

# Mappings

**Elze van Puijvelde – de Groot**

**22 November 2018**



# **Wat is een mapping?**

## **Map**

The relationship between a code, concept or term in one code system so that it is represented by a code(s), concept(s) or term(s) in another code system.

## **Mapping**

The Process of defining a relationship between each code, concept or term in one code system to a set of code(s), concept(s) or term(s) in another code system, in accordance with a documented rationale, for a given purpose.

# Soorten mappings

## **1 op 1**

1 sourcecode is gekoppeld met 1 maptarget **Simpele mappingrefset**

## **1 op N**

1 sourcecode is gekoppeld met meerdere maptargets

## **N op 1**

meerdere sourcecodes zijn gekoppeld aan dezelfde maptarget

## **N op N**

meerdere sourcecodes zijn gekoppeld aan dezelfde maptarget

1 sourcecode is gekoppeld met meerdere maptargets

*Complexe mappingrefset*



# Simple mappingrefset

A [Simple map reference set](#) is a [String reference set](#) used to represent one-to-one maps between SNOMED CT concepts and codes in another terminology, classification or code system. Its structure is shown in the following table.

Table 5.2.9-1: Simple map reference set - Data structure

Field	Data type	Purpose	Mutable	Part of Primary Key
id	UUID	A 128 bit unsigned <a href="#">Integer</a> , uniquely identifying this <a href="#">reference set member</a> .  Different versions of a <a href="#">reference set member</a> share the same <a href="#">id</a> but have different <a href="#">effectiveTime</a> . This allows a <a href="#">reference set member</a> to be modified or made <a href="#">inactive</a> (i.e. removed from the active set) at a specified time.	NO	YES (Full /Snapshot)
effectiveTime	Time	The inclusive date or time at which this version of the identified <a href="#">reference set member</a> became the current version.  The current version of this <a href="#">reference set member</a> at time <i>T</i> is the version with the most recent <a href="#">effectiveTime</a> prior to or equal to time <i>T</i> .	YES	YES (Full) Optional (Snapshot)
active	Boolean	The state of the identified <a href="#">reference set member</a> as at the specified <a href="#">effectiveTime</a> .  If <a href="#">active</a> = 1 (true) the <a href="#">reference set member</a> is part of the current version of the set, if <a href="#">active</a> = 0 (false) the <a href="#">reference set member</a> is not part of the current version of the set.	YES	NO
moduleId	SCTID	Identifies the <a href="#">SNOMED CT module</a> that contains this <a href="#">reference set member</a> as at the specified <a href="#">effectiveTime</a> .  The value must be a <a href="#">subtype</a> of 900000000000443000   <a href="#">Module (core metadata concept)</a>  within the metadata hierarchy.	YES	NO
refsetId	SCTID	Identifies the <a href="#">reference set</a> to which this <a href="#">reference set member</a> belongs.  In this case, a <a href="#">subtype</a> descendant of: 900000000000496009   <a href="#">Simple map type reference set</a>	NO	NO
referencedComponentId	SCTID	A reference to the <a href="#">SNOMED CT component</a> to be included in the <a href="#">reference set</a> .  Refers to the <a href="#">SNOMED CT concept</a> that is mapped to and/or from the other terminology or code system.	NO	NO
mapTarget	String	The equivalent code in the other terminology, classification or code system.	YES	NO



# Welke simpele mappingrefsets zijn er

## **GMDN – SNOMED CT**

Elke GMDN-code is 1 op 1 gekoppeld met een SNOMED CT concept

## **ICD-O – SNOMED CT**

Elke ICD-O-code is 1 op 1 gekoppeld met een SNOMED CT concept

## **ICNP – SNOMED CT**

Interventies en problemen

Elke ICNP-code is 1 op 1 gekoppeld met een SNOMED CT concept

# Complex mapping refset



Table 5.2.10-1: Complex and Extended map reference sets - Data structures

Field	Data type	Purpose	Mutable	Part of Primary Key
id	UUID	A 128 bit unsigned Integer, uniquely identifying this reference set member. Different versions of a <i>reference set member</i> share the same id but have different effectiveTime. This allows a <i>reference set member</i> to be modified or made inactive (i.e. removed from the active set) at a specified time.	NO	YES (Full /Snapshot)
effectiveTime	Time	The inclusive date or time at which this version of the identified <i>reference set member</i> became the current version. The current version of this <i>reference set member</i> at time <i>T</i> is the version with the most recent effectiveTime prior to or equal to time <i>T</i> .	YES	YES (Full) Optional (Snapshot)
active	Boolean	The state of the identified <i>reference set member</i> as at the specified effectiveTime . If active = 1 (true) the <i>reference set member</i> is part of the current version of the set, if active = 0 (false) the <i>reference set member</i> is not part of the current version of the set.	YES	NO
moduleId	SCTID	Identifies the SNOMED CT module that contains this <i>reference set member</i> as at the specified effectiveTime . The value must be a subtype of 900000000000443000  Module (core metadata concept) within the metadata hierarchy.	YES	NO
refsetId	SCTID	Identifies the <i>reference set</i> to which this <i>reference set member</i> belongs. In this case, a subtype descendant of: 447250001  Complex map type reference set  or 609331003  Extended map type reference set	NO	NO
referencedComponentId	SCTID	A reference to the SNOMED CT component to be included in the <i>reference set</i> . Refers to the SNOMED CT concept that is mapped to the other terminology or code system.	NO	NO
mapGroup	Integer	An Integer, grouping a set of complex map records from which one may be selected as a <i>target code</i> . Where a SNOMED CT concept maps onto 'n' <i>target codes</i> , there will be 'n' groups, each containing one or more complex map records.	YES	NO
mapPriority	Integer	Within a <i>mapGroup</i> , the <i>mapPriority</i> specifies the order in which complex map records should be checked. Only the first map record meeting the run - time selection criteria will be taken as the <i>target code</i> within the group of alternate codes.	YES	NO
mapRule	String	A machine-readable rule, (evaluating to either 'true' or 'false' at run-time) that indicates whether this map record should be selected within its <i>mapGroup</i> .	YES	NO
mapAdvice	String	Human-readable advice, that may be employed by the software vendor to give an end-user advice on selection of the appropriate <i>target code</i> from the alternatives presented to him within the group.	YES	NO
mapTarget	String	The <i>target code</i> in the target terminology, classification or code system.	YES	NO
correlationId	SCTID	A child of 447247004  SNOMED CT source code to target map code correlation value in the metadata hierarchy, identifying the correlation between the SNOMED CT concept and the <i>target code</i> .	YES	NO
<i>The following additional field only applies to 609331003  Extended map type reference set </i>				
mapCategoryId	SCTID	Identifies the SNOMED CT concept in the metadata hierarchy which represents the MapCategory for the associated map member. The categories vary for different <i>target code</i> systems, each set of categories is represented by a subtype of 609330002  Map category value . In the case of ICD-10 the individual category values are subtypes of: 447231004  ICD-10 map category value	YES	NO

# Correlated mapping

● SNOMED CT source code to target map code correlation value (foundation metadata concept) ☆ ↗

SCTID: 447247004

447247004 | SNOMED CT source code to target map code correlation value (foundation metadata concept) |

en SNOMED CT source code to target map code correlation value (foundation metadata concept)

en SNOMED CT source code to target map code correlation value

No attributes

## Children (6)

- ● Broad to narrow map from SNOMED CT source code to target code (foundation metadata concept)
- ● Exact match map from SNOMED CT source code to target code (foundation metadata concept)
- ● Narrow to broad map from SNOMED CT source code to target code (foundation metadata concept)
- ● Partial overlap between SNOMED CT source code and target code (foundation metadata concept)
- ● SNOMED CT source code not mappable to target coding scheme (foundation metadata concept)
- ● SNOMED CT source code to target map code correlation not specified (foundation metadata concept)

# Correlated map reference set

Betere gezondheid  
door betere informatie



## Nanda mapping

xder2\_scRefset\_CorrelatedMapTypeReferenceSet\_Snapshot\_20170930 - Notepad

id	effectiveTime	active	moduleId	refsetId	referencedComponentId	mapTarget	snomedCtSourceCodeToTargetMapCodeCorrelationValue
069c895e-5915-32e2-a36a-f7612855eaa8	20170930	1	11000146104	31451000146105	26416006	00189	447558009
07b60d2c-21fc-278f-5672-423e11c2c4d7	20170930	1	11000146104	31451000146105	247592009	00131	447558009
080a9489-f304-528f-fb1d-99db1c8de1cc	20170930	1	11000146104	31451000146105	284905001	00110	447558009
087e9252-c976-d7e7-222d-8cbdeeebc20f	20170930	1	11000146104	31451000146105	72440003		447556008
0bbd9d1d-3884-e72f-4530-f07531b832aa	20170930	1	11000146104	31451000146105	2073000	447556008	
0df1373f-eed8-c91a-dfca-2c184245a05f	20170930	1	11000146104	31451000146105	29164008		447556008
0f1007e1-b504-8243-7f2c-b93d53840550	20170930	1	11000146104	31451000146105	247632002		447556008
11c7d96f-94b4-dd26-fa92-93c5254eb83a	20170930	1	11000146104	31451000146105	274663001	00132	447557004
126761b6-c82d-c124-3764-71d4bcc6c963	20170930	1	11000146104	31451000146105	303387009	00085	447558009
131764b2-4ac5-8c59-f4a9-8f18a452c0fe	20170930	1	11000146104	31451000146105	23935006	00097	447557004
1396b72b-c7ec-7822-b519-58d678ada55a	20170930	1	11000146104	31451000146105	714663007	0062	447557004
14a86246-5a73-1dff-e876-e18d0692f2d5	20170930	1	11000146104	31451000146105	248325000	00002	447557004
1a09cbdd-1a68-b8ff-edec-5b90cdc45394	20170930	1	11000146104	31451000146105	224965009	00136	447557004
1b9bef96-a98a-6ff7-f4e2-59f03d2898f3	20170930	1	11000146104	31451000146105	111360009	00011	447557004
1d20ffba-5887-9865-95aa-1ad7676fe53a	20170930	1	11000146104	31451000146105	24199005		447556008
1f469afd-0283-502b-7f3d-b0154048d951	20170930	1	11000146104	31451000146105	705044006	00061	447557004
1f9291fe-87c2-6a4e-2ed0-c62b9de7ea55	20170930	1	11000146104	31451000146105	285038001	0078	447558009
2097685a-730e-c8a3-acb2-8b914c302d1f	20170930	1	11000146104	31451000146105	228148009		447556008
2366f3c9-eb1f-6f6f-2d7a-1e747b41831e	20170930	1	11000146104	31451000146105	18963009	00241	447557004
252e858f-2df3-9a17-1b00-a1ac6bdc2ed6	20170930	1	11000146104	31451000146105	284972002	00109	447557004
25ae1c29-26e4-8357-ab83-081d1e7582b0	20170930	1	11000146104	31451000146105	425022003		447556008
2d9227b4-1bed-4907-0b37-835b859e415d	20170930	1	11000146104	31451000146105	262526004	00044	447558009
31234b45-b18e-c0e3-82b4-0a780ab2aa13	20170930	1	11000146104	31451000146105	285304000	00249	447557004
323cb46d-2651-57e0-3cbc-d4abf98272f5	20170930	1	11000146104	31451000146105	422587007	00134	447557004
35d65aeb-4b5d-0ee8-7252-8bd884b8c32f	20170930	1	11000146104	31451000146105	89765005	00190	447558009
39369ffb-71d9-0f7a-0eac-6b30b7762926	20170930	1	11000146104	31451000146105	22253000		447556008
398c80da-b4f6-0411-73e6-5199cf3b5120	20170930	1	11000146104	31451000146105	248342006		447556008
3aab310a-7cfd-6663-a676-6f7197413169	20170930	1	11000146104	31451000146105	50177009	00007	447557004
3b86e75b-3d40-1213-6afd-445da1edaf0b	20170930	1	11000146104	31451000146105	20573003	00032	447557004
3e766091-fec3-5736-7dbd-8eb6a14221a7	20170930	1	11000146104	31451000146105	267076002	00053	447557004
43e632a6-f49c-f9da-5e6e-aec15ea460e2	20170930	1	11000146104	31451000146105	62476001		447556008
49183868-ab2f-2e2b-7d83-45721ebf5983	20170930	1	11000146104	31451000146105	199312002	00227	447558009
4b0f7eaa-d5a9-96c1-d2f4-1c84992bef7b	20170930	1	11000146104	31451000146105	43116000	00046	447558009
4c887e56-bbe8-5106-b84a-9181e30c200d	20170930	1	11000146104	31451000146105	129839007	00155	447557004
4d2efcd4-298e-fc3b-0569-f5344ed8aeb4	20170930	1	11000146104	31451000146105	288638001	00051	447558009
4dc30700-e68d-3b79-4c76-3be9679cd9e9	20170930	1	11000146104	31451000146105	286457005	00098	447558009
4f5bf953-e7de-1ac0-73ba-ab23b76aa653	20170930	1	11000146104	31451000146105	129698004	00054	447557004
515486aa-69e1-4d49-417d-3f11aeb67a41	20170930	1	11000146104	31451000146105	267036007	00032	447558009
5262092e-771a-3170-4c0a-63950d853004	20170930	1	11000146104	31451000146105	18085000	00188	447558009
53801aba-8663-23ad-281b-a757738d317c	20170930	1	11000146104	31451000146105	12561000146105	00078	447560006

Map to  
Nanda  
refset ID

Snomed  
ID

Nanda  
code

Correlation  
value



# Extended map reference set

Betere gezondheid  
door betere informatie



## Omaha en ICF mapping

Map to Omaha/ICF refset ID  
Snomed ID  
Omaha/ICF code  
Correlation value  
Qualifier

xder2\_sccRefset\_CorrelatedExtendedMapTypeReferenceSet\_Snapshot\_20170930 - Notepad

File Edit Format View Help

id	effectiveTime	active	moduleId	refsetId	referencedComponentId	mapTarget	snomedCtSourceCodeToTargetMapCode	CorrelationValue	mapTargetQualifier	
01d6c92e-3cf2-df08-f92f-516474af1919			20170930	1	11000146104	32311000146108	22253000	24	447557004	31511000146105
060220a6-7c6d-651d-0828-5188be33bb37			20170930	1	11000146104	32311000146108	7653001	447556008		{"conceptId": "", "defaultTerm": ""}
072f8bd3-7333-238d-8fdd-b70c45d0e154			20170930	1	11000146104	32321000146103	247592009	b1440	447557004	31491000146103
07a6d3f7-f00a-8274-5136-5c75e6e91dd9			20170930	1	11000146104	32311000146108	714884000	2713	447557004	31511000146105
08ab22f9-3feb-5cf6-5d0e-a4ffd7921d6a			20170930	1	11000146104	32311000146108	285304000	26	447558009	31501000146108
0a10495a-18d6-b3da-c950-017b67d254fd			20170930	1	11000146104	32311000146108	262526004	2601	447558009	31511000146105
0a9a93ce-291c-7526-a704-abf582063328			20170930	1	11000146104	32311000146108	129899009	2908	447557004	31511000146105
0b16c260-8978-85ec-a966-5ab35175acb7			20170930	1	11000146104	32311000146108	50177009	2715	447558009	31511000146105
0ba90a64-2064-7609-72af-96d732eaa848			20170930	1	11000146104	32311000146108	422587007	3001	447558009	31511000146105
0bc3a99d-f98d-30bd-ab48-247eae22f93d			20170930	1	11000146104	32321000146103	83156004	b255	447557004	31491000146103
0bdbcb01b-9c61-a7cc-b663-d43aab757310			20170930	1	11000146104	32321000146103	190902006	b545	447557004	31491000146103
0c5aae57-dd47-6ac0-8cc2-8bbbee12ba544			20170930	1	11000146104	32321000146103	67175002	d640	447557004	31491000146103
0d3e7592-c258-ef38-a895-793fca20257e			20170930	1	11000146104	32321000146103	418363000	b840	447558009	31491000146103
0e288fd4-bd70-978f-9577-3b8347070aa4			20170930	1	11000146104	32311000146108	247588002	2304	447557004	31511000146105
0fd1d91c5-e5f4-71cf-e7f4-3cbd5610b94f			20170930	1	11000146104	32311000146108	83156004	27	447558009	31511000146105
0f4c7ec4-7617-509f-9e33-d6abb2ff5f7f			20170930	1	11000146104	32311000146108	247617009	23	447558009	31511000146105
0f55151d-b60d-33d7-903f-326c2b7bbcb1			20170930	1	11000146104	32311000146108	267036007	28	447558009	31511000146105
0fc23c93-e6f4-7f58-19fe-86c7f385b7d8			20170930	1	11000146104	32321000146103	19657006	b1140	447557004	31491000146103
0fef5d5e-efb1-6cf9-5081-2643f54f742a			20170930	1	11000146104	32311000146108	284972002		447556008	{"conceptId": "", "defaultTerm": ""}
10329722-12b5-500a-5041-b7321a09dd0a			20170930	1	11000146104	32321000146103	225507001	b1801	447557004	31491000146103
105b2e5e-196b-5b7b-b78e-884f0c96e440			20170930	1	11000146104	32321000146103	18232000	d240+b1643	447560006	31491000146103
10bbd36b-30e8-210a-9422-e291b4f7a268			20170930	1	11000146104	32311000146108	18963009	1222	447557004	31511000146105
11060485-7a75-2f86-2a3b-1164be12e713			20170930	1	11000146104	32321000146103	300228004	b230	447557004	31491000146103
1298f0fe-78ad-e19e-c888-eb10585fb2db			20170930	1	11000146104	32311000146108	425022003		447556008	{"conceptId": "", "defaultTerm": ""}
13206f99-123c-882c-69c7-d2240afc95a5			20170930	1	11000146104	32311000146108	405273008	12	447558009	31511000146105
1335f4a2-d2e5-96c2-3d3e-5b01ab790f61			20170930	1	11000146104	32321000146103	424573006	d7200	447558009	31491000146103
13bd13c7-6d87-6f4c-4832-29d5070376f4			20170930	1	11000146104	32311000146108	303387009	27	447558009	31511000146105
15029557-42ff-9a32-4ede-299389d9ae71			20170930	1	11000146104	32321000146103	130987000	b110+b114	447558009	31491000146103
159e7eb7-42fd-28d1-4b55-0d46aa397914			20170930	1	11000146104	32311000146108	705044006	14	447558009	31511000146105
163bb3f0-2074-f7b0-1c9b-42a848680827			20170930	1	11000146104	32311000146108	284905001	3807	447557004	31511000146105
1a6ade22-98dd-f4af-c1f6-30c57d98eb98			20170930	1	11000146104	32311000146108	386702006	16	447557004	31511000146105
1a6c173c-8af3-5c07-f21d-39adf8b8dd386			20170930	1	11000146104	32311000146108	386807006	23	447558009	31511000146105
1abe300d-dd91-7e83-d75a-2e176150a6a3			20170930	1	11000146104	32311000146108	304900007	41	447558009	31511000146105
1b8a1f5c-5bb4-8bf7-1150-9ef8d6592f5b			20170930	1	11000146104	32321000146103	440337002	d859	447558009	31491000146103
1defc027-23d5-a6c2-b15d-665a8bddee649			20170930	1	11000146104	32311000146108	12551000146107	12	447558009	31511000146105
1eee25c6-e96c-9e9d-c4fb-b284d96c6e7a			20170930	1	11000146104	32321000146103	704426000	b1102	447558009	31491000146103
20d03b2b-e488-6a81-15ed-278100b405af			20170930	1	11000146104	32311000146108	300228004	19	447557004	31511000146105
2469f40b-87f4-d5fb-052b-a10e939d97a4			20170930	1	11000146104	32311000146108	72042002	3107	447557004	31511000146105
261ebc72-a1aa-e66c-9e28-48800e78253c			20170930	1	11000146104	32311000146108	418363000	2606	447557004	31511000146105
262d99bd-dd09-510e-1906-f480ee91a336			20170930	1	11000146104	32321000146103	271807003	b810+s810	447560006	31491000146103



# Welke complexe mappingrefsets zijn er?

## **SNOMED CT - ICD-10**

Elke Snomed CT code is gekoppeld aan ICD-10

Met regels en adviezen

## **SNOMED CT - ICPC**

Alleen voor General Practice / Family Practice reference set

## **SNOMED CT – NANDA**

Alleen voor de referentieset patiëntproblemen

Extended:

## **SNOMED CT – OMAHA**

Alleen voor de referentieset patiëntproblemen

## **SNOMED CT – ICF**

Alleen voor de referentieset patiëntproblemen

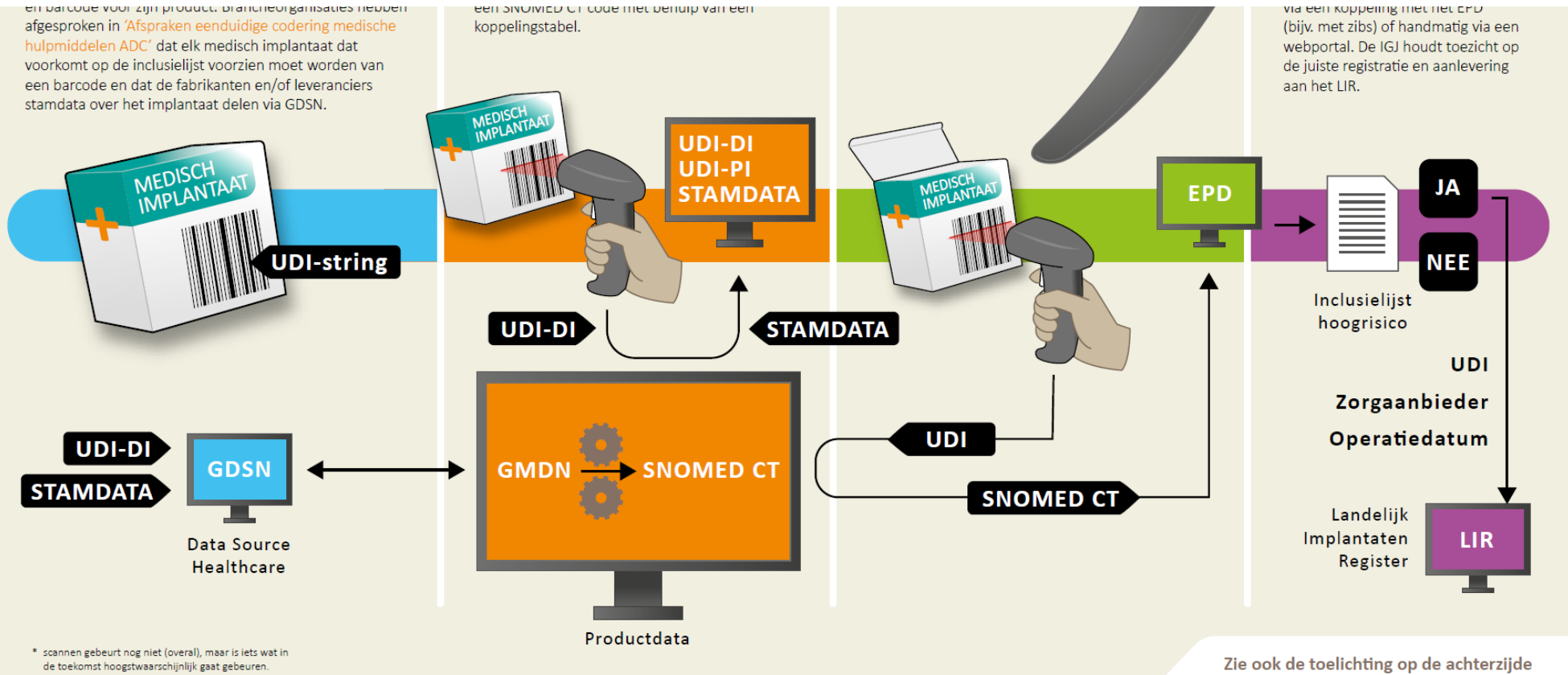


# Infographic implantaten

en barcode voor zijn product. Brancheorganisaties hebben afgesproken in 'Afspraken eenduidige codering medische hulpmiddelen ADC' dat elk medisch implantaat dat voorkomt op de inclusielijst voorzien moet worden van een barcode en dat de fabrikanten en/of leveranciers stamdata over het implantaat delen via GDSN.

een SNOMED CT code met behulp van een koppelingstabel.

via een koppeling met het EPD (bijv. met zibs) of handmatig via een webportal. De IJG houdt toezicht op de juiste registratie en aanlevering aan het LIR.





# Nuttige links

E-learning:

[Mapping introduction](#)

[Mapping - Basics](#)

Documentation:

[Technical specifications of map reference sets](#)

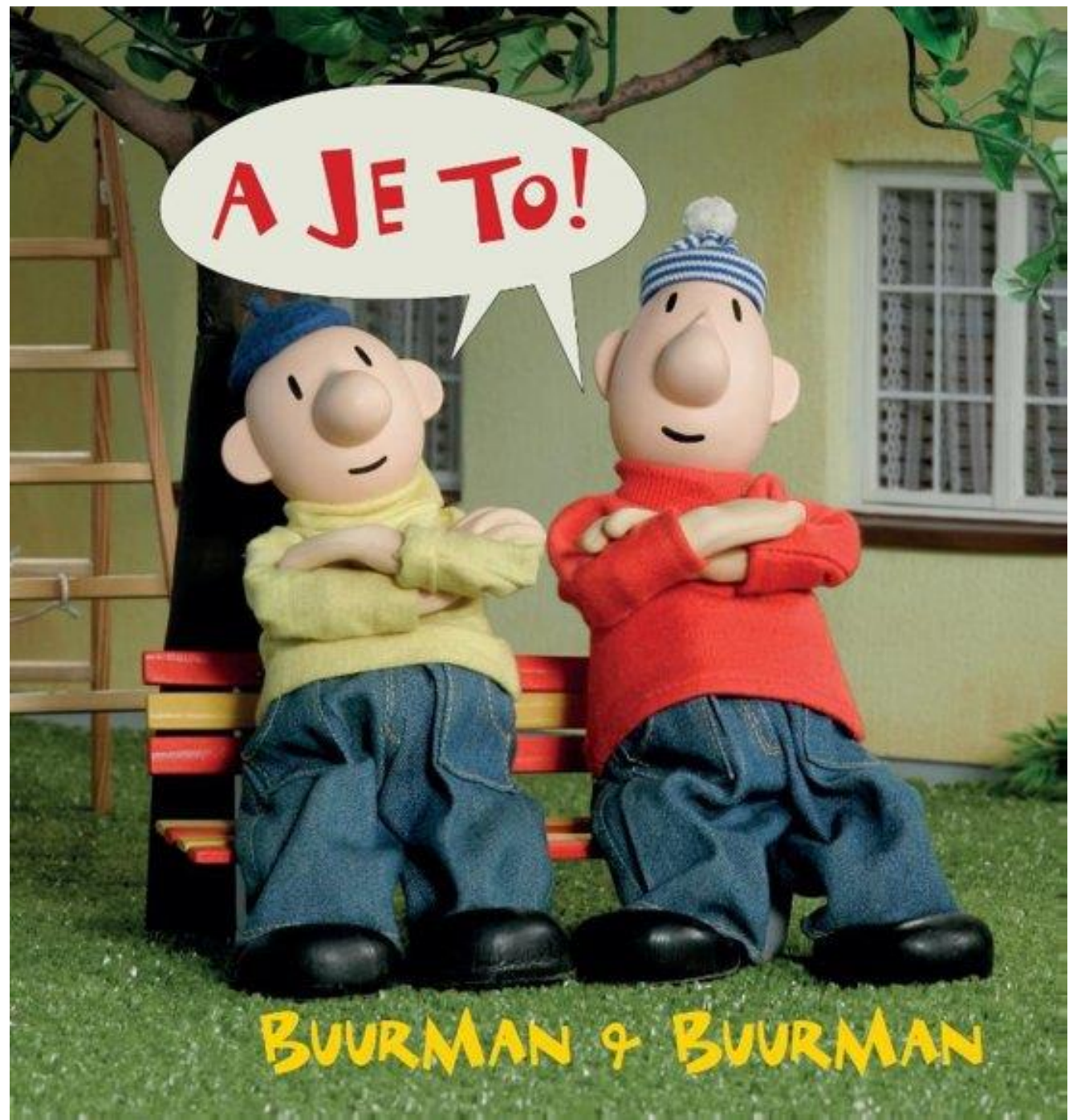
Tooling:

[Snomed international mapping tool](#)

[Infographic](#)

En nu jullie...

Nictiz  Better health through  
better information





# Oefening 1 Simpele mapping

- **Wat is het SNOMED concept behorende bij de volgende GMDN codes, toon deze in een lijst van NL voorkeurstermen**

43553

47986

47710

46573

34223

<https://termdemo.test-nictiz.nl/MAIN/members?referenceSet=467614008&mapTarget=targetid>

- **Welke van bovenstaande staat of staan op de referentieset voor implantatenregister (inclusielijst)?**

<https://termdemo.test-nictiz.nl/MAIN/members?referenceSet=52801000146101&referencedComponentId=conceptid>

# Oefening 2 Complex: Nanda

- **Voor welke SNOMED CT concepten is er geen mapping met Nanda?**

<https://termdemo.test-nictiz.nl/MAIN/members?referenceSet=31451000146105>

- **In Nanda is het probleem 00188 geregistreerd. Geef aan de gebruiker weer welke NL SNOMED CT voorkeurstermen dit kunnen zijn**

<https://termdemo.test-nictiz.nl/MAIN/members?referenceSet=31451000146105&mapTarget=0018>



# Oefening 3: Complex map: ICD-10

- **Welke SNOMED CT concepten vallen in de ICD-10 groep I50.9**

<https://termdemo.test-nictiz.nl/MAIN/members?referenceSet=447562003&mapTarget=ICD-10-code>

- **In het EPD wordt deze SNOMED CT vastgelegd: 8619003 |Infertile (finding)|. Uit de patientregistratie blijkt dat het om een man gaat. Welke ICD-10 code hoort hierbij?**

<https://termdemo.test-nictiz.nl/MAIN/members?referenceSet=447562003&referencedComponentId=8619003>