



**Date:** April 12, 2018

**Subject: 2019 Benefit Year Final HHS Risk Adjustment Model Coefficients**

The 2019 benefit year final HHS risk adjustment model factors included in the HHS Notice of Benefit and Payment Parameters for 2019 final rule<sup>1</sup> contain a few errors in the adult risk adjustment model factors (Table 2) and the infant risk adjustment model factors (Table 5). This document reflects the correct final adult and infant risk adjustment model factors for the 2019 benefit year with the amended factors highlighted. We will also publish a correction notice to the final rule. For convenience, we are also including below the final 2019 benefit year child risk adjustment model factors (Table 4); no changes were made to the factors in this Table.

**TABLE 2: Final Adult Risk Adjustment Model Factors for 2019 Benefit Year**

HCC or RXC No.	Factor	Platinum	Gold	Silver	Bronze	Catastrophic
<i>Demographic Factors</i>						
	Age 21-24, Male	0.167	0.133	0.091	0.051	0.048
	Age 25-29, Male	0.153	0.119	0.078	0.037	0.034
	Age 30-34, Male	0.186	0.144	0.093	0.043	0.039
	Age 35-39, Male	0.236	0.185	0.125	0.063	0.058
	Age 40-44, Male	0.292	0.233	0.164	0.093	0.088
	Age 45-49, Male	0.346	0.280	0.202	0.121	0.115
	Age 50-54, Male	0.455	0.378	0.287	0.192	0.184
	Age 55-59, Male	0.511	0.424	0.324	0.217	0.209
	Age 60-64, Male	0.573	0.473	0.359	0.235	0.225
	Age 21-24, Female	0.269	0.218	0.153	0.088	0.083
	Age 25-29, Female	0.304	0.245	0.173	0.098	0.092
	Age 30-34, Female	0.410	0.338	0.253	0.167	0.160
	Age 35-39, Female	0.491	0.410	0.317	0.226	0.219
	Age 40-44, Female	0.545	0.454	0.352	0.249	0.241
	Age 45-49, Female	0.553	0.458	0.350	0.237	0.229
	Age 50-54, Female	0.616	0.516	0.401	0.278	0.268
	Age 55-59, Female	0.601	0.499	0.380	0.252	0.241

<sup>1</sup> Patient Protection and Affordable Care Act; HHS Notice of Benefit and Payment Parameters for 2019; Final Rule, (on display April 9, 2018), available at: <https://s3.amazonaws.com/public-inspection.federalregister.gov/2018-07355.pdf>.

HCC or RXC No.	Factor	Platinum	Gold	Silver	Bronze	Catastrophic
	Age 60-64, Female	0.616	0.505	0.379	0.240	0.229
<i>Diagnosis Factors</i>						
HCC001	HIV/AIDS	0.626	0.529	0.434	0.359	0.352
HCC002	Septicemia, Sepsis, Systemic Inflammatory Response Syndrome/Shock	8.000	7.812	7.688	7.731	7.737
HCC003	Central Nervous System Infections, Except Viral Meningitis	5.750	5.666	5.604	5.625	5.626
HCC004	Viral or Unspecified Meningitis	4.396	4.192	4.060	3.989	3.983
HCC006	Opportunistic Infections	6.143	6.060	6.006	5.972	5.968
HCC008	Metastatic Cancer	21.806	21.372	21.040	21.084	21.087
HCC009	Lung, Brain, and Other Severe Cancers, Including Pediatric Acute Lymphoid Leukemia	12.392	12.068	11.825	11.807	11.804
HCC010	Non-Hodgkin`s Lymphomas and Other Cancers and Tumors	5.575	5.356	5.189	5.117	5.110
HCC011	Colorectal, Breast (Age < 50), Kidney, and Other Cancers	4.291	4.074	3.905	3.831	3.823
HCC012	Breast (Age 50+) and Prostate Cancer, Benign/Uncertain Brain Tumors, and Other Cancers and Tumors	2.640	2.482	2.356	2.283	2.276
HCC013	Thyroid Cancer, Melanoma, Neurofibromatosis, and Other Cancers and Tumors	1.211	1.084	0.976	0.860	0.849
HCC018	Pancreas Transplant Status/Complications	4.439	4.246	4.114	4.122	4.122
HCC019	Diabetes with Acute Complications	0.603	0.531	0.463	0.389	0.381
HCC020	Diabetes with Chronic Complications	0.603	0.531	0.463	0.389	0.381
HCC021	Diabetes without Complication	0.603	0.531	0.463	0.389	0.381
HCC023	Protein-Calorie Malnutrition	11.438	11.430	11.416	11.494	11.502
HCC026	Mucopolysaccharidosis	2.380	2.280	2.200	2.137	2.132
HCC027	Lipidoses and Glycogenosis	2.380	2.280	2.200	2.137	2.132
HCC029	Amyloidosis, Porphyria, and Other Metabolic Disorders	2.380	2.280	2.200	2.137	2.132
HCC030	Adrenal, Pituitary, and Other Significant Endocrine Disorders	2.380	2.280	2.200	2.137	2.132
HCC034	Liver Transplant Status/Complications	10.515	10.418	10.353	10.334	10.331
HCC035	End-Stage Liver Disease	5.696	5.491	5.349	5.341	5.339

HCC or RXC No.	Factor	Platinum	Gold	Silver	Bronze	Catastrophic
HCC036	Cirrhosis of Liver	1.995	1.868	1.780	1.725	1.720
HCC037_1	Chronic Viral Hepatitis C	0.707	0.604	0.545	0.509	0.505
HCC037_2	Chronic Hepatitis, Other/Unspecified	0.703	0.584	0.523	0.474	0.469
HCC038	Acute Liver Failure/Disease, Including Neonatal Hepatitis	4.300	4.155	4.055	4.026	4.024
HCC041	Intestine Transplant Status/Complications	28.253	28.206	28.169	28.209	28.209
HCC042	Peritonitis/Gastrointestinal Perforation/Necrotizing Enterocolitis	9.718	9.488	9.318	9.328	9.329
HCC045	Intestinal Obstruction	5.510	5.274	5.115	5.104	5.102
HCC046	Chronic Pancreatitis	4.439	4.246	4.114	4.122	4.122
HCC047	Acute Pancreatitis/Other Pancreatic Disorders and Intestinal Malabsorption	2.243	2.085	1.972	1.896	1.888
HCC048	Inflammatory Bowel Disease	2.192	2.011	1.868	1.765	1.755
HCC054	Necrotizing Fasciitis	5.507	5.332	5.200	5.206	5.207
HCC055	Bone/Joint/Muscle Infections/Necrosis	5.507	5.332	5.200	5.206	5.207
HCC056	Rheumatoid Arthritis and Specified Autoimmune Disorders	3.316	3.130	2.980	2.923	2.918
HCC057	Systemic Lupus Erythematosus and Other Autoimmune Disorders	0.993	0.878	0.780	0.666	0.654
HCC061	Osteogenesis Imperfecta and Other Osteodystrophies	2.654	2.477	2.337	2.257	2.249
HCC062	Congenital/Developmental Skeletal and Connective Tissue Disorders	2.654	2.477	2.337	2.257	2.249
HCC063	Cleft Lip/Cleft Palate	1.417	1.266	1.155	1.071	1.065
HCC066	Hemophilia	53.096	52.795	52.549	52.553	52.553
HCC067	Myelodysplastic Syndromes and Myelofibrosis	12.454	12.326	12.228	12.227	12.227
HCC068	Aplastic Anemia	12.454	12.326	12.228	12.227	12.227
HCC069	Acquired Hemolytic Anemia, Including Hemolytic Disease of Newborn	7.864	7.738	7.636	7.604	7.602
HCC070	Sickle Cell Anemia (Hb-SS)	7.864	7.738	7.636	7.604	7.602
HCC071	Thalassemia Major	7.864	7.738	7.636	7.604	7.602
HCC073	Combined and Other Severe Immunodeficiencies	5.198	5.074	4.982	4.979	4.979
HCC074	Disorders of the Immune Mechanism	5.198	5.074	4.982	4.979	4.979

<b>HCC or RXC No.</b>	<b>Factor</b>	<b>Platinum</b>	<b>Gold</b>	<b>Silver</b>	<b>Bronze</b>	<b>Catastrophic</b>
HCC075	Coagulation Defects and Other Specified Hematological Disorders	2.657	2.572	2.503	2.464	2.461
HCC081	Drug Psychosis	3.804	3.574	3.401	3.278	3.265
HCC082	Drug Dependence	3.804	3.574	3.401	3.278	3.265
HCC087	Schizophrenia	3.057	2.822	2.651	2.559	2.550
HCC088	Major Depressive and Bipolar Disorders	1.624	1.472	1.350	1.231	1.219
HCC089	Reactive and Unspecified Psychosis, Delusional Disorders	1.624	1.472	1.350	1.231	1.219
HCC090	Personality Disorders	1.124	1.010	0.901	0.780	0.769
HCC094	Anorexia/Bulimia Nervosa	2.549	2.397	2.275	2.201	2.194
HCC096	Prader-Willi, Patau, Edwards, and Autosomal Deletion Syndromes	4.019	3.924	3.847	3.789	3.783
HCC097	Down Syndrome, Fragile X, Other Chromosomal Anomalies, and Congenital Malformation Syndromes	1.056	0.963	0.880	0.802	0.795
HCC102	Autistic Disorder	1.124	1.010	0.901	0.780	0.769
HCC103	Pervasive Developmental Disorders, Except Autistic Disorder	1.124	1.010	0.901	0.780	0.769
HCC106	Traumatic Complete Lesion Cervical Spinal Cord	9.989	9.853	9.752	9.735	9.732
HCC107	Quadriplegia	9.989	9.853	9.752	9.735	9.732
HCC108	Traumatic Complete Lesion Dorsal Spinal Cord	7.568	7.420	7.310	7.278	7.274
HCC109	Paraplegia	7.568	7.420	7.310	7.278	7.274
HCC110	Spinal Cord Disorders/Injuries	5.212	5.008	4.857	4.816	4.812
HCC111	Amyotrophic Lateral Sclerosis and Other Anterior Horn Cell Disease	1.965	1.764	1.620	1.534	1.524
HCC112	Quadriplegic Cerebral Palsy	0.302	0.192	0.120	0.072	0.071
HCC113	Cerebral Palsy, Except Quadriplegic	0.255	0.176	0.120	0.072	0.071
HCC114	Spina Bifida and Other Brain/Spinal/Nervous System Congenital Anomalies	0.355	0.300	0.265	0.241	0.236
HCC115	Myasthenia Gravis/Myoneural Disorders and Guillain-Barre Syndrome/Inflammatory and Toxic Neuropathy	5.262	5.137	5.045	5.027	5.025
HCC117	Muscular Dystrophy	2.064	1.922	1.819	1.720	1.708
HCC118	Multiple Sclerosis	8.436	8.144	7.920	7.895	7.892

<b>HCC or RXC No.</b>	<b>Factor</b>	<b>Platinum</b>	<b>Gold</b>	<b>Silver</b>	<b>Bronze</b>	<b>Catastrophic</b>
HCC119	Parkinson`s, Huntington`s, and Spinocerebellar Disease, and Other Neurodegenerative Disorders	2.064	1.922	1.819	1.720	1.708
HCC120	Seizure Disorders and Convulsions	1.390	1.248	1.138	1.044	1.035
HCC121	Hydrocephalus	5.922	5.814	5.724	5.696	5.694
HCC122	Non-Traumatic Coma, and Brain Compression/Anoxic Damage	8.310	8.176	8.067	8.059	8.058
HCC125	Respirator Dependence/Tracheostomy Status	26.626	26.590	26.555	26.637	26.644
HCC126	Respiratory Arrest	8.048	7.900	7.794	7.864	7.872
HCC127	Cardio-Respiratory Failure and Shock, Including Respiratory Distress Syndromes	8.048	7.900	7.794	7.864	7.872
HCC128	Heart Assistive Device/Artificial Heart	28.421	28.219	28.071	28.120	28.125
HCC129	Heart Transplant	28.421	28.219	28.071	28.120	28.125
HCC130	Congestive Heart Failure	2.800	2.705	2.635	2.624	2.623
HCC131	Acute Myocardial Infarction	8.077	7.789	7.577	7.664	7.672
HCC132	Unstable Angina and Other Acute Ischemic Heart Disease	4.820	4.558	4.388	4.378	4.378
HCC135	Heart Infection/Inflammation, Except Rheumatic	5.473	5.356	5.268	5.237	5.235
HCC142	Specified Heart Arrhythmias	2.467	2.335	2.233	2.158	2.150
HCC145	Intracranial Hemorrhage	7.621	7.366	7.186	7.162	7.159
HCC146	Ischemic or Unspecified Stroke	2.164	2.012	1.918	1.896	1.894
HCC149	Cerebral Aneurysm and Arteriovenous Malformation	3.167	2.994	2.869	2.802	2.796
HCC150	Hemiplegia/ Hemiparesis	4.517	4.422	4.355	4.402	4.407
HCC151	Monoplegia, Other Paralytic Syndromes	2.734	2.612	2.525	2.486	2.482
HCC153	Atherosclerosis of the Extremities with Ulceration or Gangrene	9.056	8.976	8.915	9.004	9.013
HCC154	Vascular Disease with Complications	6.714	6.556	6.439	6.424	6.422
HCC156	Pulmonary Embolism and Deep Vein Thrombosis	3.352	3.207	3.101	3.044	3.038
HCC158	Lung Transplant Status/Complications	25.564	25.421	25.310	25.384	25.391

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HCC159	Cystic Fibrosis	14.108	13.825	13.596	13.601	13.601
HCC160	Chronic Obstructive Pulmonary Disease, Including Bronchiectasis	0.878	0.776	0.686	0.591	0.582
HCC161	Asthma	0.878	0.776	0.686	0.591	0.582
HCC162	Fibrosis of Lung and Other Lung Disorders	1.869	1.767	1.693	1.639	1.633
HCC163	Aspiration and Specified Bacterial Pneumonias and Other Severe Lung Infections	6.270	6.223	6.188	6.194	6.195
HCC183	Kidney Transplant Status	7.462	7.260	7.119	7.070	7.064
HCC184	End Stage Renal Disease	29.905	29.678	29.495	29.641	29.654
HCC187	Chronic Kidney Disease, Stage 5	1.319	1.263	1.224	1.233	1.235
HCC188	Chronic Kidney Disease, Stage 4	1.319	1.263	1.224	1.233	1.235
HCC203	Ectopic and Molar Pregnancy, Except with Renal Failure, Shock, or Embolism	1.156	1.011	0.879	0.670	0.648
HCC204	Miscarriage with Complications	1.156	1.011	0.879	0.670	0.648
HCC205	Miscarriage with No or Minor Complications	1.156	1.011	0.879	0.670	0.648
HCC207	Completed Pregnancy With Major Complications	3.329	2.913	2.690	2.416	2.386
HCC208	Completed Pregnancy With Complications	3.329	2.913	2.690	2.416	2.386
HCC209	Completed Pregnancy with No or Minor Complications	3.329	2.913	2.690	2.416	2.386
HCC217	Chronic Ulcer of Skin, Except Pressure	1.988	1.888	1.818	1.798	1.796
HCC226	Hip Fractures and Pathological Vertebral or Humerus Fractures	8.801	8.587	8.428	8.457	8.460
HCC227	Pathological Fractures, Except of Vertebrae, Hip, or Humerus	3.874	3.744	3.644	3.579	3.575
HCC251	Stem Cell, Including Bone Marrow, Transplant Status/Complications	24.334	24.334	24.329	24.357	24.360
HCC253	Artificial Openings for Feeding or Elimination	8.284	8.198	8.131	8.164	8.168
HCC254	Amputation Status, Lower Limb/Amputation Complications	3.486	3.371	3.290	3.313	3.316
<i>Interaction Factors</i>						

<b>HCC or RXC No.</b>	<b>Factor</b>	<b>Platinum</b>	<b>Gold</b>	<b>Silver</b>	<b>Bronze</b>	<b>Catastrophic</b>
SEVERE x HCC006	Severe illness x Opportunistic Infections	7.694	7.897	8.035	8.180	8.193
SEVERE x HCC008	Severe illness x Metastatic Cancer	7.694	7.897	8.035	8.180	8.193
SEVERE x HCC009	Severe illness x Lung, Brain, and Other Severe Cancers, Including Pediatric Acute Lymphoid Leukemia	7.694	7.897	8.035	8.180	8.193
SEVERE x HCC010	Severe illness x Non- Hodgkin's Lymphomas and Other Cancers and Tumors	7.694	7.897	8.035	8.180	8.193
SEVERE x HCC115	Severe illness x Myasthenia Gravis/Myoneural Disorders and Guillain-Barre Syndrome/Inflammatory and Toxic Neuropathy	7.694	7.897	8.035	8.180	8.193
SEVERE x HCC135	Severe illness x Heart Infection/Inflammation, Except Rheumatic	7.694	7.897	8.035	8.180	8.193
SEVERE x HCC145	Severe illness x Intracranial Hemorrhage	7.694	7.897	8.035	8.180	8.193
SEVERE x G06	Severe illness x HCC group G06 (G06 is HCC Group 6 which includes the following HCCs in the blood disease category: 67, 68)	7.694	7.897	8.035	8.180	8.193
SEVERE x G08	Severe illness x HCC group G08 (G08 is HCC Group 8 which includes the following HCCs in the blood disease category: 73, 74)	7.694	7.897	8.035	8.180	8.193
SEVERE x HCC035	Severe illness x End-Stage Liver Disease	1.449	1.541	1.596	1.722	1.733
SEVERE x HCC038	Severe illness x Acute Liver Failure/Disease, Including Neonatal Hepatitis	1.449	1.541	1.596	1.722	1.733
SEVERE x HCC153	Severe illness x Atherosclerosis of the Extremities with Ulceration or Gangrene	1.449	1.541	1.596	1.722	1.733

<b>HCC or RXC No.</b>	<b>Factor</b>	<b>Platinum</b>	<b>Gold</b>	<b>Silver</b>	<b>Bronze</b>	<b>Catastrophic</b>
SEVERE x HCC154	Severe illness x Vascular Disease with Complications	1.449	1.541	1.596	1.722	1.733
SEVERE x HCC163	Severe illness x Aspiration and Specified Bacterial Pneumonias and Other Severe Lung Infections	1.449	1.541	1.596	1.722	1.733
SEVERE x HCC253	Severe illness x Artificial Openings for Feeding or Elimination	1.449	1.541	1.596	1.722	1.733
SEVERE x G03	Severe illness x HCC group G03 (G03 is HCC Group 3 which includes the following HCCs in the musculoskeletal disease category: 54, 55)	1.449	1.541	1.596	1.722	1.733
<i>Enrollment Duration Factors</i>						
	1 month of enrollment	0.417	0.365	0.325	0.306	0.305
	2 months of enrollment	0.382	0.333	0.293	0.275	0.273
	3 months of enrollment	0.327	0.282	0.244	0.227	0.225
	4 months of enrollment	0.279	0.240	0.206	0.189	0.188
	5 months of enrollment	0.249	0.216	0.185	0.169	0.168
	6 months of enrollment	0.207	0.181	0.153	0.138	0.137
	7 months of enrollment	0.189	0.165	0.141	0.126	0.125
	8 months of enrollment	0.137	0.120	0.102	0.091	0.091
	9 months of enrollment	0.097	0.085	0.074	0.067	0.067
	10 months of enrollment	0.070	0.065	0.060	0.057	0.057
	11 months of enrollment	0.064	0.060	0.057	0.055	0.055
<i>Prescription Drug Factors</i>						
RXC 01	Anti-HIV Agents	7.822	7.257	6.830	6.605	6.580
RXC 02	Anti-Hepatitis C (HCV) Agents	39.880	39.337	38.905	39.062	39.075
RXC 03	Antiarrhythmics	0.113	0.113	0.113	0.113	0.113
RXC 04	Phosphate Binders	0.730	0.730	0.730	0.730	0.730
RXC 05	Inflammatory Bowel Disease Agents	2.022	1.842	1.701	1.509	1.487
RXC 06	Insulin	1.498	1.349	1.185	0.993	0.973
RXC 07	Anti-Diabetic Agents, Except Insulin and Metformin Only	0.495	0.430	0.361	0.272	0.264
RXC 08	Multiple Sclerosis Agents	21.141	20.350	19.757	19.731	19.721
RXC 09	Immune Suppressants and Immunomodulators	13.273	12.681	12.240	12.270	12.268
RXC 10	Cystic Fibrosis Agents	13.045	12.712	12.485	12.565	12.574
RXC 01 x HCC001	Additional effect for enrollees with RXC 01 (Anti-HIV Agents) and HCC 001 (HIV/AIDS)	2.459	2.560	2.655	3.010	3.046



<b>HCC or RXC No.</b>	<b>Factor</b>	<b>Platinum</b>	<b>Gold</b>	<b>Silver</b>	<b>Bronze</b>	<b>Catastrophic</b>
RXC 02 x HCC037_1, 036, 035, 034	Additional effect for enrollees with RXC 02 (Anti-Hepatitis C (HCV) Agents) and (HCC 037_1 (Chronic Viral Hepatitis C) or 036 (Cirrhosis of Liver) or 035 (End-Stage Liver Disease) or 034 (Liver Transplant Status/Complications))	2.645	2.838	2.974	3.020	3.025
RXC 03 x HCC142	Additional effect for enrollees with RxC 03 (Antiarrhythmics) and HCC 142 (Specified Heart Arrhythmias)	0.000	0.000	0.000	0.000	0.000
RXC 04 x HCC184, 183, 187, 188	Additional effect for enrollees with RxC 04 (Phosphate Binders) and (HCC 184 (End Stage Renal Disease) or 183 (Kidney Transplant Status) or 187 (Chronic Kidney Disease, Stage 5) or 188 (Chronic Kidney Disease, Severe Stage 4))	0.000	0.000	0.000	0.000	0.000
RXC 05 x HCC048, 041	Additional effect for enrollees with RxC 05 (Inflammatory Bowel Disease Agents) and (HCC 048 (Inflammatory Bowel Disease) or 041 (Intestine Transplant Status/Complications))	-1.192	-1.096	-0.997	-0.888	-0.878
RXC 06 x HCC018, 019, 020, 021	Additional effect for enrollees with RxC 06 (Insulin) and (HCC 018 (Pancreas Transplant Status/Complications) or 019 (Diabetes with Acute Complications) or 020 (Diabetes with Chronic Complications) or 021 (Diabetes without Complication))	0.421	0.395	0.456	0.533	0.538

<b>HCC or RXC No.</b>	<b>Factor</b>	<b>Platinum</b>	<b>Gold</b>	<b>Silver</b>	<b>Bronze</b>	<b>Catastrophic</b>
RXC 07 x HCC018, 019, 020, 021	Additional effect for enrollees with RxC 07 (Anti-Diabetic Agents, Except Insulin and Metformin Only) and (HCC 018 (Pancreas Transplant Status/Complications) or 019 (Diabetes with Acute Complications) or 020 (Diabetes with Chronic Complications) or 021 (Diabetes without Complication))	-0.202	-0.184	-0.153	-0.153	-0.155
RXC 08 x HCC118	Additional effect for enrollees with RxC 08 (Multiple Sclerosis Agents) and HCC 118 (Multiple Sclerosis)	-5.507	-4.981	-4.597	-4.422	-4.399
RXC 09 x HCC056 or 057 and 048 or 041	Additional effect for enrollees with RxC 09 (Immune Suppressants and Immunomodulators) and (HCC 048 (Inflammatory Bowel Disease) or 041 (Intestine Transplant Status/Complications)) and (HCC 056 (Rheumatoid Arthritis and Specified Autoimmune Disorders) or 057 (Systemic Lupus Erythematosus and Other Autoimmune Disorders))	-0.337	-0.352	-0.336	-0.370	-0.375
RXC 09 x HCC056	Additional effect for enrollees with RxC 09 (Immune Suppressants and Immunomodulators) and HCC 056 (Rheumatoid Arthritis and Specified Autoimmune Disorders)	-2.862	-2.632	-2.452	-2.323	-2.307
RXC 09 x HCC057	Additional effect for enrollees with RxC 09 (Immune Suppressants and Immunomodulators) and HCC 057 (Systemic Lupus Erythematosus and Other Autoimmune Disorders)	-0.595	-0.444	-0.322	-0.175	-0.161
RXC 09 x HCC048, 041	Additional effect for enrollees with RxC 09 (Immune Suppressants and Immunomodulators) and (HCC 048 (Inflammatory Bowel Disease) or 041 (Intestine Transplant Status/Complications))	1.128	1.392	1.563	1.764	1.788

HCC or RXC No.	Factor	Platinum	Gold	Silver	Bronze	Catastrophic
RXC 10 x HCC159, 158	Additional effect for enrollees with RxC 10 (Cystic Fibrosis Agents) and (HCC 159 (Cystic Fibrosis) or 158 (Lung Transplant Status/Complications))	29.170	29.398	29.528	29.588	29.594

**TABLE 4: Final Child Risk Adjustment Model Factors for 2019 Benefit Year**

Factor	Platinum	Gold	Silver	Bronze	Catastrophic
<i>Demographic Factors</i>					
Age 2-4, Male	0.200	0.149	0.092	0.042	0.038
Age 5-9, Male	0.138	0.100	0.055	0.018	0.015
Age 10-14, Male	0.193	0.152	0.100	0.060	0.058
Age 15-20, Male	0.258	0.209	0.151	0.099	0.095
Age 2-4, Female	0.153	0.109	0.062	0.025	0.022
Age 5-9, Female	0.102	0.068	0.031	0.005	0.003
Age 10-14, Female	0.182	0.142	0.095	0.059	0.056
Age 15-20, Female	0.281	0.224	0.155	0.091	0.086
<i>Diagnosis Factors</i>					
HIV/AIDS	5.368	4.942	4.622	4.506	4.493
Septicemia, Sepsis, Systemic Inflammatory Response Syndrome/Shock	13.803	13.633	13.522	13.529	13.530
Central Nervous System Infections, Except Viral Meningitis	8.179	8.020	7.905	7.913	7.913
Viral or Unspecified Meningitis	3.563	3.358	3.225	3.077	3.063
Opportunistic Infections	16.934	16.887	16.848	16.832	16.829
Metastatic Cancer	32.479	32.270	32.092	32.101	32.102
Lung, Brain, and Other Severe Cancers, Including Pediatric Acute Lymphoid Leukemia	10.021	9.785	9.590	9.509	9.501
Non-Hodgkin`s Lymphomas and Other Cancers and Tumors	7.835	7.601	7.411	7.304	7.292
Colorectal, Breast (Age < 50), Kidney, and Other Cancers	3.051	2.879	2.737	2.618	2.605
Breast (Age 50+) and Prostate Cancer, Benign/Uncertain Brain Tumors, and Other Cancers and Tumors	3.051	2.879	2.737	2.618	2.605

<b>Factor</b>	<b>Platinum</b>	<b>Gold</b>	<b>Silver</b>	<b>Bronze</b>	<b>Catastrophic</b>
Thyroid Cancer, Melanoma, Neurofibromatosis, and Other Cancers and Tumors	1.188	1.057	0.943	0.818	0.805
Pancreas Transplant Status/Complications	22.337	22.078	21.875	21.901	21.904
Diabetes with Acute Complications	2.550	2.234	2.032	1.749	1.721
Diabetes with Chronic Complications	2.550	2.234	2.032	1.749	1.721
Diabetes without Complication	2.550	2.234	2.032	1.749	1.721
Protein-Calorie Malnutrition	12.783	12.694	12.618	12.658	12.661
Mucopolysaccharidosis	7.948	7.723	7.536	7.494	7.489
Lipidoses and Glycogenesis	7.948	7.723	7.536	7.494	7.489
Congenital Metabolic Disorders, Not Elsewhere Classified	7.948	7.723	7.536	7.494	7.489
Amyloidosis, Porphyria, and Other Metabolic Disorders	7.948	7.723	7.536	7.494	7.489
Adrenal, Pituitary, and Other Significant Endocrine Disorders	7.948	7.723	7.536	7.494	7.489
Liver Transplant Status/Complications	22.337	22.078	21.875	21.901	21.904
End-Stage Liver Disease	11.834	11.685	11.584	11.580	11.579
Cirrhosis of Liver	5.782	5.646	5.535	5.507	5.507
Chronic Viral Hepatitis C	6.269	6.114	5.983	5.966	5.967
Chronic Hepatitis, Other/Unspecified	1.200	1.086	0.983	0.923	0.920
Acute Liver Failure/Disease, Including Neonatal Hepatitis	11.636	11.494	11.390	11.392	11.391
Intestine Transplant Status/Complications	22.337	22.078	21.875	21.901	21.904
Peritonitis/Gastrointestinal Perforation/Necrotizing Enterocolitis	11.572	11.283	11.063	11.060	11.061
Intestinal Obstruction	4.506	4.310	4.154	4.057	4.049
Chronic Pancreatitis	10.521	10.314	10.163	10.167	10.167
Acute Pancreatitis/Other Pancreatic Disorders and Intestinal Malabsorption	2.265	2.148	2.046	1.948	1.938
Inflammatory Bowel Disease	7.055	6.685	6.402	6.291	6.279
Necrotizing Fasciitis	3.907	3.706	3.544	3.468	3.461
Bone/Joint/Muscle Infections/Necrosis	3.907	3.706	3.544	3.468	3.461

<b>Factor</b>	<b>Platinum</b>	<b>Gold</b>	<b>Silver</b>	<b>Bronze</b>	<b>Catastrophic</b>
Rheumatoid Arthritis and Specified Autoimmune Disorders	4.282	4.052	3.856	3.762	3.754
Systemic Lupus Erythematosus and Other Autoimmune Disorders	1.092	0.970	0.854	0.726	0.714
Osteogenesis Imperfecta and Other Osteodystrophies	1.402	1.292	1.193	1.110	1.102
Congenital/Developmental Skeletal and Connective Tissue Disorders	1.402	1.292	1.193	1.110	1.102
Cleft Lip/Cleft Palate	1.435	1.260	1.121	0.992	0.980
Hemophilia	61.183	60.705	60.325	60.299	60.296
Myelodysplastic Syndromes and Myelofibrosis	14.718	14.596	14.505	14.474	14.470
Aplastic Anemia	14.718	14.596	14.505	14.474	14.470
Acquired Hemolytic Anemia, Including Hemolytic Disease of Newborn	6.928	6.714	6.544	6.456	6.448
Sickle Cell Anemia (Hb-SS)	6.928	6.714	6.544	6.456	6.448
Thalassemia Major	6.928	6.714	6.544	6.456	6.448
Combined and Other Severe Immunodeficiencies	5.849	5.705	5.592	5.531	5.526
Disorders of the Immune Mechanism	5.849	5.705	5.592	5.531	5.526
Coagulation Defects and Other Specified Hematological Disorders	4.662	4.542	4.439	4.366	4.359
Drug Psychosis	5.648	5.392	5.211	5.131	5.125
Drug Dependence	5.648	5.392	5.211	5.131	5.125
Schizophrenia	4.819	4.473	4.217	4.086	4.073
Major Depressive and Bipolar Disorders	2.214	2.007	1.833	1.653	1.636
Reactive and Unspecified Psychosis, Delusional Disorders	2.129	1.931	1.762	1.584	1.567
Personality Disorders	0.622	0.517	0.405	0.257	0.243
Anorexia/Bulimia Nervosa	2.657	2.471	2.318	2.238	2.228
Prader-Willi, Patau, Edwards, and Autosomal Deletion Syndromes	2.119	1.961	1.850	1.796	1.790
Down Syndrome, Fragile X, Other Chromosomal Anomalies, and Congenital Malformation Syndromes	1.785	1.639	1.526	1.435	1.427
Autistic Disorder	2.017	1.836	1.677	1.511	1.495

<b>Factor</b>	<b>Platinum</b>	<b>Gold</b>	<b>Silver</b>	<b>Bronze</b>	<b>Catastrophic</b>
Pervasive Developmental Disorders, Except Autistic Disorder	0.686	0.592	0.484	0.349	0.338
Traumatic Complete Lesion Cervical Spinal Cord	11.525	11.463	11.427	11.507	11.514
Quadriplegia	11.525	11.463	11.427	11.507	11.514
Traumatic Complete Lesion Dorsal Spinal Cord	9.265	9.094	8.948	8.933	8.928
Paraplegia	9.265	9.094	8.948	8.933	8.928
Spinal Cord Disorders/Injuries	3.678	3.487	3.339	3.247	3.239
Amyotrophic Lateral Sclerosis and Other Anterior Horn Cell Disease	4.952	4.754	4.592	4.506	4.499
Quadriplegic Cerebral Palsy	2.968	2.768	2.638	2.642	2.642
Cerebral Palsy, Except Quadriplegic	0.496	0.392	0.322	0.263	0.261
Spina Bifida and Other Brain/Spinal/Nervous System Congenital Anomalies	1.422	1.303	1.209	1.137	1.130
Myasthenia Gravis/Myoneural Disorders and Guillain-Barre Syndrome/Inflammatory and Toxic Neuropathy	9.749	9.588	9.461	9.440	9.440
Muscular Dystrophy	2.584	2.410	2.280	2.179	2.168
Multiple Sclerosis	10.447	10.104	9.835	9.801	9.797
Parkinson`s, Huntington`s, and Spinocerebellar Disease, and Other Neurodegenerative Disorders	2.584	2.410	2.280	2.179	2.168
Seizure Disorders and Convulsions	2.004	1.852	1.714	1.567	1.553
Hydrocephalus	4.256	4.146	4.063	4.044	4.042
Non-Traumatic Coma, and Brain Compression/Anoxic Damage	5.714	5.590	5.487	5.444	5.440
Respirator Dependence/Tracheostomy Status	31.959	31.852	31.774	31.912	31.924
Respiratory Arrest	9.776	9.552	9.401	9.366	9.360
Cardio-Respiratory Failure and Shock, Including Respiratory Distress Syndromes	9.776	9.552	9.401	9.366	9.360

<b>Factor</b>	<b>Platinum</b>	<b>Gold</b>	<b>Silver</b>	<b>Bronze</b>	<b>Catastrophic</b>
Heart Assistive Device/Artificial Heart	22.337	22.078	21.875	21.901	21.904
Heart Transplant	22.337	22.078	21.875	21.901	21.904
Congestive Heart Failure	5.773	5.674	5.588	5.545	5.540
Acute Myocardial Infarction	5.179	5.104	5.062	5.048	5.046
Unstable Angina and Other Acute Ischemic Heart Disease	3.842	3.765	3.707	3.676	3.675
Heart Infection/Inflammation, Except Rheumatic	11.892	11.786	11.703	11.684	11.683
Hypoplastic Left Heart Syndrome and Other Severe Congenital Heart Disorders	4.742	4.584	4.427	4.311	4.301
Major Congenital Heart/Circulatory Disorders	1.345	1.248	1.130	1.012	1.002
Atrial and Ventricular Septal Defects, Patent Ductus Arteriosus, and Other Congenital Heart/Circulatory Disorders	0.876	0.787	0.684	0.591	0.584
Specified Heart Arrhythmias	3.734	3.576	3.438	3.360	3.353
Intracranial Hemorrhage	12.674	12.462	12.308	12.302	12.303
Ischemic or Unspecified Stroke	5.445	5.367	5.318	5.328	5.331
Cerebral Aneurysm and Arteriovenous Malformation	3.374	3.188	3.056	2.980	2.972
Hemiplegia/Hemiparesis	4.146	4.041	3.967	3.933	3.927
Monoplegia, Other Paralytic Syndromes	3.501	3.373	3.284	3.255	3.254
Atherosclerosis of the Extremities with Ulceration or Gangrene	11.717	11.481	11.305	11.230	11.223
Vascular Disease with Complications	14.161	14.049	13.958	13.980	13.981
Pulmonary Embolism and Deep Vein Thrombosis	13.582	13.475	13.396	13.432	13.436
Lung Transplant Status/Complications	22.337	22.078	21.875	21.901	21.904
Cystic Fibrosis	22.337	22.078	21.875	21.901	21.904
Chronic Obstructive Pulmonary Disease, Including Bronchiectasis	0.375	0.310	0.225	0.134	0.126
Asthma	0.375	0.310	0.225	0.134	0.126
Fibrosis of Lung and Other Lung Disorders	3.073	2.971	2.872	2.801	2.795

<b>Factor</b>	<b>Platinum</b>	<b>Gold</b>	<b>Silver</b>	<b>Bronze</b>	<b>Catastrophic</b>
Aspiration and Specified Bacterial Pneumonias and Other Severe Lung Infections	8.178	8.122	8.074	8.105	8.108
Kidney Transplant Status	12.436	12.166	11.969	11.943	11.938
End Stage Renal Disease	36.073	35.963	35.872	35.976	35.985
Chronic Kidney Disease, Stage 5	4.148	4.017	3.909	3.812	3.806
Chronic Kidney Disease, Severe (Stage 4)	4.148	4.017	3.909	3.812	3.806
Ectopic and Molar Pregnancy, Except with Renal Failure, Shock, or Embolism	1.061	0.906	0.761	0.532	0.507
Miscarriage with Complications	1.061	0.906	0.761	0.532	0.507
Miscarriage with No or Minor Complications	1.061	0.906	0.761	0.532	0.507
Completed Pregnancy With Major Complications	2.897	2.512	2.294	1.986	1.950
Completed Pregnancy With Complications	2.897	2.512	2.294	1.986	1.950
Completed Pregnancy with No or Minor Complications	2.897	2.512	2.294	1.986	1.950
Chronic Ulcer of Skin, Except Pressure	2.338	2.247	2.159	2.086	2.079
Hip Fractures and Pathological Vertebral or Humerus Fractures	5.437	5.163	4.942	4.830	4.822
Pathological Fractures, Except of Vertebrae, Hip, or Humerus	1.665	1.535	1.404	1.262	1.248
Stem Cell, Including Bone Marrow, Transplant Status/Complications	22.337	22.078	21.875	21.901	21.904
Artificial Openings for Feeding or Elimination	11.371	11.258	11.185	11.294	11.305
Amputation Status, Lower Limb/Amputation Complications	6.737	6.497	6.322	6.207	6.195



**TABLE 5: Final Infant Risk Adjustment Model Factors for 2019 Benefit Year**

<b>Group</b>	<b>Platinum</b>	<b>Gold</b>	<b>Silver</b>	<b>Bronze</b>	<b>Catastrophic</b>
Extremely Immature * Severity Level 5 (Highest)	253.927	252.583	251.467	251.462	251.464
Extremely Immature * Severity Level 4	154.510	153.094	151.930	151.820	151.808
Extremely Immature * Severity Level 3	33.920	32.887	32.017	31.768	31.749
Extremely Immature * Severity Level 2	33.920	32.887	32.017	31.768	31.749
Extremely Immature * Severity Level 1 (Lowest)	33.920	32.887	32.017	31.768	31.749
Immature *Severity Level 5 (Highest)	159.462	158.128	157.021	157.005	157.004
Immature *Severity Level 4	72.478	71.132	70.018	69.946	69.937
Immature *Severity Level 3	32.912	31.777	30.841	30.633	30.613
Immature *Severity Level 2	24.333	23.245	22.351	22.082	22.055
Immature *Severity Level 1 (Lowest)	24.333	23.245	22.351	22.082	22.055
Premature/Multiples * Severity Level 5 (Highest)	115.833	114.548	113.499	113.406	113.398
Premature/Multiples * Severity Level 4	27.460	26.234	25.253	25.043	25.026
Premature/Multiples * Severity Level 3	14.214	13.255	12.482	12.044	12.001
Premature/Multiples * Severity Level 2	7.992	7.259	6.638	6.009	5.940
Premature/Multiples * Severity Level 1 (Lowest)	5.323	4.790	4.246	3.652	3.600
Term *Severity Level 5 (Highest)	91.593	90.463	89.524	89.335	89.320
Term *Severity Level 4	14.962	14.042	13.315	12.830	12.788
Term *Severity Level 3	5.857	5.300	4.767	4.150	4.092
Term *Severity Level 2	3.574	3.148	2.666	1.994	1.935
Term *Severity Level 1 (Lowest)	1.546	1.321	0.916	0.449	0.423
Age1 *Severity Level 5 (Highest)	54.522	53.855	53.298	53.200	53.192
Age1 *Severity Level 4	9.637	9.153	8.751	8.495	8.473

<b>Group</b>	<b>Platinum</b>	<b>Gold</b>	<b>Silver</b>	<b>Bronze</b>	<b>Catastrophic</b>
Age1 *Severity Level 3	3.058	2.786	2.511	2.263	2.245
Age1 *Severity Level 2	1.960	1.747	1.509	1.246	1.226
Age1 *Severity Level 1 (Lowest)	0.520	0.443	0.330	0.252	0.247
Age 0 Male	0.627	0.584	0.561	0.502	0.495
Age 1 Male	0.106	0.090	0.077	0.052	0.050