

Episodes of Care Risk Adjustment

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Appendix

Factors and Weights

Acute Diabetes Exacerbation		
CCS Code	Factor	Weight
	Age (per year)	0.002
	Female	0.671
	Male	0.644
1.1	Bacterial infection	0.135
3.8	Fluid and electrolyte disorders	0.183
4.1	Anemia	0.120
6.3	Paralysis	0.245
7.4	Diseases of arteries; arterioles; and capillaries	0.087
8.5	Pleurisy; pneumothorax; pulmonary collapse	0.213
9.8	Liver disease	0.108
9.10	Gastrointestinal hemorrhage	0.161

Acute Gastroenteritis		
CCS Code	Factor	Weight
	Age (per year)	0.015
	Female	0.184
	Male	0.260
1.1	Bacterial infection	0.405
3.4	Other endocrine disorders	0.167
3.8	Fluid and electrolyte disorders	0.792
3.11	Other nutritional; endocrine; and metabolic disorders	0.112
4.1	Anemia	0.193
4.2	Coagulation and hemorrhagic disorders	0.359
4.3	Diseases of white blood cells	0.768
5.11	Alcohol-related disorders	0.156
6.1	Central nervous system infection	0.830
6.3	Paralysis	0.404
7.2	Diseases of the heart	0.083
7.4	Diseases of arteries; arterioles; and capillaries	0.076
7.5	Diseases of veins and lymphatics	0.184
8.5	Pleurisy; pneumothorax; pulmonary collapse	0.249
10	Diseases of the genitourinary system	0.105
14.1	Cardiac and circulatory congenital anomalies	0.212
14.2	Digestive congenital anomalies	0.570
14.5	Other congenital anomalies	0.172

Acute Kidney and Ureter Stones		
CCS Code	Factor	Weight
	Female	0.876
	Male	0.850
1.1	Bacterial Infection	0.149
3.8	Fluid and electrolyte disorders	0.248
4.1	Anemia	0.083
4.3	Diseases of white blood cells	0.217
5.12	Substance-related disorders	0.051
6.3	Paralysis	0.401

6.9	Other nervous system disorders	0.056
7.1	Hypertension	0.052
7.5	Diseases of veins and lymphatics	0.126
8.5	Pleurisy; pneumothorax; pulmonary collapse	0.132
9.7	Biliary tract disease	0.111
9.12	Other gastrointestinal disorders	0.079

Acute Percutaneous Coronary Intervention		
CCS Code	Factor	Weight
	Female	0.930
	Male	0.972
3.2	Diabetes mellitus without complication	0.048
3.8	Fluid and electrolyte disorders	0.069
14.1	Cardiac and circulatory congenital anomalies	0.194

Acute Seizure		
CCS Code	Factor	Weight
	Age (per year)	0.002
	Female	0.452
	Male	0.605
3.8	Fluid and electrolyte disorders	0.508
4.2	Coagulation and hemorrhagic disorders	0.415
4.3	Diseases of white blood cells	0.315
6.1	Central nervous system infection	1.188
6.6	Coma; stupor; and brain damage	0.287
6.9	Other nervous system disorders	0.167
7.3	Cerebrovascular disease	0.303
8.6	Respiratory failure; insufficiency; arrest (adult)	0.903
14	Congenital Anomalies	0.157

Appendectomy		
CCS Code	Factor	Weight
	Female	0.855
	Male	0.870
1.1	Bacterial infection	0.248
3.8	Fluid and electrolyte disorders	0.200
4	Diseases of the blood and blood-forming organs	0.067
7.3	Cerebrovascular disease	0.185
8.5	Pleurisy; pneumothorax; pulmonary collapse	0.387
9.7	Biliary tract disease	0.138
9.12	Other gastrointestinal disorders	0.071
12.1	Skin and subcutaneous tissue infections	0.106
14.2	Digestive congenital anomalies	0.247
16	Injury and poisoning	0.064

Asthma Acute Exacerbation		
CCS Code	Factor	Weight
	Female	0.561
	Male	0.604
1.3	Viral Infection	0.123

3.2	Diabetes mellitus without complication	0.255
3.8	Fluid and electrolyte disorders	0.672
4.3	Diseases of white blood cells	0.626
7.1	Hypertension	0.185
7.2	Diseases of the heart	0.195
8.2	Chronic obstructive pulmonary disease and bronchiectasis	0.193
8.5	Pleurisy; pneumothorax; pulmonary collapse	0.579
8.6	Respiratory failure; insufficiency; arrest (adult)	2.031
9.4	Upper gastrointestinal disorders	0.217

Attention Deficit and Hyperactivity Disorder		
CCS Code	Factor	Weight
	Female	0.827
	Male	0.879
1.4	Other infections; including parasitic	0.104
1.5	Immunizations and screening for infectious disease	0.064
5.1	Adjustment disorders	0.050
5.2	Anxiety disorders	0.115
5.5	Developmental disorders	0.067
5.6	Disorders usually diagnosed in infancy childhood or adolescence	0.100
5.8	Mood disorders	0.157
5.9	Personality disorders	0.307
5.15	Miscellaneous mental disorders	0.193
6.7	Eye disorders	0.055
8.9	Other upper respiratory disease	0.048

Back/Neck Pain		
CCS Code	Factor	Weight
	Female	0.081
	Male	0.038
5.4	Delirium dementia and amnesic and other cognitive disorders	0.289
6.1	Central nervous system infection	0.860
6.2	Hereditary and degenerative nervous system conditions	0.117
6.5	Headache; including migraine	0.178
6.9	Other nervous system disorders	0.177
7.2	Diseases of the heart	0.082
9.5	Abdominal hernia	0.168
9.6	Lower gastrointestinal disorders	0.109
9.8	Liver disease	0.110
10.1	Diseases of the urinary system	0.052
13.2	Non-traumatic joint disorders	0.140
13.3	Spondylosis; intervertebral disc disorders; other back problems	0.517
13.6	Acquired deformities	0.268
13.8	Other connective tissue disease	0.153
13.9	Other bone disease and musculoskeletal deformities	0.272
14	Congenital anomalies	0.105
16.12	Other injuries and conditions due to external causes	0.266
16.7	Sprains and strains	0.277
16.8	Superficial injury; contusion	0.074

Bariatric Surgery		
CCS Code	Factor	Weight
	Female	0.897
	Male	0.910
3.8	Fluid and electrolyte disorders	0.056
5.4	Delirium dementia and amnesic and other cognitive disorders	0.388
6.9	Other nervous system disorders	0.041
8.5	Pleurisy; pneumothorax; pulmonary collapse	0.108
9.8	Liver disease	0.078
16.10	Complications	0.181

Breast Biopsy		
CCS Code	Factor	Weight
	Female	0.495
	Male	0.445
2	Neoplasms	0.094
2.5	Cancer of breast	0.608
2.12	Secondary malignancies	0.698
2.13	Malignant neoplasm without specification of site	0.340
5.12	Substance-related disorders	0.093
8.5	Pleurisy; pneumothorax; pulmonary collapse	0.140
9.8	Liver disease	0.094
10	Diseases of the genitourinary system	0.279

Bronchiolitis		
CCS Code	Factor	Weight
	Female	0.513
	Male	0.399
1.3	Viral infection	0.212
3	Endocrine; nutritional; and metabolic diseases and immunity disorders	0.753
7.2	Diseases of the heart	0.471
8.3	Asthma	0.479
8.5	Pleurisy; pneumothorax; pulmonary collapse	1.665
13.6	Acquired deformities	0.633

Colposcopy		
CCS Code	Factor	Weight
	Age (per year)	0.006
4.1	Anemia	0.119
5	Mental illness	0.283
8.3	Asthma	0.145
9.2	Disorders of teeth and jaw	0.183
10.3	Diseases of female genital organs	0.685

Congestive Heart Failure Acute Exacerbation		
CCS Code	Factor	Weight
	Age (per year)	0.004
	Female	0.448
	Male	0.583
3.8	Fluid and electrolyte disorders	0.161

4.2	Coagulation and hemorrhagic disorders	0.221
4.3	Diseases of white blood cells	0.133
8.5	Pleurisy; pneumothorax; pulmonary collapse	0.270

COPD Acute Exacerbation

CCS Code	Factor	Weight
	Female	0.207
	Male	0.349
3	Endocrine; nutritional; and metabolic diseases and immunity disorders	0.199
3.8	Fluid and electrolyte disorders	0.325
4.3	Diseases of white blood cells	0.288
8.1	Respiratory infections	0.153
8.5	Pleurisy; pneumothorax; pulmonary collapse	0.301
8.6	Respiratory failure; insufficiency; arrest (adult)	0.811

Coronary Artery Bypass Graft

CCS Code	Factor	Weight
	Female	0.800
	Male	0.802
1.1	Bacterial infection	0.102
3.7	Gout and other crystal arthropathies	0.081
3.8	Fluid and electrolyte disorders	0.062
4.2	Coagulation and hemorrhagic disorders	0.086
7.4	Diseases of arteries; arterioles; and capillaries	0.047
8.6	Respiratory failure; insufficiency; arrest (adult)	0.073
9.12	Other gastrointestinal disorders	0.055
10.1	Diseases of the urinary system	0.053
11.6	Other complications of birth; puerperium affecting management of mother	0.577
12.3	Chronic ulcer of skin	0.156
16.10	Complications	0.055
16.2	Fractures	0.116

Cystourethroscopy

CCS Code	Factor	Weight
	Female	0.803
	Male	0.735
1.1	Bacterial infection	0.155
4.3	Diseases of white blood cells	0.270
5	Mental illness	0.163
9.12	Other gastrointestinal disorders	0.139
16	Injury and poisoning	0.151

Esophagogastroduodenoscopy

CCS Code	Factor	Weight
	Female	0.716
	Male	0.713
1.1	Bacterial infection	0.037
3.8	Fluid and electrolyte disorders	0.026
5.12	Substance-related disorders	0.031
5.14	Screening and history of mental health and substance abuse codes	0.045

5.5	Developmental disorders	0.132
6.3	Paralysis	0.085
6.5	Headache; including migraine	0.018
8.3	Asthma	0.037
8.8	Other lower respiratory disease	0.018
9.1	Intestinal infection	0.039
9.11	Noninfectious gastroenteritis	0.044
9.12	Other gastrointestinal disorders	0.103
9.4	Upper gastrointestinal disorders	0.151
9.7	Biliary tract disease	0.044
14.2	Digestive congenital anomalies	0.105
16.12	Other injuries and conditions due to external causes	0.032

Femur/Pelvis Fracture		
CCS Code	Factor	Weight
	Female	0.756
	Male	0.780
3.8	Fluid and electrolyte disorders	0.131
4.2	Coagulation and hemorrhagic disorders	0.290
8.6	Respiratory failure; insufficiency; arrest (adult)	0.182
10	Diseases of the genitourinary system	0.117
16.1	Joint disorders and dislocations; trauma-related	0.167
16.5	Crushing injury or internal injury	0.290
16.8	Superficial injury; contusion	0.162

Gastrointestinal Hemorrhage		
CCS Code	Factor	Weight
	Age (per year)	0.004
3.8	Fluid and electrolyte disorders	0.413
4.1	Anemia	0.742
4.2	Coagulation and hemorrhagic disorders	0.335
4.3	Diseases of white blood cells	0.238
4.4	Other hematologic conditions	0.238
5.11	Alcohol-related disorders	0.164
7.4	Diseases of arteries; arterioles; and capillaries	0.164
8.4	Aspiration pneumonitis; food/vomitus	0.812
8.5	Pleurisy; pneumothorax; pulmonary collapse	0.227
8.6	Respiratory failure; insufficiency; arrest (adult)	0.223
9.4	Upper gastrointestinal disorders	0.209
9.5	Abdominal hernia	0.224
14.1	Cardiac and circulatory congenital anomalies	0.463
14.2	Digestive congenital anomalies	0.460

Gastrointestinal Obstruction		
CCS Code	Factor	Weight
	Age (per year)	0.003
	Female	0.394
	Male	0.452
3.5	Nutritional deficiencies	0.089
3.8	Fluid and electrolyte disorders	0.211

3.11	Other nutritional; endocrine; and metabolic disorders	0.082
4.1	Anemia	0.125
6.9	Other nervous system disorders	0.121
8.5	Pleurisy; pneumothorax; pulmonary collapse	0.316
16.10	Complications	0.313

Heart Valve Replacement or Repair		
CCS Code	Factor	Weight
	Female	0.778
	Male	0.732
1.1	Bacterial infection	0.231
3.7	Gout and other crystal arthropathies	0.138
3.8	Fluid and electrolyte disorders	0.076
4.2	Coagulation and hemorrhagic disorders	0.081
8.6	Respiratory failure; insufficiency; arrest (adult)	0.153
9.7	Biliary tract disease	0.207
9.10	Gastrointestinal hemorrhage	0.217
12.3	Chronic ulcer of skin	0.309
16.10	Complications	0.072
16.11	Poisoning	0.255
16.5	Crushing injury or internal injury	0.277

Hernia Repair		
CCS Code	Factor	Weight
	Age (per year)	0.004
	Female	0.638
	Male	0.530
1.4	Other infections; including parasitic	0.155
2.6	Cancer of uterus and cervix	0.246
2.8	Cancer of male genital organs	0.232
2.9	Cancer of urinary organs	0.253
2.13	Malignant neoplasm without specification of site	0.528
3.3	Diabetes mellitus with complications	0.094
3.8	Fluid and electrolyte disorders	0.201
4.2	Coagulation and hemorrhagic disorders	0.177
4.3	Diseases of white blood cells	0.181
6.9	Other nervous system disorders	0.114
8.5	Pleurisy; pneumothorax; pulmonary collapse	0.272
8.6	Respiratory failure; insufficiency; arrest (adult)	0.264
9.6	Lower gastrointestinal disorders	0.236
9.7	Biliary tract disease	0.247
9.12	Other gastrointestinal disorders	0.098
10.3	Diseases of female genital organs	0.084
14.3	Genitourinary congenital anomalies	0.162
16.6	Open wounds	0.186
16.10	Complications	0.367

HIV Infection		
CCS Code	Factor	Weight
	Female	1.000
	Male	1.000

Hysterectomy		
CCS Code	Factor	Weight
	Female	0.893
3.8	Fluid and electrolyte disorders	0.083
4	Diseases of the blood and blood-forming organs	0.057
8.5	Pleurisy; pneumothorax; pulmonary collapse	0.167
9.6	Lower gastrointestinal disorders	0.133
10.1	Diseases of the urinary system	0.056
16.10	Complications	0.223

Inpatient Urinary Tract Infection		
CCS Code	Factor	Weight
	Age (per year)	0.007
	Female	0.385
	Male	0.334
1.1	Bacterial infection	0.266
3	Endocrine; nutritional; and metabolic diseases and immunity disorders	0.138
4	Diseases of the blood and blood-forming organs	0.103
8.5	Pleurisy; pneumothorax; pulmonary collapse	0.174
8.6	Respiratory failure; insufficiency; arrest (adult)	0.196
14.3	Genitourinary congenital anomalies	0.186
14.4	Nervous system congenital anomalies	0.246

Knee Arthroscopy		
CCS Code	Factor	Weight
	Female	0.730
	Male	0.740
6.9	Other nervous system disorders	0.189
13.1	Infective arthritis and osteomyelitis (except that caused by TB or STD)	0.374
16.2	Fractures	0.134
16.7	Sprains and strains	0.362

Non-acute Percutaneous Coronary Intervention		
CCS Code	Factor	Weight
	Age (per year)	0.002
	Female	0.696
	Male	0.723
3	Endocrine; nutritional; and metabolic diseases and immunity disorders	0.184

Non-operative Ankle Injury		
CCS Code	Factor	Weight
	Female	0.427
	Male	0.408
3.8	Fluid and electrolyte disorders	0.067
5.12	Substance-related disorders	0.088

6.3	Paralysis	0.253
6.9	Other nervous system disorders	0.112
13.1	Infective arthritis and osteomyelitis (except that caused by TB or STD)	0.380
13.2	Non-traumatic joint disorders	0.279
13.8	Other connective tissue disease	0.144
16.2	Fractures	0.299
16.7	Sprains and strains	0.271
16.12	Other injuries and conditions due to external causes	0.148

Non-operative Knee Injury		
CCS Code	Factor	Weight
	Female	0.431
	Male	0.377
3.4	Other endocrine disorders	0.097
5.12	Substance-related disorders	0.075
6.9	Other nervous system disorders	0.070
13.2	Non-traumatic joint disorders	0.327
13.8	Other connective tissue disease	0.044
16.1	Joint disorders and dislocations; trauma-related	0.130
16.2	Fractures	0.326
16.7	Sprains and strains	0.068
16.8	Superficial injury; contusion	0.112
16.12	Other injuries and conditions due to external causes	0.220

Non-operative Shoulder Injury		
CCS Code	Factor	Weight
	Female	0.491
	Male	0.450
3.8	Fluid and electrolyte disorders	0.126
6.3	Paralysis	0.295
6.5	Headache; including migraine	0.072
13.2	Non-traumatic joint disorders	0.385
13.3	Spondylosis; intervertebral disc disorders; other back problems	0.054
13.8	Other connective tissue disease	0.049
16.1	Joint disorders and dislocations; trauma-related	0.267
16.2	Fractures	0.195
16.12	Other injuries and conditions due to external causes	0.245

Non-operative Wrist Injury		
CCS Code	Factor	Weight
	Female	0.417
	Male	0.496
1.4	Other infections; including parasitic	0.165
5.5	Developmental disorders	0.260
5.12	Substance-related disorders	0.109
13.2	Non-traumatic joint disorders	0.151
13.8	Other connective tissue disease	0.104
16.2	Fractures	0.571
16.12	Other injuries and conditions due to external causes	0.301

Oppositional Defiant Disorder		
CCS Code	Factor	Weight
	Female	0.912
	Male	0.952
5.1	Adjustment disorders	0.314
5.12	Substance-related disorders	0.457

Otitis Media		
CCS Code	Factor	Weight
	Female	0.702
	Male	0.714
1.2	Mycoses	0.072
1.3	Viral infection	0.056
3.8	Fluid and electrolyte disorders	0.178
3.10	Immunity disorders	0.164
3.11	Other nutritional; endocrine; and metabolic disorders	0.030
4	Diseases of the blood and blood-forming organs	0.057
4.3	Diseases of white blood cells	0.103
5.5	Developmental disorders	0.377
5.6	Disorders usually diagnosed in infancy childhood or adolescence	0.073
5.12	Substance-related disorders	0.157
5.14	Screening and history of mental health and substance abuse codes	0.052
6.1	Central nervous system infection	0.389
6.3	Paralysis	0.183
6.4	Epilepsy; convulsions	0.243
6.5	Headache; including migraine	0.105
6.9	Other nervous system disorders	0.110
7	Diseases of the circulatory system	0.083
7.4	Diseases of arteries; arterioles; and capillaries	0.135
8.1	Respiratory infections	0.025
8.2	Chronic obstructive pulmonary disease and bronchiectasis	0.041
8.3	Asthma	0.032
8.5	Pleurisy; pneumothorax; pulmonary collapse	0.119
8.8	Other lower respiratory disease	0.134
8.9	Other upper respiratory disease	0.085
9.2	Disorders of teeth and jaw	0.090
9.3	Diseases of mouth; excluding dental	0.059
9.11	Noninfectious gastroenteritis	0.071
9.12	Other gastrointestinal disorders	0.091
12	Diseases of the skin and subcutaneous tissue	0.035
12.4	Other skin disorders	0.048
13.3	Spondylosis; intervertebral disc disorders; other back problems	0.048
14.4	Nervous system congenital anomalies	0.106
14.5	Other congenital anomalies	0.089
15.7	Other perinatal conditions	0.133
16.1	Joint disorders and dislocations; trauma-related	0.092
16.4	Intracranial injury	0.090
16.12	Other injuries and conditions due to external causes	0.044

Outpatient and Non-acute Inpatient Cholecystectomy		
CCS Code	Factor	Weight
	Female	0.882
	Male	0.894
2.12	Secondary malignancies	0.339
2.9	Cancer of urinary organs	0.221
3.8	Fluid and electrolyte disorders	0.129
4.3	Diseases of white blood cells	0.090
5.12	Substance-related disorders	0.049
6.9	Other nervous system disorders	0.052
8.5	Pleurisy; pneumothorax; pulmonary collapse	0.068
9.5	Abdominal hernia	0.069
9.6	Lower gastrointestinal disorders	0.067
9.8	Liver disease	0.067
9.9	Pancreatic disorders (not diabetes)	0.254
16.10	Complications	0.184

Outpatient Urinary Tract Infection		
CCS Code	Factor	Weight
	Female	0.662
	Male	0.810
1.1	Bacterial infection	0.292
2.8	Cancer of male genital organs	0.518
3.8	Fluid and electrolyte disorders	0.440
4.3	Diseases of white blood cells	0.273
5.12	Substance-related disorders	0.311
5.14	Screening and history of mental health and substance abuse codes	0.088
6.5	Headache; including migraine	0.073
9	Diseases of the digestive system	0.069
9.5	Abdominal hernia	0.118
9.6	Lower gastrointestinal disorders	0.243
9.7	Biliary tract disease	0.210
9.8	Liver disease	0.360
9.12	Other gastrointestinal disorders	0.127
11.1	Contraceptive and procreative management	0.062
13.3	Spondylosis; intervertebral disc disorders; other back problems	0.176
14.3	Genitourinary congenital anomalies	0.356

Pancreatitis		
CCS Code	Factor	Weight
	Female	0.663
	Male	0.738
1.1	Bacterial infection	0.181
3.10	Immunity disorders	1.093
4.1	Anemia	0.098
4.2	Coagulation and hemorrhagic disorders	0.131
4.3	Diseases of white blood cells	0.110
4.4	Other hematologic conditions	0.263
8.5	Pleurisy; pneumothorax; pulmonary collapse	0.329
9.7	Biliary tract disease	0.245

Pediatric Pneumonia		
CCS Code	Factor	Weight
	Female	0.490
	Male	0.465
2.13	Malignant neoplasm without specification of site	4.424
3.5	Nutritional deficiencies	0.631
3.8	Fluid and electrolyte disorders	1.477
4	Diseases of the blood and blood-forming organs	0.342
4.2	Coagulation and hemorrhagic disorders	0.871
7.2	Diseases of the heart	0.260
7.5	Diseases of veins and lymphatics	0.873
8.3	Asthma	0.170
8.5	Pleurisy; pneumothorax; pulmonary collapse	0.669
8.6	Respiratory failure; insufficiency; arrest (adult)	1.684
13.7	Systemic lupus erythematosus and connective tissue disorders	2.161

Perinatal		
CCS Code	Factor	Weight
	Age (per year)	0.022
1	Infectious and parasitic diseases	0.120
1.1	Bacterial infection	0.077
1.4	Other infections; including parasitic	0.054
3	Endocrine; nutritional; and metabolic diseases and immunity disorders	0.067
4.1	Anemia	0.067
4.2	Coagulation and hemorrhagic disorders	0.082
4.3	Diseases of white blood cells	0.120
5	Mental Illness	0.053
6.1	Central nervous system infection	0.294
6.3	Paralysis	0.194
6.4	Epilepsy; convulsions	0.094
6.5	Headache; including migraine	0.040
6.6	Coma; stupor; and brain damage	0.099
6.7	Eye disorders	0.029
7.1	Hypertension	0.055
7.2	Diseases of the heart	0.091
7.3	Cerebrovascular disease	0.142
7.4	Diseases of arteries; arterioles; and capillaries	0.060
8	Diseases of the respiratory system	0.022
9.11	Noninfectious gastroenteritis	0.046
9.12	Other gastrointestinal disorders	0.043
9.6	Lower gastrointestinal disorders	0.057
9.7	Biliary tract disease	0.121
9.9	Pancreatic disorders (not diabetes)	0.200
10.1	Diseases of the urinary system	0.074
10.3	Diseases of female genital organs	0.096
13	Diseases of the musculoskeletal system and connective tissue	0.024
14.1	Cardiac and circulatory congenital anomalies	0.120
14.3	Genitourinary congenital anomalies	0.084
14.5	Other congenital anomalies	0.049

16.10	Complications	0.108
16.12	Other injuries and conditions due to external causes	0.054
16.5	Crushing injury or internal injury	0.121
16.6	Open wounds	0.036

Pneumonia		
CCS Code	Factor	Weight
	Female	0.264
	Male	0.406
1.1	Bacterial infection	0.642
3.8	Fluid and electrolyte disorders	0.693
3.11	Other nutritional; endocrine; and metabolic disorders	0.185
4.1	Anemia	0.332
4.2	Coagulation and hemorrhagic disorders	0.286
4.3	Diseases of white blood cells	0.437
7.1	Hypertension	0.136
7.2	Diseases of the heart	0.187
9	Diseases of the digestive system	0.097

Respiratory Infection		
CCS Code	Factor	Weight
	Age (per year)	0.001
	Female	0.775
	Male	0.762
3.8	Fluid and electrolyte disorders	0.181
3.10	Immunity disorders	0.150
3.11	Other nutritional; endocrine; and metabolic disorders	0.019
4.3	Diseases of white blood cells	0.171
5.12	Substance-related disorders	0.079
5.13	Suicide and intentional self-inflicted injury	0.057
6	Diseases of the nervous system and sense organs	0.015
7	Diseases of the circulatory system	0.075
8.2	Chronic obstructive pulmonary disease and bronchiectasis	0.120
8.3	Asthma	0.108
8.5	Pleurisy; pneumothorax; pulmonary collapse	0.289
8.8	Other lower respiratory disease	0.184
8.9	Other upper respiratory disease	0.093
9.12	Other gastrointestinal disorders	0.052
9.3	Diseases of mouth; excluding dental	0.055
10.1	Diseases of the urinary system	0.029
10.3	Diseases of female genital organs	0.018
12.4	Other skin disorders	0.028
13	Diseases of the musculoskeletal system and connective tissue	0.028

Screening and Surveillance Colonoscopy		
CCS Code	Factor	Weight
	Female	0.645
	Male	0.672
2.1	Colorectal cancer	0.083
2.16	Benign neoplasms	0.245

3.3	Diabetes mellitus with complications	0.043
5.12	Substance-related disorders	0.110
5.14	Screening and history of mental health and substance abuse codes	0.082
7.1	Hypertension	0.036
7.5	Diseases of veins and lymphatics	0.036
8.2	Chronic obstructive pulmonary disease and bronchiectasis	0.026
9	Diseases of the digestive system	0.023
9.1	Intestinal infection	0.058
9.11	Noninfectious gastroenteritis	0.082
9.12	Other gastrointestinal disorders	0.047
9.6	Lower gastrointestinal disorders	0.046
9.7	Biliary tract disease	0.053
11	Complications of pregnancy; childbirth; and the puerperium	0.023

Skin and Soft Tissue Infections		
CCS Code	Factor	Weight
	Age (per year)	0.002
	Female	0.421
	Male	0.507
1	Infectious and parasitic diseases	0.043
4.1	Anemia	0.228
4.2	Coagulation and hemorrhagic disorders	0.210
4.3	Diseases of white blood cells	0.698
5	Mental Illness	0.165
6.1	Central nervous system infection	0.670
6.3	Paralysis	0.210
6.6	Coma; stupor; and brain damage	0.221
6.9	Other nervous system disorders	0.101
7.1	Hypertension	0.124
7.2	Diseases of the heart	0.120
7.4	Diseases of arteries; arterioles; and capillaries	0.142
7.5	Diseases of veins and lymphatics	0.337
8.2	Chronic obstructive pulmonary disease and bronchiectasis	0.061
8.5	Pleurisy; pneumothorax; pulmonary collapse	0.422
9.2	Disorders of teeth and jaw	0.099
9.6	Lower gastrointestinal disorders	0.111
9.8	Liver disease	0.104
9.9	Pancreatic disorders (not diabetes)	0.371
9.12	Other gastrointestinal disorders	0.055
13	Diseases of the musculoskeletal system and connective tissue	0.298
16	Injury and poisoning	0.165

Spinal Decompression Without Fusion		
CCS Code	Factor	Weight
	Age (per year)	0.002
	Female	0.693
	Male	0.732
1.1	Bacterial infection	0.126
2.15	Maintenance chemotherapy; radiotherapy	0.977
3.8	Fluid and electrolyte disorders	0.127

4	Diseases of the blood and blood-forming organs	0.167
5.4	Delirium dementia and amnestic and other cognitive disorders	0.363
5.6	Disorders usually diagnosed in infancy childhood or adolescence	0.335
6.1	Central nervous system infection	0.720
6.3	Paralysis	0.966
6.9	Other nervous system disorders	0.086
8.5	Pleurisy; pneumothorax; pulmonary collapse	0.217
13.1	Infective arthritis and osteomyelitis (except that caused by TB or STD)	0.525
13.5	Pathological fracture	0.453
16.2	Fractures	0.167
16.10	Complications	0.354

Spinal Fusion		
CCS Code	Factor	Weight
	Female	0.844
	Male	0.880
1.1	Bacterial infection	0.092
3.8	Fluid and electrolyte disorders	0.063
4.1	Anemia	0.143
6.1	Central nervous system infection	0.219
6.3	Paralysis	0.350
7.2	Diseases of the heart	0.047
8.6	Respiratory failure; insufficiency; arrest (adult)	0.156
12.3	Chronic ulcer of skin	0.166
13.6	Acquired deformities	0.045
16.2	Fractures	0.077
16.3	Spinal cord injury	0.294
16.10	Complications	0.078

Syncope Work-up		
CCS Code	Factor	Weight
	Age (per year)	0.006
	Female	0.145
	Male	0.251
3.8	Fluid and electrolyte disorders	0.356
4.3	Diseases of white blood cells	0.163
5.11	Alcohol-related disorders	0.183
5.12	Substance-related disorders	0.104
5.14	Screening and history of mental health and substance abuse codes	0.142
6.4	Epilepsy; convulsions	0.094
6.5	Headache; including migraine	0.127
6.8	Ear conditions	0.101
6.9	Other nervous system disorders	0.090
7.1	Hypertension	0.095
7.2	Diseases of the heart	0.324
7.3	Cerebrovascular disease	0.479
8.8	Other lower respiratory disease	0.119
14.4	Nervous system congenital anomalies	0.426
16.12	Other injuries and conditions due to external causes	0.108

Tonsillectomy		
CCS Code	Factor	Weight
	Female	0.775
	Male	0.810
3.8	Fluid and electrolyte disorders	0.109
4	Diseases of the blood and blood-forming organs	0.107
5.5	Developmental disorders	0.074
6.3	Paralysis	0.308
6.4	Epilepsy; convulsions	0.099
6.8	Ear conditions	0.157
7	Diseases of the circulatory system	0.050
8.3	Asthma	0.075
8.4	Aspiration pneumonitis; food/vomitus	0.646
8.5	Pleurisy; pneumothorax; pulmonary collapse	0.233
8.6	Respiratory failure; insufficiency; arrest (adult)	0.281
8.9	Other upper respiratory disease	0.039
9.10	Gastrointestinal hemorrhage	0.114
14.1	Cardiac and circulatory congenital anomalies	0.274
14.2	Digestive congenital anomalies	0.112
15.2	Short gestation; low birth weight; and fetal growth retardation	0.194
16.10	Complications	0.419

Total Joint Replacement		
CCS Code	Factor	Weight
	Female	0.911
	Male	0.920
1.1	Bacterial infection	0.107
4.1	Anemia	0.059
4.4	Other hematologic conditions	0.062
6.9	Other nervous system disorders	0.043
12.3	Chronic ulcer of skin	0.126
13.1	Infective arthritis and osteomyelitis (except that caused by TB or STD)	0.237
16.6	Open wounds	0.082
16.10	Complications	0.096

Appendix

Developed at the Agency for Healthcare Research and Quality (AHRQ), the Clinical Classifications Software (CCS) is a hierarchical tool for clustering patient diagnoses into a manageable number of clinically meaningful categories. These categories map directly to ICD-9 and ICD-10 codes. Because the clinical classification is hierarchical, each level of factors includes the clinical categories lower in the hierarchy.

More information including an overview, complete mapping, and technical specifications for the CCS tool can be found at the following link: [Clinical Classifications Software \(CCS\) for ICD-10-CM/PCS](#).