

Management of Reference Sets by Healthcare Providers

Elze de Groot
Advisor Terminology
National Institute of ICT in
Healthcare (Nictiz)

October 10th 2013



Content

- Reference Set Process
- Reference Set Editor
- Experiences
- Export for Vendors and Software Suppliers
- Use Case: Optometricians

Process

- Instruction
- Support by Nictiz
 - Post coordination
 - Additions to National Extension – ‘core’
- Meetings with Software Suppliers
- Export of Reference Set
- Implementation in systems
- Management of Reference Set

Tooling

- Reference set editor – Makes it possible for Care Providers to manage their own content

Termen

Zoeken

Toon Actueel

- Abdominal cutaneous nerve entrapment syndrome (disorder)
- Abdominal neuropathy (disorder)
- Abdominal polyradiculopathy (disorder)
- Abnormality of synaptic vesicles (disorder)
- Acetylcholine resynthesis deficiency (disorder)
- Acute infective polyneuritis (disorder)
- Acute radial nerve palsy (disorder)
- Adult onset autosomal recessive muscular dystrophy with normal dystrophin (disorder)
- Adult spinal muscular atrophy (disorder)
- Aggressive systemic infantile myofibromatosis (disorder)
- Alcohol myopathy (disorder)
- Allergic neuropathy (disorder)
- Amyloid polyneuropathy type I (disorder)
- Amyotonia congenita (disorder)
- Amyotrophic lateral sclerosis (disorder)**
- Amyotrophic lateral sclerosis with dementia (disorder)
- Amyotrophy due to herpes zoster (disorder)
- Amyotrophy due to type 1 diabetes mellitus (disorder)
- Amyotrophy due to type 2 diabetes mellitus (disorder)
- Anoxic neuropathy (disorder)
- Anterior horn cell disease (disorder)
- Anterior interosseous nerve entrapment (disorder)
- Anterior interosseous nerve lesion (disorder)
- Antibiotic-induced neuromuscular blocking (disorder)
- Arterial thoracic outlet syndrome due to cervical rib (disorder)
- Atrophic myositis (disorder)
- Autonomic facial cephalgia (disorder)
- Autonomic neuropathy (disorder)
- Autosomal dominant muscular dystrophy not predominantly limb girdle (disorder)

86044005 - Amyotrophic lateral sclerosis (disorder)

Status	Ontwerp	Datum	09-07-2013
Laatste statuswijziging		Door	
Synoniemen	Amyotrophic lateral sclerosis ALS - Amyotrophic lateral sclerosis Bulbar motor neuron disease Lou Gehrig's disease		
Vertaling			

Hiërarchie

- Amyotrophic lateral sclerosis
 - Amyotrophic lateral sclerosis with dementia

86044005 - Amyotrophic lateral sclerosis

Volledige naam	Amyotrophic lateral sclerosis (disorder)
Synoniemen	ALS - Amyotrophic lateral sclerosis Bulbar motor neuron disease Lou

Reference set Editor

- Adding concepts
- Removing concepts
- Change concepts
 - Dutch terms
- Discussion (issues)
- Import new SNOMED CT release – check for changes
- Open source
- Work in progress
- <https://decor.nictiz.nl/art-decor/refsets>

Experiences so far

- Simple to use
- Web-based
- Difficulties with hierarchy – visualization
- Initial excel, management online
- Guidelines

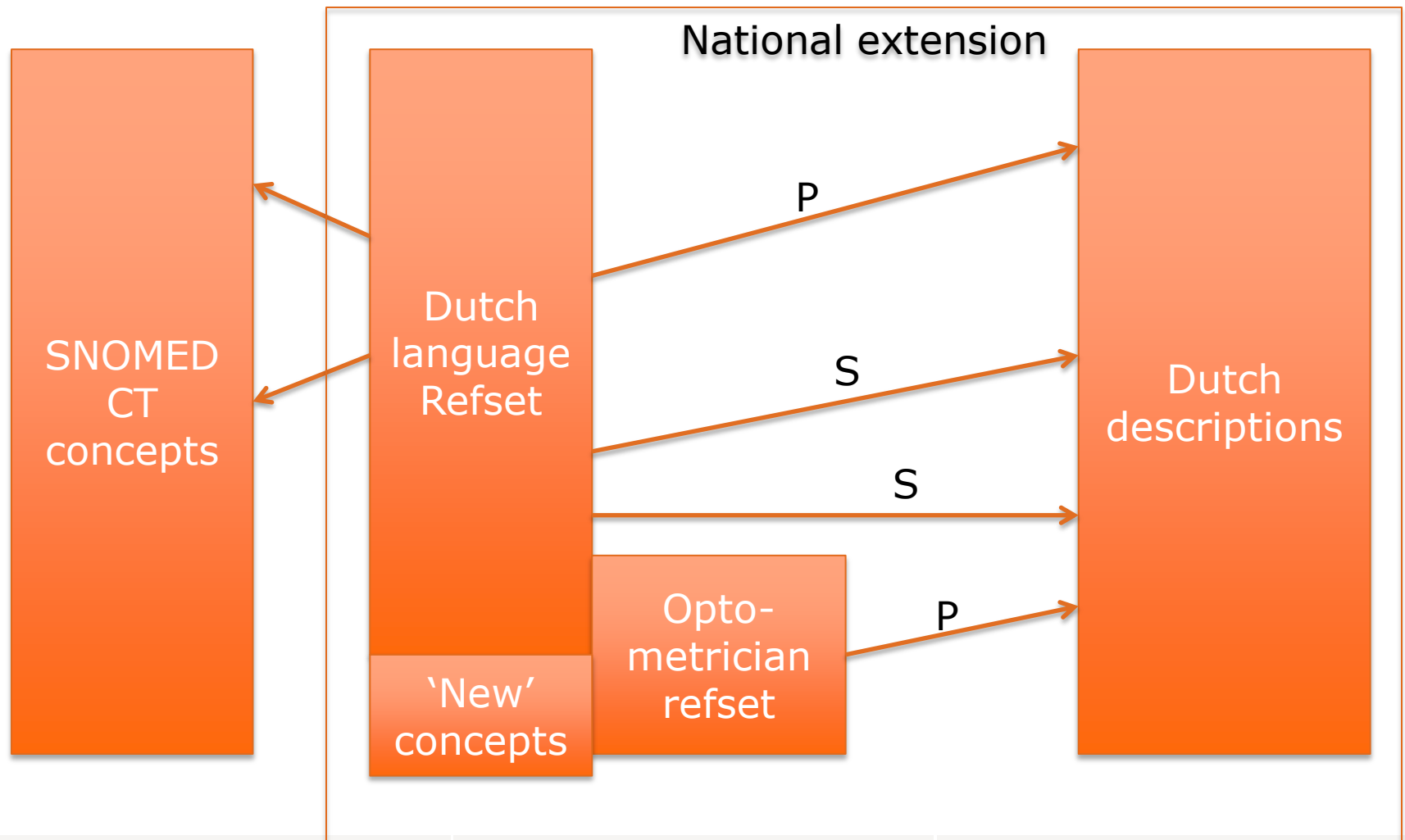
Guidelines

- Post coordination
- Use of Dutch language
- Translation
 - Based on Translation Guide of IHTSDO

Technical side

- Publication
 - RF-2
 - XML
- How to cope with several Dutch synonyms and preferred terms
 - Dutch description list
 - Dutch language reference set

Dutch terms



Practice: Optometricians

Purposes:

- Clinical Documentation
 - Statistics
 - Billing
-
- Dataset – what data to document in record
 - Clinical Findings (appr 600) and procedures refsets
 - Translation

Optometric software



Algemeen
 Datum Uitvoerende Voorschrijver Product

Controleren

Subjectief

Huidige correctie

Objectief

Objectief/Bevindingen	Afstand Visus SC	Nabij Visus SC
OD	<input type="text" value="0,00"/> OS <input type="text" value="0,00"/> ODS <input type="text" value="0,00"/> OD <input type="text" value="0,00"/> OS <input type="text" value="0,00"/> ODS <input type="text" value="0,00"/>	
Afstand Visus CC	OD <input type="text" value="0,00"/> OS <input type="text" value="0,00"/> ODS <input type="text" value="0,00"/> OD <input type="text" value="0,00"/> OS <input type="text" value="0,00"/> ODS <input type="text" value="0,00"/>	Nabij Visus CC
Pinhole visus	OD <input type="text" value="0,00"/> OD <input type="text" value="0,00"/>	

Evaluatie/Plan

Primaire Diagnose	Diagnose	Oog	Plan/beleid	Opmerkingen
	glaucom	<input type="text" value="ODS"/>	<input type="text"/>	<input type="text"/>
Overige Diagnose	<ul style="list-style-type: none"> Steroid-induced glaucoma Secondary angle-closure glaucoma Secondary open-angle glaucoma Glaucoma AACG - Acute angle closure glaucoma CNAG - Chronic narrow angle glaucoma Pigmentary glaucoma Normal pressure glaucoma 	<input type="text" value="ODS"/>	<input type="text"/>	<input style="width: 20px; height: 20px; border: 1px solid black; text-align: center; vertical-align: middle;" type="text" value="+"/>

Optometric software



Menu: Rapportage Functies Extra Help

Alge
Dat

glaucom

SnomedNotation

- Corticosteroid-induced glaucoma
- Secondary angle-closure glaucoma
- Secondary open-angle glaucoma
- Glaucoma**
- AACG - Acute angle closure glaucoma
- CNAG - Chronic narrow angle glaucoma
- Pigmentary glaucoma
- Normal pressure glaucoma
- Subacute angle-closure glaucoma
- Glaucoma of childhood
- POAG - Primary open-angle glaucoma
- Open cleft glaucoma
- Drug-induced glaucoma
- Secondary open-angle glaucoma with pseudoexf...
- Open-angle glaucoma - borderline
- Angle-closure glaucoma - borderline
- Glaucoma suspect
- Secondary angle closure glaucoma with rubeosis
- Borderline glaucoma steroid responder
- Chronic angle closure glaucoma
- Primary angle-closure glaucoma
- ACG - Angle closure glaucoma
- Primary congenital glaucoma
- Anatomical narrow angle glaucoma with borderli...

Glaucoma

- Chronic angle-closure glaucoma
 - Anatomical narrow angle glaucoma with borderline i
- Open-angle glaucoma
 - Open angle with cupping of optic discs
 - Primary open angle glaucoma
 - Secondary open-angle glaucoma
 - Pseudoexfoliation glaucoma
 - Pigmentary glaucoma
 - Drug-induced glaucoma
- Angle-closure glaucoma
 - Primary congenital glaucoma
 - Glaucoma of childhood
 - Low tension glaucoma

Glaucoma

Ancestors:

Full Name	Glaucoma

Selecteer

Optometric software



2013 16 12 Libvoerende Voorschrijver Product

Metingen

rectie

dingen

an

ose

se

eyelid
Blepharitis
Blepharitis

SnomedNotation
Abnormal eyelid innervation syndrome
Xanthelasma of eyelid
Ptosis of eyelid
Infective dermatitis of eyelid
Eyelid turned in
Blepharitis
Blepharospasm
Disorder of eyelid
Poor closure eyelids
Abscess of eyelid
Oedema of eyelid
Floppy lid syndrome
Benign tumour of eyelid
Naevus of eyelid
Capillary haemangioma of eyelid
Malignant tumour of eyelid
Contact or allergic eyelid dermatitis
Congenital ptosis
Lesion of eyelid
Scar of skin of eyelid

- Blepharitis
 - Blepharoconjunctivitis
 - Contact lens related conjunctivitis
 - Contact lens related papillary conjunctivitis
 - Giant papillary conjunctivitis
 - Contact lens related giant papillary conjunctivitis

ancestors:

Disorder of eyelid

Synoniem	Inflammation of eyelid
Synoniem	Inflammation of lid m...
Synoniem	Eyelid inflammation
Full Name	Blepharitis

Mission accomplished?

- NO, but a first step is made
 - Terms and hierarchy

Near future

- Hospital clinical findings and procedures
 - SNOMED CT reference set with Dutch preferred term and synonyms
 - Search in Dutch and English
- Mappings with ICD-10NL and billing codes
 - Semi-automatic derivation of ICD-10 and billing codes in systems
- Refset editor is further developed to create mappings to other terminologies

decor.nictiz.nl/art-decor/snomed-ct



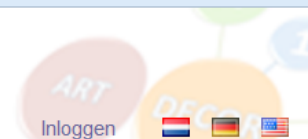
Sweetpacks




Meest bezocht Capellemail Hotmail Facebook ART-Decor Ambulance-SEH - Dat... Projectplace NictizBlog

SNOMED CT

Decor Terminologie Testen



Zoekterm(en)  hypertension

SNOMED Clinical Terms version: 20130731 [R] (July 2013 Release)

Help

Licentie

Resultaten (50 van 456)

S	Hypertension	Hypertensive disorder, systemic arterial (disorder)
P	FH: Hypertension	Family history: Hypertension (situation)
P	H/O: hypertension	History of - hypertension (situation)
S	Hypertension risk	Hypertension risk level (observable entity)
P	Renal hypertension	Renal hypertension (disorder)
P	Benign hypertension	Benign hypertension (disorder)
P	Venous hvoertension	Venous hvoertension (disorder)

[Secondary hypertension](#)

Renal hypertension (disorder)

Renal hypertension

Id 28119000

Definition status Defined

Associated with [Kidney disease](#)

Finding site [Systemic circulatory system structure](#)

Has definitional manifestation [Finding of increased blood pressure](#)

CTV3 simple map XUAv2

SNOMED RT ID simple map D3-02110

▶ ICD-9-CM equivalence complex map reference set

▶ ICD-10 complex map reference set

P Venous hypertension

Venous hypertension (disorder)

[Secondary hypertension](#)

Renal hypertension (disorder)

Renal hypertension

Id	28119000
Definition status	Defined

Associated with	Kidney disease
Finding site	Systemic circulatory system structure
Has definitional manifestation	Finding of increased blood pressure

CTV3 simple map	XUAv2
-----------------	-------

SNOMED RT ID simple map	D3-02110
-------------------------	----------

▼ ICD-9-CM equivalence complex map reference set

Target	403.90
Correlation	Exact match map from SNOMED CT source code to target code

▼ ICD-10 complex map reference set

Target	I12.9
Rule	TRUE
Advice	ALWAYS I12.9 DESCENDANTS NOT EXHAUSTIVELY MAPPED
Correlation	SNOMED CT source code to target map code correlation not specified

[Hypertension secondary to renal disease in obstetric context](#) 3

[Parenchymal renal hypertension](#)

[Renal sclerosis with hypertension](#)

[Renovascular hypertension](#) 4

Questions?

Reference set editor:

<http://decor.nictiz.nl/art-decor/refsets>

Snomed Terminology Explorer:

<http://decor.nictiz.nl/art-decor/snomed-ct>

Elze de Groot
Advisor Terminology


egroot@nictiz.nl
www.nictiz.nl

Screenshots

Referentieset Referentieset voor de Optometrie

Annuleren Wijzigingen bewaren

Concepten Algemeen Issues

Termen Zoeken Toon Actueel 


A pattern vergence (finding)
 Abducens nerve disorder (disorder)
 Abnormal color vision (finding)
 Abnormal intraocular pressure (finding)
 Abnormal ocular motility (finding)
 Abnormal peripheral vision (finding)
 Abnormal pupillary function (disorder)
 Abnormal response to visual stimuli (finding)
 Abnormal vision (finding)
 Abnormal vision as a late effect of cerebrovascular disease (disorder)
 Abscess of conjunctiva (disorder)
 Abscess of eyelid (disorder)
 Absent response to visual stimuli (finding)
 Absolute afferent pupillary defect (disorder)
 Accommodative esotropia (disorder)
 Accommodative strabismus (disorder)
 Achromatopsia (disorder)
 Acquired color vision deficiency (disorder)
 Acquired displacement of punctum lacrimale (disorder)
 Acquired night blindness (disorder)
 Acute angle-closure glaucoma (disorder)
 Acute anterior uveitis (disorder)
 Acute conjunctivitis (disorder)
 Acute contagious conjunctivitis (disorder)
 Acute disease of orbit (disorder)
 Acute endophthalmitis (disorder)
 Acute follicular conjunctivitis (disorder)
 Adhesion of pupillary membrane (disorder)
 Adhesions of iris (disorder)
 Afferent pupillary defect (disorder)
 After-cataract (disorder)

Status	Nieuw	Datum	19-12-2012
Laatste statuswijziging	19-12-2012	Door	Elze de Groot
Synoniemen			
Vertaling	<input type="text"/>		
Zoekterm(en)	<input type="text" value="epicanth fin"/>		
Resultaten (1 van 1)			
P Epicanthus finding		Epicanthus finding (finding)	

Hiërarchie

- Epicanthus finding
 - Broad epicanthus
 - Epicanthus inversus
 - Epicanthus palpebralis
 - Epicanthus tarsalis

386657000 - Epicanthus finding

Selecteer 

Volledige naam Epicanthus finding (finding)

Synoniemen Epicanthus observation

Definitie (Defined)

Is a Eyelid finding

Is a Skin finding

Finding site Epicanthal fold



Referentieset Referentieset voor de Optometrie

Annuleren Wijzigingen bewaren

Concepten Algemeen Issues

Termen +

Zoeken

Toon ▼

- Entire physiologic cup of optic disc (body structure)
- Entire physiologic cup of optic disc (body structure)
- Entropion (disorder)
- Epicanthal fold (body structure)
- Epicanthus finding (finding)**
- Epiphora (disorder)
- Epiphora due to insufficient drainage (disorder)
- Epiretinal membrane (morphologic abnormality)
- Episcleral and scleral disorder (disorder)
- Episcleral injection (finding)
- Episcleritis (disorder)
- Esophoria (disorder)
- Esotropia (disorder)
- Excess orbital fat (finding)
- Excessive tear production (finding)
- Excyclotropia (disorder)
- Exophoria (disorder)
- Exophthalmos present (finding)
- Exotropia (disorder)
- Extrafoveal ocular fixation (finding)
- Extraocular muscle restriction (disorder)
- Extrusion of scleral buckle (disorder)
- Exudative age-related macular degeneration (disorder)
- Exudative age-related macular degeneration (disorder)
- Exudative maculopathy associated with type I diabetes mellitus (disorder)
- Exudative maculopathy associated with type II diabetes mellitus (disorder)
- Exudative retinopathy (disorder)
- Eye infection (disorder)
- Eye muscle imbalance (finding)
- Eye strain (finding)
- Eyelash reflex absent (finding)
- Eyelid burn (disorder)

386657000 - Epicanthus finding (finding) ✎ ✖ 📄

Status	Ontwerp	Datum	19-12-2012
Laatste statuswijziging	19-12-2012	Door	Elze de Groot
Synoniemen	Epicanthus finding Epicanthus observation		
Vertaling	<input type="text" value="Bevinding van epicanthus"/>		

Hiërarchie

- **Epicanthus finding**
 - Broad epicanthus
 - Epicanthus inversus
 - Epicanthus palpebralis
 - Epicanthus tarsalis

386657000 - Epicanthus finding

Volledige naam

Synoniemen

Definitie (Defined)

Is a

Is a

Finding site