ICD-11
icd.who.int

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ICD-11

Is the **international standard** for recording, reporting and measuring health & health services

➢ Mortality Statistics

➢ Morbidity Statistics

➢ Quality and Safety

➢ Primary care

➢ Health Care Costs

➢ Progress towards development goals

➢ Clinical documentation

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Why ICD-11?

- Improved usability
  - Less training
  - All clinical detail – code combinations

- Update scientific content

- Enable coding of all clinical detail

- Make eHealth ready for use in electronic environments

- Linkage to relevant other classifications and terminologies

- Full multilingual support on translation and output

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WHO Family of Classifications

RELATED Classifications

International Classification of Primary Care (ICPC)

International Classification of External Causes of Injury (ICECI)

The Anatomical, Therapeutic, Chemical (ATC) classification with Defined Daily Doses (DDD)

ISO 9999 Technical aids for persons with disabilities – Classification and Terminology

International Classification of Nursing Practice

I nternational
C lassification of
D iseases

I nternational
C lassification of
F unctioning,
Disability & Health

I nternational
C lassification of
H ealth
I nterventions

Special versions

International Classification of Diseases for Oncology, Third Edition (ICD-O-3)

The ICD-10 Classification of Mental and Behavioural Disorders

Application of the International Classification of Diseases to Dentistry and Stomatology, Third Edition (ICD-DA)

Application of the International Classification of Diseases to Neurology (ICD-10-NA)

Development of ICD-11

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PHASE 1 – design – broad input 2007-2015

- Project planning (from 2003)
- Launch 2007 in Tokyo
- Setting up working groups
- Setting up IT infrastructure
- 2 conferences
- Free authoring
- Review of process in 2015 for priority setting

ICD Contribution

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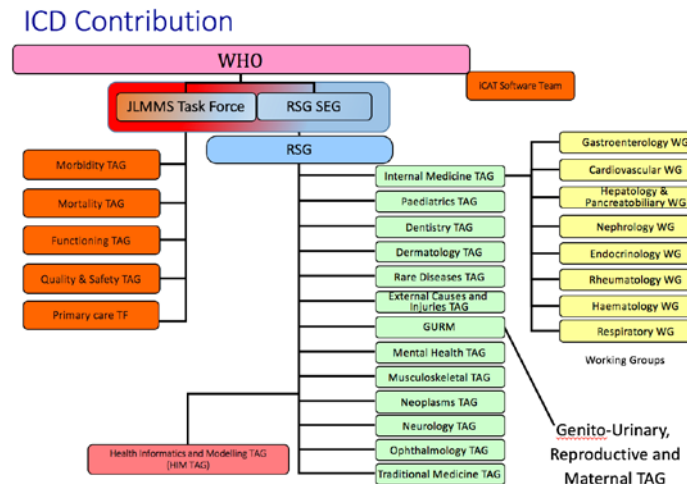
ICD-11 Scientific clinical input

- Extensive participation by national and international scientific societies

- Over 300 clinical specialists organized in 30 topic advisory groups, , more than 30 members of TAG just from Japan, 270 Institutions, 55 countries

- Input from clinical modifications of old ICD-10 – and they were based on clinical needs

- Reviews, testing, commenting => 99 countries

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Phase 2 – consolidation   2015-2018

- Formation of Joint Task Force: support to priority decisions

- End of Topic Advisory Groups

- Chapter reviews and editing to become statistical classification

- Revision conference 2016

- MS Comments 2017

- Field testing 2017

- Improve user guidance
  - Index, notes, postcoordination
  - **Reference guide** – explanations, rules, forms

- Preparation implementation package

- Governance for maintenance

- 2018 April – last meetings (JTF, Stat. Stakeholders, MbRG)
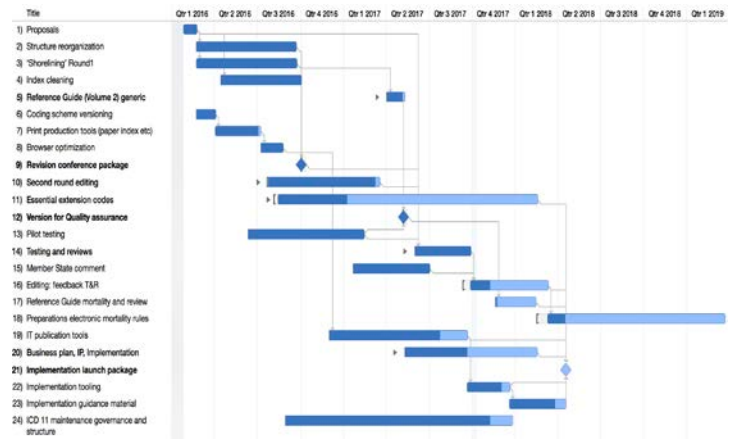
ICD-11
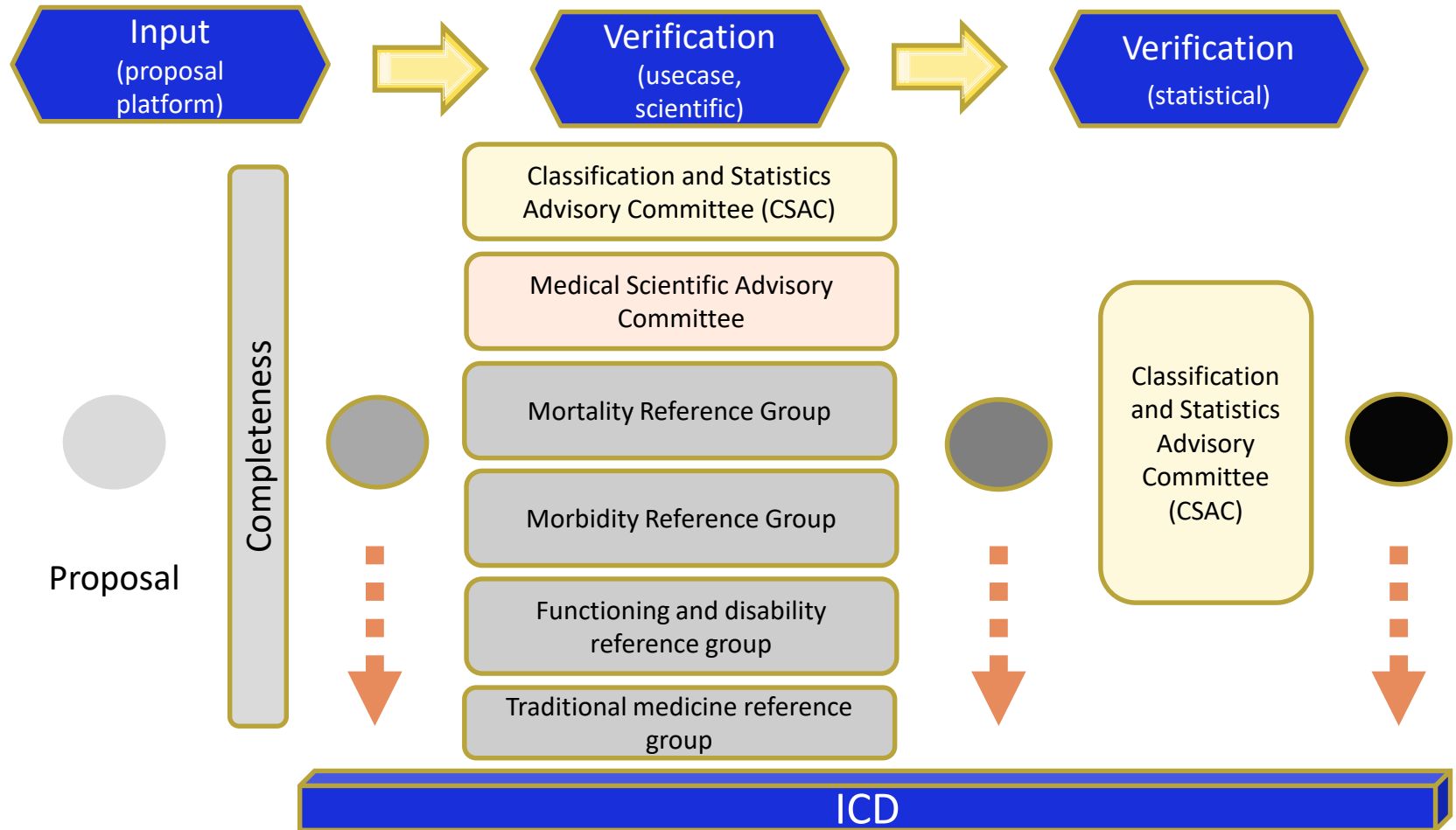## The international health information standard

Produced with participation by

Phase 3 - Implementation - Preparation 2018-2021

- 2018 Release of version for preparation of implementation

- 2019 January WHO Executive Board

- 2019 May World Health Assembly

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ICD – Maintenance and governance - transparent

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Phase 4 – Routine Maintenance
2021 and following years

- Proposals based on scientific evidence

- Proposal platform allowing discussion and decision tracking, and notification

- You can suggest new changes and adding new terms

- Development browser (orange) allows to see and track daily changes

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Use and technology of ICD-11

- 01 感染症及び寄生虫症
- 02 新生物＜腫瘍＞
- 03 血液及び造血器の疾患
- 04 免疫系の障害
- 05 内分泌，栄養及び代謝疾患
- 06 精神及び行動の障害
- 07 睡眠・覚醒障害
- 08 神経系の疾患
- 09 眼及び付属器の疾患
- 11 循環器系の疾患
- 10 耳及び乳様突起の疾患
- 12 呼吸器系の疾患
- 13 消化器系の疾患
- 14 皮膚の疾患
- 15 筋骨格系及び結合組織の疾患
- 16 腎尿路生殖器系の疾患
- 17 性の健康関連の症状
- 18 妊娠，分娩及び産じょく＜褥＞
- 19 周産期及び新生児期に発生した病態
- 20 先天奇形
- 21 症状，兆候又は臨床所見で他に分類されないもの
- 22 損傷，中毒及びその他の外因の影響
- 23 傷病及び死亡の外因
- 24 健康状態に影響を及ぼす要因及び保健サービスの利用
- 25 特殊目的用コード
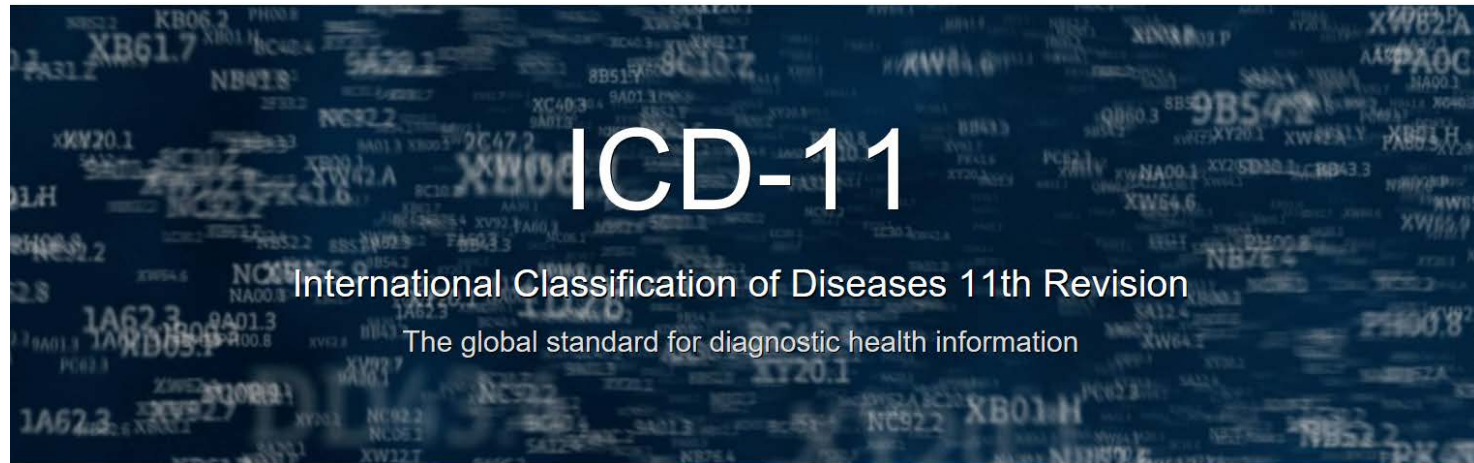- 26 伝統医学状態－モジュールI （注：ICD-11ベータ版の仮称）
- V 生活機能のための付加セクション

ICD-11 User friendly

- Easier coding – coding tool, more instructions built in

- Guidance for using code combinations

- Specialty versions focus on needs for particular specialties

- Bilingual views

- Maps from and to ICD-10

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Browser and Coding tool

https://icd.who.int

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The ICD-11 browser

- Navigate in ICD

- Do not use for coding

- Mechanism to add proposals and comments (orange browser only)

- Registered users are able to:
  - Submit proposals for change
  - Read comments and proposals from others
  - Access PDF or Word versions of the classification
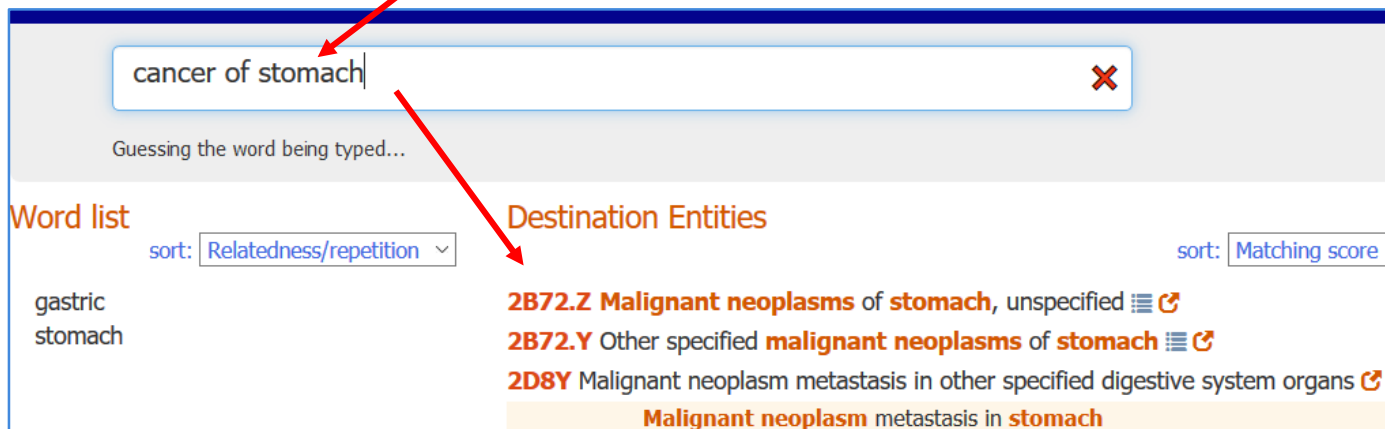
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ICD-11 Coding tool

- This tool works by searching all ICD-11 terms and is the ICD-11 index

- Has links to the browser so the user can confirm location is correct for term being searched

- Generates and dynamically updates two different outputs
  - Word list
  - Matched entities

- Synonyms, word completion... - like online search engines

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Simple search

Type a diagnostic statement into the Coding Tool

e.g. *cancer of stomach*

ICD -11 | 11/2018

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Simple search

Type a diagnostic statement into the Coding Tool

e.g. *Osteoarthritis of right knee*

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Simple search

Just click return and import the full match in your information system.

Simple search

"Other specified": not satisfactory

Choose the specific term, spigelian hernia, for the record

spigelian   ✕

DD5Y Other specified hernias
URI: http://id.who.int/icd/entity/1999215191
Spigelian Hernia

Guessing the word being typed…

Word list

sort : Relatedness/repetition ⇅

spigelian

Health Record
DD5Y Spigelian Hernia

Destination Entities

sor

DD5Y Other specified hernias

Spigelian hernia
Spigelian hernia with gangrene
Spigelian hernia with obstruction, without gangrene
Spigelian hernia without obstruction or gangrene

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ICD-11 is built on an ontological structure.
This technology provides the user guidance.
The normal user does not have to deal with this (like normal drivers do not touch the engine of their cars. They just drive)

O ICD

O Diseases of the nervous system

O Mental and behavioural disorders

O Sleep-wake disorders

O Movement disorders

Multiple parents

O Certain specified movement disorder
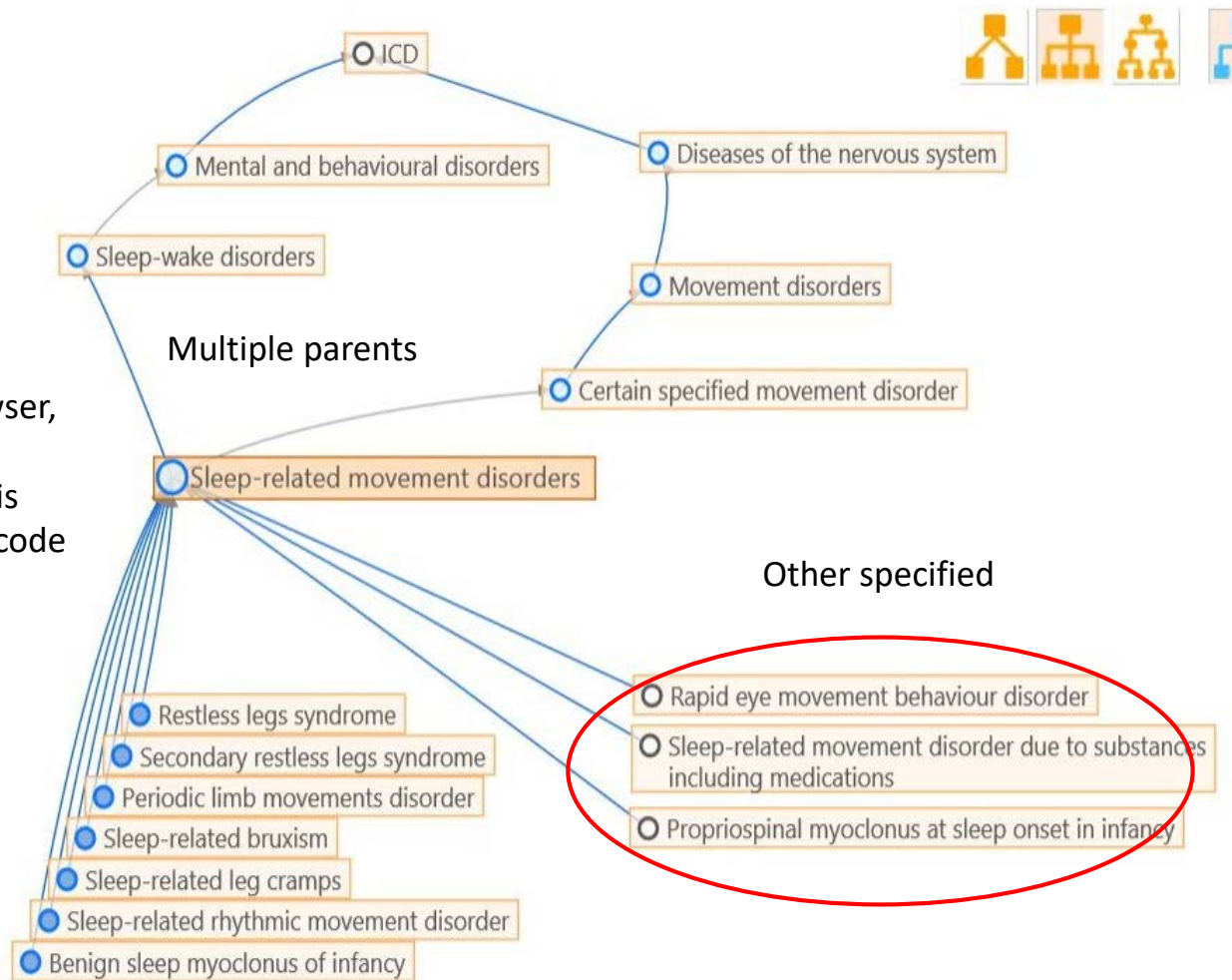
In the browser, 'multiple parenting' is shown as "code elsewhere"

O Sleep-related movement disorders

Other specified

Detail that is grouped in categories with the name 'other specified', can be coded using URI

O Restless legs syndrome
O Secondary restless legs syndrome
O Periodic limb movements disorder
O Sleep-related bruxism
O Sleep-related leg cramps
O Sleep-related rhythmic movement disorder
O Benign sleep myoclonus of infancy

O Rapid eye movement behaviour disorder
O Sleep-related movement disorder due to substances including medications
O Propriospinal myoclonus at sleep onset in infancy

URI – uniform resource identifier

Entity **has a code**

grouped into a category;
has URI for recording, if desired

Shoreline

1C5C.11
1C5D.13
1C5.1Y
1C5.1Z

http://id.who.int/icd/entity/1959883044
http://id.who.int/icd/entity/685093552
http://id.who.int/icd/entity/1302232870

http://id.who.int/icd/entity/1104303944
http://id.who.int/icd/entity/588527933
http://id.who.int/icd/entity/854762584
http://id.who.int/icd/entity/1543765035
http://id.who.int/icd/entity/682536148
http://id.who.int/icd/entity/307264938
http://id.who.int/icd/entity/961032639
http://id.who.int/icd/entity/1306878274
http://id.who.int/icd/entity/804089791
http://id.who.int/icd/entity/1040970454
http://id.who.int/icd/entity/36782335
http://id.who.int/icd/entity/1736084843
http://id.who.int/icd/entity/1530937152
http://id.who.int/icd/entity/608978790
http://id.who.int/icd/entity/1501615629

http://id.who.int/icd/entity/1935092859
http://id.who.int/icd/entity/1026551291
http://id.who.int/icd/entity/751399056
http://id.who.int/icd/entity/1563156715
http://id.who.int/icd/entity/1596449540
http://id.who.int/icd/entity/980168338
http://id.who.int/icd/entity/730510331
http://id.who.int/icd/entity/1233304838
http://id.who.int/icd/entity/1321303663
http://id.who.int/icd/entity/2003001085
http://id.who.int/icd/entity/304649065
http://id.who.int/icd/entity/63835650
http://id.who.int/icd/entity/487269828
http://id.who.int/icd/entity/1697630330
http://id.who.int/icd/entity/1938462328
http://id.who.int/icd/entity/2064398473
http://id.who.int/icd/entity/1793762788
http://id.who.int/icd/entity/262236278
http://id.who.int/icd/entity/2085616610
http://id.who.int/icd/entity/1920227791
http://id.who.int/icd/entity/508032285
http://id.who.int/icd/entity/1966578342
http://id.who.int/icd/entity/390042715
http://id.who.int/icd/entity/419706488
http://id.who.int/icd/entity/6555116
http://id.who.int/icd/entity/1664016479
http://id.who.int/icd/entity/840525023
http://id.who.int/icd/entity/1465035083
http://id.who.int/icd/entity/1186214944
http://id.who.int/icd/entity/1998718899
http://id.who.int/icd/entity/1600014919
http://id.who.int/icd/entity/1320736556
http://id.who.int/icd/entity/965498095
http://id.who.int/icd/entity/1127435854
http://id.who.int/icd/entity/223956768
http://id.who.int/icd/entity/1132542967
http://id.who.int/icd/entity/372424530

URI – electronic reporting in electronic health records with more detail than with categories.

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Flexible search

Type a diagnostic statement into the Coding Tool

e.g. *splenic flexure colonic liposarcoma*

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Flexible search cont.

Try flexible search

Extension codes – add all the detail you need

Type 1

- **Severity**

- Course of the condition

- Time in life

- Aetiology ⟶ Medicaments (WHO INN)
  Chemicals
  Infectious agents

- **Anatomic detail**

- Histopathology

- Biological Indicators

- Consciousness

- External Causes detail

- Injury specific detail

Type 2

- Main Condition
  - Reason for encounter
  - Reason for admission
  - Main Resource Condition

- Present on Admission
  - Developed after admission
  - Uncertain timing relative to admission

- Provisional diagnosis

- Diagnosis confirmed by…
  - Lab
  - Serology
  - Histology
  - Genetics
  - Imaging
  - …
  - Unspecified means

- Differential Diagnosis

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Postcoordination ❓

6D8Z Dementia, unknown or unspecified cause

Has severity   **XS5W Mild** ⊗

Associated with   **6D86.5 Disinhibition in dementia** ⊗
           6D86.6 Wandering in dementia ⊗

Add detail to **Dementia, unknown or unspecified cause**

Associated with *(use additional code, if desired)*

6D86	Behavioural or psychological disturbances in dementia
6D86.0	Psychotic symptoms in dementia
6D86.1	Mood symptoms in dementia
6D86.2	Anxiety symptoms in dementia
6D86.3	Apathy in dementia
6D86.4	Agitation or aggression in dementia
6D86.5	Disinhibition in dementia
6D86.6	Wandering in dementia
6D86.Y	Other specified behavioural or psychological disturbances in dementia
6D86.Z	Behavioural or psychological disturbances in dementia, unspecified

Code the detail you need to correctly reflect your case

Has severity *(use additional code, if desired)*

XS5W	Mild
XS0T	Moderate
XS25	Severe

Scientific updates included in ICD-11

Just some examples

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ICD-11 has five new chapters and 2 additional sections

Chapter 3   Diseases of the Blood or Blood-forming Organs

Chapter 4   Disorders of the Immune System

Chapter 7   Sleep-Wake Disorders

Chapter 17   Conditions related to Sexual Health

Chapter 26   Traditional Medicine

Section V   Functioning

Chapter X   Extension codes

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Chapter 01 – Certain infectious diseases

- Minimise the impact on longitudinal statistics of major infections;

- Influenza, moved into Chapter 1

- HIV: subdivided by stages

- Prion diseases moved into Nervous system chapter

- Antimicrobial resistance is found in Ch. 21 but is to be reported in combination with the infectious disease.

- Updated coding of sepsis

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Chapter 02 – Neoplasms

- Morphology has been precoordinated, and stages and more detail can be added

- The concepts of unknown and uncertain behavior have been split into two unique categories

- Added types of melanoma, and basaliomas

- Expanded detail for benign tumours

- Tumours of central nervous system and haematological tumors outside the old 'benign – uncertain – malignant' scheme

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Chapter 04 – Diseases of the immune system

This new chapter (previously part of Chapter III in ICD-10) has the following sections:

- Immunodeficiencies
- Non-organ specific systemic disorders (NOSSAD)
  - Now includes also IgG4-related disease
- Autoinflammatory disorders
- Allergic or hypersensitivity conditions (+anaphylaxis)
- Certain diseases involving the immune system
- Diseases of thymus

Chapter 05 – Endocrine, nutritional or metabolic diseases

- Diabetes mellitus and Intermediate hyperglycaemia has been expanded to reflect current international terminology.

- Diabetes coding more relevant and flexible

- Updated concepts: Overnutrition - undernutrition

- The postcoordination (code combination) features of ICD-11 MMS are used frequently in this chapter.
  - **'Code also' and 'Use additional code' notes** have been included to link the types of diabetes and the various complications to enable the addition of codes for further specificity.

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Chapter 11 - Diseases of the circulatory system

- Heart valve disease no longer dominated by rheumatic fever (now: valve-vitium-etiology)

- New distinct higher level categories
  - Diseases of the myocardium, including extensive subsections on Myocarditis and Cardiomyopathy.
  - Cardiac arrhythmia, including a large new subsection on 'Cardiac arrhythmia associated with genetic disorder' and 'Pacemaker or implantable cardioverter or defibrillator or lead dysfunction'
  - New subsection on Pulmonary Hypertension in the Pulmonary heart disease and diseases of pulmonary circulation section

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Chapter 13 – Diseases of the digestive system

- More detailed anatomical groups - rostral-caudal order

- More recent clinical detail, e.g.
  – Polyposis syndrome
  – Diversion colitis
  – Eosinophilic gastritis

- Important digestive diseases have been allocated their own category (e.g. gastro-oesophageal reflux disease)

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Chapter 16 – Diseases of the genitourinary system

- To reflect the current scientific understanding for certain genitourinary conditions, additional detail has been included for the following areas:

    - Amenorrhea
    - Ovarian dysfunction
    - Female pelvic pain
    - Endometriosis
    - Adenomyosis
    - Female infertility
    - Male infertility
    - Early pregnancy loss
    - Pregnancy outcomes
    - The Kidney failure section of the classification has been revised (KDIGO)

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Chapter 17 – Conditions related to sexual health

- New chapter in ICD-11 divided into major sections for:
  - Sexual dysfunctions
  - Sexual pain disorders
  - Gender incongruence

- The general hierarchy consists of:
  - 1st level broad category of condition
  - 2nd level - specific type of condition
  - 3rd level - - specific disease/disorder

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Chapter 18 – Pregnancy, childbirth or the puerperium

- Additional specifications have been included for "Early pregnancy loss".

- A new section Obstetric haemorrhage has been added to enable all types of haemorrhage to be grouped together

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Chapter 20 – Developmental anomalies

Chapter 20 has undergone a major restructure with it now having four major sections

- Structural developmental anomalies primarily affecting one body system
- Multiple developmental anomalies or syndromes
- Chromosomal anomalies, excluding gene mutations
- Conditions with disorders of intellectual development as a relevant clinical feature

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Chapter 23 – External causes of morbidity or mortality

- Removed detail (not usually reported)
  - Can be added with code combination with extension codes

- Reorganized traffic accidents

- Other sections include Exposure to extreme forces, Maltreatment, Legal intervention, Armed conflict and

- Causes of healthcare related harm
  - Completely overhauled for modern reporting of harm or near failure

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Patient safety

"**Cause**" of harm

- Substances
- Procedures
- Devices
- Other Aspects of Care

"**Mode or Mechanism**" of harm

e.g. overdose/underdose for substances

e.g. accidental perforation for procedures

e.g. dislodgement/malfunction for devices

e.g. mismatched blood used in transfusion for other aspects of care

A cluster of codes to denote the **"Injury or Harm"** that resulted from the event

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A clinical example

- A patient presents with an intracranial hemorrhage arising while on warfarin anticoagulation. INR found to be 7.0 and careful history reveals patient to have accidentally taken double doses over several days.

- Clustered Coding:

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A clinical example

- A patient presents with an intracranial hemorrhage arising while on warfarin anticoagulation. INR found to be 7.0 and careful history reveals patient to have accidentally taken double doses over several days.

- Clustered Coding:
    - PH80 & XE9AC Code for the cause of harm (exposure to drug in therapeutic intent & warfarin)
    - PH92.0 Code for mode/mechanism (overdose)
    - 8B00.Z Code for actual harm (intracranial hemorrhage)

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Chapters - changes

- **06 – Mental, behavioural or neurodevelopmental disorders**
  - New structures, Dementia
- **08 – Diseases of the nervous system**
  - More clinical restructuring,
  - Received prion disease
  - Received cerebrovascular diseases
- **09 – Diseases of the visual system**
  - More clinical detail
- **14 – Skin – rewritten** (little changes had occurred in past 40 years)
- **22 – Injury, poisoning or certain other consequences of external causes**
  - More types of injury
  - Clarified differences between acute and more permanent postprocedural conditions

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ICD-11

- New content – up-to-date

- More clinical detail

- Modern technology – electronic data recording

- Participation – during design, now, and in the future

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ICD 11   for you – by you – for best possible health
Thank you