

Relaties, queries & subsumptie

Feikje Hielkema-Raadveld

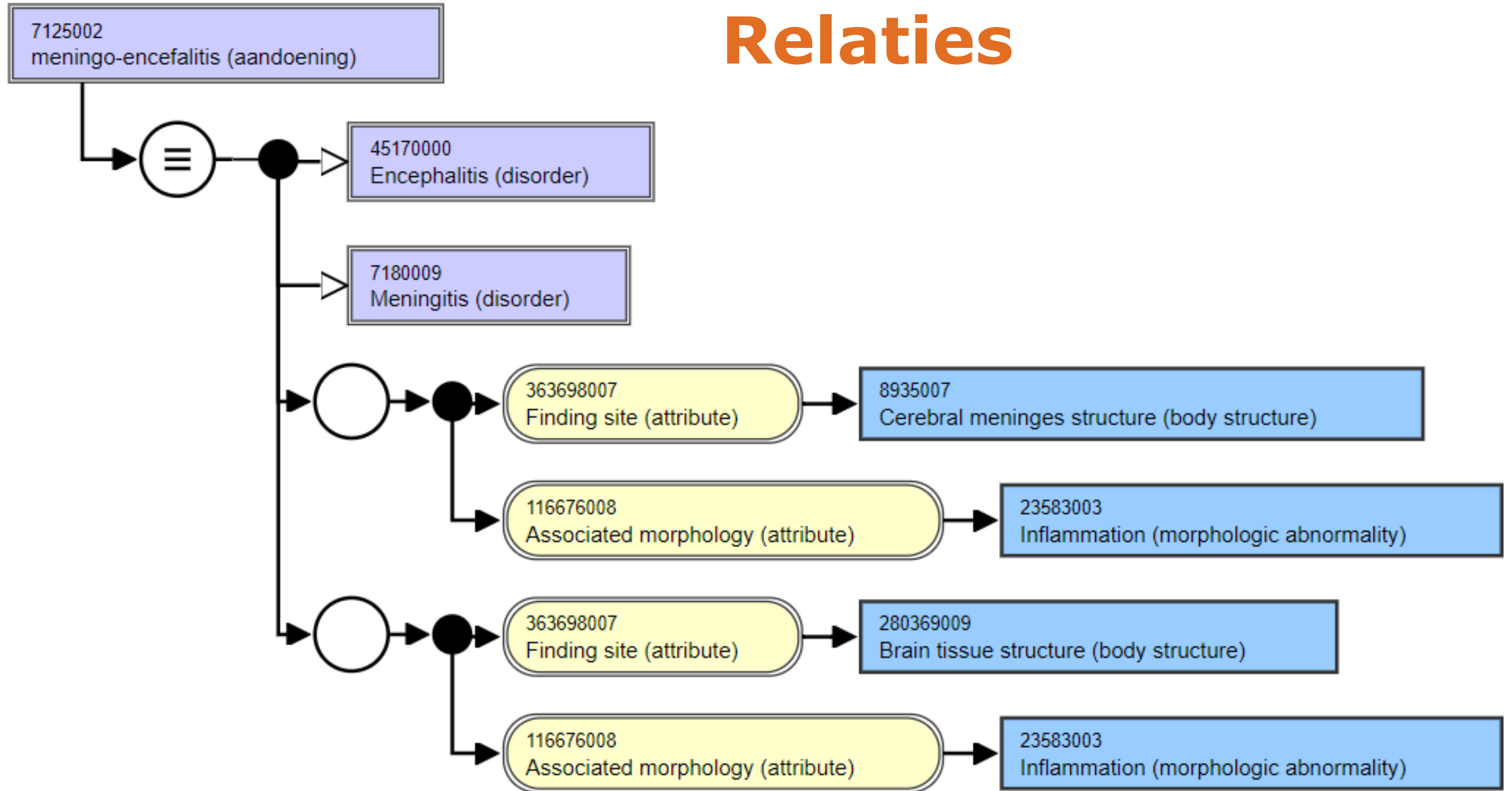
22 November 2018

Nictiz  Better health through
better information



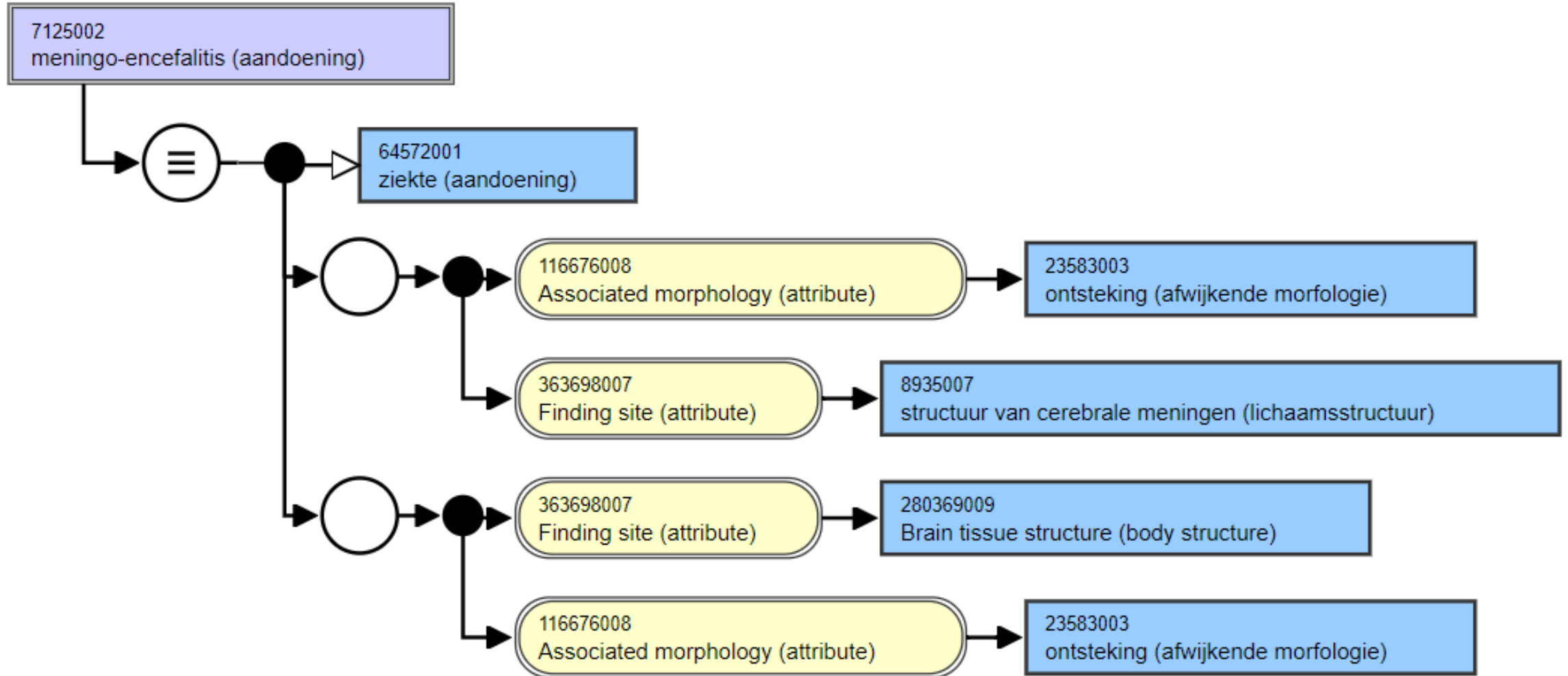


Relaties





Stated, inferred & transitive views





Stated, inferred & transitive views

Stated view

Relaties expliciet gespecificeerd door concept-auteur

Inferred view

Alle hiërarchische en definiërende relaties, geduceerd m.b.v. *description logic*, m.u.v. redundante hiërarchische relaties

Transitive closure view

Alle relaties, incl. redundante hiërarchische relaties

SNOMED e-Learning & documentatie:

- Stated, inferred and transitive views - <https://elearning.ihtsdotools.org/mod/scorm/view.php?id=912>
- Content hierarchy introduction - <https://elearning.ihtsdotools.org/mod/scorm/view.php?id=902>
- Concept model introduction - <https://elearning.ihtsdotools.org/mod/scorm/view.php?id=890>
- Concept model overview - <https://elearning.ihtsdotools.org/mod/scorm/view.php?id=903>
- Snomed CT Transitive closure script - <http://snomed.org/transclose>



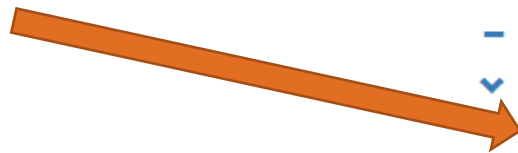
Vier manieren om

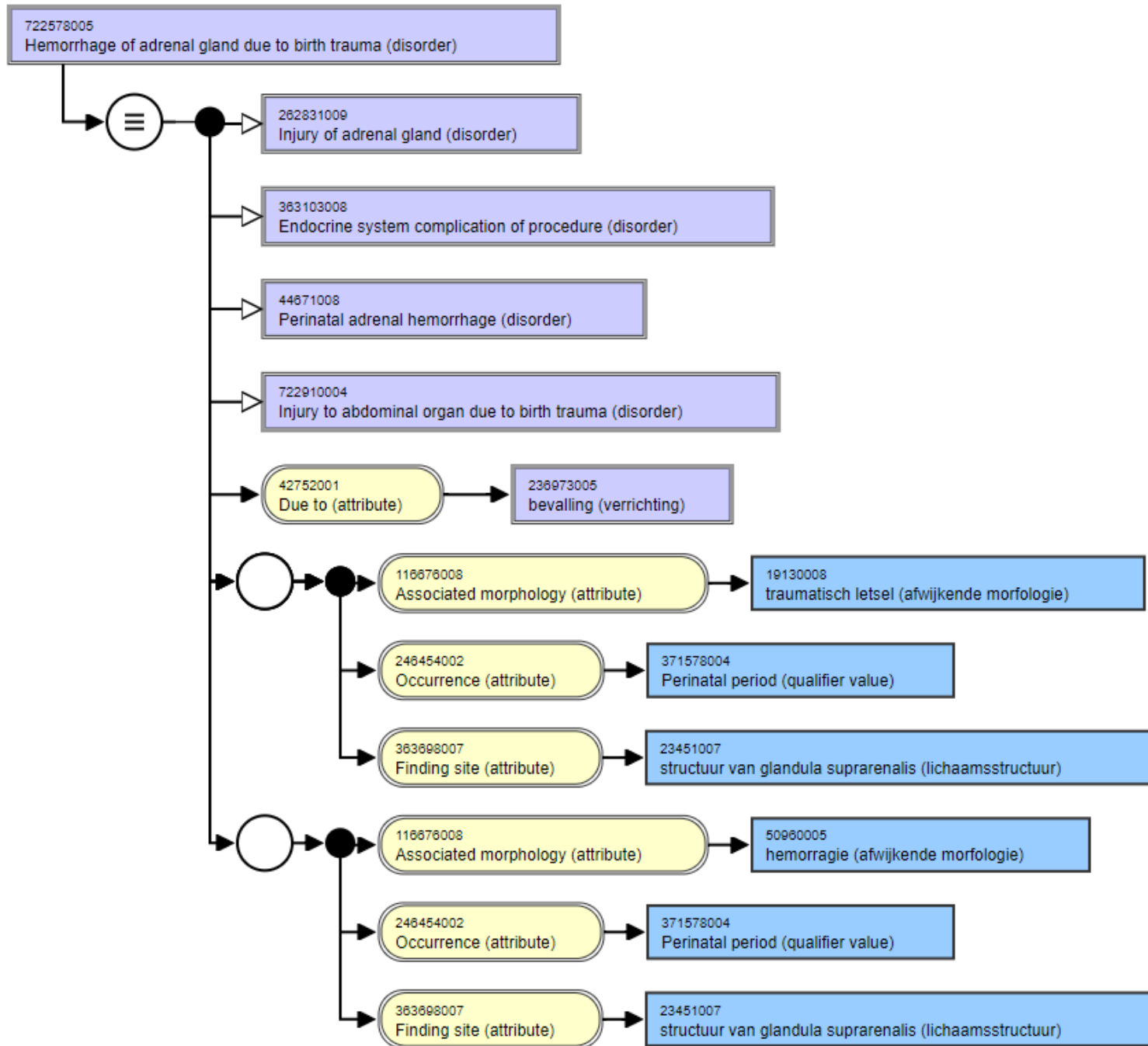
Hemorrhage of adrenal gland due to birth trauma

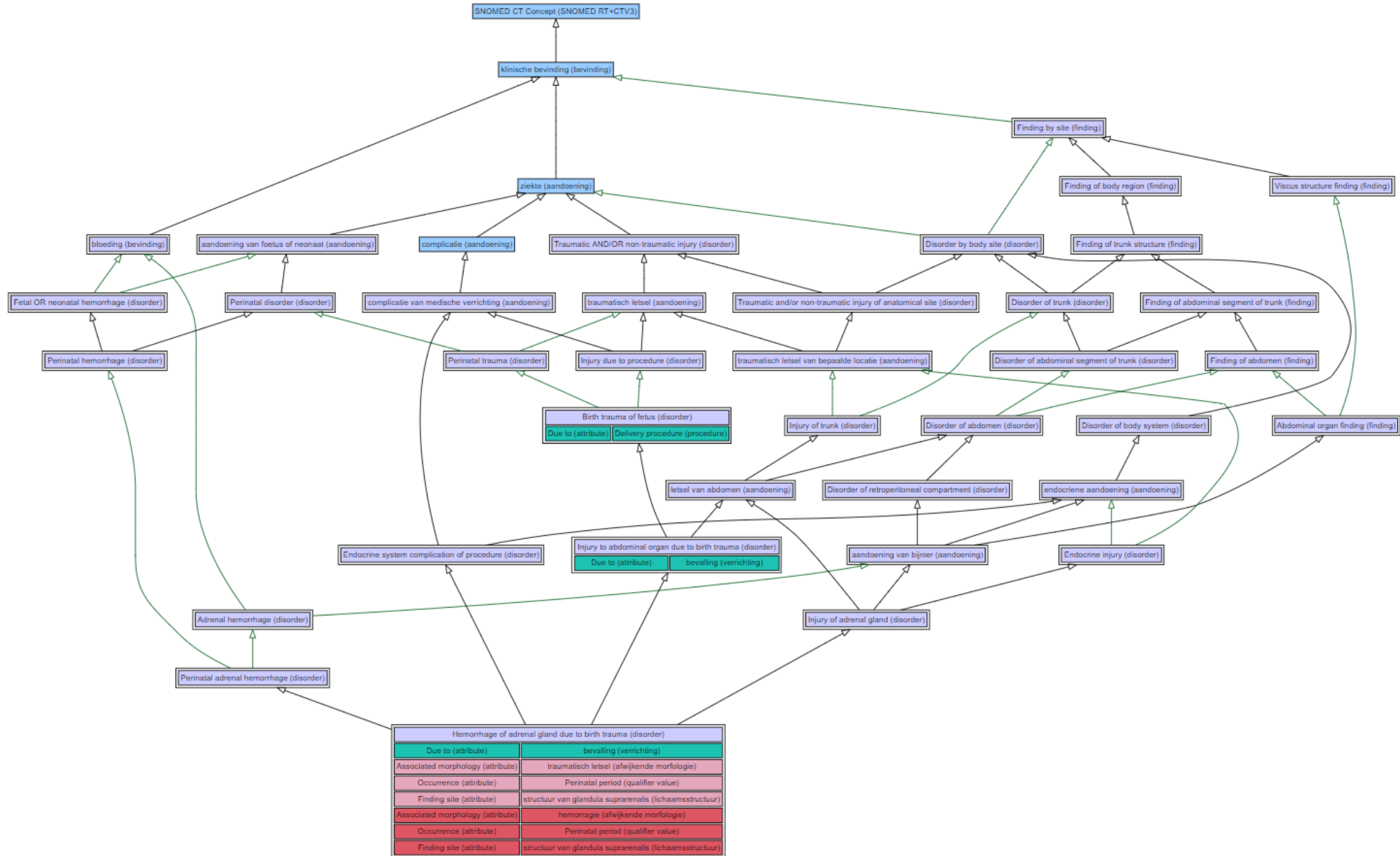
te tonen

Inferred view ▾

- ▼ ● SNOMED CT Concept (SNOMED RT+CTV3)
 - ● farmaceutisch/biologisch product (product)
 - ● fysiek object (fysiek object)
 - ● fysieke kracht (fysieke kracht)
 - ● gebeurtenis (gebeurtenis)
 - ● gegevensobject (gegevensobject)
 - ● gradering en schalen (gradering)
 - ▼ ● klinische bevinding (bevinding)
 - ● Abnormal brainstem evoked response audiometry test (finding)
 - ● Administrative statuses (finding)
 - ● Adverse incident outcome categories (finding)
 - ▼ ● bloeding (bevinding)
 - ● Abnormal uterine bleeding (disorder)
 - ● Accidental hemorrhage during medical care (finding)
 - ● Acute benign hemorrhagic glomerulonephritic syndrome (disorder)
 - ● Acute hemorrhagic cholecystitis (disorder)
 - ▼ ● Adrenal hemorrhage (disorder)
 - ▼ ● Adrenocortical hemorrhage (disorder)
 - ● Waterhouse-Friderichsen syndrome (disorder)
 - ● hematoom van bijnier (aandoening)
 - ▼ ● Perinatal adrenal hemorrhage (disorder)
 - ● Hemorrhage of adrenal gland due to birth trauma (disorder)
 - ● Ascorbic acid deficiency with hemorrhage (disorder)







Hemorrhage of adrenal gland due to birth trauma (disorder)	
Due to (attribute)	bevalling (verrichting)
Associated morphology (attribute)	traumatisch letsel (afwijkende morfologie)
Occurrence (attribute)	Perinatal period (qualifier value)
Finding site (attribute)	structuur van glandula suprarenalis (lichaamsstructuur)
Associated morphology (attribute)	hemorragie (afwijkende morfologie)
Occurrence (attribute)	Perinatal period (qualifier value)
Finding site (attribute)	structuur van glandula suprarenalis (lichaamsstructuur)

Optometric software



The screenshot displays a software window with a toolbar at the top and a main content area. The main area is divided into three panes:

- Left Pane:** A list of SnomedNotation terms. The term "Glaucoma" is highlighted in blue. Other visible terms include "Corticosteroid-induced glaucoma", "Secondary angle-closure glaucoma", "Secondary open-angle 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", and "Anatomical narrow angle glaucoma with borderli...".
- Middle Pane:** A hierarchical tree structure. The root node is "Glaucoma". It branches into:
 - 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
- Right Pane:** A text area containing the text "**Glaucoma**" and "Ancestors:". Below this is a table with two columns: "Full Name" and "Glaucoma". The table is currently empty.

Optometric software



013 16 42 Uitvoerende Voorschrijver Product

Catego...
Telefo... 07

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en

eyelid

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

****Blepharitis****

Ancestors:
Disorder of eyelid

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



Subsumptie

Een Snomed-concept *subsumeert* alle afstammelingen

- Hyperniem-hyponiemrelatie
- *Ontsteking* subsumeert zowel *appendicitis* als *oorontsteking*.

Een Snomed-query *subsumeert* alle concepten die eraan voldoen

SNOMED e-Learning & documentatie:

- Subsumption testing of concepts - <https://elearning.ihtsdotools.org/mod/scorm/view.php?id=932>
- Subsumption and equivalence of expressions - <https://elearning.ihtsdotools.org/mod/scorm/view.php?id=933>
- Terminology services guide - subtype testing - <http://snomed.org/tsg-subtype>
- Optimisation of normalisation and expression subsumption testing - <https://confluence.ihtsdotools.org/display/DOCTSG/12.6+Optimization+of+Normalization+and+Expression+Subsumption+Testing>



Queries

Een query beschrijft een verzameling concepten

- Expression constraint language
- Ondersteund door Snowstorm
- Gebruikt in ZIBs

SNOMED e-Learning & documentatie:

- Expression constraint language specification and guide - <http://snomed.org/ecl>
- Introduction to expressions - <https://elearning.ihtsdotools.org/mod/scorm/view.php?id=930>
- Implementing expressions - <https://elearning.ihtsdotools.org/mod/scorm/view.php?id=931>
- Storing expressions - <https://confluence.ihtsdotools.org/display/DOCRSG/3.%2BStoring%2BExpressions>
- Implementing expression constraints - <https://elearning.ihtsdotools.org/mod/scorm/view.php?id=958>



Oefening 1

Welke relaties, in hoeveel groepen, heeft

179616001 |primaire open reductie van luxatiefractuur en fixatie met draad (verrichting)|?

<https://termdemo.test-nictiz.nl/MAIN/relationships?active=true&source=conceptId>

Hoe zou je dit kunnen tonen?

Oefening 2

Schrijf je eigen query en voer die uit met Snowstorm

<https://termdemo.test-nictiz.nl/MAIN/concepts?ecl=query>

