



Ministry of Health, Welfare and Sport

Semantic unification: SNOMED CT in The Netherlands

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Ministry of Health, Welfare and Sport of
The Netherlands*



Ministry of Health, Welfare and Sport

I can talk about this for hours...



New interoperability legislation
National semantic unification policy
Incentive programmes and public investments
Personal Health Data ecosystem (MedMij)
Clinical building blocks
Core Dataset for Interoperability
Dutch translation of SNOMED CT
Patient Friendly Terms
National Terminology Server
SNOMED in Emergency Care
Labcode Set
SNOMED digital escape room
Educational tools & content
EU DCC, XeHealth, eHealth Network, EHDS
GDHP IPS, GCeHI



The right care at the right place

National interoperability legislation:

mandatory EHR certification for standardized use-cases

National incentive programmes:

>€600 mln for hospitals, GP's, social care, maternity care, mental healthcare, pharmacies, citizens

Personal health data ecosystem:

Trust framework for PHI certified service providers

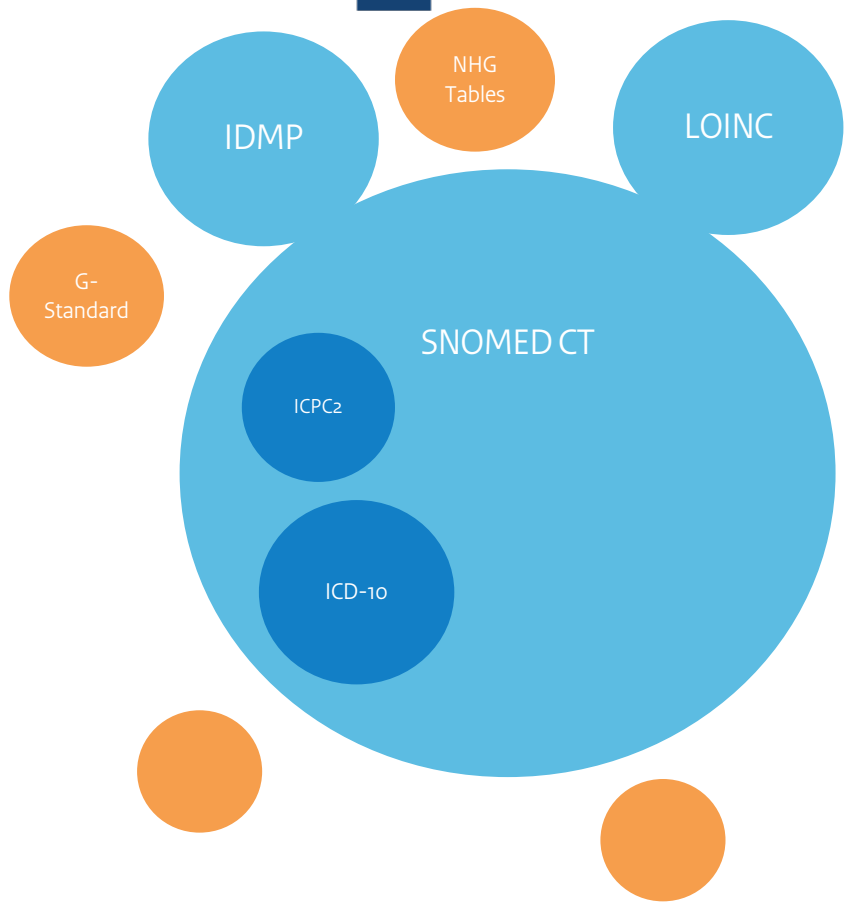


Ministry of Health, Welfare and Sport

Semantic unification



Model (AssessCT)



RT

Reference Terminology



AT

Aggregation Terminology

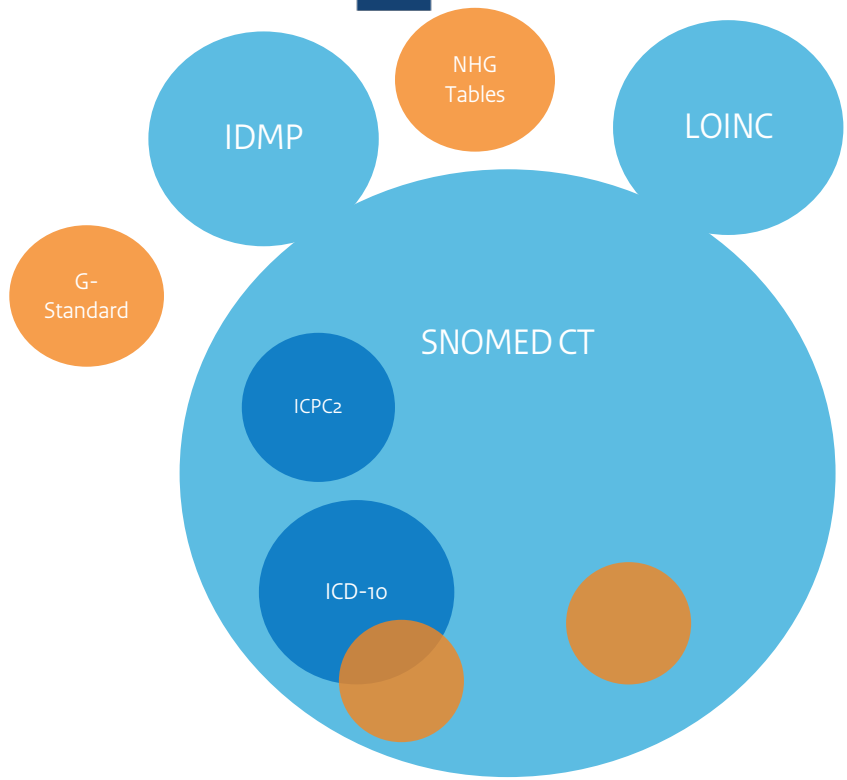


NL

National Content



Model (AssessCT)



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Reference Terminology



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Aggregation Terminology



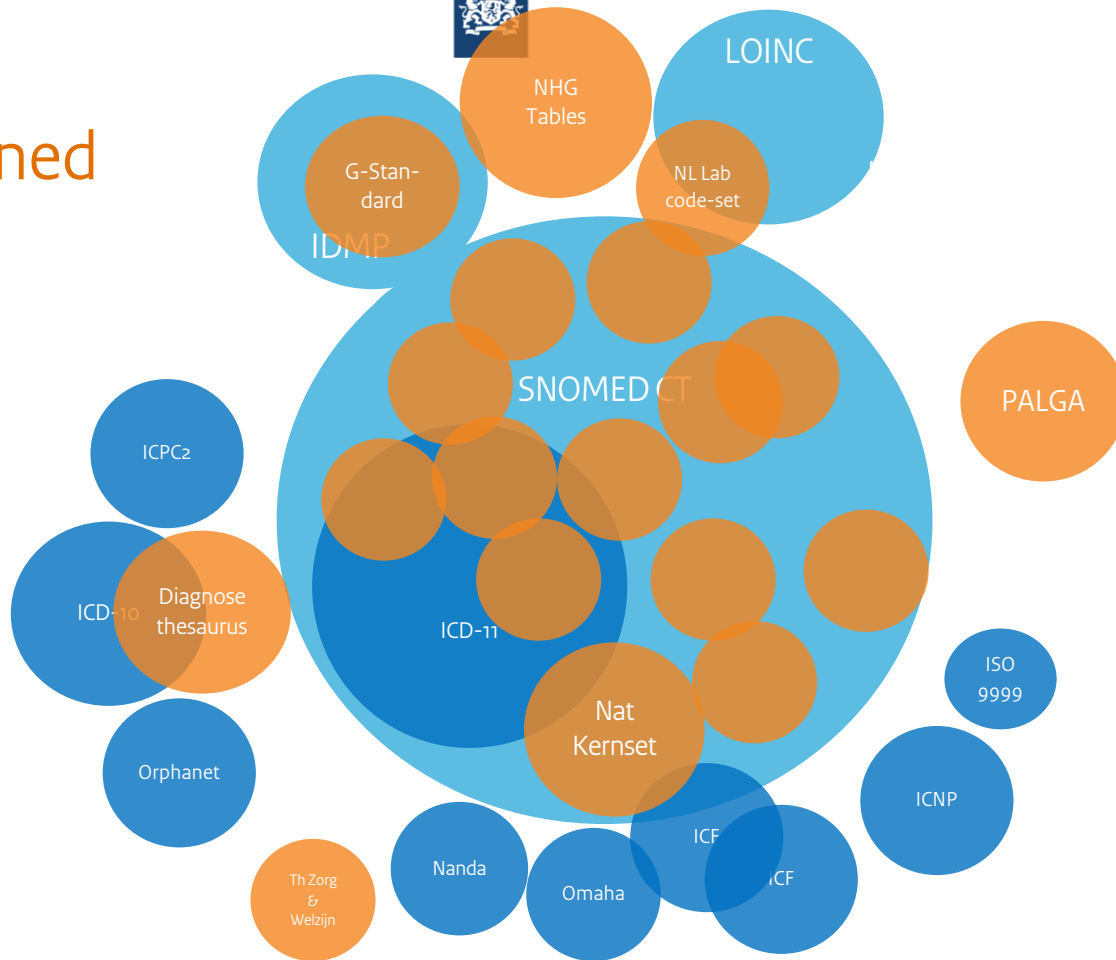
NL

National Content



What happened

Once
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2022
Later





Building the foundation



Our National Core Dataset for Interoperability (CDI)

Patient data

Name, Address, Residence, National Citizen Number, sex, death, contact info, insurance, marital status, current living conditions, patient GP, known acts of will

Problems

Problem, condition, diagnosis, symptom, observation, complaint, functional limitation, complication

Immunizations

Functional and mental status

Substances

Drug use, alcohol use, tobacco use

Dietary advice

Vital signs

Blood pressure, weight, length

Laboratory

Test results

Clinical notes

Alerts

Medical devices

Medication

Medication use, prescriptions, allergies and intolerances

Clinical procedures

Known clinical procedures, all hospital admissions, known planned care activities



HCIM Release 2020(EN)

Release 2020

This is a release. More information about prereleases and releases you can find [here](#).

The following summary shows which hcim's are part of this release, including the version numbers.

More information on Release 2020 you can find in the [ReleaseNotes 2020](#)  (in Dutch) and in the sections below.

Health and care information models release 2020

group: Administrative, count: 7

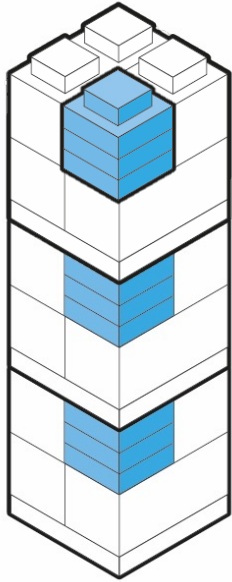
CareTeam-v1.0	Encounter-v4.0.1	HealthProfessional-v3.5	Payer-v3.1.1
ContactPerson-v3.4	HealthcareProvider-v3.4	Patient-v3.2	

group: Clinical context, count: 25

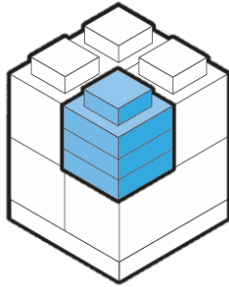
Alert-v4.1	FeedingPatternInfant-v1.1	NutritionAdvice-v3.2	Stoma-v3.3
AllergyIntolerance-v3.3	FeedingTubeSystem-v3.3	PainCharacteristics-v1.0	Vaccination-v4.0
BladderFunction-v3.2	FunctionalOrMentalStatus-v3.2	Pregnancy-v4.0	VisualFunction-v3.1
BowelFunction-v3.1.1	HearingFunction-v3.2	PressureUlcer-v3.4	Wound-v3.3
Burnwound-v3.4	Infusion-v3.3	Problem-v4.4	
DevelopmentChild-v1.2	MedicalDevice-v3.3.1	SkinDisorder-v3.3	
EpisodeOfCare-v1.0	MultidisciplinaryTeamMeeting-v1.0	SOAPReport-v1.0	



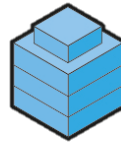
Terminology in the Incentive Programmes and EGIZ Law



CDI



HCIM

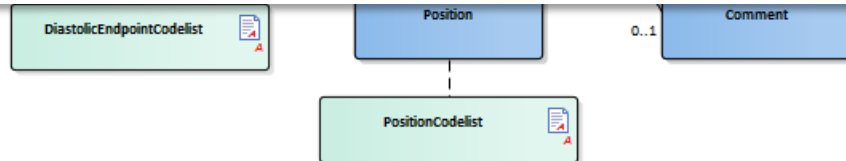


Terminology



Terminology in HCIM

Conceptnaam	Conceptcode	Codestelselnaam	Codesysteem OID	Omschrijving
Upper arm structure	40983000	SNOMED CT	2.16.840.1.113883.6.96	Bovenarm
Right upper arm structure	368209003	SNOMED CT	2.16.840.1.113883.6.96	Rechter bovenarm
Left upper arm structure	368208006	SNOMED CT	2.16.840.1.113883.6.96	Linker bovenarm
Thigh structure	68367000	SNOMED CT	2.16.840.1.113883.6.96	Bovenbeen
Structure of right thigh	11207009	SNOMED CT	2.16.840.1.113883.6.96	Rechter bovenbeen
Structure of left thigh	61396006	SNOMED CT	2.16.840.1.113883.6.96	Linker bovenbeen
Wrist region structure	8205005	SNOMED CT	2.16.840.1.113883.6.96	Pols
Structure of right wrist	9736006	SNOMED CT	2.16.840.1.113883.6.96	Rechterpols
Structure of left wrist	5951000	SNOMED CT	2.16.840.1.113883.6.96	Linkerpols
Finger structure	7569003	SNOMED CT	2.16.840.1.113883.6.96	Vinger
Ankle region structure	344001	SNOMED CT	2.16.840.1.113883.6.96	Enkel
Structure of right ankle	6685009	SNOMED CT	2.16.840.1.113883.6.96	Rechterenkel
Structure of left ankle	51636004	SNOMED CT	2.16.840.1.113883.6.96	Linkerenkel

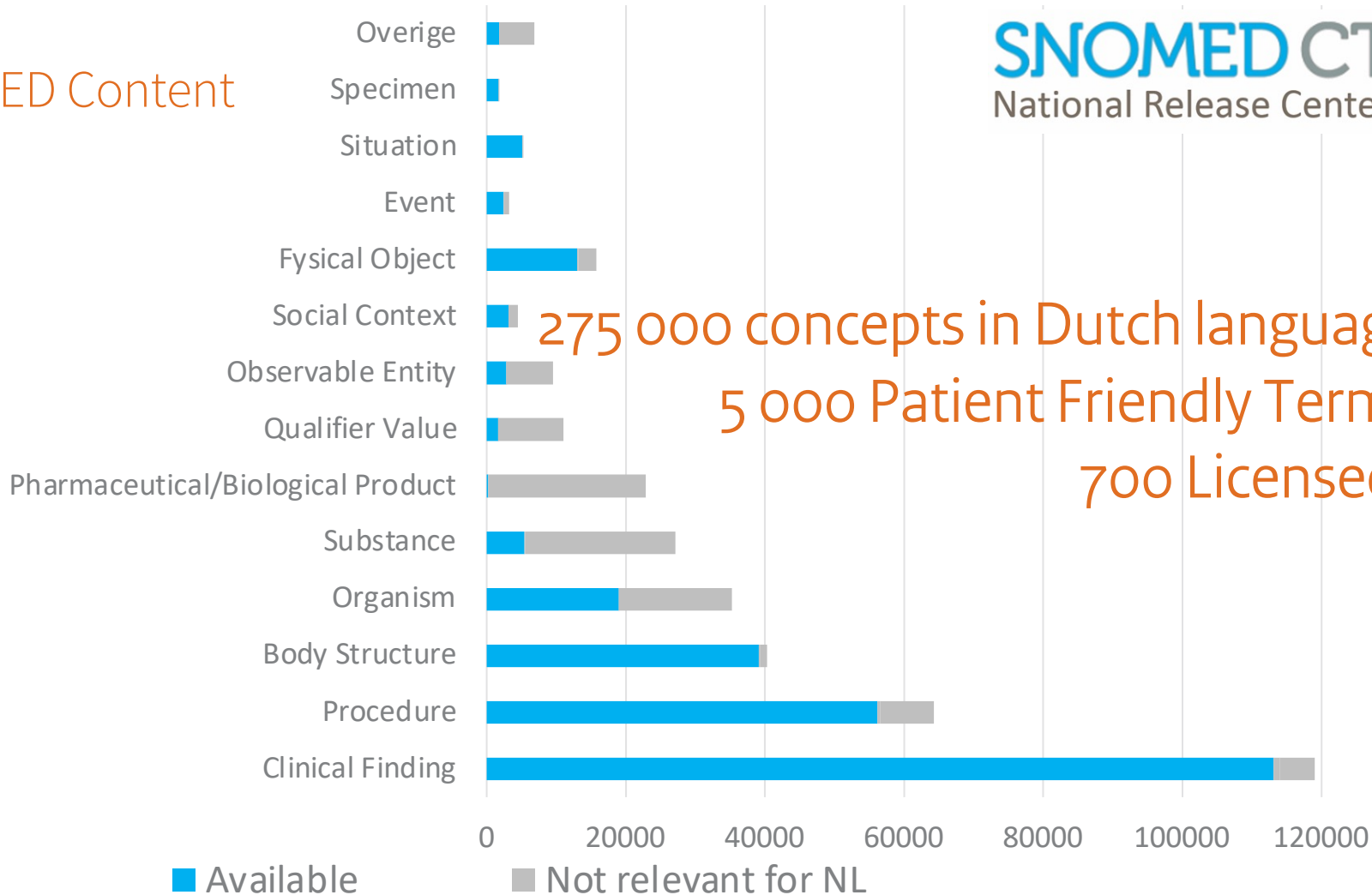




The key to success

Translation

SNOMED Content



275 000 concepts in Dutch language
5 000 Patient Friendly Terms
700 Licensees

Zoekterm(en)

SNOMED Clinical Terms version: 20190131 [R] (January 2019 Release)

Help Licentie

Resultaten (16 van 16)

P bacteriële artritis

P acute bacteriële artritis

S bacteriële artritis van SI-gewricht

S acute bacteriële suppuratieve artritis

Bacterial arthritis (disorder)

Acute bacterial arthritis (disorder)

Bacterial arthritis of sacroiliac joint (disorder)

Acute suppurative arthritis caused by bacteria (disorder)

[Bacterial musculoskeletal infection](#)

[infectieuze artritis](#)

bacteriële artritis (aandoening)

- bacteriële artritis
- ontsteking van gewricht door bacteriële infectie
- Bacterial arthritis
- Arthritis due to bacterial infection
- Septic arthritis

Medical

Patient friendly

Synonyms

Id	48245008
Status	Defined
Associated morphology	ontsteking
Causative agent	Bacteria
Finding site	structuur van gewricht
Pathological process	infectieus proces

Morphology

Cause

Location

Process

ICD-10

General Practice / Family Practice reference set

DHD Diagnosethesaurus-referentieset

▶ International Classification of Primary Care, Second edition complex map reference set

▶ ICD-10 complex map reference set

[acute bacteriële artritis](#)

1

[arthritis gonorhoica](#)

2

[arthritis door infectie met spirocheten](#)

3

[arthritis door Pseudomonas](#)

[arthritis door Salmonella](#)

[arthritis door stafylokokken](#)

1

Super type (parent)

Sub type (children)



Pim Volkert

Present

- Teamlead Terminology Center at Nictiz
- Staff Member and Tutor at Clinical Informatics Department TU Eindhoven

Past

- EHR Vendor – ALERT Life Science Computing
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Ministry of Health, Welfare and Sport



Thank you!

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