GAO Report to the Senate Committee on Finance and the House Committee on Ways and Means

April 2005

MEDICARE

More Specific Criteria Needed to Classify Inpatient Rehabilitation Facilities

GAO-05-366
MEDICARE

More Specific Criteria Needed to Classify Inpatient Rehabilitation Facilities

What GAO Found

In fiscal year 2003, fewer than half of all IRF Medicare patients were admitted for having a condition on the list in the 75 percent rule, and few IRFs admitted at least 75 percent of their patients for one of those conditions. The largest group of patients had orthopedic conditions, not all of which were on the list in the rule, which had been suspended in 2002. Almost half of all patients with conditions not on the list were admitted for orthopedic conditions, and among those the largest group was joint replacement patients. Although some joint replacement patients may need admission to an IRF, GAO’s analysis showed that few of these patients had comorbidities that suggested a possible need for the IRF level of services. Additionally, GAO found that only 6 percent of IRFs in fiscal year 2003 were able to meet a 75 percent threshold.

IRFs varied in the criteria used to assess patients for admission, and CMS has not routinely reviewed IRF admission decisions. IRF officials reported that the criteria they used to make admission decisions included patient characteristics such as function, as well as condition. CMS, working through its fiscal intermediaries, has not routinely reviewed IRF admission decisions.

The experts IOM convened and other clinical and nonclinical experts GAO interviewed differed on whether conditions should be added to the list in the 75 percent rule but agreed that condition alone does not provide sufficient criteria to identify the types of patients appropriate for IRFs. The experts IOM convened questioned the strength of the evidence for adding conditions to the list, finding the evidence for certain orthopedic conditions particularly weak, and they called for further research to identify the types of patients that need inpatient rehabilitation and to understand the effectiveness of IRFs. Other experts did not agree on whether conditions, including a broader category of joint replacements, should be added to the list. Experts, including those IOM convened, generally agreed that condition alone is insufficient for identifying appropriate types of patients for inpatient rehabilitation, since within any condition only a subgroup of patients require the level of services of an IRF, and contended that functional status should also be considered.

What GAO Recommends

GAO recommends that CMS take several actions, including refining the rule to describe more thoroughly the subgroups of patients within a condition that require IRF services, possibly using functional status or other factors in addition to condition, to help ensure that IRFs can be classified appropriately and that only patients needing IRF services are admitted. CMS generally agreed with the recommendations.


To view the full product, including the scope and methodology, click on the link above. For more information, contact Marjorie Kanof at (202) 512-7114.
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Abbreviations

CMG  case-mix group
CMS  Centers for Medicare & Medicaid Services
DRG  diagnosis-related group
FI   fiscal intermediary
ICD-9-CM International Classification of Diseases, Ninth Revision, Clinical Modification
IOM  Institute of Medicine
IPPS inpatient prospective payment system
IRF  inpatient rehabilitation facility
IRF-PAI Inpatient Rehabilitation Facility—Patient Assessment Instrument
IRF PPS inpatient rehabilitation facility prospective payment system
MEDPAR Medicare Provider Analysis and Review
NIH  National Institutes of Health
PPS  prospective payment system
SNF  skilled nursing facility

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April 22, 2005

The Honorable Charles E. Grassley  
Chairman  
The Honorable Max Baucus  
Ranking Minority Member  
Committee on Finance  
United States Senate

The Honorable William M. Thomas  
Chairman  
The Honorable Charles B. Rangel  
Ranking Minority Member  
Committee on Ways and Means  
House of Representatives

The number of inpatient rehabilitation facilities (IRF) and Medicare payments to these facilities have grown steadily over the past decade. IRFs are intended to serve patients recovering from medical conditions that typically require an intensive level of rehabilitation in an inpatient setting.¹ ² The number of IRFs grew from 907 in 1992 to 1,256 in 2003. Medicare payments to IRFs grew from $2.8 billion in 1992 to an estimated $5.7 billion for the care of over 500,000 Medicare patients in 2003, and payments are projected to grow to almost $9 billion per year by 2015. Because patients treated at IRFs require more intensive rehabilitation than is provided in other settings, such as an acute care hospital or a skilled nursing facility (SNF),³ Medicare pays for treatment in an IRF at a higher rate than it pays for treatment in other settings. To distinguish IRFs from other settings for payment purposes and to ensure that Medicare patients needing less intensive services are not in IRFs, the Centers for Medicare &

¹Under authority provided in the Social Security Act, the Secretary defines a rehabilitation hospital and unit. See 42 U.S.C. §1395ww(d)(1)(B) (2000).

²Not all patients with a given condition may require the level of rehabilitation provided in an IRF. For example, although a subset of patients who have had a stroke may require the intensive level of care provided by an IRF, others may be less severely disabled and require less intensive services.

³In addition to IRFs, acute care hospitals, and SNFs, other settings that provide rehabilitation services include long-term care hospitals, outpatient rehabilitation facilities, and home health care.
Medicaid Services (CMS) relies on a regulation commonly known as the “75 percent rule,” which was initially issued in 1983 and most recently revised in 2004. The 2004 rule, which is being implemented over a 3-year transition period, states that if a facility can show that during a 12-month period at least 75 percent of all its patients, including its Medicare patients, required intensive rehabilitation services for the treatment of at least 1 of the 13 conditions listed in the rule, it may be classified as an IRF. The rule allows the remaining 25 percent of patients to have other conditions not listed in the rule. An IRF that does not comply with the requirements of the 75 percent rule may lose its classification as an IRF and therefore no longer be eligible for payment at a higher rate. In addition to the 75 percent rule, IRFs must meet six other facility criteria to be classified as an IRF.

IRF compliance with the requirements of the rule has been problematic, and some IRFs have questioned the requirements of the rule. CMS data indicate that in 2002 only 13 percent of IRFs had at least 75 percent of patients in 1 of the 10 conditions on the list at that time. CMS suspended enforcement of the rule in 2002. IRF officials have contended that the list of conditions in the rule should be updated because of changes in medicine that have occurred since the list was established in 1983 and the concomitant expansion of the population that could benefit from inpatient rehabilitation services. They have noted that their patients are older than

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4See 42 C.F.R. §412.23(b)(2) (2004).

5The 13 conditions listed in the 2004 rule are stroke; spinal cord injury; congenital deformity; amputation; major multiple trauma; hip fracture; brain injury; neurological disorders; burns; certain active polyarticular rheumatoid arthritis, psoriatic arthritis, and seronegative arthropathies; certain systemic vasculitides with joint inflammation; severe or advanced osteoarthritis involving two or more major weight-bearing joints meeting certain criteria; and knee or hip joint replacement meeting certain specific criteria. The specific criteria for knee or hip joint replacement are that the patient must have undergone a knee or hip joint replacement, or both, during an acute care hospitalization immediately preceding the inpatient rehabilitation stay and also have had a bilateral procedure, or be at least 85 years of age or older, or be extremely obese with a body mass index of at least 50. For an annotated list of these conditions, see appendix I.

6The time period is defined by CMS or the CMS contractor.

7To be classified as an IRF, a facility would also have to meet six other regulatory criteria showing that it had (1) a Medicare provider agreement; (2) a preadmission screening procedure; (3) medical, nursing, and therapy services; (4) a plan of treatment for each patient; (5) a coordinated multidisciplinary team approach; and (6) a medical director of rehabilitation with specified training or experience. IRFs must also meet other criteria identified in 42 C.F.R. §412.22 (2004) and 42 C.F.R. §412.25 (2004).
the population served in 1983 and are surviving longer with conditions they may not have survived in earlier years. CMS issued a final rule—effective July 1, 2004—that increased the number of conditions from 10 to 13, adding, for example, certain hip and knee joint replacements. The 2004 final rule also laid out a 3-year transition period during which enforcement of the rule is to be resumed, with the threshold for percentage of patients meeting the condition requirements being lowered to 50 percent for the first year and rising in stages to reach 75 percent for the IRF’s cost reporting period starting on or after July 2007.

IRFs need to be correctly classified to be distinguished from settings in which less intensive rehabilitation is provided because the difference in payments to IRFs and payments to these other settings can be substantial. For example, the estimated Medicare per case payment in 2004 for a patient who underwent a major joint and limb replacement of a lower extremity was $17,135 to an IRF and $6,165 to a SNF. Similarly, the estimated per case payment for a patient with a stroke was $34,196 to an IRF and $8,905 to a SNF. Therefore, if IRFs are not correctly classified, Medicare is at risk of making large overpayments to incorrectly classified facilities. Medicare is also at risk of overpayment for individual patients in an IRF if patients are admitted who could be treated in a less intensive setting. IRFs are required to assess patients prior to admission to ensure they require the level of services provided in an IRF, and CMS is responsible for evaluating the appropriateness of individual admissions after the patient has been discharged through reviews for medical necessity conducted under contract by its fiscal intermediaries (FI).

The Conference Report that accompanied the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 directed us to issue a report, in consultation with experts in the field of physical medicine and rehabilitation, to assess whether the current list of conditions represents a clinically appropriate standard for defining IRF services and, if not, to determine which additional conditions should be added to the list. In this report, we (1) identify the conditions that IRF Medicare patients have, the

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9See MedPAC, Report to the Congress: New Approaches in Medicare, Ch. 5, “Defining Long-Term Care Hospitals” (Washington, D.C.: June 2004),123. CMS officials also reported that preliminary data showed that IRF payments exceeded costs by approximately 17 percent in 2002, the first year of IRF prospective payment.

number of these patients considered to have 1 of the 13 conditions, and the number of IRFs that meet the requirements of the 75 percent rule; (2) describe how IRFs assess patients for admission and whether CMS reviews admission decisions; and (3) evaluate the approach of using a list of conditions in the 75 percent rule to classify IRFs.\textsuperscript{11}

To identify the conditions that IRF Medicare patients have, the number of patients considered to have 1 of the 13 conditions, and the number of IRFs that meet the requirements of the 75 percent rule, we obtained the Inpatient Rehabilitation Facility—Patient Assessment Instrument (IRF-PAI) records from CMS for Medicare patients admitted to IRFs in fiscal year 2003. We conducted our analyses on Medicare patients only, because CMS records contained data on the largest number of IRFs and the majority of patients in IRFs are covered by Medicare.\textsuperscript{12, 13} The IRF-PAI records contain, for each Medicare patient, the impairment group code identifying the patient’s primary condition and the diagnostic code from the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) identifying the patient’s comorbid condition.\textsuperscript{14} We

\begin{marginnote}
\textsuperscript{11}The Consolidated Appropriations Act, 2005, effectively prohibits the Secretary of Health and Human Services from enforcing the 75 percent rule and reclassifying IRFs as hospitals subject to the inpatient prospective payment system until he either (1) determines that the current rule is not inconsistent with the recommendations contained in our report or (2) issues an interim rule revising the 75 percent rule. The appropriations act provides for the Secretary to take such action no later than 60 days after our report is issued. See Pub. L. No. 108-447, Div. F., Tit. II, §219, 118 Stat. 2809, 3141-42.
\end{marginnote}

\begin{marginnote}
\textsuperscript{12}We analyzed the 2003 data—the most recent data available at the time—using the 13 conditions in the current regulation even though in fiscal year 2003 there were 10 conditions on the list.
\end{marginnote}

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\textsuperscript{13}Other data sources contained data on only a subset of IRFs. In addition, analyses by RAND using the 10 conditions on the list at that time found that the percentage of Medicare patients with the conditions on the list in the rule was a good predictor of the percentage of total patients with the conditions on the list in the rule. See Grace M. Carter, O. Hayden, et al., “Case Mix Certification Rule for Inpatient Rehabilitation Facilities,” DRU-2981-CMS (Santa Monica, Ca.: May 2003.)
\end{marginnote}

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\textsuperscript{14}The impairment group code identifies the medical condition that caused the patient to be admitted to an IRF, and its sole function is to determine payment rates. As a result, the impairment group codes describe every patient in an IRF and include medical conditions that are on the list in the rule as well as those that are not on the list since IRFs may treat patients with conditions not on the list. In contrast, the list of conditions in the rule describes the patient population that is to be treated in an IRF to ensure that a facility is appropriately classified to justify payment for the level of services furnished.
\end{marginnote}

\begin{marginnote}
\textsuperscript{15}As used in this report, a primary condition is the first or foremost medical condition for which the patient was admitted to an IRF, and other medical conditions may coexist in the patient as comorbid conditions, or comorbidities.
\end{marginnote}
used these codes to determine whether we considered the patient’s primary or comorbid condition to be linked to a condition on the list in the rule. We also obtained and analyzed Medicare claims records for fiscal year 2003 to identify patients that had been discharged from an acute care hospital to an IRF. We assessed the reliability of the IRF-PAI data by interviewing agency officials knowledgeable about the data and by interviewing other researchers who had conducted analyses using the IRF-PAI data. For both the IRF-PAI data and the claims data we performed electronic testing of required data elements. We determined that the data were sufficiently reliable for this analysis. Although we applied different threshold levels to illustrate the impact of the transition period on the number of IRFs that meet the requirements of the rule, we did not assess the appropriateness of any threshold level. Our analyses used administrative data only, and estimates could be different if medical records were used.

To determine how IRFs assess patients for admission and whether CMS reviews admission decisions, we conducted structured interviews. We interviewed the medical director at each of 12 IRFs selected to vary by region and level of compliance with the 75 percent rule. We also interviewed the medical director (or designee) at each of the 10 FIs that covered the states in which the 12 IRFs are located (out of a total of 30 FIs). In addition, we interviewed an official representing each of CMS’s 10 regional offices to determine whether any IRFs had ever been declassified based on failure to comply with the 75 percent rule, and we interviewed three insurers and one regional managed care organization about their procedures for referring enrollees to IRFs.

To evaluate the approach of using a list of conditions in the 75 percent rule to classify IRFs, we contracted with the Institute of Medicine (IOM) of The National Academies to convene a 1-day meeting of clinical experts in physical medicine and rehabilitation, including physicians, rehabilitation

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16Throughout this report, the “list in the rule” refers to the list of 13 conditions as specified in the 2004 75 percent rule, and when we say that a condition is on (or off) the list, we mean that we have (or have not) been able to link the condition as identified in the IRF-PAI record to a condition on the list in the rule.

17We followed the instructions CMS provided to FIs for them to use as a first step to “presumptively verify compliance” using the list of codes in the manual to estimate how many patients have one of the conditions on the list in the rule as recorded on the IRF-PAI instrument. (See CMS, “Medicare Claims Processing,” CMS Manual System, pub. 100-04, Transmittal 947 (Baltimore, Md.: Oct. 29, 2004).)
nurses, physical therapists, occupational therapists, a speech and language therapist, and clinical researchers in the field (referred to in this report as “the experts IOM convened”).

In total, we talked with 106 individuals, of whom 65 were clinicians, including the experts IOM convened. We conducted our work from May 2004 through April 2005 in accordance with generally accepted government auditing standards. (For a complete description of our scope and methodology, see app. II.)

Results in Brief

In fiscal year 2003, fewer than half of all IRF Medicare patients were admitted for having a condition on the list in the 75 percent rule, and few IRFs admitted at least 75 percent of their patients for one of those conditions. The largest group of patients admitted to IRFs in 2003 had orthopedic conditions, not all of which were on the list in the rule. In addition, fewer than half of all IRF patients were admitted for a primary condition that was on the list, with the proportion increasing to over three-fifths when comorbid conditions on the list were counted, as they would be during the rule’s 3-year transition period. Almost half of patients with conditions that were not on the list were admitted for orthopedic conditions, and among those the largest group was joint replacement patients. Although some joint replacement patients may need admission to an IRF, our analysis showed that few of these patients had comorbidities that suggested a possible need for the intensity of services offered by an IRF. Additionally, we found that only 6 percent of IRFs in fiscal year 2003 were able to meet a 75 percent threshold, and many IRFs may not be able to meet the requirements of the rule as the threshold increases to 75 percent during the transition period. CMS has not generally declassified IRFs based on their failure to comply with the 75 percent rule.

IRFs varied in the criteria used to assess patients for admission, and CMS has not routinely reviewed IRFs’ admission decisions. Among the IRF officials we interviewed, the criteria varied by facility and included patient characteristics such as function in addition to condition. Admission decisions may also be influenced by an IRF’s level of compliance with the 75 percent rule’s list of conditions. The IRF officials we interviewed reported that they tracked their facility’s level of compliance with the rule’s list of conditions and that the decision to admit a given patient could be affected by the IRF’s compliance level at that time. CMS, working through its FIs, has not routinely reviewed IRF admission decisions, although it reported that such reviews could be used to target problem areas.
The experts IOM convened and other experts we interviewed differed on whether conditions should be added to the list in the 75 percent rule but agreed that condition alone does not provide sufficient criteria to identify types of patients appropriate for IRFs. The experts IOM convened questioned the strength of the evidence for adding conditions to the list in the rule. They reported that the evidence on the benefits of IRF services is variable and the evidence on the benefits of such services for certain orthopedic conditions is particularly weak, and they called for further research to identify the types of patients that need inpatient rehabilitation and to understand the effectiveness of IRFs in comparison with other settings of care. Other experts we interviewed did not agree on whether conditions, including a broader category of joint replacements, should be added to the list in the rule. Experts, including those convened by IOM, agreed that condition alone is insufficient for identifying appropriate types of patients for inpatient rehabilitation, since within any condition only a subgroup of patients require the level of services of an IRF, and contended that functional status should also be considered. The experts IOM convened suggested factors to use in classifying IRFs, including both patient and facility characteristics.

To help ensure that IRFs can be classified appropriately and that only patients needing the IRF level of services are admitted to them, we recommend that CMS ensure that FIs routinely conduct targeted reviews for medical necessity for IRF admissions; that CMS conduct additional activities to encourage research on the effectiveness of intensive inpatient rehabilitation and factors that predict patient need for these services; and that CMS use the information obtained from reviews for medical necessity, research activities, and other sources to refine the rule to describe more thoroughly the subgroups of patients within a condition that require IRF services, possibly using functional status or other factors in addition to condition.

In commenting on a draft of this report, CMS stated that our work would be of assistance to the agency in examining issues related to patient coverage and the classification of IRFs. CMS generally agreed with our recommendations. Although CMS indicated its intent to follow our recommendation to more thoroughly describe subgroups of patients within a condition, it said it wanted to carefully consider this action and potentially base its descriptions on future research. We clarified language in the recommendation to encourage CMS to obtain research for this effort. CMS agreed on the need to encourage research and said it would collaborate with the National Institutes of Health (NIH). CMS also agreed that targeted reviews for medical necessity are necessary and said that it
expected resources to be directed toward areas of risk. In its technical comments, CMS also noted we analyzed data from fiscal year 2003, when the rule was not being enforced, and said that this could have affected our findings. Other organizations that reviewed the report—the American Hospital Association, the American Medical Rehabilitation Providers Association, and the Federation of American Hospitals—also raised concerns about our use of fiscal year 2003 data. We analyzed a sample of data from July through December 2004, the first 6 months after the rule took effect, and found no material difference for the same time period in fiscal year 2003 data.

While the 75 percent rule has been in effect in one form or another for over two decades, the current payment system and review procedures for IRFs went into effect in recent years.

The Social Security Amendments of 1983 changed the Medicare hospital payment system from a cost-based retrospective reimbursement system to a prospective system known as the inpatient prospective payment system (IPPS), under which hospitals receive a per discharge payment for a diagnosis-related group (DRG).18 However, the amendments excluded “rehabilitation hospitals,” and so IRFs continued to be paid under a reasonable-cost-based retrospective system. Before the IPPS was implemented, CMS consulted with the Joint Commission on Accreditation of Healthcare Organizations (JCAHO)19 and other accrediting organizations to determine how to classify IRFs, that is, distinguish them from other facilities for payment purposes. The 75 percent rule was established for that purpose in 1983.20 To develop the original list of conditions in the 75 percent rule, CMS relied, in part, on information from the American Academy of Physical Medicine and Rehabilitation, the American Congress of Rehabilitation Medicine, the National Association of Rehabilitation

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19At that time, JCAHO was known as the Joint Commission on Accreditation of Hospitals.

According to CMS, the conditions on the list accounted for approximately 75 percent of the admissions to IRFs when the original list was developed. In January 2002 a prospective payment system (PPS) was implemented for IRFs—known as the inpatient rehabilitation facility prospective payment system (IRF PPS).

On June 7, 2002, CMS suspended the enforcement of the 75 percent rule after its study of FIs, which have responsibility under contract with CMS for verifying compliance with the rule, revealed that they were using inconsistent methods to determine whether an IRF was in compliance and that in some cases IRFs were not being reviewed for compliance at all. Specifically, CMS found that only 20 of the 29 FIs conducted reviews for IRF compliance with the 75 percent rule and that the FIs that did these reviews used different methods and data sources. In 2004, CMS standardized the verification process that the FIs were to use to determine if an IRF met the classification criteria, including how to determine whether a patient is considered to have 1 of the 13 conditions.

### The 2004 Final Rule

When the final rule was made effective on July 1, 2004, a transition period was established for IRFs to meet the requirements of the rule. In addition to lowering and then increasing the threshold, the transition period allows a patient to be counted toward the required threshold if the patient is admitted for either a primary or comorbid condition on the list in the rule. But at the end of the transition period, a patient cannot be counted toward the required threshold on the basis of a comorbidity on the list in the rule. The requirements of the transition period are as follows:22

- **July 1, 2004, to June 30, 2005:** 50 percent threshold, counting comorbidities
- **July 1, 2005, to June 30, 2006:** 60 percent threshold, counting comorbidities
- **July 1, 2006, to June 30, 2007:** 65 percent threshold, counting comorbidities

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22The threshold level applies to an IRF’s cost reporting period beginning on or after July 1 of each year.
Effective July 1, 2007, the threshold will be 75 percent, not counting comorbidities.

During the 3-year transition period, CMS plans to analyze claims and patient assessment data to evaluate if and how the 75 percent threshold should be modified. In addition, the agency has announced its willingness to consider alternative policy proposals to the 75 percent rule submitted during this period. In the past, CMS has declined requests to modify the rule’s threshold or list of conditions, citing a lack of supporting or objective data from the clinical community. However, in the final rule, the agency solicited “objective data or evidence from well-designed research studies” that would support a change in the rule’s 75 percent threshold or list of conditions. Also, because of the relative absence of clinical research studies in the peer-reviewed medical literature, CMS contracted with NIH to convene one meeting of a research panel to review the current medical literature and identify priorities for conducting studies on inpatient rehabilitation.

Payment and Review for Medical Necessity

Beginning in January 2002, CMS implemented the IRF PPS to pay IRFs on a per-discharge basis. Payment is contingent on an IRF’s completing a patient assessment after admission and transmitting the resulting data to CMS. The Inpatient Rehabilitation Facility—Patient Assessment Instrument (IRF-PAI) includes identification of an impairment group code that identifies the impairment group, or the condition that requires admission to rehabilitation. The patient’s comorbidities are also recorded on the IRF-PAI.

The impairment group code is combined with other information on the IRF-PAI to classify the patient into 1 of 100 case-mix groups (CMG). Patients are assigned to a CMG based on the impairment group code, age, and levels of functional and cognitive impairment. The CMG determines the payment the IRF will receive for a patient. Each CMG is weighted to account for the relative difference in resource use across all CMGs. Within each CMG, the weighting factors are “tiered” based on the estimated effect

\[^{23}\text{See 69 Fed. Reg. 25752 (May 7, 2004).}\]

\[^{24}\text{CMS contracted with the Agency for Healthcare Research and Quality to prepare a literature review for the NIH meeting.}\]
of comorbidities. Each CMG has four payment tiers reflecting the level of comorbidities.\(^{25}\)

CMS contracts with FIs, the entities that conduct compliance reviews, to conduct reviews for medical necessity to determine whether an individual admission to an IRF was covered under Medicare. FIs were specifically authorized to conduct reviews for medical necessity for inpatient rehabilitation services beginning in April 2002.\(^{26}\) According to the Medicare Benefit Policy Manual, two basic requirements must be met if inpatient hospital stays for rehabilitation services are to be covered: (1) the services must be reasonable and necessary, and (2) it must be reasonable and necessary to furnish the care on an inpatient hospital basis, rather than in a less intensive facility, such as a SNF, or on an outpatient basis.\(^{27}\) Determinations of whether hospital stays for rehabilitation services are reasonable and necessary must be based on an assessment of each beneficiary’s individual care needs.

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**Fewer Than Half of All IRF Medicare Patients in 2003 Were Admitted for Conditions on List in Rule, and Few IRFs Were Able to Meet a 75 Percent Threshold**

Fewer than half of all IRF Medicare patients in fiscal year 2003 were admitted for conditions on the list in the 75 percent rule. The patients admitted in 2003 had a variety of conditions, not all of which were on the list in the rule. Nearly half of the patients admitted for conditions not on the list were admitted for orthopedic conditions. The largest group of patients admitted for orthopedic conditions not on the list were admitted for joint replacements that did not meet the list’s specific criteria for joint replacement. Relatively few of these patients had comorbid conditions that suggested a possible need for the intensive level of rehabilitation provided in IRFs. Additionally, we found that based on the fiscal year 2003 data few IRFs were able to meet a 75 percent threshold.

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\(^{25}\)There are a total of 385 groups because five special CMGs do not have tiers.

\(^{26}\)Prior to this time, Quality Improvement Organizations had this authority. CMS Transmittal 21 made clear that FIs have the authority to review admissions to IRFs.

\(^{27}\)Rehabilitative care in a hospital, rather than in a SNF or on an outpatient basis, is considered to be reasonable and necessary when a patient requires a more coordinated, intensive program of multiple services than is generally found outside of a hospital (Medicare Benefit Policy Manual, chapter 1, Section 110.1).
Medicare patients were admitted to IRFs in fiscal year 2003 with a variety of conditions, as defined by the impairment group codes we analyzed. Forty-two percent of the 506,662 Medicare patients admitted to IRFs in 2003 were admitted with orthopedic conditions, representing the largest category of patients. Figure 1 shows the distribution of all the conditions, based on impairment group codes, for which patients were admitted to IRFs in fiscal year 2003. The largest impairment group consisted of patients admitted for joint replacement.

28 Patients with orthopedic conditions include all patients with an impairment group code related to unilateral or bilateral hip fracture, femur fracture, pelvic fracture, unilateral or bilateral hip and/or knee replacement, or other orthopedic patients.

29 To determine whether admissions changed after enforcement of the rule, we compared admissions for the largest group of patients, joint replacement patients, between July through December 2003 and July through December 2004. There was no material difference overall. Across all IRFs, the percentage of Medicare patients admitted to an IRF whose primary condition was joint replacement declined by 0.1 percentage point. Among the top 10 percent of IRFs admitting the highest proportion of Medicare joint replacement patients, the percentage of all Medicare patients admitted for a joint replacement declined by about 6 percentage points.
Fewer than half of the Medicare patients (222,316 of the 506,662 patients) admitted in fiscal year 2003 were admitted for a primary condition that was on the list in the 75 percent rule. Using the impairment group codes assigned to these patients at the time of their admission, we determined that in fiscal year 2003 less than 44 percent of IRF admissions had a
primary condition that was on the list in the rule. However, when comorbid conditions that were on the list were counted—as they would be during the transition period—the number of patients having a listed condition rose to 311,740 (62 percent) of IRF patients in that year. (See table 1.)

Table 1: Proportion of All IRF Medicare Patients Who Had Condition on List in Rule, by Condition as Defined by Impairment Group, Fiscal Year 2003

<table>
<thead>
<tr>
<th>Condition, as defined by impairment group</th>
<th>Total number of patients in impairment group</th>
<th>Patients whose primary condition was on list in rule</th>
<th>Patients whose primary or comorbid condition was on list in rule</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number (%)</td>
<td>Percentage of patients in impairment group (%)</td>
<td>Number (%)</td>
</tr>
<tr>
<td>Joint replacements</td>
<td>121,528 (15,761, 13.0)</td>
<td>61,890 (50.9)</td>
<td></td>
</tr>
<tr>
<td>Stroke</td>
<td>85,516 (85,516, 100.0)</td>
<td>85,516 (100.0)</td>
<td></td>
</tr>
<tr>
<td>Hip fracture</td>
<td>51,467 (51,467, 100.0)</td>
<td>51,467 (100.0)</td>
<td></td>
</tr>
<tr>
<td>Other orthopedic conditions</td>
<td>40,359 (0, 0.0)</td>
<td>11,168 (27.7)</td>
<td></td>
</tr>
<tr>
<td>Medically complex</td>
<td>29,148 (0, 0.0)</td>
<td>6,363 (21.8)</td>
<td></td>
</tr>
<tr>
<td>Cardiac</td>
<td>28,011 (0, 0.0)</td>
<td>4,296 (15.3)</td>
<td></td>
</tr>
<tr>
<td>Debility</td>
<td>27,208 (0, 0.0)</td>
<td>5,784 (21.3)</td>
<td></td>
</tr>
<tr>
<td>Neurologic conditions</td>
<td>23,422 (9,933, 42.4)</td>
<td>16,846 (71.9)</td>
<td></td>
</tr>
<tr>
<td>Spinal cord dysfunction</td>
<td>21,207 (21,207, 100.0)</td>
<td>21,207 (100.0)</td>
<td></td>
</tr>
<tr>
<td>Brain dysfunction</td>
<td>17,733 (15,694, 88.5)</td>
<td>16,885 (95.2)</td>
<td></td>
</tr>
<tr>
<td>Arthritis</td>
<td>16,195 (5,372, 33.2)</td>
<td>7,874 (48.6)</td>
<td></td>
</tr>
<tr>
<td>Amputation</td>
<td>14,448 (13,165, 91.1)</td>
<td>13,652 (94.5)</td>
<td></td>
</tr>
<tr>
<td>Pain syndromes</td>
<td>10,925 (0, 0.0)</td>
<td>2,078 (19.0)</td>
<td></td>
</tr>
<tr>
<td>Pulmonary disorders</td>
<td>10,009 (0, 0.0)</td>
<td>1,393 (13.9)</td>
<td></td>
</tr>
<tr>
<td>Other disabling impairments</td>
<td>5,258 (0, 0.0)</td>
<td>1,113 (21.2)</td>
<td></td>
</tr>
<tr>
<td>Major multiple trauma</td>
<td>3,658 (3,658, 100.0)</td>
<td>3,658 (100.0)</td>
<td></td>
</tr>
<tr>
<td>Burns</td>
<td>345 (345, 100.0)</td>
<td>345 (100.0)</td>
<td></td>
</tr>
<tr>
<td>Congenital deformities</td>
<td>198 (198, 100.0)</td>
<td>198 (100.0)</td>
<td></td>
</tr>
<tr>
<td>Developmental disability</td>
<td>27 (0, 0.0)</td>
<td>7 (25.9)</td>
<td></td>
</tr>
<tr>
<td><strong>Total (overall percentage)</strong></td>
<td><strong>506,662 (222,316, 43.9)</strong></td>
<td><strong>311,740 (61.5)</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: GAO analysis of CMS IRF-PAI data.

Note: CMS’s Medicare Claims Processing Manual lists the specific codes that we used to determine whether a patient’s condition was on the list in the rule. See CMS, “Medicare Claims Processing,” CMS Manual System, pub. 100-04, Transmittal 347 (Baltimore, Md.: Oct. 29, 2004.)
The amount of increase that occurred when comorbid conditions were counted varied by impairment group. For some impairment groups, the percentage of patients who had a condition on the list in the rule substantially increased when comorbidities were counted. For example, the percentage of joint replacement patients having a listed condition increased from 13 percent to 51 percent by virtue of their comorbidities. The comorbidity that qualified over 90 percent of this group was some form of arthritis.\[^{30}\] In contrast, the increase was lower for patients in the medically complex, cardiac, debility, pain syndrome, and pulmonary disorder impairment groups, increasing between 14 percentage points and 22 percentage points. The comorbidity that qualified about one-third of cardiac and debility patients was stroke, and the comorbidity that qualified over one-third of pulmonary patients was a neurological condition.

Almost half of the 194,922 IRF Medicare patients that did not have a condition on the list in the rule, either as a primary condition or as a comorbid condition, were admitted for orthopedic conditions. (See fig. 2.) The single largest group of patients who did not have a condition on the list were the joint replacement patients whose condition did not meet the list’s specific criteria for joint replacements.\[^{31}\] Over 30 percent of patients who did not have a condition on the list had been admitted to IRFs for joint replacement, with another 15 percent having been admitted for “other orthopedic,” that is, any orthopedic condition other than hip fractures or joint replacements. The next largest group, cardiac patients, represented 12 percent.

\[^{30}\]The forms of arthritis include osteoarthritis, rheumatoid arthritis, and systemic vasculitides. The extent to which these codes refer to arthritis in the joint that was replaced as opposed to active arthritis following the procedure cannot be determined from these data. The IRF-PAI training manual generally encouraged coders to be comprehensive, instructing them to list “ALL comorbid conditions, not just those conditions that may affect Medicare payment.” (CMS, *IRF-PAI Training Manual*, rev. Jan. 16, 2002 (Baltimore, Md.: 2002), II-17.)

\[^{31}\]See footnote 5.
Figure 2: Distribution of IRF Medicare Patients Who Did Not Have Condition on List in Rule, by Condition as Defined by Impairment Group, Fiscal Year 2003

<table>
<thead>
<tr>
<th>Conditions, as defined by impairment group</th>
<th>Number of patients who did not have primary or comorbid condition on list in rule</th>
<th>Percentage of total patients who did not have primary or comorbid condition on list in rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint replacements(^a)</td>
<td>59,638</td>
<td>30.6</td>
</tr>
<tr>
<td>Other orthopedic conditions</td>
<td>29,191</td>
<td>15.0</td>
</tr>
<tr>
<td>Cardiac</td>
<td>23,715</td>
<td>12.2</td>
</tr>
<tr>
<td>Medically complex</td>
<td>22,785</td>
<td>11.7</td>
</tr>
<tr>
<td>Debility</td>
<td>21,424</td>
<td>11.0</td>
</tr>
<tr>
<td>Pain syndromes</td>
<td>8,847</td>
<td>4.5</td>
</tr>
<tr>
<td>Pulmonary disorders</td>
<td>8,616</td>
<td>4.4</td>
</tr>
<tr>
<td>Arthritis</td>
<td>8,321</td>
<td>4.3</td>
</tr>
<tr>
<td>Neurologic conditions</td>
<td>6,576</td>
<td>3.4</td>
</tr>
<tr>
<td>Other disabling impairments</td>
<td>4,145</td>
<td>2.1</td>
</tr>
<tr>
<td>Brain dysfunction</td>
<td>848</td>
<td>0.4</td>
</tr>
<tr>
<td>Amputation</td>
<td>796</td>
<td>0.4</td>
</tr>
<tr>
<td>Developmental disability</td>
<td>20</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>194,922</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Source: GAO analysis of CMS IRF-PAI data.

\(^a\)Includes joint replacement patients who had a unilateral procedure and were under age 85, and therefore did not meet the specific criteria for joint replacements set out in the 75 percent rule. Codes from CMS for body mass index were not available.

Relatively Few Medicare Joint Replacement Patients in IRFs Had Comorbid Conditions That Suggested Possible Need for IRF Level of Services

Although some joint replacement patients may need the level of services of an IRF, such as those who have a comorbid condition that significantly affects their level of function, our analysis of the case-mix groups used for payment purposes suggests that relatively few of the Medicare joint replacement patients currently admitted by IRFs fit this description.\(^\text{32}\) In particular, 87 percent of joint replacement patients admitted in fiscal year 2003 had unilateral procedures and were less than 85 years of age, and thus did not fit the criteria for joint replacement on the list in the rule based on their primary condition. Of the joint replacement patients who

\(^\text{32}\)One of the experts at the meeting convened by IOM stated that the field has suggested that joint replacement patients in the lowest comorbidity tiers potentially could be treated in another setting.
Few IRFs Were Able to Meet a 75 Percent Threshold

Only 6 percent of IRFs were able to meet the requirements of full implementation of the rule that would be in place at the end of the transition period, that is, a 75 percent threshold not counting comorbidities. Our analysis of fiscal year 2003 data for Medicare patients admitted to IRFs, which used the current list of 13 conditions, showed that as the threshold level increased from 50 percent to 75 percent and both primary and comorbid conditions were counted, progressively fewer IRFs were able to meet the higher threshold levels. (See table 2.) In addition, when the count was based only on whether the patient’s primary condition was on the list in the rule, as it would be after the transition period, even fewer IRFs met the requirements of the rule. However, many IRFs were able to meet the lower thresholds that would be in place earlier in the transition period. Over 80 percent of IRFs were able to meet a 50 percent threshold based on the primary conditions or comorbid conditions of the patients they admitted in 2003.

Table 2: IRFs That Met Varying Threshold Levels for Medicare Patients Admitted with Any of 13 Conditions on List in Rule in Fiscal Year 2003

<table>
<thead>
<tr>
<th>Compliance Threshold</th>
<th>Percentage of IRFs that met threshold based on either primary condition or related comorbid conditions</th>
<th>Percentage of IRFs that met threshold based solely on primary condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 percent</td>
<td>85</td>
<td>39</td>
</tr>
<tr>
<td>60 percent</td>
<td>62</td>
<td>20</td>
</tr>
<tr>
<td>65 percent</td>
<td>50</td>
<td>14</td>
</tr>
<tr>
<td>75 percent</td>
<td>27</td>
<td>6</td>
</tr>
</tbody>
</table>

Source: GAO analysis of CMS IRF-PAI data.

The IRF PPS identifies three sets of comorbidities that have past experience has shown to be associated with either a low, medium, or high increment in patient costs. IRF patients who have none of these comorbidities are placed in a fourth payment category, or tier. These comorbidities affect the payment rate to an IRF for a specific patient and are different from the consideration of whether a patient has a comorbidity that is 1 of the 13 conditions on the list in the rule. Joint replacement patients without these comorbidities still vary substantially in the degree of impairment they present, as reflected in their placement among the different CMGs. Across the six joint replacement-related CMGs, the proportion of patients in the tier with no such comorbidities ranged from 74 percent to 91 percent.
Some IRF officials are concerned that they may have to limit admissions in order to comply with the rule and that some IRFs may have to close or reduce beds. Some of the IRF officials we interviewed reported that as the threshold of the rule increases they expect to limit admissions for patients with conditions not on the list in the rule. One IRF official estimated that the facility’s revenues would decrease by 40 percent by the third year of the rule’s transition period, severely harming the facility financially and affecting access to care, and another IRF official reported that the facility expected its census to drop by half, which would affect the number of beds it could operate and staff it could employ. An IRF official whose facility was meeting the 75 percent threshold said that if the facility fell below the threshold, it would limit admissions to remain in compliance.

IRFs have not generally been declassified based on the failure to comply with the 75 percent rule, and CMS recently clarified instructions for FIs to use to conduct compliance assessments. Officials from CMS’s 10 regional offices reported that no IRFs had been declassified in at least the past 5 years. When CMS found that FIs were using different approaches to conduct compliance assessments, it determined that one cause was that the CMS manuals did not detail the methodology FIs should use to perform the reviews. Following CMS’s modifications of the rule, it issued new instructions in a program transmittal that defined and standardized the procedures that FIs are to use to conduct compliance assessments, and some FI officials we interviewed reported that instructions were clearer and more detailed than in prior years.

34The American Hospital Association and the American Medical Rehabilitation Providers Association, which represent IRFs, have also reported concern with the impact of the rule on the field. They estimated that in the first year almost 25 percent of IRFs would not meet the requirements of the rule and that when the rule is fully implemented following the transition period 80 percent of IRFs would not meet the rule, which could force them to discontinue services or close.

35One CMS regional office official reported that five or six IRFs had been declassified in the mid-1990s or earlier, but none since then.
The criteria IRFs used to assess patients for admission varied by facility, and CMS has not routinely reviewed IRFs’ admission decisions. In particular, IRFs used a range of criteria in making admission decisions, including patient characteristics such as function, in addition to condition. Admission decisions may also be influenced by an IRF’s level of compliance with the 75 percent rule’s list of conditions. CMS, working through its FIs, has not routinely reviewed IRF admission decisions for medical necessity, although the CMS officials reported that such reviews could be used as a means to target problems.

The IRF officials we interviewed varied in the criteria they used to characterize the patients that were appropriate for admission. (See table 3.) The number of criteria they reported using ranged from two to six, with no IRF reporting that it relied on a single criterion for admission.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Number of IRFs reporting use of criterion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential to return to home/community, discharge plan</td>
<td>8</td>
</tr>
<tr>
<td>Need for/ability to tolerate 3 hours of therapy daily</td>
<td>8</td>
</tr>
<tr>
<td>Functional level/potential for functional improvement</td>
<td>6</td>
</tr>
<tr>
<td>Medical issues, requirement for inpatient monitoring, level of medical stability</td>
<td>6</td>
</tr>
<tr>
<td>Need for two types of therapies</td>
<td>3</td>
</tr>
<tr>
<td>Cognitive ability to learn</td>
<td>3</td>
</tr>
<tr>
<td>Patient willingness to participate in therapy</td>
<td>2</td>
</tr>
<tr>
<td>Need for 24-hour nursing care</td>
<td>2</td>
</tr>
<tr>
<td>Family support, expectations</td>
<td>2</td>
</tr>
<tr>
<td>Diagnosis</td>
<td>2</td>
</tr>
<tr>
<td>Need for multidisciplinary approach</td>
<td>1</td>
</tr>
<tr>
<td>3- to 4-week length of stay</td>
<td>1</td>
</tr>
<tr>
<td>Age</td>
<td>1</td>
</tr>
<tr>
<td>Comorbidities that affect function</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: GAO analysis of IRF officials’ interview responses.
Whereas some IRF officials reported that they used function to characterize patients who were appropriate for admission (e.g., patients with a potential for functional improvement), as shown in table 3, others said they used function to characterize patients not appropriate for admission (e.g., patients whose functional level was too high, indicating that they could go home, or too low, indicating that they needed to be in a SNF). In combination, all the IRF officials we interviewed evaluated a patient’s function when assessing whether a patient needed the level of services of an IRF, and almost half of the IRF officials interviewed stated that function was the main factor that should be considered in assessing the need for IRF services.

The IRF officials we interviewed reported that they did not admit all the patients they assessed. They estimated that the proportion of patients they assessed but did not admit ranged from 5 percent to 58 percent. Most patients were admitted to IRFs from an acute care hospital, and the IRF officials reported receiving referrals from as few as 1 hospital to as many as 55 hospitals. The IRF typically received a request from a physician in the acute care hospital requesting a medical consultation from an IRF physician, or from a hospital discharge planner or social worker indicating that they had a potential patient. An IRF staff member—usually a physician and/or a nurse—conducted an assessment prior to admission to determine whether to admit a patient.

Admission Decisions May Also Be Influenced by IRF’s Level of Compliance with Rule’s List of Conditions

In addition to individual patient characteristics, admission decisions may also be influenced by an IRF’s level of compliance with the 75 percent rule’s list of conditions. All the IRF officials we interviewed were able to track their own facility’s compliance level regularly, and said they tracked it generally on a daily, weekly, or monthly basis. Some IRF officials we interviewed reported that the admission decision for a given patient may be affected by the IRF’s compliance level at that time. For example, on a day when the facility is at the required level of compliance a patient with a certain condition that is not on the list in the rule may be admitted, but on

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36 The most common response, by 7 of the 12 IRFs, was between 30 percent and 40 percent.

37 For hospital-based IRFs (10 of the 12 interviewed), the percentage of referrals from the parent hospital ranged from 25 percent to 99 percent, with 3 reporting that less than half their patients came from the parent hospital.

38 Most IRFs reported that the assessment was done by a physician and/or a nurse, although one IRF reported that it was done by a recreational therapist.
another day when the facility is below its compliance level a patient with
the same condition might not be admitted.\textsuperscript{39} Half of the IRF officials said
that when the rule is enforced they expect they will try to admit more
patients with conditions on the list in the rule.

\textbf{CMS Has Not Routinely Reviewed Admission Decisions}

CMS, working through its FIs, has not routinely reviewed IRF admission
decisions for medical necessity. Among the 10 FI officials we interviewed,
over half were not conducting reviews of patients admitted to IRFs. Those
that were doing reviews used different approaches for selecting records to
be reviewed, such as focusing only on the largest IRFs that failed to
comply with the rule or requesting a few records from each IRF in its
service area. CMS officials estimated that less than 1 percent of
admissions in facilities excluded from IPPS, such as IRFs, are reviewed,
and reported that such reviews could be used as a means to target
problems or vulnerabilities.

Among the experts IOM convened and other experts we interviewed, it
was stated that because there has been no routine review for medical
necessity in IRFs, some IRFs have become “sloppy” in their admitting
practices and have taken a “laissez-faire attitude” toward admitting
patients. This perspective is borne out through ad hoc studies done by
three FIs that found inadequate justification for admission. For example,
in one study an FI official reviewed about 3,000 medical charts and
reported that the need for inpatient rehabilitation was unclear in about
30 percent to 40 percent of the IRF patients’ charts reviewed.\textsuperscript{40} The other
two FIs reviewed fewer cases, but found a higher proportion of patients in
IRFs who did not appear to need inpatient rehabilitation.

In contrast to CMS’s approach, private payers rely on individual
preauthorization to ensure that the most appropriate patients are admitted
to IRFs. Of the three major insurers and one managed care plan whose
officials we interviewed, all required preauthorization for each admission
to an IRF when determining whether a specific patient should be admitted,
judging each case individually. In making their decisions, they relied on a
variety of factors, which differed from payer to payer, including diagnosis,

\textsuperscript{39}Other experts also reported about the potential for the opposite to happen. For example,
a patient may have a condition on the list and not need the intensity of services of an IRF,
but still be admitted if the facility wants to increase its compliance level.

\textsuperscript{40}We did not conduct an independent review of these reported results.
symptoms, treatment plan, the need for and the patient’s ability to participate in 3 hours of daily therapy, the need for care by a physiatrist,\(^4\) and the potential for an IRF admission to provide an earlier discharge from the acute care hospital (compared to a possibly longer stay in the acute care hospital with discharge to home or a SNF). Three private payers we spoke with indicated that IRFs are generally paid on a per diem basis, and all said that patients are monitored by the insurer or health plan throughout their IRF stay.

Experts Differed on Adding Conditions to List in Rule but Agreed That Condition Alone Does Not Provide Sufficient Criteria

The experts IOM convened and other experts we interviewed differed on whether conditions should be added to the list in the 75 percent rule but agreed that condition alone does not provide sufficient criteria to identify the types of patients appropriate for IRFs. The experts IOM convened questioned the strength of the evidence for adding conditions to the list. They reported that the evidence on the benefits of IRF services—particularly for certain orthopedic conditions—is variable, and they called for further research. Other experts did not agree on whether conditions, including a broader category of joint replacements, should be added to the list. The experts IOM convened and other experts agreed that condition alone is insufficient for identifying appropriate patients and contended that functional status should also be considered. The experts IOM convened suggested factors to use in classifying IRFs, including both patient and facility characteristics.

Experts IOM Convened Questioned Evidence for Adding Conditions to List in Rule, Finding Evidence for Certain Orthopedic Conditions Particularly Weak, and Called for More Research

The experts IOM convened generally questioned the strength of the evidence for the conditions suggested for addition to the list in the rule. Some of them reported that there was little information available on the need for inpatient rehabilitation for cardiac, transplant, pulmonary, or oncology patients. One of them stated that inpatient rehabilitation may be the best way of caring for patients who have weakened physically due to long hospital stays but added that “we simply do not know.” The same expert also cited a study that showed that inpatient rehabilitation services made a difference for patients with metastatic spine cancer and noted that this result was unexpected and could indicate that “clinical intuition” on the benefits of inpatient rehabilitation may not always be reliable.

\(^4\)A physiatrist is a physician who specializes in physical medicine and rehabilitation.
For conditions currently on the list in the rule, the experts IOM convened reported varying degrees of strength in the evidence on the benefits of IRF services. Although the experts IOM convened did not comment on every condition on the list, the group generally agreed that the data on the benefits of intensive inpatient rehabilitation for stroke are “incontrovertible.” For certain other conditions on the list, such as spinal cord injury and traumatic brain injury, they reported that it is reasonable to expect intensive inpatient rehabilitation to provide good outcomes because these patients need intensive training about self-care and patients with traumatic brain injury may also require behavioral services. One expert questioned the strength of the evidence related to hip fractures, saying it was unclear whether patients with a hip fracture would be better served by sending them home right away, by putting them in an IRF, or by giving them some combination of intensive inpatient rehabilitation, home health care, or care in a SNF.

The condition the experts IOM convened discussed most was joint replacement, which was the most common condition for patients admitted to IRFs and is included on the list of conditions in the rule but only under certain circumstances. In general, they reported that, except for a few subpopulations, uncomplicated unilateral joint replacement patients rarely need to be admitted to an IRF. For example, one of the experts said that admission to an IRF of a healthy person with an uncomplicated joint replacement is an example of a practice that is not evidence-based, and others said that there are no data and little evidence on the effectiveness of intensive inpatient rehabilitation for elective joint replacement patients. Another expert stated that the evidence on the benefits of IRF services for hip fracture and joint replacement patients is “very, very weak,” that orthopedics is the “heart of the issue” related to the list of conditions in the rule, and that a panel of clinicians should be convened to focus solely on the orthopedic conditions.

Most of the experts IOM convened called for more research in several areas, including which types of patients can be treated best in IRFs and the

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42We interviewed a leading orthopedic physician who said that unilateral joint replacement patients rarely require admission to an IRF following surgery, the exceptions including patients with a surgical complication, previous stroke, polio, or heart transplant because such patients need close medical supervision. In addition, three of the four officials we interviewed at major insurers and a managed care plan generally agreed that unilateral joint replacement patients rarely require admission to an IRF, unless there is an active comorbidity or accompanying complex medical problem. One reported that an IRF referral for a unilateral joint replacement patient was a “red flag” that called for closer review.
effectiveness of IRFs in comparison with other settings of care. CMS has also identified questions for a future research agenda that can assess the efficacy of rehabilitation services in various settings.\textsuperscript{43} CMS may also undertake other activities, such as periodically holding additional meetings with researchers or encouraging observational studies, as well as soliciting comments from the public for additional studies.

IRF Officials Differed on Whether Conditions, Including More Broadly Defined Joint Replacement, Should Be Added to List in Rule

There was no general agreement among the IRF officials we consulted on whether conditions should be added to the list in the rule, and if so, which conditions. In our interviews with IRF officials, three-quarters identified various conditions that should be added. Of these, all suggested the addition of cardiac conditions, and some identified other conditions, such as pulmonary conditions, transplants, and more joint replacements than are currently on the list. The reasons these IRF officials gave for adding these conditions included that these patients can become weakened physically during a hospital stay and need services in an IRF to regain their strength and also that their experience shows they can achieve good outcomes for these patients. The remaining IRF officials said no conditions should be added. Some reasons they cited were that these patients can be treated in a less intensive setting, the conditions are too broad to be meaningful, and using a list of conditions is the wrong approach. IRF officials differed regarding the addition of joint replacement patients. Half of them suggested that joint replacement be more broadly defined to include more patients, saying, for example, that the current requirements were too restrictive and arbitrary, and a couple of them said that unilateral joint replacement patients are not generally appropriate for IRFs.

\textsuperscript{43}CMS Fact Sheet #1, “Inpatient Rehabilitation Facility Classification Requirements,” includes two specific questions with respect to IRFs: (1) how better to identify those patients who are most appropriate for intensive medical rehabilitation resources provided in the IRF setting as opposed to alternative care settings, and (2) what conditions, in addition to those on the list in the rule, typically require intensive rehabilitation treatment available in IRFs but not in alternative care settings.
Experts Contended That Functional Status, in Addition to Condition, Should Be Used to Identify Appropriate Types of Patients for Intensive Inpatient Rehabilitation

The experts IOM convened contended that condition alone was insufficient for identifying which patients, or types of patients, required the level of services available in an IRF and generally agreed that functional status should also be used. A patient’s condition was perceived as an acceptable starting point to understanding patient needs and as a way to characterize the patients served by IRFs. But the experts IOM convened generally agreed that condition, by itself, was insufficient and that more information was needed. They said that condition alone fails to identify the subgroup within each condition that is most appropriate for intensive inpatient rehabilitation. For example, one of them noted that although an IRF could be filled with patients that have conditions on the list in the rule, the patients could be completely inappropriate for that setting. Another expert at the meeting reported general agreement among the group that using diagnosis alone is not sufficient.44

In addition to the experts convened by IOM, other experts we interviewed also said that condition alone was insufficient because having a condition on the list in the rule does not automatically indicate the need for intensive inpatient rehabilitation (e.g., even though stroke is on the list, only a subgroup of stroke patients require IRF services) and having a condition not on the list does not necessarily mean the patient does not need IRF services (e.g., although there is no cardiac condition on the list, a subgroup of cardiac patients need the level of services of an IRF). In addition, the FI and IRF officials we interviewed generally reported as well that condition alone was insufficient. Over half the FI officials we interviewed said that condition is insufficient by itself to determine the need for intensive inpatient rehabilitation, and some said that diagnosis is only a starting point. As noted earlier, all the IRF officials reported using a variety of criteria, beyond condition, to assess patients for admission, including function.

Among the experts convened by IOM, functional status was identified most frequently as the information required in addition to condition. Half of the experts IOM convened commented on the need to add information about functional status, such as functional need, functional decline, motor

44Our analysis of Medicare patients that had been discharged from hospitals provides further indication that not all patients with a condition on the list go to IRFs. The percentage of these patients who went on to IRFs within 30 days for their postacute care varied across selected diagnosis-related groups (DRG) and was in no case greater than 50 percent. The largest percentages of patients going to IRFs after hospital discharge were bilateral joint replacement and unilateral joint replacement patients. (See app. III.)
and cognitive function, and functional disability. To measure both diagnosis and function, one of them suggested using the case-mix groups because they combine both dimensions.

Experts we interviewed also raised some concerns, however, about using function as a measure of need for intensive inpatient rehabilitation. The concerns voiced by the FI officials we interviewed included the potential for abuse by qualifying more patients for admissions and the potential for difficulty in adjudicating claims. One FI official said that moving toward an assessment of functional status would require a better instrument than currently exists. Another expert we interviewed said that using only functional status could lead to including custodial patients that are currently in SNFs. Officials at CMS also expressed concerns regarding how to measure the need for intensive inpatient rehabilitation based on functional status because a patient can have a low functional status but not need intensive inpatient rehabilitation.

<table>
<thead>
<tr>
<th>Experts IOM Convened Suggested Factors to Consider Using to Classify IRFs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Almost all the experts IOM convened said that IRF classification should include characteristics of the patients served, but a couple said that IRF classification should not include patient characteristics. Among those expressing the need to use patient characteristics, function was identified most often, although it was mentioned that it would be hard to operationalize. Some of the experts IOM convened also suggested that the percentage threshold be set at a lower level than 75 percent (for example, 60 percent or 65 percent) as a compromise until more information becomes available to modify the list in the rule.</td>
</tr>
</tbody>
</table>

The experts IOM convened who opposed using patient characteristics to classify IRFs suggested that IRFs be classified with just the other six facility criteria, potentially looking at state licensure requirements for additional facility criteria that could be applied specifically to IRFs. These experts (as well as others we interviewed) said that no other facility is classified using both patient and facility characteristics and that IRFs are unique in being subjected to this approach. However, Medicare does classify other facilities that are exempt from IPPS using a characteristic

\[ \text{The FI official reported that the FIM}^\text{TM} \text{ instrument that is currently used does not adequately measure progress in small increments, such as a quadriplegic patient might experience. Another respondent also reported that the FIM}^\text{TM} \text{ only measures functional status at a point in time, but does not predict functional improvement.} \]
about the patients served in those facilities.\textsuperscript{46} Furthermore, other experts at the meeting did not agree that the six certification criteria were sufficient for distinguishing IRFs since long-term care hospitals could likely meet these criteria as well.\textsuperscript{47}

Conclusions

Our analysis of Medicare data shows that there are Medicare patients in IRFs who may not need the intensive level of rehabilitation services these facilities offer. Just over half of all Medicare patients admitted to IRFs in fiscal year 2003 were admitted for a condition that was not on the list in the 75 percent rule. Of those patients whose primary or comorbid condition was not on the list, the largest group was joint replacement patients whose condition did not fit the list’s specific criteria for joint replacement. The experts IOM convened and other experts we interviewed reported that unilateral, uncomplicated joint replacement patients rarely need to be in an IRF. These experts also reported that patients who may not need to be in an IRF may have been admitted because CMS has not been routinely reviewing the IRFs’ admission decisions to determine whether they were medically justified. Increased scrutiny of individual admissions through routine reviews for medical necessity following patient discharge could be used to target problems and vulnerabilities and thereby reduce the number of inappropriate admissions in the future.

While some patients do not need to be in an IRF, the need for IRF services may be more difficult to determine for other patients. The experts convened by IOM called for more research to understand the effectiveness of intensive inpatient rehabilitation, reporting that the evidence for the effectiveness of IRF services varied in strength for conditions on the list and was particularly weak for certain orthopedic conditions. CMS has also recognized the need for more research in this area and asked NIH to

\textsuperscript{46}For example, generally, in cancer hospitals, 50 percent of patients must have neoplastic diagnoses, and psychiatric hospitals must primarily provide psychiatric services for the diagnosis and treatment of mentally ill persons. See 42 C.F.R. §412.23(f)(1)(iv) (cancer hospitals); 42 C.F.R. §412.23(a)(1) (psychiatric hospitals).

\textsuperscript{47}Long-term care hospitals use admission criteria to determine whether patients require that level of care; have active daily involvement with physicians; have licensed nurse staffing of 6 to 10 hours per day per patient; employ specialist registered nurses; employ physical, occupational, speech, and respiratory therapists; and have multidisciplinary teams that prepare and carry out treatment plans. MedPAC recommended that a combination of facility and patient criteria be used to distinguish postacute settings of care. (MedPAC, \textit{Report to the Congress: New Approaches in Medicare}, Ch. 5, “Defining Long-Term Care Hospitals” (Washington, D.C.: June 2004), 128-130.)
convene one meeting to help identify research priorities for inpatient rehabilitation. Research studies that can produce information on a timely basis, such as observational studies or meetings of clinical experts with specialized expertise, would be especially helpful in this effort.

The presence of patients in IRFs who may not need that level of services and the calls for more research on the effectiveness of inpatient rehabilitation lead us to conclude that greater clarity is needed in the rule about what types of patients are most appropriate for rehabilitation in an IRF. There was general agreement among the experts we interviewed, including the experts convened by IOM, that condition alone is not sufficient to identify the most appropriate types of patients since within any condition only a subgroup of patients require the level of services of an IRF. We believe that if condition alone is not sufficient to identify the most appropriate types of patients, it would not be useful to add more conditions to the list at the present time. There was also general agreement among the experts that more information is needed to characterize appropriate types of patients, and the most commonly identified factor was functional status. However, some of the experts convened by IOM recognized the challenge of operationalizing a measure of function, and some experts questioned the ability of current assessment tools to predict which types of patients will improve if treated in an IRF. Despite the challenge, more clearly delineating the most appropriate types of patients would offer more direction to IRFs—and to the health professionals that refer patients to them—about which types of patients can be treated in IRFs.

We believe that action to conduct reviews for medical necessity and to produce more information about the effectiveness of inpatient rehabilitation could support future efforts to refine the rule over time to increase its clarity about which types of patients are most appropriate for IRFs. These actions could help to ensure that Medicare does not pay IRFs for patients who could be treated in a less intensive setting and does not misclassify facilities for payment.

**Recommendations for Executive Action**

To help ensure that IRFs can be classified appropriately and that only patients needing intensive inpatient rehabilitation are admitted to IRFs, we recommend that the CMS Administrator take three actions:

- CMS should ensure that FIs routinely conduct targeted reviews for medical necessity for IRF admissions.
• CMS should conduct additional activities to encourage research on the effectiveness of intensive inpatient rehabilitation and the factors that predict patient need for intensive inpatient rehabilitation.

• CMS should use the information obtained from reviews for medical necessity, research activities, and other sources to refine the rule to describe more thoroughly the subgroups of patients within a condition that are appropriate for IRFs rather than other settings, and may consider using other factors in the descriptions, such as functional status.

In commenting on a draft of this report, CMS stated that our work would be of assistance to the agency in examining issues related to patient coverage and the classification of inpatient rehabilitation facilities. CMS generally agreed with our recommendations and provided technical comments, which were incorporated as appropriate. CMS agreed that targeted reviews for medical necessity are necessary and said that it expected its contractors to direct their scarce resources toward areas of risk. CMS said that it has expanded its efforts to provide greater oversight of IRF admissions through local policies that have been implemented or are being developed by the FIs. CMS also agreed with our recommendation to encourage additional research and noted that it has expanded its activities to guide future research efforts by encouraging government research organizations, academic institutions, and the rehabilitation industry to conduct both general and targeted research. CMS said that it would collaborate with NIH to determine how best to promote research. CMS also stated that, while it expected to follow our recommendation to describe subgroups of patients within a medical condition, it would need to give this action careful consideration because it could result in a more restrictive policy than the present regulations. CMS noted that future research could guide the agency’s descriptions of subgroups. Although CMS indicated its intention to follow this recommendation, we clarified the language in the recommendation to encourage CMS to obtain research and other information to undertake this effort. CMS’s written comments are reprinted in appendix IV.

We also received oral comments on a draft of this report from representatives of the American Hospital Association, the American Medical Rehabilitation Providers Association, and the Federation of American Hospitals. All three groups noted that we applied the criteria for a rule that was effective July 1, 2004, to data from fiscal year 2003, when IRFs were operating under a different list of conditions. They stated that a difference between the lists of conditions in these 2 years was in the definition of polyarthritis, which affected the circumstances under which
joint replacement patients were counted under the rule. They reported that in fiscal year 2003, IRFs admitted Medicare joint replacement patients who they believed were within the criteria of the rule in effect at that time, but may not have been within the criteria of the rule that took effect July 1, 2004. In its technical comments, CMS also raised concerns about our use of fiscal year 2003 data. We analyzed the admission of joint replacement patients to IRFs and found no material change between the same time periods in 2003 and 2004, as noted in the report. In addition, all three groups supported the call for more research. The three groups also provided technical comments, which we incorporated where appropriate.

We are sending copies of this report to the Administrator of CMS and other interested parties. We will also make copies available to others on request. In addition, the report will be available at no charge on the GAO Web site at http://www.gao.gov.

If you or your staffs have any questions about this report, please call me at (202) 512-7114 or Linda T. Kohn at (202) 512-4371. The names of other staff members who made contributions to this report are listed in appendix V.

Marjorie Kanof
Managing Director, Health Care
A facility may be classified as an IRF if it can show that, during a 12-month period\(^1\) at least 75 percent of all its patients, including its Medicare patients, required intensive rehabilitation services for the treatment of one or more of the following conditions:\(^2\)

1. Stroke.
2. Spinal cord injury.
3. Congenital deformity.
4. Amputation.
5. Major multiple trauma.
10. Active, polyarticular rheumatoid arthritis, psoriatic arthritis, and seronegative arthropathies resulting in significant functional impairment of ambulation and other activities of daily living that have not improved after an appropriate, aggressive, and sustained course of outpatient therapy services or services in other less intensive rehabilitation settings immediately preceding the inpatient rehabilitation admission or that result from a systemic disease activation immediately before admission, but have the potential to improve with more intensive rehabilitation.
11. Systemic vasculidities with joint inflammation, resulting in significant functional impairment of ambulation and other activities of daily living that have not improved after an appropriate, aggressive, and sustained course of outpatient therapy services or services in other less intensive

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\(^1\)The time period is defined by CMS or the CMS contractor.

Appendix I: List of Conditions in CMS’s 75 Percent Rule

rehabilitation settings immediately preceding the inpatient rehabilitation admission or that result from a systemic disease activation immediately before admission, but have the potential to improve with more intensive rehabilitation.

12. Severe or advanced osteoarthritis (osteoarthritis or degenerative joint disease) involving two or more major weight bearing joints (elbow, shoulders, hips, or knees, but not counting a joint with a prosthesis) with joint deformity and substantial loss of range of motion, atrophy of muscles surrounding the joint, significant functional impairment of ambulation and other activities of daily living that have not improved after the patient has participated in an appropriate, aggressive, and sustained course of outpatient therapy services or services in other less intensive rehabilitation settings immediately preceding the inpatient rehabilitation admission but have the potential to improve with more intensive rehabilitation. (A joint replaced by a prosthesis no longer is considered to have osteoarthritis, or other arthritis, even though this condition was the reason for the joint replacement.)

13. Knee or hip joint replacement, or both, during an acute hospitalization immediately preceding the inpatient rehabilitation stay and also meet one or more of the following specific criteria:

   a. The patient underwent bilateral knee or bilateral hip joint replacement surgery during the acute hospital admission immediately preceding the IRF admission.

   b. The patient is extremely obese, with a body mass index of at least 50 at the time of admission to the IRF.

   c. The patient is age 85 or older at the time of admission to the IRF.
Appendix II: Scope and Methodology

In undertaking this work, we analyzed data on Medicare patients admitted to inpatient rehabilitation facilities (IRF) and also interviewed a wide variety of experts in the field to obtain various perspectives. We used several different sources of data, including data from the Centers for Medicare & Medicaid Services (CMS) about Medicare patients admitted to IRFs; interviews with officials at IRFs, fiscal intermediaries (FI), CMS regional offices, and private insurers; a 1-day meeting of clinical experts in the field of physical medicine and rehabilitation; and interviews with other clinical and nonclinical experts and researchers in the field of rehabilitation as well as officials from professional associations of various disciplines involved in inpatient rehabilitation. In total, during this engagement, we spoke with 106 individuals, of whom 65 were clinicians. We conducted our work from May 2004 through April 2005 in accordance with generally accepted government auditing standards.

To identify the conditions that IRF patients have, we obtained from CMS the Inpatient Rehabilitation Facility—Patient Assessment Instrument (IRF-PAI) records for all IRF admissions of Medicare patients for fiscal year 2003 (October 1, 2002, to September 30, 2003), which have data on patient age and sex, impairment group code and case-mix group (CMG) classification, and comorbid conditions. To assess whether individual patients were considered to have 1 of the 13 conditions defined by the list of conditions in CMS’s 75 percent rule, we applied the criteria laid out in CMS’s Medicare Claims Processing Manual. This document lists the specific impairment group codes and ICD-9-CM diagnostic codes for comorbid conditions entered into the patient’s IRF-PAI record that were used to identify patients who belonged in the 13 conditions. We conducted our analyses on Medicare patients only because CMS records contained data on the largest number of IRFs and the majority of patients in IRFs are covered by Medicare. Prior work by RAND found that the percentage of Medicare patients with the conditions on the list in the rule was a good predictor of the percentage of total patients in the conditions on the list in the rule. We analyzed these data at the patient level to


2The procedure described by CMS counts comorbidities listed either as an etiologic diagnosis or as a comorbid condition entered on the IRF-PAI form. We followed the procedures CMS provided to FIs for them to presumptively verify compliance.

compare compliance with the rule across impairment groups. To permit a
discrete assignment of each patient to one impairment group, we gave
priority to the impairment group code designated at admission.4 To assess
the extent to which Medicare patients in IRFs with joint replacements had
comorbidities, we examined their distribution among the four payment
tiers assigned under the prospective payment system for IRFs. The
assigned CMG in the IRF-PAI data set includes a letter prefix that indicates
that the patient either had no comorbidities related to the cost of
providing inpatient rehabilitation or had one or more comorbidities
expected to have a low, medium, or high impact on those costs. We
calculated the proportion of joint replacement patients that fell into the
no-comorbidity group, both overall and within each of the six joint
replacement CMGs. To do our supplementary analysis on a sample of 2004
data, we compared the proportion of Medicare patients admitted to an IRF
whose primary condition was joint replacement from July through
December 2003 to the proportion of such patients from July through
December 2004, using data from IRF-PAI records. We computed the
proportion of Medicare patients admitted to IRFs that were joint
replacement patients, ranked the facilities according to the proportion of
Medicare joint replacement patients in 2003, and calculated the difference
across the two time periods.

To determine the number of IRFs that met the requirements of the
75 percent rule, we aggregated Medicare patients treated at the same IRF
and calculated the total percentage of each IRF’s patients that were
admitted with a primary condition or a comorbid condition on the list in
the rule. We examined the distribution of compliance levels across IRFs,
applying the different thresholds that the rule phases in over several years,
but we did not assess the appropriateness of any threshold level. To
determine whether any IRFs had ever been declassified based on failure to
comply with the 75 percent rule, we interviewed officials at CMS’s 10
regional offices.

Our analyses rely on Medicare billing information, and we determined that
these data were sufficiently reliable for this analysis. We followed the
instructions CMS provided to FIs to “presumptively verify compliance”
using the list of codes in the *Medicare Claims Processing Manual* to

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4Patients may have a different impairment group code assigned at discharge (both are
recorded in the IRF-PAI data set), but the IRF prospective payment from Medicare is based
on the admission impairment group code.
estimate how many patients have one of the conditions on the list in the rule as recorded on the IRF-PAI instrument. FIs use the list of codes in this manual as a first step to estimate how many patients have one of the conditions on the list in the rule. To assess the reliability of the IRF-PAI records for our data analyses, we interviewed two researchers who had experience using the IRF-PAI data set, and performed electronic testing of the required data elements, including impairment codes, comorbid conditions, and admission dates. We examined the IRF-PAI data set and found few missing or invalid entries for the variables we used. We did not compare the information entered on the IRF-PAI to medical records. All of these analyses encompassed services provided in facilities located in the 50 states and the District of Columbia.

To determine how IRFs assess patients for admission and how CMS reviews admission decisions for medical necessity, we interviewed the medical directors at 12 IRFs and the medical director or designee at 10 FIs. We used data from the RAND Corporation’s “Case Mix Certification Rule for Inpatient Rehabilitation Facilities” (2003), prepared under contract to CMS, to select our respondents out of a total of more than 1,200 IRFs. RAND had analyzed the level of compliance of each IRF with the rule using the 10 conditions on the list at that time. We used RAND data to create a sampling frame to select IRFs to interview, but we did not rely on RAND’s data for any findings or conclusions. We matched facilities with data from the IRF-PAI to identify them and sorted them by zip code according to the Northeast, Midwest, South, and West regions as defined by the U.S. Census Bureau. Within each region, we selected IRFs with a high, median, and low level of compliance with the 75 percent rule. We identified the median complier in each region, and if necessary adjusted the selection of IRFs to (1) avoid interviewing more than one IRF in the same state and (2) provide a selection of for-profit, freestanding, and rural facilities. If a selected provider was unwilling or unable to participate in the interview, we substituted the IRF next on the list that was most similar in characteristics to the facility originally chosen. We conducted a structured interview with the medical director of each facility, and provided unstructured time at the end of the interview for the respondent to raise other issues. For nonclinical questions that the medical directors were unable to answer, we spoke to a member of the administrative team. We identified the areas covered in the interviews through background interviews with professional associations, advocacy groups, CMS, and experts in inpatient rehabilitation and health policy research, and pretested the interview protocol with two IRFs not included in our sample.
The FIs we selected to interview were those that serviced the states in which the IRFs we selected were located. Because some FIs serviced more than one state, our selection yielded 10 FIs (out of a total of 30). To facilitate our interviews, we spoke with the appropriate CMS regional office, which notified an official at each FI about this engagement. We conducted a structured interview with the medical director or designee regarding (1) appropriate patients for inpatient rehabilitation, (2) the list of conditions in the rule, (3) assessment for compliance, and (4) reviews for medical necessity. We pretested the interview protocol with three FIs that were not included in our sample. We also spoke with FI officials who had been identified as being interested in inpatient rehabilitation. All FI officials had the opportunity to discuss issues other than those we highlighted. To compare Medicare’s approach to the approaches of other payers, we selected a convenience sample of three insurers and one regional managed care organization to learn about their activities regarding inpatient rehabilitation. We interviewed officials from these payers, asking how they identified facilities for intensive inpatient rehabilitation, and how they identified appropriate patients for such services.

Our interviews do not represent all concerns or experiences of inpatient rehabilitation facilities, FIs, or private payers, and the answers to the structured interviews were not restricted to Medicare patients. Because we were directed to examine the 75 percent rule and not directly to evaluate the relative value of inpatient rehabilitation, we did not ask questions about the full spectrum of postacute care.

To evaluate the approach of using a list of conditions in the 75 percent rule to classify IRFs, we contracted with the Institute of Medicine (IOM) of The National Academies to convene a 1-day meeting of clinical experts broadly representative of the field of physical medicine and rehabilitation. We identified for IOM the categories of participants preferred at the meeting. To identify specific participants, IOM obtained input from us, IOM members, advocacy groups, and individual experts in the field. It identified a pool of participants according to the preferred categories. In total, 14 experts participated: 4 practicing physicians, 2 physical therapists, 2 occupational therapists, 1 speech therapist, 2 nurses, 1 physician/researcher in postacute care, 1 physician/researcher from a research institute, and 1 health services researcher. The meeting was facilitated by a physician/researcher with expertise in Medicare payment policy. Invitations to participate were issued by IOM. Participants were invited as individual experts, not as organizational representatives. The group was not asked to reach consensus on any issues, and IOM was not
Appendix II: Scope and Methodology

asked to produce or publish a report of the meeting. We observed the meeting and subsequently reviewed the transcript and audiotape of the meeting, listed the individual comments made during the meeting, and grouped the comments around a limited number of themes. The comments from the meeting of the experts IOM convened represent their individual statements and not a consensus of the group as a whole. In convening the meeting, IOM was not able to get participation of clinical experts who were not employed in IRFs (such as referring physicians or therapists in acute care settings) and a private payer. The comments of participants should not be interpreted to represent the views of IOM or all clinical experts in the field of rehabilitation.

To examine the proportion of Medicare patients discharged from hospitals with different diagnosis-related groups (DRG) who went to IRFs for postacute care, we obtained CMS's Medicare Provider Analysis and Review (MEDPAR) file that contained all Medicare inpatient discharges from both acute care hospitals and IRFs for fiscal year 2003. This file provided information on patient admission and discharge dates from acute care hospitals and rehabilitation facilities along with the DRG assigned for each acute care stay. We identified all the patients who entered IRFs within 30 days of their hospital discharge during fiscal year 2003 and calculated the frequencies for each DRG among them. We then selected the 19 DRGs that represented at least 1 percent of IRF admissions from acute care hospitals. Next we determined the total number of hospital discharges with those DRGs and computed the proportion of patients in each of these DRGs that were admitted to an IRF within 30 days. The analysis of acute hospital discharges required that we use the separate MEDPAR file that had information on inpatient DRGs and on patients who did not enter IRFs as well as those who did. The MEDPAR analysis may therefore reflect a slightly different IRF patient population from that reflected in the analyses conducted with the IRF-PAI data set. Apparent variations in the admission dates recorded for IRF patients in the two sets of data prevented us from combining data from each into one consolidated data set.
### Appendix III: Rates of IRF Medicare Admissions from Hospitals by Top 19 DRGs of Patients Admitted to IRFs, Fiscal Year 2003

<table>
<thead>
<tr>
<th>DRG</th>
<th>Medical condition or procedure described by DRG*</th>
<th>Number of total hospital discharges</th>
<th>Number of IRF admissions from hospitals</th>
<th>Percentage of total hospital discharges admitted to IRFs</th>
</tr>
</thead>
<tbody>
<tr>
<td>209</td>
<td>Unilateral joint replacement of lower extremity</td>
<td>428,518</td>
<td>124,754</td>
<td>29.1</td>
</tr>
<tr>
<td>14,15</td>
<td>Stroke*</td>
<td>325,361</td>
<td>54,433</td>
<td>16.7</td>
</tr>
<tr>
<td>210, 211</td>
<td>Hip or femur procedures* except joint replacement</td>
<td>155,366</td>
<td>30,381</td>
<td>19.6</td>
</tr>
<tr>
<td>127</td>
<td>Heart failure/shock</td>
<td>695,349</td>
<td>14,863</td>
<td>2.1</td>
</tr>
<tr>
<td>243</td>
<td>Medical back problems</td>
<td>100,994</td>
<td>8,970</td>
<td>8.9</td>
</tr>
<tr>
<td>89</td>
<td>Pneumonia and pleurisy</td>
<td>521,432</td>
<td>8,591</td>
<td>1.6</td>
</tr>
<tr>
<td>88</td>
<td>Chronic obstructive pulmonary disease</td>
<td>398,066</td>
<td>7,427</td>
<td>1.9</td>
</tr>
<tr>
<td>113</td>
<td>Amputation for circulatory disorders except upper limb and toe</td>
<td>38,656</td>
<td>7,200</td>
<td>18.6</td>
</tr>
<tr>
<td>1</td>
<td>Craniotomy</td>
<td>32,916</td>
<td>6,969</td>
<td>21.2</td>
</tr>
<tr>
<td>471</td>
<td>Bilateral joint replacement of lower extremity</td>
<td>14,420</td>
<td>6,941</td>
<td>48.1</td>
</tr>
<tr>
<td>497</td>
<td>Spinal fusion except cervical with complication and comorbidity</td>
<td>25,714</td>
<td>6,613</td>
<td>25.7</td>
</tr>
<tr>
<td>107</td>
<td>Coronary artery bypass surgery</td>
<td>78,557</td>
<td>6,584</td>
<td>8.4</td>
</tr>
<tr>
<td>478</td>
<td>Vascular operations except heart</td>
<td>110,609</td>
<td>5,881</td>
<td>5.3</td>
</tr>
<tr>
<td>236</td>
<td>Hip or pelvis fracture</td>
<td>42,231</td>
<td>5,863</td>
<td>13.9</td>
</tr>
<tr>
<td>296</td>
<td>Nutritional and metabolic disorders</td>
<td>262,387</td>
<td>5,588</td>
<td>2.1</td>
</tr>
<tr>
<td>121</td>
<td>Heart attack</td>
<td>164,548</td>
<td>5,440</td>
<td>3.3</td>
</tr>
<tr>
<td>499</td>
<td>Back and neck procedures except spinal fusion</td>
<td>37,590</td>
<td>5,366</td>
<td>14.3</td>
</tr>
</tbody>
</table>

Source: GAO analysis of CMS MEDPAR data.

*For some DRG descriptions, we reworded the DRG definition for simplicity. We selected all DRGs that represented at least 1 percent of IRF admissions from hospitals in fiscal year 2003. These 19 DRGs accounted for 59 percent of all such admissions. Over 94 percent of patients admitted to IRFs in fiscal year 2003 came from acute care hospitals, while about 3 percent came from the community and 1 percent from SNFs. DRGs only partially coincide with the impairment group codes used to categorize patients admitted to IRFs. For example, patients with hip fractures are included in DRG 209 or 471 if they received one or more joint replacements. Hip fractures treated with other surgical procedures are coded under DRG 210 or 211, and those treated medically are in DRG 236.

*Contains two DRGs.
Appendix IV: Comments from the Centers for Medicare & Medicaid Services

TO: Marjorie Kanof
Managing Director, Health Care

FROM: Mark B. McClellan, M.D., Ph.D.
Administrator
Centers for Medicare & Medicaid Services


Thank you for the opportunity to review and comment on the Government Accountability Office’s (GAO) draft report entitled, MEDICARE: More Specific Criteria Needed to Classify Inpatient Rehabilitation Facilities (GAO-05-366).

The Centers for Medicare & Medicaid Services (CMS) wants to express its appreciation to the GAO for its work in producing this report. The effort will be of assistance to CMS as the agency and its contractors continue to examine issues related to patient coverage and the classification of inpatient rehabilitation facilities (IRFs).

The draft report recommends that CMS describe subgroups within a medical condition before expanding the list of the qualifying medical conditions. While we expect to follow this recommendation, using subgroups to further describe the existing 13 medical conditions will need to be considered carefully, as we expect this would result in a more restrictive policy than the present regulations. Therefore, CMS will review the GAO’s final report and final recommendations carefully. Future research can inform CMS where changes, such as describing subgroups of the current medical conditions or adding new medical conditions, may be appropriate.

In addition, the draft report recommends conducting additional activities to encourage research and to perform a more targeted medical review for patients admitted to IRFs. Currently, CMS has expanded its activities to guide future research efforts and to provide guidance regarding appropriate admissions to an IRF as opposed to another care setting. For example, CMS has expanded its efforts to provide greater oversight of IRF admissions through a number of Local Coverage Decisions (LCDs) that are now in effect or in advance stages of development. In addition, on February 14, CMS in collaboration with the National Institutes of Health, National Center for Medical Rehabilitation Research sponsored a panel meeting to review available research on the types of patients appropriate for inpatient rehabilitation care and provide insight into where additional research may be needed.
Medicare covers rehabilitation care in a variety of settings, including the home, skilled nursing facilities, outpatient facilities, hospitals and IRFs. CMS is committed to ensuring that beneficiaries have access to high quality rehabilitation services in the most appropriate setting. Medicare’s payments to IRFs are made at a level commensurate with the type of intensive inpatient rehabilitation services these facilities are intended to provide. Consequently, Medicare maintains the “75 percent rule” and other policies to ensure its higher payments to IRFs are appropriately directed to this more intense level of service.

Attached are the detailed comments to each of the GAO’s recommendations in the report. We have also provided (in Attachment B) a number of technical comments that the GAO may want to consider to aid in clarifying several aspects of the report.

Attachments
Appendix IV: Comments from the Centers for Medicare & Medicaid Services


GAO Recommendation

Before considering the addition of conditions to the list in the 75 percent rule, CMS should describe more thoroughly the subgroups within a condition that are appropriate for IRFs rather than other settings, and may consider using other factors in the condition descriptions, such as functional status.

CMS Response

We expect to adopt GAO’s recommendation that prior to adding medical conditions to the list specified at 42 CFR 412.23(b)(2)(ii), it would be beneficial to examine whether each of the medical conditions on the list can be divided into subgroups in order to better delineate which patients can most appropriately be treated in an IRF and which can be more appropriately cared for in other settings. However, in implementing this recommendation, it should be noted that subdividing the existing medical conditions would make the medical conditions more restrictive as a method to classify a facility as an IRF. Future research in this area has the potential to determine whether establishing subgroups, including those based on function, is achievable before consideration is given to adding any new medical conditions.

GAO Recommendation

CMS should conduct additional activities to encourage research on the effectiveness of intensive inpatient rehabilitation and the factors that predict patient need for intensive inpatient rehabilitation.

CMS Response

We agree with this recommendation. We welcome the results of well-designed studies and continue to review available research. Specifically, the CMS has actively encouraged government clinical research organizations, academic institutions, and industry rehabilitation groups to conduct both general and targeted research that would inform all interested parties regarding the types of patients that would most benefit from intensive inpatient rehabilitation. CMS also requested the NIH to convene a research panel to determine future areas of research. In the next few months, the NIH is expected to report the results of the panel to CMS. The results will be used to guide research that will help determine which facility and patient factors may be considered to classify a facility as an IRF. The CMS will collaborate with NIH to determine how best to promote this research.
**Appendix IV: Comments from the Centers for Medicare & Medicaid Services**

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**GAO Recommendation**

*CMS should ensure that fiscal intermediaries (FIs) routinely conduct targeted reviews for medical necessity for IRF admissions.*

**CMS Response**

CMS concurs that targeted reviews by FIs for medical necessity for IRF admissions are necessary. We expect our contractors will target their scarce resources on the areas and admission patterns that present the highest vulnerability to the Medicare program. Contractors are required to use data analysis tools and techniques to identify areas that present risk and are expected to address those risks appropriately to protect the Medicare Trust Fund.

CMS has already taken a number of positive steps in this area. For example, several FIs have implemented LCDs while a number of others have LCDs in advance stages of development.
Appendix V: GAO Contact and Staff Acknowledgments

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<th>GAO Contact</th>
<th>Linda T. Kohn, (202) 512-4371</th>
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<td>Acknowledgments</td>
<td>Manuel Buentello, Behn Kelly, Ba Lin, Eric Peterson, Kristi Peterson, and Roseanne Price made key contributions to this report.</td>
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