Canadian Primary Care Sentinel Surveillance Network
Réseau canadien de surveillance sentinelle en soins primaires

CPCSSN Case Definitions

2024-Q4

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When referring to this specific document please use the following format for citation purposes:

CPCSSN Team, **Case Definitions: Canadian Primary Care Sentinel Surveillance Network (CPCSSN), Version 2024-Q4**. January 21, 2025.

Purpose

This document is intended to be the simplest unambiguous representation of CPCSSN's current case definitions, consistent with the original documented intent. It defines the criteria, in terms of CPCSSN data, that CPCSSN's case detection algorithms use to classify a patient as having a given condition.

This document is intended for use by:
- researchers needing to understand or use CPCSSN's case definitions,
- those wanting to propose modifications or create new case definitions,
- CPCSSN's developers to implement CPCSSN's case definitions

This document is not intended to include suggested changes or improvements to the case definitions. Proposed changes to existing case definitions or new case definitions should be submitted to CPCSSN's Case Definition Working Group, where they will be reviewed, possibly approved, and prioritised for implementation by CPCSSN's development team.

List of CPCSSN Case Definitions

In the 'Method of Creation' column, the following two terms are used:

1. *Expert panel*. The case definition was created by subject-matter experts, typically clinicians. They may or may not have based the definitions on CPCSSN data.
2. *Machine learning*. The case definition was created by applying a machine learning algorithm to the CPCSSN data.

Case definitions are divided into two classes:

1. *Chronic disease cases*. We classify chronic diseases to be conditions from which patients do not typically recover (e.g., chronic kidney disease, Parkinson's disease) or those for which if recovery occurs, it often takes months to years (e.g., depression, pediatric asthma). These are held in the CPCSSN **ChronicDiseaseTable** and it can contain only one record per patient per condition.
2. *Acute diseases*. These are conditions for which patients do typically recover within days or weeks and may reoccur (e.g., otitis media, common cold). These are held in the CPCSSN **AcuteDiseaseCase** table, and it can contain multiple records per patient per condition (i.e., a patient can have multiple episodes where they have been labelled as having the condition).

All validation metrics (sensitivity, specificity, positive predictive value, and negative predictive value) for all validated case definitions are listed in Appendix A. Legacy case definitions (i.e., old versions from previous years) are listed in Appendix B.

Chronic Disease Cases

Case Definition	Version	Method of Creation	Quarter Last Updated	Page
ADHD	1	Expert panel	2023-Q2	6
Adult Asthma	1	Expert panel	2022-Q4	8
Cardiovascular Disease	1	Expert panel	2022-Q4	9
Cerebrovascular Disease	1	Expert panel	2022-Q4	10
Chronic Heart Failure	1	Expert panel	2022-Q2	11
Cirrhosis	1	Expert panel	2022-Q4	12
CKD	1	Expert panel	2018-Q4	13

COPD	2	Expert panel	2022-Q4	14
Coronary Artery Disease	1	Expert panel	2022-Q4	15
Dementia	1	Expert panel	2018-Q4	16
Depression	2	Expert panel	2022-Q4	17
Diabetic Neuropathy	1	Machine learning	2022-Q4	18
Diabetic Retinopathy	1	Machine learning	2022-Q4	19
Diabetes Mellitus	4	Expert panel	2022-Q4	20
Dyslipidemia	1	Expert panel	2019-Q4	21
Eating Disorders	1	Expert panel	2023-Q4	22
Eczema	1	Expert panel	2024-Q4	23
Epilepsy	1	Expert panel	2018-Q4	24
Herpes Zoster	1	Expert panel	2018-Q2	25
Hypertension	4	Expert panel	2022-Q4	26
Mood Disorders	1	Expert panel	2023-Q4	28
Multiple Sclerosis	1	Expert panel	2022-Q2	29
Non-Valvular Atrial Fibrillation (NVAF)	1	Expert panel	2021-Q4	31
Osteoarthritis	3	Expert panel	2022-Q4	32
Parkinson's Disease	1	Expert panel	2018-Q4	33
Pediatric Asthma	1	Expert panel	2018-Q2	34
Pediatric Diabetes Mellitus	2	Expert panel	2023-Q4	35
PTSD	1	Expert panel	2022-Q2	36
Schizophrenia	1	Expert panel	2023-Q4	38

Interpretation

The following pages contain the logic used to classify each CPCSSN patient's disease status for a host of disease case definitions. For each disease Case Definition, any single **Scenario** is sufficient to warrant classification as a case. Within a **Scenario**, all criteria joined by "AND" must be satisfied to warrant classification as a case. Conditions followed by "EXCEPT" define exceptions to the disease case definitions. That is, these conditions negate other criteria within the **Scenario**, so any other criteria in the **Scenario** alone are insufficient to define a disease case.

The text 'including [all] sub-codes' indicates a wildcard match is to be applied to the listed codes.
The **date of case detection** for a case is defined to be the earliest of the individual (qualifying) criteria dates for the case.

The following pages contain the most current versions of CPCSSN case definitions and are the ones applied to the most recent data set. Older case definition versions are listed in Appendix B (chronic conditions) and Appendix C (acute conditions)

CPCSSN Chronic Case Definitions

ADHD (Attention Deficit Hyperactivity Disorder)

Patient must be ≥4 years old and satisfy one of the following scenarios.

Scenario A

At least one of the following exact ICD-9 codes on **two different days** in any of the **Billing**, **EncounterDiagnosis**, or **Health Condition** tables:

314: HYPERKINETIC SYNDROME OF CHILDHOOD
314.0: ATTENTION DEFICIT DISORDER OF CHILDHOOD
314.01: ATTENTION DEFICIT DISORDER WITH HYPERACTIVITY
314.1: HYPERKINESIS WITH DEVELOPMENTAL DELAY
314.2: HYPERKINETIC CONDUCT DISORDER
314.8: OTHER SPECIFIED MANIFESTATIONS OF HYPERKINETIC SYNDROME
314.9: UNSPECIFIED HYPERKINETIC SYNDROME

Scenario B

At least one of the following exact ICD-9 codes in any of the **Billing**, **EncounterDiagnosis**, or **Health Condition** tables: 314: HYPERKINETIC SYNDROME OF CHILDHOOD 314.0: ATTENTION DEFICIT DISORDER OF CHILDHOOD 314.01: ATTENTION DEFICIT DISORDER WITH HYPERACTIVITY 314.1: HYPERKINESIS WITH DEVELOPMENTAL DELAY 314.2: HYPERKINETIC CONDUCT DISORDER 314.8: OTHER SPECIFIED MANIFESTATIONS OF HYPERKINETIC SYNDROME 314.9: UNSPECIFIED HYPERKINETIC SYNDROME	AND	At least one of the following ATC codes (including all sub-codes) in the **Medication** table: C02AC01: CLONIDINE C02AC02: GUANFACINE N02CX02: CLONIDINE N03AE01: CLONAZEPAM N03AF01: CARBAMAZEPINE N03AG01: VALPROIC ACID N05AH03: OLANZAPINE N05AN: LITHIUM N05AX08: RISPERIDONE N05BB01: HYDROXYZINE N06AA02: IMIPRAMINE N06AB03: FLUOXETINE N06AB05: PAROXETINE N06AB06: SERTRALINE N06AX05: OXITRIPTAN N06AX12: BUPROPION N06BA01: AMFETAMINE N06BA02: DEXAMFETAMINE N06BA04: METHYLPHENIDATE N06BA05: PEMOLINE N06BA09: ATOMOXETINE N06BA11: DEXMETHYLPHENIDATE N06BA12: LISDEXAMFETAMINE S01EA04: CLONIDINE

Adult Asthma

Patient age must be ≥18 years and satisfy the following scenario.

Scenario A

The following ICD-9 code (including all sub-codes) in the **Billing**, **EncounterDiagnosis**, or **Health Condition** table:
 	
   493: ASTHMA
	AND NOT	If the **Billing** table contains at least one of the following ICD-9 codes (including all sub-codes), the asthma diagnosis is not sufficient to define a case:
		
		   491: CHRONIC BRONCHITIS
		   492: EMPHYSEMA
		   496: CHRONIC AIRWAY OBSTRUCTION, NOT ELSEWHERE CLASSIFIED

Cardiovascular Disease

Scenario A

Any of the following ICD-9 codes (including all sub-codes) in the **Billing**, **EncounterDiagnosis**, or **Health Condition** table:

  410: ACUTE MYOCARDIAL INFARCTION
  411: OTHER ACUTE AND SUBACUTE FORMS OF ISCHEMIC HEART DISEASE
  412: OLD MYOCARDIAL INFARCTION
  413: ANGINA PECTORIS
  414: OTHER FORMS OF CHRONIC ISCHEMIC HEART DISEASE
  430: SUBARACHNOID HEMORRHAGE
  431: INTRACEREBRAL HEMORRHAGE
  432: OTHER AND UNSPECIFIED INTRACRANIAL HEMORRHAGE
  433: OCCLUSION AND STENOSIS OF PRECEREBRAL ARTERIES
  434: OCCLUSION OF CEREBRAL ARTERIES
  435: TRANSIENT CEREBRAL ISCHEMIA
  436: ACUTE, BUT ILL-DEFINED, CEREBROVASCULAR DISEASE
  437: OTHER AND ILL-DEFINED CEREBROVASCULAR DISEASE
  438: LATE EFFECTS OF CEREBROVASCULAR DISEASE
  440: ATHEROSCLEROSIS
  443: OTHER PERIPHERAL VASCULAR DISEASE

Cerebrovascular Disease

Scenario A

Any of the following ICD-9 codes (including all sub-codes) in the **Billing**, **EncounterDiagnosis**, or **Health Condition** table:

430: SUBARACHNOID HEMORRHAGE
431: INTRACEREBRAL HEMORRHAGE
432: OTHER AND UNSPECIFIED INTRACRANIAL HEMORRHAGE
433: OCCLUSION AND STENOSIS OF PRECEREBRAL ARTERIES
434: OCCLUSION OF CEREBRAL ARTERIES
435: TRANSIENT CEREBRAL ISCHEMIA
436: ACUTE, BUT ILL-DEFINED, CEREBROVASCULAR DISEASE
437: OTHER AND ILL-DEFINED CEREBROVASCULAR DISEASE
438: LATE EFFECTS OF CEREBROVASCULAR DISEASE

Chronic Heart Failure

Scenario A

Any of the following ICD-9 codes (including all sub-codes) in the **Billing**, **EncounterDiagnosis**, or **Health Condition** table:

   425: CARDIOMYOPATHY
   428: HEART FAILURE

Scenario B

One or more occurrences of an ATC code (including all sub-codes) from **all three of the following groups** in the **Medication** table:

Group 1: Diuretics

   C03BA11: INDAPAMIDE
   C03CA01: FUROSEMIDE
   C03DA01: SPIRONOLACTONE
   C03DA04: EPLERENONE

AND

Group 2: Beta-Blockers

   C07AB: BETA BLOCKING AGENTS, SELECTIVE
   C07AG: ALPHA AND BETA BLOCKING AGENTS

AND

Group 3: ACE inhibitors, ARB and Combinations with Beta Blockers or Renin-Angiotensin blockers

   C09: AGENTS ACTING ON THE RENIN-ANGIOTENSIN SYSTEM

Cirrhosis

Scenario A

Any of the following exact ICD-9 codes in the **Billing**, **EncounterDiagnosis**, or **Health Condition** table:

> 571: CHRONIC LIVER DISEASE AND CIRRHOSIS
> 571.2: ALCOHOLIC CIRRHOSIS OF LIVER
> 571.5: CIRRHOSIS OF LIVER WITHOUT MENTION OF ALCOHOL
> 789.59: OTHER ASCITES

CKD (Chronic Kidney Disease)

Scenario A

Two **Plasma Creatinine Clearance (eGFR)** tests
(LOINC = 12195-4) in the **Lab** table having results <
60 ml/min/1.73 m2 separated by between 3 months
and 18 months, inclusive.

COPD (Congestive Obstructive Pulmonary Disorder)

Patient age at onset must be ≥ 35 years and must satisfy at least one of the following scenarios.

Scenario A

Any of the following ICD-9 codes (including all sub-codes) in the **Billing**, **EncounterDiagnosis,** or **Health Condition** table:

    491.2: OBSTRUCTIVE CHRONIC BRONCHITIS
    492: EMPHYSEMA
    496: CHRONIC AIRWAY OBSTRUCTION, NOT ELSEWHERE
        CLASSIFIED

Scenario B

Any of the following ATC codes (including all sub-codes) in the **Medication** table:		If the **HealthCondition** table contains the following ICD-9 code (including all sub-codes), the medications are insufficient for defining a disease case:
R03BB: ANTICHOLINERGICS R03AK04: SALBUTAMOL AND SODIUM CROMOGLICATE R03AL: ADRENERGICS IN COMBINATION WITH ANTICHOLINERGICS INCLUDING TRIPLE COMBINATIONS WITH CORTICOSTEROIDS	AND NOT	493: ASTHMA

Coronary Artery Disease

Scenario A

Any of the following ICD-9 codes (including all sub-codes) in the **Billing**, **EncounterDiagnosis**, or **Health Condition** table:

410: ACUTE MYOCARDIAL INFARCTION
411: OTHER ACUTE AND SUBACUTE FORMS OF ISCHEMIC HEART DISEASE
412: OLD MYOCARDIAL INFARCTION
413: ANGINA PECTORIS
414: OTHER FORMS OF CHRONIC ISCHEMIC HEART DISEASE

Dementia

Scenario A

Any of the following ICD-9 codes (including sub-codes) in the **Billing**, **Encounter Diagnosis,** or **Health Condition** table:

290: DEMENTIAS
294.1: DEMENTIA IN CONDITIONS CLASSIFIED ELSEWHERE
294.8: OTHER PERSISTENT MENTAL DISORDERS DUE TO
      CONDITIONS CLASSIFIED ELSEWHERE
331: OTHER CEREBRAL DEGENERATIONS

excluding sub-codes:

290.8: OTHER SPECIFIED SENILE PSYCHOTIC CONDITIONS
290.9: UNSPECIFIED SENILE PSYCHOTIC CONDITION
331.3: COMMUNICATING HYDROCEPHALUS
331.4: OBSTRUCTIVE HYDROCEPHALUS
331.5: IDIOPATHIC NORMAL PRESSURE HYDROCEPHALUS (INPH)
331.81: REYE'S SYNDROME

Scenario B

Any of the following ATC codes (including all sub-codes) in the **Medication** table:

N06DA: ANTICHOLINESTERASES
N06DX01: MEMANTINE

Depression

Scenario A

Any of the following ICD-9 codes (including all sub-codes) in the **Billing**, **EncounterDiagnosis**, or **Health Condition** table:

    296: EPISODIC MOOD DISORDERS
    311: DEPRESSIVE DISORDER, NOT ELSEWHERE CLASSIFIED

Scenario B

Any of the following ATC codes (including all sub-codes) in the **Medication** table:		If the **HealthCondition** table contains the following ICD-9 code (including all sub-codes), the medications are insufficient for defining a disease case:
N06AB: SELECTIVE SEROTONIN REUPTAKE INHIBITORS N06AF04: TRANYLCYPROMINE N06AG02: MOCLOBEMIDE N06AX11: MIRTAZAPINE N06CA01: AMITRIPTYLINE AND PSYCHOLEPTICS	AND NOT	300: ANXIETY DISORDER

Diabetic Neuropathy

For all scenarios, patients must have Diabetes Mellitus as defined by the CPCSSN case finding algorithm.

Scenario A

One or more occurrences of the following exact ICD-9 code in the **Billing**, **EncounterDiagnosis**, or **Health Condition** table:

   357.2: POLYNEUROPATHY IN DIABETES

OR

two or more occurrences of the following ICD-9 code (including all sub-codes) across any of the **Billing**, **EncounterDiagnosis**, or **Health Condition** tables:

   250.6: DIABETES WITH NEUROLOGICAL MANIFESTATIONS

Scenario B

One or more occurrences of any of the following terms in the **DiagnosisText_orig** field of the **Billing**, **EncounterDiagnosis**, or **Health Condition** table:

   'neuropathy'
OR
   'neuropathie'

Uncertain and negated terms (e.g.,'neuropathy?', 'no neuropathy') are ignored.

Diabetic Retinopathy

For all scenarios, patients must have Diabetes Mellitus as defined by the CPCSSN case finding algorithm.

Scenario A

One or more occurrences of the following exact ICD-9 code in the **Billing**, **EncounterDiagnosis**, or **Health Condition** table:

362.0: DIABETIC RETINOPATHY

Scenario B

One or more occurrences of any of the following terms in the **DiagnosisText_orig** field of the **Billing**, **EncounterDiagnosis**, or **Health Condition** table:

'retinopathy'
OR
'retinopathie'
OR
'rétinopathie'

Uncertain and negated terms (e.g.,'retinopathy?', 'no retinopathy') are ignored.

Diabetes Mellitus

Scenario A

The following ICD-9 code (including all sub-codes) in the **EncounterDiagnosis** or **Health Condition** table
OR
at least two (identical or different) of the following ICD-9 code (including all sub-codes) in the **Billing** table that are recorded on different dates that are ≤2 years apart:

250: DIABETES MELLITUS

Scenario B

Any **Hemoglobin A1c (HbA1c)** test (LOINC = 17856-6) in the **Lab** table with a result ≥ 6.5
OR
at least two **Fasting Blood Glucose (FBG)** tests (LOINC = 14771-0) in the **Lab** table having results strictly > 7 that are recorded on different dates that are ≤1 year apart.

Dyslipidemia

Scenario A

The following ICD-9 code (including sub-codes) in the **Billing**, **Encounter Diagnosis**, or **Health Condition** table:

272: DISORDERS OF LIPOID METABOLISM

Scenario B

Any of the following ATC codes (including all sub-codes) in the **Medication** table: C10: LIPID MODIFYING AGENTS **excluding** any of the following ATC codes (and all sub-codes) in the **Medication** table: C10AC: BILE ACID SEQUESTRANTS	AND NOT	If the **DiseaseCase** table contains the following disease, the medications are insufficient for defining a disease case: Diabetes Mellitus

Scenario 3

Any **Cholesterol in LDL (LDLc)** test (LOINC = 22748-8) in the **Lab** table with a result ≥ 3.5 mmol/L

OR

Any **Cholesterol Total/Cholesterol in HDL Ratio (TCh/HDL)** test (LOINC = 9830-1) in the **Lab** table with a result ≥ 4.3 mmol/L

Eating Disorders

Scenario A

The following ICD-9 code (including sub-codes) in the **Billing**, **Encounter Diagnosis**, or **Health Condition** table:

  307.1: ANOREXIA NERVOSA
  307.5: OTHER AND UNSPECIFIED DISORDERS OF EATING
  307.50: EATING DISORDER, UNSPECIFIED
  307.51: BULIMIA NERVOSA
  783.0: ANOREXIA

Scenario B

One or more occurrences of any of the following terms in the **DiagnosisText_orig** field of the **Billing**, **EncounterDiagnosis**, or **Health Condition** table:

  'anorex*'
OR
  'boulim*'
OR
  'bulim*'
OR
  'eating dis*'

Here, the * indicates one or more letters.

Uncertain and negated terms (e.g.,'anorexia?', 'no eating disorder') are ignored.

Eczema

Scenario A

The following ICD-9 exact codes in the **Billing**, **Encounter Diagnosis**, or **Health Condition** table:

691: ATOPIC DERMATITIS AND RELATED CONDITIONS
691.8: OTHER ATOPIC DERMATITIS AND RELATED CONDITIONS
692: CONTACT DERMATITIS AND OTHER ECZEMA
692.9: CONTACT DERMATITIS AND OTHER ECZEMA, UNSPECIFIED CAUSE

Epilepsy

Scenario A

The following ICD-9 code (including sub-codes) in the **Billing**, **Encounter Diagnosis**, or **Health Condition** table:

345: EPILEPSY AND RECURRENT SEIZURES

<u>excluding</u> the specific sub-codes:

345.2: PETIT MAL STATUS, EPILEPTIC
345.3: GRAND MAL STATUS, EPILEPTIC

Scenario B

| Any of the following ICD-9 codes (including all sub-codes) in the **Billing**, **Encounter Diagnosis**, or **Health Condition** table:

345.2: PETIT MAL STATUS, EPILEPTIC
345.3: GRAND MAL STATUS, EPILEPTIC
780.3: CONVULSIONS | AND | Any of the following ATC codes (including sub-codes) in the **Medication** table:

N03A: ANTIEPILEPTICS
N05BA06: LORAZEPAM
N05BA09: CLOBAZAM

<u>excluding</u> sub-codes:

N03AE01: CLONAZEPAM
N03AX12: GABAPENTIN |

Herpes Zoster

Scenario A

The following ICD-9 code (including all sub-codes) in the **Billing**, **Encounter Diagnosis,** or **Health Condition** table:

053: HERPES ZOSTER

Hypertension

Scenario A

Any of the following ICD-9 codes (including all sub-codes) in the **EncounterDiagnosis** or **Health Condition** table
OR
at least two (identical or different) of the following ICD-9 codes (including all sub-codes) in the **Billing** table that are recorded on different dates that are ≤2 years apart:

401: ESSENTIAL HYPERTENSION
402: HYPERTENSIVE HEART DISEASE
403: HYPERTENSIVE CHRONIC KIDNEY DISEASE
404: HYPERTENSIVE HEART AND CHRONIC KIDNEY DISEASE
405: SECONDARY HYPERTENSION

Scenario B

Any of the following ATC codes (including all sub-codes) in the **Medication** table:		If the **HealthCondition** table contains any of the following ICD-9 codes (including all sub-codes), the medications are insufficient for defining a disease case:
C02: ANTIHYPERTENSIVES C03AA03: HYDROCHLOROTHIAZIDE C03BA04: CHLORTALIDONE C03BA11: INDAPAMIDE C03DB01: AMILORIDE C03DB02: TRIAMTERENE C03EA01: HYDROCHLOROTHIAZIDE AND POTASSIUM-SPARING AGENTS C07AA06: TIMOLOL C07AB03: ATENOLOL C07AB04: ACEBUTOLOL C07AG02: CARVEDILOL C07CB03: ATENOLOL AND OTHER DIURETICS C08CA01: AMLODIPINE C08CA02: FELODIPINE C08DA01: VERAPAMIL C09AA01: CAPTOPRIL C09AA02: ENALAPRIL C09AA03: LISINOPRIL C09AA07: BENAZEPRIL C09AA08: CILAZAPRIL C09AA09: FOSINOPRIL C09AA10: TRANDOLAPRIL C09BA02: ENALAPRIL AND DIURETICS C09BA03: LISINOPRIL AND DIURETICS C09CA02: EPROSARTAN C09CA03: VALSARTAN C09CA04: IRBESARTAN C09CA07: TELMISARTAN C09DA01: LOSARTAN AND DIURETICS C09DA02: EPROSARTAN AND DIURETICS C09DA04: IRBESARTAN AND DIURETICS C09XA02: ALISKIREN	AND NOT	250: DIABETES MELLITUS 333.1: ESSENTIAL AND OTHER SPECIFIED FORMS OF TREMOR 346: MIGRAINE 410: ACUTE MYOCARDIAL INFARCTION 412: OLD MYOCARDIAL INFARCTION 413: ANGINA PECTORIS 427: CARDIAC DYSRHYTHMIAS 428: HEART FAILURE 456.0: ESOPHAGEAL VARICES WITH BLEEDING 456.1: ESOPHAGEAL VARICES WITHOUT MENTION OF BLEEDING 572.3: PORTAL HYPERTENSION 592: CALCULUS OF KIDNEY AND URETER

Mood Disorders

Scenario A

At least **two** (identical or different) of the following ICD-9 codes (including all sub-codes) in the **Billing** or **EncounterDiagnosis** table that are recorded on different dates:

  296: EPISODIC MOOD DISORDERS
  300: ANXIETY, DISSOCIATIVE AND SOMATOFORM DISORDERS
  311: DEPRESSIVE DISORDER, NOT ELSEWHERE CLASSIFIED

  OR

one or more occurrences of the following ICD-9 code (including all sub-codes) in the **Health Condition** table:

  296: EPISODIC MOOD DISORDERS
  300: ANXIETY, DISSOCIATIVE AND SOMATOFORM DISORDERS
  311: DEPRESSIVE DISORDER, NOT ELSEWHERE CLASSIFIED

Multiple Sclerosis

Patient age must be ≥18 years and must satisfy at least one of the following scenarios.

Scenario A

At least **two** (identical or different) of the following ICD-9 code (including all sub-codes) in the **Billing** or **EncounterDiagnosis** table that are recorded on different dates that are ≤2 years apart:

340: MULTIPLE SCLEROSIS

OR

one or more occurrences of the following ICD-9 code (including all sub-codes) in the **Health Condition** table:

340: MULTIPLE SCLEROSIS

Scenario B

One or more (identical or different) of the following ATC codes in the **Medication** table:

L03AB07: INTERFERON BETA-1A
L03AB08: INTERFERON BETA-1B
L03AB13: PEGINTERFERON BETA-1A
L03AX13: GLATIRAMER ACETATE
L04AA23: NATALIZUMAB
L04AA27: FINGOLIMOD
L04AA31: TERIFLUNOMIDE
L04AA36: OCRELIZUMAB
L04AA38: OZANIMOD
L04AA42: SIPONIMOD
L04AA50: PONESIMOD
L04AA52: OFATUMUMAB
L04AC01: DACLIZUMAB
L04AX09: DIROXIMEL FUMARATE
N07XX09: DIMETHYL FUMARATE

Scenario C

| One or more of the following ATC code in the **Medication** table:

L04AA34: ALEMTUZUMAB | AND NOT | If the **Billing**, **EncounterDiagnosis**, or **HealthCondition** table contains any of the following ICD-9 codes (including all sub-codes), the medications are insufficient for defining a disease case:

204: LYMPHOID LEUKEMIA
205: MYELOID LEUKEMIA
206: MONOCYTIC LEUKEMIA
207: OTHER SPECIFIED LEUKEMIA
208: LEUKEMIA OF UNSPECIFIED CELL TYPE
209: NEUROENDOCRINE TUMORS |

Non-Valvular Atrial Fibrillation (NVAF)

Scenario A

Any of the following <u>exact</u> ICD-9 codes in the **Billing**, **EncounterDiagnosis**, or **HealthCondition** table:		If <u>any</u> of the **Billing**, **EncounterDiagnosis**, or **HealthCondition** tables contains any of the following <u>exact</u> ICD-9 codes, the ICD-9 codes in the first column are insufficient for defining a disease case:
427.3: ATRIAL FIBRILLATION AND FLUTTER 427.31: ATRIAL FIBRILLATION 427.32: ATRIAL FLUTTER	AND NOT	394: DISEASES OF MITRAL VALVE 394.0: MITRAL STENOSIS 394.1: RHEUMATIC MITRAL INSUFFICIENCY 394.2: MITRAL STENOSIS WITH INSUFFICIENCY 394.9: OTHER AND UNSPECIFIED MITRAL VALVE DISEASES 395: DISEASES OF AORTIC VALVE 395.0: RHEUMATIC AORTIC STENOSIS 395.1: RHEUMATIC AORTIC INSUFFICIENCY 395.2: RHEUMATIC AORTIC STENOSIS WITH INSUFFICIENCY 395.9: OTHER AND UNSPECIFIED RHEUMATIC AORTIC DISEASES 396: DISEASES OF MITRAL AND AORTIC VALVES 396.0: MITRAL VALVE STENOSIS AND AORTIC VALVE STENOSIS 396.1: MITRAL VALVE STENOSIS AND AORTIC VALVE INSUFFICIENCY 396.2: MITRAL VALVE INSUFFICIENCY AND AORTIC VALVE STENOSIS 396.3: MITRAL VALVE INSUFFICIENCY AND AORTIC VALVE INSUFFICIENCY 396.8: MULTIPLE INVOLVEMENT OF MITRAL AND AORTIC VALVES 396.9: MITRAL AND AORTIC VALVE DISEASES, UNSPECIFIED 424: OTHER DISEASES OF ENDOCARDIUM 424.0: MITRAL VALVE DISORDERS 424.1: AORTIC VALVE DISORDERS 424.2: TRICUSPID VALVE DISORDERS, SPECIFIED AS NONRHEUMATIC 424.3: PULMONARY VALVE DISORDERS 424.9: ENDOCARDITIS, VALVE UNSPECIFIED 424.90: ENDOCARDITIS, VALVE UNSPECIFIED, UNSPECIFIED CAUSE 424.91: ENDOCARDITIS IN DISEASES CLASSIFIED ELSEWHERE 424.99: OTHER ENDOCARDITIS, VALVE UNSPECIFIED V43.3: HEART VALVE REPLACED BY OTHER MEANS

Osteoarthritis

Scenario A

Any of the following ICD-9 codes (including all sub-codes) in the **Billing**, **EncounterDiagnosis**, or **Health Condition** table:

715: OSTEOARTHROSIS AND ALLIED DISORDERS
721: SPONDYLOSIS AND ALLIED DISORDERS

Parkinson's Disease

Scenario A

The following ICD-9 code (including all sub-codes) in the
Billing, **Encounter Diagnosis**, or **Health Condition** table:

  332: PARKINSON'S DISEASE

Pediatric Asthma

Patient age must be between 1 and 17 years, inclusive and must satisfy at least one of the following scenarios.

Scenario A

The following ICD-9 code (including all sub-codes) in the
Billing, **Encounter Diagnosis**, or **Health Condition** table:

493: ASTHMA

Scenario B

At least two (identical or different) of the following ATC codes in
the **Medication** table:

H02AB02: DEXAMETHASONE
H02AB06: PREDNISOLONE
H02AB07: PREDNISONE
R03AC02: SALBUTAMOL
R03AC03: TERBUTALINE
R03AC04: FENOTEROL
R03AC12: SALMETEROL
R03AC13: FORMOTEROL
R03AC18: INDACATEROL
R03AK06: SALMETEROL AND FLUTICASONE
R03AK07: FORMOTEROL AND BUDESONIDE
R03AK08: FORMOTEROL AND BECLOMETASONE
R03AK09: FORMOTEROL AND MOMETASONE
R03BA01: BECLOMETHASONE
R03BA02: BUDESONIDE
R03BA05: FLUTICASONE
R03BA06: TRIAMCINOLONE
R03BA07: MOMETASONE
R03BA08: CICLESONIDE
R03BB01: IPRATROPIUM BROMIDE
R03DC01: ZAFIRLUKAST
R03DC03: MONTELUKAST

Pediatric Diabetes Mellitus

Patient age at onset must be <18 years and must satisfy at least one of the following scenarios.

Scenario A

The following ICD-9 code (including all sub-codes) in the **Health Condition** table

OR

at least two (identical or different) of the following ICD-9 code (including all sub-codes) in the **Billing** or **EncounterDiagnosis** table that are recorded on different dates that are ≤ 2 years apart:

250: DIABETES MELLITUS

Scenario B

The following ATC code (including all sub-codes) in the **Medication** table:

A10: DRUGS USED IN DIABETES

Scenario C

Two or more **Hemoglobin A1c (HbA1c)** test (LOINC = 17856-6) in the **Lab** table with a result ≥ 6.5 that are ≤ 1 year apart.

PTSD (Post-Traumatic Stress Disorder)

Scenario A

The following ICD-9 code (including all sub-codes) in the
Billing, **Encounter Diagnosis**, or **Health Condition** table:

309.81: POSTTRAUMATIC STRESS DISORDER

Scenario B

Any of the following ICD-9 codes in the **Billing**, **EncounterDiagnosis**, or **HealthCondition** table:		the **DiagnosisText_orig** for the **same record** matches the following case-insensitive and regex patterns (the dot '.' indicates matches any one character):
290: DEMENTIAS 291: ALCOHOL-INDUCED MENTAL DISORDERS 292: DRUG-INDUCED MENTAL DISORDERS 293: TRANSIENT MENTAL DISORDERS DUE TO CONDITIONS CLASSIFIED ELSEWHERE 294: PERSISTENT MENTAL DISORDERS DUE TO CONDITIONS CLASSIFIED ELSEWHERE 295: SCHIZOPHRENIC DISORDERS 296: EPISODIC MOOD DISORDERS 297: DELUSIONAL DISORDERS 298: OTHER NONORGANIC PSYCHOSES 299: PERVASIVE DEVELOPMENTAL DISORDERS 300: ANXIETY, DISSOCIATIVE AND SOMATOFORM DISORDERS 301: PERSONALITY DISORDERS 302: SEXUAL AND GENDER IDENTITY DISORDERS 303: ALCOHOL DEPENDENCE SYNDROME 304: DRUG DEPENDENCE 305: NONDEPENDENT ABUSE OF DRUGS 306: PHYSIOLOGICAL MALFUNCTION ARISING FROM MENTAL FACTORS 307: SPECIAL SYMPTOMS OR SYNDROMES, NOT ELSEWHERE CLASSIFIED 308: ACUTE REACTION TO STRESS 309: ADJUSTMENT REACTION 310: SPECIFIC NONPSYCHOTIC MENTAL DISORDERS DUE TO BRAIN DAMAGE 311: DEPRESSIVE DISORDER NEC 312: DISTURBANCE OF CONDUCT, NOT ELSEWHERE CLASSIFIED 313: DISTURBANCE OF EMOTIONS SPECIFIC TO CHILDHOOD AND ADOLESCENCE 314: HYPERKINETIC SYNDROME OF CHILDHOOD 315: SPECIFIC DELAYS IN DEVELOPMENT 316: PSYCHIC FACTOR W OTH DIS	AND	'ptsd' OR 'post.traumatic stress' OR 'stress post.traumatique'

Schizophrenia

Scenario A

The following ICD-9 code (including all sub-codes) in the **Health Condition** table

OR

at least two (identical or different) of the following ICD-9 code (including all sub-codes) in the **Billing** or **EncounterDiagnosis** table that are recorded on different dates:

295: SCHIZOPHRENIC DISORDERS

Appendix A - Validation Results and References

Chronic Disease Cases

Case Definition	Version	Method of Creation	Sensitivity % (95% CI)	Specificity % (95% CI)	PPV % (95% CI)	NPV % (95% CI)	Page
ADHD[12]	1	Expert panel	70.8 (48.9-87.4)	99.5 (98.9-99.8)	70.8 (52.6-84.2)	99.5 (99.0-99.7)	6
Adult Asthma[13‡]	1	Expert panel	80.6 (69.5-88.9)	96.4 (94.7-97.7)	70.7 (59.7-80.3)	97.9 (96.5-98.8)	8
Cardiovascular Disease[10]	1	Expert panel	76.9 (70.4-82.5)	97.2 (96.3-97.9)	75.4 (69.8-80.2)	97.4 (96.7-98.0)	9
Cerebrovascular Disease[10]	1	Expert panel	77.6 (65.8-86.9)	98.6 (97.9-99.0)	65.0 (55.7-73.3)	99.2 (98.8-99.5)	10
Chronic Heart Failure[7‡]	1	Expert panel	99.3 (98.4-99.8)	98.8 (98.2-99.2)	96.1 (94.6-97.3)	99.8 (99.5-99.9)	11
Cirrhosis[11]	1	Expert panel	84.6 (83.1-86.0)	99.3 (99.1-99.4)	94.8 (93.9-95.7)	97.5 (97.3-97.7)	12
CKD[*]	1	Expert panel	-	-	-	-	13
COPD[1#]	2	Expert panel	82.1 (76.0-88.2)	97.3 (96.5-98.0)	72.1 (65.4-78.8)	98.4 (97.9-99.0)	14
Coronary Artery Disease[10]	1	Expert panel	91.6 (84.6-96.1)	98.3 (97.6-98.8)	74.8 (67.8-80.7)	99.5 (99.1-99.7)	15
Dementia[1]	1	Expert panel	96.8 (93.3-100.0)	98.1 (97.5-98.7)	72.8 (65.0-80.6)	99.8 (99.6-100.0)	16
Depression[1#]	2	Expert panel	81.1 (77.2-85.0)	94.8 (93.7-95.9)	79.6 (75.7-83.6)	95.2 (94.1-96.3)	17
Diabetic Neuropathy[^]	1	Machine learning	79.6 (71.8-85.7)	97.3 (96.5-98.0)	70.5 (62.1-77.7)	98.4 (97.7-98.8)	18
Diabetic Retinopathy[^]	1	Machine learning	92.1 (86.0-95.8)	98.4 (97.8-98.9)	80.2 (72.4-86.1)	99.5 (99.0-99.7)	19
Diabetes Mellitus[1**]	4	Expert panel	95.6 (93.4-97.9)	97.1 (96.3-97.9)	87.0 (83.5-90.5)	87.0 (83.5-90.5)	20
Dyslipidemia[†]	1	Expert panel	94.8 (87.2-98.6)	100.0 (-)	100.0 (-)	97.3 (93.3-99.3)	21
Eating Disorders[‡]	1	Expert panel	80.8 (76.7-84.4)	99.5 (99.2-99.8)	96.6 (94.2-98.1)	96.8 (96.2-97.4)	22
Eczema[14]	1	Expert panel	86.1 (77.8-92.2)	93.8 (90.5-96.2)	82.1 (74.5-87.7)	95.4 (92.7-97.1)	23
Epilepsy[1]	1	Expert panel	98.6 (96.6-100.0)	98.7 (98.2-99.2)	85.6 (80.2-91.1)	99.9 (99.7-100.0)	24
Herpes Zoster[2,3]	1	Expert panel	100.0 (97.8-100.0)	73.77 (65.0- 81.3)	83.9 (79.5-87.5)	100 (-)	25

Condition							
Hypertension[1]***	4	Expert panel	84.9 (82.6-87.1)	93.5 (92.0-95.1)	92.9 (91.2-94.6)	86.0 (83.9-88.2)	26
Mood Disorders[‡]	1	Expert panel	80.7 (76.6-84.3)	88.7 (87.3-90.1)	59.9 (56.8-63.0)	95.7 (94.8-96.4)	28
Multiple Sclerosis[8‡]	1	Expert panel	93.3 (89.2-96.2)	99.6 (99.2-99.9)	97.7 (94.6-99.0)	98.9 (98.1-99.2)	29
Non-Valvular Atrial Fibrillation (NVAF)[4‡]	1	Expert panel	78.1 (66.0-87.5)	99.5 (99.1-99.7)	80.7 (70.0-88.1)	99.4 (99.0-99.6)	31
Osteoarthritis[1#]	3	Expert panel	77.8 (74.5-81.1)	94.9 (93.8-96.1)	87.7 (84.9-90.5)	90.2 (88.7-91.8)	32
Parkinson's Disease[1]	1	Expert panel	98.8 (96.4-100.0)	99.0 (98.6-99.5)	82.0 (74.5-89.5)	99.9 (99.8-100.0)	33
Pediatric Asthma[5$]	1	Expert panel	87.4 (80.6–92.2)	98.6 (97.5–99.2)	91.2 (84.9–95.2)	97.9 (96.7–98.7)	34
Pediatric Diabetes Mellitus[6^]	2	Expert panel	94.9 (88.4-98.3)	100.0 (-)	100.0 (-)	100.0 (-)	35
PTSD[9‡]	1	Expert panel	95.3 (90.0-98.3)	98.4 (94.3-99.8)	98.4 (93.9-99.6)	95.2 (90.2-97.8)	36
Schizophrenia[‡]	1	Expert panel	93.3 (77.9-99.2)	100 (99.5-100)	100 (87.7-100)	99.97 (99.0-100)	38

[*] Definition is based solely on laboratory results, thus reference standard validation cannot be completed.

[**] Updated HbA1C cut-off from greater than equal to 7.0 to greater than equal to 6.5, as per clinical guidelines, and the EncounterDiagnosis table has been included for case detection by ICD-9 code. No revalidation completed.

[***] Updated version of Hypertension (Version 1) by removal of a rarely used drug (Metolazone) and inclusion of the EncounterDiagnosis table for case detection by ICD-9 code. Validation metrics are expected to be similar to Hypertension (Version 1).

[†] Unpublished results.

[‡] Quoted metrics are from an unpublished validation on a sample of the CPCSSN National Data Set.

[^] Publication in progress (as of **2023-08-22**).

[#] Validation metrics are for the original case definitions, published in reference 1. The updated case definitions shown in this document now include the EncounterDiagnosis table for identification of cases by ICD-9. The validation metrics are not expected to be much altered by this change.

[$] Validation completed on a sample of data from a single network.

[^] Updated Pediatric Diabetes Mellitus (Version 1) created by inclusion of the EncounterDiagnosis table for case detection by ICD-9 code. Validation metrics are expected to be similar to Pediatric Diabetes Mellitus (Version 1).

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Appendix B - Legacy Chronic Case Definitions

The following pages contain all previously implemented CPCSSN case definitions, and include the date ranges for which they were in use.

COPD (Version 1): *2012-Q2 to 2022-Q2*

Note: For all scenarios, patient age at onset must be ≥ 35 years.

Scenario A

Any of the following ICD-9 codes (including all sub-codes) in the **Billing** or **Health Condition** table:

491.2: OBSTRUCTIVE CHRONIC BRONCHITIS
492: EMPHYSEMA
496: CHRONIC AIRWAY OBSTRUCTION, NOT ELSEWHERE
    CLASSIFIED

Scenario B

Any of the following ATC codes (including all sub-codes) in the **Medication** table:		If the **HealthCondition** table contains the following ICD-9 code (including all sub-codes), the medications are insufficient for defining a disease case:

R03BB: ANTICHOLINERGICS
R03AK04: SALBUTAMOL AND SODIUM
    CROMOGLICATE
R03AL: ADRENERGICS IN COMBINATION WITH
    ANTICHOLINERGICS INCLUDING TRIPLE
    COMBINATIONS WITH CORTICOSTEROIDS
	EXCEPT	493: ASTHMA

Depression (Version 1): *2018-Q2 to 2022-Q2*

Scenario A

Any of the following ICD-9 codes (including all sub-codes) in the **Billing**, **EncounterDiagnosis**, or **Health Condition** table:

296: EPISODIC MOOD DISORDERS
311: DEPRESSIVE DISORDER, NOT ELSEWHERE CLASSIFIED

Scenario B

Any of the following ATC codes (including all sub-codes) in the **Medication** table:		If the **HealthCondition** table contains the following ICD-9 code (including all sub-codes), the medications are insufficient for defining a disease case:
N06AB: SELECTIVE SEROTONIN REUPTAKE INHIBITORS N06AF04: TRANYLCYPROMINE N06AG02: MOCLOBEMIDE N06AX11: MIRTAZAPINE N06CA01: AMITRIPTYLINE AND PSYCHOLEPTICS	EXCEPT	300: ANXIETY DISORDER

Diabetes Mellitus (Version 1): *2012-Q2 to 2022-Q2*

Scenario A

The following ICD-9 code (including all sub-codes) in the **Health Condition** table

OR

at least two (identical or different) of the following ICD-9 code (including all sub-codes) in the **Billing** table that are recorded on different dates that are ≤2 years apart:

250: DIABETES MELLITUS

Scenario B

The following ATC code (including all sub-codes) in the **Medication** table:		If the **HealthCondition** table contains any of the following ICD-9 codes (including all sub-codes), the medications are insufficient for defining a disease case:
A10: DRUGS USED IN DIABETES	EXCEPT	249: SECONDARY DIABETES MELLITUS 256.4: POLYCYSTIC OVARIES 648.8: ABNORMAL GLUCOSE TOLERANCE OF MOTHER, COMPLICATING PREGNANCY, CHILDBIRTH, OR THE PUERPERIUM 775.1: NEONATAL DIABETES MELLITUS 790.29: OTHER ABNORMAL GLUCOSE

Scenario C

Any **Hemoglobin A1c (HbA1c)** test (LOINC = 17856-6) in the **Lab** table with a result ≥ 7

OR

at least two **Fasting Blood Glucose (FBG)** tests (LOINC = 14771-0) in the **Lab** table having results strictly > 7 that are recorded on different dates that are ≤1 year apart.

Diabetes Mellitus (Version 2): *2018-Q2 to 2022-Q2*

Scenario A

The following ICD-9 code (including all sub-codes) in the **Health Condition** table

OR

at least two (identical or different) of the following ICD-9 code (including all sub-codes) in the **Encounter Diagnosis** table that are recorded on different dates that are ≤2 years apart:

250: DIABETES MELLITUS

Diabetes Mellitus (Version 3): *2020-Q2 to 2022-Q2*

Scenario A

The following ICD-9 code (including all sub-codes) in the **Health Condition** table

OR

at least two (identical or different) of the following ICD-9 code (including all sub-codes) in the **Billing** table that are recorded on different dates that are ≤2 years apart:

250: DIABETES MELLITUS

Scenario B

The following ATC code (including all sub-codes) in the **Medication** table:		If the **HealthCondition** table contains any of the following ICD-9 codes (including all sub-codes), the medications are insufficient for defining a disease case:
A10: DRUGS USED IN DIABETES	EXCEPT	249: SECONDARY DIABETES MELLITUS 256.4: POLYCYSTIC OVARIES 648.8: ABNORMAL GLUCOSE TOLERANCE OF MOTHER, COMPLICATING PREGNANCY, CHILDBIRTH, OR THE PUERPERIUM 775.1: NEONATAL DIABETES MELLITUS 790.29: OTHER ABNORMAL GLUCOSE

Scenario C

Any **Hemoglobin A1c (HbA1c)** test (LOINC = 17856-6) in the **Lab** table with a result ≥ 6.5

OR

at least two **Fasting Blood Glucose (FBG)** tests (LOINC = 14771-0) in the **Lab** table having results strictly > 7 that are recorded on different dates that are ≤1 year apart.

Hypertension (Version 1): *2012-Q2 to 2022-Q2*

Scenario A

Any of the following ICD-9 codes (including all sub-codes) in the **Health Condition** table

OR

at least two (identical or different) of the following ICD-9 codes (including all sub-codes) in the **Billing** table that are recorded on different dates that are ≤2 years apart:

  401: ESSENTIAL HYPERTENSION
  402: HYPERTENSIVE HEART DISEASE
  403: HYPERTENSIVE CHRONIC KIDNEY DISEASE
  404: HYPERTENSIVE HEART AND CHRONIC KIDNEY DISEASE
  405: SECONDARY HYPERTENSION

Scenario B

Any of the following ATC codes (including all sub-codes) in the **Medication** table:		If the **HealthCondition** table contains any of the following ICD-9 codes (including all sub-codes), the medications are insufficient for defining a disease case:
C02: ANTIHYPERTENSIVES C03AA03: HYDROCHLOROTHIAZIDE C03BA04: CHLORTALIDONE C03BA08: METOLAZONE C03BA11: INDAPAMIDE C03DB01: AMILORIDE C03DB02: TRIAMTERENE C03EA01: HYDROCHLOROTHIAZIDE AND POTASSIUM-SPARING AGENTS C07AA06: TIMOLOL C07AB03: ATENOLOL C07AB04: ACEBUTOLOL C07AG02: CARVEDILOL C07CB03: ATENOLOL AND OTHER DIURETICS C08CA01: AMLODIPINE C08CA02: FELODIPINE C08DA01: VERAPAMIL C09AA01: CAPTOPRIL C09AA02: ENALAPRIL C09AA03: LISINOPRIL C09AA07: BENAZEPRIL C09AA08: CILAZAPRIL C09AA09: FOSINOPRIL C09AA10: TRANDOLAPRIL C09BA02: ENALAPRIL AND DIURETICS C09BA03: LISINOPRIL AND DIURETICS C09CA02: EPROSARTAN C09CA03: VALSARTAN C09CA04: IRBESARTAN C09CA07: TELMISARTAN C09DA01: LOSARTAN AND DIURETICS C09DA02: EPROSARTAN AND DIURETICS C09DA04: IRBESARTAN AND DIURETICS C09XA02: ALISKIREN	EXCEPT	250: DIABETES MELLITUS 333.1: ESSENTIAL AND OTHER SPECIFIED FORMS OF TREMOR 346: MIGRAINE 410: ACUTE MYOCARDIAL INFARCTION 412: OLD MYOCARDIAL INFARCTION 413: ANGINA PECTORIS 427: CARDIAC DYSRHYTHMIAS 428: HEART FAILURE 456.0: ESOPHAGEAL VARICES WITH BLEEDING 456.1: ESOPHAGEAL VARICES WITHOUT MENTION OF BLEEDING 572.3: PORTAL HYPERTENSION 592: CALCULUS OF KIDNEY AND URETER

Hypertension (Version 2): *2018-Q4 to 2022-Q2*

Scenario A

The following ICD-9 code (including all sub-codes) in the
Encounter Diagnosis or **Health Condition** table:

   401: ESSENTIAL HYPERTENSION

Scenario B

The following ATC code in the **Medication** table:

   C08CA01: AMLODIPINE

Hypertension (Version 3): *2021-Q4 to 2022-Q2*

Scenario A

Any of the following ICD-9 codes (including all sub-codes) in the **Health Condition** table

OR

at least two (identical or different) of the following ICD-9 codes (including all sub-codes) in the **Billing** table that are recorded on different dates that are ≤2 years apart:

401: ESSENTIAL HYPERTENSION
402: HYPERTENSIVE HEART DISEASE
403: HYPERTENSIVE CHRONIC KIDNEY DISEASE
404: HYPERTENSIVE HEART AND CHRONIC KIDNEY DISEASE
405: SECONDARY HYPERTENSION

Osteoarthritis (Version 1): *2010-Q1 to 2022-Q2*

Scenario A

Any of the following ICD-9 codes (including all sub-codes) in the
Billing or **Health Condition** table:

715: OSTEOARTHROSIS AND ALLIED DISORDERS
721: SPONDYLOSIS AND ALLIED DISORDERS

Osteoarthritis (Version 2): *2018-Q4 to 2022-Q2*

Scenario A

The following ICD-9 code (including all sub-codes) in the
Encounter Diagnosis or **Health Condition** table:

715: OSTEOARTHROSIS AND ALLIED DISORDERS

Pediatric Diabetes Mellitus (Version 1): *2019-Q4 to 2023-Q2*

Patient age at onset must be <18 years and must satisfy at least one of the following scenarios.

Scenario A

The following ICD-9 code (including all sub-codes) in the **Health Condition** table

OR

at least two (identical or different) of the following ICD-9 code (including all sub-codes) in the **Billing** table that are recorded on different dates that are ≤ 2 years apart:

250: DIABETES MELLITUS

Scenario B

The following ATC code (including all sub-codes) in the **Medication** table:

A10: DRUGS USED IN DIABETES

Scenario C

Two or more **Hemoglobin A1c (HbA1c)** test (LOINC = 17856-6) in the **Lab** table with a result ≥ 6.5 within any one year span.

Appendix C: Legacy CPCSSN Acute Case Definitions

These have been temporarily withdrawn so that CPCSSN can conduct another validation study.

Each of the following acute case definitions are episodic - they are present only for a limited duration. The episode duration depends on the number of indicators of the condition and how spaced they are in time. All episodes have a duration of at least 30 days from the first indicator of the condition, but may be longer.

If each indicator of the condition is more than 30 days apart, each represents a separate episode of length 30 days. For example, if a patient has indicators on the dates
- 2020-01-01, and
- 2020-12-01,

they would have two episodes of the condition,
- First: CaseStartDate = 2020-01-01 and CaseEndDate = 2020-01-31, and
- Second: CaseStartDate = 2020-12-01 and CaseEndDate = 2020-12-31.

If there are two or more indicators of the condition within 30 days, the episode end date is 30 days after the last indicator date. For example, assume we have three indicators of the condition on the dates
- 2020-01-01,
- 2020-01-29, and
- 2020-02-17.

Since each is less than 30 days apart, we would have one episode of the condition with CaseStartDate = 2020-01-01 and CaseEndDate = 2020-03-18. That is, the CaseEndDate is 30 days after 2020-02-17, and the episode is 77 days long.

Otitis Media

Episode duration calculated as per the discussion in the [CPCSSN Acute Case Definition introduction](#).

Patient age must be between 6 months and 17 years, inclusive, and must satisfy the following scenario.

Scenario A

Any of the following ICD-9 codes (including sub-codes) in the **Billing**, **Encounter Diagnosis**, or **Health Condition** table:

381: NONSUPPURATIVE OTITIS MEDIA AND EUSTACHIAN TUBE DISORDERS
382: SUPPURATIVE AND UNSPECIFIED OTITIS MEDIA

excluding the specific sub-codes:

381.6: OBSTRUCTION OF EUSTACHIAN TUBE
381.7: PATULOUS EUSTACHIAN TUBE
381.8: OTHER DISORDERS OF EUSTACHIAN TUBE
381.9: UNSPECIFIED EUSTACHIAN TUBE DISORDER

Uncomplicated Pharyngitis

Episode duration calculated as per the discussion in the CPCSSN Acute Case Definition introduction.

Scenario A

Any of the following ICD-9 codes (including sub-codes) in the **Billing**, **Encounter Diagnosis**, or **Health Condition** table:

034: STREPTOCOCCAL SORE THROAT AND SCARLET FEVER
462: ACUTE PHARYNGITIS
463: ACUTE TONSILLITIS
464: ACUTE LARYNGITIS AND TRACHEITIS

Uncomplicated Sinusitis

Episode duration calculated as per the discussion in the [CPCSSN Acute Case Definition introduction](#).

Scenario A

The following ICD-9 code (including all sub-codes) in the **Billing**, **EncounterDiagnosis**, or **Health Condition** table: 461: ACUTE SINUSITIS	EXCEPT	If the **Billing**, **EncounterDiagnosis**, or **HealthCondition** table contains the following ICD-9 code (including all sub-codes) **on or before the date of the earliest instance** of the ICD-9 code 461 (and all sub-codes), the diagnosis is not sufficient to define a case: 473: CHRONIC SINUSITIS

Upper Respiratory Tract Infection (URTI)

Episode duration calculated as per the discussion in the CPCSSN Acute Case Definition introduction.

Scenario A

Any of the following ICD-9 codes (including sub-codes) in the **Billing**, **Encounter Diagnosis**, or **Health Condition** table:

460: ACUTE NASOPHARYNGITIS [COMMON COLD]
465: ACUTE UPPER RESPIRATORY INFECTIONS OF MULTIPLE OR UNSPECIFIED SITES