2022

A Guide for Users of the Canadian Classification of Health Interventions (CCI)

CIHI

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About CIHI

The Canadian Institute for Health Information (CIHI) is an independent, not-for-profit organization that provides essential information on Canada's health systems and the health of Canadians.

We provide comparable and actionable data and information that are used to accelerate improvements in health care, health system performance and population health across Canada. Our stakeholders use our broad range of health system databases, measurements and standards, together with our evidence-based reports and analyses, in their decision-making processes. We protect the privacy of Canadians by ensuring the confidentiality and integrity of the health care information we provide.

Preface

This document outlines the format, structure and basic concepts in the Canadian Classification of Health Interventions (CCI) and provides instruction on how to navigate through Folio Views (the electronic infobase software for CCI). It does not provide users with expertise in CCI code assignment. For any and all uses of CCI (and ICD-10-CA) codes and application of the Canadian Coding Standards, an expert in classifications should always be consulted. These professionals are typically employed in health information/decision-support departments in hospital facilities and ministries of health.

Introduction

CCI was created as a companion intervention classification to the International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Canada (ICD-10-CA). A CIHI team began developing CCI in 1996 for implementation with ICD-10-CA in 2001. There was a staggered implementation of ICD-10-CA/CCI across Canada starting in April 2001. By April 2006, all 10 provinces and 3 territories had adopted these classifications for disease and intervention code assignment.

Through the triannual enhancement process, new codes have been added and previous ones deactivated to ensure that the classification is clinically current and relevant. As of version 2022, there are 17,416 active codes in CCI.

Companion products

Product	Description
International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Canada (ICD-10-CA)	• A modified Canadian version of ICD-10. • The World Health Organization is the official publisher of ICD-10 (in English and French) and holds the international copyright.
Canadian Coding Standards for ICD-10-CA and CCI	• Intended for use with ICD-10-CA/CCI and updated, with the classifications, on a triannual basis. Version 2022 is for use with hospitalization episodes of care as of April 1, 2022, and will be valid for 3 fiscal years. • Provides the rules by which encoded data is entered into CIHI's Discharge Abstract Database (DAD) and National Ambulatory Care Reporting System (NACRS). • Appendix C of the Canadian Coding Standards contains a table of changes to the rules (directive statements) from the past to current version. • Free to download from CIHI's eStore.
DAD Abstracting Manual and NACRS Abstracting Manual	• Provide data providers with abstracting, edit and error-message information in 1 comprehensive publication. • Are additional sources of information related to elements associated with the collection of hospitalization encounter data, including interventions. • These manuals are free to download by licensed facility users and are available for purchase from CIHI's eStore.

Implementation

CCI and ICD-10-CA were released for use in Canada in 2001. This table shows the staggered implementation of the classifications by province.

Submitting province	Classification used prior to ICD-10-CA/CCI adoption	2001–2002	2002–2003	2003–2004	2004–2005	2005–2006	2006–2007
B.C.	ICD-9, and CCP and ICD-9-CM	F	F	F	F	F	F
N.L.	ICD-9, and CCP and ICD-9-CM	F	F	F	F	F	F
N.S.	ICD-9-CM	F	F	F	F	F	F
P.E.I.	ICD-9, and CCP and ICD-9-CM	F	F	F	F	F	F
Y.T.	ICD-9-CM	F	F	F	F	F	F
Sask.	ICD-9, and CCP and ICD-9-CM	P	F	F	F	F	F
Ont.	ICD-9, and CCP and ICD-9-CM	—	F	F	F	F	F
Alta.	ICD-9-CM	—	F	F	F	F	F
N.W.T.	ICD-9-CM	—	F	F	F	F	F
Nun.	ICD-9-CM	—	F	F	F	F	F
N.B.	ICD-9-CM	—	—	F	F	F	F
Man.	ICD-9-CM	—	—	—	F	F	F
Que.	ICD-9 and CCP	—	—	—	—	—	F

Notes
P: Partially adopted ICD-10-CA and CCI.
F: Fully adopted ICD-10-CA and CCI.
— Not adopted.

Note: Quebec does not submit data to the DAD/NACRS. The Quebec Ministry of Health submits data directly to CIHI annually. The data is then blended into the Hospital Morbidity Database (HMDB). Quebec implemented the use of ICD-10-CA/CCI in 2006–2007. Prior to that, provincial and regional versions of ICD-9 and CCP were used.

Structure of CCI

Alphabetical index and tabular list

CCI is divided into 2 major components: the alphabetical index and the tabular list. The alphabetical index is a list of terms or titles of interventions that lead to codes in the tabular list.

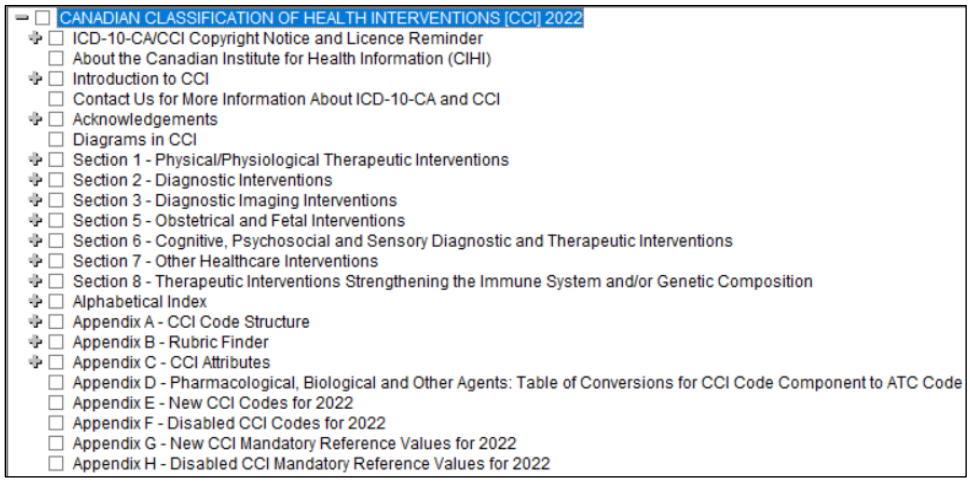
In the alphabetical index, codes are provided at the rubric level only (see Format and structure of a CCI code for a description of a rubric) and are listed as jump links to the tabular list. The tabular list must be referenced when assigning a CCI code. Additional characters that are included only in the tabular list are necessary to complete the code. Only the tabular list contains a fully complete CCI code.

Appendices in CCI

The appendices provide more detailed information about certain aspects of the classification. The appendices in CCI are as follows:

- **Appendix A** — CCI Code Structure
- **Appendix B** — CCI Rubric Finders
- **Appendix C** — CCI Attributes
- **Appendix D** — Pharmacological, Biological and Other Agents: Table of Conversions for CCI Code Component to ATC Code
- **Appendix E** — New CCI Codes
- **Appendix F** — Disabled CCI Codes

The Contents tab in Folio Views provides a complete picture of the contents of CCI. Expanding any heading provides more detail on that topic.



Format and structure of a CCI code

Sections of CCI

The tabular list is divided into 7 sections based on the broad realm of the interventions contained therein:

- **Section 1** — Physical/Physiological Therapeutic Interventions
- **Section 2** — Diagnostic Interventions
- **Section 3** — Diagnostic Imaging Interventions
- **Section 5** — Obstetrical and Fetal Interventions
- **Section 6** — Cognitive, Psychosocial and Sensory Diagnostic and Therapeutic Interventions
- **Section 7** — Other Healthcare Interventions
- **Section 8** — Therapeutic Interventions Strengthening the Immune System and/or Genetic Composition

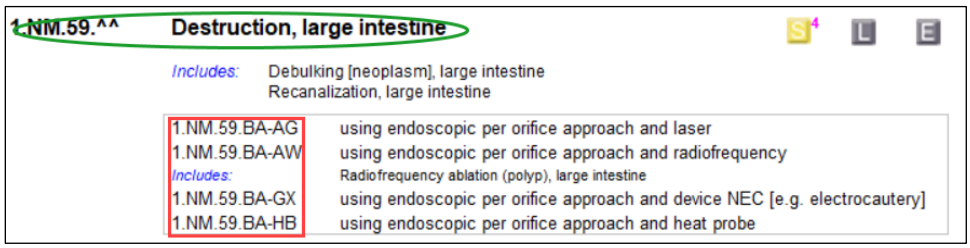
Blocks and groups

Each section of CCI is subdivided into homogenous ranges of groups. For example,

- Sections 1, 2 and 3 are further subdivided into blocks of groups that represent body systems and their specific anatomy sites.
  - Example: Within Section 1, the **block** 1.NA–1.OZ represents *Digestive and Hepatobiliary tracts and other sites within the abdominal cavity*. Within that block, the **group** 1.NM represents the large intestine.
- Section 5 is further subdivided into blocks that represent stages of pregnancy and fetal development.
  - Example: The **block** 5.LB–5.MD represents *Interventions During Labour and Delivery*. Within that block, the **group** 5.MD represents Delivery [Birthing] Interventions.

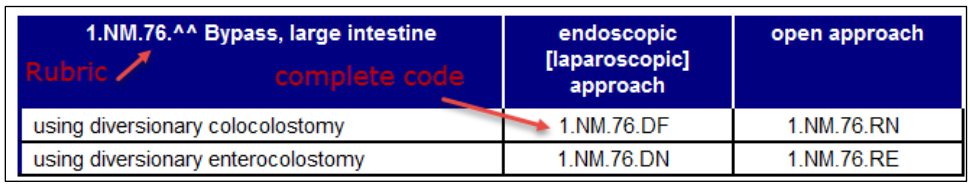
Rubrics

The first 5 characters (fields 1, 2 and 3) of a code — referred to as a rubric — describe the health intervention that was performed. For example, 1.NM.59.^^ is a rubric. A rubric is not a valid code and requires further characters, or **qualifiers**, to complete the code. 1.NM.59.BA-AG is a complete code. The carets (^^) following the rubric indicate that more information is needed to complete the code.



Tables

Tables are often used in rubrics to simplify presentation. The row and column descriptions indicate the different axes being examined. The other cells include the rubric with the appropriate qualifier(s) applied (i.e., the complete codes).



Code components (fields)

CCI codes range in length from 7 to 10 alphanumeric characters, which are divided into code components representing fields. All complete CCI codes have a minimum of 7 alphanumeric characters. These 7 characters represent the first 4 fields indicated below. Qualifiers describe how the intervention was performed (fields 4, 5 and 6). At a minimum, qualifier 1 — which describes the approach and/or technique — is required to complete the code.

Field 1	Field 2	Field 3	Field 4	Field 5	Field 6
Section	Group (anatomy site)	Intervention	Qualifier 1 — Approach technique	Qualifier 2 — Agent, device or method*	Qualifier 3 — Tissue used
1 — Therapeutic Intervention	NQ — Rectum	89 — Excision total	SF — abdominal [anterior] approach	XX — Is used to fill in a field when not applicable	G — pedicled flap (pouch formation)

Note

* Method in Field 5 is applicable only to codes in Section 6.

Complete code description for the above code:

1.NQ.89.SF.XX-G: *Excision total, rectum, using abdominal [anterior] approach and pouch formation*

Field 1 is a single digit and represents the relevant section of CCI. In this case, "1" means the code is from Section 1 — Physical/Physiological Therapeutic Interventions and is a *therapeutic* intervention.

Field 2 consists of 2 alpha characters and represents the group or anatomy site of focus for the intervention. In this example, NQ means that the target anatomy site is the rectum.

Field 3 consists of 2 digits and represents the specific generic intervention being performed. In this example, 89 means that a total excision was done.

Field 4 consists of 2 alpha characters and is referred to as **Qualifier 1**. This field represents the approach and/or technique used (i.e., how the intervention was completed). In this example, SF means that the total excision of the rectum was performed using an (open) abdominal approach.

Field 5 consists of 2 alpha characters and is referred to as **Qualifier 2**. This field represents any device, agent or method that was used. For example, AW would mean that radiofrequency (method) was used during the intervention; SJ would indicate that a shunt (device) was placed.

When a complete code consists of fields 1 to 4 and field 6 (i.e., there is no field 5), field 5 is replaced with "XX." XX is used to complete the fifth code field when the next field (Qualifier 3 — Tissue used) is applicable, as the fifth field cannot be blank in this circumstance. In the example 1.NQ.89.SF-XX-G, XX means no device, agent or method was used and is a placeholder for this field since the last field is applicable.

Field 6 consists of a single alpha character and is referred to as **Qualifier 3**. This field represents any tissue that was used during the intervention. In this example, G means that a pedicled flap was used to create the pouch.

A complete list of the qualifiers can be found in the table of contents under Appendix A — CCI Code Structure: Qualifier 1, Qualifier 2 and Qualifier 3. Often the Appendix A description of the qualifier is modified during code build to provide a more clinically relevant description that will help users to select the most appropriate code. For example, in **1.NQ.89.SF** *Excision total, rectum, abdominal [anterior] approach, coloanal anastomosis technique*, the qualifier **SF** means "open approach with bypass technique, enterocolostomy [or colocolostomy]." The original description was revised during code build to a more user-friendly description.

Attributes

Attributes provide additional information about a code, when applicable. These are not part of the code and are collected as a separate data element. There are 3 types of attributes:

- Status [S] provides information about the circumstances of an intervention (e.g., R = revision).
- Location [L] provides anatomical detail (e.g., Left, Right, Bilateral, Unilateral (unspecified if left or right)).
- Extent [E] provides quantitative or specific additional details not compatible to a code (e.g., the number of coronary arteries bypassed is captured at 1.IJ.76.^^ *Bypass, coronary arteries* using the extent attribute).

Attribute colours:

- Pink identifies a mandatory attribute that must be captured.
- Yellow identifies an attribute that is optional to capture.
- Grey means the attribute is not active/applicable.

Attribute numbers:

The number that appears above the letter describes a reference number for the specific attribute. The same attribute can be used at multiple rubrics when the values are applicable. For example, L29 (*Mandatory Large Intestine*) is a mandatory location attribute for capturing information about the specific site of the large intestine.

A complete list of all CCI attributes, with corresponding value definitions and reference numbers, can be found in **Appendix C — CCI Attributes** in CCI.

Instructions found within CCI

Includes notes (also referred to as “inclusions”)

These notes serve as a guide to what is contained at the block, group, rubric and/or code levels. Inclusions describe applicable anatomy sites, alternative descriptions of the intervention, synonyms and eponyms. Includes notes are not exhaustive and are meant to be a guide to let classification users know they are at the correct place in the classification by providing common terminology found in intervention documentation.

Excludes notes (also referred to as “exclusions”)

These notes are also found at the block, group, rubric and/or code levels throughout the classification. Excludes notes alert the user to the fact that although the intervention being coded may appear to be classified here, it is in fact classified elsewhere. The coder is then directed to another location within the classification via a jump link.

Code Also notes

These instructions provide direction to the coder to also capture an additional code when applicable or deemed mandatory in the Canadian Coding Standards. The interventions included within this instruction are often common concomitant procedures that are not captured within a single code.

Explanatory notes

These notes are general and intended to provide additional information about an intervention.

Omit Code notes

This type of note advises the user that when the specified circumstances exist, the code is not assigned (omitted). It is often used when a procedure is part of a more complex intervention and a code is not required (i.e., it is inherent in the procedure and not necessary to code in this circumstance).

Coding conventions

And/or: When used with anatomy sites, the term “and” in CCI means “and/or.” For example, “(TV) Tibia and fibula” means both tibia and fibula, just tibia or just fibula.

With: The term “with” in CCI means that both entities must apply in order to make this selection.

Parentheses ( ): These are used to **enclose supplementary terms**, to **list examples** (not intended to be all inclusive) or to **enclose a jump link to another rubric**.

Square brackets [ ]: These are used to enclose **synonyms**, **alternate terms** [meaning the same thing] or **explanatory phrases**.

NEC: This is the acronym for “not elsewhere classified” and represents a residual group, rubric or code, such as “therapeutic intervention NEC” or “Eye NEC.” It should alert classification users that if more precise information exists about a given intervention or grouping (e.g., an anatomy site), then this could yield a different code.

NOS: This is the acronym for “not otherwise specified.” NOS is used when the clinical documentation does not provide the necessary detail to select a more specific code that is available.

Searching in CCI using Folio Views

CCI is stored electronically in the Folio Views software (infobase), which facilitates quick and easy searches for codes.

For more information on the navigation functionality and tips for using Folio Views, please refer to the job aid *Searching the CCI Infobase*. The job aid is available on CIHI's Codes and Classifications web page, and on the opening screen of Folio.

Other education opportunities at CIHI

CIHI provides a number of courses, workshops, online learning and customized education. Visit the CIHI Learning Centre for further information and course registration, or email the Education team at education@cihi.ca.

In particular, the guide available on the Codes and Classifications page titled *CCI: A Guide to Intervention Code Assignment* provides more in-depth education on the use of CCI and common coding challenges.

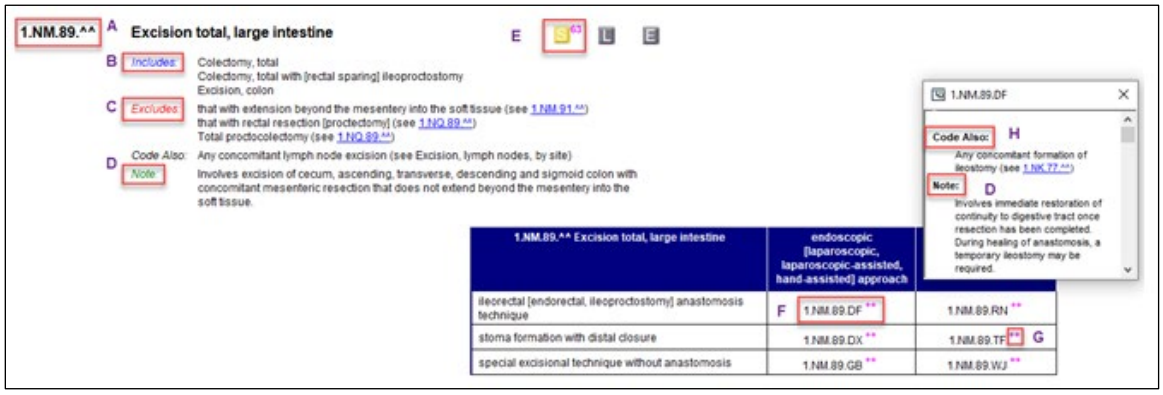
Appendix

Appendix: Quick reference tools

The following tools are readily printable resources for quick reference while using CCI:

1. CCI tabular: A breakdown
2. CCI code structure: Description of code components

CCI tabular: A breakdown



A: Rubric: First 5 characters of a code; **not** a complete code (see F).

B: Includes note: Displays what is classified here and embraces alternate descriptions, synonyms, eponyms. **Not** exhaustive.

C: Excludes note: Displays what is **not** classified here. A *jump link* to the applicable rubric where the intervention is classified is shown.

D: Note: Displays additional information that may be required (or useful) to assist with code selection and/or understanding of a code concept. Notes may appear in several places.

E: Status attribute: Yellow indicates optional to capture (pink is mandatory, grey is not activated). For full descriptions, see the Contents tab in Folio Views, Appendix C — CCI Attributes.

F: Code: This is a full code at this rubric. Full codes are displayed in table cells or in lists (within boxes in CCI tabular).

G: Pop-up notes: When applicable, additional notes at the code level exist to provide more information or additional instruction. 2 pink + signs indicate that notes are present. The user should always click these to see what they contain.

H: Code Also: An instruction to the user that when the circumstance exists, an additional code is assigned. In this example, if an ileostomy was also constructed along with the excision of the large intestine, an additional code is required from rubric 1NK.77.^^.

CCI code structure: Description of code components

Code	Code description
1.VG.74.LA-LQ-A	*Fixation[74], knee joint[VG], open approach[LA], using intramedullary nail[LQ], with bone autograft[A]*

1 — The Section of CCI. A "1" indicates that this code is from **Section 1** — Physical/Physiological Therapeutic Interventions. When deciphering all other code components, the user must always refer to descriptions under the applicable section, as code components have different meanings in different sections. For example, Qualifier 2 LA represents open approach in Section 1, but in Section 3 it represents that with abdominal and trans-vaginal ultrasound alone (a technique).

VG — Group or anatomy site. In Section 1, V indicates the group Hip and Leg; VG is specific to the **knee joint**.

74 — Generic intervention. In Section 1, 74 is **Fixation**.

LA — Qualifier 1: Approach/technique. In Section 1, LA indicates an **open approach**.

LQ — Qualifier 2: Agent, device or method. In Section 1, LQ indicates **intramedullary nail**.

A — Qualifier 3: Tissue, Type, Group or Strain. In Section 1, Qualifier 3 is always tissue and A indicates **autograft**.

Note: Often, the actual description of the qualifier is modified during code build to provide a more clinically relevant description **that will help users to select the most appropriate code**. For example, A is simply autograft, but in the code table for rubric 1.VG.74.^^, "bone" is added (bone autograft).

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