



H·CUP
HEALTHCARE COST AND UTILIZATION PROJECT

**COMPARISON OF THE
CLINICAL CLASSIFICATIONS SOFTWARE REFINED (CCSR)
WITH THE BETA VERSION OF THE CCS FOR ICD-10-CM DIAGNOSES**

Issued January 2020

Agency for Healthcare Research and Quality
Healthcare Cost and Utilization Project (HCUP)

Phone: (866) 290-HCUP (4287)

Email: hcup@ahrq.gov

Website: www.hcup-us.ahrq.gov

Table of Contents

Introduction	1
Overview	1
Purpose	1
Methods	2
Comparison of Beta Version CCS and CCSR Categories for ICD-10-CM Diagnoses.....	4
No Differences in ICD-10-CM Diagnosis Codes	4
Differences of Ten or Fewer Total ICD-10-CM Diagnosis Codes	6
Differences of More than Ten Total ICD-10-CM Diagnosis Codes	10
Summary of CCSR Mappings for Each CCS Category	11
Appendix A. Example of Using the Companion Microsoft Excel file, <i>DXCCSR-vs-Beta-CCS-Comparison.xlsx</i>	26

INTRODUCTION

Overview

[Clinical Classifications Software Refined \(CCSR\)](#) for International Classification for Diseases, 10th Revision, Clinical Modification (ICD-10-CM) diagnoses aggregates over 72,000 ICD-10-CM diagnosis codes into a manageable number of clinically meaningful categories organized across 21 body systems, which generally follow the structure of the ICD-10-CM diagnosis chapters. It provides a means by which to identify specific clinical conditions using ICD-10-CM diagnosis codes. The CCSR is intended to be used analytically to examine patterns of healthcare in terms of cost, utilization and outcomes, rank utilization by diagnoses, and risk adjust by clinical condition.

The CCSR for ICD-10-CM diagnoses replaces the beta version of the CCS for ICD-10-CM diagnoses. The beta version of the CCS was originally released in October 2015 and is based on a translation of ICD-9-CM diagnosis codes prior to the availability of ICD-10-CM-coded data. The CCSR capitalizes on the specificity built into ICD-10-CM coding by creating new clinical categories that did not exist in previous versions of the CCS tool and allows ICD-10-CM codes to be classified in more than one category.

Purpose

This report summarizes the comparison of the beta version of the CCS for ICD-10-CM diagnoses to the CCSR for ICD-10-CM diagnoses by category and by individual diagnosis codes. The comparisons in this report and the supplemental Excel file are done using Version 2019.1 of both HCUP tools:

- The beta version of the CCS v2019.1 included 283 categories that aligned with the ICD-9-CM version of the tool
- The CCSR for ICD-10-CM diagnoses v2019.1 included 538 categories.¹

These versions include coding updates for fiscal year 2019 and will be the last year of coding updates for the beta version of the CCS for ICD-10-CM diagnoses.

¹ Categories and coding assignments in the CCSR for ICD-10-CM diagnoses can change over time in an effort to improve the tool or update it for newly released fiscal year codes. For example, starting with version 2020.2, the CCSR for ICD-10-CM diagnoses includes 539 CCSR categories because a new category for low back pain was added.

Methods

The report identifies situations where the CCSR categories are identical, highly similar, or substantially different than the beta version CCS categories. This is done by classifying the beta CCS to CCSR mappings into three groups:

- No differences in ICD-10-CM diagnosis codes within categories
- Differences in 10 or fewer ICD-10-CM diagnosis codes within categories
- Differences of more than 10 ICD-10-CM diagnosis codes within categories.

A beta version CCS category might be included in one or more of the difference categories because each individual ICD-10-CM diagnosis in a beta CCS category can map to multiple CCSR categories. For example, beta CCS 63 (Disease of white blood cells) is included in the no difference group because all of the included codes are the same as all of the codes in CCSR category BLD007 (Disease of white blood cells). However, beta CCS 63 is also included twice in the more than 10 differences group because some of the diagnosis codes also map to CCSR categories INJ030 (Drug induced or toxic related condition) and NEO074 (Conditions due to neoplasm or the treatment of neoplasm).

The following summarizes the detected differences:

- 35 beta CCS categories have no differences in ICD-10-CM diagnosis codes when compared to the CCSR mapping
- 81 beta CCS categories have differences in 10 or fewer ICD-10-CM diagnosis codes when compared to the CCSR mapping
 - The list of these beta CCS categories includes a total of 86 beta CCS to CCSR comparisons. Five beta CCS categories are included on the list twice because of codes mapping to two different CCSR categories.
- 243 beta CCS categories have differences of more than 10 ICD-10-CM diagnosis codes when compared to the CCSR mapping
 - The list of these beta CCS categories includes over 1,000 beta CCS to CCSR comparisons because a beta CCS category can be listed more than once.

The above counts sum to more than the 283 beta CCS categories because one CCS category can be included in more than one difference group.

The report also summarizes how the ICD-10-CM diagnosis codes within each beta CCS category map to the CCSR categories. This comparison includes the number of CCSR categories mapped from ICD-10-CM codes in each CCS category and the specific CCSR category or categories where most of the ICD-10-CM codes from a CCS category are now assigned. For example, beta CCS 63 maps to the three CCSR categories noted in the example above – BLD007, INJ030, and NEO074. All 27 of the ICD-10-CM diagnosis codes included in beta CCS 63 are included in CCSR category BLD007 while CCSR categories INJ030 and NEO074 each include only one common ICD-10-CM diagnosis code with beta CCS 63. As a result, CCSR category BLD007 is noted as the containing most of the the ICD-10-CM diagnosis codes within beta CCS 63.

A companion Microsoft Excel file, *DXCCSR-vs-Beta-CCS-Comparison.xlsx*, available on the [CCSR page of the HCUP User Support website](#) includes the details of the comparisons by category and individual ICD-10-CM diagnosis code. The following information is provided in the Excel file:

- Tab 1, *CCS to CCSR Overlap detail*
 - Provides the number of ICD-10-CM codes that are contained in a beta version of the CCS for ICD-10-CM category and a CCSR category.
 - The worksheet can be used to examine the number of ICD-10-CM codes and number of categories that overlap between the beta version of CCS and CCSR, the total number of CCSR categories with ICD-10-CM codes that overlap a CCS category, and where most of the ICD-10-CM codes in a beta version CCS category have been assigned in the CCSR.
- Tab 2, *ICD-10-CM Code Detail*
 - Provides a complete list of beta version of the CCS and CCSR category assignment for each individual ICD-10-CM diagnosis code, valid from October 1, 2015 through September 30, 2019.
 - This tab is meant to be a reference for users interested in looking up the assignments of individual ICD-10-CM codes of interest or complete CCSR category assignments for all ICD-10-CM codes within a beta version CCS category.

Appendix A includes an example of how to use the Excel file. This report utilizes beta version CCS categories as the starting point for comparisons with the new CCSR categories. However, the Excel file could be used to examine comparisons in the opposite direction (i.e., using CCSR categories as the starting point).

COMPARISON OF BETA VERSION CCS AND CCSR CATEGORIES FOR ICD-10-CM DIAGNOSES

No Differences in ICD-10-CM Diagnosis Codes

There are 35 beta version CCS categories with no difference in ICD-10-CM diagnosis codes when compared to analogous CCSR categories (Table 1).

Table 1. Beta Version CCS Categories With No Differences in ICD-10-CM Diagnosis Codes When Compared With Analogous CCSR Categories

Clinical Classification Software (CCS), beta version 2019.1		Clinical Classification System Refined (CCSR), v2019.1	
CCS Category	CCS Category Description	CCSR Category	CCSR Category Description
17	Cancer of pancreas	NEO051	Endocrine system cancers - pancreas
45	Maintenance chemotherapy; radiotherapy	FAC006	Encounter for antineoplastic therapies
53	Disorders of lipid metabolism	END010	Disorders of lipid metabolism
56	Cystic fibrosis	END012	Cystic fibrosis
60	Acute posthemorrhagic anemia	BLD004	Acute posthemorrhagic anemia
61	Sickle cell anemia	BLD005	Sickle cell trait/anemia
63	Diseases of white blood cells	BLD007	Diseases of white blood cells
80	Multiple sclerosis	NVS005	Multiple sclerosis
83	Epilepsy; convulsions	NVS009	Epilepsy; convulsions
100	Acute myocardial infarction	CIR009	Acute myocardial infarction
128	Asthma	RSP009	Asthma
142	Appendicitis and other appendiceal conditions	DIG009	Appendicitis and other appendiceal conditions
143	Abdominal hernia	DIG010	Abdominal hernia
144	Regional enteritis and ulcerative colitis	DIG011	Regional enteritis and ulcerative colitis
146	Diverticulosis and diverticulitis	DIG013	Diverticulosis and diverticulitis
164	Hyperplasia of prostate	GEN012	Hyperplasia of prostate
169	Endometriosis	GEN019	Endometriosis
170	Prolapse of female genital organs	GEN020	Prolapse of female genital organs
171	Menstrual disorders	GEN021	Menstrual disorders

Clinical Classification Software (CCS), beta version 2019.1		Clinical Classification System Refined (CCSR), v2019.1	
CCS Category	CCS Category Description	CCSR Category	CCSR Category Description
173	Menopausal disorders	GEN023	Menopausal disorders
177	Spontaneous abortion	PRG003	Spontaneous abortion and complications of spontaneous abortion
178	Induced abortion	PRG004	Induced abortion and complications of termination of pregnancy
179	Postabortion complications	PRG007	Complications following ectopic and/or molar pregnancy
183	Hypertension complicating pregnancy; childbirth and the puerperium	PRG020	Hypertension and hypertensive-related conditions complicating pregnancy; childbirth; and the puerperium
185	Prolonged pregnancy	PRG022	Prolonged pregnancy
189	Previous C-section	PRG016	Previous C-section
193	OB-related trauma to perineum and vulva	PRG026	OB-related trauma to perineum and vulva
203	Osteoarthritis	MUS006	Osteoarthritis
218	Liveborn	PNL001	Liveborn
219	Short gestation; low birth weight; and fetal growth retardation	PNL002	Short gestation; low birth weight; and fetal growth retardation
222	Hemolytic jaundice and perinatal jaundice	PNL007	Hemolytic jaundice and perinatal jaundice
223	Birth trauma	PNL008	Birth trauma
252	Malaise and fatigue	SYM007	Malaise and fatigue
256	Medical examination/evaluation	FAC014	Medical examination/evaluation
2621	External cause codes: Place of occurrence	EXT027	External cause codes: place of occurrence of the external cause

Abbreviation: CCS, Clinical Classifications Software; CCSR, Clinical Classifications Software Refined; ICD-10-CM, International Classification of Diseases, 10th revision, Clinical Modification; OB, obstetrics;

Note: Differences are reported at the beta version CCS category level, which means that one beta version CCS can map to multiple CCSR categories based on ICD-10-CM diagnosis code assignment. Therefore, a beta version CCS category can be duplicated not only within one group, but also across groups.

Differences of Ten or Fewer Total ICD-10-CM Diagnosis Codes

There are 81 beta version CCS categories with a difference of 10 or fewer total ICD-10-CM diagnosis codes when compared to analogous CCSR categories (Table 2). Five beta CCS categories are listed twice for a total of 86 comparisons. The total number of ICD-10-CM diagnosis codes is based on two separate counts. The first corresponds to the number of ICD-10-CM diagnosis codes that were in the respective beta version CCS category that have been removed from the analogous CCSR category. The second corresponds to the number of ICD-10-CM diagnosis codes that were not in the respective beta version CCS category but have been added to the analogous CCSR category.

Table 2. Beta Version CCS Categories with Differences of Ten or Fewer Total ICD-10-CM Diagnosis Codes When Compared to Analogous CCSR Categories

Clinical Classification Software (CCS), beta version 2019.1		Clinical Classification System Refined (CCSR), v2019.1		Total ICD-10-CM Code Differences	Number of ICD-10-CM Codes Removed from Beta Version CCS	Number of ICD-10-CM Codes Added to CCSR
CCS Category	CCS Category Description	CCSR Category	CCSR Category Description			
2	Septicemia (except in labor)	INF002	Septicemia	10	0	10
5	HIV infection	INF006	HIV infection	7	1	6
12	Cancer of esophagus	NEO012	Gastrointestinal cancers - esophagus	1	1	0
13	Cancer of stomach	NEO013	Gastrointestinal cancers - stomach	3	3	0
16	Cancer of liver and intrahepatic bile duct	NEO017	Gastrointestinal cancers - liver	2	2	0
16	Cancer of liver and intrahepatic bile duct	NEO018	Gastrointestinal cancers - bile duct	9	9	0
19	Cancer of bronchus; lung	NEO022	Respiratory cancers	9	2	7
22	Melanomas of skin	NEO025	Skin cancers – melanoma	1	1	0
24	Cancer of breast	NEO030	Breast cancer - all other types	5	5	0
25	Cancer of uterus	NEO031	Female reproductive system cancers - uterus	3	3	0
25	Cancer of uterus	NEO035	Female reproductive system cancers – endometrium	7	7	0
26	Cancer of cervix	NEO032	Female reproductive system cancers - cervix	7	7	0
27	Cancer of ovary	NEO033	Female reproductive system cancers - ovary	1	1	0
29	Cancer of prostate	NEO039	Male reproductive system cancers - prostate	1	1	0
30	Cancer of testis	NEO040	Male reproductive system cancers - testis	1	1	0
31	Cancer of other male genital organs	NEO042	Male reproductive system cancers - all other types	9	9	0

Clinical Classification Software (CCS), beta version 2019.1		Clinical Classification System Refined (CCSR), v2019.1		Total ICD-10-CM Code Differences	Number of ICD-10-CM Codes Removed from Beta Version CCS	Number of ICD-10-CM Codes Added to CCSR
CCS Category	CCS Category Description	CCSR Category	CCSR Category Description			
32	Cancer of bladder	NEO043	Urinary system cancers - bladder	1	1	0
33	Cancer of kidney and renal pelvis	NEO044	Urinary system cancers - ureter and renal pelvis	9	6	3
33	Cancer of kidney and renal pelvis	NEO045	Urinary system cancers - kidney	6	6	0
34	Cancer of other urinary organs	NEO046	Urinary system cancers - urethra	10	10	0
34	Cancer of other urinary organs	NEO047	Urinary system cancers - all other types	8	8	0
36	Cancer of thyroid	NEO050	Endocrine system cancers - thyroid	1	1	0
37	Hodgkin`s disease	NEO057	Hodgkin lymphoma	1	1	0
38	Non-Hodgkin`s lymphoma	NEO058	Non-Hodgkin lymphoma	10	3	7
40	Multiple myeloma	NEO065	Multiple myeloma	3	0	3
42	Secondary malignancies	NEO070	Secondary malignancies	6	6	0
43	Malignant neoplasm without specification of site	NEO071	Malignant neoplasm, unspecified	10	9	1
47	Other and unspecified benign neoplasm	NEO073	Benign neoplasms	9	1	8
48	Thyroid disorders	END001	Thyroid disorders	4	0	4
50	Diabetes mellitus with complications	END003	Diabetes mellitus with complication	1	1	0
55	Fluid and electrolyte disorders	END011	Fluid and electrolyte disorders	1	0	1
62	Coagulation and hemorrhagic disorders	BLD006	Coagulation and hemorrhagic disorders	3	1	2
76	Meningitis (except that caused by tuberculosis or sexually transmitted disease)	NVS001	Meningitis	7	0	7
77	Encephalitis (except that caused by tuberculosis or sexually transmitted disease)	NVS002	Encephalitis	5	2	3
79	Parkinson`s disease	NVS004	Parkinson`s disease	8	0	8
81	Other hereditary and degenerative nervous system conditions	NVS006	Other specified hereditary and degenerative nervous system conditions	3	1	2
82	Paralysis	NVS008	Paralysis (other than cerebral palsy)	8	8	0
84	Headache; including migraine	NVS010	Headache; including migraine	4	0	4

Clinical Classification Software (CCS), beta version 2019.1		Clinical Classification System Refined (CCSR), v2019.1		Total ICD-10-CM Code Differences	Number of ICD-10-CM Codes Removed from Beta Version CCS	Number of ICD-10-CM Codes Added to CCSR
CCS Category	CCS Category Description	CCSR Category	CCSR Category Description			
102	Nonspecific chest pain	CIR012	Nonspecific chest pain	1	1	0
103	Pulmonary heart disease	CIR014	Pulmonary heart disease	7	7	0
105	Conduction disorders	CIR016	Conduction disorders	3	3	0
106	Cardiac dysrhythmias	CIR017	Cardiac dysrhythmias	3	3	0
111	Other and ill-defined cerebrovascular disease	CIR024	Other and ill-defined cerebrovascular disease	3	0	3
112	Transient cerebral ischemia	NVS012	Transient cerebral ischemia	1	1	0
116	Aortic and peripheral arterial embolism or thrombosis	CIR030	Aortic and peripheral arterial embolism or thrombosis	1	0	1
119	Varicose veins of lower extremity	CIR035	Varicose veins of lower extremity	5	0	5
120	Hemorrhoids	DIG014	Hemorrhoids	5	0	5
123	Influenza	RSP003	Influenza	3	0	3
124	Acute and chronic tonsillitis	RSP004	Acute and chronic tonsillitis	2	0	2
125	Acute bronchitis	RSP005	Acute bronchitis	1	0	1
127	Chronic obstructive pulmonary disease and bronchiectasis	RSP008	Chronic obstructive pulmonary disease and bronchiectasis	1	1	0
129	Aspiration pneumonitis; food/vomitus	RSP010	Aspiration pneumonitis	9	0	9
130	Pleurisy; pneumothorax; pulmonary collapse	RSP011	Pleurisy, pleural effusion and pulmonary collapse	9	7	2
131	Respiratory failure; insufficiency; arrest (adult)	RSP012	Respiratory failure; insufficiency; arrest	5	3	2
132	Lung disease due to external agents	RSP013	Lung disease due to external agents	1	0	1
137	Diseases of mouth; excluding dental	DIG003	Diseases of mouth; excluding dental	9	0	9
138	Esophageal disorders	DIG004	Esophageal disorders	3	2	1
139	Gastroduodenal ulcer (except hemorrhage)	DIG005	Gastroduodenal ulcer	1	1	0
140	Gastritis and duodenitis	DIG007	Gastritis and duodenitis	2	0	2
141	Other disorders of stomach and duodenum	DIG008	Other specified and unspecified disorders of stomach and duodenum	2	1	1
147	Anal and rectal conditions	DIG015	Anal and rectal conditions	6	0	6

Clinical Classification Software (CCS), beta version 2019.1		Clinical Classification System Refined (CCSR), v2019.1		Total ICD-10-CM Code Differences	Number of ICD-10-CM Codes Removed from Beta Version CCS	Number of ICD-10-CM Codes Added to CCSR
CCS Category	CCS Category Description	CCSR Category	CCSR Category Description			
149	Biliary tract disease	DIG017	Biliary tract disease	1	0	1
152	Pancreatic disorders (not diabetes)	DIG020	Pancreatic disorders (excluding diabetes)	2	0	2
154	Noninfectious gastroenteritis	DIG022	Noninfectious gastroenteritis	6	0	6
157	Acute and unspecified renal failure	GEN002	Acute and unspecified renal failure	2	0	2
160	Calculus of urinary tract	GEN005	Calculus of urinary tract	3	2	1
165	Inflammatory conditions of male genital organs	GEN013	Inflammatory conditions of male genital organs	10	0	10
172	Ovarian cyst	GEN022	Benign ovarian cyst	1	0	1
174	Female infertility	GEN024	Female infertility	3	0	3
175	Other female genital disorders	GEN025	Other specified female genital disorders	10	6	4
176	Contraceptive and procreative management	FAC013	Contraceptive and procreative management	1	1	0
186	Diabetes or abnormal glucose tolerance complicating pregnancy; childbirth; or the puerperium	END002	Diabetes mellitus without complication	7	1	6
186	Diabetes or abnormal glucose tolerance complicating pregnancy; childbirth; or the puerperium	PRG019	Diabetes or abnormal glucose tolerance complicating pregnancy; childbirth; or the puerperium	1	1	0
208	Acquired foot deformities	MUS021	Acquired foot deformities	3	0	3
213	Cardiac and circulatory congenital anomalies	MAL001	Cardiac and circulatory congenital anomalies	4	4	0
214	Digestive congenital anomalies	MAL002	Digestive congenital anomalies	1	1	0
215	Genitourinary congenital anomalies	MAL003	Genitourinary congenital anomalies	2	2	0
216	Nervous system congenital anomalies	MAL004	Nervous system congenital anomalies	2	2	0
220	Intrauterine hypoxia and birth asphyxia	PNL003	Neonatal acidemia and hypoxia	5	4	1
221	Respiratory distress syndrome	PNL005	Respiratory distress syndrome	2	0	2
245	Syncope	SYM001	Syncope	1	0	1
246	Fever of unknown origin	SYM002	Fever	4	0	4

Clinical Classification Software (CCS), beta version 2019.1		Clinical Classification System Refined (CCSR), v2019.1		Total ICD-10-CM Code Differences	Number of ICD-10-CM Codes Removed from Beta Version CCS	Number of ICD-10-CM Codes Added to CCSR
CCS Category	CCS Category Description	CCSR Category	CCSR Category Description			
250	Nausea and vomiting	SYM004	Nausea and vomiting	7	0	7
656	Impulse control disorders NEC	MBD008	Disruptive, impulse-control and conduct disorders	10	3	7
658	Personality disorders	MBD009	Personality disorders	3	0	3
2616	Adverse effects of medical care	EXT025	External cause codes: complications of medical and surgical care, initial encounter	1	0	1

Abbreviation: CCS, Clinical Classifications Software; CCSR, Clinical Classifications Software Refined; HIV, human immunodeficiency virus; ICD-10-CM, International Classification of Diseases, 10th revision, Clinical Modification;

Note: Differences are reported at the beta version CCS category level, which means that one beta version CCS can map to multiple CCSR categories based on ICD-10-CM diagnosis code assignment. Therefore, a beta version CCS category can be duplicated not only within one group, but also across groups.

Differences of More than Ten Total ICD-10-CM Diagnosis Codes

Beta version CCS categories not appearing in Tables 1 or 2 resulted in a difference of more than 10 total ICD-10-CM diagnosis codes when compared to analogous CCSR categories. Differences could be due to ICD-10-CM diagnosis codes that were in the beta version CCS category and have been removed from the analogous CCSR category or ICD-10-CM diagnosis codes that were not in the beta version CCS category but have been added to the analogous CCSR category.

A complete listing of the comparison of the beta version CCS to CCSR categories (including those with differences of more than 10 total ICD-10-CM diagnosis codes) is available in Excel file, *DXCCSR-vs-Beta-CCS-Comparison.xlsx*, available on the CCSR page of the HCUP User Support website.²

² Please see www.hcup-us.ahrq.gov/toolssoftware/ccsr/ccs_refined.jsp.

Summary of CCSR Mappings for Each CCS Category

Table 3 presents a summary of how each beta version CCS category maps to the CCSR categories for ICD-10-CM diagnoses. The table summarizes how many CCSR categories include the ICD-10-CM codes in each beta version CCS category. It also lists the specific CCSR category (or categories) where most of the ICD-10-CM codes from the beta version CCS category are now assigned. Details on the number of codes overlapping from a CCS to CCSR category are also available in the Excel file, *DXCCSR-vs-Beta-CCS-Comparison.xlsx*, available on the CCSR page of the HCUP User Support website.³

Table 3. Summary of CCSR Category Mapping for Each Beta Version CCS Category

Beta Version CCS Category	CCS Category Description, beta version 2019.1	How many CCSR categories (v2019.1) do the ICD-10-CM codes in the CCS category map to?	What CCSR category (v2019.1) includes most of the ICD-10-CM codes in the CCS category?
1	Tuberculosis	31	INF001 - Tuberculosis
2	Septicemia (except in labor)	7	INF002 - Septicemia
3	Bacterial infection; unspecified site	14	INF003 – Bacterial infections
4	Mycoses	14	INF004 – Fungal infections
5	HIV infection	2	INF006 – HIV infection
6	Hepatitis	8	INF007 – Hepatitis INF008 – Fungal infections
7	Viral infection	16	INF008 – Viral infection
8	Other infections; including parasitic	19	INF009 – Parasitic, other and unspecified infections
9	Sexually transmitted infections (not HIV or hepatitis)	33	INF010 – Sexually transmitted infections (excluding HIV and hepatitis)
10	Immunizations and screening for infectious disease	4	FAC016 – Exposure, encounters, screening or contact with infectious disease
11	Cancer of head and neck	10	NEO002 – Head and neck cancers - lip and oral cavity
12	Cancer of esophagus	2	NEO012 – Gastrointestinal cancers - esophagus
13	Cancer of stomach	4	NEO013 – Gastrointestinal cancers - stomach
14	Cancer of colon	3	NEO015 – Gastrointestinal cancers - colorectal
15	Cancer of rectum and anus	5	NEO015 – Gastrointestinal cancers - colorectal NEO016 – Gastrointestinal cancers - anus
16	Cancer of liver and intrahepatic bile duct	3	NEO017 – Gastrointestinal cancers - liver
17	Cancer of pancreas	1	NEO051 – Endocrine system cancers - pancreas

³ Please see www.hcup-us.ahrq.gov/toolssoftware/ccsr/ccs_refined.jsp.

Beta Version CCS Category	CCS Category Description, beta version 2019.1	How many CCSR categories (v2019.1) do the ICD-10-CM codes in the CCS category map to?	What CCSR category (v2019.1) includes most of the ICD-10-CM codes in the CCS category?
18	Cancer of other GI organs; peritoneum	8	NEO021 – Gastrointestinal cancers - all other types
19	Cancer of bronchus; lung	3	NEO022 – Respiratory cancers
20	Cancer; other respiratory and intrathoracic	3	NEO022 – Respiratory cancers
21	Cancer of bone and connective tissue	2	NEO023 – Bone cancer
22	Melanomas of skin	2	NEO025 – Skin cancers - melanoma
23	Other non-epithelial cancer of skin	4	NEO028 – Skin cancers - all other types
24	Cancer of breast	3	NEO030 – Breast cancer - all other types
25	Cancer of uterus	3	NEO031 – Female reproductive system cancers - uterus
26	Cancer of cervix	3	NEO032 – Female reproductive system cancers - cervix
27	Cancer of ovary	2	NEO033 – Female reproductive system cancers - ovary
28	Cancer of other female genital organs	6	NEO038 – Female reproductive system cancers - all other types
29	Cancer of prostate	2	NEO039 – Male reproductive system cancers - prostate
30	Cancer of testis	2	NEO040 – Male reproductive system cancers - testis
31	Cancer of other male genital organs	3	NEO042 – Male reproductive system cancers - all other types
32	Cancer of bladder	2	NEO043 – Urinary system cancers - bladder
33	Cancer of kidney and renal pelvis	4	NEO044 – Urinary system cancers - ureter and renal pelvis NEO045 – Urinary system cancers - kidney
34	Cancer of other urinary organs	4	NEO044 – Urinary system cancers - ureter and renal pelvis NEO046 – Urinary system cancers - urethra NEO047 – Urinary system cancers - all other types
35	Cancer of brain and nervous system	3	NEO049 – Nervous system cancers - all other types
36	Cancer of thyroid	3	NEO050 – Endocrine system cancers - thyroid
37	Hodgkin`s disease	2	NEO057 – Hodgkin lymphoma
38	Non-Hodgkin`s lymphoma	3	NEO058 – Non-Hodgkin lymphoma
39	Leukemias	9	NEO064 – Leukemia - all other types
40	Multiple myeloma	1	NEO065 – Multiple myeloma
41	Cancer; other and unspecified primary	14	NEO001 – Head and neck cancers - eye
42	Secondary malignancies	5	NEO070 – Secondary malignancies
43	Malignant neoplasm without specification of site	3	NEO066 – Malignant neuroendocrine tumors

Beta Version CCS Category	CCS Category Description, beta version 2019.1	How many CCSR categories (v2019.1) do the ICD-10-CM codes in the CCS category map to?	What CCSR category (v2019.1) includes most of the ICD-10-CM codes in the CCS category?
44	Neoplasms of unspecified nature or uncertain behavior	2	NEO072 – Neoplasms of unspecified nature or uncertain behavior
45	Maintenance chemotherapy; radiotherapy	1	FAC006 – Encounter for antineoplastic therapies
46	Benign neoplasm of uterus	1	NEO073 – Benign neoplasms
47	Other and unspecified benign neoplasm	3	NEO073 – Benign neoplasms
48	Thyroid disorders	3	END001 – Thyroid disorders
49	Diabetes mellitus without complication	7	END002 – Diabetes mellitus without complication SYM017 – Abnormal findings without diagnosis
50	Diabetes mellitus with complications	18	END003 – Diabetes mellitus with complication
51	Other endocrine disorders	6	END015 – Other specified and unspecified endocrine disorders
52	Nutritional deficiencies	9	END007 – Nutritional deficiencies
53	Disorders of lipid metabolism	1	END010 – Disorders of lipid metabolism
54	Gout and other crystal arthropathies	3	MUS033 – Gout
55	Fluid and electrolyte disorders	1	END011 – Fluid and electrolyte disorders
56	Cystic fibrosis	1	END012 – Cystic fibrosis
57	Immunity disorders	3	BLD008 – Immunity disorders
58	Other nutritional; endocrine; and metabolic disorders	9	END016 – Other specified and unspecified nutritional and metabolic disorders
59	Deficiency and other anemia	8	BLD001 – Nutritional anemia BLD002 – Hemolytic anemia BLD003 – Aplastic anemia
60	Acute posthemorrhagic anemia	1	BLD004 – Acute posthemorrhagic anemia
61	Sickle cell anemia	1	BLD005 – Sickle cell trait/anemia
62	Coagulation and hemorrhagic disorders	3	BLD006 – Coagulation and hemorrhagic disorders
63	Diseases of white blood cells	3	BLD007 – Diseases of white blood cells
64	Other hematologic conditions	3	BLD010 – Other specified and unspecified hematologic conditions
76	Meningitis (except that caused by tuberculosis or sexually transmitted disease)	6	NVS001 – Meningitis
77	Encephalitis (except that caused by tuberculosis or sexually transmitted disease)	9	NVS002 – Encephalitis
78	Other CNS infection and poliomyelitis	8	NVS003 – Other specified CNS infection and poliomyelitis INF008 – Viral infection

Beta Version CCS Category	CCS Category Description, beta version 2019.1	How many CCSR categories (v2019.1) do the ICD-10-CM codes in the CCS category map to?	What CCSR category (v2019.1) includes most of the ICD-10-CM codes in the CCS category?
79	Parkinson`s disease	1	NVS004 – Parkinson`s disease
80	Multiple sclerosis	1	NVS005 – Multiple sclerosis
81	Other hereditary and degenerative nervous system conditions	8	NVS006 – Other specified hereditary and degenerative nervous system conditions
82	Paralysis	3	NVS008 – Paralysis (other than cerebral palsy)
83	Epilepsy; convulsions	1	NVS009 – Epilepsy; convulsions
84	Headache; including migraine	5	NVS010 – Headache; including migraine
85	Coma; stupor; and brain damage	2	SYM010 – Nervous system signs and symptoms
86	Cataract	3	EYE002 – Cataract and other lens disorders
87	Retinal detachments; defects; vascular occlusion; and retinopathy	3	EYE005 – Retinal and vitreous conditions
88	Glaucoma	2	EYE003 – Glaucoma
89	Blindness and vision defects	5	EYE010 – Blindness and vision defects
90	Inflammation; infection of eye (except that caused by tuberculosis or sexually transmitted disease)	15	EYE001 – Cornea and external disease
91	Other eye disorders	12	EYE001 – Cornea and external disease EYE008 – Oculofacial plastics and orbital conditions
92	Otitis media and related conditions	6	EAR002 – Diseases of middle ear and mastoid (except otitis media)
93	Conditions associated with dizziness or vertigo	2	EAR003 – Diseases of inner ear and related conditions
94	Other ear and sense organ disorders	7	EAR006 – Other specified and unspecified disorders of the ear
95	Other nervous system disorders	18	NVS017 – Nerve and nerve root disorders
96	Heart valve disorders	4	CIR001 – Chronic rheumatic heart disease CIR003 – Nonrheumatic and unspecified valve disorders
97	Peri-; endo-; and myocarditis; cardiomyopathy (except that caused by tuberculosis or sexually transmitted disease)	12	CIR004 – Endocarditis and endocardial disease CIR005 – Myocarditis and cardiomyopathy CIR006 – Pericarditis and pericardial disease
98	Essential hypertension	1	CIR007 – Essential hypertension
99	Hypertension with complications and secondary hypertension	5	CIR008 – Hypertension with complications and secondary hypertension
100	Acute myocardial infarction	1	CIR009 – Acute myocardial infarction

Beta Version CCS Category	CCS Category Description, beta version 2019.1	How many CCSR categories (v2019.1) do the ICD-10-CM codes in the CCS category map to?	What CCSR category (v2019.1) includes most of the ICD-10-CM codes in the CCS category?
101	Coronary atherosclerosis and other heart disease	4	CIR011 – Coronary atherosclerosis and other heart disease
102	Nonspecific chest pain	2	CIR012 – Nonspecific chest pain
103	Pulmonary heart disease	3	CIR014 – Pulmonary heart disease
104	Other and ill-defined heart disease	3	CIR015 – Other and ill-defined heart disease
105	Conduction disorders	2	CIR016 – Conduction disorders
106	Cardiac dysrhythmias	2	CIR017 – Cardiac dysrhythmias
107	Cardiac arrest and ventricular fibrillation	1	CIR018 – Cardiac arrest and ventricular fibrillation
108	Congestive heart failure; nonhypertensive	2	CIR019 – Heart failure
109	Acute cerebrovascular disease	4	CIR020 – Cerebral infarction
110	Occlusion or stenosis of precerebral arteries	1	CIR023 – Occlusion or stenosis of precerebral or cerebral arteries without infarction
111	Other and ill-defined cerebrovascular disease	2	CIR024 – Other and ill-defined cerebrovascular disease
112	Transient cerebral ischemia	3	NVS012 – Transient cerebral ischemia
113	Late effects of cerebrovascular disease	2	CIR022 – Sequela of hemorrhagic cerebrovascular disease CIR025 – Sequela of cerebral infarction and other cerebrovascular disease
114	Peripheral and visceral atherosclerosis	2	CIR026 – Peripheral and visceral vascular disease
115	Aortic; peripheral; and visceral artery aneurysms	3	CIR027 – Arterial dissections CIR029 – Aortic; peripheral; and visceral artery aneurysms
116	Aortic and peripheral arterial embolism or thrombosis	1	CIR030 – Aortic and peripheral arterial embolism or thrombosis
117	Other circulatory disease	9	CIR032 – Other specified and unspecified circulatory disease
118	Phlebitis; thrombophlebitis and thromboembolism	3	CIR033 – Acute phlebitis; thrombophlebitis and thromboembolism CIR034 – Chronic phlebitis; thrombophlebitis and thromboembolism
119	Varicose veins of lower extremity	1	CIR035 – Varicose veins of lower extremity
120	Hemorrhoids	1	DIG014 – Hemorrhoids
121	Other diseases of veins and lymphatics	2	CIR036 – Postthrombotic syndrome and venous insufficiency/hypertension
122	Pneumonia (except that caused by tuberculosis or sexually transmitted disease)	6	RSP002 – Pneumonia (except that caused by tuberculosis)
123	Influenza	5	RSP003 – Influenza
124	Acute and chronic tonsillitis	1	RSP004 – Acute and chronic tonsillitis

Beta Version CCS Category	CCS Category Description, beta version 2019.1	How many CCSR categories (v2019.1) do the ICD-10-CM codes in the CCS category map to?	What CCSR category (v2019.1) includes most of the ICD-10-CM codes in the CCS category?
125	Acute bronchitis	3	RSP005 – Acute bronchitis
126	Other upper respiratory infections	5	RSP001 – Sinusitis RSP006 – Other specified upper respiratory infections
127	Chronic obstructive pulmonary disease and bronchiectasis	2	RSP008 – Chronic obstructive pulmonary disease and bronchiectasis
128	Asthma	1	RSP009 – Asthma
129	Aspiration pneumonitis; food/vomitus	1	RSP010 – Aspiration pneumonitis
130	Pleurisy; pneumothorax; pulmonary collapse	2	RSP011 – Pleurisy, pleural effusion and pulmonary collapse
131	Respiratory failure; insufficiency; arrest (adult)	3	RSP012 – Respiratory failure; insufficiency; arrest
132	Lung disease due to external agents	3	RSP013 – Lung disease due to external agents
133	Other lower respiratory disease	8	RSP016 – Other specified and unspecified lower respiratory disease
134	Other upper respiratory disease	10	RSP007 – Other specified and unspecified upper respiratory disease
135	Intestinal infection	7	DIG001 – Intestinal infection
136	Disorders of teeth and jaw	8	DIG002 – Disorders of teeth and gingiva
137	Diseases of mouth; excluding dental	2	DIG003 – Diseases of mouth; excluding dental
138	Esophageal disorders	4	DIG004 – Esophageal disorders
139	Gastroduodenal ulcer (except hemorrhage)	3	DIG005 – Gastroduodenal ulcer
140	Gastritis and duodenitis	2	DIG007 – Gastritis and duodenitis
141	Other disorders of stomach and duodenum	4	DIG008 – Other specified and unspecified disorders of stomach and duodenum
142	Appendicitis and other appendiceal conditions	2	DIG009 – Appendicitis and other appendiceal conditions
143	Abdominal hernia	3	DIG010 – Abdominal hernia
144	Regional enteritis and ulcerative colitis	4	DIG011 – Regional enteritis and ulcerative colitis
145	Intestinal obstruction without hernia	2	DIG012 – Intestinal obstruction and ileus
146	Diverticulosis and diverticulitis	4	DIG013 – Diverticulosis and diverticulitis
147	Anal and rectal conditions	2	DIG015 – Anal and rectal conditions
148	Peritonitis and intestinal abscess	2	DIG016 – Peritonitis and intra-abdominal abscess
149	Biliary tract disease	3	DIG017 – Biliary tract disease
151	Other liver diseases	9	DIG019 – Other specified and unspecified liver disease

Beta Version CCS Category	CCS Category Description, beta version 2019.1	How many CCSR categories (v2019.1) do the ICD-10-CM codes in the CCS category map to?	What CCSR category (v2019.1) includes most of the ICD-10-CM codes in the CCS category?
152	Pancreatic disorders (not diabetes)	2	DIG020 – Pancreatic disorders (excluding diabetes)
153	Gastrointestinal hemorrhage	2	DIG021 – Gastrointestinal hemorrhage
154	Noninfectious gastroenteritis	1	DIG022 – Noninfectious gastroenteritis
155	Other gastrointestinal disorders	15	DIG025 – Other specified and unspecified gastrointestinal disorders SYM006 – Abdominal pain and other digestive/abdomen signs and symptoms
156	Nephritis; nephrosis; renal sclerosis	6	GEN001 – Nephritis; nephrosis; renal sclerosis
157	Acute and unspecified renal failure	1	GEN002 – Acute and unspecified renal failure
158	Chronic kidney disease	5	GEN003 – Chronic kidney disease
159	Urinary tract infections	4	GEN004 – Urinary tract infections
160	Calculus of urinary tract	3	GEN005 – Calculus of urinary tract
161	Other diseases of kidney and ureters	6	GEN006 – Other specified and unspecified diseases of kidney and ureters
162	Other diseases of bladder and urethra	1	GEN007 – Other specified and unspecified diseases of bladder and urethra
163	Genitourinary symptoms and ill-defined conditions	11	SYM011 – Genitourinary signs and symptoms
164	Hyperplasia of prostate	1	GEN012 – Hyperplasia of prostate
165	Inflammatory conditions of male genital organs	3	GEN013 – Inflammatory conditions of male genital organs
166	Other male genital disorders	7	GEN016 – Other specified male genital disorders
167	Nonmalignant breast conditions	2	GEN017 – Nonmalignant breast conditions
168	Inflammatory diseases of female pelvic organs	1	GEN018 – Inflammatory diseases of female pelvic organs
169	Endometriosis	2	GEN019 – Endometriosis
170	Prolapse of female genital organs	1	GEN020 – Prolapse of female genital organs
171	Menstrual disorders	1	GEN021 – Menstrual disorders
172	Ovarian cyst	1	GEN022 – Benign ovarian cyst
173	Menopausal disorders	4	GEN023 – Menopausal disorders
174	Female infertility	1	GEN024 – Female infertility
175	Other female genital disorders	3	GEN025 – Other specified female genital disorders
176	Contraceptive and procreative management	2	FAC013 – Contraceptive and procreative management
177	Spontaneous abortion	4	PRG003 – Spontaneous abortion and complications of spontaneous abortion

Beta Version CCS Category	CCS Category Description, beta version 2019.1	How many CCSR categories (v2019.1) do the ICD-10-CM codes in the CCS category map to?	What CCSR category (v2019.1) includes most of the ICD-10-CM codes in the CCS category?
178	Induced abortion	4	PRG004 – Induced abortion and complications of termination of pregnancy
179	Postabortion complications	4	PRG007 – Complications following ectopic and/or molar pregnancy
180	Ectopic pregnancy	1	PRG005 – Ectopic pregnancy and complications of ectopic pregnancy
181	Other complications of pregnancy	46	PRG013 – Maternal care related to fetal conditions PRG028 – Other specified complications in pregnancy
182	Hemorrhage during pregnancy; abruptio placenta; placenta previa	4	PRG009 – Early, first or unspecified trimester hemorrhage PRG010 – Hemorrhage after first trimester PRG018 – Maternal care related to disorders of the placenta and placental implantation
183	Hypertension complicating pregnancy; childbirth and the puerperium	5	PRG020 – Hypertension and hypertensive-related conditions complicating pregnancy; childbirth; and the puerperium
184	Early or threatened labor	2	PRG011 – Early or threatened labor
185	Prolonged pregnancy	1	PRG022 – Prolonged pregnancy
186	Diabetes or abnormal glucose tolerance complicating pregnancy; childbirth; or the puerperium	7	END002 – Diabetes mellitus without complication PRG019 – Diabetes or abnormal glucose tolerance complicating pregnancy; childbirth; or the puerperium
187	Malposition; malpresentation	1	PRG024 – Malposition, disproportion or other labor complications
188	Fetopelvic disproportion; obstruction	2	PRG024 – Malposition, disproportion or other labor complications
189	Previous C-section	1	PRG016 – Previous C-section
190	Fetal distress and abnormal forces of labor	2	PRG024 – Malposition, disproportion or other labor complications
191	Polyhydramnios and other problems of amniotic cavity	4	PRG014 – Polyhydramnios and other problems of amniotic cavity
192	Umbilical cord complication	2	PRG024 – Malposition, disproportion or other labor complications
193	OB-related trauma to perineum and vulva	1	PRG026 – OB-related trauma to perineum and vulva
194	Forceps delivery	1	PRG024 – Malposition, disproportion or other labor complications
195	Other complications of birth; puerperium affecting management of mother	35	PRG023 – Complications specified during childbirth PRG027 – Complications specified during the puerperium
196	Other pregnancy and delivery including normal	3	PRG012 – Multiple gestation
197	Skin and subcutaneous tissue infections	3	SKN001 – Skin and subcutaneous tissue infections
198	Other inflammatory condition of skin	11	SKN002 – Other specified inflammatory condition of skin

Beta Version CCS Category	CCS Category Description, beta version 2019.1	How many CCSR categories (v2019.1) do the ICD-10-CM codes in the CCS category map to?	What CCSR category (v2019.1) includes most of the ICD-10-CM codes in the CCS category?
199	Chronic ulcer of skin	3	SKN003 – Pressure ulcer of skin SKN004 – Non-pressure ulcer of skin
200	Other skin disorders	8	SKN007 – Other specified and unspecified skin disorders
201	Infective arthritis and osteomyelitis (except that caused by tuberculosis or sexually transmitted disease)	7	MUS001 – Infective arthritis MUS002 – Osteomyelitis
202	Rheumatoid arthritis and related disease	9	MUS003 – Rheumatoid arthritis and related disease
203	Osteoarthritis	1	MUS006 – Osteoarthritis
204	Other non-traumatic joint disorders	10	MUS007 – Other specified joint disorders
205	Spondylosis; intervertebral disc disorders; other back problems	5	MUS011 – Spondylopathies/spondyloarthropathy (including infective)
206	Osteoporosis	1	MUS013 – Osteoporosis
207	Pathological fracture	6	MUS014 – Pathological fracture, IE MUS015 – Pathological fracture, SE MUS020 – Pathological, stress and atypical fractures, sequela
208	Acquired foot deformities	1	MUS021 – Acquired foot deformities
209	Other acquired deformities	6	MUS023 – Acquired deformities (excluding foot)
210	Systemic lupus erythematosus and connective tissue disorders	6	MUS024 – Systemic lupus erythematosus and connective tissue disorders
211	Other connective tissue disease	13	MUS009 – Tendon and synovial disorders MUS025 – Other specified connective tissue disease MUS026 – Muscle disorders
212	Other bone disease and musculoskeletal deformities	7	MUS028 – Other specified bone disease and musculoskeletal deformities MUS030 – Aseptic necrosis and osteonecrosis
213	Cardiac and circulatory congenital anomalies	3	MAL001 – Cardiac and circulatory congenital anomalies
214	Digestive congenital anomalies	2	MAL002 – Digestive congenital anomalies
215	Genitourinary congenital anomalies	2	MAL003 – Genitourinary congenital anomalies
216	Nervous system congenital anomalies	3	MAL004 – Nervous system congenital anomalies
217	Other congenital anomalies	8	MAL008 – Musculoskeletal congenital conditions
218	Liveborn	1	PNL001 – Liveborn
219	Short gestation; low birth weight; and fetal growth retardation	1	PNL002 – Short gestation; low birth weight; and fetal growth retardation

Beta Version CCS Category	CCS Category Description, beta version 2019.1	How many CCSR categories (v2019.1) do the ICD-10-CM codes in the CCS category map to?	What CCSR category (v2019.1) includes most of the ICD-10-CM codes in the CCS category?
220	Intrauterine hypoxia and birth asphyxia	2	PNL003 – Neonatal acidemia and hypoxia PNL004 – Neonatal cerebral disorders
221	Respiratory distress syndrome	1	PNL005 – Respiratory distress syndrome
222	Hemolytic jaundice and perinatal jaundice	2	PNL007 – Hemolytic jaundice and perinatal jaundice
223	Birth trauma	1	PNL008 – Birth trauma
224	Other perinatal conditions	22	PNL013 – Other specified and unspecified perinatal conditions
225	Joint disorders and dislocations; trauma-related	9	INJ007 – Dislocations, IE INJ044 – Dislocations, SE INJ073 – Injury, sequela
226	Fracture of neck of femur (hip)	6	INJ006 – Fracture of the neck of the femur (hip), IE INJ043 – Fracture of the neck of the femur (hip), SE INJ073 – Injury, sequela
227	Spinal cord injury	4	INJ009 – Spinal cord injury (SCI), IE INJ046 – Spinal cord injury (SCI), SE INJ073 – Injury, sequela
228	Skull and face fractures	3	INJ001 – Fracture of head and neck, IE INJ038 – Fracture of head and neck, SE INJ073 – Injury, sequela
229	Fracture of upper limb	6	INJ004 – Fracture of the upper limb, IE INJ041 – Fracture of the upper limb, SE INJ073 – Injury, sequela
230	Fracture of lower limb	14	INJ005 – Fracture of the lower limb (except hip), IE INJ042 – Fracture of lower limb (except hip), SE INJ073 – Injury, sequela
231	Other fractures	12	INJ002 – Fracture of the spine and back, IE INJ039 – Fracture of the spine and back, SE INJ073 – Injury, sequela INJ003 Fracture of torso, IE INJ040 – Fracture of torso, SE
232	Sprains and strains	7	INJ024 – Sprains and strains, IE INJ061 – Sprains and strains, SE INJ073 – Injury, sequela

Beta Version CCS Category	CCS Category Description, beta version 2019.1	How many CCSR categories (v2019.1) do the ICD-10-CM codes in the CCS category map to?	What CCSR category (v2019.1) includes most of the ICD-10-CM codes in the CCS category?
233	Intracranial injury	4	INJ008 – Traumatic brain injury (TBI); concussion, IE INJ045 – Traumatic brain injury (TBI); concussion, SE INJ073 – Injury, sequela
234	Crushing injury or internal injury	7	INJ016 – Injury to blood vessels, IE INJ053 – Injury to blood vessels, SE INJ010 – Internal organ injury, IE INJ047 – Internal organ injury, SE INJ073 – Injury, sequela
235	Open wounds of head; neck; and trunk	11	INJ011 – Open wounds of head and neck, IE INJ048 – Open wounds of head and neck, SE INJ013 – Open wounds of trunk, IE INJ050 – Open wounds of trunk, SE INJ073 – Injury, sequela
236	Open wounds of extremities	7	INJ012 – Open wounds to limbs, IE INJ049 – Open wounds to limbs, SE INJ073 – Injury, sequela
237	Complication of device; implant or graft	17	CIR026 – Peripheral and visceral vascular disease INJ035 – Complication of internal orthopedic device or implant, IE INJ071 – Complication of internal orthopedic device or implant, SE INJ037 – Complication of other surgical or medical care, injury, IE INJ072 – Complication of other surgical or medical care, injury, SE INJ076 – Complication, sequela
238	Complications of surgical procedures or medical care	53	INJ037 – Complication of other surgical or medical care, injury, IE INJ072 – Complication of other surgical or medical care, injury, SE INJ076 – Complication, sequela
239	Superficial injury; contusion	3	INJ017 – Superficial injury; contusion, IE INJ054 – Superficial injury; contusion, SE INJ073 – Injury, sequela
240	Burns	3	INJ019 – Burn and corrosion, IE INJ056 – Burns and corrosion, SE INJ073 – Injury, sequela

Beta Version CCS Category	CCS Category Description, beta version 2019.1	How many CCSR categories (v2019.1) do the ICD-10-CM codes in the CCS category map to?	What CCSR category (v2019.1) includes most of the ICD-10-CM codes in the CCS category?
241	Poisoning by psychotropic agents	10	INJ022 – Poisoning by drugs, IE INJ059 – Poisoning by drugs, SE INJ075 – Poisoning/toxic effect/adverse effects/underdosing, sequela EXT014 – External cause codes: poisoning by drug
242	Poisoning by other medications and drugs	17	INJ022 – Poisoning by drugs, IE INJ059 – Poisoning by drugs, SE INJ075 – Poisoning/toxic effect/adverse effects/underdosing, sequela EXT014 – External cause codes: poisoning by drug
243	Poisoning by nonmedicinal substances	10	INJ023 – Toxic effects, IE INJ060 – Toxic effects, SE INJ075 – Poisoning/toxic effect/adverse effects/underdosing, sequela
244	Other injuries and conditions due to external causes	33	INJ025 – Injury to nerves, muscles and tendons, IE INJ062 – Injury to nerves, muscles and tendons, SE INJ073 – Injury, sequela
245	Syncope	1	SYM001 – Syncope
246	Fever of unknown origin	1	SYM002 – Fever
247	Lymphadenitis	3	SKN001 – Skin and subcutaneous tissue infections CIR039 – Other specified diseases of veins and lymphatics
248	Gangrene	2	CIR028 – Gangrene
249	Shock	2	SYM003 – Shock
250	Nausea and vomiting	1	SYM004 – Nausea and vomiting
251	Abdominal pain	1	SYM006 – Abdominal pain and other digestive/abdomen signs and symptoms
252	Malaise and fatigue	3	SYM007 – Malaise and fatigue
253	Allergic reactions	14	INJ031 – Allergic reactions
254	Rehabilitation care; fitting of prostheses; and adjustment of devices	3	FAC009 – Implant, device or graft related encounter
255	Administrative/social admission	8	FAC019 – Socioeconomic/psychosocial factors
256	Medical examination/evaluation	1	FAC014 – Medical examination/evaluation
257	Other aftercare	5	FAC010 – Other aftercare encounter
258	Other screening for suspected conditions (not mental disorders or infectious disease)	4	SYM017 – Abnormal findings without diagnosis

Beta Version CCS Category	CCS Category Description, beta version 2019.1	How many CCSR categories (v2019.1) do the ICD-10-CM codes in the CCS category map to?	What CCSR category (v2019.1) includes most of the ICD-10-CM codes in the CCS category?
259	Residual codes; unclassified	16	FAC025 – Other specified status
650	Adjustment disorders	1	MBD007 – Trauma- and stressor-related disorders
651	Anxiety disorders	5	MBD005 – Anxiety and fear-related disorders
652	Attention-deficit conduct and disruptive behavior disorders	3	MBD008 – Disruptive, impulse-control and conduct disorders MBD014 – Neurodevelopmental disorders SYM008 – Symptoms of mental and substance use conditions
653	Delirium dementia and amnesic and other cognitive disorders	5	NVS011 – Neurocognitive disorders
654	Developmental disorders	3	MBD014 – Neurodevelopmental disorders
655	Disorders usually diagnosed in infancy childhood or adolescence	6	MBD014 – Neurodevelopmental disorders
656	Impulse control disorders NEC	4	MBD008 – Disruptive, impulse-control and conduct disorders
657	Mood disorders	5	MBD002 – Depressive disorders MBD003 – Bipolar and related disorders
658	Personality disorders	2	MBD009 – Personality disorders
659	Schizophrenia and other psychotic disorders	2	MBD001 – Schizophrenia spectrum and other psychotic disorders
660	Alcohol-related disorders	17	MBD017 – Alcohol-related disorders
661	Substance-related disorders	36	MBD001 – Schizophrenia spectrum and other psychotic disorders MBD018 – Opioid-related disorders MBD019 – Cannabis-related disorders MBD020 – Sedative-related disorders MBD021 – Stimulant-related disorders MBD022 – Hallucinogen-related disorders MBD023 – Inhalant-related disorders MBD025 – Other specified substance-related disorders
662	Suicide and intentional self-inflicted injury	45	MBD012 – Suicidal ideation/attempt/intentional self-harm MBD027 – Suicide attempt/intentional self-harm; SE MBD034 – Mental and substance use disorders; sequela INJ075 – Poisoning/toxic effect/adverse effects/underdosing, sequela EXT021 – External cause codes: intent of injury, self-harm
663	Screening and history of mental health and substance abuse codes	5	FAC021 – Personal/family history of disease SYM009 – Abnormal findings related to substance use

Beta Version CCS Category	CCS Category Description, beta version 2019.1	How many CCSR categories (v2019.1) do the ICD-10-CM codes in the CCS category map to?	What CCSR category (v2019.1) includes most of the ICD-10-CM codes in the CCS category?
670	Miscellaneous mental health disorders	15	MBD013 – Miscellaneous mental and behavioral disorders/conditions
2601	External cause codes: Cut/pierce	7	EXT001 – External cause codes: cut/pierce; IE EXT029 – External cause codes: SE EXT030 – External cause codes: sequela
2602	External cause codes: Drowning/submersion	6	EXT002 – External cause codes: drowning/submersion; IE EXT029 – External cause codes: SE EXT030 – External cause codes: sequela
2603	External cause codes: Fall	6	EXT003 – External cause codes: fall; IE EXT029 – External cause codes: SE EXT030 – External cause codes: sequela
2604	External cause codes: Fire/burn	7	EXT004 – External cause codes: fire/burn; IE EXT029 – External cause codes: SE EXT030 – External cause codes: sequela
2605	External cause codes: Firearm	7	EXT005 – External cause codes: firearm; IE EXT029 – External cause codes: SE EXT030 – External cause codes: sequela
2606	External cause codes: Machinery	4	EXT006 – External cause codes: machinery; IE EXT029 – External cause codes: SE EXT030 – External cause codes: sequela
2607	External cause codes: Motor vehicle traffic (MVT)	6	EXT007 – External cause codes: motor vehicle traffic (MVT); IE EXT029 – External cause codes: SE EXT030 – External cause codes: sequela
2608	External cause codes: Pedal cyclist; not MVT	4	EXT008 – External cause codes: pedal cyclist; not MVT; IE EXT029 – External cause codes: SE EXT030 – External cause codes: sequela
2609	External cause codes: Pedestrian; not MVT	4	EXT009 – External cause codes: pedestrian; not MVT; IE EXT029 – External cause codes: SE EXT030 – External cause codes: sequela
2610	External cause codes: Transport; not MVT	6	EXT010 – External cause codes: transport; not MVT; IE EXT029 – External cause codes: SE EXT030 – External cause codes: sequela

Beta Version CCS Category	CCS Category Description, beta version 2019.1	How many CCSR categories (v2019.1) do the ICD-10-CM codes in the CCS category map to?	What CCSR category (v2019.1) includes most of the ICD-10-CM codes in the CCS category?
2611	External cause codes: Natural/environment	7	EXT011 – External cause codes: natural/environment; IE EXT020 – External cause codes: intent of injury, accidental/unintentional EXT029 – External cause codes: SE EXT030 – External cause codes: sequela
2612	External cause codes: Overexertion	4	EXT013 – External cause codes: overexertion; IE EXT029 – External cause codes: SE EXT030 – External cause codes: sequela
2613	External cause codes: Poisoning	5	EXT015 – External cause codes: poisoning by non-drug EXT029 – External cause codes: SE EXT030 – External cause codes: sequela
2614	External cause codes: Struck by; against	7	EXT016 – External cause codes: struck by; against; IE EXT029 – External cause codes: SE EXT030 – External cause codes: sequela
2615	External cause codes: Suffocation	4	EXT017 – External cause codes: suffocation/inhalation; IE EXT029 – External cause codes: SE EXT030 – External cause codes: sequela
2616	Adverse effects of medical care	1	EXT025 – External cause codes: complications of medical and surgical care, IE
2617	Adverse effects of medical drugs	14	INJ028 – Adverse effects of medical drugs, IE EXT029 – External cause codes: SE EXT030 – External cause codes: sequela
2618	External cause codes: Other specified and classifiable	8	EXT018 – External cause codes: other specified, classifiable and NEC; IE EXT029 – External cause codes: SE EXT030 – External cause codes: sequela
2619	External cause codes: Other specified; NEC	6	EXT018 – External cause codes: other specified, classifiable and NEC; IE EXT029 – External cause codes: SE EXT030 – External cause codes: sequela
2620	External cause codes: Unspecified	8	EXT026 – External cause codes: activity codes
2621	External cause codes: Place of occurrence	1	EXT027 – External cause codes: place of occurrence of the external cause

Abbreviations: CCS, Clinical Classifications Software; CCSR, Clinical Classifications Software Refined; CNS, central nervous system; GI, gastrointestinal; HIV, human immunodeficiency virus; ICD-10-CM, International Classification of Diseases, 10th Revision, Clinical Modification; IE, initial encounter; MVT, motor vehicle traffic; NEC, not elsewhere classified; OB, obstetric; SE, subsequent encounter.

APPENDIX A. EXAMPLE OF USING THE COMPANION MICROSOFT EXCEL FILE, *DXCCSR-VS-BETA-CCS-COMPARISON.XLSX*

The following is an example of using the companion Microsoft Excel file, *DXCCSR-vs-Beta-CCS-Comparison.xlsx*, available on the [CCSR page of the HCUP User Support website](#) using the beta version CCS for ICD-10-CM diagnoses category 6 for Hepatitis.

On the first Tab *CCS to CCSR Overlap detail*, there are eight rows for beta version CCS category 6 for Hepatitis (Figure 1). These rows are identified by using the Excel filter on the column for the Beta Version CCS Category to select the number 6. There are 45 ICD-10-CM diagnosis codes in the beta version CCS category. Three of the codes are included CCSR category DIG019 (Other specified and unspecified liver disease). The CCSR category DIG019 includes a total of 43 ICD-10-CM diagnosis codes. Twenty-six of the 45 diagnosis codes in the beta version CCS category 6 for Hepatitis are included CCSR category INF007 (Hepatitis) and 25 codes are included CCSR category INF008 (Viral Infection). An analysis could be conducted in the opposite direction by instead filtering on the CCSR Category column of the Excel file to the value INF007.

Figure 1. Rows for Beta Version CCS Category 6 for Hepatitis Selected from Excel Tab *CCS to CCSR Overlap detail*

Beta Version CCS Category	Beta Version CCS Description	Number of ICD-10-CM Codes in Beta Version CCS	Number of ICD-10-CM Codes that Overlap	Number of ICD-10-CM Codes in CCSR	CCSR Category	CCSR Description
6	Hepatitis	45	3	43	DIG019	Other specified and unspecified liver disease
6	Hepatitis	45	15	15	DIG023	Noninfectious hepatitis
6	Hepatitis	45	26	37	INF007	Hepatitis
6	Hepatitis	45	25	308	INF008	Viral infection
6	Hepatitis	45	1	248	INF009	Parasitic, other specified and unspecified infections
6	Hepatitis	45	1	12	INF011	Sequela of specified infectious disease conditions
6	Hepatitis	45	8	238	INJ030	Drug induced or toxic related condition
6	Hepatitis	45	7	33	NVS013	Coma; stupor; and brain damage

The second Tab *ICD-10-CM Code Detail* can be used to investigate which codes are included in each category. Figure 2 shows the three diagnosis codes from beta version CCS category 6 for Hepatitis included in CCSR category DIG019 (Other specified and unspecified liver disease). The three rows are identified by using the Excel filter on the column for the Beta Version CCS Category to select the number 6 and the CCSR1 column for DIG019.

Figure 2. Rows for Beta Version CCS Category 6 for Hepatitis and CCSR Category DIG019 Selected from Excel Tab *ICD-10-CM Code Detail*

<i>ICD-10-CM Code</i>	<i>ICD-10-CM Code Definition</i>	<i>Beta Version CCS Category</i>	<i>Beta Version CCS Category Description</i>	<i>CCSR1</i>	<i>CCSR1 Label</i>
K710	Toxic liver disease with cholestasis	6	Hepatitis	DIG019	Other specified and unspecified liver disease
K717	Toxic liver disease with fibrosis and cirrhosis of liver	6	Hepatitis	DIG019	Other specified and unspecified liver disease
K764	Peliosis hepatis	6	Hepatitis	DIG019	Other specified and unspecified liver disease

Figure 3 shows the 26 diagnosis codes from beta version CCS category 6 for Hepatitis included in CCSR category INF007 Hepatitis. The 23 rows are identified by using the Excel filter on the column for the Beta Version CCS Category to select the number 6 and the CCSR1 column for INF007.⁴ The overlapping 25 diagnosis codes from beta version CCS category 6 for Hepatitis included in CCSR category INF008 Viral Infections are identified by the column CCSR2.

Figure 3. Rows for Beta Version CCS Category 6 for Hepatitis and CCSR Category INF007 Selected from Excel Tab ICD-10-CM Code Detail

ICD-10-CM Code	ICD-10-CM Code Definition	Beta Version CCS Category	Beta Version CCS Category Description	CCSR1	CCSR1 Label	CCSR2	CCSR2 Label
B150	Hepatitis A with hepatic coma	6	Hepatitis	INF007	Hepatitis	INF008	Viral infection
B159	Hepatitis A without hepatic coma	6	Hepatitis	INF007	Hepatitis	INF008	Viral infection
B160	Acute hepatitis B with delta-agent with hepatic coma	6	Hepatitis	INF007	Hepatitis	INF008	Viral infection
B161	Acute hepatitis B with delta-agent without hepatic coma	6	Hepatitis	INF007	Hepatitis	INF008	Viral infection
B162	Acute hepatitis B without delta-agent with hepatic coma	6	Hepatitis	INF007	Hepatitis	INF008	Viral infection
B169	Acute hepatitis B without delta-agent and without hepatic coma	6	Hepatitis	INF007	Hepatitis	INF008	Viral infection
B170	Acute delta-(super) infection of hepatitis B carrier	6	Hepatitis	INF007	Hepatitis	INF008	Viral infection
B1710	Acute hepatitis C without hepatic coma	6	Hepatitis	INF007	Hepatitis	INF008	Viral infection
B1711	Acute hepatitis C with hepatic coma	6	Hepatitis	INF007	Hepatitis	INF008	Viral infection
B172	Acute hepatitis E	6	Hepatitis	INF007	Hepatitis	INF008	Viral infection
B178	Other specified acute viral hepatitis	6	Hepatitis	INF007	Hepatitis	INF008	Viral infection
B179	Acute viral hepatitis, unspecified	6	Hepatitis	INF007	Hepatitis	INF008	Viral infection
B180	Chronic viral hepatitis B with delta-agent	6	Hepatitis	INF007	Hepatitis	INF008	Viral infection
B181	Chronic viral hepatitis B without delta-agent	6	Hepatitis	INF007	Hepatitis	INF008	Viral infection
B182	Chronic viral hepatitis C	6	Hepatitis	INF007	Hepatitis	INF008	Viral infection
B188	Other chronic viral hepatitis	6	Hepatitis	INF007	Hepatitis	INF008	Viral infection
B189	Chronic viral hepatitis, unspecified	6	Hepatitis	INF007	Hepatitis	INF008	Viral infection
B190	Unspecified viral hepatitis with hepatic coma	6	Hepatitis	INF007	Hepatitis	INF008	Viral infection
B1910	Unspecified viral hepatitis B without hepatic coma	6	Hepatitis	INF007	Hepatitis	INF008	Viral infection
B1911	Unspecified viral hepatitis B with hepatic coma	6	Hepatitis	INF007	Hepatitis	INF008	Viral infection
B1920	Unspecified viral hepatitis C without hepatic coma	6	Hepatitis	INF007	Hepatitis	INF008	Viral infection
B1921	Unspecified viral hepatitis C with hepatic coma	6	Hepatitis	INF007	Hepatitis	INF008	Viral infection
B199	Unspecified viral hepatitis without hepatic coma	6	Hepatitis	INF007	Hepatitis	INF008	Viral infection
B251	Cytomegaloviral hepatitis	6	Hepatitis	INF007	Hepatitis	INF008	Viral infection
B2681	Mumps hepatitis	6	Hepatitis	INF007	Hepatitis	INF008	Viral infection
B581	Toxoplasma hepatitis	6	Hepatitis	INF007	Hepatitis	INF009	Parasitic, other specified and unspecified infections

⁴ For some analyses, users would need to filter on more than one CCSR category column to obtain a full list of codes. In the Excel file, when an ICD-10-CM code is assigned to more than one CCSR category, the CCSR assignments appear in the positions of CCSR1–CCSR5 in alphabetical order by category number.