Attachment

American Hospital Association
Skilled Nursing Facility Prospective Payment System
Background and Ideas for Simplification and Improvement
June 9, 1999

Background on HCFA's Proposed Refinements to SNF PPS

Based on HCFA's research findings and the agency's self-imposed guiding principles that included a "desire to maintain the integrity of the RUGs system," the following are the two main refinements contained in the proposed rule:

- **New hierarchy for patients who qualify for Rehabilitation and Extensive Services:** HCFA proposes to add 14 new RUGs for patients who qualify for both the Rehabilitation and Extensive Services categories (but previously would have been placed in the Rehabilitation category due to the hierarchy rules of RUGs). This new "Extensive with Rehabilitation" category would be placed at the top of the RUGs hierarchy and would employ the same sub-splits as the current Rehabilitation categories.

- **Medical ancillary subcategories:** HCFA proposes to create a "medical ancillary" index based on 11 variables derived from the Minimum Data Set (MDS) found to be statistically associated with non-therapy ancillaries. The index would be used to allocate each patient into one of four categories, that would become additional subcategories for the higher-cost RUGs (i.e., clinically complex and above).

These two changes together would result in increasing the number of RUGs from 44 to 178. An alternative considered by HCFA, included in the appendix to its proposal, would create a six-category medical ancillary index with specific weights for each of the 11 MDS variables, resulting in 232 groups.

Analysis by the researchers employed by HCFA (Abt Associates) indicated that these refinements would increase the percent of variation in total costs explained by the RUGs system from 10 percent to 17 percent.

The proposed rule contains preliminary payment rates for the 178 and 232 category RUG refinement proposals. For the final rule, HCFA plans to recalculate the components of the rates based on more recent national data, instead of the research sample used to develop the refinements. As it stands now, the proposed federal rates range from $133 to $701 per diem depending on case-mix category and the provider's urban or rural status. Depending on the changes in costs and care practices over the last few years, these rates may significantly change for some payment categories when HCFA reruns the methodology using full national claims and MDS data.

Simplification of HCFA's Proposed SNF PPS Refinements

The following are suggested changes to the proposed SNF PPS refinements that are designed to: simplify HCFA's proposal; be implemented immediately; and move in the right direction for the long-term. These changes can generally be described as condensing and simplifying HCFA's proposal.

Three simplifying changes to HCFA's proposal are:

- use a collapsed version of the weighted, six-category medical ancillary index ("WIM2") in a way that is cognizant of which hierarchy the patient classified into;

- adjust the weights in the medical ancillary index (by multiplying by a fixed constant and rounding) to make it easier to understand the scoring;[1]

- significantly collapse the bottom 24 (pre-refinement) RUGs into four categories based on activities of daily living and medical ancillary index score.

These changes are depicted in Figure 1 and would result in 50 RUGs.

Additional Changes Which Require Further Research

With additional research, using existing data sets, the AHA believes that there are viable changes that could be made to allow for simplification and improvement of the accuracy of the RUGs patient classification system.

These ideas revolve around the fundamental premise that multiple, interactive problems are the hallmark of a medically complex geriatric population and that any methodology which purports to reflect the needs of such a population must appropriately account for these phenomena. The hierarchy approach of RUGs, where persons with only one or two key problems are grouped together with persons with many impairments and infirmities, does not always reflect these realities. Pneumonia is one example of a highly variable condition, depending on the severity of illness and number of comorbid conditions.

Moreover, HCFA's approach to the medical ancillary index, that of winnowing down a larger list of predictive variables to 11 categories, will not necessarily rectify all of the methodological shortcomings. For example, ventilator cases with multiple secondary impairments can have very high nursing staff use and medical ancillary use. If those secondary impairments are not adequately represented by the 11 categories of the medical ancillary index, then there is insufficient reflection in the payments for these patients despite the presence of these costly secondary impairments.

[1] For examples of this concept of rounding and stratifying, see the clinical domain of home health resource groups or the Charlson comorbidity index.

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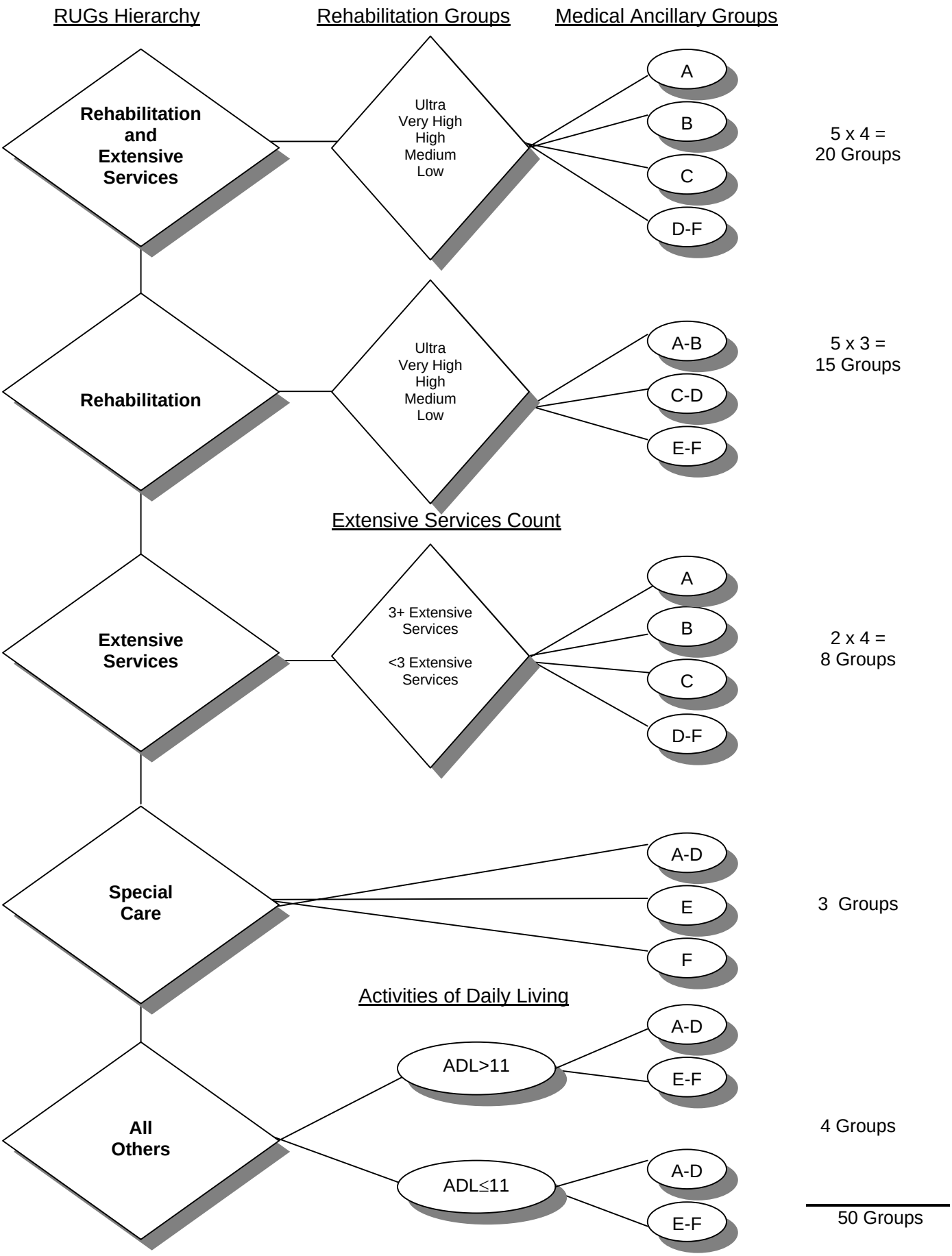
Figure 1 **Simplified Version of HCFA's Proposed SNF PPS Refinements**



Examples of further potential changes to the patient classification system, based on an examination of the relevant data, would be to:

- add additional elements to the medical ancillary index (and relabel it a medical complexity index), starting first from the current list of qualifiers for the higher-cost RUGs hierarchies (e.g., ventilator), then consider adding other variables that are found to have strong clinical and cost predictive validity;
- begin to move away from the hierarchy concept of RUGs and instead, base the initial classification on degree of medical complexity;
- refine the therapy component of the rates to be more cognizant of degree of medical complexity.

These changes would result in an enhanced medical complexity index, which could then be stratified into the necessary number of groups and used to explain variation in nursing and non-therapy ancillary costs. One objective of any further refinements must be the appropriate simplification of case-mix classification by using clinically and statistically sound measures.

The data contained in the rule, as well as other studies[2], support the hypothesis that a single "medical complexity index" is likely to be simpler and more efficient at identifying variation in both nursing and non-therapy ancillary costs, especially for higher cost patients. Figure 2 clearly shows that the nursing and medical ancillary components of the standardized federal rate vary in proportion to the medical ancillary index. Figure 2 also shows that non-therapy ancillary costs significantly exceed nursing costs at the higher levels of medical complexity, demonstrating the relative importance of accurately predicting ancillary costs for medically complex patients.

Figure 2 **Average Federal Rate for SNFs**
FY 2001
by Rate Component and Medical Ancillary Group

	(High)					(Low)
Medical Ancillary Group	**A**	**B**	**C**	**D**	**E**	**F**
Average Nursing Component	$101	$98	$88	$76	$66	$63
Average Medical Ancillary Component	$281	$171	$104	$81	$40	$28
Total Nursing and Ancillary	$382	$270	$192	$157	$106	$91

(excludes therapy and fixed cost components)

[2] See for example, Morrison et. al., "A Prospective Study of New Case-Mix Indices for Subacute Care, Final Report," June, 1999. Parmalee et. al, "Validation of the Cumulative Illness Rating Scale in a Geriatric Residential Population," *Journal of the American Geriatrics Society*, 43:130-137, 1995. Elixhauser et.al., "Comorbidity Measures for Use with Administrative Data," *Medical Care*, Volume36, Number 1, pp. 8-27,1997