

May 10, 2004

**NOTE TO: Medicare Advantage Organizations and Other Interested Parties**

**SUBJECT: Announcement of Calendar Year (CY) 2005 Medicare Advantage Payment Rates**

In accordance with section 1853(b)(1) of the Social Security Act (the Act), we are notifying you of the annual Medicare Advantage (formerly the Medicare+Choice program) capitation rate for each Medicare Advantage payment area for 2005, and the risk and other factors to be used in adjusting such rates. Attached is a spreadsheet containing the capitation rate tables for CY 2005, which includes the rescaling factors that will be used with the risk-adjusted portion of payment in 2005. The rates are also posted on the Centers for Medicare & Medicaid Services (CMS) web site at <http://www.cms.hhs.gov/healthplans/rates/default.asp>. As discussed in Enclosure I, the final estimate of the increase in the National Per Capita Medicare Advantage Growth Percentage for aged beneficiaries is 6.6 percent.

Under section 1853(c)(1) of the Act, Medicare Advantage payment rates in 2005 will be based on the higher of the county fee-for-service per capita amount or a minimum percent increase over the 2004 rate. For 2005, about 80 percent of the county rates for aged beneficiaries reflect the minimum percent increase.

Enclosure I shows the final estimates of the increase in the National Per Capita Medicare Advantage Growth Percentage for 2005. Since these estimates are all larger than 2 percent, these growth rates will be used as the minimum update percentage in calculating the 2005 rates.

Enclosure II provides a set of tables that summarizes many of the key Medicare assumptions used in the calculation of the National Per Capita Medicare Advantage Growth Percentage. The instructions you need to complete the Adjusted Community Rate Proposals (ACRs) for contract periods beginning January 1, 2005 will be forthcoming.

Section 1853(b)(4) of the Act (added by Section 514 of the BBRA) requires CMS to release county-specific per capita fee-for-service expenditure information on an annual basis, beginning with March 1, 2001. Fee-for-service data for CY 2002 is being posted on the Internet at this time as well.

We received one comment in response to CMS's request for comments on the Advance Notice of Methodological Changes for CY 2005 Medicare Advantage (MA) Payment Rates, published on March 26, 2004. Enclosure III presents our responses to the issues raised in this comment. Enclosure IV contains the CMS-HCC End Stage Renal Disease risk adjustment factors effective CY 2005.

Questions on the capitation rate tables and the National Per Capita Medicare Advantage Growth Percentage can be directed to Sol Mussey at (410) 786-6386. Questions on the submission of

ACR proposals can be directed to Tanette Burden-Downs at (410) 786-7616. Other questions can be directed to Anne Hornsby at (410) 786-1181.

/ s /

Gail Pardue McGrath

Director

Center for Beneficiary Choices

/ s /

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Director

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Office of the Actuary

Enclosures

28-May-04

### Note to Managed Care Organizations and Demonstrations

Due to a technical correction, we have revised the 2005 Medicare Advantage (MA) Ratebook to make the ratebook consistent with CMS' policy of budget neutrality between payments under the demographic payment system and the risk payment system. This correction will ensure that MA payment rates will increase on average by approximately 7.1% as announced in the May 10<sup>th</sup> MA Rate Announcement. The revised ratebook reflects an increase of 5% in the county risk rates; the new rates are posted at <http://www.cms.hhs.gov/healthplans/rates/>. The revision to the 2005 Medicare Advantage ratebook is shown as a change to the rescaling factor. This correction has no impact on the demographic rates and no impact on overall Medicare costs. Please contact Cynthia Tudor at [Ctudor@cms.hhs.gov](mailto:Ctudor@cms.hhs.gov) if you have any questions.

Robert Donnelly  
Director  
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**Enclosure I**  
**Final Estimate of the Increase in the National Per Capita Growth Percentages for 2005**

The first table below shows the National Per Capita Medicare Advantage Growth Percentages (NPCMAGP) used to determine the minimum update percentage for 2005. Since section 1853(c)(6)(C) of the Act requires adjusting the prior years' increases for over/under estimates (but not for any year before 2004), we are showing the prior increases in the per capita rates for 2004 as well. For 2005, adjustments of 0.5 percent, 0.6 percent, 0.5 percent and 0.5 percent for aged, disabled, ESRD, and combined aged and disabled, respectively, are included to account for corrections to the 2004 estimates. The combined aged and disabled increase is used in the development of the risk-adjusted ratebook. The second table below shows the monthly actuarial value of the Medicare deductible and coinsurance for 2004 and 2005. These data were furnished by the Office of the Actuary.

**Increase in the National Per Capita MA Growth Percentages for 2005**

	Prior Increases	Current Increases			NPCMAGP for 2005 With Sec.1853(c)(6)(C) adjustment <sup>1</sup>
	2003 to 2004	2003 to 2004	2004 to 2005	2003 to 2005	
Aged	6.30%	6.82%	6.06%	13.30%	6.58%
Disabled	5.33	5.94	6.19	12.49	6.80
ESRD	4.52	5.04	5.40	10.71	5.92
Aged+Disabled	6.10	6.63	6.05	13.08	6.58

<sup>1</sup>Current increases for 2003 to 2005 divided by the prior increases for 2003 to 2004, i.e. 1.1330/1.0630 for aged.

**Monthly Actuarial Value of Medicare Deductible and Coinsurance for 2004 and 2005**

	2004	2005	Change
Part A Benefits	\$28.57	\$30.24	5.8%
Part B Benefits <sup>2</sup>	84.50	89.12	5.5
Total Medicare	113.07	119.36	5.6

<sup>2</sup>Includes the amounts for outpatient psychiatric charges.

## **Enclosure II**

### **KEY ASSUMPTIONS AND FINANCIAL INFORMATION**

Attached is a table that compares the published United States Per Capita Costs (USPCC) with current estimates for 2000 to 2004. In addition, this table shows the current projections of the USPCCs through 2007. In prior years, information in these tables was presented back to 1997. Since the passage of the MMA, formula changes in the law do not require the use of the USPCCs back to 1997 for the purpose of calculating the 2005 rates (e.g., the area-specific rate is not tabulated for years after 2004 and no adjustments to prior years' estimates are allowed for years before 2004).

We are also providing an attached set of tables that summarizes many of the key Medicare assumptions used in the calculation of the USPCCs. The USPCCs are the basis for the National Per Capita Medicare Advantage Growth Percentages. Most of the tables include information for the years 2000 through 2007. All of the information provided in this enclosure applies to the Medicare Part A and Part B programs. Caution should be employed in the use of this information. It is based upon nationwide averages, and local conditions can differ substantially from conditions nationwide.

None of the data presented here pertains to the new Medicare prescription drug benefit, which will be covered under Medicare Part D effective January 1, 2006.

## Comparison of Current Estimates of the USPCC with Published Estimates

### PART A:

Calendar Year	Aged			Disabled			Aged and Disabled		
	Current Estimate	Published Estimate	Ratio	Current Estimate	Published Estimate	Ratio	Current Estimate	Published Estimate	Ratio
2000	\$265.12	\$286.18	1.079	\$217.14	\$230.48	1.061	\$258.69	\$278.61	1.077
2001 <sup>1</sup>	\$286.47	\$288.62	1.008	\$234.95	\$235.50	1.002	\$279.38	\$281.25	1.007
2001 <sup>2</sup>	\$286.47	\$298.43	1.042	\$234.95	\$242.00	1.030	\$279.38	\$290.59	1.040
2002	\$300.25	\$294.46	0.981	\$250.61	\$242.06	0.966	\$293.23	\$287.10	0.979
2003	\$309.16	\$290.50	0.940	\$259.84	\$234.89	0.904	\$302.04	\$282.50	0.935
2004 <sup>3</sup>	\$329.37	\$326.78	0.992	\$273.95	\$271.69	0.992	\$320.97	\$318.43	0.992
2005	\$348.28	\$348.28	1.000	\$291.45	\$291.45	1.000	\$339.49	\$339.49	1.000
2006	\$365.60	--	--	\$310.75	--	--	\$356.99	--	--
2007	\$381.32	--	--	\$326.83	--	--	\$372.70	--	--

### PART B:

Calendar Year	Aged			Disabled			Aged and Disabled		
	Current Estimate	Published Estimate	Ratio	Current Estimate	Published Estimate	Ratio	Current Estimate	Published Estimate	Ratio
2000	\$197.03	\$218.78	1.110	\$177.97	\$195.91	1.101	\$194.66	\$216.03	1.110
2001 <sup>1</sup>	\$216.53	\$217.57	1.005	\$200.46	\$191.99	0.958	\$214.48	\$214.32	0.999
2001 <sup>2</sup>	\$216.53	\$223.83	1.034	\$200.46	\$198.69	0.991	\$214.48	\$220.63	1.029
2002	\$230.76	\$244.17	1.058	\$221.54	\$218.23	0.985	\$229.55	\$240.76	1.049
2003	\$247.05	\$232.24	0.940	\$241.73	\$211.58	0.875	\$246.33	\$229.47	0.932
2004 <sup>3</sup>	\$264.79	\$263.39	0.995	\$257.39	\$252.74	0.982	\$263.75	\$261.89	0.993
2005	\$281.90	\$281.90	1.000	\$272.79	\$272.79	1.000	\$280.58	\$280.58	1.000
2006	\$294.52	--	--	\$285.57	--	--	\$293.20	--	--
2007	\$306.78	--	--	\$297.82	--	--	\$305.44	--	--

### PART A & PART B:

Calendar Year	Aged			Disabled			Aged and Disabled		
	Current Estimate	Published Estimate	Ratio	Current Estimate	Published Estimate	Ratio	Current Estimate	Published Estimate	Ratio
2000	\$462.15	\$504.96	1.093	\$395.11	\$426.39	1.079	\$453.35	\$494.64	1.091
2001 <sup>1</sup>	\$503.00	\$506.19	1.006	\$435.41	\$427.49	0.982	\$493.86	\$495.57	1.003
2001 <sup>2</sup>	\$503.00	\$522.26	1.038	\$435.41	\$440.69	1.012	\$493.86	\$511.22	1.035
2002	\$531.01	\$538.63	1.014	\$472.15	\$460.29	0.975	\$522.78	\$527.86	1.010
2003	\$556.21	\$522.74	0.940	\$501.57	\$446.47	0.890	\$548.37	\$511.97	0.934
2004 <sup>3</sup>	\$594.16	\$590.17	0.993	\$531.34	\$524.43	0.987	\$584.72	\$580.32	0.992
2005	\$630.18	\$630.18	1.000	\$564.24	\$564.24	1.000	\$620.07	\$620.07	1.000
2006	\$660.12	--	--	\$596.32	--	--	\$650.19	--	--
2007	\$688.10	--	--	\$624.65	--	--	\$678.14	--	--

<sup>1</sup>Applies to M+C ratebook for January to February, 2001

<sup>2</sup>Applies to M+C ratebook for March to December, 2001

<sup>3</sup>Applies to revised 2004 MA ratebook published January 16, 2004.

**Comparison of Current Estimates of the USPCC with Published Estimates-  
continued**

## PART A:

Calendar Year	ESRD		Ratio
	Current Estimate	Published Estimate	
2000	\$1,320.28	\$1,443.13	1.093
2001 <sup>1</sup>	\$1,432.85	\$1,541.76	1.076
2001 <sup>2</sup>	\$1,432.85	\$1,597.34	1.115
2002	\$1,530.70	\$1,435.62	0.938
2003	\$1,597.99	\$1,596.58	0.999
2004 <sup>3</sup>	\$1,688.90	\$1,685.25	0.998
2005	\$1,759.90	\$1,759.90	1.000
2006	\$1,620.42	--	--
2007	\$1,600.80	--	--

## PART B:

Calendar Year	ESRD		Ratio
	Current Estimate	Published Estimate	
2000	\$2,039.04	\$2,436.13	1.195
2001 <sup>1</sup>	\$2,378.17	\$1,875.57	0.789
2001 <sup>2</sup>	\$2,378.17	\$1,921.53	0.808
2002	\$2,437.01	\$2,014.79	0.827
2003	\$2,466.46	\$1,847.53	0.749
2004 <sup>3</sup>	\$2,580.34	\$2,552.18	0.989
2005	\$2,739.99	\$2,739.99	1.000
2006	\$3,100.52	--	--
2007	\$3,295.06	--	--

## PART A &amp; PART B:

Calendar Year	ESRD		Ratio
	Current Estimate	Published Estimate	
2000	\$3,359.32	\$3,879.26	1.154
2001 <sup>1</sup>	\$3,811.02	\$3,417.33	0.897
2001 <sup>2</sup>	\$3,811.02	\$3,518.87	0.923
2002	\$3,967.38	\$3,450.41	0.870
2003	\$4,064.45	\$3,444.11	0.847
2004 <sup>3</sup>	\$4,269.24	\$4,237.43	0.993
2005	\$4,499.89	\$4,499.89	1.000
2006	\$4,720.94	--	--
2007	\$4,895.86	--	--

<sup>1</sup>Applies to M+C ratebook for January to February, 2001

<sup>2</sup>Applies to M+C ratebook for March to December, 2001

<sup>3</sup>Applies to revised 2004 MA ratebook published January 16, 2004.

### Summary of Key Projections Under Present Law<sup>1</sup>

#### Part A

Year	Calendar Year CPI Percent Increase	Fiscal Year PPS Update Factor	FY Part A Total Reimbursement (Incurred)
2000	3.5	1.1	2.5
2001	2.7	3.4	8.6
2002	1.4	2.8	7.9
2003	2.3	3.0	4.6
2004	1.2	3.4	8.4
2005	1.5	3.4	7.5
2006	2.0	3.4	6.3
2007	2.4	3.6	6.1

#### Part B<sup>2</sup>

Calendar Year	Physician Fee Schedule		Part B Hospital	Total
	Fees	Residual		
2000	5.8	3.8	-0.6	10.4
2001	5.2	4.2	12.5	9.7
2002	-4.0	5.7	-1.3	6.4
2003	1.5	4.4	4.9	6.5
2004	3.8	3.0	5.6	6.8
2005	1.5	3.4	6.8	5.9
2006	-5.2	5.3	7.2	2.0
2007	-5.7	5.5	7.7	3.2

<sup>1</sup>Percent change over prior year.

<sup>2</sup>Percent change in charges per Aged Part B enrollee.

### Medicare Enrollment Projections Under Present Law (In Millions)

#### Non-ESRD

Calendar Year	Part A		Part B	
	Aged	Disabled	Aged	Disabled
2000	33.693	5.215	32.419	4.602
2001	33.898	5.406	32.581	4.761
2002	34.103	5.615	32.759	4.952
2003	34.386	5.804	32.958	5.155
2004	34.772	6.209	33.204	5.470
2005	35.145	6.428	33.486	5.683
2006	35.605	6.629	33.836	5.858
2007	36.206	6.799	34.306	6.010



## ESRD Part A

Calendar Year	Part A			
	Aged	Disabled	299I <sup>1</sup>	Total
2000	0.143	0.105	0.101	0.349
2001	0.150	0.110	0.106	0.366
2002	0.158	0.112	0.112	0.382
2003	0.166	0.117	0.117	0.400
2004	0.173	0.124	0.121	0.418
2005	0.179	0.129	0.125	0.433
2006	0.185	0.133	0.129	0.447
2007	0.190	0.136	0.131	0.457

## ESRD Part B

Calendar Year	Part B			
	Aged	Disabled	299I	Total
2000	0.140	0.090	0.083	0.313
2001	0.146	0.094	0.086	0.326
2002	0.153	0.095	0.091	0.339
2003	0.161	0.097	0.094	0.352
2004	0.167	0.103	0.097	0.367
2005	0.173	0.106	0.099	0.378
2006	0.178	0.109	0.102	0.389
2007	0.184	0.111	0.103	0.398

<sup>1</sup> Individuals who qualify for Medicare based on ESRD only.

### Part A Projections Under Present Law <sup>1</sup>

Calendar Year	Inpatient Hospital		SNF		Home Health		Managed Care		Hospice: Total Reimbursement (in Millions)	
	Aged	Disabled	Aged	Disabled	Aged	Disabled	Aged	Disabled	Aged	Disabled
2000	2,241.40	2,373.37	315.42	105.12	91.59	63.96	593.36	270.29	2,831	149
2001	2,432.66	2,583.09	382.44	129.44	119.91	90.09	573.17	247.45	3,541	186
2002	2,610.91	2,775.95	419.08	145.25	129.96	99.54	522.62	229.35	4,614	243
2003	2,737.83	2,898.61	409.88	141.22	128.25	97.58	520.92	236.36	5,724	301
2004	2,893.73	3,025.25	446.56	151.39	136.07	101.87	571.04	276.76	6,240	328
2005	3,005.00	3,177.14	464.19	158.69	141.49	106.86	669.53	332.84	6,624	349
2006	2,761.54	3,135.39	415.10	151.39	131.82	106.20	1,169.47	581.49	7,008	369
2007	2,728.57	3,199.08	401.98	151.15	132.71	110.23	1,401.82	700.33	7,405	390

<sup>1</sup> Average reimbursement per enrollee on an incurred basis, except where noted.

### Part B Projections Under Present Law<sup>1</sup>

Calendar Year	Physician Fee Schedule		Part B Hospital		Durable Medical Equipment	
	Aged	Disabled Non-ESRD	Aged	Disabled Non-ESRD	Aged	Disabled Non-ESRD
2000	1,003.17	919.25	239.00	290.30	118.53	185.56
2001	1,131.47	1,036.71	326.88	398.32	137.35	216.42
2002	1,179.08	1,077.67	334.59	422.49	160.26	262.33
2003	1,264.51	1,160.68	375.45	466.02	185.78	303.72
2004	1,355.41	1,238.29	401.56	497.07	181.42	300.55
2005	1,392.65	1,284.02	431.94	538.30	176.61	295.44
2006	1,206.20	1,209.50	421.26	569.01	159.79	290.75
2007	1,129.49	1,173.34	432.85	605.29	157.33	296.61

Calendar Year	Carrier Lab		Other Carrier		Intermediary Lab	
	Aged	Disabled Non-ESRD	Aged	Disabled Non-ESRD	Aged	Disabled Non-ESRD
2000	58.86	57.87	201.37	184.72	46.25	59.20
2001	64.65	63.61	239.93	223.23	47.72	64.44
2002	71.25	71.21	287.17	278.08	55.31	74.37
2003	76.45	77.18	332.26	337.95	59.67	79.52
2004	79.69	80.43	360.17	365.34	62.43	83.07
2005	83.20	84.67	395.90	400.30	65.59	88.09
2006	74.64	82.47	389.63	422.65	58.88	86.01
2007	72.37	82.75	413.58	459.51	55.85	84.53

Calendar Year	Other Intermediary		Home Health		Managed Care	
	Aged	Disabled Non-ESRD	Aged	Disabled Non-ESRD	Aged	Disabled Non-ESRD
2000	117.70	111.00	130.28	98.85	531.60	197.68
2001	138.01	109.17	126.65	104.38	497.71	157.69
2002	173.30	142.26	137.34	115.12	493.83	185.58
2003	179.09	146.29	135.83	112.09	481.92	185.27
2004	195.58	155.30	144.66	117.93	534.47	216.33
2005	209.09	162.97	150.75	123.30	629.28	260.41
2006	189.29	151.90	140.82	122.57	1,082.83	453.81
2007	189.27	157.42	142.18	127.20	1,295.55	547.84

<sup>1</sup>Average reimbursement per enrollee on an incurred basis.

### Claims Processing Costs as a Fraction of Benefits

Calendar Year	Part A	Part B
	2000	0.002195
2001	0.001862	0.013223
2002	0.001849	0.011194
2003	0.001849	0.011194
2004	0.001849	0.011194
2005	0.001849	0.011194
2006	0.001849	0.011194
2007	0.001849	0.011194

### **Approximate Calculation of the USPCC and the National Medicare Advantage Growth Percentage for Aged Beneficiaries**

The following procedure will approximate the actual calculation of the USPCCs from the underlying assumptions for the contract year for both Part A and Part B.

#### Part A:

The Part A USPCC for aged beneficiaries can be approximated by using the assumptions in the tables titled “Part A Projections Under Present Law” and “Claims Processing Costs as a Fraction of Benefits.” Information in the “Part A Projections” table is presented on a calendar year per capita basis. First, add the per capita amounts for the aged over all types of providers (excluding hospice). Next, multiply this amount by 1 plus the loading factor for administrative expenses from the “Claims Processing Costs” table. Then, divide by 12 to put this amount on a monthly basis. The last step is to multiply by .97464 to get the USPCC for the aged non-ESRD. This final factor is the relationship between the total and non-ESRD per capita reimbursements in 2005. This factor does not necessarily hold in any other year.

#### Part B:

The Part B USPCC can be approximated by using the assumptions in the tables titled “Part B Projections Under Present Law” and “Claims Processing Costs as a Fraction of Benefits.” Information in the “Part B Projections” table is presented on a calendar year per capita basis. First, add the per capita amounts for the aged over all types of providers. Next, multiply by 1 plus the loading factor for administrative expenses and divide by 12 to put this amount on a monthly basis. Then multiply by .94635 to get the USPCC for the aged non-ESRD.

#### The National Per Capita Medicare Advantage Growth Percentage:

The National Per Capita Medicare Advantage Growth Percentage for 2005 (before adjustment for prior years’ over/under estimates) is calculated by adding the USPCCs for Part A and Part B for 2005 dividing by the sum of the current estimates of the USPCCs for Part A and Part B for 2004.

## Enclosure III. CMS's Responses to Public Comments

### Summary

We received one comment on the March 26, 2004 Advance Notice of Methodological Changes for CY 2005 Medicare Advantage (MA) Payment Rates. Our responses to the issues raised by the commenter are organized as follows. Section A pertains to calculations of MA capitation rates, and Section B addresses questions on adjustments to the capitation rates. Section C pertains to payments for ESRD MA enrollees.

### A. Calculating MA capitation rates

**Comment – Rebasing the fee-for-service rates.** *The commenter recommends that CMS announce that the 100 percent fee-for-service rates will be rebased annually unless CMS notifies the public in the annual Advance Notice that there is a compelling reason not to rebase for the upcoming year.*

**Response.** The law requires that CMS rebase the 100 percent fee-for-service rates at least once every three years. CMS reserves the right, as provided by law, to determine whether additional data in the future will have a significant impact on the rates and therefore, to make the decision on whether to rebase or not. We anticipate there may be some significant changes as we move towards developing a 5-year database to calculate the geographic indices. For 2005, we will be using 5 years worth of data (instead of 4 years) to develop the geographic data under the demographic model, and we will be using 3 years of data (instead of 1 year) under the risk model. This is why CMS has chosen to rebase for 2005.

**Comment – Actuarial worksheets for the 100 percent fee-for-service (FFS) rates.** *The commenter requested that CMS publish the data used to rebase the 100 FFS rates.*

**Response.** In addition to the ratebook files currently released each year, in years where CMS rebases the FFS rates, we will release information on how to calculate the geographic indices and the Average Geographic Adjustment for each county. This information will pertain to both the demographic and risk models. Information for 2005 data will be forthcoming on the CMS website at <http://www.cms.hhs.gov/healthplans/rates/default.asp>.

**Comment- Adjusting prior years' estimates of the national MA growth percentage.** *The commenter requests greater detail on how CMS determines adjustments to prior years' estimates of the national MA growth percentage.*

**Response.** As the law provides, CMS must adjust the national MA growth rates for prior years' over and under estimates. This is accomplished by comparing the latest baseline projection of Medicare per capita expenses (data in Enclosure II) to prior baseline projections. Baseline projections are prepared by OACT for use in the President's budget and the annual Trustees Report. Projections are prepared by type of service and type of

Medicare beneficiary and are aggregated over all services to get the appropriate per capita amounts increases. OACT's projection methodology is basically the same as has been used for years. A description of the projection methodology can be found in an appendix of the annual Trustees Reports. A copy of the latest report can be obtained on the CMS website at <http://www.cms.hhs.gov/publications/trusteesreport/>.

**Comment - Incorporating costs for services received at VA/DOD facilities.** *The commenter requests information on CMS's plan for implementing the MMA requirement to incorporate costs for Medicare-covered services provided to beneficiaries in Veterans Administration (VA) and Department of Defense (DOD) facilities into the MA rates. Specifically, the commenter asks for detail on challenges CMS faces in getting this data and how CMS plans to address these challenges.*

**Response.** In order to incorporate the costs of services provided at VA/DOD facilities into the MA rates, it is necessary to obtain reliable data on a county level to make the adjustment. As of this date, we have not been able to obtain such data. In addition, it is not clear how much of an impact this data would have on the MA rates.

The impact of such an adjustment could be different based on the current program experience compared to the prior program experience. For example, the DOD program has been replaced by Tricare for Life so any data we use to implement this provision must be recent data reflecting this change. We will continue to work towards finding reasonable data sets to make such adjustments for both the VA and DOD programs. However, due to the short time frame to revise the 2004 rates and to announce the 2005 rates, we have not yet been able to determine such adjustments.

## **B. Adjustments to capitation rates**

**Comment – Trend analysis for estimation of the budget neutral risk adjustment factor.** *The commenter did not see why there would be any trend over the course of a year in the budget neutral risk adjustment factor now that the CMS had completed the initial phase of implementing the CMS-HCC risk adjustment model. The commenter did not feel that trend analysis was an appropriate approach and requested greater detail on how CMS would apply trend analysis to this estimate.*

**Response.** As described in the Advance Notice, the budget neutrality estimate is intended to be an annual estimate of the difference between payment under the demographic-only method and the payment under the risk adjustment method. The current methodology bases the budget neutrality estimate on information on a cohort of MA enrollees during one month of the year. We are implementing adjustments to the budget neutrality estimate to take into account trends in risk adjustment data for an entire year. In addition to eliminating the lag between the data collection period and the payment year, we are implementing adjustments for plan enrollment changes throughout the year and for late data submission.

Non-lagged Data. We are currently transitioning to payments based on non-lagged risk adjustment data, where non-lagged data are defined as diagnoses collected for the calendar year immediately preceding the payment year. (In contrast, lagged data moves the data collection period back 6 months - to a July to June collection period.) For 2005, we have been able to calculate the budget neutrality estimate directly on non-lagged data and do not need to estimate a trend for this factor.

Enrollment Changes. Budget neutrality is estimated on a cohort of plan enrollees for a given month (in this case January 2004). However, plan enrollment changes are such that the average plan risk score typically occurs in the middle of the year. By basing the budget neutrality estimate on a January cohort, we may be overestimating the average risk score and underestimating the budget neutrality amount. The enrollment change trend factor compensates for this potential underestimation of the budget neutrality amount. Using actual plan risk scores from the payment files for January - April 2004, we predicted plan risk scores through July 2004. Plan risk scores decline each month from a predicted score of 0.912 in January to 0.879 in July (See Table 1). This is a decline of 3.62 percent in risk scores and we will make an adjustment to the budget neutrality estimate to take this trend into account.

**Table 1 – Average Actual and Predicted CY 2004 Payment Cohort Risk Scores by Month**

Month	Actual Risk Score	Predicted Risk Score
January	0.912	0.912
February	0.905	0.906
March	0.901	0.901
April	0.896	0.895
May		0.890
June		0.885
July		0.879

Late Data Submission. Plans continue to submit data for up to 17 months after the end of a data collection period for a payment year. This additional data submission typically increases risk scores, which, in turn, increases risk payments and decreases the budget neutrality estimate. To account for these late data, we have estimated a late data adjustment factor. Using the January 2004 payment cohort, we calculated the average weighted risk score for the same cohort of M+C enrollees before and after the data was updated by additional plan submissions. The weighted average risk score for the cohort increased from .926 (using data submitted by October 2003) to .934 (using data submitted by January, 2004). If late data flowed in to CMS at this rate for 12 months after the end of the data collection period, risk scores should be increased by 3.46% and we will make an adjustment to the budget neutrality estimate to take this trend into account.

The trends for changes in plan enrollment and late data submission will be applied to the non-lagged budget neutrality estimate. In 2005, these two adjustments effectively cancel each other out, although this may not be the case in future years.

**Comment - Coding intensity adjustment for 2005.** *The commenter asked whether the coding intensity factor for 2005 will be different from the 2004 factor and if so, requested detail on how the new adjustment was calculated.*

**Response.** The coding intensity adjustment is the same as the 2004 adjustment, remaining at 1.05 for 2005. For 2004, the coding intensity adjustment was estimated using the predictions from the CMS-HCC model for fee-for-service beneficiaries in payment years 1996, 1997, 1998, and 2000. The prediction model was calibrated with costs from 2000 and diagnoses from 1999. There was an increasing trend in the model predictions. Whether the population is changing or coding patterns are changing, the fee-for-service population prediction should be adjusted to an average risk factor of 1.0 each year. To determine the adjustment beforehand, a polynomial time trend regression model was estimated using these annual model predictions to derive an intensity adjustment for additional years. This model was used to project the adjustment for 2004. The same method, with additional data, was used in estimating the 2005 adjustment. A new fee-for-service data point was added to the series: a projection from diagnoses from July 2002 through June 2003. Rounding to two decimal places as before, the estimate of the intensity adjustment for 2005 is the same as it was for 2004.

**Comment – Frailty adjuster.** *One commenter indicated that CMS had previously stated that it was considering applying the frailty adjuster to the MA program. The commenter suggested that CMS discuss the status of this initiative in the 2005 “call letter.”*

**Response.** CMS is continuing to conduct research to determine the feasibility of implementing the frailty adjuster for the MA program. We are investigating whether and how the ratebook should be adjusted. We are also considering refinements to the current model, including re-estimation of the frailty adjuster based on a larger sample. Once the technical issues are resolved, we will calculate impact estimates and address policy issues. If CMS determines that the frailty adjuster is appropriate for application to the MA program, the earliest this application would occur is 2006. CMS will announce payment changes for 2006 through the appropriate channels.

### **C. Payment for ESRD MA enrollees**

**Comment – Payment for ESRD MA enrollees with Medicare as secondary payer.** *The commenter asked that CMS consider establishing separate payment rates for ESRD enrollees in MA plans for whom Medicare is secondary payer (MSP).*

**Response.** Under the capitated payment system in use through 2004 there is no differentiation in payment by ESRD status (dialysis, transplant, functioning graft) or by Medicare secondary payer (MSP) status. With the new CMS-HCC ESRD model effective for payments beginning January 1, 2005, payments will differ by ESRD status and primary versus secondary payer status. Within the three ESRD statuses, payments are higher for those for whom Medicare is the primary payer. As MA organizations tend to have a lower proportion of enrollees in secondary payer status, on average, the MSP adjustment tends to raise payments.

Payments for ESRD beneficiaries in dialysis and transplant status are based on the dialysis rate book. The rate book is calculated using all dialysis beneficiaries: new enrollees, continuing enrollees, those with primary and secondary payer status. When calculating the base year rates, all these dialysis beneficiaries appear in both the average costs in the numerator and average risk factors in the denominator. The presence of MSP beneficiaries lowers both numbers, changing the ratio in offsetting directions, and produces the correct population adjusted averages. The relative risk factors in the model, used to adjust payments, are computed relative to this average of the combined population but are computed from data without persons who are likely missing costs or diagnoses because of MSP status. This is consistent with the CMS-HCC risk adjustment method for the general Medicare population. Payments for the MSP population are initially computed from the ESRD model risk factors for non-MSP individuals and are then adjusted downward to reflect the fact that for ESRD, as in the rest of the program, MSP average Medicare costs are 21.5% of the costs that the model predicts for Medicare as the primary payer.

We believe it is not appropriate to create a separate risk adjustment model and ratebook for the MSP population because the number of ESRD beneficiaries with MSP is too small. Use of the average adjustment is appropriate and an improvement over the past method.

**Comment - ESRD notification procedures.** *The commenter asked that CMS issue guidance about procedures plans must follow for direct notification of a transplant.*

**Response.** To implement the new ESRD risk adjustment method, CMS will utilize the existing ESRD information system as the standard for identification of enrollees receiving dialysis services and transplants. However, MA organizations will be given the opportunity to notify CMS directly of a transplant in order to receive more timely transplant payments. CMS will send a technical systems letter in late summer to inform MA organizations of the procedures for direct notification of a transplant. Ultimately, any ESRD status reported by an MA organization will be reconciled against CMS's existing ESRD information system to determine final ESRD status for payment.



## Enclosure IV. Coefficients for CMS-HCC End Stage Renal Disease Model

### Table IV-1. CMS-HCC Dialysis Model<sup>1</sup>

Risk factors are relative to average total Medicare expenditures per capita for dialysis patients.<sup>2</sup>

<b>Variable</b>	<b>Disease Group</b>	<b>Relative Factors</b>
<b>Age/Sex Groups</b>		
Male 0_34		0.647
Male 35_44		0.651
Male 45_54		0.673
Male 55_59		0.721
Male 60_64		0.715
Male 65_69		0.769
Male 70_74		0.781
Male 75_79		0.799
Male 80_84		0.826
Male 85_GT		0.868
Female 0_34		0.721
Female 35_44		0.722
Female 45_54		0.739
Female 55_59		0.731
Female 60_64		0.752
Female 65_69		0.822
Female 70_74		0.843
Female 75_79		0.858
Female 80_84		0.863
Female 85_GT		0.913
<b>Disease Group Factors</b>		
HCC1	HIV/AIDS	0.186
HCC2	Septicemia/Shock	0.077
HCC5	Opportunistic Infections	0.068
HCC7	Metastatic Cancer and Acute Leukemia	0.168
HCC8	Lung, Upper Digestive Tract, and Other Severe Cancers	0.168
HCC9	Lymphatic, Head and Neck, Brain and Other Major Cancers	0.151
HCC10	Breast, Prostate, Colorectal and Other Cancers and Tumors	0.049
HCC15	Diabetes with Renal or Peripheral Circulatory Manifestation	0.105
HCC16	Diabetes with Neurologic or Other Specified Manifestation	0.105
HCC17	Diabetes with Acute Complications	0.105
HCC18	Diabetes with Ophthalmologic or Unspecified Manifestation	0.105
HCC19	Diabetes without Complication	0.105
HCC21	Protein-Calorie Malnutrition	0.071
HCC25	End-Stage Liver Disease	0.116

<b>Variable</b>	<b>Disease Group</b>	<b>Relative Factors</b>
HCC26	Cirrhosis of Liver	0.104
HCC27	Chronic Hepatitis	0.034
HCC31	Intestinal Obstruction/Perforation	0.065
HCC32	Pancreatic Disease	0.079
HCC33	Inflammatory Bowel Disease	0.103
HCC37	Bone/Joint/Muscle Infections/Necrosis	0.138
HCC38	Rheumatoid Arthritis and Inflammatory Connective Tissue Disease	0.093
HCC44	Severe Hematological Disorders	0.095
HCC45	Disorders of Immunity	0.061
HCC51	Drug/Alcohol Psychosis	0.029
HCC52	Drug/Alcohol Dependence	0.029
HCC54	Schizophrenia	0.116
HCC55	Major Depressive, Bipolar, and Paranoid Disorders	0.116
HCC67	Quadriplegia, Other Extensive Paralysis	0.261
HCC68	Paraplegia	0.261
HCC69	Spinal Cord Disorders/Injuries	0.091
HCC70	Muscular Dystrophy	0.075
HCC71	Polyneuropathy	0.049
HCC72	Multiple Sclerosis	0.082
HCC73	Parkinson's and Huntington's Diseases	0.037
HCC74	Seizure Disorders and Convulsions	0.069
HCC75	Coma, Brain Compression/Anoxic Damage	0.073
HCC77	Respirator Dependence/Tracheostomy Status	0.195
HCC78	Respiratory Arrest	0.181
HCC79	Cardio-Respiratory Failure and Shock	0.065
HCC80	Congestive Heart Failure	0.083
HCC81	Acute Myocardial Infarction	0.097
HCC82	Unstable Angina and Other Acute Ischemic Heart Disease	0.097
HCC83	Angina Pectoris/Old Myocardial Infarction	0.036
HCC92	Specified Heart Arrhythmias	0.067
HCC95	Cerebral Hemorrhage	0.059
HCC96	Ischemic or Unspecified Stroke	0.059
HCC100	Hemiplegia/Hemiparesis	0.084
HCC101	Cerebral Palsy and Other Paralytic Syndromes	0.064
HCC104	Vascular Disease with Complications	0.145
HCC105	Vascular Disease	0.060
HCC107	Cystic Fibrosis	0.072
HCC108	Chronic Obstructive Pulmonary Disease	0.072
HCC111	Aspiration and Specified Bacterial Pneumonias	0.121
HCC112	Pneumococcal Pneumonia, Emphysema, Lung Abscess	0.043
HCC119	Proliferative Diabetic Retinopathy and Vitreous Hemorrhage	0.037
HCC148	Decubitus Ulcer of Skin	0.177
HCC149	Chronic Ulcer of Skin, Except Decubitus	0.113

<b>Variable</b>	<b>Disease Group</b>	<b>Relative Factors</b>
HCC150	Extensive Third-Degree Burns	0.083
HCC154	Sever Head Injury	0.073
HCC155	Major Head Injury	0.040
HCC157	Vertebral Fractures without Spinal Cord Injury	0.046
HCC158	Hip Fracture/Dislocation	0.051
HCC161	Traumatic Amputation	0.093
HCC164	Major Complications of Medical Care and Trauma	0.027
HCC174	Major Organ Transplant Status	0.193
HCC176	Artificial Openings for Feeding or Elimination	0.071
HCC177	Amputation Status, Lower Limb/Amputation Complications	0.093
<b>Medicaid Interactions with Age and Sex</b>		
Medicaid_female_aged		0.033
Medicaid_female_disabled		0.052
Medicaid_male_aged		0.047
Medicaid_male_disabled		0.042
<b>Originally Disabled Interactions With Sex</b>		
Female, 65+, Originally Entitled due to ESRD/ w or wo Disability		-0.067
Male, 65+, Originally Entitled due to ESRD/ w or wo Disability		-0.049
Female, 65+, Originally Entitled due to Disability (non-ESRD)		0.052
Male, 65+, Originally Entitled due to Disability (non-ESRD)		0.023
<b>Disabled/Disease Interactions</b>		
D_HCC5	<65*Opportunistic Infections	0.092
D_HCC44	<65*Severe Hematological Disorders	0.070
D_HCC51	<65*Drug/Alcohol Psychosis	0.095
D_HCC52	<65*Drug/Alcohol Dependence	0.095
D_HCC107	<65*Cystic Fibrosis	0.181

<sup>1</sup>This model is used for those enrollees who have a full year of base year claims data.

<sup>2</sup> Mean Year 2000 Total Expenditures = \$53,404.31. Mean is over all dialysis patients including those with Medicare as secondary payer.

**Table IV-2. CMS-HCC Dialysis Model for New Enrollees<sup>1</sup>**

<b>Variable</b>	<b>Relative Factors</b>
<b>Age/Sex Groups</b>	
Male 0_34	0.686
Male 35_44	0.765
Male 45_54	0.805
Male 55_59	0.864
Male 60_64	0.895
Male 65_69	1.019
Male 70_74	1.092
Male 75_79	1.122
Male 80_84	1.168
Male 85_GT	1.204
Female 0_34	0.790
Female 35_44	0.819
Female 45_54	0.899
Female 55_59	0.909
Female 60_64	0.940
Female 65_69	1.102
Female 70_74	1.189
Female 75_84	1.215
Female 85_GT	1.256
<b>Medicaid Interactions with Age and Sex</b>	
Medicaid_female_aged	0.104
Medicaid_female_disabled	0.183
Medicaid_male_aged	0.144
Medicaid_male_disabled	0.184
<b>Originally Disabled Interactions With Sex</b>	
Male <65, originally entitled due to disability (non-ESRD)	0.206
Male 65+, originally entitled due to disability (non-ESRD)	0.206
Female <65, originally entitled due to disability (non-ESRD)	0.215
Female 65+, originally entitled due to disability (non-ESRD)	0.215

**Notes:**

<sup>1</sup>New Enrollees are those enrollees who do not have a full year of base year claims data.

Mean Year 2000 Total Expenditures = \$53,404.31. Mean is over all dialysis patients including those with Medicare as secondary payer.

**Table IV-3. Transplant Calculations**

Under the CMS-HCC risk adjustment system of payments for ESRD patients, payment for transplants is carved out of the payments for all ESRD patients. The payment factor for a transplant is based on the average Medicare costs for transplant admissions and the two months subsequent to discharge. When CMS is notified of a transplant, three monthly payments are made. Instead of a dialysis risk factor being the basis for payment in those months, a transplant factor is used and applied to the dialysis rate book. After the three months, payment is made at the functioning graft rate or at the dialysis rate, as appropriate.

<b>Transplant Calculations</b>				
	<b>Kidney Only Dollars</b>	<b>Kidney plus Pancreas Dollars</b>	<b>Kidney Only Relative Factor</b>	<b>Kidney Plus Pancreas Relative Factor</b>
Month 1	\$33,424	\$50,136	7.510	11.266
Month 2	4,523	6,785	1.016	1.525
Month 3	4,523	6,785	1.016	1.525
Total	42,470	63,705		

Note: To compute the relative factors, the national mean of annual dialysis patient costs was converted to a monthly amount and the transplant monthly costs were divided by this number.

Mean annual dialysis costs: \$53,404.31  
 Costs per month: \$4,450.36

**Table IV-4.  
CMS-HCC Community and Institutional Models for Functioning Graft<sup>1</sup>**

Additional payment factors for functioning graft status are at bottom of table.

<b>Variable</b>	<b>Disease Group</b>	<b>Community Relative Factor</b>	<b>Con- straints<sup>2</sup></b>	<b>Institutional Relative Factor</b>	<b>Con- straints<sup>2</sup></b>
<b><u>Age/Sex Groups</u></b>					
Female0_34		0.117		<u>1.064</u>	
Female35_44		0.197		<u>1.064</u>	
Female45_54		0.214		<u>1.064</u>	
Female55_59		0.265		<u>1.064</u>	
Female60_64		0.375		<u>1.064</u>	
Female65_69		0.307		1.164	
Female70_74		0.384		1.179	
Female75_79		0.483		0.992	
Female80_84		0.572		0.938	
Female85_89		0.665		0.880	
Female90_94		0.795		0.789	
Female95_GT		0.805		0.581	
Male0_34		0.068		<u>1.104</u>	
Male35_44		0.120		<u>1.104</u>	
Male45_54		0.190		<u>1.104</u>	
Male55_59		0.270		<u>1.104</u>	
Male60_64		0.342		<u>1.104</u>	
Male65_69		0.346		1.450	
Male70_74		0.453		1.238	
Male75_79		0.577		1.211	
Male80_84		0.657		1.209	
Male85_89		0.790		1.241	
Male90_94		0.901		1.049	
Male95_GT		1.035		0.836	
<b><u>Medicaid and Originally Disabled Interactions with Age and Sex<sup>5</sup></u></b>				0.000	
Medicaid_female_disabled		0.221		0.000	
Medicaid_female_aged		0.183		0.000	
Medicaid_male_disabled		0.115		0.000	
Medicaid_male_aged		0.184		0.000	
Female, 65+, originally entitled due to disability		0.236		0.000	
Male, 65+, originally entitled due to disability		0.148		0.000	

Variable	Disease Group	Community Relative Factor	Con- straints <sup>2</sup>	Institutional Relative Factor	Con- straints <sup>2</sup>
<b><u>Disease Group Factors</u></b>					
HCC1	HIV/AIDS	0.685		<u>1.344</u>	C1
HCC2	Septicemia/Shock	0.890		0.946	
HCC5	Opportunistic Infections	0.652		<u>1.344</u>	C1
HCC7	Metastatic Cancer and Acute Leukemia	<u>1.464</u>		<u>0.540</u>	
HCC8	Lung, Upper Digestive Tract, and Other Severe Cancers	<u>1.464</u>		<u>0.540</u>	
HCC9	Lymphatic, Head and Neck, Brain and Other Cancers	0.690		0.452	
HCC10	Breast, Prostate, Colorectal and Other Cancers and Tumors	0.233		0.259	
HCC15	Diabetes with Renal or Peripheral Circulatory Manifestation	0.764		<u>0.612</u>	
HCC16	Diabetes with Neurologic or Other Specified Manifestation	0.552		<u>0.612</u>	
HCC17	Diabetes with Acute Complications	0.391		<u>0.612</u>	
HCC18	Diabetes with Ophthalmologic or Unspecified Manifestation	0.343		<u>0.612</u>	
HCC19	Diabetes without Complication	0.200		0.255	
HCC21	Protein-Calorie Malnutrition	0.922		0.427	
HCC25	End-Stage Liver Disease	0.900		<u>0.268</u>	
HCC26	Cirrhosis of Liver	0.516		<u>0.268</u>	
HCC27	Chronic Hepatitis	0.359		<u>0.268</u>	
HCC31	Intestinal Obstruction/Perforation	0.408		<u>0.268</u>	
HCC32	Pancreatic Disease	0.445		<u>0.268</u>	
HCC33	Inflammatory Bowel Disease	0.307		<u>0.268</u>	
HCC37	Bone/Joint/Muscle Infections/Necrosis	0.496		0.495	
HCC38	Rheumatoid Arthritis and Inflammatory Connective Tissue Disease	0.322		0.285	
HCC44	Severe Hematological Disorders	1.011		<u>0.448</u>	
HCC45	Disorders of Immunity	0.830		<u>0.448</u>	
HCC51	Drug/Alcohol Psychosis	0.353		<u>0.221</u>	
HCC52	Drug/Alcohol Dependence	0.265		<u>0.221</u>	
HCC54	Schizophrenia	0.543		<u>0.221</u>	
HCC55	Major Depressive, Bipolar, and Paranoid Disorders	0.431		<u>0.221</u>	
HCC67	Quadriplegia, Other Extensive Paralysis	<u>1.181</u>		<u>0.098</u>	<u>C2</u>
HCC68	Paraplegia	<u>1.181</u>		<u>0.098</u>	<u>C2</u>
HCC69	Spinal Cord Disorders/Injuries	0.492		<u>0.098</u>	<u>C2</u>

Variable	Disease Group	Community Relative Factor	Con- straints <sup>2</sup>	Institutional Relative Factor	Con- straints <sup>2</sup>
HCC70	Muscular Dystrophy	0.386		<u>0.098</u>	<u>C2</u>
HCC71	Polyneuropathy	0.268		<u>0.098</u>	<u>C2</u>
HCC72	Multiple Sclerosis	0.517		<u>0.098</u>	<u>C2</u>
HCC73	Parkinson's and Huntington's Diseases	0.475		<u>0.098</u>	<u>C2</u>
HCC74	Seizure Disorders and Convulsions	0.269		<u>0.098</u>	<u>C2</u>
HCC75	Coma, Brain Compression/Anoxic Damage	0.568	C1	<u>0.098</u>	<u>C2</u>
HCC77	Respirator Dependence/Tracheostomy Status	2.102		<u>1.415</u>	
HCC78	Respiratory Arrest	1.429		<u>1.415</u>	
HCC79	Cardio-Respiratory Failure and Shock	0.692		0.289	
HCC80	Congestive Heart Failure	0.417		0.176	
HCC81	Acute Myocardial Infarction	<u>0.348</u>		<u>0.288</u>	
HCC82	Unstable Angina and Other Acute Ischemic Heart Disease	<u>0.348</u>		<u>0.288</u>	
HCC83	Angina Pectoris/Old Myocardial Infarction	0.235		<u>0.288</u>	
HCC92	Specified Heart Arrhythmias	0.266		0.187	
HCC95	Cerebral Hemorrhage	0.392		<u>0.151</u>	
HCC96	Ischemic or Unspecified Stroke	0.306		<u>0.151</u>	
HCC100	Hemiplegia/Hemiparesis	0.437		<u>0.098</u>	C2
HCC101	Cerebral Palsy and Other Paralytic Syndromes	0.164		<u>0.098</u>	C2
HCC104	Vascular Disease with Complications	0.677		0.509	
HCC105	Vascular Disease	0.357		0.114	
HCC107	Cystic Fibrosis	<u>0.376</u>		<u>0.230</u>	
HCC108	Chronic Obstructive Pulmonary Disease	<u>0.376</u>		<u>0.230</u>	
HCC111	Aspiration and Specified Bacterial Pneumonias	0.693		<u>0.463</u>	
HCC112	Pneumococcal Pneumonia, Emphysema, Lung Abscess	0.202		<u>0.463</u>	
HCC119	Proliferative Diabetic Retinopathy and Vitreous Hemorrhage	0.349		0.995	
HCC130 <sup>4</sup>	Dialysis Status	0.000		0.000	
HCC131 <sup>4</sup>	Renal Failure	0.000		0.000	
HCC132	Nephritis	0.273		0.420	
HCC148	Decubitus Ulcer of Skin	1.030		0.317	
HCC149	Chronic Ulcer of Skin, Except Decubitus	0.484		0.262	
HCC150	Extensive Third-Degree Burns	0.962		<u>0.248</u>	<u>C3</u>



Variable	Disease Group	Community Relative Factor	Con- straints <sup>2</sup>	Institutional Relative Factor	Con- straints <sup>2</sup>
HCC154	Sever Head Injury	0.568	C1	0.248	C3
HCC155	Major Head Injury	0.242		0.248	C3
HCC157	Vertebral Fractures without Spinal Cord Injury	0.490		0.098	C2
HCC158 <sup>5</sup>	Hip Fracture/Dislocation	0.392		0.000	
HCC161	Traumatic Amputation	0.843	C2	0.248	C3
HCC164	Major Complications of Medical Care and Trauma	0.262		0.263	
HCC174	Major Organ Transplant Status	0.261		0.319	
HCC176	Artificial Openings for Feeding or Elimination	0.790		0.882	
HCC177	Amputation Status, Lower Limb/Amputation Complications	0.843	C2	0.248	C3
<u>Disabled/Disease Interactions<sup>5</sup></u>					
D_HCC5 <sup>5</sup>	<65*Opportunistic Infections	0.789		0.000	
D_HCC44 <sup>5</sup>	<65*Severe Hematological Disorders	0.893		0.000	
D_HCC51 <sup>5</sup>	<65*Drug/Alcohol Psychosis	0.509		0.000	
D_HCC52 <sup>5</sup>	<65*Drug/Alcohol Dependence	0.414		0.000	
D_HCC107 <sup>5</sup>	<65*Cystic Fibrosis	1.861		0.000	
<u>Disease Interactions<sup>3</sup></u>					
INT1	DM_CHF	0.253		0.207	
INT2 <sup>5</sup>	DM_CVD	0.125		0.000	
INT3	CHF_COPD	0.241		0.372	
INT4 <sup>5</sup>	COPD_CVD_CAD	0.079		0.000	
INT5 <sup>4</sup>	RF_CHF	0.000		0.000	
INT6 <sup>4</sup>	RF_CHF_DM	0.000		0.000	
<u>Graft Factors<sup>6</sup></u>					
	<65, with duration since transplant of 4-9 months	3.091		3.091	
	65+, with duration since transplant of 4-9 months	3.425		3.425	
	<65, with duration since transplant of 10 months or more	1.620		1.620	
	65+, with duration since transplant of 10 months or more	1.691		1.691	

**Notes:**

<sup>1</sup>To determine payment for persons with functioning grafts, the computed risk factor should be applied to the appropriate cell in the CMS-HCC county risk ratebook for the aged and disabled. For payment in any month, duration is measured from the month of transplant to the first day of that month. All coefficients except for the graft factors and HCC174 are restricted to the values estimates for the CMS-HCC payment models.

<sup>2</sup>\_\_\_\_\_ means coefficients of HCCs are constrained to be equal, and C1, C2, and C3 denote non-contiguous constraints. For the community model C1=0.568, and C2=0.843; for the institutional model C1=1.344. C2=0.098, and C3=0.248.

<sup>3</sup>Diseases in interactions are:

DM= diabetes mellitus (HCCs 15-19)

CHF= congestive heart failure (HCC 80)

COPD= chronic obstructive pulmonary disease (HCC 108)

CVD= cerebrovascular disease (HCCs 95-96, 100-101)

CAD= coronary artery disease (HCCs 81-83)

RF= renal failure (HCC 131)

<sup>4</sup>These HCC's are not in the model for those in functioning graft status.

<sup>5</sup>These HCCs not present in institutional model.

<sup>6</sup>The graft factors are additive, similar to any other factors in the CMS-HCC model. The factor is higher during the months immediately after transplant to account for a high level of monitoring and services.

**Table IV-5. List Of Disease Groups (HCCs) in Hierarchies**

If the Disease Group is Listed in This Column...		...Then Drop the Associated Disease Group(s) Listed in This Column
Disease Group (HCC)	Disease Group Label	Disease Group (HCC)
5	Opportunistic Infections	112
7	Metastatic Cancer and Acute Leukemia	8,9,10
8	Lung, Upper Digestive Tract, and Other Severe Cancers	9,10
9	Lymphatic, Head and Neck, Brain and Other Major Cancers	10
15	Diabetes with Renal Manifestations	16,17,18,19
16	Diabetes with Neurologic or Other Specified Manifestation	17,18,19
17	Diabetes with Acute Complications	18,19
18	Diabetes with Ophthalmologic Manifestations	19
25	End-Stage Liver Disease	26,27
26	Cirrhosis of Liver	27
51	Drug/Alcohol Psychosis	52
54	Schizophrenia	55
67	Quadriplegia, Other Extensive Paralysis	68,69,100,101,157
68	Paraplegia	69,100,101,157
69	Spinal Cord Disorders/Injuries	157
77	Respirator Dependence/ Tracheostomy Status	78,79
78	Respiratory Arrest	79
81	Acute Myocardial Infarction	82,83
82	Unstable Angina and Other Acute Ischemic Heart Disease	83
95	Cerebral Hemorrhage	96
100	Hemiplegia/Hemiparesis	101
104	Vascular Disease with Complications	105,149
111	Aspiration and Specified Bacterial Pneumonias	112
130	Dialysis Status	131,132
131	Renal Failure	132
148	Decubitus Ulcer of the Skin	149
154	Severe Head Injury, Coma, Brain Compression/Anoxic Damage	75,155
161	Traumatic Amputation	177

**How Payments are Made with a Disease Hierarchy.**

**EXAMPLE:** If a beneficiary triggers Disease Groups 148 (Decubitus Ulcer of the Skin) and 149 (Chronic Ulcer of Skin, Except Decubitus), then DG 149 will be dropped. In other words, payment will always be associated with the DG in column 1, if a DG in column 3 also occurs during the same collection period. Therefore, the M+C organization's payment will be based on DG 148 rather than DG 149.