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APPENDIX IV

RESOURCE UTILIZATION GROUPS (RUGs)

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12VAC 30-90-300 through 12 VAC 30-90-304. Repealed.

12 VAC 30-90-305. Resource Utilization Groups (RUGs).

A. The Resource Utilization Groups-III (RUG-III), Version 5.12, 34-group, index maximizing model shall be used as the resident classification system to determine the RUG-III group for each resident assessment. RUG-III classifies resident assessments according to the intensity of each resident's needs. Data from the minimum data set (MDS) submitted by each facility to the Centers for Medicare and Medicaid Services (CMS) shall be used to classify the resident assessments into RUG-III groups.

B. Definitions. The following words and terms when used in this appendix shall have the following meanings unless the context clearly indicates otherwise.

"Base year" means the calendar year for which the most recent reliable nursing facility cost settled cost reports are available in the DMAS database as of September 1 of the year prior to the year in which the rebased rates will be used. (See also definition of rebasing.)

"Case-mix index (CMI)" means a numeric score that identifies the relative resources used by similar residents and represents the average resource consumption of those residents.

"Case-mix neutralization" means the process of removing cost variations for direct patient care costs associated with different levels of resident case mix.

"Day-weighted median" means a weighted median where the weight is Medicaid days.

"Medicaid average case-mix index" means a simple average, carried to four decimal places, of all resident case mix indices where Medicaid is known to be the per diem payor source on the last day of the calendar quarter.

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"Minimum data set (MDS)" means a federally required resident assessment instrument. Information from the MDS is used to determine the facility's case-mix index.

"Normalization" means the process by which the average case mix for the state is set to 1.0.

"Nursing facility" means a facility, not including intermediate care facilities for the mentally retarded, licensed by the Department of Health and certified as meeting the participation requirements of the Medicaid program.

"Rebasing" means the process of updating cost data used to calculate peer group ceilings for subsequent base years.

12 VAC 30-90-306. Case-mix index (CMI).

A. Effective for dates of service beginning July 1, 2001, through June 30, 2014, nursing facility case-mix indices shall be applied as described in this subsection. Each resident in a Virginia Medicaid certified nursing facility on the last day of the calendar quarter with an effective assessment date during the respective quarter shall be assigned to one of the RUG-III 34-groups.

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B. Effective for dates of service on or after July 1, 2014, nursing facility reimbursement described in 4.19-D, Supp. 1, p. 26.2-26.7 (12 VAC 30-90-44) shall be based on the case-mix or RUG weights as described in this subsection. Standard case-mix indices, developed by CMS for the Medicaid population (B01), shall be assigned to each of the RUG-III 34 groups as indicated in Table III.

Table III

Case Mix Indices (CMI)

RUG CATEGORY	RUG Description	CMS "Standard" B01 CMI Set
RAD	Rehabilitation All Levels / ADL 17-18	1.66
RAC	Rehabilitation All Levels / ADL 14-16	1.31
RAB	Rehabilitation All Levels / ADL 10-13	1.24
RAA	Rehabilitation All Levels / ADL 4-9	1.07
SE3	Extensive Special Care 3 / ADL >6	2.10
SE2	Extensive Special Care 2 / ADL >6	1.79
SE1	Extensive Special Care 1 / ADL >6	1.54
SSC	Special Care / ADL 17-18	1.44
SSB	Special Care / ADL 15-16	1.33
SSA	Special Care / ADL 4-14	1.28
CC2	Clinically Complex with Depression / ADL 17-18	1.42
CC1	Clinically Complex / ADL 17-18	1.25
CB2	Clinically Complex with Depression / ADL 12-16	1.15
CB1	Clinically Complex / ADL 12-16	1.07
CA2	Clinically Complex with Depression / ADL 4-11	1.06
CA1	Clinically Complex / ADL 4-11	0.95
IB2	Cognitive Impairment with Nursing Rehab / ADL 6-10	0.88
IB1	Cognitive Impairment / ADL 6-10	0.85
IA2	Cognitive Impairment with Nursing Rehab / ADL 4-5	0.72
IA1	Cognitive Impairment / ADL 4-5	0.67

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BB2	Behavior Problem with Nursing Rehab / ADL 6-10	0.86
BB1	Behavior Problem / ADL 6-10	0.82
BA2	Behavior Problem with Nursing Rehab / ADL 4-5	0.71
BA1	Behavior Problem / ADL 4-5	0.60
PE2	Physical Function with Nursing Rehab / ADL 16-18	1.00
PE1	Physical Function / ADL 16-18	0.97
PD2	Physical Function with Nursing Rehab / ADL 11-15	0.91
PD1	Physical Function / ADL 11-15	0.89
PC2	Physical Function with Nursing Rehab / ADL 9-10	0.83
PC1	Physical Function / ADL 9-10	0.81
PB2	Physical Function with Nursing Rehab / ADL 6-8	0.65
PB1	Physical Function / ADL 6-8	0.63
PA2	Physical Function with Nursing Rehab / ADL 4-5	0.62
PA1	Physical Function / ADL 4-5	0.59

C. There shall be four “picture dates” for each calendar year: March 31, June 30, September 30 and December 31. Each resident in each Medicaid-certified nursing facility on the picture date with a completed assessment that has an effective assessment date within the quarter shall be assigned a case-mix index based on the resident’s most recent assessment for the picture date as available in the DMAS MDS database.

D. Using the individual Medicaid resident case-mix indices, a facility average Medicaid case-mix index shall be calculated four times per year for each facility. The facility average Medicaid case-mix indices shall be used for case-mix neutralization of resident care costs and for case-mix adjustment.

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1. During the time period beginning with the implementation of RUG-III up to the ceiling and rate setting effective July 1, 2004, the case-mix index calculations shall be based on assessments for residents for whom Medicaid is the principal payer. The statewide average Medicaid case-mix index shall be a simple average, carried to four decimal places, of all case-mix indices for nursing facility residents in Virginia Medicaid certified nursing facilities for whom Medicaid is the principal payer on the last day of the calendar quarter. The facility average Medicaid case-mix index shall be a simple average, carried to four decimal places, of all case-mix indices for nursing facility residents in the Virginia Medicaid-certified nursing facility for whom Medicaid is the principal payer on the last day of the calendar quarter.

2. The facility average Medicaid case-mix index shall be normalized across all of Virginia's Medicaid-certified nursing facilities for each picture date. To normalize the facility average Medicaid case-mix index, the facility average Medicaid case-mix index is divided by the statewide average Medicaid case-mix index for the same picture date.

3. The department shall monitor the case-mix, including the case mix normalization and the neutralization processes, indices during the first two years following implementation of the RUG-III system. Effective July 1, 2004, the statewide average case-mix index may be changed to recognize the fact that the costs of all residents are related to the case mix of all residents. The statewide average case-mix index of all residents, regardless of principal payer on the effective date of the assessment, in a Virginia Medicaid certified nursing facility may be used for case-mix neutralization. The use of the facility average Medicaid case-mix index to adjust the prospective rate would not change.

4. There shall be a correction period for Medicaid-certified nursing facilities to submit correction assessments to the CMS MDS database following each picture date. A report that details the picture date RUG category and CMI score for each resident in each nursing facility shall be mailed to the facility for review. The nursing facility shall have a 30-day time period to submit any correction assessments to the MDS database or to contact the Department of Medical Assistance Services regarding other corrections. Corrections submitted in the 30-day timeframe shall be included in the final report of the CMI scores that shall be used in the calculation of the nursing facility ceilings and rates. Any corrections submitted after the 30-day timeframe shall not be included in the final report of the CMI scores that shall be used in the calculation of the nursing facility ceilings and rates.

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5. Assessments that cannot be classified to a RUG-III group due to errors shall be assigned the lowest case-mix index score.

6. Assessments shall not be used for any out-of-state nursing facility provider that is enrolled in the Virginia Medical Assistance Program and is required to submit cost reports to the Medicaid program.

12 VAC 30-90-307. Applicability of case-mix indices (CMI).

A. The CMI shall be used to adjust the direct patient care cost ceilings and rates for application to individual nursing facilities. Indirect patient care cost ceilings and rates shall not be case-mix adjusted. The CMI shall be calculated using MDS data taken from picture dates as specified in this section.

B. When a facility's direct patient care cost ceiling is compared to its facility specific direct patient care cost rate to determine the direct patient care prospective rate, both the ceiling and the rate shall be case-mix neutral. The direct patient care cost ceiling shall be case-mix neutral because it shall be calculated using base year facility direct patient care cost data that have been case-mix neutralized. To accomplish this neutralization, each facility's base year direct patient care operating cost shall be divided by the facility's average normalized Medicaid CMI developed for the two semiannual periods of assessment data that most closely match the provider's cost reporting year that ends in the base year (see Table IV below). This shall be the facility's case-mix neutral direct patient care per diem for the base year and shall be used in the calculation of the peer group direct patient care cost ceilings. Table IV shows an example of the picture dates used to case-mix neutralize facility specific direct costs for the ceiling calculation. For the first few provider fiscal years for which cost neutralization will be done, a data limitation affects the picture dates that can be used. Accurate case-mix data are available starting with the fourth quarter of calendar year (CY) 1999. For providers with cost reporting periods ending during the first, second, and third quarters of CY 2000, the picture dates used in cost neutralization shall be modified to reflect only accurate case-mix data. For provider cost reporting periods ending in the fourth quarter of 2000 and afterward, this limitation no longer exists and assessment data shall be used that most closely match the cost reporting period.

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Table IV

Quarter of Provider Cost Report Year End	Picture Dates Used to Neutralize Costs for Ceiling Calculation	
	Preferred Picture Dates if No Data Limitation Applied	Picture Dates That Shall be Used Due to Data Limitation
First Quarter of CY 2000	3/31/99, 6/30/99, 9/30/99, 12/31/99	12/31/99
Second Quarter of CY 2000	6/30/99, 9/30/99, 12/31/99, 3/31/00	12/31/99, 3/31/00
Third Quarter of CY 2000	9/30/99, 12/31/99, 3/31/00, 6/30/00	12/31/99, 3/31/00, 6/30/00
Fourth Quarter of CY 2000	12/31/99, 3/31/00, 6/30/00, 9/30/00	12/31/99, 3/31/00, 6/30/00, 9/30/00

C. When direct patient care prospective rates are set, the direct patient care ceilings used in the calculation shall be the case-mix neutralized ceiling described in subsection B of this section, adjusted for inflation to the midpoint of the prospective period. However, the facility-specific direct patient care cost rates used in the calculation shall not be from the base year, but shall be from the provider fiscal year prior to the period for which a prospective rate is being calculated. Therefore, the provider's direct patient care rate from the previous cost reporting period shall be case-mix neutralized using the facility average normalized Medicaid CMI developed for the two semiannual

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periods of assessment data that most closely match the cost reporting period prior to the prospective period for which a rate is being calculated. Each year when a new prospective rate is developed, the provider specific direct patient care rate shall be case-mix neutralized using CMI data that uses picture dates that correspond to the cost reporting period used to develop the rate. The relationship between provider cost reporting period and picture dates shall be that illustrated in Table IV, except that in the time period when rates will first be set, the data limitation that affected the picture dates shown in Table IV, will not apply. Therefore, for all provider cost reporting periods, picture dates that correspond to the cost reporting period shall be used.

D. After the case-mix neutral direct patient are ceiling (adjusted for inflation from the base year to the prospective period) is compared to the case-mix neutralized facility-specific direct patient care rate (adjusted for inflation from the previous cost reporting period to the prospective period), the lower of the two shall be chosen. This lower amount shall be the case-mix neutral prospective rate per diem for the prospective period. It shall then be adjusted for the CMI intended to correspond as closely as possible to the prospective period. Because of the manner in which the necessary data are reported, there shall be a lag between the picture dates used to develop the CMI information and the prospective period to which the CMI shall apply. The relationship between picture dates and prospective rate periods is illustrated in Table V.

Table V
Example of Picture Dates Used in Case-Mix Adjustment of Prospective Rate

Quarter of Provider Cost Report Year End	Picture Dates Used to Adjust First Prospective Semiannual Period	Picture Dates Used to Adjust Second Prospective Semiannual Period
First Quarter CY 2002	9/30/01, 12/31/01	3/31/02, 6/30/02
Second Quarter CY 2002	12/31/01, 3/31/02	6/30/02, 9/30/02
Third Quarter CY 2002	3/31/02, 6/30/02	9/30/02, 12/31/02
Fourth Quarter CY 2002	6/30/02, 9/30/02	12/31/02, 3/31/03

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E. Any out-of-state nursing facility provider that is enrolled in the Virginia Medical Assistance Program and is required to submit a cost report to the Virginia Medical Assistance Program will be assigned the Virginia statewide normalized CMI of 1.0. This CMI of 1.0 will be used to adjust the direct patient care cost ceilings and rates.

F. Example of case-mix adjustment of direct operating rate.

1. Following is an illustration of how a nursing facility's case-mix index is used to make direct patient care semiannual rate adjustments to the prospective direct patient care operating cost base rate.

2. Assumptions.

a. The nursing facility's fiscal year is January 1, 2002, through December 31, 2002.

b. The average allowable direct patient care operating rate for the year is $50.

c. The allowance for inflation is 4.0% for the fiscal year beginning January 1, 2003.

d. The nursing facility's case-mix neutral direct peer group ceiling for the fiscal year beginning January 1, 2003, is $60.

e. The nursing facility's normalized case-mix scores are as follows:

12/31/2001 picture date CMI	1.0100
3/31/2002 picture date CMI	1.0105
6/30/2002 picture date CMI	1.0098
9/30/2002 picture date CMI	1.0305
12/31/2002 picture date CMI	1.0355

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3/31/2003 picture date CMI 1.0400

3. Calculation of nursing facility's Direct Patient Care Operating Cost Rate.

a. Direct Patient Care Operating Cost Rate:

Average Allowable Direct Patient Care Operating Rate $50.00

Allowance For Inflation FYE 2003 x 1.0400 $52.00

b. Calculation of case-mix factor used for case-mix neutralization:

12/31/2001 CMI 1.0100

3/31/2002 CMI 1.0105

6/30/2002 CMI 1.0098

9/30/2002 CMI 1.0305

Average of four CMI = 1.0152

c. Case-mix neutralized average allowable direct patient care operating rate: Average Allowable Direct Patient Care Operating Rate for FY 2003 $52.00

Case-mix neutralization factor ÷ 1.0152

Case-mix neutralized Direct Patient Care Operating Rate for FY 2003 = $51.22

d. Lower of case-mix neutralized cost or ceiling:

The case-mix neutralized Direct Patient Care Operating Rate, $51.22, is lower than the case-mix neutral ceiling, $60.00. $51.22 will be used in the rate calculation.

e. Calculation of case-mix rate adjustments:

(1) Case-mix rate adjustment for the period January 1, 2003, through June 30, 2003:

First semiannual rate adjustment – Average of (6/30/2002 CMI, 9/30/2002 CMI) = Average(1.0098,1.0305) = 1.0202

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(2) Case-mix rate adjustment for the period July 1, 2003 through December 31, 2003:

Second semiannual rate adjustment – Average of (12/31/2002 CMI, 3/31/2003 CMI) = Average(1.0355,1.0400) =1.0378

f. Rates for semiannual periods:

(1) Case-mix adjusted rate for the period January 1, 2003, through June 30, 2003:

First semiannual rate = 1.0202 * $51.22 = $52.25

(2) Case-mix adjusted rate for the period July 1, 2003 through December 31, 2003:

Second semiannual rate = 1.0378 * $51.22 = $53.15