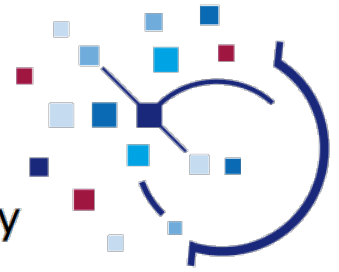


- IHTSDO delivering
- SNOMED CT[®]
- the global clinical terminology



Release Format, Views and Versioning

Mikael Nyström

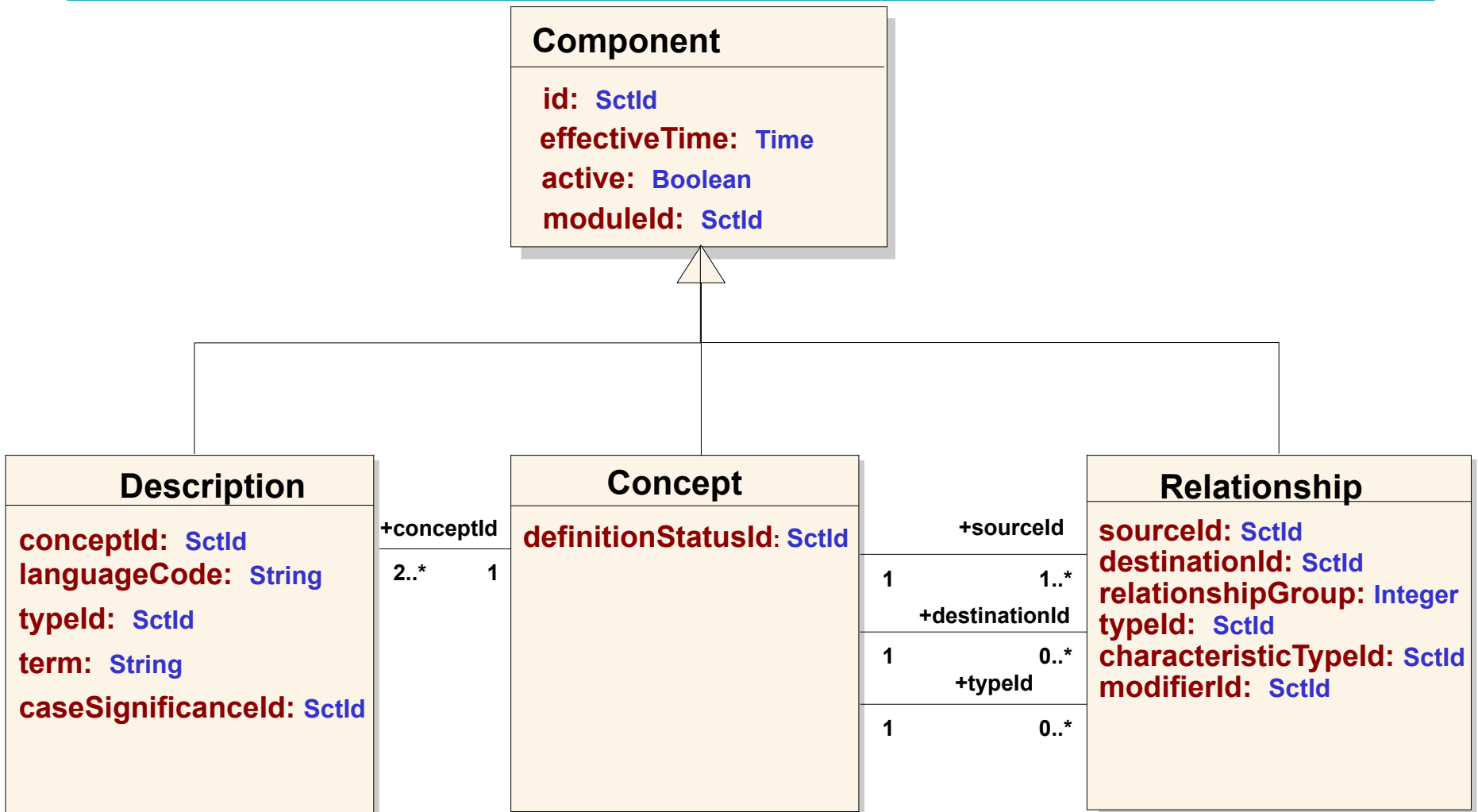
**Department of Biomedical Engineering, Linköping University, Sweden
for IHTSDO**

International Health Terminology Standards Development Organisation

Concepts
Descriptions
Relationships

CONTENT COMPONENTS

Logical Model of Content Components



Component

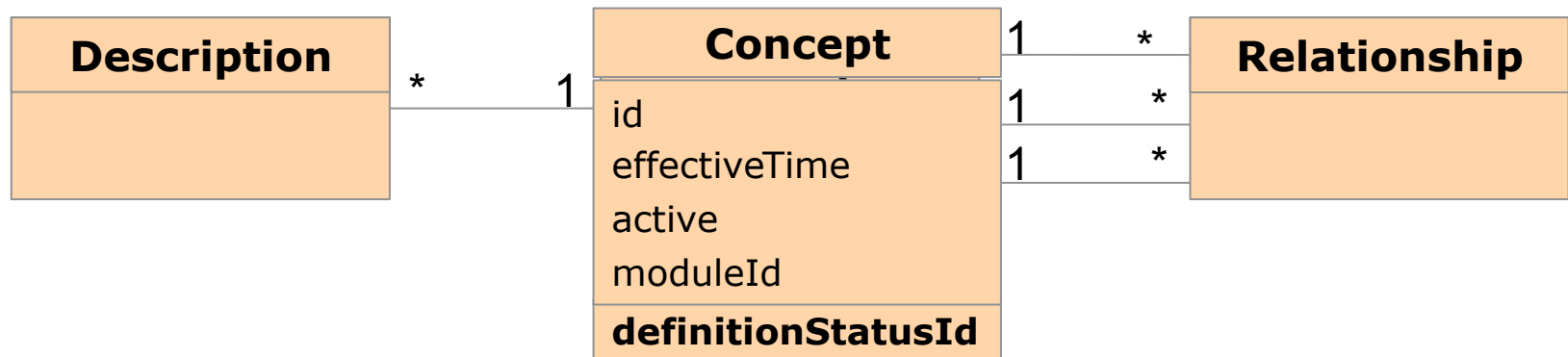
- Concepts, descriptions and relationships are all components and share these information attributes
- *id*: identifies the component
- *effectiveTime* & *active*: used for versioning
 - Explained later in the presentation
- *moduleId*: identifies the module this component is part of
 - Explained more later in the presentation

Component

id: SctId
effectiveTime: Time
active: boolean
moduleId: SctId

Concept

- A single clinical meaning identified by an identifier
- The meaning is permanent and unchangeable
- *definitionStatusId*: specifies if the concept is
 - defined
 - primitive
- Each concept
 - Is described by a set of descriptions
 - Has a set of relationships to other concepts



Concept

| primitive |

id	...	definitionStatusId
82272006	...	9000000000000074008
281794004	...	9000000000000073002
...

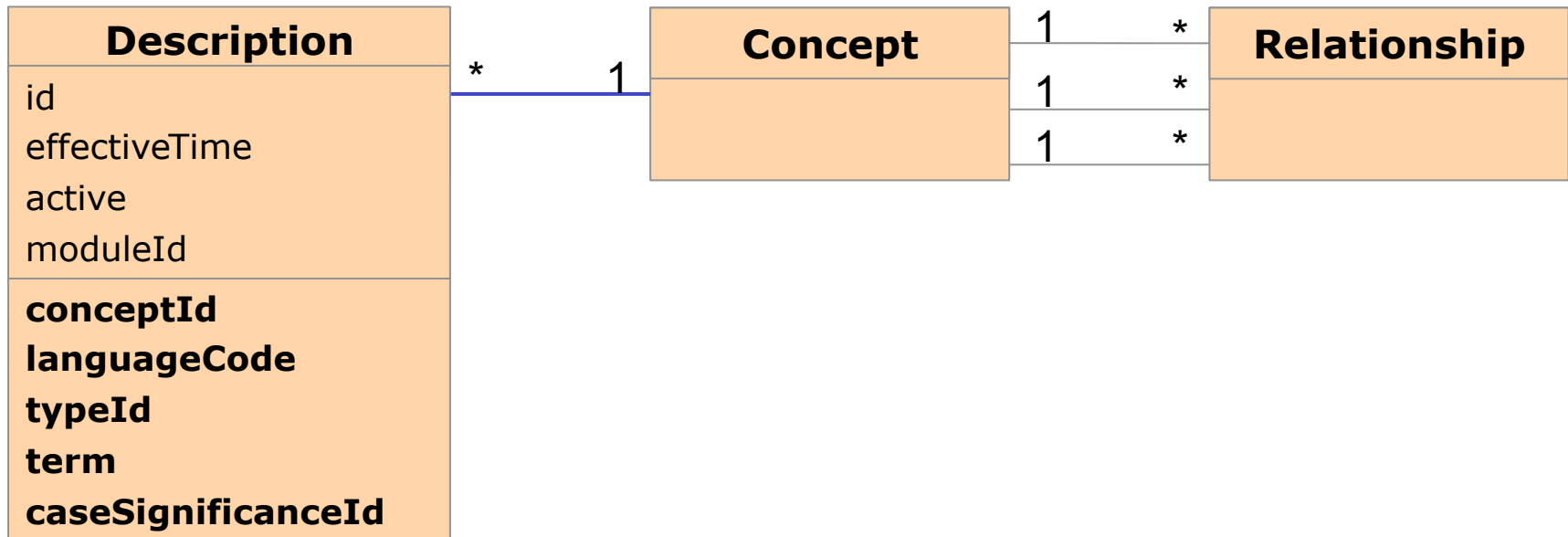
| defined |

82272006

281794004

Description

- A human readable term that names or describes a concept and information about the term
- Each concept has several descriptions
- *conceptId*: relates each description to one concept



Description

- *languageCode*: specifies the language (not dialect) of the description using ISO-639-1
 - en (= English), es (= Spanish), da (= Danish), sv (= Swedish)
- *typeId*: specifies the type of the description
 - fully specified name
 - synonym
 - definition
- *term*: contains the term itself
- *caseSignificanceId*: specifies how the case of the letters may be changed
 - only initial character case insensitive
 - case sensitive
 - case insensitive

A language reference set might mark a synonym to be the “preferred term” in a specific dialect

Description
id
effectiveTime
active
moduleId
conceptId
languageCode
typeId
term
caseSignificanceId

Description

| fully specified name |

| synonym |

| case sensitive |

id	...	conceptId	language-Code	typeId	term	caseSignificancelId
675373014	...	281794004	en	900000000000003001	Viral upper respiratory tract infection (disorder)	90000000000020002
419887019	...	281794004	en	90000000000013009	Viral upper respiratory tract infection	90000000000020002
419886011	...	281794004	en	90000000000013009	URTI - Viral upper respiratory tract infection	90000000000017005
823660015	...	82272006	en	90000000000003001	Common cold (disorder)	90000000000020002
136471015	...	82272006	en	90000000000013009	Infective nasopharyngitis	90000000000020002
136464013	...	82272006	en	90000000000013009	Acute nasopharyngitis, NOS	90000000000020002
136465014	...	82272006	en	90000000000013009	Acute coryza	90000000000020002
136466010	...	82272006	en	90000000000013009	Acute nasal catarrh	90000000000020002
...

| only initial character case insensitive |

Concept & Description

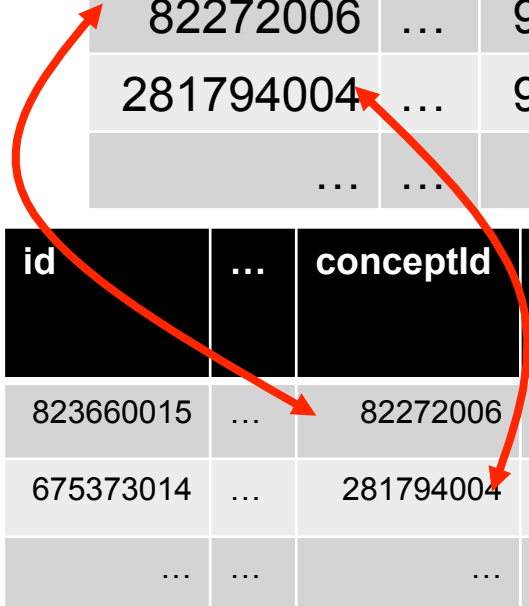
id	...	definitionStatusId
82272006	...	9000000000000074008
281794004	...	9000000000000073002
...

| primitive |

| defined |

| only initial character case insensitive |

| fully specified name |



id	...	conceptId	language-Code	typeId	term	caseSignificance
823660015	...	82272006	en	900000000000003001	Common cold (disorder)	900000000000020002
675373014	...	281794004	en	900000000000003001	Viral upper respiratory tract infection (disorder)	900000000000020002
...

82272006
 Common cold (disorder)

281794004
 Viral upper respiratory tract infection (disorder)

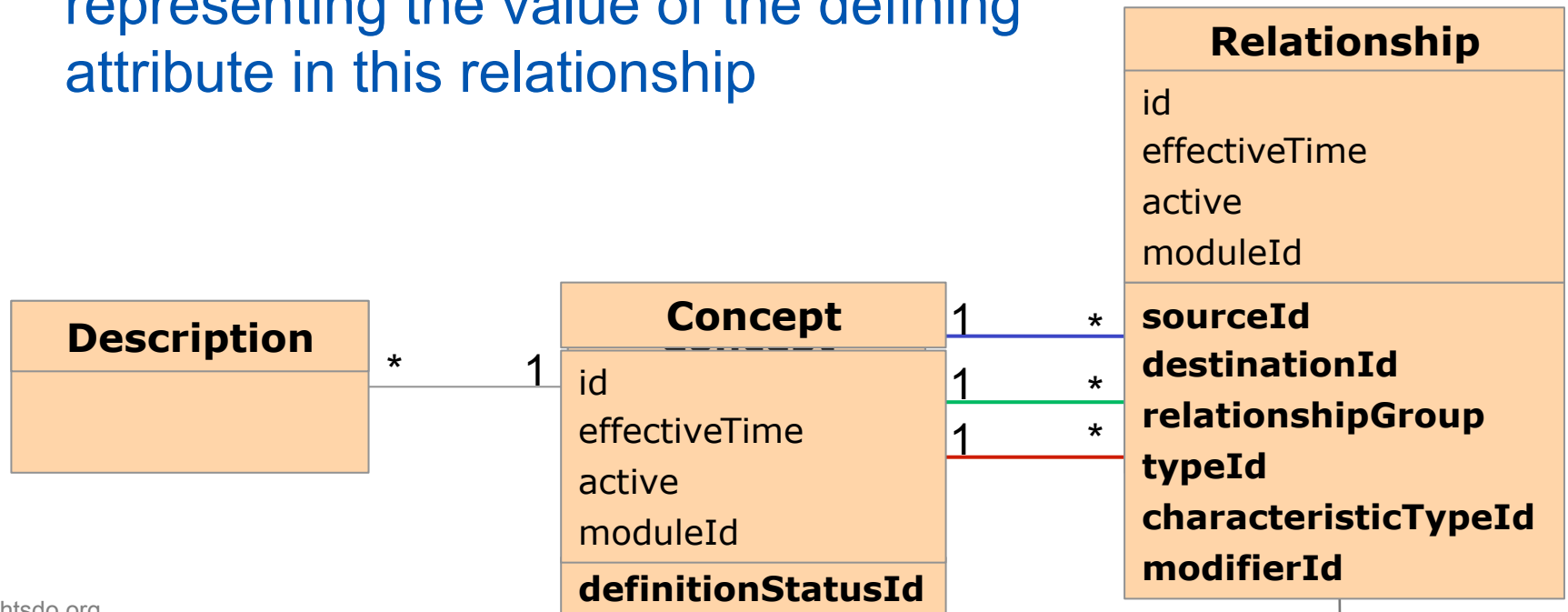
Relationships

- Concepts are defined by relationships to other concepts
- There are two kinds of defining relationships
 - Hierarchical (“is a”) relationships
 - Attribute-value (role) relationships

Relationship
id effectiveTime active moduleId
sourceId destinationId relationshipGroup typeId characteristicTypeId modifierId

Relationships

- *sourceId*: refers to the concept being defined by this relationship
- *typeId*: refers to the concept representing the type of the defining attribute in this relationship
- *destinationId*: refers to the concept representing the value of the defining attribute in this relationship



Relationships

- *relationshipGroup*: specifies whether the relationship is part of a relationship group
 - Apply to the relationships with the same sourceId
 - 0: Relationship is not grouped
 - >0: Relationship is grouped with other relationships with the same value
- *characteristicTypeId*: indicates if the relationship is
 - stated
 - inferred
 - additional
- *modifierId*: indicates the description logic restriction of the relationship
 - some

Relationship
id effectiveTime active moduleId
sourceId destinationId relationshipGroup typeId characteristicTypeId modifierId

id	...	source-Id	destinationId	relationship-Group	typeld	characteristic-TypeId	modifier-Id
101394027	...	281794004	54150009	0	116680003	900000000000011006	900000000000451002
1661817020	...	281794004	312133006	0	116680003	900000000000011006	900000000000451002
3600883025	...	281794004	441862004	0	370135005	900000000000011006	900000000000451002
2258138025	...	281794004	58675001	0	363698007	900000000000011006	900000000000451002
611805029	...	281794004	49872002	0	246075003	900000000000011006	900000000000451002

| viral upper respiratory tract infection |

| upper respiratory infection |

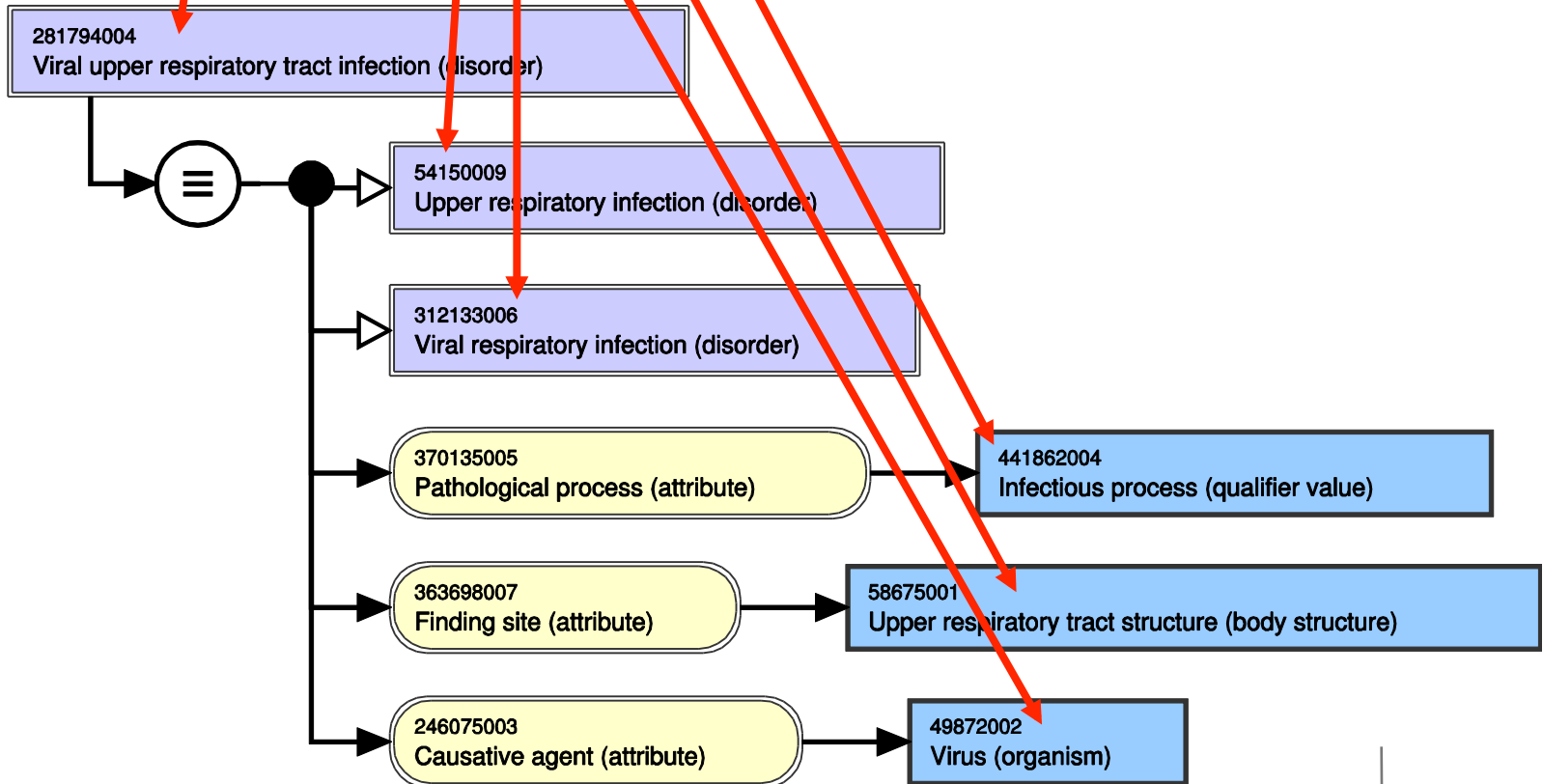
| viral respiratory infection |

| is a |

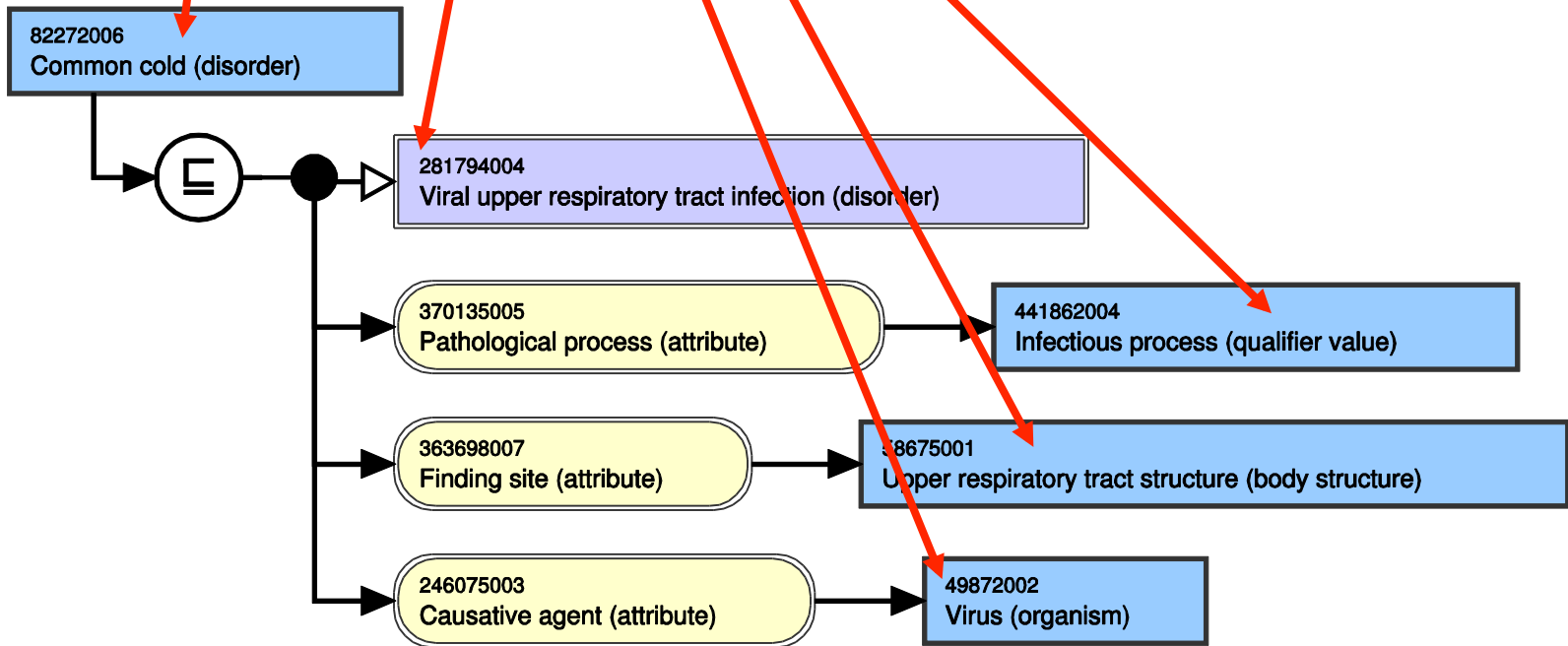
| inferred |

| some |

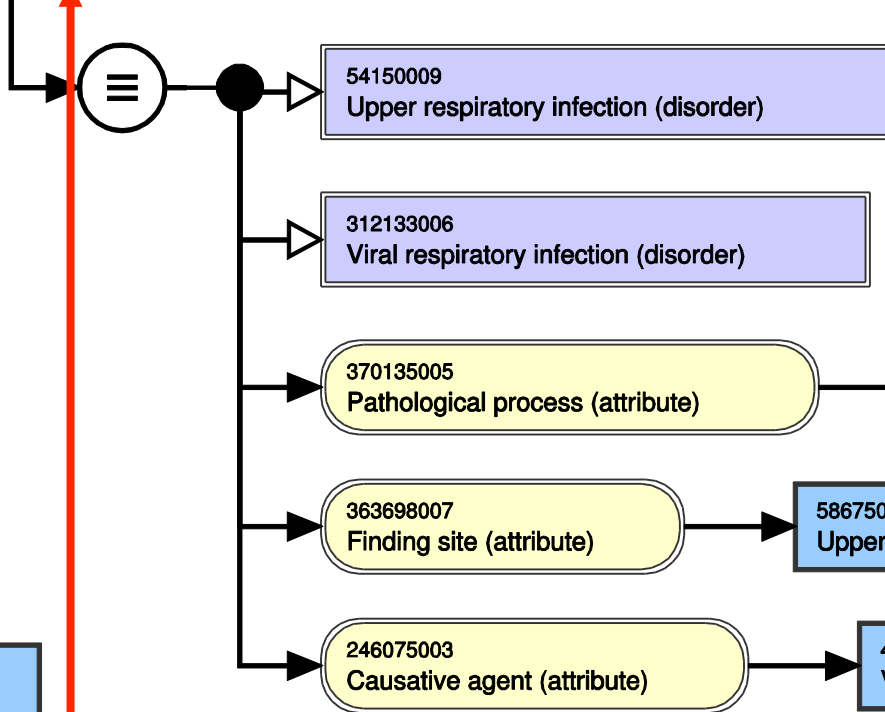
id	...	source-Id	destinationId	relationship-Group	typeld	characteristic-TypeId	modifier-Id
101394027	...	281794004	54150009	0	116680003	900000000000011006	900000000000451002
1661817020	...	281794004	312133006	0	116680003	900000000000011006	900000000000451002
3600883025	...	281794004	441862004	0	370135005	900000000000011006	900000000000451002
2258138025	..	281794004	58675001	0	363698007	900000000000011006	900000000000451002
611805029	..	281794004	49872002	0	246075003	900000000000011006	900000000000451002



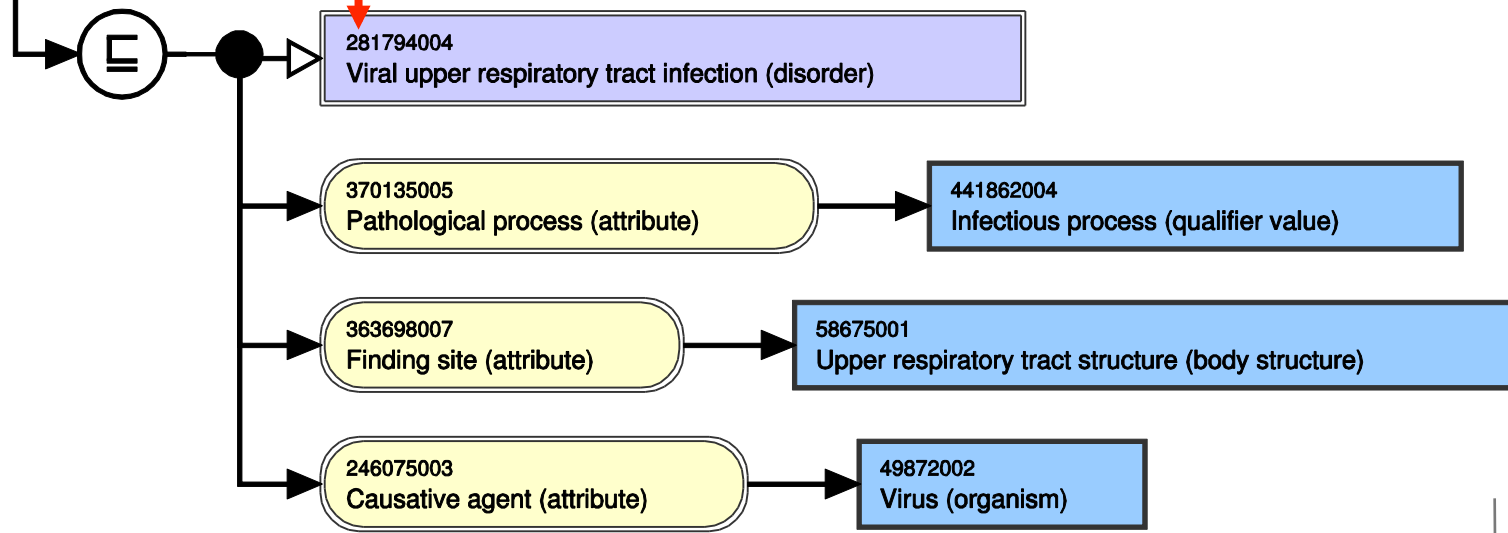
id	...	source-Id	destinationId	relationship-Group	typeld	characteristic-Typeld	modifier-Id
281705020	...	82272006	281794004	0	116680003	900000000000011006	900000000000451002
3596388023	...	82272006	441862004	0	370135005	900000000000011006	900000000000451002
2270423020	...	82272006	58675001	0	363698007	900000000000011006	900000000000451002
879545029	..	82272006	49872002	0	246075003	900000000000011006	900000000000451002



281794004
Viral upper respiratory tract infection (disorder)



82272006
Common cold (disorder)



281794004
Viral upper respiratory tract infection (disorder)

370135005
Pathological process (attribute)

441862004
Infectious process (qualifier value)

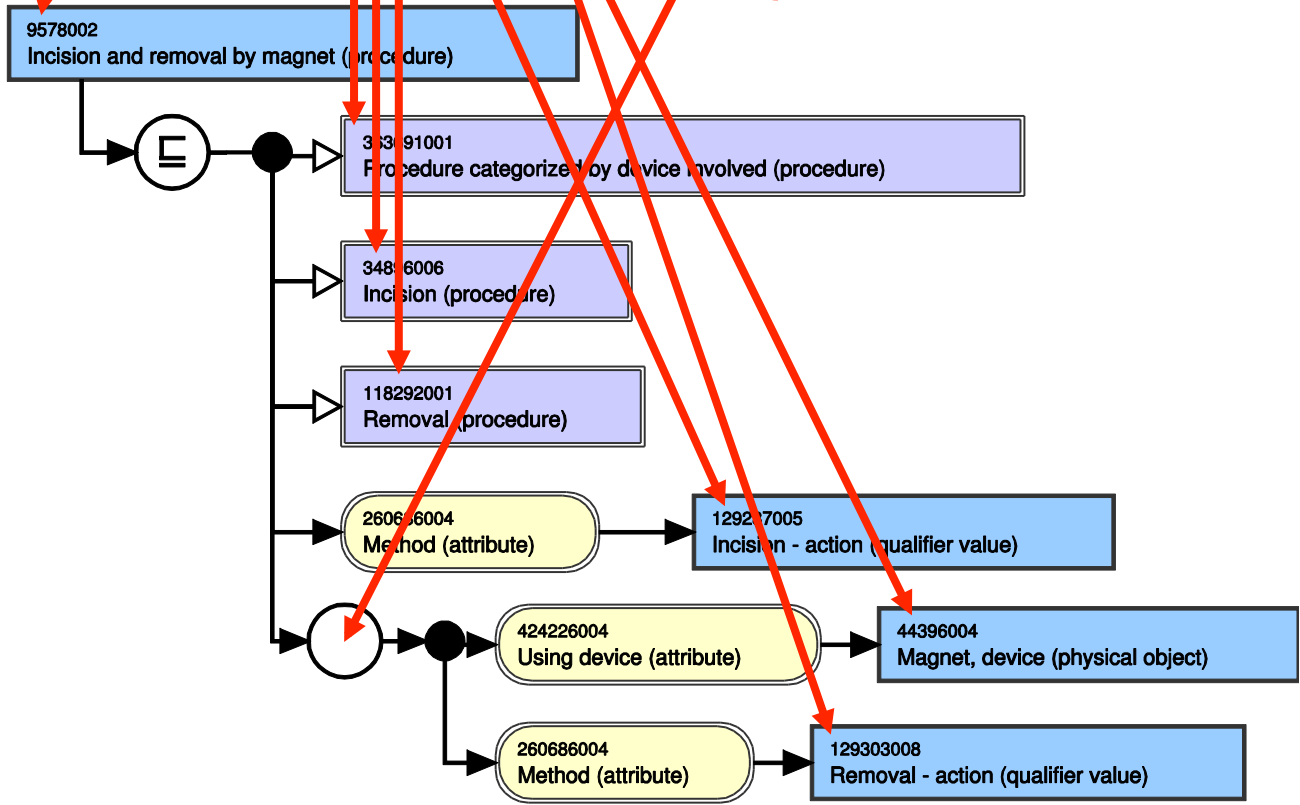
363698007
Finding site (attribute)

58675001
Upper respiratory tract structure (body structure)

246075003
Causative agent (attribute)

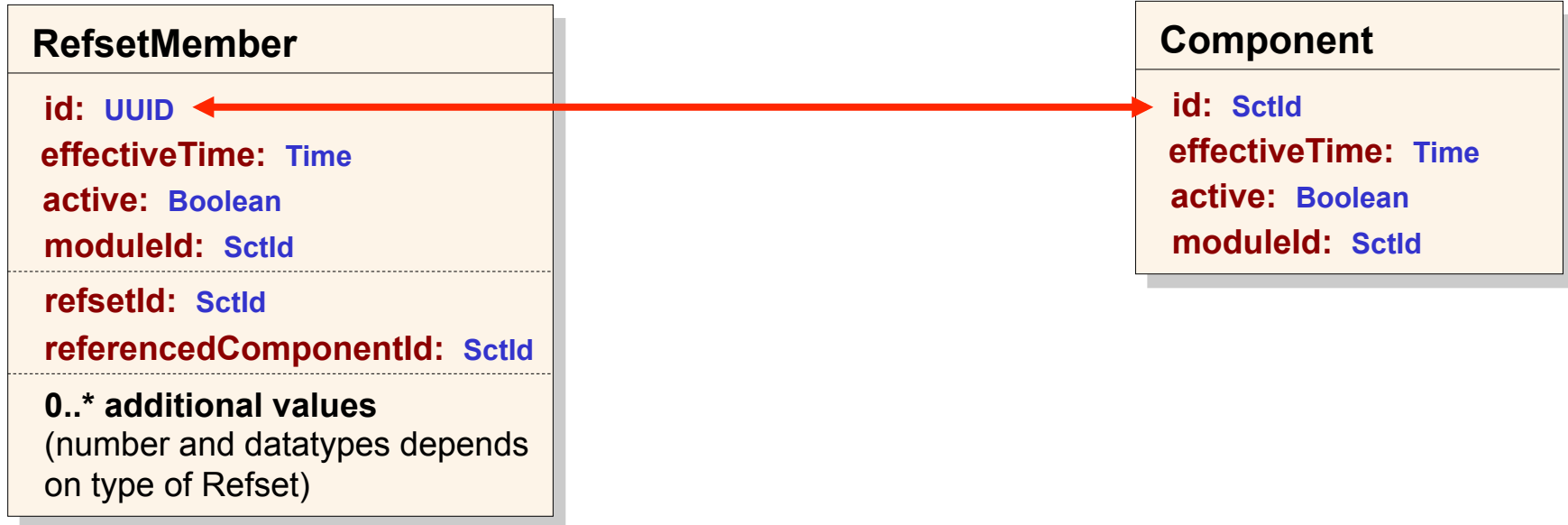
49872002
Virus (organism)

id	...	source-Id	destinationId	relationship-Group	typeld	characteristic- Typeld	modifier-Id
2553426023	...	9578002	363691001	0	116680003	90000000000011006	900000000000451002
307830021	...	9578002	34896006	0	116680003	90000000000011006	900000000000451002
3219834023	...	9578002	118292001	0	116680003	90000000000011006	900000000000451002
930913029	...	9578002	129287005	0	260686004	90000000000011006	900000000000451002
3054285024	...	9578002	44396004	1	424226004	90000000000011006	900000000000451002
3515321028	...	9578002	129303008	1	260686004	90000000000011006	900000000000451002



REFERENCE SETS (REFSETS)

Logical Model of Reference Sets



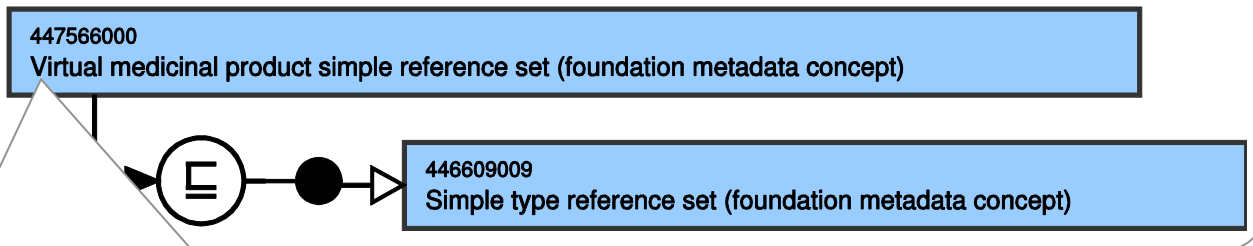
Simple type reference set

- This refset type is used to extensional define a subset of components (concepts, descriptions and relationships)
- The components can be specified for inclusion or exclusion for a specified purpose
- *refsetId*: identifies the refset and refers to a concept (including descriptions) providing name of the refset
- *referencedComponentId*: refers to a component that is a member of the refset

RefsetMember
id
effectiveTime
active
moduleId
refsetId
referencedComponentId

Simple type reference set

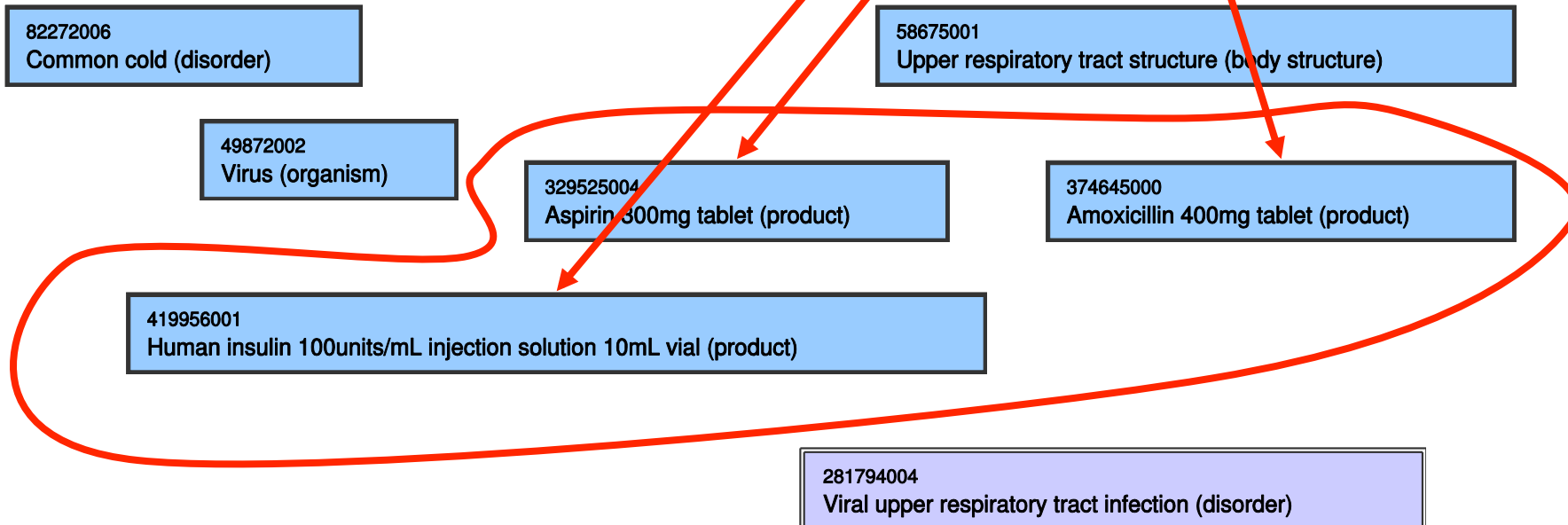
id	...	refsetid	referencedComponentId
2cb77ce9-ae3c-5e41-9133-e42b3e656fe6	...	447566000	374645000
a891c74a-4221-55f9-8eb6-cbb28d45065a	...	447566000	329525004
aef330cc-7908-5251-87af-fd16ae865345	...	447566000	419956001
...



“Chemicals and other substances of relevance to health and health care, including generic drug ingredient names and generic drug products”

Simple type reference set

Id	...	refsetId	referencedComponentId
2cb77ce9-ae3c-5e41-9133-e42b3e656fe6	...	447566000	374645000
a891c74a-4221-55f9-8eb6-cbb28d45065a	...	447566000	329525004
aef330cc-7908-5251-87af-fd16ae865345	...	447566000	419956001
...



Language Reference Set

- This refset type is used to indicate which descriptions contain terms that are acceptable or preferred in a particular language or dialect
- The refset type is similar to the Simple type refset except the `acceptabilityId`
- *acceptabilityId*: indicating whether the description is acceptable or preferred for use in the specified language or dialect.
 - preferred
 - acceptable

RefsetMember
id
effectiveTime
active
moduleId
refsetId
referencedComponentId
acceptabilityId

id	...	conceptId	language-Code	typeld	term	...
821274010	...	80146002	en	900000000000003001	Appendectomy (procedure)	...
132973012	...	80146002	en	900000000000013009	Appendicectomy	...
132972019	...	80146002	en	900000000000013009	Excision of appendix	...
132967011	...	80146002	en	900000000000013009	Appendectomy	...
1039197011	...	80146002	es	90000000000003001	apendicectomía (procedimiento)	...
1039195015	...	80146002	es	900000000000013009	apendicectomía	...
2147791000052111	...	80146002	sv	900000000000013009	appendektomi	...

80146002
Appendectomy (procedure)

80146002
apendicectomía (procedimiento)

80146002
appendektomi

80146002
Appendicectomy

80146002
apendicectomía

80146002
Excision of appendix

80146002
Appendectomy

id	...	conceptId	language-Code	typeId	term	...
821274010	...	80146002	en	900000000000003001	Appendectomy (procedure)	...
132973012	...	80146002	en	900000000000013009	Appendicectomy	...
132972019	...	80146002	en	900000000000013009	Excision of appendix	...
132967011	...	80146002	en	900000000000013009	Appendectomy	...

Id	...	refsetId	referencedComponentId	acceptabilityId
a354ae24-00f2-59f7-a201-030fe4eb90b6	...	900000000000508004	821274010	900000000000548007
0c66f2a2-2bd3-5bc7-8f57-e0969eae990e	...	900000000000508004	132973012	900000000000548007
b5e47e41-7c43-5c51-8a2f-640c0bed8c70	...	900000000000508004	132972019	900000000000549004
2d1c9b2d-5bb5-5eec-9190-09c946241f5f	...	900000000000509007	821274010	900000000000548007
b676caba-8ee0-5cb5-8c94-8bc03fa14587	...	900000000000509007	132967011	900000000000548007
979d5059-a9c7-585c-acda-58a4ff1fb332	...	900000000000509007	132972019	900000000000549004

| Great Britain English language referen

| United States of America English language reference set |

| preferred |

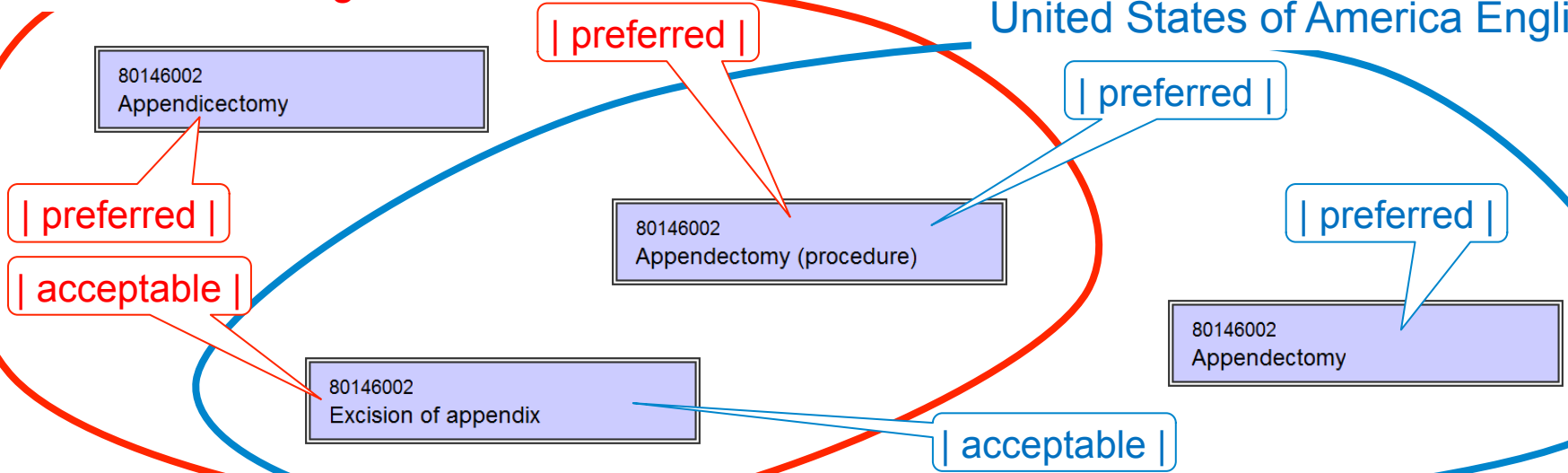
| acceptable |

id	...	conceptId	language-Code	typeld	term	...
821274010	...	80146002	en	900000000000003001	Appendectomy (procedure)	...
132973012	...	80146002	en	900000000000013009	Appendicectomy	...
132972019	...	80146002	en	900000000000013009	Excision of appendix	...
132967011	...	80146002	en	900000000000013009	Appendectomy	...

Id	...	refsetId	referencedComponentId	acceptabilityId
a354ae24-00f2-59f7-a201-030fe4eb90b6	...	900000000000508004	821274010	900000000000548007
0c66f2a2-2bd3-5bc7-8f57-e0969eae990e	...	900000000000508004	132973012	900000000000548007
b5e47e41-7c43-5c51-8a2f-640c0bed8c70	...	900000000000508004	132972019	900000000000549004
2d1c9b2d-5bb5-5eec-9190-09c946241f5f	...	900000000000509007	821274010	900000000000548007
b676caba-8ee0-5cb5-8c94-8bc03fa14587	...	900000000000509007	132967011	900000000000548007
979d5059-a9c7-585c-acda-58a4ff1fb332	...	900000000000509007	132972019	900000000000549004

Great Britain English

United States of America English



Annotation Reference Set

- Allows text strings to be associated with components for any specified purpose
- Specific attributes
 - *referencedComponentId (SCTID)*: the component to be annotated
 - *annotation (String)*: the text annotation to attach to the component

Simple Map Reference Set

- Allows representation of simple maps between SNOMED CT concepts and values in other code systems
- Usually only appropriate for “one-to-one” mappings
- “Many-to-one”, “one-to-many” and “many-to-many” mappings possible, but often less useful
- Specific attributes
 - *referencedComponentId (SCTID)*: the concept being mapped
 - *mapTarget (String)*: the code in the other code system

Attribute Value Reference Set

- Allows a value from a specified range to be associated with a component
- Can be used for a range of purposes
- Can be used to indicate the reason why a concepts has been inactivated
 - duplicate, outdated, ambiguous, erroneous, limited ...
- Specific attributes
 - *referencedComponentId (SCTID)*: the component being tagged with a value
 - *valueId (SCTID)*: the tagged value

Association Reference Set

- Represents a set of unordered associations of a particular type between components
- Several historical association reference sets exists
 - Possibly equivalent to
 - Same as
 - Replaced by
 - ...
- Specific attributes
 - *referencedComponentId (SCTID)*: the source component of the association
 - *targetComponentId (SCTID)*: the target component of the association

Ordered Reference Set

- Allows a collection of components to be defined with a priority ordering
- Can also be used to specify ordered associations between different components
- Specific attributes
 - *referencedComponentId (SCTID)*: the component that is included in the ordered list
 - *order (Integer)*: the sort order. 1 represents the highest priority. Duplicate values are permitted.
 - *linkedTold (SCTID)*: the component that acts as a grouper or hierarchy node, collecting together a subgroup from within the list.

Module Dependency Reference Set

- Represents dependencies between different SNOMED CT release modules
- The dependency indicates which version of each particular module a given version of the dependent module requires
- Specific attributes
 - *referencedComponentId (SCTID)*: the target module on which the dependent module (identified by moduleId) depends
 - *sourceEffectiveTime (Time)*: the effective time of the dependent source module (identified by moduleId)
 - *targetEffectiveTime (Time)*: the effective time of the target module required to satisfy the dependency (identified by referencedComponentId)

Module Dependency Reference Set

...	moduleId	refsetId	referenced-ComponentId	source-Effective-Time	target-Effective-Time
...	449080006	9000000000000534007	900000000000207008	20140131	20140131

| Module dependency reference set |

| SNOMED CT to ICD-10 rule-based mapping module |

| SNOMED CT core module |

Reference Set Descriptor

- Used to specify the format of all reference sets included in a release
 - The order of appearance of additional attributes
 - The name and purpose of the additional attributes
 - The data types for the additional attributes
- Specific attributes
 - *referencedComponentId (SCTID)*: the reference set specified by this descriptor
 - *attributeDescription (SCTID)*: the name of the attribute
 - *attributeType (SCTID)*: the data type of the attribute
 - *attributeOrder (Integer)*: the position of the attribute in the reference set. 0 identifies the referencedComponentId.

Reference Set Descriptor - GB English

| Description in dialect |

| Description type component |

...	refsetId	referenceComponentId	attribute-Description	attribute-Type	attribute-Order
...	900000000000456007	900000000000508004	900000000000510002	900000000000462002	0
...	900000000000456007	900000000000508004	900000000000511003	900000000000461009	1

| Concept type component |

| Acceptability |

| Great Britain English language reference set |

| Reference set descriptor reference set |

More reference set types

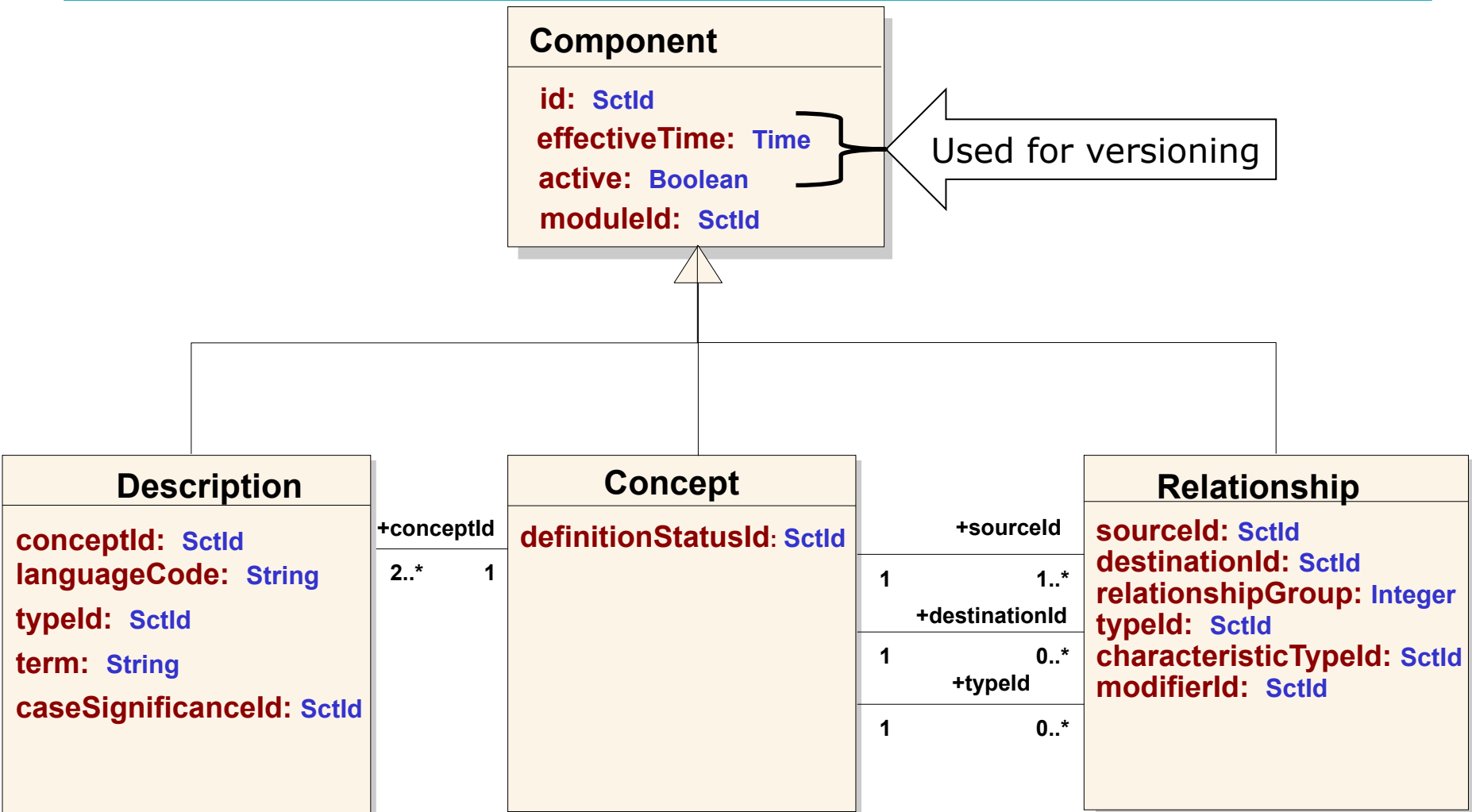
- **Complex and Extended Map Reference Sets**
 - Enables maps where each SNOMED CT concept may map to one or more codes in a target scheme
 - Supports target codes to be selected at run-time from a number of alternate codes
- **Query Specification Reference Set**
 - Allows a serialized query to represent the membership of a subset of components
 - The query is run against the content of SNOMED CT to produce a subset of components
 - A standard syntax for queries is currently under development
- **Description Format Reference Set**
 - Specifies the text format and maximum length of each supported description type

VERSIONING

Versioning

- The content in SNOMED CT is regularly updated
 - Keep the content up to date
 - Extend formal definitions
 - Correct errors
- The content is therefore versioned to keep track of the changes

Logical Model of SNOMED CT Content Components



Used for versioning

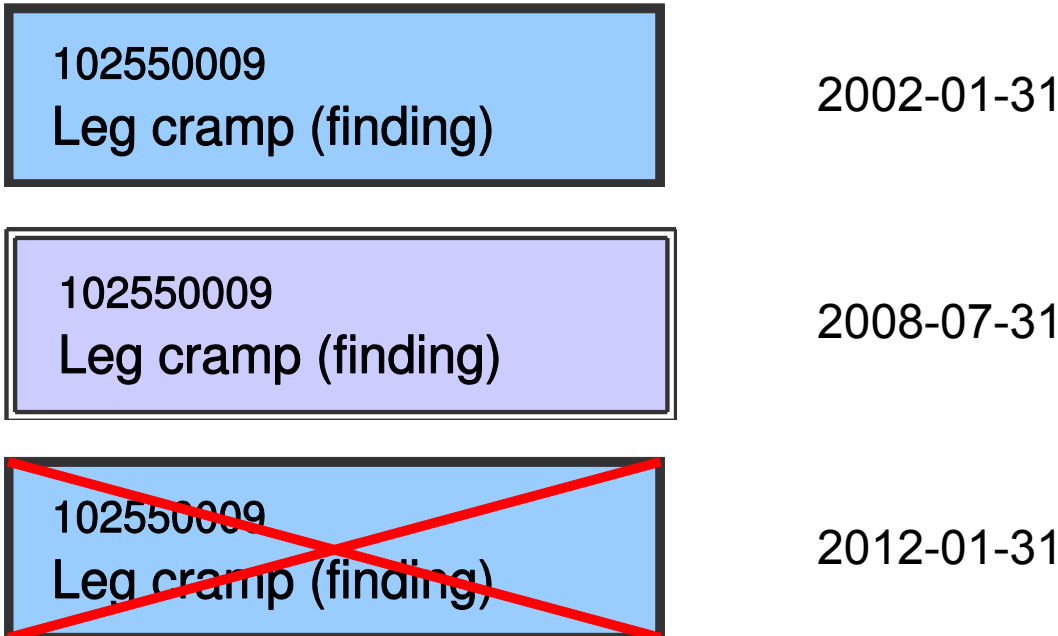
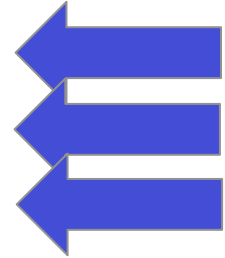
Component

- *effectiveTime*: specify the time this version of the component superseded previous version (if any)
- *active*: specify whether the component is for active use

Component
id: SctId effectiveTime: Time active: boolean moduleId: SctId

Versioned concept

id	effectiveTime	active	...	definitionStatusId
102550009	20020131	1	...	9000000000000074008
102550009	20080731	1	...	9000000000000073002
102550009	20120131	0	...	9000000000000074008



Component – mutable attributes

- *effectiveTime*: specify the time this version of the component superseded previous version (if any)
- *active*: specify whether the component is for active use
- *moduleId*: identifies the module this component is part of
 - Only transfer to “ancestor” modules allowed

Component

id: SctId
effectiveTime: Time
active: Boolean
moduleId: SctId

Concept – mutable attributes

- *definitionStatusId*: specifies if the concept is defined or primitive
 - The meaning of the concept is still the same

Concept
definitionStatusId: SctId

Description – mutable attributes

- *term*: contains the term itself
 - Permitted changes varies between different description types
 - FSN cannot be changed at all
 - Only small changes to other description types in international release
 - 71689002 | Right lateral ventricle structure | ->
71689002 | Right lateral ventricle structure |
- *caseSignificancelid*: specifies if the case of the letters is *only initial character case insensitive, case sensitive or case insensitive*
 - All kind of changes permitted

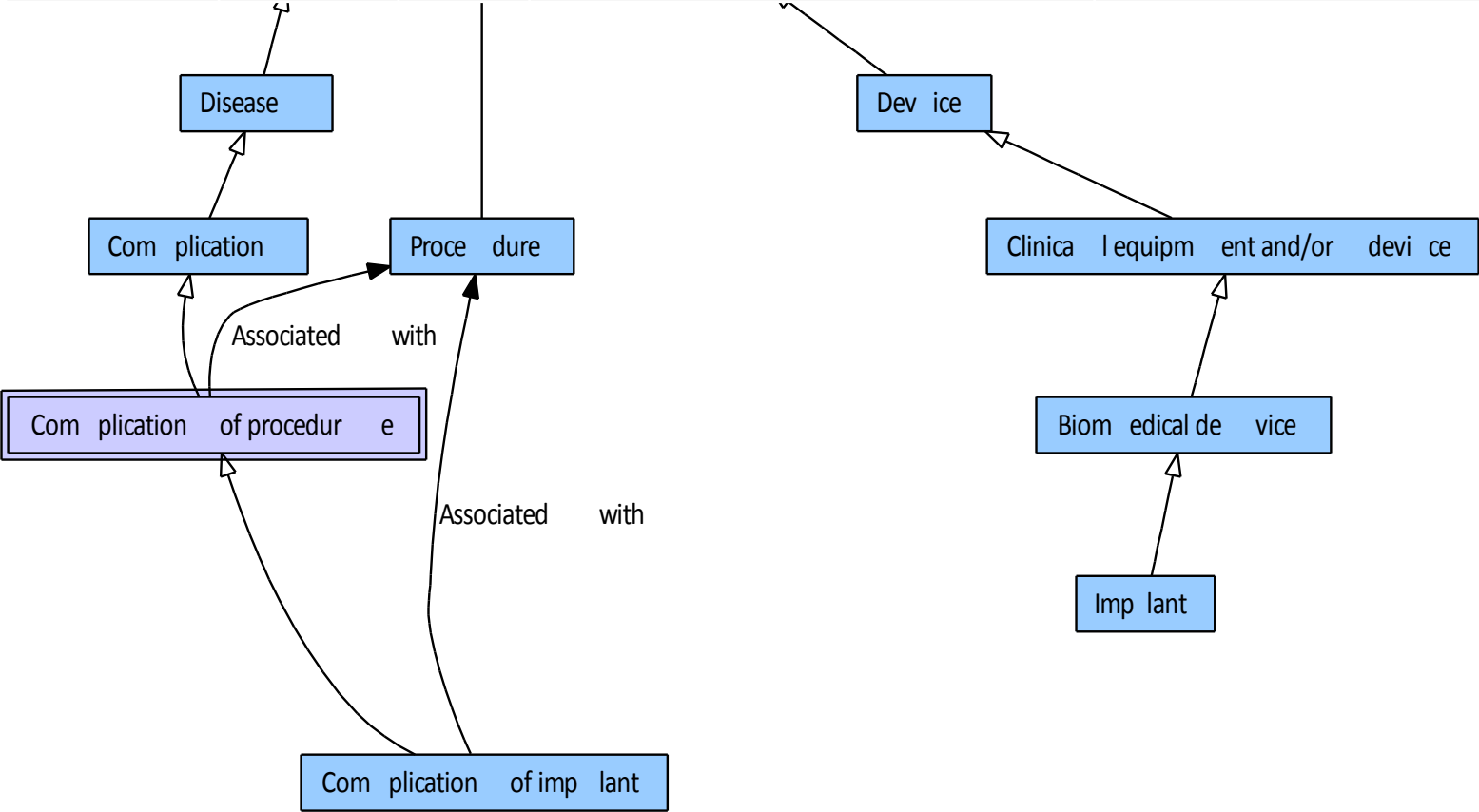
Description
conceptId: SctId languageCode: String typeId: SctId term: String caseSignificancelid: SctId

Relationship – mutable attributes

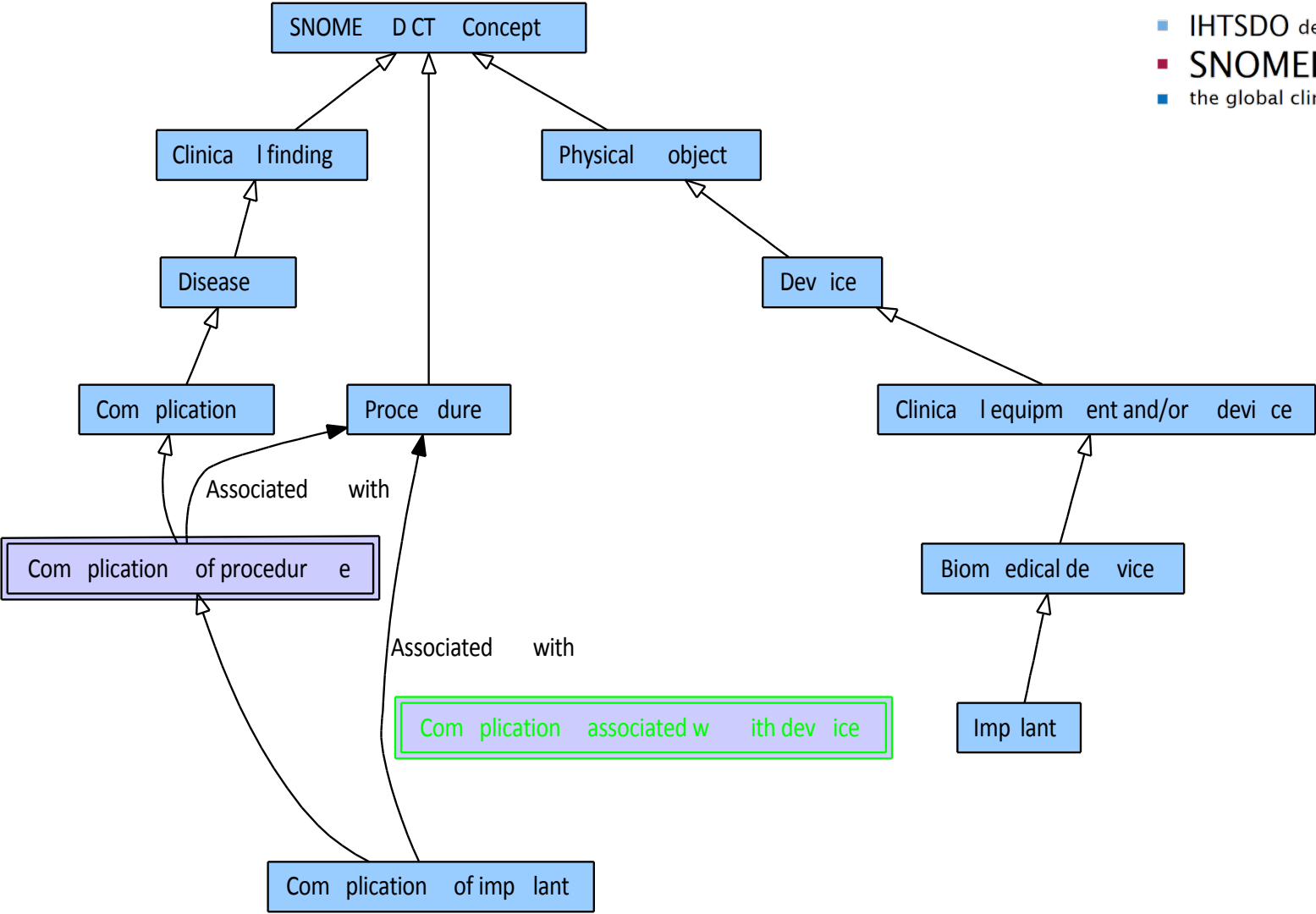
-

Relationship
sourceId: SctId destinationId: SctId relationshipGroup: Integer typeId: SctId characteristicTypeId: SctId modifierId: SctId

id	effectiveTime	active	sourceId	destinationId	typeId
2544471026	20040731	1	Complication of implant	Complication of procedure	Is a
3582939027	20090731	1	Complication of implant	Procedure	Associated with

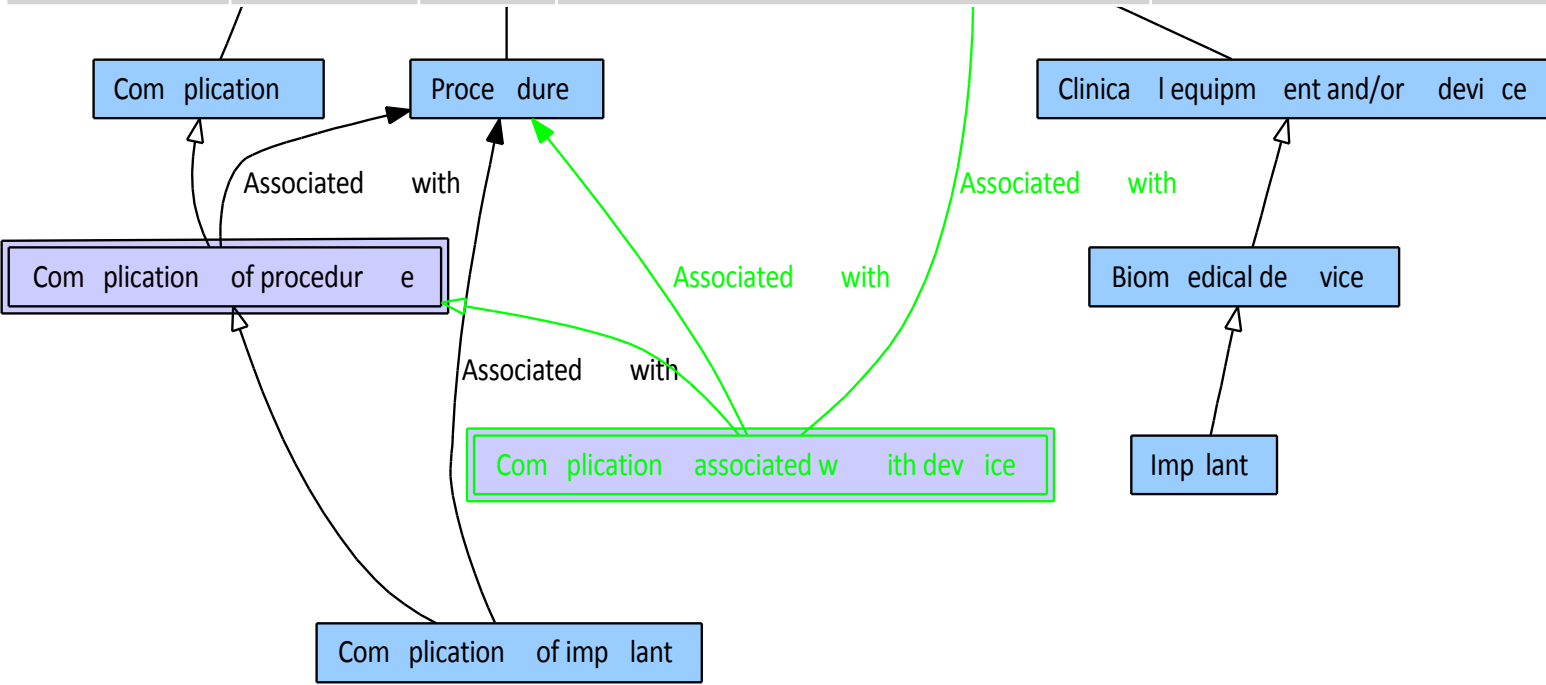


id	effectiveTime	active	definitionStatusId
Complication of implant	20090731	1	Primitive



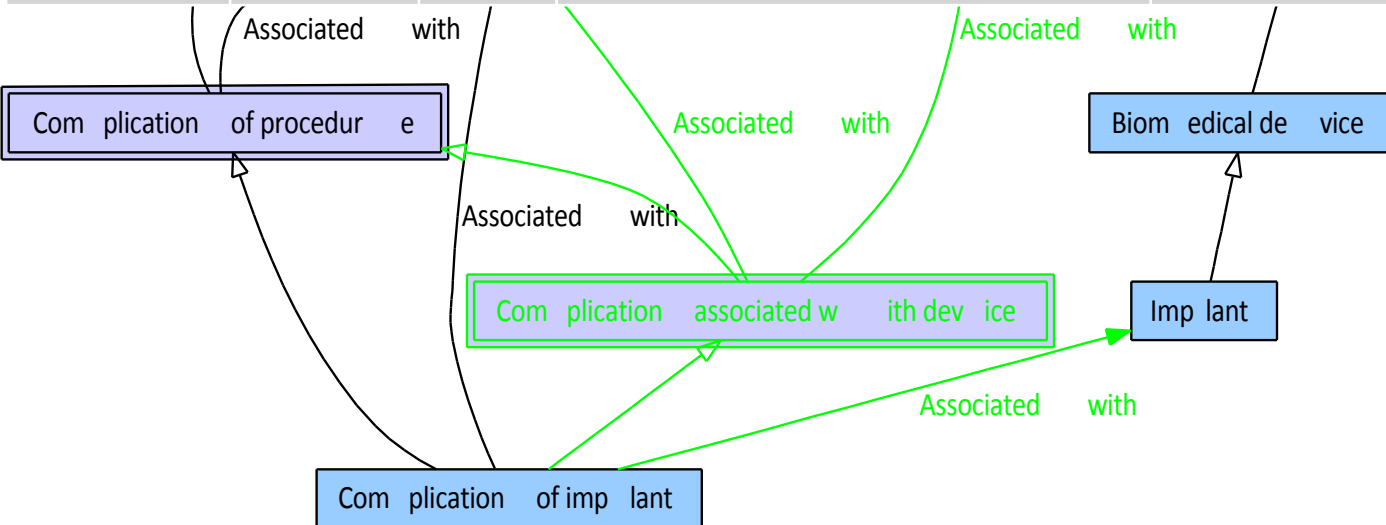
id	effectiveTime	active	definitionStatusId
Complication of implant	20090731	1	Primitive
Complication associated with device	20130131	1	Defined

id	effectiveTime	active	sourceId	destinationId	typeId
2544471026	20040731	1	Complication of implant	Complication of procedure	Is a
3582939027	20090731	1	Complication of implant	Procedure	Associated with
4679227026	20130131	1	Complication associated with device	Complication of procedure	Is a
4679229028	20130131	1	Complication associated with device	Device	Associated with
4679228020	20130131	1	Complication associated with device	Procedure	Associated with



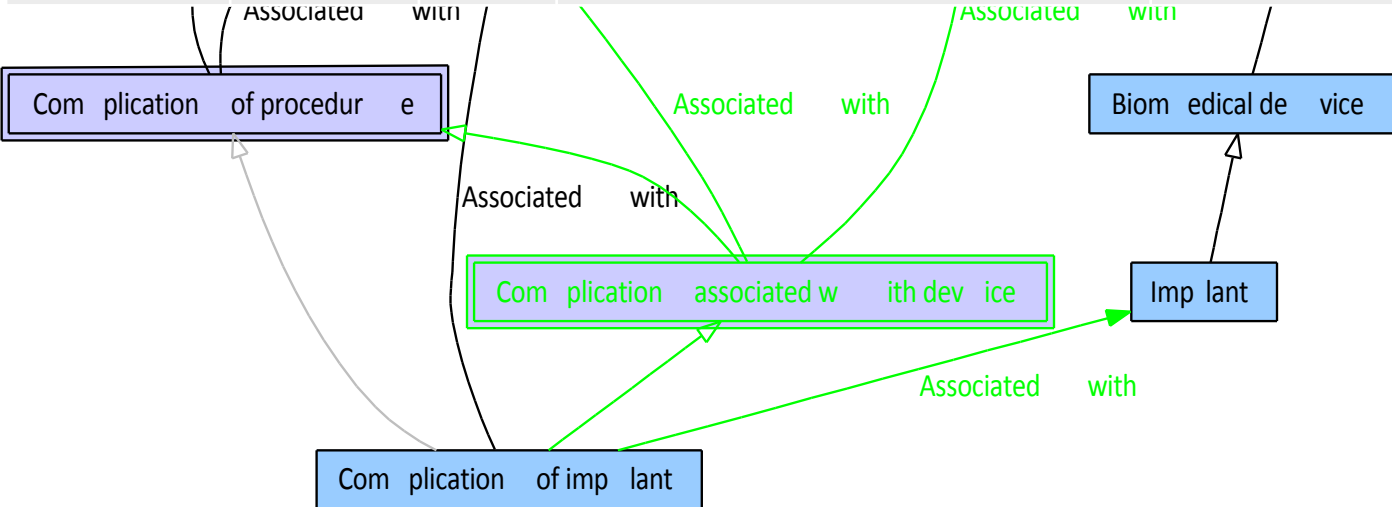
id	effectiveTime	active	definitionStatusId
Complication of implant	20090731	1	Primitive
Complication associated with device	20130131	1	Defined

id	effectiveTime	active	sourceId	destinationId	typeId
2544471026	20040731	1	Complication of implant	Complication of procedure	Is a
3582939027	20090731	1	Complication of implant	Procedure	Associated with
4679227026	20130131	1	Complication associated with device	Complication of procedure	Is a
4679229028	20130131	1	Complication associated with device	Device	Associated with
4679228020	20130131	1	Complication associated with device	Procedure	Associated with
4674894021	20130131	1	Complication of implant	Complication associated with device	Is a
4667484025	20130131	1	Complication of implant	Implant	Associated with

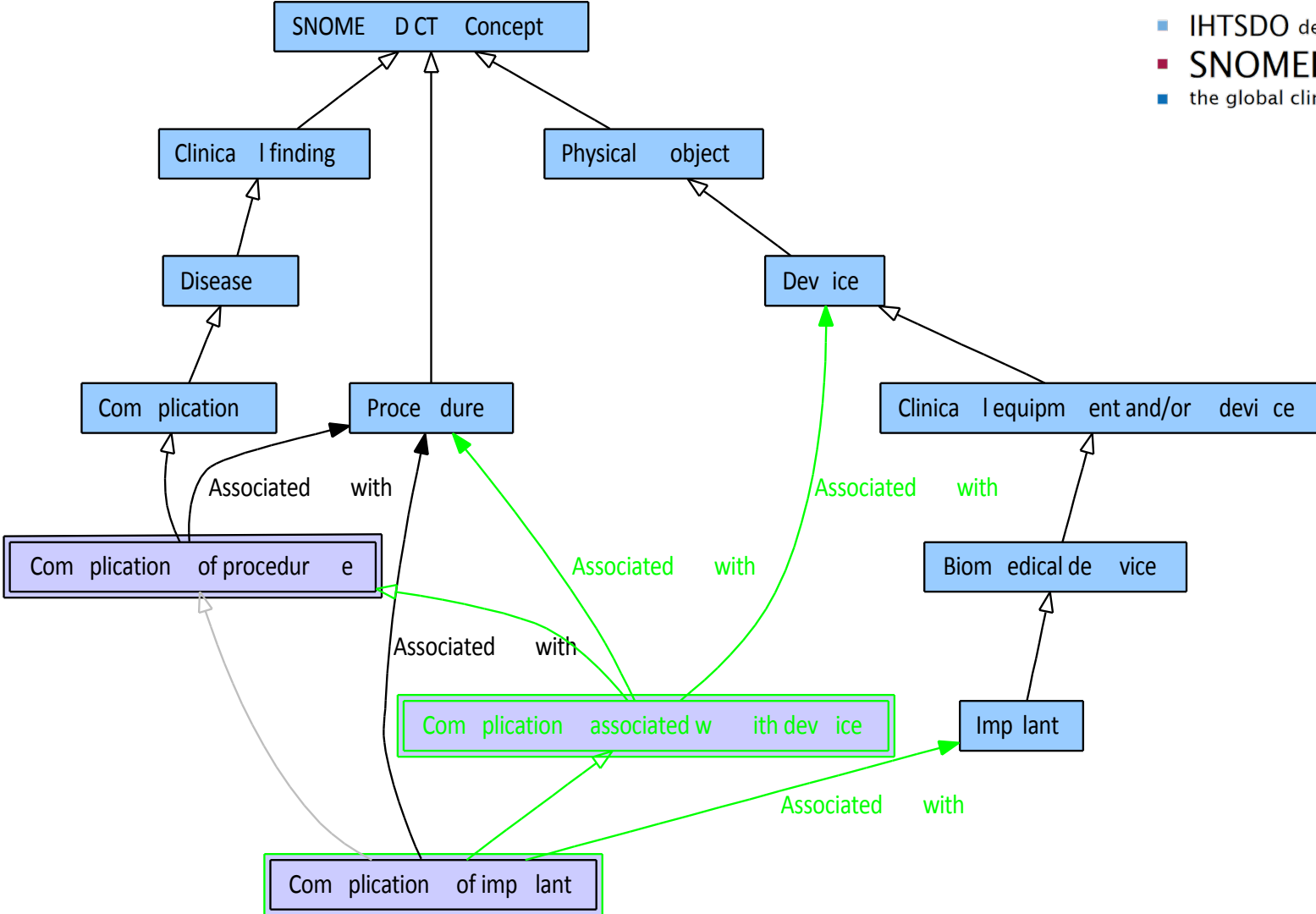


id	effectiveTime	active	definitionStatusId
Complication of implant	20090731	1	Primitive
Complication associated with device	20130131	1	Defined

id	effectiveTime	active	sourceId	destinationId	typeId
2544471026	20040731	1	Complication of implant	Complication of procedure	Is a
3582939027	20090731	1	Complication of implant	Procedure	Associated with
4679227026	20130131	1	Complication associated with device	Complication of procedure	Is a
4679229028	20130131	1	Complication associated with device	Device	Associated with
4679228020	20130131	1	Complication associated with device	Procedure	Associated with
4674894021	20130131	1	Complication of implant	Complication ...	Is a
4667484025	20130131	1	Complication of implant	Implant	Associated with
2544471026	20130131	0	Complication of implant	Complication of procedure	Is a



id	effectiveTime	active	definitionStatusId
Complication of implant	20090731	1	Primitive
Complication associated with device	20130131	1	Defined



id	effectiveTime	active	definitionStatusId
Complication of implant	20090731	1	Primitive
Complication associated with device	20130131	1	Defined
Complication of implant	20130131	1	Defined

Meaning of the active field

Component	active	Description of behavior
Concept	True	<ul style="list-style-type: none">•The concept is intended for active use• All active descriptions that refers to this concept are valid
Concept	False	<ul style="list-style-type: none">• The concept is not intended for active use• The concept remains a valid concept for historical purposes• Valid descriptions of the concept remain active
Description	True	<ul style="list-style-type: none">•The description is a valid description of the concept referred to•Text based searches should (by default) include only active descriptions that refer to active concepts
Description	False	<ul style="list-style-type: none">• The description is not valid and should no longer be regarded as being associated with the concept
Relationship	True	<ul style="list-style-type: none">•The relationship represents a valid association•Only active concepts can be the sourceId, destinationId or typeId of the relationship
Relationship	False	<ul style="list-style-type: none">•The relationship is not valid•The relationship may be inactive because it is redundant and inferable based on other active relationships•The relationship may refer to either active or inactive components

Release types

- Full release
 - containing the complete history of every component
- Snapshot release
 - containing the current state of every component
- Delta release
 - containing only the additions and changes since the previous release

Full release, 20130131

id	effectiveTime	active	definitionStatusId
Complication of procedure	20020131	1	Primitive
Complication of implant	20020131	1	Primitive
Complication of implant	20040731	1	Defined
Complication of procedure	20070131	1	Defined
Complication of implant	20090731	1	Primitive
Complication associated with device	20130131	1	Defined
Complication of implant	20130131	1	Defined

Snapshot release, 20130131

id	effectiveTime	active	definitionStatusId
Complication of procedure	20020131	1	Primitive
Complication of implant	20020131	1	Primitive
Complication of implant	20040731	1	Defined
Complication of procedure	20070131	1	Defined
Complication of implant	20090731	1	Primitive
Complication associated with device	20130131	1	Defined
Complication of implant	20130131	1	Defined

Delta release, 20130131

id	effectiveTime	active	definitionStatusId
Complication of procedure	20020131	1	Primitive
Complication of implant	20020131	1	Primitive
Complication of implant	20040731	1	Defined
Complication of procedure	20070131	1	Defined
Complication of implant	20090731	1	Primitive
Complication associated with device	20130131	1	Defined
Complication of implant	20130131	1	Defined

PACKAGING AND FILE NAMING CONVENTIONS

Terminology Data File in Release Format 2

Full release

ContentType element

English language

RF2 releases

File Naming Conventions

- Full
 - Terminology
 - sct2_Concept_Full_INT_20140731.txt
 - sct2_Description_Full-en_INT_20140731.txt
 - sct2_Identifier_Full_INT_20140731.txt
 - sct2_Relationship_Full_INT_20140731.txt
 - sct2_StatedRelationship_Full_INT_20140731.txt
 - sct2_TextDefinition_Full-en_INT_20140731.txt
 - Refset

...

IHTSDO International Release
in the International Namespace

Version date 2014-07-31

RF2

Refset
c: component
s: String
i: Integer

...

- Refset
 - Content
 - der2_Refset_SimpleFull_INT_20140731.txt
 - der2_cRefset_AssociationReferenceFull_INT_20140731.txt
 - der2_cRefset_AttributeValueFull_INT_20140731.txt
 - Language
 - der2_cRefset_LanguageFull-en_INT_20140731.txt
 - Map
 - der2_iissscRefset_ComplexMapFull_INT_20140731.txt
 - der2_iissscRefset_ExtendedMapFull_INT_20140731.txt
 - der2_sRefset_SimpleMapFull_INT_20140731.txt
 - Metadata
 - der2_cciRefset_RefsetDescriptorFull_INT_20140731.txt
 - der2_ciRefset_DescriptionTypeFull_INT_20140731.txt
 - der2_ssRefset_ModuleDependencyFull_INT_20140731.txt

Snapshot release

RF2Release

- Snapshot
 - Terminology
 - sct2_Concept_Snapshot_INT_20140731.txt
 - sct2_Description_Snapshot-en_INT_20140731.txt
 - sct2_Identifier_Snapshot_INT_20140731.txt
 - sct2_Relationship_Snapshot_INT_20140731.txt
 - sct2_StatedRelationship_Snapshot_INT_20140731.txt
 - sct2_TextDefinition_Snapshot-en_INT_20140731.txt

RF2Release

- Snapshot
 - Refset
 - Content
 - der2_Refset_SimpleSnapshot_INT_20140731.txt
 - der2_cRefset_AssociationReferenceSnapshot_INT_20140731.txt
 - der2_cRefset_AttributeValueSnapshot_INT_20140731.txt
 - Language
 - der2_cRefset_LanguageSnapshot-en_INT_20140731.txt
 - Map
 - der2_iissscRefset_ComplexMapSnapshot_INT_20140731.txt
 - der2_iissscRefset_ExtendedMapSnapshot_INT_20140731.txt
 - der2_sRefset_SimpleMapSnapshot_INT_20140731.txt
 - Metadata
 - der2_cciRefset_RefsetDescriptorSnapshot_INT_20140731.txt
 - der2_ciRefset_DescriptionTypeSnapshot_INT_20140731.txt
 - der2_ssRefset_ModuleDependencySnapshot_INT_20140731.txt

Delta release

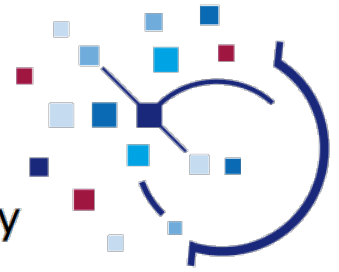
RF2Release

- Delta
 - Terminology
 - sct2_Concept_Delta_INT_20140731.txt
 - sct2_Description_Delta-en_INT_20140731.txt
 - sct2_Identifier_Delta_INT_20140731.txt
 - sct2_Relationship_Delta_INT_20140731.txt
 - sct2_StatedRelationship_Delta_INT_20140731.txt
 - sct2_TextDefinition_Delta-en_INT_20140731.txt

RF2Release

- Delta
 - Refset
 - Content
 - der2_Refset_SimpleDelta_INT_20140731.txt
 - der2_cRefset_AssociationReferenceDelta_INT_20140731.txt
 - der2_cRefset_AttributeValueDelta_INT_20140731.txt
 - Language
 - der2_cRefset_LanguageDelta-en_INT_20140731.txt
 - Map
 - der2_iissscRefset_ComplexMapDelta_INT_20140731.txt
 - der2_iissscRefset_ExtendedMapDelta_INT_20140731.txt
 - der2_sRefset_SimpleMapDelta_INT_20140731.txt
 - Metadata
 - der2_cciRefset_RefsetDescriptorDelta_INT_20140731.txt
 - der2_ciRefset_DescriptionTypeDelta_INT_20140731.txt
 - der2_ssRefset_ModuleDependencyDelta_INT_20140731.txt

- IHTSDO delivering
- SNOMED CT[®]
- the global clinical terminology



Thank you for your attention

Questions?

- Contact IHTSDO: info@ihtsdo.org
- Web site: www.ihtsdo.org