



# CIHI Hospital Frailty Risk Measure (HFRM)

November 2023

Methodology Notes



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# Introduction

These notes give users the methodological details behind the Canadian Institute for Health Information (CIHI) Hospital Frailty Risk Measure (HFRM) so they can better understand and interpret the results. They supplement the metadata found in [CIHI's Indicator library](#).

Methodology development was guided by a national expert advisory group (EAG) composed of key geriatric researchers from across Canada and from the United Kingdom, including a representative from the Canadian Frailty Network, and hospital and health region administrators.

Differences in coding practices between organizations and jurisdictions may affect the comparability of the CIHI HFRM. Direct comparisons between organizations or provinces/territories are discouraged unless data is known to be comparable.

If you have any questions about the CIHI HFRM results or definitions, please write to [hsp@cihi.ca](mailto:hsp@cihi.ca).

## CIHI HFRM

The CIHI HFRM is a contextual measure of frailty for inpatients discharged from general acute care hospitals in Canada.

It follows a cumulative deficit approach (i.e., accumulation of deficits is used to determine the individual's risk of frailty). Cumulative deficit models are closely related to the biological age of the individual being examined for frailty.<sup>1-5</sup> Common deficits include signs, symptoms, abnormal lab values, disease states and disabilities.

Searle's criteria were used as guiding principles in selecting deficit variables for inclusion in the CIHI HFRM.<sup>6</sup> The 5 criteria are characterized as follows:<sup>6 (p. 2)</sup>

1. Variables must be deficits associated with health status (*excludes attributes such as gray hair*).
2. A deficit's prevalence must generally increase with age (*some age-related conditions can decrease with age at very advanced ages due to survival effect*).
3. Deficits must not saturate too early (*some age-related conditions saturate too early to be considered a deficit: for example, presbyopia, age-related lens changes, is nearly universal by age 55*).
4. Deficits must cover a range of systems (*not only variables related to cognition and mood, for example*).
5. The items that make up the frailty measure need to be the same from one iteration to the next (*this applies when a single frailty index is to be used serially on the same individuals*).

## Data sources

Hospitals in all jurisdictions (except Quebec) submit acute care data to the Discharge Abstract Database (DAD). Hospitals in Quebec submit acute and day procedure data to Maintenance et exploitation des données pour l'étude de la clientèle hospitalière (MED-ÉCHO); MED-ÉCHO data is then submitted to CIHI, which integrates it into the Hospital Morbidity Database (HMDB). The combined DAD-HMDB has complete coverage of acute care hospitalizations across Canada (with the exception of hospitalizations in designated adult mental health beds in Ontario).

The National Ambulatory Care Reporting System (NACRS) has variable coverage of emergency department, day surgery and clinic submissions across Canada. Between the DAD-HMDB and NACRS, complete coverage of day procedure data is available. Visit the [DAD](#), [HMDB](#) and [NACRS](#) web pages for more information on these databases.

The medical conditions are identified using diagnosis codes from the *International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Canada* (ICD-10-CA).

## CIHI HFRM cohort inclusion and exclusion criteria

The CIHI HFRM cohort includes all patients age 65 and older discharged from an acute care hospital; it is defined using acute care records from the DAD-HMDB in a given data year. The inclusion and exclusion criteria listed in [Table 1](#) are used to identify the acute care cohort; they do not apply to other data sources used to identify frailty conditions through linkage (see [Selection of deficits](#) and [Record linkage](#)).

**Table 1** Inclusion/exclusion criteria

Calculation	Criteria
<b>Include</b>	<ul style="list-style-type: none"> <li>All inpatient care discharges from general hospitals (Facility Type Code* = 1 and Analytical Institution Type† = 1)</li> <li>Age at index discharge‡ 65 years and older</li> </ul>
<b>Exclude</b>	<ul style="list-style-type: none"> <li>Records with an invalid health card number (HCN)</li> <li>Records with an invalid code for province/territory issuing HCN</li> <li>Records with an invalid discharge date</li> <li>Records with admission category of cadaveric donor or stillbirth (Admission Category Code = R or S)</li> <li>Records with delivery§ (ICD-10-CA: O10–O16, O21–O29, O30–O37, O40–O46, O48, O60–O69, O70–O75, O85–O89, O90–O92, O95, O98, O99 with a sixth digit of 1 or 2; or Z37 recorded in any diagnosis field) or abortion§ (ICD-10-CA: O04)</li> <li>Records with medical assistance in dying (MAID) (Discharge Disposition Code = 73)**</li> </ul>

**Notes**

\* Facility Type Code is a CIHI variable that identifies the level of care of an institution (1 = acute care).

† The Analytical Institution Type code contains a CIHI-assigned Institution Type for each Institution Number (1 = general hospital).

‡ Most recent discharge in the reported fiscal year.

§ In rare cases, there may be delivery or abortion records close to the age inclusion criterion (i.e., 65 and older). This criterion is applied out of caution to exclude potential delivery or abortion records above the age cut-off from the analysis cohort.

\*\* 2018–2019 data onward.

## Record linkage: Linking cases to identify a patient's deficits

In addition to DAD-HMDB data, NACRS data is also used to identify frailty conditions for each patient. Starting in 2016, a new patient linkage standard was developed and implemented at CIHI. The new standard uses encrypted health card number (HCN) and the HCN-issuing province for record linkage (linkage keys). More information about record linkage across databases can be found on the [Supporting resources page](#) of CIHI's Indicator library (see [General Methodology Notes](#)).

To identify frailty conditions to calculate deficits for the CIHI HFRM cohort (see [CIHI HFRM cohort inclusion and exclusion criteria](#)), information about the patient's medical history is sourced from all available medical records in the DAD-HMDB and NACRS (see [Data sources](#)). The records are linked over a 2-year look-back period, starting from the patient's latest hospital discharge in the reporting fiscal year. More details can be found below (see [Results attribution](#)).

Note that Quebec's emergency department data in NACRS cannot be linked with that province's inpatient acute care and day procedure data in the DAD-HMDB; therefore, Quebec's emergency department data was not included when calculating the frailty risk measure for patients discharged from Quebec general hospitals.

## Selection of deficits (frailty condition categories)

The list of frailty deficits used to construct the CIHI HFRM includes 36 frailty condition categories, each of which corresponds to diagnosis codes from the ICD-10-CA, versions 2012, 2015, 2018 and 2022.

Deficits considered for inclusion in the CIHI HFRM and the corresponding diagnosis codes were identified based on the inclusion criteria used for existing frailty measures<sup>1–11</sup> as well as on extensive consultations with clinical and research experts in frailty. These proposed frailty conditions and the ICD-10-CA codes were then reviewed by CIHI's [Classifications](#) specialists to inform groupings and to identify whether ICD-10-CA codes were specific to identified categories. The list underwent an iterative review and refinement process, using both statistical data analysis and further consultations with experts in the field. The final list includes selected codes grouped into 36 frailty condition categories (see [Table 2](#) and the [appendix](#)) that cover frailty-related deficits such as morbidity, function, sensory loss, cognition and mood.

All diagnoses and conditions (i.e., all diagnosis type codes, not just diagnosis type [MRDx], the most responsible diagnosis<sup>i</sup>) that are present on a patient’s record are included in flagging the frailty conditions. Note that this includes the use of some non-mandatory diagnosis codes in order to maximize the capture of frailty conditions in the CIHI HFRM.

**Table 2** CIHI Hospital Frailty Risk Measure condition categories

Frailty-related key areas	Frailty condition categories
<b>Morbidity</b>	<ul style="list-style-type: none"> <li>• Anemia</li> <li>• Cancer</li> <li>• Cardiac and vascular</li> <li>• Cerebrovascular</li> <li>• Diabetes</li> <li>• Gastrointestinal</li> <li>• Hypo- and hypertension</li> <li>• Incontinence</li> <li>• Renal</li> <li>• Respiratory</li> <li>• Thrombosis and embolism</li> </ul>
<b>Function</b>	<ul style="list-style-type: none"> <li>• Activities of daily living (ADLs) and instrumental activities of daily living (IADLs)</li> <li>• Arthritis and inflammation</li> <li>• Movement and immobility</li> <li>• Fatigue</li> <li>• Functional dependence</li> <li>• Fractures and osteoporosis</li> <li>• Musculoskeletal</li> <li>• Machine dependence</li> <li>• Edema</li> </ul>
<b>Sensory loss</b>	<ul style="list-style-type: none"> <li>• Sensory impairment</li> </ul>
<b>Cognition and mood</b>	<ul style="list-style-type: none"> <li>• Delirium</li> <li>• Delusions and hallucinations</li> <li>• Dementia and Alzheimer’s</li> <li>• Other cognitive disorders</li> <li>• Mood disorders</li> </ul>

i. The most responsible diagnosis (MRDx), or diagnosis type (M), is the only diagnosis or condition that can be described as most responsible for a patient’s stay in the facility.<sup>12</sup>



Frailty-related key areas	Frailty condition categories
Other	<ul style="list-style-type: none"> <li>• Endocrine</li> <li>• Epilepsy</li> <li>• History of medications</li> <li>• Infections</li> <li>• Nutrition and wasting</li> <li>• Pain</li> <li>• Organ transplants and ostomies</li> <li>• Other frailty conditions and diseases</li> <li>• Other injuries</li> <li>• Ulcers and soft tissue disorders</li> </ul>

# CIHI HFRM calculation and presentation of the measure

## Accumulation of deficits

The total number of deficits is the sum of the number of frailty condition categories (see [Table 2](#)) that the patient accumulated over 2 calendar years (730 days). A detailed description of the ICD-10-CA codes included in each frailty condition category can be found in the [appendix](#).

The maximum number of deficits each patient can theoretically accumulate is 36. Diagnoses within each frailty condition category are counted only once, even if they appear on multiple medical records from different data sources. If diagnosis codes from different condition categories are present, only the number of distinct categories is summed.

For example, for a patient who is coded as having a nosocomial infection as well as a urinary tract infection, the Infections condition category will be counted only once, since both diagnoses are included under this frailty category. [Table 3](#) provides scenarios of how deficits are accumulated by a patient based on their multiple hospital discharges over a period of 2 calendar year.

**Table 3** Examples of accumulation of deficits

Patient	Anemia	Dementia and Alzheimer's	ADLs and IADLs	Fractures and osteoporosis	Total number of deficits
A	1	—	—	1	2
B	1	1	2	—	3
C	—	1	—	1	2

**Note**

— Not applicable.

**Patient A:** The patient presented with anemia and a fracture of the upper arm during the same hospitalization. These 2 conditions are counted separately in their respective condition categories (Anemia, and Fractures and osteoporosis). The total number of deficits for Patient A is 2.

**Patient B:** The patient presented with anemia, a very low level of personal hygiene, feeding difficulties and dementia in Alzheimer's disease. Anemia and dementia are captured in their respective condition categories (Anemia, and Dementia and Alzheimer's). This patient has 2 problems with ADLs and IADLs related to hygiene and to feeding. These ADL/IADL problems would be captured only once under the respective condition category. The total number of deficits for Patient B is 3.

**Patient C:** For this patient's first stay in the hospital, they presented with a fracture of the ribs. For another hospitalization 3 months later, they presented with vascular dementia. Both conditions occurred during a 2-year period, and both would be counted once, separately under their respective condition categories (Fractures and osteoporosis, and Dementia and Alzheimer's). The cumulative number of deficits for Patient C is 2.

# Frailty risk, categories and a single measure of frailty risk

The risk of frailty is presented in 3 different ways, as described below.

## Continuous CIHI HFRM

To calculate the continuous CIHI HFRM for each patient, the total number of deficits for that patient is divided by 36, the maximum number of deficits a patient can accumulate. It is an unweighted risk measure: all frailty condition categories are considered to be of the same weight in terms of contributing to a patient's overall frailty risk. The resulting value is on the continuous range between 0 and 1.

However, it may be more intuitive to think about frailty risk in terms of risk severity (from lowest to highest) or as a single measure of risk (at risk versus not at risk). Grouping the CIHI HFRM into meaningful risk categories provides a better description of the senior patient population, as opposed to a single continuous measure that ranges between 0 and 1.

Therefore, the following are also presented:

## 8 risk groups

Patients are grouped into 8 categorical risk groups, according to their total number of deficits, ranging in severity from lowest risk (group 1) to highest risk (group 8). The 8 risk groups are presented as a percentage of patients in each of the 8 groups.

A number of approaches for grouping a continuous frailty index have been proposed in the literature, ranging from 2 categories (frail versus non-frail) and 3 categories (low, intermediate and high risk) to 9 risk categories.<sup>3, 7, 8, 14–19</sup> To determine CIHI's frailty risk categories, different ways of grouping the number of deficits were investigated (see [Validation of the measure](#)).

As shown in [Table 4](#), the lowest risk group (risk group 1) includes patients who had either no deficits or 1 deficit only (i.e., their HFRM value is less than 0.028). The second lowest risk group (risk group 2) includes patients with 2 or 3 deficits, or a frailty risk score greater than 0.028 but less than 0.111, and so on. Respective CIHI HFRM continuous values for each risk group are shown in each row.

Both the low and the high ends of frailty may be of interest; however, it is important to note that grouping frailty risk values into the 8 risk groups is somewhat arbitrary and may be irrelevant to care planning for individual patients.

## Hospitalized seniors at risk of frailty

A cut-off shown in [Table 4](#) divides patients into 2 major risk groups according to the number of deficits they accumulated: 0 to 5 deficits — *not at risk of frailty*; and 6 or more deficits — *at risk of frailty*. As a single measure of frailty risk, this is the proportion of patients in risk groups 4 to 8 divided by all patients included in the frailty cohort. See [Validation of the measure](#) for more information on how this cut-off was selected.

**Table 4** CIHI HFRM presentations (based on the 36 frailty condition categories)

Risk group (severity from lowest to highest)	Continuous CIHI HFRM (range of values)	Total number of deficits per patient	Hospitalized seniors at risk of frailty (single measure of frailty risk)
1	0–0.028	0–1	Not at risk
2	0.056–0.083	2–3	
3	0.111–0.139	4–5	
4	0.167–0.194	6–7	At risk
5	0.222–0.250	8–9	
6	0.278–0.333	10–12	
7	0.361–0.417	13–15	
8	≥0.444	16+	

## CIHI HFRM results attribution

CIHI HFRM results are reported at the hospital, region and province/territory levels. Hospital-level results are reported by place of service; region- and province-/territory-level results are reported based on patient’s place of residence.

More information about health region assignment can be found on the [Supporting resources page](#) of CIHI’s Indicator library (see [General Methodology Notes](#)).

All acute care discharges during the reported fiscal year are considered for inclusion in the CIHI HFRM cohort. If a patient is discharged from more than one acute care facility within the reporting year, their result will be included in the aggregated results for each of those facilities. In other words, a patient may be included more than once across different hospitals.

However, a patient will be counted only once in the region- and province-/territory-level results, based on the last discharge of the reporting fiscal year, according to their place of residence.

## Validation of the measure

The CIHI HFRM was developed based on literature reviews and engagement with national and international frailty clinical experts and researchers.

It was validated against several existing frailty measures and clinical assessment tools. It was found to have strong discriminatory ability to predict a range of frailty-related adverse outcomes, including mortality, hospital readmission, long length of stay and high use of hospital beds.

The cut-off for the Hospitalized Seniors at Risk of Frailty measure and underlying 8 risk groups (see [Table 4](#)) was selected based on the discriminatory ability in predicting a range of frailty-related adverse outcomes. The adverse outcomes that were investigated are as follows: in-hospital mortality (within 30 days and 1 year of discharge); hospital readmissions (within 30 days and 1 year); high use of hospital beds in 1 year following the discharge (defined as a patient with 3+ hospitalizations and cumulative length of stay [LOS] over 30 days) or long LOS (30 days or more); admissions to long-term care<sup>ii</sup> (within 90 days and 1 year of discharge); and admissions to home care<sup>iii</sup> (within 90 days and 1 year of discharge).

Numerous statistical models were fitted (not shown here), using logistic regression and Cox proportional hazards regression, to identify the optimal risk groupings, while adjusting for a patient's sex, age and the Charlson Comorbidity Index, and testing different age subgroups (65 and older and 75 and older).<sup>22-26</sup> For the mortality outcome, all deaths captured in the DAD-HMDB and NACRS (e.g., in acute care, day surgery, the emergency department) were included, except for cases with MAID. The models did not control for competing risk from mortality not captured in the CIHI administrative data sources, since only deaths that can be identified via the DAD-HMDB and NACRS records could be included. To establish the proportion of hospitalized seniors at risk of frailty (single measure of frailty risk), the cut-off for the number of deficits was determined using the stratum-specific likelihood ratio (SSLR) method.<sup>19</sup>

As higher levels of frailty are linked to a number of adverse outcomes among seniors, when frailty severity increases, so does the risk for these adverse outcomes.

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ii. Long-term care facilities can be considered residential health care facilities with 24-hour on-site nursing supervision for individuals with complex medical needs and requiring assistance.<sup>20</sup>

iii. Only patients for whom the RAI-HC assessments were completed at home (X70 = 1). Home care provides both short-term and long-term health care services that can be provided in private homes, hospitals, ambulatory clinics, and/or in residential care institutions.<sup>21</sup>

## Caveats and limitations

This section describes the limitations of the CIHI HFRM and caveats around interpretation of results. Differences in processes, documentation and resources across hospitals may result in differences in their ability to capture data about frailty conditions, so hospitals with better documentation may have higher frailty scores.

The CIHI HFRM deficits accumulation approach is based on ICD-10-CA codes. However, not every condition listed in the [appendix](#) will be captured in the administrative data sources used. To maximize the capture of frailty conditions included in the CIHI HFRM, all diagnosis types were considered. All DAD-HMDB and NACRS records were used in order to maximize the capture of frailty conditions and improve the validity of the CIHI HFRM.<sup>27</sup>

When a certain frailty deficit was not triggered, it is unclear whether it was looked for but not present in a patient, or was not recorded because it was either overlooked or undocumented. There are jurisdictional differences in coding practices. Due to the following limitations, the calculated number of deficits for each patient may be under-estimated:

- Certain frailty conditions are not well documented with existing coding practices. The conditions covered by the CIHI HFRM focus more on diseases and less on functional outcomes and cognitive deficits.
- The data is captured by professional coders from clinical documentation, based on standards set by CIHI. Errors in the captured data can arise when the documentation is inconsistent or unclear, has conflicting information or is missing. They can also happen during the coding process, due to coders' interpretation of physicians' documentation, or incomplete or incorrect coding.
- The quality of the underlying clinical data can affect the results. Physicians' dictation practices for discharge summaries may also impact what is coded and the number of deficits identified.
- If a frailty condition was present and was recorded only in the nurse's notes, it would not be captured. CIHI's coding standards stipulate that to be coded, diagnoses must be documented in the chart by a physician or the primary care provider.
- Not all frailty-related conditions included in the CIHI HFRM are mandatory to code. This mostly affects non-mandatory diagnosis codes, or diagnosis type (3).<sup>iv</sup>
- Some administrative data sources used to identify frailty-related conditions have partial data coverage (see [Data sources](#)). Note that the DAD-HMDB does not include adult mental health records from Ontario — these are submitted to the Ontario Mental Health Reporting System ([OMHRS](#)), which uses a different diagnosis classification system than ICD-10-CA.
- Additional limitations are related to the inability to apply the patient linkage standard across all jurisdictions consistently (see [Record linkage](#)).

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iv. Secondary diagnosis, or diagnosis type (3), is a secondary diagnosis or condition for which a patient may or may not have received treatment, has been assigned an ICD-10-CA code and does not satisfy the requirements for determining comorbidity.<sup>12</sup>

These limitations may lead to challenges in comparability of the CIHI HFRM results across Canada, between jurisdictions and organizations, and over time. Direct comparisons are discouraged unless data is known to be comparable. As such, the CIHI HFRM should be interpreted as a contextual measure and not an indicator for benchmarking performance.

This measure provides a baseline to improve clinical documentation and to raise awareness on the topic of frailty in acute care and other clinical and community settings. Better understanding of the depth, or severity, of frailty can be achieved by improving coding practices and hospitals' documentation of the identified frailty conditions. To increase the capture of the frailty conditions in this measure, organizations and jurisdictions may mandate the capture of frailty-related diagnoses. This could include abstracting data from relevant nursing notes, using non-mandatory codes — type (3) diagnoses — for the conditions included in the CIHI HFRM and continuing their efforts to improve the [quality of physician documentation](#).

The CIHI HFRM should be used to define a sub-group of patients who are at higher risk of frailty. It should not be used to determine who is frail, but rather to understand the risk of frailty. It can be used to understand the breadth of frailty in a hospital or jurisdiction. Where coding practices have been stable over time, users can monitor trends within their frail populations over time.

# Appendix

## Condition categories, corresponding ICD-10-CA codes and descriptions

The following ICD-10-CA codes (grouped by frailty condition category) were used in the calculation of the CIHI Hospital Frailty Risk Measure.

**Table A1** Frailty condition categories and ICD-10-CA code descriptions

Frailty condition categories	ICD-10-CA codes*	Code descriptions
<b>Activities of daily living (ADLs) and instrumental activities of daily living (IADLs)</b>	R46.0	Very low level of personal hygiene
	R63.3	Feeding difficulties and mismanagement
	Z73.8	Other problems related to life-management difficulty
	Z73.9	Problem related to life-management difficulty, unspecified
	Z74.0	Need for assistance due to reduced mobility
	Z74.1	Need for assistance with personal care
<b>Anemia</b>	D64	Other anaemias
<b>Arthritis and inflammation</b>	M02	Reactive arthropathies
	M03	Postinfective and reactive arthropathies in diseases classified elsewhere
	M05	Seropositive rheumatoid arthritis
	M06	Other rheumatoid arthritis
	M07	Psoriatic and enteropathic arthropathies
	M10	Gout
	M11	Other crystal arthropathies
	M12.0	Chronic postrheumatic arthropathy [Jaccoud]
	M12.3	Palindromic rheumatism
	M12.5	Traumatic arthropathy
	M12.8	Other specific arthropathies, not elsewhere classified
	M13.0	Polyarthritis, unspecified
	M13.1	Monoarthritis, not elsewhere classified
	M13.8	Other specified arthritis
	M13.9	Arthritis, unspecified
	M14	Arthropathies in other diseases classified elsewhere
M15	Polyarthrosis	
M16	Coxarthrosis [arthrosis of hip]	



Frailty condition categories	ICD-10-CA codes*	Code descriptions
Arthritis and inflammation (continued)	M17	Gonarthrosis [arthrosis of knee]
	M18	Arthrosis of first carpometacarpal joint
	M19	Other arthrosis
	M31.5	Giant cell arteritis with polymyalgia rheumatica
	M32	Systematic lupus erythematosus
	M33	Dermatopolymyositis
	M34	Systemic sclerosis
	M35.1	Other overlap syndromes
	M35.2	Behçet's disease
	M35.3	Polymyalgia rheumatica
	M36.0	Dermato(poly)myositis in neoplastic disease
	M36.1	Arthropathy in neoplastic disease
	M36.2	Haemophilic arthropathy
	M36.3	Arthropathy in other blood disorders
	M45	Ankylosing spondylitis
	M46.5	Other infective spondylopathies
	M46.9	Inflammatory spondylopathy, unspecified
	M75.0	Adhesive capsulitis of shoulder
	T84.00	Mechanical complication of shoulder prosthesis
	T84.030	Mechanical complication of hip prosthesis, loosening
	T84.031	Mechanical complication of hip prosthesis, instability
	T84.032	Mechanical complication of hip prosthesis, wear of articular bearing surface
	T84.033	Mechanical complication of hip prosthesis, breakage and dissociation
	T84.034	Mechanical complication of hip prosthesis, osteolysis around joint prosthesis
	T84.035	Mechanical complication of hip prosthesis, destruction of cartilage wear of joint
	T84.038	Mechanical complication of hip prosthesis, other
	T84.039	Mechanical complication of hip prosthesis, unspecified
	T84.040	Mechanical complication of knee prosthesis, loosening
	T84.041	Mechanical complication of knee prosthesis, instability
	T84.042	Mechanical complication of knee prosthesis, wear of articular bearing surface
	T84.043	Mechanical complication of knee prosthesis, breakage and dissociation
	T84.044	Mechanical complication of knee prosthesis, osteolysis around joint prosthesis
	T84.045	Mechanical complication of knee prosthesis, destruction or cartilage wear of joint

Frailty condition categories	ICD-10-CA codes*	Code descriptions
<b>Arthritis and inflammation (continued)</b>	T84.048	Mechanical complication of knee prosthesis, other
	T84.049	Mechanical complication of knee prosthesis, unspecified
	Z96.60	Presence of artificial hip
	Z96.61	Presence of artificial knee
	Z96.62	Presence of artificial shoulder
	Z96.68	Presence of other orthopaedic joint implants
	Z96.69	Presence of orthopaedic joint implants unspecified
<b>Cancer</b>	C00	Malignant neoplasm of lip
	C01	Malignant neoplasm of base of tongue
	C02	Malignant neoplasm of other and unspecified parts of tongue
	C03	Malignant neoplasm of gum
	C04	Malignant neoplasm of floor of mouth
	C05	Malignant neoplasm of palate
	C06	Malignant neoplasm of other and unspecified parts of mouth
	C07	Malignant neoplasm of parotid gland
	C08	Malignant neoplasm of other and unspecified major salivary glands
	C09	Malignant neoplasm of tonsil
	C10	Malignant neoplasm of oropharynx
	C11	Malignant neoplasm of nasopharynx
	C12	Malignant neoplasm of pyriform sinus
	C13	Malignant neoplasm of hypopharynx
	C14	Malignant neoplasm of other and ill-defined sites in the lip, oral cavity and pharynx
	C15	Malignant neoplasm of oesophagus
	C16	Malignant neoplasm of stomach
	C17	Malignant neoplasm of small intestine
	C18	Malignant neoplasm of colon
	C19	Malignant neoplasm of rectosigmoid junction
	C20	Malignant neoplasm of rectum
	C21	Malignant neoplasm of anus and anal canal
	C22	Malignant neoplasm of liver and intrahepatic bile ducts
	C23	Malignant neoplasm of gallbladder
	C24	Malignant neoplasm of other and unspecified parts of biliary tract
	C25	Malignant neoplasm of pancreas
	C26	Malignant neoplasm of other and ill-defined digestive organs
	C30	Malignant neoplasm of nasal cavity and middle ear
	C31	Malignant neoplasm of accessory sinuses
	C32	Malignant neoplasm of larynx

Frailty condition categories	ICD-10-CA codes*	Code descriptions
Cancer (continued)	C33	Malignant neoplasm of trachea
	C34	Malignant neoplasm of bronchus and lung
	C37	Malignant neoplasm of thymus
	C38	Malignant neoplasm of heart, mediastinum and pleura
	C39	Malignant neoplasm of other and ill-defined sites in the respiratory system and intrathoracic organs
	C40	Malignant neoplasm of bone and articular cartilage of limbs
	C41	Malignant neoplasm of bone and articular cartilage of other and unspecified sites
	C43	Malignant melanoma of skin
	C44	Other malignant neoplasms of skin
	C45	Mesothelioma
	C46	Kaposi's sarcoma
	C47	Malignant neoplasm of peripheral nerves and autonomic nervous system
	C48	Malignant neoplasm of retroperitoneum and peritoneum
	C49	Malignant neoplasm of other connective and soft tissue
	C50	Malignant neoplasm of breast
	C51	Malignant neoplasm of vulva
	C52	Malignant neoplasm of vagina
	C53	Malignant neoplasm of cervix uteri
	C54	Malignant neoplasm of corpus uteri
	C55	Malignant neoplasm of uterus, part unspecified
	C56	Malignant neoplasm of ovary
	C57	Malignant neoplasm of other and unspecified female genital organs
	C58	Malignant neoplasm of placenta
	C60	Malignant neoplasm of penis
	C61	Malignant neoplasm of prostate
	C62	Malignant neoplasm of testis
	C63	Malignant neoplasm of other and unspecified male genital organs
	C64	Malignant neoplasm of kidney, except renal pelvis
	C65	Malignant neoplasm of renal pelvis
	C66	Malignant neoplasm of ureter
	C67	Malignant neoplasm of bladder
	C68	Malignant neoplasm of other and unspecified urinary organs
	C69	Malignant neoplasm of eye and adnexa
	C70	Malignant neoplasm of meninges

Frailty condition categories	ICD-10-CA codes*	Code descriptions
Cancer (continued)	C71	Malignant neoplasm of brain
	C72	Malignant neoplasm of spinal cord, cranial nerves and other parts of central nervous system
	C73	Malignant neoplasm of thyroid gland
	C74	Malignant neoplasm of adrenal gland
	C75	Malignant neoplasm of other endocrine glands and related structures
	C76	Malignant neoplasm of other and ill-defined sites
	C77	Secondary and unspecified malignant neoplasm of lymph nodes
	C78	Secondary malignant neoplasm of respiratory and digestive organs
	C79	Secondary malignant neoplasm of other and unspecified sites
	C80	Malignant neoplasm without specification of site
	C81	Hodgkin lymphoma
	C82	Follicular lymphoma
	C83	Non-follicular lymphoma
	C84	Mature T/NK-cell lymphomas
	C85	Other and unspecified types of non-Hodgkin lymphoma
	C86	Other specified types of T/NK-cell lymphoma
	C88	Malignant immunoproliferative diseases
	C90	Multiple myeloma and malignant plasma cell neoplasms
	C91	Lymphoid leukaemia
	C92	Myeloid leukaemia
	C93	Monocytic leukaemia
	C94	Other leukaemias of specified cell type
	C95	Leukaemia of unspecified cell type
	C96	Other and unspecified malignant neoplasms of lymphoid, haematopoietic and related tissue
	C97	Malignant neoplasms of independent (primary) multiple sites
	D37	Neoplasm of uncertain or unknown behaviour of oral cavity and digestive organs
	D38	Neoplasm of uncertain or unknown behaviour of middle ear and respiratory and intrathoracic organs
	D39	Neoplasm of uncertain or unknown behaviour of female genital organs
	D40	Neoplasm of uncertain or unknown behaviour of male genital organs

Frailty condition categories	ICD-10-CA codes*	Code descriptions
<b>Cancer (continued)</b>	D41	Neoplasm of uncertain or unknown behaviour of urinary organs
	D42	Neoplasm of uncertain or unknown behaviour of meninges
	D43	Neoplasm of uncertain or unknown behaviour of brain and central nervous system
	D44	Neoplasm of uncertain or unknown behaviour of endocrine glands
	D45	Polycythaemia vera
	D46	Myelodysplastic syndromes
	D47	Other neoplasms of uncertain or unknown behaviour of lymphoid, haematopoietic and related tissue
	D48	Neoplasm of uncertain or unknown behaviour of other and unspecified sites
	Z92.3	Personal history of irradiation
	Z92.6	Personal history of chemotherapy for neoplastic disease
<b>Cardiac and vascular</b>	I05	Rheumatic mitral valve diseases
	I06	Rheumatic aortic valve diseases
	I07	Rheumatic tricuspid valve diseases
	I08	Multiple valve diseases
	I09.0	Rheumatic myocarditis
	I25.1	Atherosclerotic heart disease
	I34	Nonrheumatic mitral valve disorders
	I35	Nonrheumatic aortic valve disorders
	I36	Nonrheumatic tricuspid valve disorders
	I37	Pulmonary valve disorders
	I38	Endocarditis, valve unspecified
	I39	Endocarditis and heart valve disorders in diseases classified elsewhere
	I42	Cardiomyopathy
	I43	Cardiomyopathy in diseases classified elsewhere
	I47	Paroxysmal tachycardia
	I48	Atrial fibrillation and flutter
	I49	Other cardiac arrhythmias
	I50.0	Congestive heart failure
	I50.1	Left ventricular failure
	I50.9	Heart failure, unspecified
I70	Atherosclerosis	
I71.3	Abdominal aortic aneurysm, ruptured	
I71.4	Abdominal aortic aneurysm, without mention of rupture	

Frailty condition categories	ICD-10-CA codes*	Code descriptions
Cardiac and vascular (continued)	I71.5	Thoracoabdominal aortic aneurysm, ruptured
	I71.6	Thoracoabdominal aortic aneurysm, without mention of rupture
	I72.1	Aneurysm and dissection of artery of upper extremity
	I72.2	Aneurysm and dissection of renal artery
	I72.3	Aneurysm and dissection of iliac artery
	I72.4	Aneurysm and dissection of artery of lower extremity
	I73	Other peripheral vascular diseases
	K55.1	Chronic vascular disorders of intestine
	R00.0	Tachycardia, unspecified
	T82.0	Mechanical complication of heart valve prosthesis
	T82.1	Mechanical complication of cardiac electronic device
	T82.2	Mechanical complication of coronary artery bypass and valve grafts
	T82.3	Mechanical complication of other vascular grafts
	T82.4	Mechanical complication of vascular dialysis catheter
	T82.5	Mechanical complication of other cardiac and vascular devices and implants
	Z45.00	Adjustment and management of cardiac pacemaker
	Z45.01	Adjustment and management of cardioverter/defibrillator
	Z45.02	Adjustment and management of cardiac resynchronization therapy device
	Z45.08	Adjustment and management of other and unspecified cardiac devices
	Z45.1	Adjustment and management of infusion pump
	Z45.2	Adjustment and management of vascular access device
	Z45.8	Adjustment and management of other implanted devices
	Z45.9	Adjustment and management of unspecified implanted device
	Z95.00	Presence of cardiac pacemaker
	Z95.01	Presence of cardioverter/defibrillator
	Z95.02	Presence of cardiac resynchronization therapy device
	Z95.08	Presence of other and unspecified electronic cardiac devices
	Z95.1	Presence of aortocoronary bypass graft
	Z95.2	Presence of prosthetic heart valve
	Z95.3	Presence of xenogenic heart valve
	Z95.4	Presence of other heart-valve replacement
	Z95.5	Presence of coronary angioplasty implant and graft
	Z95.8	Presence of other cardiac and vascular implants and grafts
	Z95.9	Presence of cardiac and vascular implant and graft, unspecified

Frailty condition categories	ICD-10-CA codes*	Code descriptions
<b>Cerebrovascular</b>	I60	Subarachnoid haemorrhage
	I61	Intracerebral haemorrhage
	I63.0	Cerebral infarction due to thrombosis of precerebral arteries
	I63.1	Cerebral infarction due to embolism of precerebral arteries
	I63.2	Cerebral infarction due to unspecified occlusion or stenosis of precerebral arteries
	I63.3	Cerebral infarction due to thrombosis of cerebral arteries
	I63.4	Cerebral infarction due to embolism of cerebral arteries
	I63.5	Cerebral infarction due to unspecified occlusion or stenosis of cerebral arteries
	I63.8	Other cerebral infarction
	I63.9	Cerebral infarction, unspecified
	I64	Stroke, not specified as haemorrhage or infarction
	I69	Sequelae of cerebrovascular disease
	G45	Transient cerebral ischaemic attacks and related syndromes
<b>Delirium</b>	F05	Delirium, not induced by alcohol and other psychoactive substances
	F13.4	Mental and behavioral disorders due to use of sedatives or hypnotics, withdrawal state with delirium
<b>Delusions and hallucinations</b>	F22	Persistent delusional disorders
	R44.0	Auditory hallucinations
	R44.1	Visual hallucinations
	R44.2	Other hallucinations
	R44.3	Hallucinations, unspecified
<b>Dementias and Alzheimer's</b>	F00	Dementia in Alzheimer's disease
	F01	Vascular dementia
	F02	Dementia in other diseases classified elsewhere
	F03	Unspecified dementia
	G30	Alzheimer's disease
	G31.00	Pick's disease
	G31.02	Frontal lobe dementia
	G31.1	Senile degeneration of brain, not elsewhere specified
<b>Diabetes</b>	E10	Type 1 diabetes mellitus
	E11	Type 2 diabetes mellitus
	E13	Other specified diabetes mellitus
	E14	Unspecified diabetes mellitus
<b>Edema</b>	R60.0	Localized oedema

<b>Frailty condition categories</b>	<b>ICD-10-CA codes*</b>	<b>Code descriptions</b>
<b>Endocrine</b>	E02	Subclinical iodine-deficiency hypothyroidism
	E03	Other hypothyroidism
	E04	Other nontoxic goitre
	E05	Thyrotoxicosis
	E06	Thyroiditis
	E07	Other disorders of thyroid
	E16	Other disorders of pancreatic internal secretion
	E20.9	Hypoparathyroidism, unspecified
	E21.0	Primary hyperparathyroidism
	E21.1	Secondary hyperparathyroidism, not elsewhere classified
	E21.2	Other hyperparathyroidism
	E21.3	Hyperparathyroidism, unspecified
	E21.4	Other specified disorders of parathyroid gland
	E22.2	Syndrome of inappropriate secretions of antidiuretic hormone
	E23.0	Hypopituitarism
	E23.2	Diabetes insipidus
	E27.1	Primary adrenocortical insufficiency
	E27.2	Addisonian crisis
	E27.3	Drug-induced adrenocortical insufficiency
	E27.4	Other and unspecified adrenocortical insufficiency
	E27.5	Adrenomedullary hyperfunction
	E27.8	Other specified disorders of adrenal gland
	E27.9	Disorder of adrenal gland, unspecified
	E32.8	Other diseases of thymus
	E34.0	Carcinoid syndrome
	E34.9	Endocrine disorder, unspecified
<b>Epilepsy</b>	F06.8	Other specified mental disorders due to brain damage and dysfunction and to physical disease
	G40	Epilepsy
	R56.80	Seizure disorder, so described
	R56.88	Other and unspecified convulsions
<b>Fatigue</b>	R53	Malaise and fatigue
<b>Fractures and osteoporosis</b>	S22	Fracture of rib(s), sternum and thoracic spine
	S32	Fracture of lumbar spine and pelvis
	S42	Fracture of shoulder and upper arm
	S52	Fracture of forearm
	S62	Fracture at wrist and hand level
	S72	Fracture of femur



Frailty condition categories	ICD-10-CA codes*	Code descriptions
<b>Fractures and osteoporosis (continued)</b>	S82	Fracture of lower leg, including ankle
	S92	Fracture of foot, except ankle
	T02	Fractures involving multiple body regions
	T08	Fracture of spine, level unspecified
	T10	Fracture of upper limb, level unspecified
	T12	Fracture of lower limb, level unspecified
	T14.2	Fracture of unspecified body region
	M80	Osteoporosis with pathological fracture
	M81	Osteoporosis without pathological fracture
	M82	Osteoporosis in diseases classified elsewhere
	M90.7	Fracture of bone in neoplastic disease
<b>Functional dependence</b>	Z74.2	Need for assistance at home and no other household member able to render care
	Z74.3	Need for continuous supervision
	Z74.8	Other problems related to care-provider dependency
	Z74.9	Problem related to care-provider dependency, unspecified
	Z75.0	Medical services not available in home
	Z75.1	Person awaiting admission to adequate facility elsewhere
	Z75.2	Other waiting period for investigation and treatment
	Z75.3	Unavailability and inaccessibility of health-care facilities
	Z75.4	Unavailability and inaccessibility of other helping agencies
	Z75.5	Holiday relief care
	Z75.8	Other problems related to medical facilities and other health care
	Z75.9	Unspecified problem related to medical facilities and other health care
	<b>Gastrointestinal</b>	A09
K26		Duodenal ulcer
K52		Other noninfective gastroenteritis and colitis
K59		Other functional intestinal disorders
<b>History of medications</b>	Z92.1	Personal history of long-term (current) use of anticoagulants
	Z92.20	Personal history of long-term (current) use of antibiotics
	Z92.21	Personal history of long-term (current) use of postmenopausal hormone replacement
	Z92.22	Personal history of long-term (current) use of multiple prescription drugs [polypharmacy]
	Z92.28	Personal history of long-term (current) use of other drug therapy

Frailty condition categories	ICD-10-CA codes*	Code descriptions
<b>Hypo- and hypertension</b>	I10	Essential (primary) hypertension
	I11	Hypertensive heart disease
	I12	Hypertensive renal disease
	I13	Hypertensive heart and renal disease
	I15	Secondary hypertension
	I95	Hypotension
<b>Incontinence</b>	N39.30	Mixed incontinence
	N39.4	Other specified urinary incontinence
	R15	Faecal incontinence
	R32	Unspecified urinary incontinence
	T83.0	Mechanical complication of urinary (indwelling) catheter
	T83.1	Mechanical complication of other urinary devices and implants
	T83.2	Mechanical complication of graft of urinary organ
	T83.4	Mechanical complication of other prosthetic devices, implants and grafts in genital tract
	T83.5	Infection and inflammatory reaction due to prosthetic device, implant and graft in urinary system
	T83.6	Infection and inflammatory reaction due to prosthetic device, implant and graft in genital tract
	T83.8	Other complications of genitourinary prosthetic devices, implants, and grafts
	T83.9	Unspecified complication of genitourinary prosthetic device, implant and graft
<b>Infections</b>	A04	Other bacterial intestinal infections
	A08	Viral and other specified intestinal infections
	A40	Streptococcal sepsis
	A41	Other sepsis
	A48.8	Other specified bacterial diseases
	A49.0	Staphylococcal infection, unspecified site
	A49.1	Streptococcal and enterococcal infection, unspecified site
	A49.2	Haemophilus influenzae infection, unspecified site
	A49.8	Other bacterial infections of unspecified site
	A49.9	Bacterial infection, unspecified
	B95	Streptococcus and staphylococcus as the cause of disease classified to other chapters
	B96	Other specified bacterial agents as the cause of diseases classified to other chapters
	B97	Viral agents as the cause of diseases classified to other chapters

<b>Frailty condition categories</b>	<b>ICD-10-CA codes*</b>	<b>Code descriptions</b>
<b>Infections (continued)</b>	L03	Cellulitis
	L08	Other local infections of skin and subcutaneous tissue
	N39.0	Urinary tract infection, site not specified
	R02	Gangrene, not elsewhere classified
	R50	Fever of other and unknown origin
	Y95	Nosocomial condition
	Z22	Carrier of infectious disease
	U07.1	COVID-19, virus identified (from 2021–2022 onward)
	U07.2	COVID-19, virus not identified (from 2021–2022 onward)
<b>Machine dependence</b>	Z99.0	Dependence on aspirator
	Z99.1	Dependence on respirator
	Z99.2	Dependence on renal dialysis
	Z99.4	Dependence on artificial heart
	Z99.8	Dependence on other enabling machines and devices
	Z99.9	Dependence on unspecified enabling machine or device
	<b>Mood disorders</b>	F32
F41		Other anxiety disorders
R45.2		Unhappiness
<b>Movement and immobility</b>	G81	Hemiplegia
	G82	Paraplegia and tetraplegia
	H81	Disorders of vestibular function
	M62.3	Immobility syndrome (paraplegic)
	R26	Abnormalities of gait and mobility
	R29.6	Tendency to fall, not elsewhere classified
	R42	Dizziness and giddiness
	W00	Fall on same level involving ice and snow
	W01	Fall on same level from slipping, tripping, and stumbling
	W02	Fall involving skates, skis, sport boards and in-line skates
	W03	Other fall on same level due to collision with, or pushing by, another person
	W04	Fall while being carried or supported by other persons
	W05	Fall involving wheelchair and other types of walking devices
	W06	Fall involving bed
	W07	Fall involving chair
	W08	Fall involving other furniture
	W09	Fall involving playground equipment
	W10	Fall on and from stairs and steps
W11	Fall on and from ladder	

<b>Frailty condition categories</b>	<b>ICD-10-CA codes*</b>	<b>Code descriptions</b>
<b>Movement and immobility (continued)</b>	W12	Fall on and from scaffolding
	W13	Fall from, out of or through building or structure
	W14	Fall from tree
	W15	Fall from cliff
	W16	Diving or jumping into water causing injury other than drowning or submersion
	W17	Other fall from one level to another
	W18	Other fall on same level
	W19	Unspecified fall
	Z99.3	Dependence on wheelchair
<b>Musculoskeletal</b>	M25	Other joint disorders, not elsewhere classified
	M41	Scoliosis
	M48	Other spondylopathies
	R29.0	Tetany
	R29.1	Meningismus
	R29.2	Abnormal reflex
	R29.3	Abnormal posture
	R29.4	Clicking hip
	R29.8	Other and unspecified symptoms and signs involving the nervous and musculoskeletal systems
<b>Nutrition and wasting</b>	E41	Nutritional marasmus
	E43	Unspecified severe protein-energy malnutrition
	E44.0	Moderate protein-energy malnutrition
	E44.1	Mild protein-energy malnutrition
	E46	Unspecified protein-energy malnutrition
	E53	Deficiency of other B group vitamins
	E55	Vitamin D deficiency
	E63.9	Nutritional deficiency, unspecified
	E83	Disorders of mineral metabolism
	E86	Volume depletion
	E87	Other disorders of fluid, electrolyte, and acid-base balance
	K29.0	Acute haemorrhagic gastritis
	M62.5	Muscle wasting and atrophy, not elsewhere classified
	R11	Nausea and vomiting
	R13	Dysphagia
	R63.0	Anorexia
	R63.1	Polydipsia
	R63.4	Abnormal weight loss
	R63.6	Insufficient intake of food and water
	R64	Cachexia

<b>Frailty condition categories</b>	<b>ICD-10-CA codes*</b>	<b>Code descriptions</b>
<b>Organ transplants and ostomies</b>	T86	Failure and rejection of transplanted organs and tissues
	Z93.0	Tracheostomy status
	Z93.1	Gastrostomy status
	Z93.2	Ileostomy status
	Z93.3	Colostomy status
	Z93.4	Other artificial openings of gastrointestinal tract status
	Z93.5	Cystostomy status
	Z93.6	Other artificial openings of urinary tract status
	Z93.8	Other artificial opening status
	Z93.9	Artificial opening status, unspecified
	Z94.0	Kidney transplant status
	Z94.1	Heart transplant status
	Z94.2	Lung transplant status
	Z94.3	Heart and lungs transplant status
	Z94.4	Liver transplant status
	Z94.88	Other transplanted organ and tissue status
<b>Other cognitive disorders</b>	F06.7	Mild cognitive disorder
	F80.1	Expressive language disorder
	F80.2	Receptive language disorder
	F80.3	Acquired aphasia with epilepsy [Landau-Kleffner]
	G31.01	Progressive isolated aphasia [Mesulam]
	G47.0	Disorders of initiating and maintaining sleep
	G47.1	Disorders of excessive somnolence [hypersomnias]
	G47.2	Disorders of the sleep-wake schedule
	G47.8	Other sleep disorders
	G47.9	Sleep disorder, unspecified
	R40	Somnolence, stupor and coma
	R41.0	Disorientation, unspecified
	R41.6	Neurological neglect syndrome
	R44.8	Other and unspecified symptoms and signs involving general sensations and perceptions
	R45.1	Restlessness and agitation
	R45.3	Demoralization and apathy
	R46.88	Other symptoms and signs involving appearance and behavior
	R47.0	Dysphasia and aphasia
Z73.3	Stress, not elsewhere classified	

Frailty condition categories	ICD-10-CA codes*	Code descriptions
<b>Other frailty conditions and diseases</b>	E85.3	Secondary systemic amyloidosis
	E85.4	Organ-limited amyloidosis
	E85.9	Amyloidosis, unspecified
	G12.20	Amyotrophic lateral sclerosis
	G20	Parkinson's disease
	G21	Secondary parkinsonism
	G22	Parkinsonism in diseases classified elsewhere
	G35	Multiple sclerosis
	R54	Senility
	R55	Syncope and collapse
	R69	Unknown and unspecified causes of morbidity
	R79	Other abnormal findings of blood chemistry
	Z60.0	Problems of adjustment to life-cycle transitions
	Z60.2	Living alone
	Z60.8	Other problems related to social environment
Z87	Personal history of other diseases and conditions	
<b>Other injuries</b>	S00	Superficial injury of head
	S01	Open wound of head
	S06	Intracranial injury
	S09	Other and unspecified injuries of head
	S50	Superficial injury of forearm
	S51	Open wound of forearm
	S60	Superficial injury of wrist and hand
	S61	Open wound of wrist and hand
	S70	Superficial injury of hip and thigh
	S71	Open wound of hip and thigh
	S80	Superficial injury of lower leg
	S81	Open wound of lower leg
	S90	Superficial injury of ankle and foot
	S91	Open wound of ankle and foot
	T00	Superficial injuries involving multiple body regions
	T01	Open wounds involving multiple body regions
	<b>Pain</b>	F45.4
G50.0		Trigeminal neuralgia
H57.1		Ocular pain
H92.0		Otalgia
J39.2		Other diseases of pharynx
K10.8		Other specified diseases of jaws

Frailty condition categories	ICD-10-CA codes*	Code descriptions	
<b>Pain (continued)</b>	K13.7	Other and unspecified lesions of oral mucosa	
	K14.6	Glossodynia	
	K62.8	Other specified diseases of anus and rectum	
	M25.5	Pain in joint	
	M54.2	Cervicalgia	
	M54.3	Sciatica	
	M54.4	Lumbago with sciatica	
	M54.5	Low back pain	
	M54.6	Pain in thoracic spine	
	M54.8	Other dorsalgia	
	M54.9	Dorsalgia, unspecified site	
	M79.1	Myalgia	
	M79.2	Neuralgia and neuritis, unspecified	
	M79.6	Pain in limb	
	M89.8	Other specified disorders of bone	
	N48.8	Other specified disorders of penis	
	N50.8	Other specified disorders of male genital organs	
	N64.4	Mastodynia	
	R07.0	Pain in throat	
	R07.1	Chest pain on breathing	
	R07.2	Precordial pain	
	R07.3	Other chest pain	
	R07.4	Chest pain, unspecified	
	R30	Pain associated with micturition	
	R39.8	Other and unspecified symptoms and signs involving the urinary system	
	R51	Headache	
	R52.0	Acute pain	
	R52.1	Chronic intractable pain	
	R52.2	Other chronic pain	
	R52.9	Pain, unspecified	
	<b>Renal</b>	N00	Acute nephritic syndrome
		N01	Rapidly progressive nephritic syndrome
		N02	Recurrent and persistent haematuria
N03		Chronic nephritic syndrome	
N04		Nephrotic syndrome	
N05		Unspecified nephritic syndrome	
N06		Isolated proteinuria with specified morphological lesion	

<b>Frailty condition categories</b>	<b>ICD-10-CA codes*</b>	<b>Code descriptions</b>	
<b>Renal (continued)</b>	N07	Hereditary nephropathy, not elsewhere classified	
	N08	Glomerular disorders in diseases classified elsewhere	
	N10	Acute tubulo-interstitial nephritis	
	N11	Chronic tubulo-interstitial nephritis	
	N12	Tubulo-interstitial nephritis, not specified as acute or chronic	
	N13	Obstructive and reflux uropathy	
	N14	Drug and heavy-metal-induced tubulo-interstitial and tubular conditions	
	N15	Other renal tubulo-interstitial diseases	
	N16	Renal tubulo-interstitial disorders in diseases classified elsewhere	
	N17	Acute renal failure	
	N18	Chronic kidney disease	
	N19	Unspecified kidney failure	
	N20.0	Calculus of kidney	
	N20.1	Calculus of ureter	
	N20.2	Calculus of kidney with calculus of ureter	
	N20.9	Urinary calculus, unspecified	
	N25	Disorders resulting from impaired renal tubular function	
	N26	Unspecified contracted kidney	
	N28.0	Ischaemia and infarction of kidney	
	N28.80	Hypertrophy of kidney	
	N28.88	Other specified disorders of kidney and ureter	
	N28.9	Disorder of kidney and ureter, unspecified	
	N29	Other disorders of kidney and ureter in diseases classified elsewhere	
	Z49.0	Preparatory care for dialysis	
	Z49.1	Extracorporeal dialysis	
	Z49.2	Other dialysis	
	<b>Respiratory</b>	J40	Bronchitis, not specified as acute or chronic
		J41	Simple and mucopurulent chronic bronchitis
		J42	Unspecified chronic bronchitis
		J43	Emphysema
J44		Other chronic obstructive pulmonary disease	
J45		Asthma	
J47		Bronchiectasis	
J69		Pneumonitis due to solids and liquids	
J96		Respiratory failure, not elsewhere classified	



<b>Frailty condition categories</b>	<b>ICD-10-CA codes*</b>	<b>Code descriptions</b>
<b>Sensory impairment</b>	H40	Glaucoma
	H42	Glaucoma in diseases classified elsewhere
	H53	Visual disturbances
	H54	Visual impairment including blindness (binocular or monocular)
	H83.3	Noise effects on inner ear
	H91	Other hearing loss
	Z97.4	Presence of external hearing-aid
<b>Thrombosis and embolism</b>	I26	Pulmonary embolism
	I80	Phlebitis and thrombophlebitis
	I81	Portal vein thrombosis
	I82.2	Embolism and thrombosis of vena cava
	I82.3	Embolism and thrombosis of renal vein
	I82.8	Embolism and thrombosis of other specified veins
	I82.9	Embolism and thrombosis of unspecified vein
<b>Ulcers and soft tissue disorders</b>	L89	Decubitus [pressure] ulcer and pressure area
	L97	Ulcer of the lower limb, not elsewhere classified
	L98.4	Chronic ulcer of skin, not elsewhere classified
	L98.8	Other specified disorders of skin and subcutaneous tissue
	L98.9	Disorder of skin and subcutaneous tissue, unspecified
	M79	Other soft tissue disorders, not elsewhere classified

**Note**

\* Not all related diagnoses are included.

# References

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