5	2.4	2.2
Restlessness	13.6	8.9	2.0	3.0
Lethargy	14.4	9.2	4.0	4.0
Mental Function Varies	17.2	13.5	5.2	4.0
Cognitive Performance Scale				
0=Intact	40.5	49.3	46.0	17.9
1=Borderline Intact	14.3	13.6	16.7	17.6
2=Mild	7.2	10.2	12.0	11.3
3=Moderate	9.1	13.0	16.3	26.2
4=Moderate Severe	4.0	3.3	4.1	10.5
5=Severe	3.0	5.7	3.3	6.9
6=Very Severe	21.9	4.9	1.6	9.6
Memory				
Memory Problem—short term	32.8	36.2	37.0	61.0
Memory Problem—long-term	29.9	23.0	23.1	46.2
Memory Problem—situational	37.5	12.4		

We did not find significant differences across care settings in many of the disease diagnoses recorded in section I of the MDS, although long-term care hospital patients had more cases of diabetes, cardiac dysrhythmia, post heart surgery, peripheral vascular disease, paraplegia, respiratory conditions, renal failure, and antibiotic-resistant infections (Table 3C).

TABLE 3C.—PERCENT OF PATIENTS WITH SPECIFIC CONDITIONS BY FACILITY TYPE

Condition	LTC hospital	Rehab hospital	SNF discharge expected	SNF discharge not expected
Diseases				
Diabetes	37.0	25.0	27.0	24.2
Hyperthyroidism	0.4	0.7	0.7	0.3
Hypothyroidism	9.0	8.2	8.0	6.8
Arteriosclerotic heart disease	17.3	14.7	15.7	18.3
Cardiac dysrhythmia	21.1	11.3	14.7	17.2
Post heart surgery	24.0	13.0	6.9	6.2
CHF	23.0	8.5	21.6	22.9
Deep vein thrombosis	4.8	3.1	11.4	1.8
Hypertension	37.6	45.8	47.9	46.5
Hypotension	2.8	1.3	1.5	1.0
Peripheral vascular disease	15.0	9.0	8.6	6.0
Other cardiovascular disease	14.8	10.3	19.5	20.8
Arthritis	11.3	20.1	25.4	21.9
Hip fracture	6.7	11.6	14.1	7.4
Missing limb	5.4	4.9	3.0	3.5
Osteoporosis	7.1	3.6	8.0	10.5
Pathological bone fracture	1.3	1.8	1.0	1.5
Alzheimer's	1.5	0.5	4.1	12.3
Aphasia	2.3	6.5	3.8	7.2
CP	0.2	0.7	.....	.....
CVA	23.8	34.6	22.2	27.7
Other dementia	7.9	2.1	13.9	31.5
Hemiplegia/hemiparesis	12.9	27.8	8.8	10.1
MS	2.1	1.1	0.1	0.7
Paraplegia	3.0	2.1	0.3	0.3
Parkinson's	2.5	1.6	3.3	4.0
Quadriplegia	3.3	2.6	0.1	0.2
Seizure disorder	6.5	5.2	4.5	4.5
TIA	1.0	23	4.0	4.0
Traumatic brain injury	4.2	7.0	0.3	0.3
Anxiety disorder	4.6	5.2	7.8	6.8
Depression	10.2	14.4	14.6	13.6
Manic depression	0.8	1.1	0.9	0.7

TABLE 3C.—PERCENT OF PATIENTS WITH SPECIFIC CONDITIONS BY FACILITY TYPE—Continued

Condition	LTC hospital	Rehab hospital	SNF discharge expected	SNF discharge not expected
Schizophrenia	0.8	0.5	1.0	1.5
Asthma	3.5	3.1	2.0	1.5
Emphysema/COPD	29.0	10.1	19.3	17.2
Pulmonary failure	24.0	4.3	.....	.....
Cataracts	2.9	3.3	6.5	5.5
Diabetic retinopathy	1.9	1.8	0.7	0.5
Glaucoma	3.8	2.9	5.9	4.0
Macular degeneration	1.5	0.7	1.2	0.8
Allergies	9.4	15.2	28.2	28.9
Anemia	15.7	11.9	18.2	19.5
Cancer	12.1	7.5	14.4	15.3
Renal failure	14.0	4.7	4.9	5.3
Amputated limb	5.4	5.0	N/A	N/A
Post surgery—elective hip	4.0	13.0	.....	.....
Antibiotic resistant infection	16.7	2.8	1.0	0.5
Pneumonia	19.2	3.1	8.5	6.5
UTI	21.9	19.9	21.1	23.1
Bladder Continence				
Continent, no catheter	28.0	60.9	63.4	45.6
Continent, catheter	52.1	15.2	N/A	N/A
Some incontinence	50.8	31.6	36.6	54.4
Bowel Continence	48.0	75.0	71.3	47.9
Complications				
Inability to lie flat—loss of breath	44.0	6.5	6.9	6.2
Shortness of breath—exertion	52.0	21.7	.....	.....
Shortness of breath—at rest	32.0	0.0	.....	.....
Difficulty coughing/clearing airways	40.0	2.2	N/A	N/A
Recurrent respiratory infection	28.0	2.2	.....	.....
Surgical wound	48.0	56.5	.....	.....
Pain				
None	45.4	25.6	36.0	58.8
Less than daily	17.3	19.5	31.0	22.3
Daily	37.3	55.0	33.0	18.9
Health Complications				
Syncope	2.3	1.0	.07	0
Unsteady Gait	26.2	52.5	48.0	40.1
Limited ROM—Arm	20.7	9.3	6.3	12.5
Limited ROM—Hand	18.0	7.2	3.5	8.8
Limited ROM—Foot	26.4	10.5	5.7	14.7
Pressure Ulcers—Any (stage 1–4)	36.0	17.9	17.7	21.6
Expectations (Rehabilitation Potential)				
Patient believes self could be more independent	53.7	74.5	45.1	16.2
Staff believes patient could be more independent	59.1	76.4	50.9	31.3
Patient able to perform tasks slowly	26.1	33.9	12.7	12.4
Major difference in ADLs AM and PM	8.1	16.7	1.9	3.2
Behavior				
Wander	3.6	4.1	2.8	9.1
Verbally abusive	3.4	3.8	3.0	5.4
Physically abusive	1.8	2.1	1.4	5.9
Socially inappropriate	3.2	4.8	4.2	8.6
Resists care	12.2	8.6	9.8	16.3

The diagnostic profiles of patients in rehabilitation hospitals and SNFs were similar, although rehabilitation hospitals treated a higher percentage of patients with strokes, hemiplegia/hemiparesis, and traumatic brain injury and fewer patients with congestive heart failure and emphysema or chronic obstructive pulmonary disease. Both bladder and bowel continence levels were similar for rehabilitation hospital and SNF patients who were expected to be discharged. Pain levels for rehabilitation hospital and SNF patients were also similar overall, although more

SNF patients were reported to experience pain less frequently than daily and more rehabilitation hospital patients were assessed as having daily pain. Pressure ulcer rates for rehabilitation hospital and SNF patients were comparable, as were the number of patients with unsteady gait and limitations in range of motion. Rehabilitation hospitals reported a higher use of restraints. Rehabilitation hospital and SNF patients who were expected to be discharged had a similar number of behavioral symptoms, which were less overall as compared to the number of behavioral symptoms experienced by SNF patients not expected to be discharged.

These results confirmed anecdotal information reported by rehabilitation hospital and SNF clinicians during our focus groups. While Medicare coverage policies allow payment to SNFs for a wider range of patients than rehabilitation hospitals, both groups reported that their patient populations had changed over the past few years, leading to some convergence in the types of patients treated by rehabilitation hospitals and SNFs. Both reported a large increase in the number of comorbidities and clinical complexities for patients admitted primarily for rehabilitative services, saying that ''uncomplicated'' patients were no longer admitted for inpatient rehabilitation, (instead, for example, ''uncomplicated'' patients requiring rehabilitation after a hip fracture now generally receive therapy in their homes).

It is our view that any system used to classify rehabilitation patients should be based on the same measures of a patient's health status and care needs as are used in other segments of the post-acute care industry. However, for purposes of this proposed rule, we are most concerned that the classification instrument work well with IRF patients. Given our use of the MDS in SNFs, it is logical to extend an MDS-based system to IRFs.

We are developing version 3 of the MDS/RAI, which we envision as containing sections for specific populations (for example, traditional, long stay resident; short-stay patient; those receiving palliative or end of life care; and pediatrics).

2. Other Options

We recognized that many rehabilitation hospitals already use a patient assessment instrument that contains the functional independence measures (FIM). The FIM were developed by researchers who were funded by a consortium of rehabilitation professional associations and the Department of Education, at the State University of New York (SUNY) at Buffalo in the 1980s. The FIM are contained in a patient assessment instrument that is marketed by the Uniform Data System for Medical Rehabilitation (UDSmr) maintained by SUNY/Buffalo. Caredata.com Clinical Outcome System (COS) used to market a patient assessment instrument that contained the FIM, but we have been notified that Caredata.com has discontinued its business related to FIM reporting as of July 2000. The patient assessment instrument marketed by UDSmr is proprietary.

Many rehabilitation providers are clients of UDSmr. Our 1997 data shows that approximately 68 percent of Medicare patients had a UDSmr or COS data file, indicating that these patients were assessed with the FIM. There is extensive experience with the FIM contained in the UDSmr and COS patient assessment instruments and the uses of the FIM data. This is documented by a substantial list of publications produced both in the United States and overseas (for example, Sweden and Japan), by the developers of the system, and by independent investigators.

The developers of the FIM offer a certification course to train assessors in the use of the instruments. This results in very high rates of intra and inter rater reliability, with Cronbach alpha coefficients of more than 0.9 for both the motor and cognitive subscores. The Cronbach alpha coefficient is a statistical measure of inter-rater reliability with perfect reliability equal to 1.0. Therefore, a score of 0.9 indicates a very high level of inter-rater reliability.

The MDS-PAC is a modification of the MDS, the patient assessment instrument developed for use in nursing facilities. The principal objective of the MDS is to facilitate care planning through a description of the needs of the patient for services. In contrast, the principal objective of the FIM is to assess person level disability in the inpatient medical rehabilitation setting.

The strength of the FIM assessment instrument is that it is a well-evolved and extensively tested approach to the assessment of the critical components of care provided by IRFs, the impact on the patient improvement in functional capacity, and the purpose of the care provided by the IRFs. The variations among facilities in the difference between the observed and expected improvement in function are used as indicators of the quality and the effectiveness of the facilities. The organization that analyzes FIM data for providers generates benchmark data that allows IRFs to compare the outcome of their performance on the functional independence measures relative to other providers participating in the system.

One drawback of the FIM assessment instrument is that it is specifically focused on functional performance. Information is collected only on the matters directly related to functional performance and only at admission and discharge, and, when possible, 6 months after discharge. There is, therefore, a lack of detail on the needs of the patient or on the evolution of the condition of the patient during the course of the admission. However, given that the mean length of stay in an IRF is 15.81 days (median length of stay is 14 days), we are specifically soliciting comments on the benefits of mid-stay assessments.

We are not proposing to use the FIM assessment instruments marketed by either the UDSmr or COS as the basis for an IRF prospective payment, because of our desire to have a common measurement instrument across different post-acute provider settings. Our proposal to use an MDS-based approach comes from our conviction that the use of common item labels and definitions across different provider settings would be essential to monitoring patient care across different provider settings. While we recognize that there are differences between the MDS and the MDS–PAC, our intention is, at some point in the future, to reconcile these differences. Structuring the IRF assessment instrument consistent with the MDS would allow for comparison of patients across different institutional settings. The MDS–PAC collects information on many of the same activities or functional measures as the FIM but defines these activities more specifically in some cases. It would also help facilitate continuity of care in that comparable baseline data would accompany the patient's transfer from one setting to the other. Standardized information across provider types would also be extremely useful in comparing patient characteristics and potentially the appropriateness of care in different settings that serve the same populations. This is especially important since analysis by RAND (1997) shows that costs for the same services vary significantly by provider.

When we began to develop the MDS in the 1980s, the possibility of using the FIM ADL scoring schema was considered. However, field experience demonstrated that nursing home staff did not feel comfortable making the level of distinctions required in the FIM.

The FIM serve as a functional-based system designed to capture specific aspects of ADL performance. Therefore, the FIM's ability to measure items that are not functionally related, such as cognition, may be problematic. For example, in order to score communication on the FIM, compromises must be made to blend cognitive and performance ideas into a single construct. The scoring schema used in the MDS–PAC allows the instrument to describe a concept like communication from a functional performance perspective as well as from the cognitive perspective based on how much caregivers have to intervene to help compensate for the patient's communication deficits.

UDSmr requires that users of the FIM (for example, therapists) be trained. An evaluation of the FIM scoring will be performed by RAND before a final rule is published. FIM scoring rules assign the lowest (most dependent) value to missing data which is likely to bias scores downward, especially upon admission when data are more likely to be missing. The payment implications may generally be to place patients in a more service intensive CMG. The MDS–PAC addresses this by having a separate coding entry (8) for activities that do not occur rather than instructing users to code with the most dependent level.

An independent team of technical experts highlighted areas of concern regarding the FIM's accuracy in predicting costs for patient care. Panelists were concerned that the scoring of some items, such as cognitive functioning, gave raters a great deal of discretion in determining what evidence was used in the assessment and how often the behavior had occurred. These technical experts also agreed that a functional status assessment for payment purposes should be based on clinical observation of performance rather than on the rater's assessment of the patient's capacity to perform the task.

The MDS–PAC uses the same FIM constructs as were originally designed by the UDSmr team but rewords them in such a way so that these items better fit into the context of the MDS instrument. In addition, the item language and definitions and instructions are integrated into the instrument. The administration of the MDS–PAC at more than one point in a patient's stay will permit assessment of patient changes during that episode of treatment and may lead to possible refinements to the patient classification system.

We seek public comment on our proposal to use the MDS–PAC as the assessment instrument for the IRF prospective payment system, including: comments and supporting data regarding the additional burden and cost, if any, associated with this instrument; the suitability of the instrument for the rehabilitation setting and as a model for other post-acute care settings; views on whether the instrument has been properly tested and validated for industry-wide use; and the utility and reliability of the quality data items contained in the instrument.

3. Combining the MDS–PAC and the FIM

The MDS–PAC covers several topics, for example, nutrition, swallowing, and pain, that are either not included in the FIM or not covered in sufficient detail in the FIM for clinical assessment purposes, and that are not currently used in classifying patients for payment. An alternative to using the MDS–PAC would be to retain the non-payment items from the MDS–PAC and incorporate the FIM items for patient classification into CMGs. Because of our concerns, as outlined above (for example, compatibility with assessments in other settings), we have rejected this option for purposes of this proposed rule and propose to use payment-related questions that are compatible with the FIM.

However, the FIM assessment system has been under development since the mid 1980s and is currently recognized as a valid and reliable instrument to measure impairments in IRFs. The FIM are in current and increasing use in rehabilitation facilities, the data analysis being performed by UDSmr and by COS, with the data analysis organization depending on which of these two organizations the IRF has selected. Thus, there has been extensive training in and experience with the data elements, particularly the functional components, that enter into the construction of the CMGs. We will be testing whether the MDS–PAC results in patient classifications that are equivalent to the classifications that occurred with the FIMs (that is, the assessment instruments that were used to design the payment system).

If the tests show that patients are classified differently using the MDS–PAC, HCFA will, in the final rule, incorporate the phrasing, definitions, and order of the items required by the payment system, based on the FIM, replacing the proposed equivalent sections of the MDS–PAC. This would meet our objective to field the more extensive instrument to provide a more complete picture of the evolution of condition of the patient and of the care provided in the IRF, but also to retain confidence in the validity of the classification of the patient. Using the phrasing, definitions, and order of the items would minimize the effect on reliability and validity inherent in the design of new data collection instruments.

4. The MDS-PAC Development Process

Under contract, a team led by John N. Morris, Ph.D., at the Hebrew Rehabilitation Center for the Aged, began to develop the MDS-PAC in 1997. This team played a key role in designing the original MDS/RAI system and MDS 2.

The MDS–PAC development process relied on broad-based input from a large and diverse constituency, representing rehabilitation facilities, SNFs, long-term care hospitals, and the viewpoints of individual and corporate providers, clinical disciplines, consumers, States, other Federal agencies, and researchers. Examples of organizations representing rehabilitation providers and clinicians include the American Medical Rehabilitation Providers Association, the American Hospital Association (representing hospital-based rehabilitation units), the Federation of American Health Systems, the Commission on Accreditation of Rehabilitation Facilities, the National Head Injury Foundation, the Uniform Data System for Medical Rehabilitation, the Association of Academic Physiatrists, and the American Academy of Physical Medicine and Rehabilitation.

Representatives and staff of over 40 national organizations and agencies with a stake in the MDS–PAC were brought together in a technical expert panel, which met at the outset of the MDS–PAC development process, and at key intervals thereafter. The purpose of the technical expert panel was to provide us with advice on technical and operational issues associated with assessment of post-acute patients. We requested that technical expert panel representatives disseminate project information to their constituents, coordinate input from their members back to our project team, and assist with identifying facilities to participate in field testing of the instrument. We solicited comments from technical expert members on several drafts of the MDS–PAC, and also conducted a mailing that solicited comments from over 1100 facilities and individuals, identified in part by technical expert panel members. We also posted a project summary and various drafts of the MDS–PAC on our MDS web site. In addition, the project team reviewed the

comments we received on the assessment instrument.

We began development of the MDS–PAC by gathering baseline information through focus groups, a provider survey, and collection of MDS data within rehabilitation hospitals/hospital-based units and long-term care hospitals. We held two focus groups, consisting of physicians, nurses, and therapists who were involved in patient assessment and care planning on a daily basis within rehabilitation hospitals and units, SNFs, and long-term care hospitals. The clinicians who participated in the focus groups were all nominated by the national associations representing rehabilitation hospitals, SNFs, and long-term care hospitals. The purpose of the focus groups was to solicit real-world input regarding current assessment and care planning practices for post-acute patients.

We also conducted a survey of SNF, rehabilitation hospital, and long-term care hospital providers to gather information about their patient populations, assessment and care planning practices, care processes, care delivery models, and the availability of various types of specialized staff. Facility staff were asked to comment on the perceived clinical utility of MDS items and each of the RAPs for their own patient populations. Providers participating in our focus groups were asked to pilot the questionnaire, which was subsequently refined. The questionnaire was then distributed to over 900 SNFs, rehabilitation hospitals and units, and long-term care hospitals that had requested information on the project or whose names we had received from associations participating on the technical expert panel. A total of 416 providers (224 SNFs, 131 rehabilitation hospitals or units, and 61 long-term care hospitals) responded to the survey during January through March 1998. A summary of these responses was presented during our March 1998 meeting with the technical expert panel.

Using the input gathered from our initial activities, we developed an initial draft of the MDS–PAC in September 1997. In developing the initial MDS–PAC draft, it is important to note that we did not start with the current MDS 2. Rather, we used a ''bottom-up'' approach to build the MDS–PAC. This means that we started by listing the various domains and issues that had been identified through our initial focus groups and provider survey as relevant for the post-acute patient. We then selected items to measure those specific issues from the MDS 2 or other HCFA assessment instruments, such as the Outcome and Assessment Information Set (OASIS) or the Uniform Needs Assessment Instrument. New items were developed for those areas in which no item currently existed within our group of assessment tools. In building and refining the MDS–PAC items we relied extensively on the input of clinical experts serving on, or identified by, our technical expert panel. Appendix B contains a summary of the survey items and the responses of the clinical experts.

The original MDS–PAC draft was refined through the production of 10 major draft revisions over a 2-year period. We solicited comments on various drafts through mailings to our technical expert panel, and to over 1100 providers that had been identified by the technical expert panel or otherwise indicated an interest in the project, as well as through posting of various drafts on our web site.

One of the guiding principles of our MDS–PAC development has been that the instrument had to include items that were compatible with the FIM and would result in the same patient classifications generated using the FIM. In nearly all instances, we did not simply insert the functional independence measures items into the MDS–PAC. Generally, the goal was to develop blended items that were consistent with the general MDS model and scales, but were also capable of generating the type and level of detail contained in a specific functional independence measure item. This work was conducted through extensive collaboration with Dr. Carl Granger, who was a member of our MDS–PAC technical expert panel, and his UDSmr team. Prior to our final rule, we will be conducting further research to determine whether the MDS–PAC will classify patients into the same CMGs as they would have been classified into using FIM.

5. Developmental Testing of the MDS–PAC

Drafts of the MDS–PAC were subjected to substantial field testing, to ensure it is both reliable and feasible for use as the patient data collection system needed to implement the IRF prospective payment system. Formal testing consisted of an initial pilot test, as well as two larger rounds of field testing, in rehabilitation hospitals and units, SNFs, and long-term care hospitals. In conducting research, a pilot test allows a preliminary trial of an instrument to discover and rectify any major problems before the main study begins. A pilot test uses a small study sample of facilities, whose results enable researchers to make last minute corrections and adjustments. A field test uses a larger sample and more formally delineated procedures and protocols.

In conducting our tests we worked with a number of providers that volunteered to participate either directly or through their provider associations. However, most of the participants in each of the testing rounds were recruited randomly from our listing of Medicare-certified providers maintained in the Online Survey and Certification Reporting System; we designed our sample to ensure that participating facilities varied in geographic location, size, etc.

Pilot testing of the MDS–PAC was conducted in September through October 1998, with a total of 20 providers (7 rehabilitation hospitals or units, 4 long-term care hospitals, 9 SNFs; 15 sites recruited randomly). A total of 161 assessments were completed as part of the pilot test, with 69 completed by rehabilitation hospitals, 68 by SNFs, and 24 by long-term care hospitals.

MDS–PAC testing consisted of a pilot test and two field tests. A total of 16 assessors participated in the pilot test conducted in IRFs and 96 and 75 assessors participated in the first and second field tests, respectively. The MDS–PAC was used to assess a total of 885 admissions and 345 discharges in these IRFs during this pilot and field testing. The average length of stay for these admissions was 18.9 days with a median of 16 days.

The initial field test occurred in January through April 1999, in 85 providers total (40 rehabilitation hospitals or units, 21 long-term care hospitals, 22 SNFs, and 2 facilities for which the above category was not properly recorded; 51 sites recruited randomly). A total of 1164 patients were assessed using draft 8 of the MDS–PAC, with 599 cases assessed in rehabilitation hospitals or units, 284 in SNFs and 281 in long-term care hospitals.

The second field test was conducted in June through September 1999, in a total of 57 providers (33 rehabilitation hospitals and units, 11 long-term care hospitals, 13 SNFs; 39 sites recruited randomly). A total of 462 cases were completed in the second field test, with 285 patients assessed by rehabilitation hospitals, 80 by SNFs, and 97 by long-term care hospitals.

Testing focused on the inter-rater reliability and clinical validity of MDS–PAC items, as well as the administrative feasibility and burden associated with completion of the assessment tool. Paired assessments were completed for a sample of cases during each of the field trials (N=171 assessments

conducted using the June 30, 1999 version of the MDS–PAC used in field test 2) and reliability coefficients were calculated using a weighted Kappa statistic. Reliability measures whether the instrument would result in the same findings if it were administered at a later date or by a different person. The average reliability for the 315 items on the version of the MDS–PAC tested in the second field test (draft 9) was 0.78. A frequently cited standard in the research community, Fleiss (1975), establishes item reliability of 0.5 as acceptable, with levels of 0.75 or better considered as superior for tools of this nature. Reliability coefficients ranged from 0.51 for ''repetitive health complaints'' to 1.0 for several items.

Facility staff were asked to log the amount of time spent on each MDS–PAC assessment, and also categorize how that time was spent. There was general comparability across provider types in how time was spent. Review of the clinical record consumed the most time and interaction with the patient's physician or family was conducted by only a minority of assessors. Recognizing the learning curve associated with any new process, burden estimates were calculated for both the initial few cases completed by staff and subsequent cases after staff had become more familiar with the process (that is, after completing approximately 10 MDS–PAC assessments).

Rehabilitation hospital staff initially required a median of 105 minutes to complete the intake assessment and 85 minutes after they became familiar with the Version 9 MDS–PAC, as compared to the 85 and 77 minutes respectively, required by SNF staff. The time required to complete follow-up or discharge MDS–PAC assessments was also calculated, as these assessments involve fewer items than the initial MDS–PAC assessment. Rehabilitation hospital staff required a median of 75 minutes to complete the first few cases using this shorter assessment and 48 minutes after they completed approximately 10 cases. SNF staff spent a median of 50 minutes on the first few follow-up assessments they completed, and 45 minutes subsequently.

B. Overview of the MDS–PAC Assessment Process

1. Description of the MDS–PAC

We include, in Appendix BB of this proposed rule, the MDS–PAC Version 1, which we refer to throughout this preamble as the MDS–PAC. Appendix BBB contains the Item-by-Item Guide to the MDS–PAC, which consists of instructions for completing the MDS–PAC. The MDS–PAC that is included in Appendix BB is a modified version of the MDS–PAC that was the product of the previously described pilot and field testing. This modified version MDS–PAC reflects changes we made in order to ensure that the MDS–PAC items used to classify a patient into a CMG cover all of the same subjects as the functional independence measures items that were used to develop the classification system.

Before the final rule, we will conduct field testing of the modified MDS–PAC, Version 1, to establish its validity, reliability, and equivalence for payment. In addition, we will study a sample of facilities that are currently using UDSmr's FIM patient assessment instrument and the COS. These facilities will complete their instruments (either UDSmr's or COS) and the MDS–PAC on the same patient at the same time. Results of this paired assessment will be compared to determine the capability of the MDS–PAC instrument to accurately and consistently assign CMGs and whether the MDS–PAC assigns the same CMGs as the UDSmr/COS instrument would. If the results of this study do not indicate that the MDS–PAC accurately and consistently assigns CMGs as the UDSmr/COS instrument would, then the MDS–PAC will be redesigned to incorporate the phrasing, content, and coding conventions of the UDSmr/COS instruments. This study will be completed this fall by researchers from RAND, and the results will be incorporated into the final rule. The study and any modifications to the assessment instrument will be completed prior to the publication of the IRF prospective payment system final rule.

The MDS–PAC is a patient-centered assessment tool that emphasizes a patient's care needs, rather than the characteristics of the provider. The assessment instrument consists of 15 sections, each collecting different categories of patient information. These categories include identification and demographic information about the patient, as well as the following categories of information: cognition; communication; behavior and mood; functional status; bowel and bladder continence; diagnoses; medical complexities and other health conditions; oral and nutritional information; pain status information; information on procedures and services; functional prognosis; and resources for discharge.

2. Use of the MDS–PAC

We propose to require that IRFs use a standardized patient data collection assessment instrument for Medicare patients in IRFs, the MDS–PAC. We propose to require that IRFs must computerize and electronically report the MDS–PAC data.

Each year tens of thousands of Medicare patients are treated in IRFs. As discussed in more detail in section III.F. of this preamble, we propose that each of these patients would be assessed on the average at least of three times, with the MDS–PAC being used as the patient assessment instrument. Therefore, there will be a very large quantity of data collected and submitted to us each year. As a result, it would be unrealistic for us to perform a meaningful analysis of this large amount of data for payment, medical review, and quality monitoring purposes in the absence of the capability to use automated data collection. An analysis of MDS–PAC data would allow us to use MDS–PAC data in a manner similar to how we use SNF MDS data.

One use of SNF MDS data is to support quality of care monitoring. The SNF MDS data is reliable and effective in supporting early identification of potential quality of care problems. Early identification, in turn, helps to focus the survey process upon these identified problem areas.

Using MDS data we have developed indicators of the quality of care in SNFs. The quality of care indicators are used to support analytical evaluations of the quality of services that SNFs furnish. For example, we use MDS data to provide us with objective and detailed measures of the clinical status and care outcomes of residents in a SNF. In addition, quality of care indicators can be used to analyze the relationship between Medicare policy changes and quality of care.

Computerization of the MDS–PAC data would make it easier and more practical for an IRF to use the MDS–PAC data to classify a patient into a CMG. Electronic transmission of the MDS–PAC data by the IRF makes the creation of an MDS–PAC database feasible. An MDS–PAC database, in turn, permits the data to be accessed easily in various formats for different analytical purposes, which can be used to support the Medicare program's fraud and abuse efforts, for medical review purposes, and for uses similar to how the SNF MDS data is used.

We propose that beginning on April 1, 2001, IRFs must collect MDS–PAC data as part of the IRF's inpatient assessment process for patients who are receiving Medicare-covered Part A services. This MDS–PAC data collection requirement applies to Medicare beneficiaries who are already inpatients as of April 1,

2001, as well as beneficiaries admitted as inpatients on or after April 1, 2001. In addition, we propose that the IRFs must use the MDS–PAC to assess inpatients in accordance with the MDS–PAC assessment schedule specified in section III.F. of this preamble.

The IRFs would encode the MDS–PAC data by entering the MDS–PAC data into a computer software program. MDS–PAC records would be considered ''locked'' when they passed all HCFA-specified edits and were accepted by the MDS–PAC database to which the IRF transmitted its records.

We propose in § 412.610 that IRFs must also maintain all completed MDS–PAC assessments for the previous 5 years, either in a paper format in the patient's clinical record or in an electronic computer file format that can be easily obtained, because the assessments may be needed as part of a retrospective review conducted at the IRF for various purposes, for example, as part of the documentation that the IRF used to determine the medical necessity of the Medicare-covered services the IRF furnished. Also, completed MDS–PAC assessments that are available at the IRF could be beneficial to other entities that appropriately have access to these records (for example, a State or Federal agency conducting an investigation due to a complaint of patient abuse or a suspicion of fraud). In addition, retention of the MDS–PAC assessment by the IRF would provide a backup to the electronic database.

Data from the initial MDS–PAC assessment would be used to classify patients into a CMG. The CMG would correlate with the payment rate that the IRF receives for the Medicare-covered Part A services furnished by the IRF during the Medicare beneficiary's episode of care.

3. Transmission of the MDS–PAC Data

We propose that between February 1 and February 28, 2001, IRFs must complete a successful transmission of test MDS–PAC data to the HCFA MDS–PAC system. A successful transmission by the IRFs of test MDS–PAC data to the HCFA MDS–PAC system is necessary to determine connectivity with the system and to identify any transmission problems. The HCFA MDS–PAC system would transmit a test data feedback report to each IRF indicating that the test data transmission was either completely successful or experienced problems. The problems would be specified in the test data transmission report.

On March 1, 2001, the HCFA MDS–PAC system would begin to purge all test data from the system to allow for acceptance of production data, that is, data that would be associated with the MDS–PAC assessment schedule and CMG payment rates, as specified in sections III. F. and V. of this preamble.

For example:

February 1, 2001, to February 28, 2001—Period for transmission of test MDS–PAC data.

March 1, 2001, to March 7, 2001—The HCFA MDS–PAC system purges test data.

April 1, 2001—Assessments completed on or after this date must be transmitted as production data.

As specified in section III. I. of this preamble, we would provide training and technical support to the IRFs on administering and completing the MDS–PAC, as well as transmitting the MDS–PAC data.

C. The MDS–PAC Assessment and Medical Necessity

The initial MDS–PAC assessment would be used to classify each Medicare patient into a CMG, with the CMG being the basis for IRF payment. One principle governing appropriate Medicare payment and utilization of Medicare inpatient services is that there must be documentation establishing appropriate medical necessity for the inpatient services furnished to a patient.

When the data recorded on the MDS–PAC accurately reflect the patient's clinical status, they form the basis for documenting the medical necessity of the services furnished to the IRF Medicare inpatient. There may be cases in which a medical review (or other type of facility or patient review) questions the accuracy of the recorded MDS–PAC items and, by extension, the associated medical necessity of the services that the IRF furnished. In these cases, other documentation would be examined to verify the information recorded on the MDS–PAC, and the medical necessity for the services as indicated by the MDS–PAC. Other documentation that would support the accuracy of the recorded MDS–PAC information (and the medical necessity for the services furnished to the inpatient) must be recorded in the patient's medical record and could include, but is not limited to: (1) physician's orders; (2) physician's notes; (3) nursing notes; (4) notes from therapists; (5) diagnostic tests and their results; and (6) other associated information, such as social worker or case manager notes.

A patient's clinical status for a given time period, as indicated by a completed MDS–PAC form, must be verifiable and consistent with the clinical information independently or separately recorded in the patient's clinical record. Otherwise, inaccurately completed MDS–PAC assessments might be used to classify patients into CMGs that would, in turn, form the basis for Medicare payment for medically inappropriate or unnecessary services. We will continue to conduct medical review activities to verify and monitor the medical necessity of services furnished in conjunction with our continuing efforts to eliminate Medicare payment errors.

In proposed § 412.614, facilities will transmit each Medicare inpatient's MDS–PAC assessments to the HCFA MDS–PAC system, and submit claims for Medicare payment to the fiscal intermediary, in accordance with the current claims procedures. Payment to the IRF would be made according to the CMG recorded on the claim sent to the fiscal intermediary. We will have the capability to analyze the claim information against the transmitted MDS–PAC data. The results of this analysis may necessitate additional review of a particular claim and the associated MDS–PAC data to determine if payment was made accurately.

D. The MDS–PAC Assessment Reference Date

In § 412.610(c) we propose that each assessment would have a specific assessment reference date. The purpose of the assessment reference date is to establish a common temporal reference point for the care team participating in the patient's assessment. Although staff members may work on completing a patient's MDS–PAC on different days, establishment of the assessment reference date ensures the commonality of the assessment period (that is, ''starting the clock''), so that all assessment items refer to the patient's objective performance and clinical status during the same period of time. The assessment reference date is a specific endpoint in the MDS–PAC assessment observation time period. Almost all MDS–PAC items refer to the patient's status over a continuous three calendar day time period, which is the observation time period.

During the patient's current hospitalization, an IRF must indicate on the MDS–PAC one of the following assessment reference dates—

- For the assessment that covers calendar days 1 through 3 of the patient's current hospitalization the date that is the third calendar day after the patient started being furnished Medicare-covered Part A services.
- For the assessment that covers calendar days 8 through 10 of the

patient's current hospitalization the date that is the 10th calendar day after the patient started being furnished Medicare-covered Part A services.

- For the assessment that covers calendar days 28 through 30 of the patient's current hospitalization the date that is the 30th calendar day after the patient started being furnished Medicare-covered Part A services.
- For the assessment that covers calendar days 58 through 60 of the patient's current hospitalization the date that is the 60th calendar day after the patient started being furnished Medicare-covered Part A services.
- For the assessment that must be completed when the patient stops receiving Medicare-covered Part A services but is not discharged from the IRF, the assessment reference date must be the actual date that the patient stops receiving Medicare-covered Part A services.
- For the assessment that is completed when the patient stops receiving Medicare-covered Part A services and is discharged from the IRF the assessment reference date must be the actual date of discharge from the patient rehabilitation facility.

The general concept is that the assessment reference date sets the designated endpoint of the common 3-day observation period, and the MDS–PAC items will usually refer back in time from this point. The assessment reference date establishes the end of the assessment time period that the clinician(s) will use for the data gathering. As specified in proposed § 412.606(c), these data are obtained through patient observation, patient interview, the clinical record or other means, in order for the clinician(s) to complete an MDS–PAC assessment that covers a given data-gathering time period.

For discharge assessments, the date when the patient either is discharged or stops receiving Medicare-covered Part A services is the assessment reference date. The observation time period includes either the date that the patient is discharged, or the date that the patient stops receiving Medicare-covered Part A services, along with the preceding 2 calendar days. In a situation when the discharge occurs unexpectedly, the clinical record would become a prime source of the data recorded on the MDS–PAC.

E. Performing the MDS–PAC Assessment

In § 412.606, we propose that Medicare beneficiaries who are inpatients of an IRF must be assessed by a professional clinician(s), and that the MDS–PAC must be used to perform the patient assessment. Because the MDS–PAC will be used to obtain a variety of assessment data, we believe that the assessment process should be a collaborative team effort, employing the clinical skills of a variety of professional clinicians.

The data recorded for a specific MDS–PAC item may be more accurate if the information used to record the data for that specific item was obtained by a professional clinician with specialized training related to that specific MDS–PAC item. A professional clinician may be a dietitian, an occupational therapist, a physical therapist, a physician, a practical (vocational) nurse, a registered nurse, a speech-language pathologist or a social worker.

For purposes of this proposed rule, we propose to incorporate the existing definition of a qualified dietitian specified in § 483.35(a)(2). For purposes of this proposed rule, we propose to incorporate the existing standard at § 482.56(a)(2) of who may perform occupational therapy and physical therapy as defining the terms occupational therapist and physical therapist. Section 482.56(a)(2) states that physical therapy and occupational therapy ''must be provided by staff who meet the qualifications specified by the medical staff, consistent with State law.'' Therefore, an occupational therapist and a physical therapist are individuals who meet the qualifications of the provider's medical staff and State law.

A practical (vocational) nurse, a registered nurse, and a speech-language pathologist are individuals who meet the applicable definitions of § 484.4. For purposes of this proposed rule, an individual would be considered a social worker if that person meets either the definition in § 483.15(g)(3) or the one in § 483.430(b)(5)(vi), because these two sections define a social worker in terms of varying levels of education and experience.

For purposes of this proposed rule, we propose to define the term physician as an individual who is a doctor of medicine or osteopathy who is currently legally licensed to practice medicine and surgery by the State in which that function or action is performed.

Performing an MDS–PAC assessment is a process that involves patient interview, patient observation, and, if necessary, obtaining information from other sources, such as the clinical record or the patient's family. The data recorded on the MDS–PAC would be the result of that total assessment process, and the manner in which data is obtained for a specific MDS–PAC item would depend on a combination of the instructions on the MDS–PAC form itself, the Item-by-Item Guide to the MDS–PAC, and provisions set forth via rulemaking. Although different professional clinicians may be involved in the MDS–PAC assessment process, in order to ensure that the MDS–PAC assessment process is properly followed, we propose that only specific clinicians be authorized to sign item AB1a of the MDS–PAC.

In general, we believe that physicians, registered nurses, physical therapists, and occupational therapists are the only disciplines equipped with the education and experience to accurately assess the entire range of an individual's functional/motor performance and medical/clinical status. Additionally, the licensure requirements of some States restrict the human services disciplines that may perform a clinical assessment. Therefore, we propose that only an occupational therapist, a physical therapist, a physician, or a registered nurse be authorized to sign item AB1a of the MDS–PAC and provide the data for items AB1b thru AB1g of the MDS–PAC. Item AB1a is where the clinician who is attesting to the completion of the assessment signs. Items AB1b thru AB1g are the items that identify the clinician who signed item AB1a and the date that item AB1a was signed.

The clinician who signs item AB1a would be responsible for the accuracy and thoroughness of a specific patient's MDS–PAC assessment, and would be responsible for the accuracy of the date inserted in item AB1g. The signatures of other professional clinicians who contributed to the data recorded on the MDS–PAC would be recorded in item AB, lines 2a through item 2f.

The data for the MDS–PAC items that require the collection of data that is not associated with the observation of an activity by the patient can be obtained from the patient, the patient's clinical record, and, if necessary, from the patient's family. If the patient is uncooperative we believe that the data that is not associated with the observation of an activity by the patient can be obtained from the patient's clinical record, or other easily obtained documentation that contains patient information. We believe that the data for the MDS–PAC items related to the observation of a particular activity would always be recorded on the MDS–PAC, because these items allow for the recording of the data in different ways, including recording that the activity did not occur. For the items related to observation of a patient activity we want to emphasize that the clinician assessor should not require a patient to perform

an activity that in the clinician's professional judgment is clinically contraindicated or hazardous. The Item-by-Item Guide to the MDS–PAC in Appendix BBB contains information concerning observational techniques and provides more guidance for clinicians in performing the MDS–PAC assessment.

F. The MDS–PAC Assessment Schedule

1. General Rule

We propose in § 412.610 that an IRF Medicare patient be assessed by a clinician(s) using the MDS–PAC to gather and record the patient assessment data. The length of the patient's hospitalization would determine how many MDS–PAC assessments are required. Table 4C below, entitled ''MDS–PAC Assessment Schedule and Associated Dates,'' illustrates the proposed MDS–PAC assessment schedule for the following ''MDS–PAC Assessment Type'': Day 4, Day 11, Day 30, and Day 60 assessments. The term ''day'' as used in the assessment schedule is a calendar day, and is counted as including the first day of the patient's current IRF hospitalization when the patient started receiving Medicare-covered Part A services, (which is generally the day of admission to the IRF). As specified in proposed § 412.620(a)(3), in general only data from the Day 4 assessment would determine the CMG classification that would in turn determine the payment that the IRF would receive for the entire episode of the patient's hospitalization. If a patient is not hospitalized in the IRF for the time period needed for the Day 4 assessment, then the patient's CMG would be determined as specified in section V.C. of this preamble.

TABLE 4C.—MDS–PAC ASSESSMENT SCHEDULE AND ASSOCIATED DATES

MDS–PAC assessment type	Hospitalization time period and observation time period*	MDS–PAC assessment reference date*	MDS–PAC must be completed by:*	Hospitalization episode covered by this assessment:	MDS–PAC must be encoded by:*	MDS–PAC must be transmitted by:*
Day 4	First 3 Days	Day 3	Day 4	Entire Hospitalization Time Period.	Day 10	Day 16
Day 11	Days 8 to 10	Day 10	Day 11		Day 17	Day 23
Day 30	Days 28 to 30	Day 30	Day 31		Day 37	Day 43
Day 60	Days 58 to 60	Day 60	Day 61		Day 67	Day 73

Currently, on the MDS–PAC, item B4 ''Indicators of Delirium—Periodic Disordered Thinking/Awareness,'' requires an assessment time period that is 7 days in length. Item F1 ''Bladder Continence,'' and item F4 ''Bowel Continence'' require an assessment time period that is 7 to 14 days in length. Therefore, the assessment time period and associated coding for these three items affect the dates for the ''Hospitalization Time Period and Observation Time Period,'' the ''MDS–PAC Assessment Reference Date,'' the ''MDS–PAC Must Be Completed by:,'' the ''MDS–PAC Must be Encoded By:,'' and the ''MDS–PAC Must be Transmitted By:''. As stated previously, we will be conducting additional testing of the MDS–PAC. This additional testing will determine if the assessment time period for items B4, F1, and F4 can be changed, or if the instructions on assessing these items should be changed. If our additional testing indicates that the assessment time periods or the instructions for assessing items B4, F1, and F4 should not be changed, then in the final rule we will change the proposed MDS–PAC assessment schedule and associated dates to reflect the current assessment time periods of these three items.

Table 4C represents the generic assessment schedule and other associated MDS–PAC dates. Table 5C.—Example Applying the MDS–PAC Assessment Schedule and Associated Dates, below is an example of how Table 4C would be applied using actual calendar dates. In Table 5C it is assumed that the patient was admitted on April 3, 2001.

TABLE 5C.—EXAMPLE APPLYING THE MDS–PAC ASSESSMENT SCHEDULE AND ASSOCIATED DATES

MDS–PAC assessment type	Hospitalization time period and observation time period	MDS–PAC assessment reference date	MDS–PAC must be completed by:	MDS–PAC must be encoded by:	MDS–PAC must be transmitted by:
Day 4	First 3 Days	4/5/01	4/6/01	4/12/01	4/18/01
Day 11	Days 8 to 10	4/12/01	4/13/01	4/19/01	4/25/01
Day 30	Days 28 to 30	5/2/01	5/3/01	5/9/01	5/15/01
Day 60	Days 58 to 60	6/1/01	6/2/01	6/8/01	6/14/01

Each patient is assessed by a clinician(s) using an MDS–PAC to perform a comprehensive assessment according to the schedule stated above. More than one clinician can contribute to completion of the MDS–PAC. We believe that MDS–PAC assessment accuracy would be enhanced if the data collected for an MDS–PAC item is collected by a clinician with specialized training and experience in the area of the data being collected. For example, although a registered nurse could fully assess all aspects of a patient and collect all the MDS–PAC data, a physical therapist or an occupational therapist has the specialized training which may contribute to a more accurate assessment of some neuro-muscular items. Our objective is to have data collected that would best reflect the patient's unique circumstances and clinical status during the assessment observation period, considering that an MDS–PAC item may provide for several possible responses and that the accuracy of patient assessment is contingent on the training and experience of the clinician assessor.

In section IV. of this preamble, we specify the MDS–PAC items that would be used to classify a patient into a specific CMG. We propose to require

that data be collected not only for the items that would be used to classify a patient into a CMG, but also for any of the other MDS–PAC items for which data collection is appropriate according to one or more of the following: (1) the instructions on the MDS–PAC; (2) the Item-by-Item Guide to the MDS–PAC; and (3) applicable rulemaking provisions.

The example that follows, with ''day'' referring to a calendar day, illustrates a typical IRF's Medicare beneficiary hospitalization assessment schedule:

- Hospitalization Day 1. Patient admission day and the day that the IRF begins to furnish Medicare-covered Part A services. This is the day that starts the count as ''day 1'' when determining the assessment time periods for the MDS–PAC assessments.
- Hospitalization Day 3. The last day of the 1 through 3 calendar day assessment observation period and, as a general rule, the last day that can be used to set the assessment reference date for the initial (Day 4) MDS–PAC assessment.
- Hospitalization Day 4. The day by which the Day 4 MDS–PAC must be completed.
- Hospitalization Day 10. The last day of the 8 through 10 calendar day assessment observation period and, as a general rule, the last day that can be used to set the assessment reference date for the first re-assessment.
- Hospitalization Day 11. The day by which the Day 11 MDS–PAC must be completed.
- Hospitalization Day 30. The last day of the 28 through 30 calendar day assessment time period and, as a general rule, the last day that can be used to set the assessment reference date for the second re-assessment.
- Hospitalization Day 31. The day by which the Day 30 MDS–PAC must be completed.

In the above example, if the patient is instead discharged on day 22 of the hospitalization, then the discharge day is the assessment reference date.

2. Interrupted Stays

a. *Definition of an Interrupted Stay.*

As specified in proposed § 412.602 an interrupted stay is one in which an IRF patient is discharged from the IRF and returns to the same IRF within 3 calendar days. For purposes of the MDS–PAC assessment process, if a patient has an interrupted stay, then: (1) the initial CMG classification from the ''initial'' (Day 4) MDS–PAC assessment would remain in effect (no new initial MDS–PAC assessment would be performed); and (2) the required scheduled MDS–PAC update assessments must still be performed. A patient who returns to the same IRF more than 3 calendar days after being discharged is considered a ''new'' patient for purposes of the MDS–PAC assessment schedule process. Being considered a ''new'' patient for the MDS–PAC assessment schedule process means that a new Day 4 assessment needs to be performed. That new Day 4 assessment would determine a new CMG. That new CMG may or may not be the same CMG into which the patient classified prior to the interrupted stay.

In counting the 3 calendar day time period to determine the length of the interrupted stay, the first day of the start of the interrupted stay is counted as ''day 1,'' with midnight of that day serving as the end of that calendar day. The 2 calendar days that immediately follow would be days 2 and 3. If the patient returns to the IRF by midnight of the third calendar day, then it would be determined that the patient had an interrupted stay of 3 calendar days or less.

When a patient has an interrupted stay, the interrupted stay must be documented on the MDS–PAC interrupted stay tracking form. The data recorded on the interrupted stay tracking form must be transmitted to the HCFA MDS–PAC system within 7 calendar days of the date the patient returns to the IRF.

b. Effect of an Interrupted Stay Upon the Assessment Schedule

When an interruption of a patient's IRF stay occurs it may affect the MDS–PAC—(1) assessment reference dates; (2) completion dates; (3) encoding dates; and (4) transmission dates.

As discussed in section III. D. of this preamble, the assessment reference date generally is the designated endpoint of the common 3-day observation period, and the MDS–PAC items will usually refer back in time from this point. Therefore, in order to set an assessment reference date, the patient must be an inpatient of the IRF during the 3-day observation time period. The 3-day observation time period must be continuous.

In order to facilitate the discussion that follows regarding the effect of an interrupted stay upon the assessment schedule Table 5C has been reproduced below.

TABLE 5C—EXAMPLE APPLYING THE MDS–PAC ASSESSMENT SCHEDULE AND ASSOCIATED DATES

MDS–PAC assessment type	Hospitalization time period and observation time period	MDS–PAC assessment reference date	MDS–PAC must be completed by:	MDS–PAC must be encoded by:	MDS–PAC must be transmitted by:
Day 4	First 3 Days	04/05/01	04/06/01	04/12/01	04/18/01
Day 11	Days 8 to 10	04/12/01	04/13/01	04/19/01	04/25/01
Day 30	Days 28 to 30	05/02/01	05/03/01	05/09/01	05/15/01
Day 60	Days 58 to 60	06/01/01	06/02/01	06/08/01	06/14/01

In Table 5C above, if an interruption of 3 calendar days or less occurred for any of the ''MDS–PAC Assessment Type'' assessment observation time periods (for example, the days specified in the ''Hospitalization Time Period and Observational Time Period'' column in the Table), then the associated assessment reference dates, MDS–PAC completion dates, MDS–PAC encoded by dates, and MDS–PAC transmitted by dates for that particular ''MDS–PAC Assessment Type'' would be shifted forward by the number of days that the patient was not an inpatient of the IRF.

We refer to Table 5C to illustrate the shifting forward of dates. With regard to the Day 4 assessment assume that the patient's stay began with admission to the IRF on April 3, 2001, but was interrupted on April 4, 2001, which would be day 2 of the patient's IRF hospitalization. The patient returned to the same IRF prior to midnight of April 6, 2001, and had an interrupted stay of 3 calendar days. The assessment reference date observation time period for the Day 4 assessment would be shifted to April 6, 7, and 8. (Without the interrupted stay, the Day 4 assessment reference date observation time period would have been April 3, 4, and 5, with the assessment reference date being April 5, 2001). Because of the interruption in stay, the MDS–PAC Day 4 assessment reference date would be

reset to April 8, 2001. The Day 4 MDS–PAC completion date would be reset to April 9, 2001. The Day 4 ''MDS–PAC Must Be Encoded By'' date would be reset to April 15, 2001. The Day 4 ''MDS–PAC Must Be Transmitted By'' date would be reset to April 21, 2001.

Before this interrupted stay, the Day 11 assessment reference date was set to be day 10 of the patient's hospitalization, which would be April 12, 2001. Because of the shifting forward of the Day 4 assessment reference date from April 5, 2001, to April 8, 2001, the Day 11 assessment dates, and only the Day 11 assessment dates, would also be shifted forward. The Day 11 assessment reference date would then be April 15, 2001. The Day 11 MDS–PAC completion date would be reset to April 16, 2001. The Day 11 ''MDS–PAC Must Be Encoded By'' date would be reset to April 22, 2001. The Day 11 ''MDS–PAC Must Be Transmitted By'' date would be reset to April 28, 2001. When there is a shifting forward of the Day 4 or Day 11 assessment dates they would not affect the assessment timeframes for the subsequent (for example, Day 30 or Day 60) assessments, because the purpose of shifting forward an assessment due to an interruption in stay is to keep the time periods between assessments to at least 7 calendar days.

Again, we refer to Table 5C to illustrate the shifting forward of dates. Assume that for the Day 11 reassessment the patient, who was admitted to the IRF on April 3, 2001, started an interrupted stay on April 11, 2001, which would be day 9 of the patient's IRF hospitalization. (For this example, do not assume that the patient also had a Day 4 interrupted stay.) The patient returned to the same IRF prior to midnight of April 13, 2001, and had an interrupted stay of 3 calendar days. The assessment reference date observation time period for the Day 11 assessment would be shifted to April 13, 14, and 15. (Before the interrupted stay, the Day 11 assessment reference date observation time period was April 10, 11, and 12, with the assessment reference date being April 12, 2001.) Due to the interruption in stay, the MDS–PAC assessment reference date would be reset to April 15, 2001. The MDS–PAC completion date would be reset to April 16, 2001. The ''MDS–PAC Must Be Encoded By'' date would be reset to April 22, 2001. The ''MDS–PAC Must Be Transmitted By'' date would be reset to April 28, 2001. The various dates, as illustrated in Table 5C, for the Day 30 and Day 60 assessments would not be affected by the shifting forward of the Day 11 assessment associated dates. However, if the patient had an interrupted stay during the time period that is associated with the Day 30 or Day 60 assessment as indicated in the Table 5C column entitled ''Hospitalization Time Period and Observation Time Period'' then the same shifting forward methodology described above for the Day 11 assessment would apply.

3. MDS–PAC Dates Associated with the Discharge Assessment

As specified in proposed § 412.610(c)(5) and (6) the assessment reference date for the discharge assessment is the day when one of two events occurs first: (1) the day the patient is discharged from the IRF or (2) the day the patient ceases receiving Medicare-covered Part A inpatient rehabilitation services. The MDS–PAC assessment is performed only at the first point in time either of these events occur. There may be cases when a patient ceases receiving inpatient rehabilitation Medicare-covered services, but is not discharged from the IRF.

After the assessment reference date for the discharge MDS–PAC assessment is determined the completion date for the discharge MDS–PAC assessment must be set. As specified in proposed § 412.610(e)(2) the completion date for the discharge MDS–PAC assessment is the 5th calendar day in the period beginning with the discharge MDS–PAC assessment reference date. To count the 5 calendar days, count the discharge MDS–PAC assessment reference date as day 1 of the 5 calendar days. For example, if the MDS–PAC assessment reference date is May 1, 2000, then the MDS–PAC completion date would be May 5, 2000.

The method used to determine the completion date for the discharge MDS–PAC assessment is not the same method used to determine the completion date for the Day 4, Day 11, Day 30 or Day 60 MDS–PAC assessments. The reason for using a different method to determine the discharge MDS–PAC completion date is because of the definition of an interrupted stay. Previously we specified that after the patient returns to the IRF after an interrupted stay another Day 4 assessment is not performed, and the CMG into which the patient classified prior to starting the interrupted stay is still in effect. Therefore, in order to ensure that a clinician does not perform a discharge assessment on a patient who meets the criteria of an interrupted stay, it is necessary to make the completion date of the discharge MDS–PAC assessment a date that exceeds the interrupted stay defined time period. This safeguard prevents the performance of unnecessary MDS–PAC discharge assessments by the IRF.

In addition, any discharge MDS–PAC assessment that is transmitted to the HCFA MDS–PAC system is used by the system to indicate that a patient is no longer hospitalized in the IRF. Therefore, if a discharge assessment that is only associated with an interrupted stay is transmitted to the HCFA MDS–PAC system, it would result in the HCFA MDS–PAC system rejecting any subsequent update (either a Day 11, Day 30 or Day 60) assessments that are associated with the patient's continued hospitalization in the same IRF following an interrupted stay.

As specified in proposed § 412.610(e)(3) the discharge MDS–PAC ''must be encoded by'' date is the 7th calendar day in the period beginning with the discharge MDS–PAC completion date. To count the 7 calendar days, count the discharge MDS–PAC assessment completion date as day 1 of the 7 calendar days. For example, if the MDS–PAC assessment completion date is May 5, 2000, then the MDS–PAC must be encoded by date would be May 11, 2000.

As specified in proposed § 412.614(c) the discharge MDS–PAC ''must be transmitted by'' date is the 7th calendar day in the period beginning with the discharge MDS–PAC ''must be encoded by'' date. To count the 7 calendar days, count the discharge MDS–PAC assessment ''must be encoded by'' date as day 1 of the 7 calendar days. For example, if the MDS–PAC assessment must be encoded by date is May 11, 2000, then the MDS–PAC must be transmitted by date would be May 17, 2000.

Table 6C below illustrates the discharge MDS–PAC dates discussed above:

TABLE 6C.—EXAMPLE APPLYING THE MDS–PAC DISCHARGE ASSESSMENT DATES

MDS–PAC assessment type	Discharge date*	MDS–PAC assessment reference date	MDS–PAC must be completed on:	MDS–PAC must be encoded by:	MDS–PAC must be transmitted by:
Discharge Assessment	5/1/00	5/1/00	5/5/00	5/11/00	5/17/00

*This is either: (1) the day the patient is discharged from the IRF; or (2) the day the patient ceases receiving Medicare-coverred Part A inpatient rehabilitation services.

Data from recent studies indicate that the vast majority of patients are discharged from IRFs within the first twenty calendar days of their hospitalization. Therefore, we believe that, in most cases, IRFs would only perform three assessments under this proposal: The Day 4, Day 11, and the discharge assessment. Early data indicated that the mean length of stay was 18.9 days, that the median length of stay was 16 days, with a standard deviation of 13. More recent data from the RAND Institute indicates that the mean length of stay is 15.81 days, and that the median length of stay is 14 days. The recent RAND data also indicates that less than 9 percent of patients would require a Day 30 assessment and less than ½ of 1 percent of patients would require a Day 60 assessment. We are especially interested in Day 30 and Day 60 assessments because these cases will be very unusual when compared to the average length of stay; therefore, we want to understand what characteristics make these cases atypical. In addition, Day 30 assessment data may be useful in making any future CMG refinements; for example, providing outlier information after the IRF prospective payment system has been implemented. We are specifically soliciting comments on the benefits of performing interim assessments on days 11, 30, and 60.

4. Assessment Rule to Use If Medicare Beneficiaries Are Receiving IRF Services on the Effective Date of this Regulation

We propose a special MDS–PAC assessment rule for the Medicare beneficiaries who already are IRF patients on the date that this regulation becomes effective. For these patients we are proposing that only one MDS–PAC assessment must be performed. The one MDS–PAC assessment would be used to classify a patient into a CMG, and that CMG would determine the payment the IRF would receive for all the Part A services the IRF furnished to the patient during the patient's current hospitalization. For Medicare beneficiaries who already are IRF patients on the date that this regulation becomes effective the one MDS–PAC assessment would, as applicable, cover one of the following calendar day time periods and associated conditions: (1) When this regulation becomes effective if a patient currently hospitalized continues being an IRF patient for at least 3 calendar days, then the data for the MDS–PAC assessment items must be collected according to the instructions on the MDS–PAC form and the Item-by-Item Guide to the MDS–PAC. (2) When this regulation becomes effective if a patient currently hospitalized continues being an IRF patient for only 2 calendar days, then the data for the MDS–PAC assessment items that must be collected would pertain to only these 2 calendar days, unless the instructions on the MDS–PAC form and the Item-by-Item Guide to the MDS–PAC specify a shorter time period. (3) When this regulation becomes effective if a patient currently hospitalized continues being an IRF patient for only 1 or less than 1 calendar day then the data for the MDS–PAC assessment items that must be collected would pertain to 1 or less than 1 calendar day, unless the instructions on the MDS–PAC form and the Item-by-Item Guide to the MDS–PAC specify a shorter time period.

For this special MDS–PAC assessment we propose that, no later than 30 calendar days from the date this regulation becomes effective, all the following would apply—(1) the data for this special MDS–PAC assessment must be collected; (2) this special MDS–PAC must be completed; (3) the MDS–PAC data for this special assessment must be encoded; and (4) the MDS–PAC data for this special assessment must not only be transmitted to but also be accepted by the HCFA MDS–PAC system. We propose that if the IRF does not, as specified above, collect, complete, encode, and transmit the data for this special MDS–PAC assessment, then the IRF would receive no payment for any of the Part A services furnished to Medicare beneficiaries who already are IRF patients on the date that this regulation becomes effective.

5. What MDS–PAC Items Are Collected On Each Assessment

The MDS–PAC assessments must be performed according to the schedule specified previously. Table 7C's.—MDS–PAC Items Required by Type of Assessment, title indicates the data for each MDS–PAC item that we propose to require collecting for the Day 4, Day 11, Day 30, Day 60, and discharge assessments.

It should be noted that recording data on the MDS–PAC for a particular item may require, according to the instructions for that item on the MDS–PAC form, that the clinician not record data for certain other items. For example, the MDS–PAC instructions state that if data is recorded indicating a patient is comatose in item B1, the clinician assessing the patient must proceed from item B1 to item E1. This means that the data for the items between B1 and E1 are not recorded. (The term ''update'' in Table 7C below refers to the Day 11, Day 30, and Day 60 assessments. An ''X'' indicates that the MDS–PAC item is required for that assessment type.)

TABLE 7C.—MDS–PAC ITEMS REQUIRED BY TYPE OF ASSESSMENT

MDS–PAC Item	Assessment type		
	Admission	Update	Discharge
ITEM AA1 and ITEM A1. Legal Name of Patient	X	X	X
ITEM AA2 and ITEM A2. Admission Date (2a and, if applicable, also 2b)	X	X	X

TABLE 7C.—MDS–PAC ITEMS REQUIRED BY TYPE OF ASSESSMENT—Continued

MDS–PAC Item	Assessment type		
	Admission	Update	Discharge
ITEM AA3 and ITEM A3. Reason for Assessment	X	X	X
ITEM AA4. Assessment Reference Date	X	X	X
ITEM AA5a and AA5b. Discharge Status			X
ITEM AA6a and AA6b. Social Security (6a) and Medicare Numbers (6b)	X	X	X
ITEM AA7. Medical Record Number	X	X	X
ITEM AA8. Facility Provider Number (Both 8a and 8b)	X	X	X
ITEM AA9. Medicaid Number	X	X	X
ITEM AA10. Gender	X	X	X
ITEM AA11. BirthDate	X	X	X
ITEM AA12. Ethnicity/Race	X	X	X
ITEM AA13a and AA13b. Interrupted Stay* (Only appears on the interrupted stay tracking form. Record and submit data if applicable.).			
ITEM AA14a thru AA14f. Clinician Completing Assessment* (Only appears on the interrupted stay tracking form. Record and submit data if Item 13 data is recorded and submitted.).			
Item AB1a thru AB1g. Person Completing Assessment	X	X	X
Item AB2a thru AB2f. Signature of Staff Completing Part of the Assessment	X	X	X
ITEM A4. Admission Status	X	X	X
ITEM A5. Goals for Stay	X	X	X
ITEM A6. Admitted From	X	X	X
ITEM A7. Precipitating Event Prior to Admission	X	X	X
ITEM A8. Primary and Secondary Payment Source For Stay	X	X	X
ITEM A9. Marital Status	X	X	X
ITEM A10. Education	X		
ITEM A11a and A11b. Language	X	X	X
ITEM A12. Dominant Hand	X		
ITEM A13. Mental Health History	X		
ITEM A14. Conditions Related to MR/DD Status	X		
ITEM A15a thru A15e. Responsibility/Legal Guardian	X		
ITEM A16a thru A16e. Advance Directives	X		
ITEM B1. Comatose	X	X	X
ITEM B2a thru B2d. Memory/Recall Ability	X	X	X
ITEM B3a and B3b. Cognitive Skills for Daily Decision Making	X	X	X
ITEM B4a thru B4f. Indicators of Delirium-Periodic Disordered Thinking/Awareness	X	X	X
ITEM C1. Hearing	X	X	X
ITEM C2a thru C2e. Modes of Communication	X	X	X
ITEM C3a and C3b. Making Self Understood	X	X	X
ITEM C4. Speech Clarity	X	X	X
ITEM C5a and C5b. Ability to Understand Others	X	X	X
ITEM C6a and C6b. Vision	X	X	X
ITEM D1a thru D1k. Indicators of Depression, Anxiety, Sad Mood	X	X	X
ITEM D2. Mood Persistence	X	X	X
ITEM D3a thru D3e. Behavioral Symptoms	X	X	X
ITEM E1a thru E1l. 3-Day ADL Self-Performance	X	X	X
ITEM E2a thru E2l. ADL Assist codes	X	X	X
ITEM E3a and E3b. ADL Changes	X	X	X
ITEM E4a thru E4f. Instrumental Activities of Daily Living	X	X	X
ITEM E5. IADL Areas Now More Limited	X	X	X
ITEM E6a thru E6j. Devices/Aides	X	X	X
ITEM E7a and E7b. Stamina	X	X	X
ITEM E8a thru E8c. Walking and Stair Climbing	X	X	X
ITEM E9a and E9b. Balance Related to Transitions	X	X	X
ITEM E10a thru E10c. Neuro-musculoskeletal Impairment	X	X	X
ITEM F1a and F1b. Bladder Continence	X	X	X
ITEM F2a thru F2g. Bladder Appliance	X	X	X
ITEM F3. Bladder Appliance Support	X	X	X
ITEM F4. Bowel Continence	X	X	X
ITEM F5a thru F5d. Bowel Appliances	X	X	X
ITEM F6. Bowel Appliance Support	X	X	X
ITEM G1. Impairment Group	X		
ITEM G2a thru G2aq. Other Diseases	X	X	X
ITEM G3a thru G3l. Infections	X	X	X
ITEM G4A and G4B. Other Current or More Detailed Diagnoses and ICD–9–CM Codes (Line ''a'' thru line ''e'' as applicable.)	X	X	X
ITEM G5. Complications/Co-Morbidities (Line ''a'' thru line ''d'' as applicable.)	X	X	X
ITEM H1. Vital Signs	X	X	X
ITEM H2a, H2b, H2d thru H2t, and H2w. Problem Conditions	X	X	X
ITEM H2c, H2u, and H2v. Problem Conditions	X		
ITEM H3a thru H3h. Respiratory Conditions	X	X	X
ITEM H4a thru H4f. Pressure Ulcers	X	X	X
ITEM H5a and H5b. Other Skin Integrity	X	X	X

TABLE 7C.—MDS–PAC ITEMS REQUIRED BY TYPE OF ASSESSMENT—Continued

MDS–PAC Item	Assessment type		
	Admission	Update	Discharge
ITEM H5c. Other Skin Integrity	X		
ITEM H6a thru H6e. Other Skin Problems or Lesions Present	X	X	X
ITEM I1a and I1b. Pain Symptoms	X	X	X
ITEM I1c. Pain Symptoms	X		
ITEM J1a and J1b. Oral Problems	X	X	X
ITEM J2. Swallowing	X	X	X
ITEM J3a. Height	X		
ITEM J3b. Weight	X	X	X
ITEM J4a and J4b. Weight Change	X		
ITEM J5a and J5b. Parenteral or Enteral Intake	X	X	X
ITEM K1a thru K1e. Clinical Visits and Orders	X	X	X
ITEM K2a thru K2ai. Treatments and Services	X	X	X
ITEM K3a thru K3k. Nursing Practice or Restorative Care	X	X	X
ITEM K4a thru K4f. Therapy Services	X	X	X
ITEM K5a thru K5d. Devices and Restraints	X	X	X
ITEM L1a thru L1h. Functional Improvement Goals	X	X	X
ITEM L2a thru L2c. Attributes Relevant to Rehabilitation	X	X	X
ITEM L3a and L3b. Change over last 3 days	X	X	X
ITEM L4. Estimated Length of Stay from Date of Admission	X	X	X
ITEM M1a thru M1e. Available Social Supports	X	X	X
ITEM M2a and M2b. Caregiver Status	X		X
ITEM M3a and M3b. Living Arrangement	X	X	X

*Note: Data for items AA13 and AA14 would only be recorded and submitted to the HCFA MDS–PAC system if the patient has an interrupted stay according to how interrupted stay is defined in this preamble. This means each time the patient has an interrupted stay, as that term is defined in this preamble, data for items AA13 and AA14 would be recorded and submitted to the HCFA MDS–PAC system. The other items on the interrupted stay tracking form would also be submitted. However, these other interrupted stay tracking form items are identification information items that have previously been collected and recorded by the IRF clinician and, therefore, do not require collection as new items of data.

6. The MDS–PAC Completion Date

We propose in § 412.610(e) that for the Day 4, Day 11, Day 30, and Day 60 assessments that IRFs ''complete'' the MDS–PAC on the calendar day that follows the assessment reference date. Previously we discussed the completion date for the discharge assessment. For all assessments ''completion'' of the MDS–PAC means that accurate information has been recorded for each MDS–PAC item, and that the MDS–PAC has been signed and dated by the clinicians that recorded information on the MDS–PAC. It is our belief that the IRF clinician(s) can easily access or recall specific patient information if only a short period of time has elapsed, between the patient interview/patient observation time period and the recording of that information on the MDS–PAC.

7. Penalties for Late Assessments

In § 412.610(d) we propose that the MDS–PAC assessment is late if the assessment is not in accordance with the assessment reference date specification for the Day 4 assessment discussed previously in this preamble. If the MDS–PAC assessment is late then the IRF would either receive a reduced CMG-determined payment or no payment. If the MDS–PAC assessment is less than or equal to 10 calendar days late then the reduced CMG-determined payment would be a default rate. We propose to set the default rate at 25 percent less than the CMG-determined payment that the IRF would otherwise have received. If any assessment is more than 10 calendar days late, then the IRF would receive no payment for the Medicare-covered Part A services furnished.

G. Computerization of the MDS–PAC Data

1. Encoding the MDS–PAC Data

The data for all MDS–PAC assessments must be encoded. Encoding the data means entering the MDS–PAC data into the IRF's computer using appropriate software, including performing data edits. In § 412.610(e)(3), we propose that IRFs encode and edit the data for Medicare patients within 7 calendar days of the date that the MDS–PAC is completed. We propose to specify a maximum of 7 calendar days because we believe that this is a reasonable amount of time for IRFs to complete these tasks.

In determining the first day to count as being ''within 7 calendar days of the date that the MDS–PAC is completed,'' the assessment completion date itself would be counted as ''day 1'' of the 7 calendar days. For example, if the MDS–PAC completion date is April 6, 2001, then the MDS–PAC must be encoded by April 12, 2001. As previously stated, MDS–PAC records are considered ''locked'' when they pass all HCFA-specified edits and are accepted by the MDS–PAC database to which the IRF transmits its records.

To encode the MDS–PAC data, the IRF may: use a commercial application from a private software vendor; develop its own data entry program based on our specifications; or use the free data entry and data transmission software program developed by HCFA, which is the MDS–PAC Tool (MPACT). The IRF will be able to download MPACT from our Inpatient Rehabilitation Facility Prospective Payment System website. The MPACT data entry tool accommodates standard HCFA edit specifications for MDS–PAC data.

It is preferable for the edits and corrections to be made as soon as possible after the assessment activity, because the clinician's recall of the patient assessment at that point is likely to be more detailed and easier to associate with any clinical notes related to the assessment. Therefore, it is reasonable to expect that IRFs will have the MDS–PAC data encoded, edited, and ready for transmission within 7 calendar days of the completion date. In addition, if the IRF chooses to use the MDS–PAC information in patient care planning, our timeframes would contribute to the facility's efforts to produce a current and workable plan of care.

IRFs will have flexibility in the process used to encode their data. Once the assessment is completed by the clinician(s), the data may be encoded by a clinician, or by a clerical staff member using a paper copy of a completed MDS–PAC, or by a data entry technician. Non-clinical staff may not assess patients or complete clinical assessment items. However, clerical staff or data entry operators may enter the MDS–PAC data that has been collected by the clinician into the computer.

In entering the data, IRFs must comply with requirements for safeguarding the confidentiality of patient identifiable information, as specified in section III.*I*.1. of this preamble. In addition, IRFs must train personnel with access to patient information to disclose that patient information only to those recipients who are authorized to have access to it.

On August 12, 1998, we published in the **Federal Register** a proposed rule entitled ''Security and Electronic Signature Standards'' (63 FR 43242), and on November 3, 1999, we published another proposed rule entitled ''Standards for Privacy of Individually Identifiable Health Information'' (64 FR 59918). When these proposed rules are published as final rules, the security and privacy criteria specified in these rules may supplement or supersede the security and privacy criteria specified in this proposed rule.

Once the IRF encodes the MDS–PAC information, the computer software is used to review and edit the data to create a file that will be transmitted to the HCFA MDS–PAC system. The software program edits are designed to help preclude the transmission of erroneous or inconsistent information.

2. Accuracy of the Encoded MDS–PAC Data

In § 412.610(f) we propose that the encoded MDS–PAC data must accurately reflect the patient's status at the time the data are collected. Because the patient's clinical status may change over time, the MDS–PAC data must accurately represent a patient's clinical status as of a particular assessment reference date. Before transmission, the IRF must ensure that the data items on the MDS–PAC paper copy match the encoded data that are sent to the HCFA MDS–PAC system. We are requiring that once the clinician(s) completes the MDS–PAC assessment, using either a paper copy of the MDS–PAC or an electronic version, the IRF must ensure that the data encoded into the computer and transmitted to the HCFA MDS–PAC system accurately reflects the data collected by the clinician. We will leave to the IRFs the development of methods that ensure the accuracy of the MDS–PAC data that is transmitted. However, it should be noted that because the policies of the IRF prospective payment system only apply to Medicare beneficiaries, the HCFA MDS–PAC system will reject all transmitted assessment data for which a non-Medicare payment source is indicated.

3. Transmission of the MDS–PAC Data

We will utilize the most current technology to secure the safety of the information transmitted to and from the HCFA MDS–PAC system. In § 412.614, we propose to require that the IRF electronically transmit to the HCFA MDS–PAC system accurate, complete, and encoded MDS–PAC data for each Medicare patient. We also propose that the data must be transmitted in a format that meets the general requirements specified in § 412.614. We believe that once the MDS–PAC data are encoded and edited, it is a relatively simple procedure to complete the preparation of the data for transmission to the HCFA MDS–PAC system. Therefore, we are proposing that encoded and edited data that has not previously been transmitted, must be transmitted within 7 calendar days of the day by which the data must be encoded by as specified in Table 4C ''MDS–PAC Assessment Schedule and Associated Dates''. In addition, the data must be transmitted in a manner that meets the locked data criteria previously discussed in this section of the preamble. At the end of the transmission file, an entry concerning the number of records being transmitted is required to complete the transmission process.

We believe that the 7 calendar day transmission requirement would support claim review efforts, because prompt transmission of MDS–PAC data would facilitate our ability to compare a claim promptly against the associated MDS–PAC data which, in turn, would enhance our ability to make any necessary adjustment to the IRF's payment amount in a timely manner. We will maintain a national MDS–PAC repository to which State Agencies, fiscal intermediaries and peer review organizations will have access. An adjustment to the IRF claim may be made if a discrepancy is discovered between what the MDS–PAC data indicated the CMG on the claim should be and what is actually on the claim.

The IRF must have a system that supports dial-up communications for the transmission of MDS–PAC data to the HCFA MDS–PAC system. The MDS–PAC data will be submitted to the HCFA MDS–PAC system via HCFA's Medicare Data Collection Network (MDCN). The MDCN is a secured private network. Specific instructions and telephone numbers will be provided to the IRFs to access the MDCN. For security purposes, there are two levels of user authentication required. To obtain access to the MDCN, the IRF must obtain an individual network-identification code for each person submitting the HCFA MDS–PAC data. This identification code is distributed by the HCFA system administrator or HCFA's agents. To obtain access to the HCFA MDS–PAC system, an IRF must also obtain a facility-identification code from the HCFA system administrator.

The IRF will transmit the MDS–PAC data via secured lines, and not via the Internet, to the HCFA MDS–PAC system, where the data will be checked to ensure it complies with HCFA MDS–PAC system data formatting specifications. The IRF will receive two reports, the initial and final validation reports. The initial validation report will notify the IRF if the submission is accepted or rejected. If the submission is rejected, the IRF is notified of the reason for the rejection. If the submission is accepted, the report alerts the IRF of any changes or discrepancies in the facility and vendor information. After the initial edit checks and acceptance of the file, the MDS–PAC data are validated to ensure that the data conforms to the HCFA specifications. If there are errors found in an assessment record, it will be rejected. Upon completion of the validation, the IRF receives the final validation report. This report includes the total number of assessment records submitted and the total number of assessment records rejected, as well as the total number of assessment records added to the database. The final validation also includes alert messages pertaining to an assessment record when appropriate; for example, ''Assessment was submitted out of sequence.''

In order to test transmission of MDS-PAC data using the HCFA MDS–PAC system IRFs must make a successful test transmission of test MDS–PAC data to the HCFA MDS–PAC system between February 1 and February 28, 2001. The initial test must include the following: (1) a transmission of MDS–PAC data that passes the HCFA edit checks built into the software program used by the IRF to encode the assessment data; and (2) a validation report back from the HCFA MDS–PAC system confirming transmission of data. This test data will not be included in the HCFA national repository. The test data are to contain MDS–PAC data on all Medicare

inpatients, both newly admitted and those previously receiving care, that are inpatients during the test transmission time period.

If an IRF does not have Medicare inpatients receiving care during the specified test transmission time period, we propose that the IRF transmit test MDS–PAC data for Medicare inpatients that received care in the most recent 30 calendar day time period. This would require that these IRFs use the clinical record and professional clinical judgment to obtain the information required for the MDS–PAC items. In this way, these facilities could transmit test data in order to ascertain how well their system is functioning, and become familiar with entering data into the computerized version of the MDS–PAC. In order to both assist all IRFs in constructing MDS–PAC test data and to test the volume data capacity of the HCFA MDS–PAC system we may use and provide the IRFs with ''dummy'' MDS–PAC records or test data.

We will provide training to the IRFs on the MDS–PAC instrument (including any modification arising from research examining the equivalence of the MDS–PAC and the FIM for classifying patients), the HCFA provided MPACT, the data transmission process, and the interpretation of the validation reports. Training will be provided prior to the implementation of IRF prospective payment system. The most current MDS–PAC will be available on our HCFA Inpatient Rehabilitation Facility Prospective Payment System website. IRFs and software vendors will be able to access the website and download the most current MDS–PAC. In addition, the MPACT will be available on the HCFA Inpatient Rehabilitation Facility Prospective Payment System website, and IRFs and software vendors will be able to download the MPACT at no charge. This website will include the data specifications, data dictionaries, the Item-by-Item Guide to the MDS–PAC, and the IRF data submission procedures.

We may also post other educational materials for IRFs on the website. We intend the website to provide current information to IRFs, State agencies, software vendors, professional organizations, and consumers. We encourage vendors, IRFs, and other interested parties to review the website regularly for information and issues related to the IRF prospective payment system.

4. Late Transmission Penalty

In section III.G.2. of this preamble, we propose §§ 412.606 and 412.610 to require that MDS–PAC data be collected and transmitted not only for the items that would be used to classify a patient into a CMG, but also for the other MDS–PAC items, if collection and transmission of that data are appropriate according to one or more of the following: (1) the instructions on the MDS–PAC; (2) the Item-by-Item Guide to the MDS–PAC; and (3) applicable rulemaking provisions. In addition, if the IRF transmits MDS–PAC data for a particular patient that is not in accordance with the data record specifications, that data would be rejected by the HCFA MDS–PAC system. If the data is rejected by the HCFA MDS–PAC system, then the data is not ''locked'' as that term was defined previously, and the data must be re-transmitted.

We propose in § 412.614 to impose a penalty for an IRF's late transmission of MDS–PAC data to the HCFA MDS–PAC system. ''Late transmission'' means that the IRF did not transmit MDS–PAC data in accordance with the transmission timeframes previously specified in Table 4C of section III of this preamble. We propose that if the IRF transmits the MDS–PAC data late, then the IRF is either paid a reduced CMG-determined payment or no CMG-determined payment. If the IRF transmits the MDS–PAC data 10 or less calendar days late then the IRF would receive a payment that is 25 percent less than the CMG payment that the IRF would otherwise have received. If the MDS–PAC data is transmitted more than 10 calendar days late, then the IRF would receive no payment for the Medicare-covered Part A services furnished.

5. The MDS–PAC and Computer Software

In § 412.614(c) we propose that the IRF encode and transmit the MDS–PAC data using the MPACT software available from HCFA or other software that conforms to the HCFA standard data specifications, data dictionary, and other HCFA-specified data requirements, and that includes the MDS–PAC data items that match the most updated version of the MDS–PAC. HCFA's MPACT software will be able to be used for several purposes, such as to encode MDS–PAC data, to maintain IRF and patient-specific MDS–PAC information, to create export files to submit MDS–PAC data, and to test alternative software. MPACT software will provide comprehensive on-line help to users in encoding, editing, and transmitting the MDS–PAC data. Additionally, there will be a toll-free hotline to support this software product.

We caution IRFs that the MPACT software system would provide only the minimum requirements to encode and format the data. We will support these functions and applications; however, we do not intend to provide any other applications related to care planning, financial information, durable medical equipment, medications, or personnel issues. Software vendors are encouraged to use the MPACT software as a minimum system, until they have developed their own software to accommodate HCFA specifications and other applications useful for IRFs.

H. Quality Monitoring

Before we present our specific strategies for quality monitoring in IRFs, we want to discuss our conceptual framework for understanding and advancing quality in the setting of IRFs, as well as other post-acute settings. Quality of care is complex, sometimes difficult to define, and is multi-dimensional in nature. One dimension is that the care achieve its intended result, which in the context of the IRF setting is most often to improve the patient's functioning in order to foster more independent living. A second dimension of quality is the prevention of avoidable complications or other adverse events and minimizing the effects of adverse events. A third related dimension is to improve management of the patient's medical impairments, with the goal being to promote ''improved'' health as well as function, or at least to improve the management of the patient's medical conditions. In addition, it is also important to use data to identify other sentinel events that may potentially impact care negatively. Our specific quality monitoring processes should be developed in a way that supports this multi-dimensional view of quality.

The consequences of detecting quality of care problems may be varied and could include increasing educational efforts to beneficiaries to help them make better informed selections of providers, guiding investigators to survey institutions (including verification surveys performed in JCAHO-accredited facilities), and if the problem(s) is not remedied consideration of whether the IRF should be permitted to continue to participate in the Medicare program. An IRF's own staff may use quality of care information from the MDS–PAC for their own quality assurance and, ultimately, quality improvement activities. We also have the potential to develop refinements to the case-mix methodology which provide incentives for improving quality.

As our payment policies continue to evolve, our objective is to move forward

with a quality assessment and improvement agenda that is based on standardized data, beneficiaries' clinical characteristics, and patient care outcomes. To achieve that objective, we need to collect common data elements and develop standardized assessment tools that will enable us to focus on beneficiary care needs rather than the characteristics of the provider. We believe that the most important short-term goal of post-acute care quality monitoring is to assess the effects of implementing the changes in the payment system and the quality of post-acute care.

We are aware of MedPAC's concern that we may have only a limited ability to assess the impact of Medicare payment changes that either have been implemented or will soon be initiated—for example, the IRF prospective payment system. There is a need to enhance our ability to assess this impact in order to improve the policies associated with our Medicare prospective payment systems.

In the March 2000 MedPAC Report to Congress, MedPAC states that quality monitoring systems are important to ensure that payment systems are designed so that providers are responding appropriately to the system's incentives. MedPAC believes that such information could assist in tracking trends over time or provide an early warning of impending problems in quality. ''Attaining any of these ends requires routine, systematic measurement of health care quality.'' (p. 62) We believe that the MDS–PAC is a first step towards developing such a measure.

The MDS–PAC is a multi-dimensional assessment instrument which provides a detailed picture of the patient. The non-payment related items in the instrument are necessary to provide a comprehensive inventory of patient factors that are necessary to monitor quality and risk adjust. This data can be used by facilities to identify patients at risk for adverse outcomes. In addition, MDS–PAC information may contribute to development of the patient care plan. Information collected can identify patients at risk for adverse outcomes, such as weight loss, aspiration, or pressure ulcers, and support the monitoring of these patients to prevent outcomes that might negatively impact patients' likelihood of optimal rehabilitation.

We believe that the MDS–PAC items are needed to monitor the impact of the IRF prospective payment system upon IRFs and beneficiaries, including beneficiary access to care. Section 125 of the BBRA directs the Secretary to conduct a monitoring study, and to submit a report to the Congress no later than 3 years from the date that the IRF prospective payment is implemented. To both monitor the impact of the IRF prospective payment system upon IRFs and beneficiaries, and support this BBRA-mandated report to the Congress, we need a data-driven monitoring system that would give us the capability to acquire objective (as opposed to anecdotal) data for analysis.

The MDS–PAC discharge assessment would provide data about a patient's clinical status at discharge, and give us the ability to compare a patient's clinical status at discharge with the patient's clinical status at the Day 4 assessment. Comparison of the patient's clinical status at Day 4 and at discharge would give us the data to analyze the relationship between any changes in the patient's clinical status and the quantity and effectiveness of the services the IRF furnished to the patient. That comparison would provide us with data that would indicate the quality of the IRF services furnished, and if an IRF was not furnishing the level of Medicare-covered services the patient needed.

Many studies have examined overall and condition-specific functional gain from admission to discharge as a measure of the effectiveness of a rehabilitation program. National benchmarks of functional gain have been used by providers to measure their performance relative to other facilities. In addition, some work has also been devoted to understanding providers' efficiency by linking measures of length of stay and functional gain.

Update assessments would yield the type of structured data that we can use to analyze the effectiveness of treatment services at a point in time when the services were still being furnished. Update assessments provide the information during treatment and allow measurement of changes in the patient's clinical status during a defined time period when the patient is still in treatment. We can then compare the patient's clinical status at that point in time to the patient's clinical status at either the Day 4 or discharge assessments, which would provide us with data about any changes in the patient's clinical status between the update assessments and these other assessments.

In essence, update assessments provide a ''snapshot'' of the patient while the patient is still being treated. This snapshot provides a method to analyze the changes in the patient's clinical status that are a result of the IRF services furnished either up to, or from, a predetermined point in the patient's hospitalization stay. The snapshot is similar to how a clinician evaluates a patient's reaction to treatment at points in time after the clinician has implemented a plan of care, and, therefore, the snapshot can be used by the IRF in a similar manner. Because we propose to mandate the data requirements for update assessments, the snapshot will provide us with the same structured and detailed data that is comparable across IRFs, permitting us to analyze clinical outcomes related to the IRF services furnished up to, and from, a predetermined point in time at one or many IRFs. The update assessments could also provide us with the some of the data needed to analyze the effectiveness of the services being furnished at more than just the time period between the patient's admission and discharge. That analysis could be used to evaluate the quality and quantity of services the IRF furnished at different periods of time during the patient's hospitalization.

The data associated with each MDS–PAC item would enhance our ability to monitor and, thus, safeguard the quality of care that beneficiaries receive. A quality of care improvement monitoring system that is based on the MDS–PAC data is consistent with other information-based quality monitoring programs, such as the ORYX process used by the Joint Commission on Accreditation of Health Care Organizations.

While only some MDS–PAC items would be used to determine the CMG, we believe that the data provided by MDS–PAC items are an essential first step in developing the type of quality monitoring system that both MedPAC and HCFA favor. Possible uses of the data could include: (1) strengthening existing quality assurance mechanisms; (2) generating indicators that would allow providers to assess their performance, and to compare it against benchmarks derived from standards of care or the performance of peers; and (3) creating a system that assists beneficiaries in making informed decisions when choosing among providers. In addition, MDS–PAC items may be useful in developing core measures that provide meaningful information on patient characteristics and outcomes across post-acute care settings.

1. Monitoring the IRF Prospective Payment System

We are planning a system that can be used to monitor access to rehabilitation facilities as well as to monitor the quality of the care delivered in these

facilities. This will be done through the monitoring of payment for the care and the associated cost of the delivered care. Monitoring will include variables as length of IRF stay, percent of IRF discharges to SNF, long-term care hospital, or intensive outpatient rehabilitation program, change in motor function between admission and discharge, and the case-mix distribution of the facility. We plan to examine changes within ''market areas'' as well as individual facilities.

In addition, we will be developing a variety of methods for monitoring the impact of the IRF prospective payment system. Monitoring may describe changes in access to rehabilitation, in payments to rehabilitation facilities, in quality of care, and in the cost of rehabilitation care. This monitoring would also help to identify unintended changes in the operations of providers, and would help to identify refinements needed in the IRF prospective payment system. In addition, because the IRF prospective payment system may have effects on non-IRF providers, and because changes in the payment systems for other providers may affect IRFs once common core data elements are required across post-acute providers and linked with other data, the monitoring system could also describe changes in access, utilization, quality, and cost of care in different types of post-acute sites including but not limited to HHAs and SNFs. We could start these activities as early as 2002.

2. Quality Indicators

Quality indicators are markers that indicate either the presence or absence of potentially poor facility care practices or outcomes. The development of quality indicators depends on the collection and analysis of sufficient MDS–PAC data from a representative national sample. We are attempting to design a monitoring system that would not only describe quality indicators, but also show how they can be used together to obtain a clear description of access, outcomes, and cost in IRFs. Quality indicators will be developed around the different dimensions of quality discussed earlier in this section. We believe that quality indicators developed for individual IRFs would help identify the IRFs that require attention because they may be coding incorrectly or providing lower quality care. Analysis of the distribution of hospital indicators within specific classes of hospitals (for example, teaching hospitals, rural hospitals, etc.) would help us to evaluate whether facility level adjustments are warranted.

We currently have a contractor conducting analysis for purposes of developing quality indicators to be used in IRFs. Quality indicators are not direct measures of quality but rather point towards potential areas that require further investigation. Quality indicators identify the percent of a patient population with a certain condition and compare this percent to a state level and a national level. If a facility ''flags'' for scoring ''high'' on a particular quality indicator, this does not necessarily mean that the facility has a quality of care problem but simply that further focussed review of care practices may be required. Quality indicators have already been developed by the University of Wisconsin for use in SNFs and are being effectively used by State surveyors to target facilities for closer on-site review of care practices as well as by some nursing homes to identify potential problems within their facility.

We have already begun consideration of quality indicators that may be collected from MDS–PAC data to evaluate care delivered in IRFs. We agree with MedPAC's advice that quality monitoring efforts be closely coordinated across different types of post-acute care providers. We expect to develop measures to be applied across different settings. We anticipate that measures of functional improvement from admission to discharge will be examined. In addition, during 2000, the infrastructure to collect the data to identify quality indicators for IRFs will be under development. Field validation of these indicators is expected to begin in 2001. Once the indicators have been field tested, the State quality infrastructure can begin to utilize these data to monitor quality and to target facilities to survey for accreditation. The next step will be validation of the assessment data. Piloting the reporting of data will be ongoing during this time period. There is funding in the 2001 budget for analysis of the accuracy of the assessment data collected. ''Tool kits'' will be developed for targeted interventions to address common quality issues in these facilities. Examples of quality indicators currently being considered for IRFs are described below.

3. Functional Independence

The main goal of an IRF is to assist the patient in regaining his or her prior level of functional ability. A measure of the quality of a rehabilitation program is the patient's ability to function independently upon discharge to the community. Using MDS–PAC data, it will be possible to measure the percent of all cases discharged to the community who are functionally independent or whose functional status has improved at the time of discharge. Functional independence on the MDS–PAC would be measured using Section E of the instrument. The information collected in this section may be used by staff to calculate the Activities of Daily Living for Post-Acute Care (ADL–PAC) Summary Scale for each patient. The ADL–PAC computes patients' level of dependence on a scale from 0 (fully independent) to 6 (fully dependent). The scale considers level of dependence for each of the following activities: bed mobility, transfer between the bed and chair, locomotion, walking in facility, dressing upper body, dressing lower body, eating, toilet use, transfer to toilet, grooming and personal hygiene, bathing, transfer to and from the tub or shower. This information about the patient's levels of dependence on these various activities of daily living on admission, at intervals during the stay, and at discharge will be particularly useful to describe the patient's progress as a result of rehabilitation care. A patient's progress can be evaluated with respect to thresholds or milestones, developed after analysis of data collected during rehabilitation stays rather than based upon theoretical assumptions. The data will also assist in the development of quality indicators to predict the types of patients who have the best prognosis for improvement in rehabilitation programs. This information may also encourage referrals to IRFs for patients who might otherwise not have been referred. The data derived from functional information may also serve to better match patients with program characteristics to ''fine tune'' the delivery of rehabilitation services.

Additional variables on the MDS–PAC would allow the facility to consider factors which may affect a patient's ability to return to his or her previous level of functional ability or live independently in the community. Item E7 (stamina) helps staff predict how much therapy the patient can tolerate daily. This will impact the intensity of rehabilitation to help the patient regain functional independence. Assessment of stamina will likely affect a patient's ability to function independently once he or she is discharged back to the community. Items M1 (available social supports), M2 (caregiver status) and M3 (living arrangement) will help predict the characteristics of the community to which the patient is being discharged in order to make sure the environment is optimal to the patient's success. Finally,

item L2 (Attributes relevant to rehabilitation) measures whether a patient recognizes his or her limitations. This information will be important to determine whether the patient can function in the community and to determine how much help the patient will need, without taking risks that may cause a fall or other harmful events when not supervised.

Indicators based on functional gain will be useful in public reporting to help beneficiaries make more educated decisions about the facility from which they choose to receive care. In addition, Peer Review Organizations (PROs) can use the data from successful facilities to identify factors that are better at assisting patients in achieving functional independence and returning to the community. This information can be shared with other facilities to help improve their success rate as well.

4. Incidence of Pressure Ulcers

Pressure ulcers (also known as Decubitus Ulcers) are a problem in IRFs as well as in other post-acute and acute settings. In some situations the patient is admitted with these ulcers. Facilities cannot be held responsible for ulcers which were present upon admission, but if these ulcers increase in size or grade, or if new ulcers develop, this can be an indicator of poor quality of care.

Information about pressure ulcers would be collected in section H of the MDS–PAC. Information about bed mobility and transfer ability (items E1a and E1b), bladder incontinence (item F1a), and nutritional status (item J5a and J5b) is useful in identifying patients at high risk for developing new pressure ulcers. A pressure ulcer quality indicator could be used by the facility to institute such measures as staff training or more attention to techniques and equipment intended to prevent the development of pressure ulcers (such as frequent change of position of patients unable to move themselves and use of pressure relieving devices). In addition, quality indicators at the facility and State level can be compared to national averages for a better understanding of a facility's performance relative to its peers. Focused review will help identify which factors are contributing to the higher incidence of pressure ulcers. Analysis of MDS–PAC data can also be used to identify facilities that are successful in resolving and treating existing pressure ulcers. These facilities may have effective pressure ulcer reduction programs in place that can be shared with other facilities that are experiencing difficulty treating and reducing the incidence of pressure ulcers. Public reporting of the rate of pressure ulcers based on quality indicator information may help consumers make more informed choices when choosing a facility.

5. Falls Prevention

Falls prevention is an important component of a rehabilitation program and is critical to avoiding repeat hospitalizations which, in turn, will delay return to independence. Items in the MDS–PAC such as D3a and D3e on wandering and resisting care, item E9 on balance, and item H2 on dizziness and falls, provide critical information regarding fall risk to help facilities identify patients who may be at risk for falls. This indicator may also be used to identify facilities with poorer track records in fall avoidance. Information about falls prevention also provides information so that facilities serving different types of patients can be distinguished. PROs may also use these data to teach facilities how to better identify patients at risk for falls and set up programs to reduce the incidence of falls through such methods as low beds or better monitoring of at-risk patients.

As illustrated by these examples, there are several ways the quality information gathered through the MDS–PAC may be used. As noted, quality indicator data does not necessarily illustrate that a facility is providing a lower level of care, but this information can be useful to surveyors in targeting facilities for closer review of their patient care practices and facility layout. Quality indicators can also be used to identify facilities with best practices. Identifying how these facilities maintain a high-quality level of care may provide valuable information to assist facilities.

6. Quality Improvement

Quality assurance involves the establishment of standards and having a system to enforce compliance with these standards. Quality improvement fosters and facilitates continuous enhancement of whatever service or product an organization is engaged in or produces. The JCAHO require facilities to have quality improvement programs. Currently, the Medicare Conditions of Participation require hospitals to do quality assurance, which we believe can be supported with the information obtained from the MDS–PAC. The proposed change in the Medicare Conditions of Participation for Hospitals, proposed December 19, 1997, would require hospitals, including IRFs, to have quality improvement programs. Also, we are identifying opportunities in which PROs can use their expertise and skill mix to provide valuable information on quality improvement to post-acute providers. PROs have been working with SNFs for the past year, and feedback from facilities has indicated that the information shared by the PRO in a penalty-free environment has been valuable in helping facilities learn how to use the MDS to identify their own opportunities for quality improvement. In addition, many IRFs already have data-based quality improvement systems addressing some aspects of quality. PROs may build on their experience in SNFs and on the current experience of IRFs to become a resource on how to use information derived from the MDS–PAC to identify potential quality concerns. Quality improvement activities may include providing each facility with information derived from its MDS–PAC submissions for use in self-monitoring, providing facilities with information comparing their performance with that of their peers, and maintaining a clearinghouse of ''best practices'' that can be used by facilities to improve the quality of care they deliver.

IRFs may also use MDS–PAC data to generate quality indicators on their own and use this information to help them target specific problems within their facility or identify areas where quality improvement projects may be most effective. IRFs can also use the MDS–PAC to perform their own monitoring of changes in quality of care within the facility.

7. Consumer Information

We plan to use the comprehensive quality information derived from MDS–PAC for use in our public reporting strategy. MDS–PAC data, after appropriate evaluation and validation, can be used to inform consumers about the performance of facilities in their area so that they can make informed decisions when selecting a rehabilitation facility. In addition, information derived from MDS–PAC and the comparable information available in SNFs and other settings will help us understand which patients fare better in which types of post-acute settings, or even within subsets of IRFs, thus informing and shaping future long-term care quality initiatives.

As part of our efforts in designing a monitoring system, we are soliciting comments on whether we should also collect data related to medications and medication administration.

I. MDS–PAC Training and Technical Support for IRFs

We will provide educational and technical resources to IRFs, to support both implementation of the MDS–PAC

assessment instrument and the computerization and transmission of the MDS–PAC data. We will provide training and technical support on the use of the MDS–PAC by clinical staff and on the use of MPACT software to encode and transmit MDS–PAC data.

Although we will be providing both initial and ongoing training and technical support, IRFs will probably find it advantageous to designate a staff member as an IRF trainer, in order to have in-house capability both to train newly hired staff, and to have a designated person who can serve as the in-house resource for other staff.

We would train and support the IRFs in the implementation of the IRF prospective payment system and automation of the MDS–PAC by—

- Training IRFs on MDS–PAC data set administration;
- Answering questions on the clinical aspects of the MDS–PAC and providing information to IRFs on the use of the MDS-PAC to determine CMGs;
- Providing training to State agency staff in using MDS–PAC data for survey activities;
- Training IRFs in interpreting validation reports;
- Providing information relative to hardware and software requirements; and
- Providing support for transmission of test data, supporting callers who request technical assistance, providing passwords to IRFs, and answering questions about the computer edits and reports.

1. Release of Information Collected Using the MDS–PAC

In § 412.616, we propose that the IRF and its agents must ensure the confidentiality of the information collected using the MDS–PAC in the same manner as all other information in the medical record, in accordance with the hospital conditions of participation at § 482.24(b)(3). The facility must ensure that information may be released only to authorized individuals and must ensure that unauthorized individuals cannot gain access to or alter patient records. Information must be released by the facility or its agent only in accordance with Federal or State laws, court orders or subpoenas. In addition, we propose that an agent acting on behalf of an IRF in accordance with a written contract with that IRF may only use the information for the purposes specified in the contract.

We believe that this provision will ensure that access to MDS–PAC data (paper copy as well as electronic data) is secured and controlled by the IRF, in accordance with Federal and State laws. We believe that proposed § 412.616 would provide an adequate safeguard against the unauthorized use of a patient's clinical record and the information it contains, regardless of form or storage method. As discussed in section III.G.1 of this preamble, however, the confidentiality provisions at proposed § 412.616 may be supplemented or superseded by the security and privacy requirements contained in the ''Standards for Privacy of Individually Identifiable Health Information'' regulation (64 FR 59918) and the ''Security and Electronic Signature Standards'' regulation (63 FR 43242), when they are finalized.

As with other regulations that result in the creation of a new system of records, we are in the process of developing a notice describing the new system of records that is unique to MDS–PAC. We have typically issued notices describing new systems of records in conjunction with the issuing of a final rule, rather than at the proposed rule stage. These notices, required by the Privacy Act of 1974, describe both the entities to whom identifiable and non-identifiable data can be routinely disclosed, as well as the safeguards that will protect the privacy and the security of the data. While each system of records notice is unique to the system and the data instrument, readers interested in understanding a recent approach are referred to the notice of the new system of records published June 18, 1999, (64 FR 32992) for the ''Home Health Agency Outcome and Assessment Information Set (OASIS).'' We would welcome comments on issues germane to the notice that we will develop for MDS–PAC.

J. Patient Rights

In § 412.608, we propose that, in order to receive payment for the Medicare IRF services furnished, the authorized clinician must inform the Medicare inpatient of the following rights with respect to the MDS–PAC assessment prior to performing the assessment. These rights include—

- The right to be informed of the purpose of the MDS-PAC data collection;
- The right to have any MDS–PAC information that is collected remain confidential and secure;
- The right to be informed that the MDS–PAC information will not be disclosed to others except for legitimate purposes allowed by the Federal Privacy Act and Federal and State regulations;
- The right to refuse to answer MDS–PAC questions; and
- The right to see, review, and request changes on the MDS–PAC assessment.

We propose requiring the IRF ensure that a clinician documents in the Medicare patient's clinical record that the patient has been informed of the above patient rights. IRFs should note that the above patient rights are in addition to the patient rights specified under the conditions of participation for hospitals in § 482.13.

Our statements of patient rights with regard to the MDS–PAC would also be available via the HCFA Inpatient Rehabilitation Facility Prospective Payment System website. These statements may be revised in accordance with the Office of Management and Budget Paperwork Reduction Act re-approval process. Future revisions to these statements will be available via the HCFA Inpatient Rehabilitation Facility Prospective Payment System website, and in other instructional materials that we issue.

K. Medical Review Under the IRF Prospective Payment System

Under a discharge-based prospective payment system IRFs might have financial incentives to reduce the quality and quantity of services furnished to a patient. To monitor for any reduction in the quality or quantity of services IRFs furnish, medical review may be conducted on both a random and targeted basis. Targeting may include claim-specific data and patterns of case-mix upcoding, as well as the general issues of the medical need for the episode of care and technical eligibility. There will be the capability for both prepayment and post-payment medical review that will deny claims in total or adjust payment to the correct case mix. Medical review will validate MDS–PAC data items against clinical records.

IV. Case-Mix Group Case Classification System

A. Background

As discussed in section I.C.2. of this preamble, section 1886(j)(2)(A) of the Act requires the Secretary to establish a method of classifying patients in rehabilitation facilities within case-mix groups. Further, the Act, as amended by section 125 of the BBRA, requires the Secretary to establish classes of patient discharges of rehabilitation facilities by functional-related groups, based on impairment, age, comorbidities, functional capability of the patient, and other factors as the Secretary considers appropriate to improve the explanatory power of the functional independence measure-function related groups. Under

the classification system that we are proposing, as described at § 412.620(a), patients would be classified into case-mix groups called CMGs based on clinical characteristics and resource needs.

We began our efforts to establish an appropriate classification system by examining the FIM–FRGs, a classification methodology developed by Stineman *et al.* (1994) and extended to incorporate comorbidities in Carter, Relles, *et al.* (1997). In developing the proposed CMGs, we updated the earlier FIM–FRG analysis with more recent data from calendar years 1996 and 1997 Medicare bills as well as functional status measures from UDSmr and Caredata.com for the same calendar years (see Appendix A for a detailed description of the data used to create the CMGs). The results of using more recent data showed that the earlier FIM–FRG classification system continues to be an appropriate basis to predict resource use. Based on our analysis of the more recent data, we are proposing a classification system that reflects general enhancements, including: a refined set of rehabilitation impairment categories; a modified set of relevant comorbidities; groups for cases that expire; and other types of atypical discharges, such as short-stay cases.

B. Case-Mix Groups

1. General Description of the Case-Mix Groups

The data elements used to construct the proposed CMGs include rehabilitation impairment categories (RICs), functional status (both motor and cognitive), age, and comorbidities. We also used other factors to define the CMGs that allow us to improve the explanatory power of the groups. Specifically, we created CMGs to account for short-stays and expired cases. The CMGs are based on an analysis of the Medicare inpatient rehabilitation cases described in Appendix A of this proposed rule. We separated those cases that we believe received a typical, full course of inpatient rehabilitation care from those cases that may not have received a typical, full course of inpatient rehabilitation care such as transfer cases and special cases that are not transfers. As described below, (1) the analysis of cases that receive a typical, full course of inpatient rehabilitation care results in the construction of 21 RICs and 92 CMGs; and (2) the analysis of special cases that are not transfers results in the construction of 4 CMGs for cases that expire and 1 CMG for cases that have a length of stay of 3 days or less. In addition, as described in section V.B. of this preamble, the analysis of transfer cases results in a payment policy that is dependent on which CMG the patient is classified to prior to the patient's transfer.

2. Criteria for Establishing CMGs

We used the following criteria for establishing specific groups within the proposed classification system:

- Group cases that are clinically similar. To do this, we began with the 20 RICs defined by Stineman *et al.* (1997) and examined a variety of changes that were suggested might improve either clinical or resource homogeneity.
- Group cases that have similar resource needs. To do this, we used a statistical classification method, the Classification and Regression Trees (CART), to partition the cases within RICs into groups that are homogeneous with respect to resource use and functional impairment. Thus, each CMG consists of cases that have similar clinical and resource needs.
- Determine which comorbidities affect the cost of rehabilitation cases by RIC.

We describe in more detail the methodology that we used to construct the CMGs.

3. Rehabilitation Impairment Categories

The first partition in creating the CMGs is based on the RIC of the case. RICs are groups of codes that indicate the primary cause of the rehabilitation hospitalization and are clinically homogeneous. The patient is first grouped into a RIC based on the impairment identified in the data described above. Table 1D below lists the RICs used to define and construct the first partition of the inpatient rehabilitation cases.

The earlier RAND research of 1994 data resulted in 20 RICs. We analyzed RAND's statistical analysis of 1997 data, and that showed that the 1997 data performed as well as the 1994 data in predicting resource use in RICs 01 through 20 (except that the impairment code 14.9 ''Status post major multiple fractures'' grouped better in RIC 17). In addition, the 1997 data indicated the need to create a separate RIC for burn cases.

For the majority of CMGs, the RIC represents the first two digits of the CMG. Thus, in Table 2D below, CMGs 0101 through 0111 are cases that are classified to the stroke (01) RIC.

TABLE 1D.—REHABILITATION IMPAIRMENT CATEGORIES AND ASSOCIATED IMPAIRMENT GROUP CODES

Rehabilitation impairment category	Associated impairment group codes
01 Stroke (Stroke)	01.1 Left body involvement (right brain)
	01.2 Right body involvement (left brain)
	01.3 Bilateral Involvement
	01.4 No Paresis
	01.9 Other Stroke
02 Traumatic brain injury (TBI)	02.21 Open Injury
	02.22 Closed Injury
03 Nontraumatic brain injury (NTBI)	02.1 Non-traumatic
	02.9 Other Brain
04 Traumatic spinal cord (TSCI)	04.210 Paraplegia, Unspecified
	04.211 Paraplegia, Incomplete
	04.212 Paraplegia, Complete
	04.220 Quadriplegia, Unspecified
	04.2211 Quadriplegia, Incomplete C1–4
	04.2212 Quadriplegia, Incomplete C5–8
	04.2221 Quadriplegia, Complete C1–4
	04.2222 Quadriplegia, Complete C5–8
	04.230 Other traumatic spinal cord dysfunction

TABLE 1D.—REHABILITATION IMPAIRMENT CATEGORIES AND ASSOCIATED IMPAIRMENT GROUP CODES—Continued

Rehabilitation impairment category	Associated impairment group codes
05 Nontraumatic spinal cord (NTSCI)	04.110 Paraplegia, unspecified 04.111 Paraplegia, incomplete 04.112 Paraplegia, complete 04.120 Quadriplegia, unspecified 04.1211 Quadriplegia, Incomplete C1–4 04.1212 Quadriplegia, Incomplete C5–8 04.1221 Quadriplegia, Complete C1–4 04.1222 Quadriplegia, Complete C5–8 04.130 Other non-traumatic spinal cord dysfunction
06 Neurological (Neuro)	03.1 Multiple Sclerosis 03.2 Parkinsonism 03.3 Polyneuropathy 03.5 Cerebral Palsy 03.8 Neuromuscular Disorders 03.9 Other Neurologic
07 Fracture of LE (FracLE)	08.11 Status post unilateral hip fracture 08.12 Status post bilateral hip fractures 08.2 Status post femur (shaft) fracture 08.3 Status post pelvic fracture
08 Replacement of LE joint (ReplLE)	08.51 Status post unilateral hip replacement 08.52 Status post bilateral hip replacements 08.61 Status post unilateral knee replacement 08.62 Status post bilateral knee replacements 08.71 Status post knee and hip replacements (same side) 08.72 Status post knee and hip replacements (different sides)
09 Other orthopedic (Ortho)	08.9 Other orthopedic
10 Amputation, lower extremity (AMPLE)	05.3 Unilateral lower extremity above the knee (AK) 05.4 Unilateral lower extremity below the knee (BK) 05.5 Bilateral lower extremity above the knee (AK/AK) 05.6 Bilateral lower extremity above/below the knee (AK/BK) 05.7 Bilateral lower extremity below the knee (BK/BK)
11 Amputation, other (AMP–NLE)	05.1 Unilateral upper extremity above the elbow (AE) 05.2 Unilateral upper extremity below the elbow (BE) 05.9 Other amputation
12 Osteoarthritis (OsteoA)	06.2 Osteoarthritis
13 Rheumatoid, other arthritis (RheumA)	06.1 Rheumatoid Arthritis 06.9 Other arthritis
14 Cardiac (Cardiac)	09 Cardiac
15 Pulmonary (Pulmonary)	10.1 Chronic Obstructive Pulmonary Disease 10.9 Other pulmonary
16 Pain Syndrome (Pain)	07.1 Neck pain 07.2 Back pain 07.3 Extremity pain 07.9 Other pain
17 Major multiple trauma, no brain injury or spinal cord injury (MMT–NBSCI).	08.4 Status post major multiple fractures 14.9 Other multiple trauma
18 Major multiple trauma, with brain or spinal cord injury (MMT–BSCI).	14.1 Brain and spinal cord injury 14.2 Brain and multiple fractures/amputation 14.3 Spinal cord and multiple fractures/amputation
19 Guillian Barre (GB)	03.4
20 Miscellaneous (Misc)	12.1 Spina Bifida* 12.9 Other congenital 13 Other disabling impairments 15 Developmental disability 16 Debility 17.1 Infection 17.2 Neoplasms 17.31 Nutrition (endocrine/metabolic) with intubation/parenteral nutrition 17.32 Nutrition (endocrine/metabolic) without intubation/parenteral nutrition 17.4 Circulatory disorders 17.51 Respiratory disorders—Ventilator Dependent 17.52 Respiratory disorders—Non-ventilator Dependent 17.6 Terminal care 17.7 Skin disorders 17.8 Medical/Surgical complications 17.9 Other medically complex conditions
21 Burns (Burns)	11 Burns

*We are in the process of analyzing the effect of moving the few cases within this impairment category to one of the other spinal cord RICs (either 05 or 04 depending upon the ''fit'').

4. Functional Status Measures and Age

After using the RIC to define the first split among the inpatient rehabilitation cases, we used functional status measures and age to partition the cases further. We describe below the statistical methodology (Classification and Regression Trees or CART) that we used to incorporate a patient's functional status measures (motor score and cognitive score), and age into the construction of the proposed CMGs.

The CART methodology was used to split the rehabilitation cases further within each RIC. In general, CART can be used to identify statistical relationships among data and, using these relationships, construct a predictive model for organizing and partitioning a large set of data into smaller homogeneous groups. Further, in constructing the proposed CMGs, we analyzed the extent to which the independent variables (motor score, cognitive score, and age) help predict the value of the dependent variable (the log of the cost per case).

The CART methodology will ensure that the proposed CMGs recognize that patients with clinically distinct resource needs are treated separately in the classification and payment systems. CART is an iterative process that creates initial groups of patients then searches for ways to split the initial groups that may further decrease the clinical and cost variances within a group and increase the explanatory power of the CMGs. (Further information regarding this methodology can be found in the seminal literature on CART (Classification and Regression Trees, Leo Breiman, Jerome Friedman, Richard Olshen, Charles Stone, Wadsworth Inc., Belmont CA, 1984: pp 78–80.)

We also used a validation method to assess the predictive accuracy of the RICs and CMGs. Half of the 1996 and 1997 data described in Appendix A was used initially to create the CMGs. Once this was done, the other half of the data was used to test or validate the predictive accuracy of the CMGs. We concluded that the RICs and CMGs we are proposing are valid because the groups performed as well using the second half of the data as they did with the first half. The final definitions of the specific RICs and CMGs was based on 100 percent of the 1997 Medicare cost data with corresponding UDSmr/COS data.

As a result of this analysis, Table 2D lists 92 CMGs and their respective descriptions, including the motor and cognitive scores and age that will be used to classify discharges into CMGs. As described in section II.B. of this preamble, some CMGs may change based on further analysis of available data and comments we receive in response to this proposed rule.

5. Comorbidities

We found comorbidities have major effects on the cost of furnishing inpatient rehabilitation care. RAND's previous analysis, based on 1994 data, found that these comorbidities also increased the cost of furnishing inpatient rehabilitation care. A list of the major comorbidities appears in Appendix C of this proposed rule. A case has to have only one of the listed comorbidities to be classified as a case with comorbidity. We found that the presence of major comorbidities multiplies the expected resource use of a case by the same amount for each CMG in the same RIC.

We matched frequently occurring comorbidities to impairment categories in order to ensure that all of the chosen comorbidities are, in fact, relevant to the RIC. Providing rehabilitation services to a beneficiary with a total hip replacement can become both more complex and more costly if the beneficiary also has pneumonia. By contrast, some pulmonary diagnoses might be determined not to have a cost impact for beneficiaries with chronic obstructive pulmonary disease.

We found comorbidities to affect cost per case for some of the CMGs, but not all. When comorbidities substantially increased the average cost of the CMG and were determined to be clinically relevant, we developed CMG relative weights adjusted for comorbidities. We will continue to analyze the data to determine if refinements to the list of comorbidities in Appendix C are necessary. Further discussion of the effect of comorbidities is described in section V.A.2. of this preamble.

6. Analysis of Special Cases

We analyzed payment-to-cost ratios of special types of cases that were not transfer cases to determine if costs could be predicted. From this analysis, we believe that cases that expire and cases with a length of stay of 3 days or less (not including transfer cases) would be substantially ''overpaid'' if facilities receive the full CMG payment for these cases. To improve the explanatory power of the groups, we added four CMGs to account for cases that expire and one CMG for all cases that have a length of stay of 3 days or less (not including transfer cases). These types of special cases are further explained in section V.C. of this preamble. Therefore, the total number of proposed CMGs is 97 as shown in Table 2D.

7. Methodology To Classify Patients Into CMGs

Data from the MDS–PAC, described in section III of this preamble and specified in proposed § 412.620(a)(3) of the regulations, will be used to classify a patient into a CMG. In Table 3D, we have identified the specific MDS–PAC items that must be completed in order to classify a patient into a CMG and to effectively implement the proposed prospective payment system. (These items, along with other MDS–PAC items, will be used to administer, monitor, and analyze possible refinements to the proposed prospective payment system as described in section III of this preamble.) The MDS–PAC items will be used to establish the motor score, cognitive score, and age of the patient that corresponds with a specific CMG description.

8. Case Example To Classify a Patient Into a CMG

The following example illustrates how a Medicare beneficiary would be classified to a CMG under the proposed classification system. An 82 year old woman has a left total hip replacement because of osteoarthritis, and is admitted to the IRF because of the need for rehabilitation after the hip replacement surgery. The beneficiary is first classified into RIC 08: Replacement of Left Extremity Joint with Associated Impairment Group Code 08.51: Status Post Unilateral Hip Replacement.

Assessment

MDS–PAC SCORE

0 Independent in eating (MDS–PAC section E, 1g);
1 Requires set up to dress upper body (MDS–PAC section E, 1e);
5 Requires maximum assistance to dress lower body (MDS–PAC section E, 1f);
1 Requires set up for grooming (MDS–PAC section E, 1j);
2 Requires minimal assistance for bed mobility (MDS–PAC section E, 1b);
5 Requires maximum assistance for bed to chair transfer (MDS–PAC section E, 1b);
5 Requires maximum assistance for walking (MDS–PAC section E, 1d);
5 Requires maximum assistance for toilet transfer (MDS–PAC section E, 1i);
5 Requires maximum assistance for bathing (MDS–PAC section E, 1k);
6 Dependent shower transfer (MDS–PAC section E, 1k);
6 Dependent stair climbing (MDS–PAC section E, 8c); and
0 Independent bowel and bladder sphincter control (MDS–PAC section F, 1 and 4.

Total MDS–PAC Motor Score: 41

This motor score places the Medicare beneficiary in CMG 0802, which is ''Replacement of lower extremity joint'' with a motor score from 41–33. (See footnote at the bottom of Table 2D)

TABLE 2D.—DEFINITION OF CMGS

CMG number**	CMG description
0101	Stroke with motor score from 29–0
0102	Stroke with motor score from 34–30 and cognitive score from 27–135*
0103	Stroke with motor score from 40–35 and cognitive score from 28–35*
0104	Stroke with motor score from 34–30 and cognitive score from 5–26*
0105	Stroke with motor score from 40–35 and cognitive score from 5–27*
0106	Stroke with motor score from 45–41
0107	Stroke with motor score from 49–46
0108	Stroke with motor score from 55–50
0109	Stroke with motor score from 78–56 and patient is 84 years old or older
0110	Stroke with motor score from 60–56 and patient is 83 years old or younger
0111	Stroke with motor score from 78–61 and patient is 83 years old or younger
0201	Traumatic brain injury with motor score from 33–0 and cognitive score from 30–35*
0202	Traumatic brain injury with motor score from 33–0 and cognitive score from 5–29*
0203	Traumatic brain injury with motor score from 50–34 and cognitive score from 22–35*
0204	Traumatic brain injury with motor score from 50–34 and cognitive score from 5–21*
0205	Traumatic brain injury with motor score from 66–51
0206	Traumatic brain injury with motor score from 78–67
0301	Non-traumatic brain injury with motor score from 33–0 and cognitive score from 22–35*
0302	Non-traumatic brain injury with motor score from 33–0 and cognitive score from 5–21*
0303	Non-traumatic brain injury with motor score from 46–34
0304	Non-traumatic brain injury with motor score from 56–47
0305	Non-traumatic brain injury with motor score from 78–57
0401	Traumatic spinal cord injury with motor score from 36–0
0402	Traumatic spinal cord injury with motor score from 57–37
0403	Traumatic spinal cord injury with motor score from 74–58
0404	Traumatic spinal cord injury with motor score from 78–75
0501	Non-traumatic spinal cord injury with motor score from 23–0
0502	Non-traumatic spinal cord injury with motor score from 36–24
0503	Non-traumatic spinal cord injury with motor score from 45–37
0504	Non-traumatic spinal cord injury with motor score from 57–46
0505	Non-traumatic spinal cord injury with motor score from 78–58
0601	Neurological with motor score from 35–0
0602	Neurological with motor score from 45–36
0603	Neurological with motor score from 53–46
0604	Neurological with motor score from 78–54
0701	Fracture of lower extremity with motor score from 36–0
0702	Fracture of lower extremity with motor score from 45–37
0703	Fracture of lower extremity with motor score from 51–46
0704	Fracture of lower extremity with motor score from 78–52
0801	Replacement of lower extremity joint with motor score from 32–0
0802	Replacement of lower extremity joint with motor score from 41–33
0803	Replacement of lower extremity joint with motor score from 48–42
0804	Replacement of lower extremity joint with motor score from 78–49 and cognitive score from 34–35*
0805	Replacement of lower extremity joint with motor score from 55–50 and cognitive score from 5–33*
0806	Replacement of lower extremity joint with motor score from 78–56 and cognitive score from 5–33*
0901	Other orthopedic with motor score from 32–0
0902	Other orthopedic with motor score from 44–33
0903	Other orthopedic with motor score from 53–45
0904	Other orthopedic with motor score from 78–54
1001	Amputation, lower extremity with motor score from 38–0
1002	Amputation, lower extremity with motor score from 48–39
1003	Amputation, lower extremity with motor score from 78–49
1101	Amputation, non-lower extremity with motor score from 30–0
1102	Amputation, non-lower extremity with motor score from 44–31 and patient is 68 years old or older
1103	Amputation, non-lower extremity with motor score from 44–31 and patient is 67 years old or younger
1104	Amputation, non-lower extremity with motor score from 78–45
1201	Osteoarthritis with motor score from 42–0 and cognitive score from 34–35*
1202	Osteoarthritis with motor score from 42–0 and cognitive score from 5–33*
1203	Osteoarthritis with motor score from 54–43
1204	Osteoarthritis with motor score from 78–55
1301	Rheumatoid, other arthritis with motor score from 30–0
1302	Rheumatoid, other arthritis with motor score from 42–31
1303	Rheumatoid, other arthritis with motor score from 78–43
1401	Cardiac with motor score from 37–0
1402	Cardiac with motor score from 50–38
1403	Cardiac with motor score from 78–51
1501	Pulmonary with motor score from 40–0 and patient is 78 years old or older
1502	Pulmonary with motor score from 40–0 and patient is 77 years old or younger

TABLE 2D.—DEFINITION OF CMGS—Continued

CMG number**	CMG description
1503	Pulmonary with motor score from 63–41
1504	Pulmonary with motor score from 78–64
1601	Pain syndrome with motor score from 41–0 and cognitive score from 33–35*
1602	Pain syndrome with motor score from 41–0 and cognitive score from 5–32*
1603	Pain syndrome with motor score from 78–42
1701	Major multiple trauma with brain or spinal cord injury with motor score from 48–0
1702	Major multiple trauma with brain or spinal cord injury with motor score from 78–49
1801	Major multiple trauma, with brain or spinal cord injury with motor score from 56–0
1802	Major multiple trauma, with brain or spinal cord injury with motor score from 78–57
1901	Guillian Barre with motor score from 36–0
1902	Guillian Barre with motor score from 47–37
1903	Guillian Barre with motor score from 78–48
2001	Miscellaneous with motor score from 21–0 and patient is 59 years old or older
2002	Miscellaneous with motor score from 31–22
2003	Miscellaneous with motor score from 36–32
2004	Miscellaneous with motor score from 21–0 and patient is 58 years old or younger
2005	Miscellaneous with motor score from 43–37 and patient is 65 years old or older
2006	Miscellaneous with motor score from 52–44 and patient is 65 years old or older
2007	Miscellaneous with motor score from 43–37 and patient is 65 years old or younger
2008	Miscellaneous with motor score from 78–53 and patient is 84 years old or older
2009	Miscellaneous with motor score from 59–53 and patient is 84 years old or younger
2010	Miscellaneous with motor score from 52–44 and patient is 65 years old or younger
2011	Miscellaneous with motor score from 78–60 and patient is 84 years old or younger
2101	Burns
5001	Short-stay cases, length of stay is 3 days or fewer
5101	Expired, orthopedic, short stay
5102	Expired, orthopedic, not short stay
5103	Expired, not orthopedic, short stay
5104	Expired, not orthopedic, not short stay

*In developing this example of scoring conventions, we have displayed only the FIM motor scores as MDS–PAC scores. We have not included the cognitive scores as MDS–PAC scores. We are currently studying the aggregation of the MDS-PAC variable into the FIM cognitive categories. RAND, our contractor, will be performing additional analysis on the cognitive scoring conventions, and we will be including this research in the final regulations.

**The first two digits of the CMG number from 01 to 21 correspond with a specific RIC number shown on Table 1D.

TABLE 3D.—CRITICAL MDS–PAC ITEMS

Section/item name	Item number
A. ITEMS FROM THE INTERRUPTED STAY TRACKING FORM	
SECTION AA. IDENTIFICATION INFORMATION:	
Legal Name of Patient	1a–1d
Admission Date	2a–2b
Social Security and Medicare Numbers	6a–6b
Facility Provider Number	8a–8b
Medicaid Number	9
Gender	10
Birthdate	11
Ethnicity/Race	12a–12f
Interrupted Stay	13a–13b
Clinician Completing Assessment	14b–14f
B. ITEMS FROM THE BASIC ASSESSMENT TRACKING FORM	
SECTION AA. IDENTIFICATION INFORMATION:	
Legal Name of Patient	1a–1d
Admission Date	2a–2b
Reason for Assessment	3
Assessment Reference Date	4
Discharge Status	5a–5b*
Social Security and Medicare Numbers	6a–6b
Facility Provider Number	8a–8b
Medicaid Number	9
Gender	10
Birthdate	11*
Ethnicity/Race	12a–12f
SECTION AB. ASSESSMENT ATTESTATION:	
Person Completing Assessment	1b–1g

TABLE 3D.—CRITICAL MDS–PAC ITEMS—Continued

Section/item name	Item number
C. ITEMS FROM COMPLETE ASSESSMENT (ASSESSMENT, READMISSION, DISCHARGE)	
SECTION A. DEMOGRAPHIC/ADMISSION INFORMATION HISTORY:	
Legal Name of Patient	1a–1d
Admission Date	2a–2b
Reason for Assessment	3
Admission Status	4
Goals for Stay	5a–5e
Admitted From	6
Precipitating Event Prior to Admission	7
Primary and Secondary Payment Source for Stay	8A–8B
Marital Status	9
Language	11
SECTION B. COGNITIVE PATTERNS:	
Comatose	1*
Memory/Recall Ability	2a–2d*
Cognitive Skills for Daily Decision Making	3a–3b*
Indicators of Delirium-Periodic Disorder Thinking/Awareness	4a–4f*
SECTION C. COMMUNICATION/VISUAL PATTERNS:	
Modes of Communication	2a–2e*
Making Self Understood	3a–3b*
Speech Clarity	4*
Ability to Understand Others	5a–5b*
SECTION E. FUNCTIONAL STATUS:	
3 Day ADL Self-Performance	1a–1l*
ADL Assist Codes	2a–2l*
ADL Changes	3
Devices and Aids	6a–6j*
Walking and Stair Climbing	8a–8c*
SECTION F. BLADDER/BOWEL MANAGEMENT:	
Bladder Continence	1a–1b*
Bladder Appliance	2a–2g*
Bladder Appliance Support	3*
Bowel Continence	4*
Bowel Appliances	5a–5d*
Bowel Appliance Support	6*
SECTION G. DIAGNOSES:	
Impairment Group	1*
Complications/Comorbidities	5a–5d*
SECTION M. RESOURCES FOR DISCHARGE:	
Living Arrangement	3a–3b (A–C)

*Must be recorded by category, variable, and item number, in order for a patient to be classified into a CMG.

9. Adjustment to the Case-Mix Groups

As described in proposed § 412.620(c) of the regulations and as provided by section 1886(j)(2)(c)(i) of the Act, we adjust the CMGs periodically to reflect changes in treatment patterns, technology, number of discharges, and other factors affecting the relative use of resources.

V. Payment Rates

The IRF prospective payment system proposed in this rule utilizes Federal prospective payment rates across 97 distinct CMGs. The Federal payment rates are established using a standard payment amount (referred to as the budget neutral conversion factor). A set of relative payment weights which account for the relative difference in resource use across the CMGs is applied to the budget neutral conversion factor, and finally a number of facility level and case level adjustments may apply. The facility level adjustments include those which account for geographic variation in wages (wage index), Disproportionate Share (DSH), and location in a rural area. Case level adjustments include those which apply for transfer, short-stay and outlier cases, as described later in this section.

The budget neutral conversion factor provides the basis for determining the CMG based Federal payment rates. It is a standardized payment amount that is based on average costs from a base period and also reflects the combined aggregate effects of the payment weights, various facility and case level adjustments, and other policies discussed in this section. Consequently, in discussing the methodology for development of the Federal payment rates, we begin by describing the various adjustments and factors which serve as the inputs used in establishing the budget neutral conversion factor. Accordingly, we propose to develop prospective payments for IRFs using the following major steps:

- Develop the CMG relative weights.
- Determine the payment adjustments.
- Calculate the budget neutral conversion factor minus 2 percent.
- Calculate the Federal CMG prospective payments.

A detailed description of each step and a discussion of our proposed transfer policy, phase-in implementation and other policies follows.

A. Development of CMG Relative Weights

1. Overview of Development of the CMG Relative Weights

As previously stated, one of the primary goals for the implementation of the proposed IRF prospective payment system is to pay each rehabilitation

facility an appropriate payment for the efficient delivery of the care required by its set of Medicare patients. The system must be able to account adequately for each facility's case-mix in order to ensure both fair distribution of Medicare payments and access to adequate care for beneficiaries whose care is provided at a higher cost. To accomplish these goals, payment for each case is adjusted for case-mix.

In this payment system, under proposed § 412.620(b)(1), relative weights are a primary element in accounting for the variance in cost per discharge and resource utilization among the payment groups. To ensure that beneficiaries classified to each CMG will have access to care and to encourage efficiency, we calculate a relative weight for each CMG that is proportional to the resources needed by an average inpatient rehabilitation case in that CMG. For example, cases in a CMG with a relative weight of 2 will on average cost twice as much as cases in a CMG with a weight of 1.

To calculate the relative weights, we estimate operating (routine and ancillary services) and capital costs from inpatient rehabilitation facilities. Cost-to-charge ratios for ancillary services and per diem costs for routine services were obtained from the most recent available cost report data (FYs 1997, 1996, and/or 1995), charges were obtained from calendar year 1997 Medicare bill data, and corresponding functional measures were derived from the UDSmr/COS data. We omit data from rehabilitation facilities that are classified as all-inclusive providers from the calculation of the relative weights, as well as from the parameters that we use to define transfer cases, because these facilities are paid a single, negotiated rate per discharge and they do not maintain a charge structure.

For ancillary services, we calculate both operating and capital costs by converting charges from Medicare claims into costs using facility-specific, cost-center specific cost-to-charge ratios obtained from cost reports. Some departmental cost-to-charge ratios were missing or found to be outside a plausible range. We replace individual cost-to-charge ratios for all departments except anesthesiology when the values are either greater than 10, or less than 0.05. For anesthesiology, we replace the cost-to-charge ratio only when the value is greater than 10, or less than 0.01. The replacement value that we use for these aberrant cost-to-charge ratios is the mean value of the cost-to-charge ratio for the cost-center within the same type of hospital (either freestanding or unit).

For routine services, per diem operating and capital costs are used to develop the relative weights. In addition, per diem operating and capital costs for special care services are used to develop the relative weights. (Special care services are furnished in intensive care units. We note that fewer than 1 percent of rehabilitation days are spent in intensive care units.) Per diem costs are obtained from each facility's Medicare cost report data. We use per diem costs for routine and special care services because, unlike for ancillary services, cost-to-charge ratios cannot be obtained from Medicare data. To estimate the costs for routine and special care services included in developing the relative weights, we sum the product of routine cost per diem and Medicare inpatient days and the product of the special care per diem and the number of Medicare special care days.

We propose to use a hospital-specific relative value method to calculate relative weights. We believe this method allows us to account for more of the cross-facility variation in costs. Specifically, we remove the variation in costs across providers by converting a facility's cost for a case to a relative value based on the facility's case-mix index. The case-mix index is the average case weight (adjusted to eliminate the effect of comorbidities) for cases at a facility. Under the hospital-specific relative value method, costs are standardized at the facility level using facility-specific costs. Costs are standardized for each case by first dividing the adjusted cost for the case (which reflects comorbidities) by the average adjusted cost for the facility in which the case was treated. The average adjusted cost represents the average intensity of the health care services delivered by a particular facility. The resulting ratio is multiplied by the facility's own costliness (the facility's case-mix index) to determine the standardized cost for the case. The case-mix index accounts for the extent to which the intensity of the services is due to the needs of the facility's patients.

Because costs are standardized in this manner, costs for a beneficiary at a facility with high average costs are counted as less resource intensive than costs at a facility with low average costs. Therefore, the adjusted cost of an individual case more accurately reflects actual resource use for an individual facility. For example, a $7,000 case in a facility with an average adjusted cost of $10,000 reflects a higher level of relative resource use than a $7,000 case in a facility with the same case-mix, but an average adjusted cost of $20,000.

We used the following basic steps to calculate the relative weights in this proposed rule:

The first step in calculating the CMG weights is to estimate the effect that comorbidities have on costs. The second step is to adjust the cost of each Medicare discharge (case) to reflect the effects found in the first step. In the third step, the adjusted costs from the second step are used to calculate ''relative adjusted weights'' in each CMG using the hospital-specific relative value method described above. The final steps are to calculate the CMG relative weights by modifying the ''relative adjusted weight'' with the effects of the existence of a comorbidity and normalize the weights to 1.

We describe each of these steps in greater detail below.

2. Steps for Calculating the Relative Weights

Step 1—Estimate the effect of comorbidities on costs. In general, comorbidities are defined as additional medical conditions that increase the complexity of care delivered. For example, treatment for a beneficiary with a total hip replacement can become more complex if the beneficiary also has pneumonia. Because we found comorbidities to be significant predictors of costs in most RICs, we propose to calculate separate relative weights for cases in a given CMG with comorbidity and without comorbidity to reflect the additional costs incurred by cases classified with a comorbidity. We use regression analyses to determine if the weight for a Medicare discharge (case) should reflect the costs of comorbidities. Specifically, separate regression analyses are performed for each RIC. In the analysis, we found that not all comorbidities have the same effect on each RIC. Therefore, if coefficients by RIC are positive and significant and the comorbidity is deemed to be clinically relevant to the CMG, then we calculate separate relative weights for cases with comorbidity in Step 3 below.

Step 2—Adjust the costs of each discharge for the effects of comorbidities. The second step in the calculation of the weights is to adjust the resource use for each case to eliminate the effect of comorbidities. The adjusted cost (A) for a discharge, with values x for comorbidity is:

$$A = \text{cost per discharge}/\exp(a*x)$$

These adjusted cost for each discharge are then used to calculate the relative adjusted weight in each CMG k, w_k.

Step 3—Calculate the CMG relative weights adjusted for comorbidities, on an iterative basis. The process of calculating the CMG relative weights is iterative. First, we give an initial case-mix index value of 1 to each facility. Then, for each case, we calculate a facility-specific relative value by dividing the comorbidity-adjusted cost of the case by the average comorbidity-adjusted cost of all cases at the facility, and multiplying the result by the facility's case-mix index. The CMG-adjusted weights are then set in proportion to the average of the facility-specific relative values. The result is a new case-mix index for each facility and, therefore, new facility-specific, relative values. The process is continued until there is convergence between the weights produced at adjacent steps, for example, when the maximum difference is less than 0.0001. After the first iteration, statistical outliers are defined as cases that differ from the CMG mean by more than three standard deviations in the log scale of standardized cost. These outliers are removed. Discharges that meet the definition of a transfer case are treated as a fraction of a case. (See discussion of transfers in section V.B, below.) A relative weight for each relevant combination of CMG ''with comorbidity'' and ''without comorbidity'' is calculated using the following formula:

$$W(k,x) = \exp(a*x)w_k$$

Where x equals 1 if the patient had one or more comorbidities or x equals 0 if no comorbidities were present. The variable (w_k) equals the comorbidity adjusted weight. If the coefficient (a) is not positive and significant as previously discussed in Step 1, then (a) will be set to equal 0 in the formula. This results in exp(a*x), in the formula, to equal 1 and the weight (W) will equal (w_k).

Step 4—Calculate the weight by modifying the relative adjusted weight with the effects of comorbidity and normalizing the weights to 1.0. This step entails calculating a relative weight for each relevant combination of CMG and comorbidity. In this step, we determine the average cost per discharge for all the cases and use that value as the divisor to calculate the relative weights. For example, if the average cost per discharge across all discharges is $12,000, then the relative weight for a CMG with an average cost of $12,000 is 1, and the relative weight for a CMG with an average cost per discharge of $20,000 is 1.67. If ''r'' is the relative adjusted weight for a case in a CMG with a comorbidity given by:

$$w = k\ r \exp(a*x),$$

then k is determined so that the average value of w is 1.

Table 1E below lists the CMGs and their respective relative weights. The relative weights reflect the inclusion of cases with a very short interruption (return on day of discharge or either of the next 2 days). As stated previously, comorbidities were found to affect the cost of certain CMGs, but not all. Thus, the value for CMGs not affected by comorbidities is the same in both the ''No Comorbidity'' and the ''With Comorbidity'' columns. Information obtained from the first assessment (Day 4 assessment) will be used to determine the appropriate CMG and corresponding payment, including existence of a comorbidity. If a relevant comorbidity is indicated on this assessment, payment will be based on the relative weight from the comorbidity column. It should also be noted that Table 1E reflects cognitive scores that were derived from UDSmr/COS data.

TABLE 1E.—CMG RELATIVE WEIGHTS

CMG *	Definition (M=motor, C=cognitive, A=age)	Split by comorbidity	Average length of stay		Relative weight	
			No comorbidity	With comorbidity	No comorbidity	With comorbidity
0101	M = 29–0	Y	10.4	9.6	0.6058	0.6613
0102	M = 34–30 and C = 27–35	Y	12.0	11.4	0.7095	0.7746
0103	M = 40–35 and C = 28–35	Y	14.3	15.2	0.8605	0.9394
0104	M = 34–30 and C = 5–26	Y	14.2	16.7	0.8560	0.9344
0105	M = 40–35 and C = 5–27	Y	15.9	16.7	0.9620	1.0501
0106	M = 45–41	Y	17.7	17.2	1.0944	1.1947
0107	M = 49–46	Y	20.1	20.7	1.2630	1.3787
0108	M = 55–50	Y	22.7	21.2	1.4365	1.5682
0109	M = 78–56 and A >= 84	Y	24.0	24.9	1.5989	1.7455
0110	M = 60–56 and A <= 83	Y	25.9	23.4	1.6616	1.8139
0111	M = 78–61 and A <= 83	Y	29.5	29.6	1.9626	2.1425
0201	M = 33–0 and C = 30–35	N	9.4	9.4	0.5504	0.5504
0202	M = 33–0 and C = 5–29	N	13.3	13.3	0.8325	0.8325
0203	M = 50–34 and C = 22–35	N	16.0	16.0	0.9777	0.9777
0204	M = 50–34 and C = 5–21	N	18.3	18.3	1.1640	1.1640
0205	M = 66–51	N	22.3	22.3	1.4739	1.4739
0206	M = 78–67	N	31.6	31.6	2.2179	2.2179
0301	M = 33–0 and C = 22–35	Y	10.6	10.4	0.6399	0.7208
0302	M = 33–0 and C = 5–21	Y	13.5	13.3	0.8393	0.9454
0303	M = 46–34	Y	14.8	15.3	0.9467	1.0664
0304	M = 56–47	Y	19.2	19.3	1.2605	1.4198
0305	M = 78–57	Y	24.8	26.9	1.7517	1.9731
0401	M = 36–0	Y	12.6	10.3	0.7135	0.8560
0402	M = 57–37	Y	17.5	18.6	1.0506	1.2603
0403	M = 74–58	Y	26.6	25.5	1.7459	2.0944
0404	M = 78–75	Y	39.3	48.6	2.9252	3.5092
0501	M = 23–0	Y	8.4	8.2	0.4459	0.5528
0502	M = 36–24	Y	10.6	12.8	0.6197	0.7683
0503	M = 45–37	Y	13.5	15.7	0.8152	1.0107
0504	M = 57–46	Y	18.2	18.8	1.1515	1.4277
0505	M = 78–58	Y	25.9	30.2	1.7816	2.2089
0601	M = 35–0	Y	12.3	12.5	0.6971	0.7970
0602	M = 45–36	Y	15.2	15.6	0.9086	1.0389

TABLE 1E.—CMG RELATIVE WEIGHTS—Continued

CMG*	Definition (M=motor, C=cognitive, A=age)	Split by comorbidity	Average length of stay		Relative weight	
			No comorbidity	With comorbidity	No comorbidity	With comorbidity
0603	M = 53–46	Y	17.7	18.2	1.0833	1.2387
0604	M = 78–54	Y	21.4	22.6	1.3375	1.5292
0701	M = 36–0	Y	11.7	12.1	0.6525	0.7604
0702	M = 45–37	Y	14.3	15.5	0.8337	0.9716
0703	M = 51–46	Y	17.1	17.5	1.0129	1.1803
0704	M = 78–52	Y	19.6	20.9	1.1794	1.3743
0801	M = 32–0	Y	8.6	9.6	0.4822	0.5920
0802	M = 41–33	Y	10.1	11.3	0.5984	0.7346
0803	M = 48–42	Y	12.2	14.3	0.7464	0.9162
0804	M = 78–49 and C = 34–35	Y	13.5	16.8	0.8835	1.0845
0805	M = 55–50 and C = 5–33	Y	15.3	16.7	0.9540	1.1710
0806	M = 78–56 and C = 5–33	Y	18.4	21.2	1.1765	1.4441
0901	M = 32–0	Y	10.4	11.0	0.5587	0.6716
0902	M = 44–33	Y	13.3	14.5	0.7641	0.9185
0903	M = 53–45	Y	16.4	17.0	0.9685	1.1642
0904	M = 78–54	Y	20.0	19.7	1.2144	1.4597
1001	M = 38–0	Y	15.0	14.1	0.8488	0.9278
1002	M = 48–39	Y	18.2	17.5	1.1178	1.2219
1003	M = 78–49	Y	21.4	21.0	1.3785	1.5068
1101	M = 30–0	Y	10.6	9.6	0.6095	0.7489
1102	M = 44–31 and A >= 68	Y	13.4	13.5	0.8278	1.0171
1103	M = 44–31 and A <= 67	Y	17.4	17.8	1.0894	1.3386
1104	M = 78–45	Y	20.7	20.8	1.3232	1.6258
1201	M = 42–0 and C = 34–35	Y	10.7	12.1	0.5965	0.6847
1202	M = 42–0 and C = 5–33	Y	13.3	13.9	0.7181	0.8244
1203	M = 54–43	Y	16.4	17.0	0.9181	1.0540
1204	M = 78–55	Y	20.8	22.4	1.1492	1.3192
1301	M = 30–0	Y	11.3	11.2	0.5927	0.6859
1302	M = 42–31	Y	13.3	14.2	0.7116	0.8234
1303	M = 78–43	Y	18.0	19.1	1.0450	1.2093
1401	M = 37–0	Y	12.4	12.1	0.6511	0.7618
1402	M = 50–38	Y	15.4	16.4	0.9006	1.0537
1403	M = 78–51	Y	19.7	24.3	1.2689	1.4846
1501	M = 40–0 and A >= 78	Y	14.0	12.7	0.7741	0.8327
1502	M = 40–0 and A <= 77	Y	15.0	15.3	0.8529	0.9175
1503	M = 63–41	Y	19.2	19.6	1.1875	1.2774
1504	M = 78–64	Y	29.6	32.6	2.2797	2.4524
1601	M = 41–0 and C = 33–35	Y	11.0	10.6	0.6151	0.7313
1602	M = 41–0 and C = 5–32	Y	12.8	15.1	0.7257	0.8628
1603	M = 78–42	Y	15.9	16.0	0.9725	1.1562
1701	M = 48–0	Y	14.8	15.5	0.8513	1.0565
1702	M = 78–49	Y	22.5	24.9	1.3677	1.6974
1801	M = 56–0	N	16.7	16.7	0.9935	0.9935
1802	M = 78–57	N	29.5	29.5	2.0563	2.0563
1901	M = 36–0	N	11.5	11.5	0.7048	0.7048
1902	M = 47–37	N	18.0	18.0	1.0883	1.0883
1903	M = 78–48	N	31.4	31.4	2.0648	2.0648
2001	M = 21–0 and A >= 59	Y	9.2	8.8	0.5010	0.5604
2002	M = 31–22	Y	11.5	11.5	0.6435	0.7198
2003	M = 36–32	Y	13.0	13.0	0.7468	0.8353
2004	M = 21–0 and A <= 58	Y	13.9	11.2	0.7131	0.7977
2005	M = 43–37 and A >= 65	Y	14.4	14.4	0.8549	0.9562
2006	M = 52–44 and A >= 65	Y	16.5	17	1.0145	1.1348
2007	M = 43–37 and A < 65	Y	16.0	15.7	0.9998	1.1183
2008	M = 78–53 and A >= 84	Y	18.2	20.2	1.1359	1.2705
2009	M = 59–53 and A < 84	Y	19.8	19.9	1.2481	1.3960
2010	M = 52–44 and A < 65	Y	18.1	18.6	1.1570	1.2941
2011	M = 78–60 and A < 84	Y	23.2	24.3	1.4898	1.6664
2101	All burn cases	N	18.5	18.5	1.2863	1.2863
5001	Short stay cases—LOS is 3 days or fewer	N	2.6	2.6	0.1908	0.1908
5101	Expired orthopedic, short stay	N	7.1	7.1	0.4657	0.4657
5102	Expired orthopedic, not short stay	N	20.0	20.0	1.0777	1.0777
5103	Expired not ortho, short stay	N	8.4	8.4	0.5485	0.5485
5104	Expired not ortho, not short stay	N	25.1	25.1	1.5027	1.5027

*The first two digits of the CMG number from 01 to 21 correspond with a specific RIC number shown on Table 1D in section IV of this proposed rule.

B. Transfer Payment Policy

1. Background

We are proposing, under § 412.624(f), a transfer policy to provide for payments that more accurately reflect facility resources used and services delivered. We believe that it is important to minimize the inherent incentives specifically associated with the early transfer of patients in a discharge-based payment system. Without a transfer policy, we are concerned that incentives might exist for IRFs to discharge patients prematurely as well as admit patients that may not be able to endure intense inpatient therapy services. Patients might be transferred before receiving the typical, full course of inpatient rehabilitation, but the IRF would be paid the full CMG payment rate in the absence of a transfer policy. Accordingly, the transfer policy that we are proposing would reduce the full CMG payment rate when a Medicare beneficiary is transferred (as defined below).

2. Statutory Background

Section 125(a)(3) of the BBRA amended section 1886(j)(1) of the Act by adding a new paragraph (E) that states ''Construction relating to transfer authority. ''Nothing in this subsection shall be construed as preventing the Secretary from providing for an adjustment to payments to take into account the early transfer of a patient from a rehabilitation facility to another site of care.''

The statute does not define ''site of care''. ''Site of care'' could be defined as an ''institutional site'' that includes other rehabilitation facilities, long-term care hospitals (as described in section 412.23(e) of the regulations), inpatient hospitals, and nursing homes that accept payment under Title 18 (the Medicare program) or Title 19 (the Medicaid program), or both. ''Site of care'' can also be defined as a ''provider site'' that is more encompassing and could include home health, outpatient rehabilitation, ''day program'' services, as well as the ''institutional sites'' listed above. For the purposes of our transfer policy, we are proposing to define site of care as an ''institutional site'', although we are considering the option to extend the definition of site of care to the ''provider site'' definition. Further, we are soliciting comments regarding the inclusion of nursing homes in the definition of site of care.

3. Criteria for Defining Transfer Cases

We propose that, in order for a discharge from an IRF to be classified as an early transfer, the length of stay for the discharge must be less than the average length of stay for non-transfer cases (cases in which the patient is discharged to the community and the length of stay is more than 3 days) in a given CMG (as shown in Table 1E in this section), and the patient must be discharged to another rehabilitation facility, a long term care hospital, an inpatient hospital, or a nursing home that accepts payment under either the Medicare program or the Medicaid program, or both.

We believe that under a prospective payment system, an IRF may, also, be inclined to discharge beneficiaries prematurely while increasing the volume and intensity of HHA and outpatient therapy services. We expect that some beneficiaries may require HHA or outpatient therapy services as a normal progression of care after their inpatient rehabilitation stay. However, we are concerned that intensive use of these therapy services could be inappropriately used as a substitute for several days of an intensive therapy program in the IRF. We are analyzing claims data to determine the extent to which we can distinguish among services that could be considered a substitution of care rather than an extension of the normal progression for inpatient rehabilitation care and to determine the frequency and intensity of both HHA and outpatient therapy services. Estimating the potential substitution of HHA therapy services is made more challenging because we have just developed the HHA prospective payment system and it is difficult to anticipate how therapy services will be delivered after implementation of that system.

Accordingly, we are not proposing to include HHA, outpatient therapy, and ''day programs'' in our transfer policy. However, we are considering including these services to the extent we can distinguish when HHA and outpatient therapy services are more intensive and used as a substitution for inpatient rehabilitation care. If we can determine that the care is used as a substitution rather than just the normal progression of care, we believe these types of intensive HHA and outpatient therapy services should be included as part of the transfer policy. Therefore, we specifically solicit comments on this option.

In addition, we will be developing a monitoring system that includes transfers or discharges from an IRF to ''provider sites'', previously referenced. This will include transfers or discharges from an IRF to skilled nursing facility, long term care facilities, home health agencies and inpatient hospitals. This system will include discharges and transfers from one IRF to a different IRF including situations where the transfer occurs between organizations of common ownership. Although currently it does not appear that this type of transfer occurs frequently, further analysis of data regarding this type of transfer between IRFs may warrant an adjustment to payments. Therefore, we are specifically soliciting comments on this monitoring system.

4. Transfer Case Payment

We believe that matching payment as closely as possible to expected costs is the best way to reduce opportunities for financial considerations to affect clinical decisions. We found a significant correlation between the length of a patient's stay and the cost of the services received. This correlation indicates that the average length of stay can be used as a proxy measure of a facility's resources needed to treat a specific diagnosis with rehabilitation services. Thus, a per-diem-based payment for the number of days of care prior to a transfer will allow us to pay providers more appropriately for the facility resources used and services delivered.

We propose to compute the per-diem-based payment for a transfer case as follows: First, calculate the unadjusted per-diem amount for each CMG (except the short-stay CMG) by dividing the average length of stay for non-transfer cases (those cases discharged to the community with a length of stay more than 3 days) in the CMG into the Federal prospective payment (with or without comorbidities) for that CMG. Next, multiply the CMG per-diem payment from the first step by the number of days that the beneficiary was in the IRF prior to their transfer. The result equals the unadjusted Federal prospective payment for the transfer case. See section V.D of this preamble for specific adjustments that are applicable to this Federal prospective payment. We solicit comments on the appropriateness of our proposed methodology for computing payments for transfer cases.

We will examine the distribution of costs to determine if and to what extent costs vary during the course of an episode. If costs vary during the course of an episode, an alternative transfer policy could be developed to better reflect the costs of care. The results of this analysis will be considered as well as the incentives inherent in an alternative transfer payment methodology.

C. Special Cases That Are Not Transfers

Section 1886(j)(3)(A)(v) of the Act permits us to adjust the payment rates by factors as the Secretary determines are necessary to properly reflect variations in necessary costs of treatment among rehabilitation facilities.

Certain cases that have stays of less than the typical length of time and that receive less than the full course of rehabilitation treatment for a specific CMG would be paid inappropriately if the facility were to receive the full CMG payment. Further, because of the budget neutrality requirements, ''overpayment'' for these cases would reduce payments for all other cases that warrant full payment based on the rehabilitation services actually delivered. We discuss the special cases below in terms of the definitions, policy rationale, and the proposed payment methodology. The three subsets are short-stay outliers, cases that expire, and interrupted stays.

1. Short-Stay Outlier

We propose, under § 412.620(b)(2), to define a short-stay outlier as a case that has a length of stay of 3 days or fewer (regardless of the CMG) and that does not meet the definition of a transfer as discussed in section V.B. of this preamble. A short-stay may occur when a beneficiary receives less than the full course of rehabilitative treatment because he or she leaves the facility against medical advice. Another circumstance warranting classification as a short-stay outlier involves patients who are admitted to rehabilitation facilities but are unable to tolerate intensive rehabilitative services. These patients may be discharged home and be readmitted once they are able to tolerate intensive rehabilitative services (see the interrupted stay policy in section V.C.3. of this preamble, for further clarification regarding length of stay criteria), or they may be discharged and not readmitted because they remain unable to tolerate these services.

An incomplete assessment submitted when the patient's length of stay is 3 days or fewer is another example of a short-stay case. In this situation, the facility may not have the appropriate information to complete the MDS–PAC patient assessment. We believe that a payment adjustment is necessary to reduce incentives for facilities to complete an assessment with inadequate information. Further, we believe that providing a special payment for incomplete assessments neither encourages facilities to submit incomplete assessments without obtaining the appropriate information, nor severely penalizes providers that occasionally may be unable, despite good faith efforts, to complete assessments.

Making a short-stay outlier payment for these types of cases will allow us to counteract the incentives inherent in a discharge-based prospective payment system for this pattern to emerge. Payment-to-cost ratios for the cases described above show that if facilities receive a full CMG payment, they would be ''overpaid'' for the resources they have expended. One of the primary objectives of the prospective payment system is to provide incentives for facilities to become more efficient and, in doing so, to ensure that they can still receive adequate and appropriate payments. Because the rates are set to be budget neutral minus 2 percent, excessive payment for those cases that do not actually entail the full course of rehabilitative treatment would reduce payments for cases that warrant full payment based on the rehabilitation services delivered. A short-stay outlier policy would permit more equitable payment to those facilities that manage to increase efficiencies while still providing the full course of rehabilitative treatment.

We propose to pay short-stay outliers a relative weight of 0.1908. We computed this relative weight for short-stay outlier discharges by identifying all cases in which the length of stay is 3 days or fewer and the discharge does not meet the policy criteria to be considered a transfer. The relative weight for these cases is calculated in the same manner discussed previously, using the hospital-specific relative value methodology.

However, we believe that the considerations underlying the short-stay policy might also apply to cases with a length of stay greater than 3 days. More specifically, we note that some beneficiaries may have longer lengths of stay, and yet may not require intensive inpatient rehabilitative care, or may lack the capacity to participate in an intensive rehabilitation program. Therefore, we are also considering a short-stay policy that would encompass cases with a length of stay longer than 3 days. We are in the process of further analyzing claims data for Medicare beneficiaries to determine the most appropriate number of days to use in the definition of a short-stay case. If analysis of the data supports increasing the number of days for the short-stay criteria, we might adopt in the final rule a definition covering a longer period than the 3-day period. We specifically solicit comments on the appropriate time period for our short-stay criteria.

2. Cases That Expire

In general, cases that end in death would be substantially ''overpaid'' if facilities received the full CMG payment for these cases; even excluding all of the very short-stay cases with a length of stay of 3 days or fewer, the remaining expired cases as a whole would still be ''overpaid''. We analyzed payment-to-cost ratios and found that we can improve the accuracy of the payments if we split expired cases into two categories based on the RIC—one for orthopedic cases and one for all other types of RICs. We further find that splitting these cases based on length of stay also improves the accuracy of the payment system. Therefore, we propose, under § 412.620(b)(3), that, for expired cases where a beneficiary dies within 3 days from admission or fewer, the case would be classified into the short-stay CMG. We propose that, for expired cases with a length of stay greater than 3 days, the case would be classified into one of four CMGs, based on length of stay and whether or not the discharge falls within the orthopedic RIC. More specifically, one group includes orthopedic discharges with a length of stay of more than 3 days but less than or equal to the average length of stay for expired cases classified within the orthopedic RIC. The second group includes orthopedic discharges with a length of stay greater than the average length of stay for expired cases classified within the orthopedic RIC. The third group includes non-orthopedic discharges with a length of stay of more than 3 days but less than or equal to the average length of stay of expired cases that are not classified within the orthopedic RIC. The fourth group includes non-orthopedic discharges with a length of stay greater than the average length of stay of expired cases that are not classified within the orthopedic RIC. Relative weights for each expired CMG are calculated using the hospital-specific relative value methodology discussed previously in this preamble.

3. Interrupted Stay

We propose to define interrupted stay cases as those involving cases in which the beneficiary returns to the rehabilitation facility by midnight of the third day following a discharge. We propose to pay one discharge payment for these cases. The assessment from the initial stay would be used to determine the appropriate CMG.

D. Adjustments

Section 1886(j)(6) of the Act requires an adjustment to the Federal

prospective payments to account for geographical wage variation. Section 1886(j)(3)(A)(v) of the Act confers broad discretion on the Secretary to adjust prospective payments ''by such other factors as the Secretary determines are necessary to properly reflect variations in necessary costs of treatment among rehabilitation facilities.'' Section 1886(j)(4) of the Act authorizes (but does not require) the Secretary to make specified payment adjustments (including an adjustment for outlier cases). In addition to the geographical wage adjustment, we propose to adjust payments for facilities located in rural areas. Further, we propose to adjust payments to reflect the percentage of low income patients. These adjustments and the proposed payment methodologies are discussed below.

1. Area Wage Adjustment

Section 1886(j)(6) of the Act specifies that payment rates under the IRF prospective payment system must be adjusted to account for geographic area wage variation. The statute requires the Secretary to adjust the labor-related portion of the prospective payment rates for area differences in wage levels by a factor reflecting the relative facility wage level in the geographic area of the rehabilitation facility compared to the national average wage level for these facilities. We propose, under § 412.624(e)(1), to adjust the payment rates for geographic wage variations using the following methodology.

To account for wage differences, we first identify the proportion of labor and non-labor components of costs. In general, the labor-related share is the sum of relative importances of wages, fringe benefits, professional fees, postal services, labor-intensive services, and a portion of the capital share from an appropriate market basket. We determine a labor-related share for rehabilitation facilities by first estimating the portion related to operating costs. We use the excluded market basket with capital to determine the labor-related share. The excluded market basket with capital is derived from available cost data for facilities including rehabilitation, long-term care, psychiatric, cancer, and children's hospitals. Using the excluded hospital market basket with capital, the labor-related share of operating costs is 67.03 percent in fiscal year 2001. Table 2E shows that the sum of the relative importance for wages and salaries, employee benefits, professional fees, postal services and all other labor intensive services equals 67.03 percent for FY 2001. The labor-related share of capital costs needs to be considered as well. The portion of capital attributed to labor is estimated to be 46 percent, the same percentage used for the hospital inpatient capital-related prospective payment system. Because the relative importance for capital is 9.285 percent of the excluded hospital with capital market basket in FY 2001, we multiply 46 percent by 9.285 percent to determine the labor-related share for capital costs in FY 2001, which is 4.271 percent. We add 4.271 percent for capital costs to 67.03 percent for operating costs to determine the total labor-related share. Thus, the labor-related share that we propose to use for rehabilitation facilities in FY 2001 is 71.301 percent as shown in the Table 2E below.

TABLE 2E.—TOTAL LABOR-RELATED SHARE

Cost category	Relative importance (%) FY 2001
Wages and salaries	48.895
Employee benefits	10.790
Professional fees	1.979
Postal services	0.245
All other labor intensive services	5.121
SUBTOTAL	67.03
Labor related share of capital	4.271
TOTAL	71.301

We note that a precedent exists for using this method to adjust for geographic differences in costs. Specifically, the labor-related portion for acute care hospitals is determined from cost report data, and is established in conjunction with the hospital operating market basket. We further validated the labor-related share by analyzing the results of the wage index coefficient derived from the regressions. The wage index coefficient allows us to approximate the labor-related portion of cost per case. The coefficient confirms that 71.301 percent is an appropriate labor-related share.

The labor-related portion of the unadjusted Federal payment is multiplied by a wage index value to account for area wage differences. We are proposing to use inpatient acute care hospital wage data to compute the wage indices. Wage data to compute IRF-specific wage indices are currently not available. We believe that the inpatient acute care hospital wage data reflect wage levels similar to those of post-acute care facilities, including IRFs. We believe that IRFs and other post-acute care facilities (such as, SNFs and HHAs) generally compete in the same labor market as inpatient acute care hospitals. (Inpatient acute care hospital data is currently being used to compute wage indices for the SNF and HHA prospective payment systems.) Accordingly, we believe that inpatient acute care hospital wage data is appropriate to use as a basis of computing the IRF wage index in accordance with section 1886(j)(6) of the Act.

The inpatient acute care hospital wage data that we propose to use includes the following categories of data associated with costs paid under the inpatient acute care hospital prospective payment system (as well as outpatient costs): salaries and hours from short-term, acute care hospitals, home office costs and hours, certain contract labor costs and hours, and wage-related costs. The wage data excludes the wages for services provided by teaching physicians, interns and residents, and nonphysician anesthetists under Medicare Part B, because these services are not covered under the IRF prospective payment system. These wages are currently being phased out of the hospital inpatient prospective payment system wage index over a 5-year period. The wage data used to compute the FY 2000 SNF and hospital wage indices are based on a blend of 80 percent of an average hourly wage that includes these costs and 20 percent of an average hourly wage that excludes these costs. Unlike the inpatient prospective payment system for acute care hospitals, a transition is unnecessary for IRF prospective payment system because payment for inpatient rehabilitation services has never been based on a wage index that includes data for these services. The difference across geographic areas between a wage index that uses the 80/20 blend and a wage index that excludes 100 percent of wages for teaching physicians, residents, and nonphysician anesthetists is less than 2 percent on average.

Consistent with the wage index methodologies in other prospective payment systems, we propose to divide hospitals into labor market areas. For purposes of defining labor market areas, we are proposing to define an urban area as a Metropolitan Statistical Area (MSA) or New England County Metropolitan Area (NECMA), as defined by the Executive Office of Management and Budget. We are proposing to define a rural area as any area outside an urban area. For the purposes of computing the wage index for IRFs, the wage index values for urban and rural areas are determined without regard to

geographic reclassification under section 1886(d)(8) or (d)(10) of the Act.

We are proposing to use an IRF wage index that is based on FY 1996 inpatient acute care hospital wage data. These data were also used to compute the FY 2000 hospital inpatient PPS wage indices. The FY 1997 inpatient acute care hospital wage data was used to develop the FY 2001 hospital wage index, and we will consider using this data for developing the final Federal prospective payments.

The proposed IRF wage indices are computed as follows:

- Compute an average hourly wage for each urban and rural area.
- Compute a national average hourly wage.
- Divide the average hourly wage for each urban and rural area by the national average hourly wage—the result is a wage index for each urban and rural area.

To calculate the adjusted facility payments, the prospectively determined Federal prospective payment is multiplied by the labor-related percentage (0.71301) to determine the labor-related portion of the Federal prospective payments. This labor-related portion is then multiplied by the applicable IRF wage index shown in Table 3E for urban areas and Table 4E for rural areas.

TABLE 3E.—WAGE INDEX URBAN AREAS

MSA	Urban area (Constituent counties or county equivalents)	Wage index
0040 ..	Abilene, TX	0.8275
	Taylor, TX	
0060 ..	Aguadilla, PR	0.3859
	Aguada, PR	
	Aguadilla, PR	
	Moca, PR	
0080 ..	Akron, OH	1.0093
	Portage, OH	
	Summit, OH	
0120 ..	Albany, GA	1.6055
	Dougherty, GA	
	Lee, GA	
0160 ..	Albany-Schenectady-Troy, NY.	0.8751
	Albany, NY	
	Montgomery, NY	
	Rensselaer, NY	
	Saratoga, NY	
	Schenectady, NY	
	Schoharie, NY	
0200 ..	Albuquerque, NM	0.8366
	Bernalillo, NM	
	Sandoval, NM	
	Valencia, NM	
0220 ..	Alexandria, LA	0.7960
	Rapides, LA	
0240 ..	Allentown-Bethlehem-Easton, PA.	1.0226
	Carbon, PA	
	Lehigh, PA.	

TABLE 3E.—WAGE INDEX URBAN AREAS—Continued

MSA	Urban area (Constituent counties or county equivalents)	Wage index
	Northampton, PA.	
0280 ..	Altoona, PA	0.9410
	Blair, PA	
0320 ..	Amarillo, TX	0.8450
	Potter, TX	
	Randall, TX	
0380 ..	Anchorage, AK	1.3010
	Anchorage, AK	
0440 ..	Ann Arbor, MI	1.1354
	Lenawee, MI	
	Livingston, MI	
	Washtenaw, MI	
0450 ..	Anniston,AL	0.8562
	Calhoun, AL	
0460 ..	Appleton-Oshkosh-Neenah, WI.	0.9018
	Calumet, WI	
	Outagamie, WI	
	Winnebago, WI	
0470 ..	Arecibo, PR	0.4871
	Arecibo, PR	
	Camuy, PR	
	Hatillo, PR	
0480 ..	Asheville, NC	0.8969
	Buncombe, NC	
	Madison, NC	
0500 ..	Athens, GA	0.9819
	Clarke, GA	
	Madison, GA	
	Oconee, GA	
0520 ..	Atlanta, GA	1.0173
	Barrow, GA	
	Bartow, GA	
	Carroll, GA	
	Cherokee, GA	
	Clayton, GA	
	Cobb, GA	
	Coweta, GA	
	De Kalb, GA	
	Douglas, GA	
	Fayette, GA	
	Forsyth, GA	
	Fulton, GA	
	Gwinnett, GA	
	Henry, GA	
	Newton, GA	
	Paulding, GA	
	Pickens, GA	
	Rockdale, GA	
	Spalding, GA	
	Walton, GA	
0560 ..	Atlantic City-Cape May	1.1469
	Atlantic City, NJ	
	Cape May, NJ	
0580 ..	Auburn-Opelika, AL	0.7718
	Lee, AL	
0600 ..	Augusta-Aiken, GA–SC	0.9091
	Columbia, GA	
	McDuffie, GA	
	Richmond, GA	
	Aiken, SC	
	Edgefield, SC	
0640 ..	Austin-San Marcos, TX	0.9112
	Bastrop, TX	
	Caldwell, TX	
	Hays, TX	
	Travis, TX	
	Williamson, TX	
0680 ..	Bakersfield, CA	0.9622

TABLE 3E.—WAGE INDEX URBAN AREAS—Continued

MSA	Urban area (Constituent counties or county equivalents)	Wage index
	Kern, CA	
0720 ..	Baltimore, MD	0.9614
	Anne Arundel, MD	
	Baltimore, MD	
	Baltimore City, MD	
	Carroll, MD	
	Harford, MD	
	Howard, MD	
	Queen Annes, MD	
0733 ..	Bangor, ME	0.9696
	Penobscot, ME	
0743 ..	Barnstable-Yarmouth, MA	1.3573
	Barnstable, MA	
0760 ..	Baton Rouge, LA	0.8782
	Ascension, LA	
	East Baton Rouge	
	Livingston, LA	
	West Baton Rouge	
0840 ..	Beaumont-Port Arthur, TX	0.8715
	Hardin, TX	
	Jefferson, TX	
	Orange, TX	
0860 ..	Bellingham, WA	1.1528
	Whatcom, WA	
0870 ..	Benton Harbor, MI	0.8557
	Berrien, MI	
0875 ..	Bergen-Passaic, NJ	1.2128
	Bergen, NJ	
	Passaic, NJ	
0880 ..	Billings, MT	1.0154
	Yellowstone, MT	
0920 ..	Biloxi-Gulfport-Pascagoula, MS.	0.7960
	Hancock, MS	
	Harrison, MS	
	Jackson, MS	
0960 ..	Binghamton, NY	0.8689
	Broome, NY	
	Tioga, NY	
1000 ..	Birmingham, AL	0.9009
	Blount, AL	
	Jefferson, AL	
	St. Clair, AL	
	Shelby, AL	
1010 ..	Bismarck, ND	0.7746
	Burleigh, ND	
	Morton, ND	
1020 ..	Bloomington, IN	0.8694
	Monroe, IN	
1040 ..	Bloomington-Normal, IL	0.9099
	McLean, IL	
1080 ..	Boise City, ID	0.9144
	Ada, ID	
	Canyon, ID	
1123 ..	Boston-Worcester-Lawrence-Lowell-Brockton, MA–NH.	1.1327
	Bristol, MA	
	Essex, MA	
	Middlesex, MA	
	Norfolk, MA	
	Plymouth, MA	
	Suffolk, MA	
	Worcester, MA	
	Hillsborough, NH	
	Merrimack, NH	
	Rockingham, NH	
	Strafford, NH	
1125 ..	Boulder-Longmont, CO	1.0030

TABLE 3E.—WAGE INDEX URBAN AREAS—Continued

MSA	Urban area (Constituent counties or county equivalents)	Wage index
	Boulder, CO	
1145 ..	Brazoria, TX	0.8616
	Brazoria, TX	
1150 ..	Bremerton, WA	1.1141
	Kitsap, WA	
1240 ..	Brownsville-Harlingen-San Benito, TX.	0.9294
	Cameron, TX	
1260 ..	Bryan-College Station, TX	0.8601
	Brazos, TX	
1280 ..	Buffalo-Niagara Falls, NY	0.9549
	Erie, NY	
	Niagara, NY	
1303 ..	Burlington, VT	1.0796
	Chittenden, VT	
	Franklin, VT	
	GrandIsle, VT	
1310 ..	Caguas, PR	0.4596
	Caguas, PR	
	Cayey, PR	
	Cidra, PR	
	Gurabo, PR	
	San Lorenzo, PR	
1320 ..	Canton-Massillon, OH	0.8770
	Carroll, OH	
	Stark, OH	
1350 ..	Casper, WY	0.9286
	Natrona, WY	
1360 ..	Cedar Rapids, IA	0.9082
	Linn, IA	
1400 ..	Champaign-Urbana, IL	0.9225
	Champaign, IL	
1440 ..	Charleston-North Charleston, SC.	0.9073
	Berkeley, SC	
	Charleston, SC	
	Dorchester, SC	
1480 ..	Charleston, WV	0.9157
	Kanawha, WV	
	Putnam, WV	
1520 ..	Charlotte-Gastonia-Rock Hill, NC–SC.	0.9471
	Cabarrus, NC	
	Gaston, NC	
	Lincoln, NC	
	Mecklenburg, NC	
	Rowan, NC	
	Stanly, NC	
	Union, NC	
	York, SC	
1540 ..	Charlottesville, VA	1.0662
	Albemarle, VA	
	Charlottesville City, VA	
	Fluvanna, VA	
	Greene, VA	
1560 ..	Chattanooga, TN–GA	0.9824
	Catoosa, GA	
	Dade, GA	
	Walker, GA	
	Hamilton, TN	
	Marion, TN	
1580 ..	Cheyenne, WY	0.8272
	Laramie, WY	
1600 ..	Chicago, IL	1.0889
	Cook, IL	
	De Kalb, IL	
	Du Page, IL	
	Grundy, IL	
	Kane, IL	

TABLE 3E.—WAGE INDEX URBAN AREAS—Continued

MSA	Urban area (Constituent counties or county equivalents)	Wage index
	Kendall, IL	
	Lake, IL	
	McHenry, IL	
	Will, IL	
1620 ..	Chico-Paradise, CA	1.0513
	Butte, CA	
1640 ..	Cincinnati, OH–KY–IN	0.9424
	Dearborn, IN	
	Ohio, IN	
	Boone, KY	
	Campbell, KY	
	Gallatin, KY	
	Grant, KY	
	Kenton, KY	
	Pendleton, KY	
	Brown, OH	
	Clermont, OH	
	Hamilton, OH	
	Warren, OH	
1660 ..	Clarksville-Hopkinsville, TN–KY.	0.8185
	Christian, KY	
	Montgomery, TN	
1680 ..	Cleveland-Lorain-Elyria, OH.	0.9667
	Ashtabula, OH	
	Geauga, OH	
	Cuyahoga, OH	
	Lake, OH	
	Lorain, OH	
	Medina, OH	
1720 ..	Colorado Springs, CO	0.9326
	El Paso, CO	
1740 ..	Columbia MO	0.9072
	Boone, MO	
1760 ..	Columbia, SC	0.9456
	Lexington, SC	
	Richland, SC	
1800 ..	Columbus, GA–AL	0.8529
	Russell, AL	
	Chattanoochee, GA	
	Harris, GA	
	Muscogee, GA	
1840 ..	Columbus, OH	0.9952
	Delaware, OH	
	Fairfield, OH	
	Franklin, OH	
	Licking, OH	
	Madison, OH	
	Pickaway, OH	
1880 ..	Corpus Christi, TX	0.8848
	Nueces, TX	
	San Patricio, TX	
1890 ..	Corvallis, OR	1.1217
	Benton, OR	
1900 ..	Cumberland, MD–WV	0.8905
	Allegany MD	
	Mineral WV	
1920 ..	Dallas, TX	0.9559
	Collin, TX	
	Dallas, TX	
	Denton, TX	
	Ellis, TX	
	Henderson, TX	
	Hunt, TX	
	Kaufman, TX	
	Rockwall, TX	
1950 ..	Danville, VA	0.9167
	Danville City, VA	

TABLE 3E.—WAGE INDEX URBAN AREAS—Continued

MSA	Urban area (Constituent counties or county equivalents)	Wage index
	Pittsylvania, VA	
1960 ..	Davenport-Moline-Rock Island, IA–IL.	0.8787
	Scott, IA	
	Henry, IL	
	Rock Island, IL	
2000 ..	Dayton-Springfield, OH	0.9478
	Clark, OH	
	Greene, OH	
	Miami, OH	
	Montgomery, OH	
2020 ..	Daytona Beach, FL	0.9048
	Flagler, FL	
	Volusia, FL	
2030 ..	Decatur, AL	0.8781
	Lawrence, AL	
	Morgan, AL	
2040 ..	Decatur, IL	0.8380
	Macon, IL	
2080 ..	Denver, CO	1.0202
	Adams, CO	
	Arapahoe, CO	
	Denver, CO	
	Douglas, CO	
	Jefferson, CO	
2120 ..	Des Moines, IA	0.8793
	Dallas, IA	
	Polk, IA	
	Warren, IA	
2160 ..	Detroit, MI	1.0310
	Lapeer, MI	
	Macomb, MI	
	Monroe, MI	
	Oakland, MI	
	St. Clair, MI	
	Wayne, MI	
2180 ..	Dothan, AL	0.7890
	Dale, AL	
	Houston, AL	
2190 ..	Dover, DE	0.9445
	Kent, DE	
2200 ..	Dubuque, IA	0.8620
	Dubuque, IA	
2240 ..	Duluth-Superior, MN–WI	1.0279
	St. Louis, MN	
	Douglas, WI	
2281 ..	Dutchess County, NY	1.0674
	Dutchess, NY	
2290 ..	Eau Claire, WI	0.9030
	Chippewa, WI	
	Eau Claire, WI	
2320 ..	El Paso, TX	0.9004
	El Paso, TX	
2330 ..	Elkhart-Goshen, IN	0.9490
	Elkhart, IN	
2335 ..	Elmira, NY	0.8634
	Chemung, NY	
2340 ..	Enid, OK	0.8047
	Garfield, OK	
2360 ..	Erie, PA	0.8880
	Erie, PA	
2400 ..	Eugene-Springfield, OR	1.0715
	Lane, OR	
2440 ..	Evansville-Henderson, IN–KY.	0.8329
	Posey, IN	
	Vanderburgh, IN	
	Warrick, IN	
	Henderson, KY	

TABLE 3E.—WAGE INDEX URBAN AREAS—Continued

MSA	Urban area (Constituent counties or county equivalents)	Wage index
2520 ..	Fargo-Moorhead, ND–MN	0.8721
	Clay, MN	
	Cass, ND	
2560 ..	Fayetteville, NC	0.8594
	Cumberland, NC	
2580 ..	Fayetteville-Springdale-Rogers, AR.	0.7768
	Benton, AR	
	Washington, AR	
2620 ..	Flagstaff, AZ–UT	1.0470
	Coconino, AZ	
	Kane, UT	
2640 ..	Flint, MI	1.1037
	Genesee, MI	
2650 ..	Florence, AL	0.8020
	Colbert, AL	
	Lauderdale, AL	
2655 ..	Florence, SC	0.8668
	Florence, SC	
2670 ..	Fort Collins-Loveland, CO	1.0335
	Larimer, CO	
2680 ..	Ft. Lauderdale, FL	1.0297
	Broward, FL	
2700 ..	Fort Myers-Cape Cora, FL.	0.9056
	Lee, FL	
2710 ..	Fort Pierce-Port St. Lucie, FL.	1.0116
	Martin, FL	
	St. Lucie, FL	
2720 ..	Fort Smith, AR–OK	0.7936
	Crawford, AR	
	Sebastian, AR	
	Sequoyah, OK	
2750 ..	Fort Walton Beach, FL	0.8816
	Okaloosa, FL	
2760 ..	Fort Wayne, IN	0.9158
	Adams, IN	
	Allen, IN	
	De Kalb, IN	
	Huntington, IN	
	Wells, IN	
	Whitley, IN	
2800 ..	Forth Worth-Arlington, TX	0.9673
	Hood, TX	
	Johnson, TX	
	Parker, TX	
	Tarrant, TX	
2840 ..	Fresno, CA	1.0311
	Fresno, CA	
	Madera, CA	
2880 ..	Gadsden, AL	0.8791
	Etowah, AL	
2900 ..	Gainesville, FL	0.9879
	Alachua, FL	
2920 ..	Galveston-Texas City, TX	0.9767
	Galveston, TX	
2960 ..	Gary, IN	0.9494
	Lake, IN	
	Porter, IN	
2975 ..	Glens Falls, NY	0.8707
	Warren, NY	
	Washington, NY	
2980 ..	Goldsboro, NC	0.8432
	Wayne, NC	
2985 ..	Grand Forks, ND–MN	0.9199
	Polk, MN	
	Grand Forks, ND	
2995 ..	Grand Junction, CO	0.9102
	Mesa, CO	
3000 ..	Grand Rapids-Muskegon-Holland, MI.	1.0151
	Allegan, MI	
	Kent, MI	
	Muskegon, MI	
	Ottawa, MI	
3040 ..	Great Falls, MT	1.0582
	Cascade, MT	
3060 ..	Greeley, CO	0.9667
	Weld, CO	
3080 ..	Green Bay, WI	0.9224
	Brown, WI	
3120 ..	Greensboro-Winston-Salem-High Point, NC.	0.9091
	Alamance, NC	
	Davidson, NC	
	Davie, NC	
	Forsyth, NC	
	Guilford, NC	
	Randolph, NC	
	Stokes, NC	
	Yadkin, NC	
3150 ..	Greenville, NC	0.9451
	Pitt, NC	
3160 ..	Greenville-Spartanburg-Anderson, SC.	0.9264
	Anderson, SC	
	Cherokee, SC	
	Greenville, SC	
	Pickens, SC	
	Spartanburg, SC	
3180 ..	Hagerstown, MD	0.8946
	Washington, MD	
3200 ..	Hamilton-Middletown, OH	0.9051
	Butler, OH	
3240 ..	Harrisburg-Lebanon-Carlisle, PA.	0.9749
	Cumberland, PA	
	Dauphin, PA	
	Lebanon, PA	
	Perry, PA	
3283 ..	Hartford, CT	1.1758
	Hartford, CT	
	Litchfield, CT	
	Middlesex, CT	
	Tolland, CT	
3285 ..	Hattiesburg, MS	0.7723
	Forrest, MS	
	Lamar, MS	
3290 ..	Hickory-Morganton-Lenoir, NC.	0.9219
	Alexander, NC	
	Burke, NC	
	Caldwell, NC	
	Catawba, NC	
3320 ..	Honolulu, HI	1.1599
	Honolulu, HI	
3350 ..	Houma, LA	0.7878
	Lafourche, LA	
	Terrebonne, LA	
3360 ..	Houston, TX	0.9405
	Chambers, TX	
	Fort Bend, TX	
	Harris, TX	
	Liberty, TX	
	Montgomery, TX	
	Waller, TX	
3400 ..	Huntington-Ashland, WV–KY–OH.	0.9859
	Boyd, KY	
	Carter, KY	
	Greenup, KY	
	Lawrence, OH	
	Cabell, WV	
	Wayne, WV	
3440 ..	Huntsville, AL	0.8926
	Limestone, AL	
	Madison, AL	
3480 ..	Indianapolis, IN	0.9802
	Boone, IN	
	Hamilton, IN	
	Hancock, IN	
	Hendricks, IN	
	Johnson, IN	
	Madison, IN	
	Marion, IN	
	Morgan, IN	
	Shelby, IN	
3500 ..	Iowa City, IA	0.9532
	Johnson, IA	
3520 ..	Jackson, MI	0.8944
	Jackson, MI	
3560 ..	Jackson, MS	0.8379
	Hinds, MS	
	Madison, MS	
	Rankin, MS	
3580 ..	Jackson, TN	0.8701
	Chester, TN	
	Madison, TN	
3600 ..	Jacksonville, FL	0.9020
	Clay, FL	
	Duval, FL	
	Nassau, FL	
	St. Johns, FL	
3605 ..	Jacksonville, NC	0.7944
	Onslow, NC	
3610 ..	Jamestown, NY	0.7950
	Chautaqua, NY	
3620 ..	Janesville-Beloit, WI	0.9677
	Rock, WI	
3640 ..	Jersey City, NJ	1.1742
	Hudson, NJ	
3660 ..	Johnson City-Kingsport-Bristol, TN–VA.	0.8949
	Carter, TN	
	Hawkins, TN	
	Sullivan, TN	
	Unicoi, TN	
	Washington, TN	
	Bristol City, VA	
	Scott ,VA	
	Washington, VA	
3680 ..	Johnstown, PA	0.8589
	Cambria, PA	
	Somerset, PA	
3700 ..	Jonesboro, AR	0.7316
	Craighead, AR	
3710 ..	Joplin, MO	0.7766
	Jasper, MO	
	Newton, MO	
3720 ..	Kalamazoo-Battlecreek, MI.	1.0098
	Calhoun, MI	
	Kalamazoo, MI	
	Van Buren, MI	
3740 ..	Kankakee, IL	0.8699

TABLE 3E.—WAGE INDEX URBAN AREAS—Continued

MSA	Urban area (Constituent counties or county equivalents)	Wage index
	Kankakee, IL	
3760 ..	Kansas City, KS–MO	0.9281
	Johnson, KS	
	Leavenworth, KS	
	Miami, KS	
	Wyandotte, KS	
	Cass, MO	
	Clay, MO	
	Clinton, MO	
	Jackson, MO	
	Lafayette, MO	
	Platte, MO	
	Ray, MO	
3800 ..	Kenosha, WI	0.9139
	Kenosha, WI	
3810 ..	Killeen-Temple, TX	1.0078
	Bell, TX	
	Coryell, TX	
3840 ..	Knoxville, TN	0.9238
	Anderson, TN	
	Blount, TN	
	Knox, TN	
	Loudon, TN	
	Sevier, TN	
	Union, TN	
3850 ..	Kokomo, IN	0.9023
	Howard, IN	
	Tipton, IN	
3870 ..	La Crosse, WI–MN	0.9020
	Houston, MN	
	La Crosse, WI	
3880 ..	Lafayette, LA	0.8437
	Acadia, LA	
	Lafayette, LA	
	St. Landry, LA	
	St. Martin, LA	
3920 ..	Lafayette, IN	0.8913
	Clinton, IN	
	Tippecanoe, IN	
3960 ..	Lake Charles, LA	0.8056
	Calcasieu, LA	
3980 ..	Lakeland-WinterHaven, FL.	0.8919
	Polk, FL	
4000 ..	Lancaster, PA	0.9325
	Lancaster, PA	
4040 ..	Lansing-East Lansing, MI	1.0075
	Clinton, MI	
	Eaton, MI	
	Ingham, MI	
4080 ..	Laredo, TX	0.8421
	Webb, TX	
4100 ..	Las Cruces, NM	0.8606
	DonaAna, NM	
4120 ..	Las Vegas, NV–AZ	1.1285
	Mohave, AZ	
	Clark, NV	
	Nye, NV	
4150 ..	Lawrence, KS	0.8319
	Douglas, KS	
4200 ..	Lawton, OK	0.9645
	Comanche, OK	
4243 ..	Lewiston-Auburn, ME	0.8962
	Androscoggin ME	
4280 ..	Lexington, KY	0.8568
	Bourbon, KY	
	Clark, KY	
	Fayette, KY	
	Jessamine, KY	

TABLE 3E.—WAGE INDEX URBAN AREAS—Continued

MSA	Urban area (Constituent counties or county equivalents)	Wage index
	Madison, KY	
	Scott, KY	
	Woodford, KY	
4320 ..	Lima, OH	0.9010
	Allen, OH	
	Auglaize, OH	
4360 ..	Lincoln, NE	0.9723
	Lancaster NE	
4400 ..	Little Rock-North Little, AR.	0.8708
	Faulkner, AR	
	Lonoke, AR	
	Pulaski, AR	
	Saline, AR	
4420 ..	Longview-Marshall, TX	0.8841
	Gregg, TX	
	Harrison, TX	
	Upshur, TX	
4480 ..	Los Angeles-Long Beach, CA.	1.2103
	Los Angeles, CA	
4520 ..	Louisville, KY–IN	0.9415
	Clark, IN	
	Floyd, IN	
	Harrison, IN	
	Scott, IN	
	Bullitt, KY	
	Jefferson, KY	
	Oldham, KY	
4600 ..	Lubbock, TX	0.8512
	Lubbock, TX	
4640 ..	Lynchburg, VA	0.8908
	Amherst, VA	
	Bedford City, VA	
	Bedford, VA	
	Campbell, VA	
	Lynchburg City, VA	
4680 ..	Macon, GA	0.8501
	Bibb, GA	
	Houston, GA	
	Jones, GA	
	Peach, GA	
	Twiggs, GA	
4720 ..	Madison, WI	0.9869
	Dane, WI	
4800 ..	Mansfield, OH	0.8575
	Crawford, OH	
	Richland, OH	
4840 ..	Mayaguez, PR	0.4729
	Anasco, PR	
	CaboRojo, PR	
	Hormigueros, PR	
	Mayaguez, PR	
	Sabana Grande, PR	
	San German, PR.	
4880 ..	McAllen-Edinburg-Mission, TX.	0.8208
	Hidalgo, TX	
4890 ..	Medford-Ashland, OR	1.0607
	Jackson, OR	
4900 ..	Melbourne-Titusville-Palm Bay, FL.	0.9405
	Brevard, FL	
4920 ..	Memphis, TN–AR–MS	0.8321
	Crittenden, AR	
	De Soto, MS	
	Fayette, TN	
	Shelby, TN	
	Tipton, TN	

TABLE 3E.—WAGE INDEX URBAN AREAS—Continued

MSA	Urban area (Constituent counties or county equivalents)	Wage index
4940 ..	Merced, CA	1.0313
	Merced, CA	
5000 ..	Miami, FL	1.0368
	Dade, FL	
5015 ..	Middlesex-Somerset-Hunterdon, NJ.	1.1128
	Hunterdon, NJ	
	Middlesex, NJ	
	Somerset, NJ	
5080 ..	Milwaukee-Waukesha, WI	0.9848
	Milwaukee, WI	
	Ozaukee, WI	
	Washington, WI	
	Waukesha, WI	
5120 ..	Minneapolis-St. Paul, MN–WI.	1.0979
	Anoka, MN	
	Carver, MN	
	Chisago, MN	
	Dakota, MN	
	Hennepin, MN	
	Isanti, MN	
	Ramsey, MN	
	Scott, MN	
	Sherburne, MN	
	Washington, MN	
	Wright, MN	
	Pierce, WI	
	St. Croix, WI	
5140 ..	Missoula, MT	0.9192
	Missoula, MT	
5160 ..	Mobile, AL	0.8171
	Baldwin, AL	
	Mobile, AL	
5170 ..	Modesto, CA	1.0233
	Stanislaus, CA	
5190 ..	Monmouth-Ocean, NJ	1.1332
	Monmouth, NJ	
	Ocean, NJ	
5200 ..	Monroe, LA	0.8315
	Ouachita, LA	
5240 ..	Montgomery, AL	0.7794
	Autauga, AL	
	Elmore, AL	
	Montgomery, AL	
5280 ..	Muncie, IN	1.0533
	Delaware, IN	
5330 ..	Myrtle Beach, SC	0.8612
	Horry, SC	
5345 ..	Naples, FL	0.9955
	Collier, FL	
5360 ..	Nashville, TN	0.9368
	Cheatham, TN	
	Davidson, TN	
	Dickson, TN	
	Robertson, TN	
	Rutherford, TN	
	Sumner, TN	
	Williamson, TN	
	Wilson, TN	
5380 ..	Nassau-Suffolk, NY	1.4087
	Nassau, NY	
	Suffolk, NY	
5483 ..	New Haven-Bridgeport-Stamford-Waterbury-Danbury, CT.	1.2260
	Fairfield, CT	
	New Haven, CT	
5523 ..	New London-Norwich, CT	1.2572