**SNoMed Glossary, Hierarchy & Semantic Tags**

Glossary:

**Concept**

A concept is a header used to group together the different descriptions a term may have. Each concept consists of:-

**Unique concept ID** – this is a code, it may not be visible in your clinical system as it is only needed by the database to generate data.

**Description** – how we humans reference the condition

**Semantic tag** – this tells us more about the description, what type of information you would be adding.

**GP Subset**

The group of SNoMed Clinical Terms that have an equivalent code in the current coding system – ie in Read or CTV3

**Hierarchy**

*Definition*: A system in which items are ranked according to relative status or authority.

This is the structure that SNoMed is organized. This appendix lists all the 19 SNOMED CT hierarchies with a brief description. They are ordered by their general use; with those most relevant first. Some of these are not advised to be available for clinicians to enter in the record. The expected use is indicated by the heading of the section. The examples include all the semantic tags in use

**Mapping**

This is the process of connecting Read Codes to SNoMed codes.

**Phenomena**

*Definition*: a fact or situation that is observed to exist or happen

This is used to describe Clinical Findings

**Semantic Tag**

*Definition*: relating to meaning in language or logic

Each Fully Specified Name (FSN) term ends with a "semantic tag" in brackets Eg:

233604007 Pneumonia **(disorder)**

The semantic tag indicates the category to which the concept belongs (e.g. *clinical finding, disorder, procedure, organism, person, etc*.) and helps to distinguish one concept from another, especially where descriptions are very similar. Eg:-

129003000 Dressing (observable entity) *- meaning someone is able to dress themselves*

3895009 Application of dressing (procedure) *- meaning to dress a wound.*

This is probably the most important part of SNoMed. You need to ensure the semantic tag (SNoMed Concept type) is correct to ensure you are adding the correct type of information. There are 36 types and can be found in the attached lists

**SNoMed CT**

**S**ystematized **No**menclature of **Med**icine – **C**linical **T**erms.

**Synonym**

*Definition***:** a word or phrase that means exactly or nearly the same as another word or phrase in the same language, for example *shut* is a synonym of *close*.

**SNoMed Hierarchy**

1. **Regularly used in clinical records without further elaboration:**

|  |  |  |
| --- | --- | --- |
| **Hierarchy**  | **Description**  | **Examples**  |
| **Clinical finding**  | ***What phenomena is found*** Contains the sub-hierarchies of Finding (symptoms) and Disease. *Important for documenting clinical disorders, symptoms and examination findings.*  | * Pneumonia **(disorder)**
* Depression (disorder)
* Swelling of arm **(finding)**
* Normal breath sounds (finding)
* Headache (finding)
* Tired all the time (finding)
 |
| **Procedure**  | ***What is being done*** Purposeful activities performed in the provision of health care.  | * **Dressing of skin** **(procedure)**
* Diet education (procedure)
* Ref to paediatrician (procedure)
* Review of medication (procedure)
* Feeding regime **(regime/therapy)**
 |
| **Observable Entity**  | ***A Quantitative Observation*** Terms that are used to record numerical results, measurements, readings etc  | * **Body weight** **(observable entity)**
* **Ability to Dress** (observable entity)
* BMI (observable entity)
* Gender (observable entity),
* Serum bilirubin level (observable entity)
 |
| **Situation with Explicit Context**  | ***Phrases that need to be recorded in the patient record but change the default context.*** So for example, about another family member, is absent, has happened in the past. (*Note*. See glossary for **DEFAULT CONTEXT**)  | * Family history of stroke **(situation)**
* No nausea (situation)
* Referral to psychiatrist declined (situation)
* Suspected sepsis (situation)
* Both parents smoke (situation)
 |
| **Social Context**  | ***Non clinical demographic information*** Contains social conditions and circumstances significant to healthcare. Includes family and economic status, ethnic and religious heritage, and life style and occupations. | * Asian **(ethnic group)**
* Elderly parents **(family)** (person)
* Thief **(life style)**
* Clerical supervisor **(occupation)**
* Donor **(person)**
* Hispanic **(racial group)**
* Judaism **(religion/philosophy)**
* Economic status **(social concept)**
 |
| **Event**  | ***What is taking place*** Describes the situation around the individual at a specific time which is relevant to their healthcare. *This does not include procedures or interventions which are in the* ***Procedure*** *hierarchy.*  | * Exposure to measles virus (event)
* Fall (event)
* Death (event)
* Flash flood **(event)**
* Motor vehicle accident (event)
 |
| **Pharmaceutical / biologic product**  | ***A drug or other substance that is used to treat a patient*** This hierarchy is separate from the substance hierarchy in order to clearly distinguish drug products (products) from the chemical constituents (substances) of drug products.  | * Tamoxifen **(product)**
* Tramadol (product)
* Paracetamol 500mg (product)
* Multivitamin tablet (product)
* Anadin Extra soluble tablets (product)
 |

1. **Used in clinical records, but usually require additional context:**

|  |  |  |
| --- | --- | --- |
| **Hierarchy**  | **Description**  | **Examples**  |
| **Body Structure**  | ***Normal & abnormal anatomical body structure*** Abnormal structures are represented in a sub-hierarchy as morphologic abnormalities.  | * Structure of thyroid **(body structure)**
* Skin cell **(cell)**
* Neoplasm **(morphologic abnormality)**
 |
| **Organism**  | ***An organism of significance in human medicine*** such as animal, bacteria, fungus, or plant.  | * Mycobacterium tuberculosis **(organism)**
* Candida albicans (organism)
* Atropa belladonna (organism)
 |
| **Physical Object**  | ***A tangible and visible object*** Includes natural and man-made objects focusing on those associated with healthcare.  | * **Dressing 4cmx5cm** (physical object)
* Suture needle **(physical object)**
* Vena cava filter (physical object)
* Colostomy bag (physical object)
 |
| **Substance**  | ***Non-living and chemical materials*** Includes foods, nutrients, allergens and materials.*Used to record the active chemical constituents of all drug products*.  | * Dust **(substance)**
* Testosterone (substance)
* Haemoglobin antibody (substance)
* Methane (substance)
* Codeine phosphate (substance)
 |
| **Specimen**  | ***A specimen for observation, study, testing or evaluation*** Represents entities that are obtained for examination or analysis, usually from a patient.  | * Nail specimen **(specimen)**
* Pus specimen (specimen)
* Calculus specimen (specimen)
* Specimen from patient (specimen)
 |

1. **Used in clinical records to provide context to other terms:**

|  |  |  |
| --- | --- | --- |
| **Hierarchy**  | **Description**  | **Examples**  |
| **Physical Force**  | ***The influence that causes an object to undergo a change*** Includes motion, friction, electricity, sound, radiation, thermal forces and air pressure. *Other categories are directed at categorizing mechanisms of injury.*  | * Friction **(physical force)**
* Fire (physical force)
* Gravity (physical force)
* Pressure change (physical force)
 |
| **Environment or Geographical Location**  | ***An identifiable place*** Includes all types of environments as well as named locations such as countries, counties, and regions.  | * Intensive Care Unit **(environment)**
* Out of hours service care setting (environment)
* Cancer hospital (environment)
* Cornwall **(geographical location)**
 |
| **Staging and Scales**  | ***Assessment scales*** Includes naming assessment scales and tumour staging systems. Used to indicate the scale used.  | * Glasgow coma scale **(assessment scale)**
* Alcohol use inventory (assessment scale)
* Breathlessness rating **(staging scale)**
* Dukes staging system **(tumour staging)**
 |
| **Qualifier Value**  | ***A word or phrase that, along with a linkage concept, adds detail to the term*** Contains terms such as left and right, that add further detail to a concept *eg. ‘fracture of neck of femur’ with a ‘laterality’ of ‘****left****’ (‘****left’*** *being the qualifier value, ‘laterality’ the linkage concept).*  | * Right **(qualifier value)**
* Reduced (qualifier value)
* Removal - action (qualifier value)
* Unit dose (qualifier value)
* Mild (qualifier value)
 |
| **Linkage Concept**  | ***A word or phrase that, along with a qualifier value, adds detail to the term*** e.g. Heart attack **severity** acute; Leg **laterality** left. *Note. used with qualifier values or other terms such as body structure.*  | * Finding site **(attribute)**
* Method (attribute)
* Laterality (attribute)
* Has explanation **(link assertion)**
 |

**d) May be in historical records but not recommended for clinical data entry:**

|  |  |  |
| --- | --- | --- |
| **Hierarchy**  | **Description**  | **Examples**  |
| **Special Concept**  | This has **two** sub hierarchies containing concepts which have been set aside from the other hierarchies.  | * **Inactive concept** – the supertype ancestor of all inactive concepts
* **Namespace Concept** – the supertype of all navigation concepts
* **Navigation concept** – the supertype of all navigation concepts
 |
| **Record Artifact**  | Reports and forms associated with the administrative delivery of healthcare. *Used by applications rather than the user.*  | * Disabled driver certificate administration **(record artifact)**
* Lloyd George record folder (record artifact)
 |

**Semantic tags and sub hierarchy tags**

|  |  |  |
| --- | --- | --- |
| **Top level hierarchy** | **Sub hierarchy tag** | **2 tag** |
| **Clinical Finding** | (disorder) |   |
|  | (finding) |   |
| **Procedure** | (procedure) |   |
|  | (regime/therapy) |   |
| **Event** | (event) |   |
| **Observable Entity** | (observable entity) |   |
| **Situation with explicit context** | (situation) |   |
| **Pharmaceutical / biologic product** | (product) |   |
| **Social Context** | (social concept) |   |
|  | (person) |   |
|  | (ethnic group) |   |
|  | (racial group) |   |
|  | (religion/philosophy) |   |
|  | (occupation) |   |
|  | (life style) |   |
|  | (family) |   |
| **Body Structure** | (body structure) | (cell) |
|  | (morphologic abnormality) |   |
| **Organism** | (organism) |   |
| **Physical Object** | (physical object) |   |
| **Substance** | (substance) |   |
| **Specimen** | (specimen) |   |
| **Physical Force** | (physical force) |   |
| **Environment or geographical location** | (environment) |   |
|  | (geographic location) |   |
| **Staging and Scales** | (assessment scale) |   |
|  | (tumor staging) |   |
|  | (staging scale) |   |
| **Qualifier value** | (qualifier value) |   |
| **Linkage concept** | (attribute) |   |
|  | (link assertion) |   |
| **Special concept** | (inactive concept) |   |
|  | (namespace concept) |   |
|  | (navigational concept) |   |
| **Record artifact** | (record artifact) |   |