## Contents

<table>
<thead>
<tr>
<th>Table of Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Introduction</strong></td>
</tr>
<tr>
<td>1.1 Background</td>
</tr>
<tr>
<td>1.2 Audience</td>
</tr>
<tr>
<td>1.3 Scope</td>
</tr>
<tr>
<td>1.4 Further information</td>
</tr>
<tr>
<td><strong>2. SNOMED CT</strong></td>
</tr>
<tr>
<td>2.1 What is SNOMED CT?</td>
</tr>
<tr>
<td>2.2 Why Use SNOMED CT?</td>
</tr>
<tr>
<td>2.3 Benefits of using SNOMED CT</td>
</tr>
<tr>
<td>2.4 Who develops and supports SNOMED CT?</td>
</tr>
<tr>
<td>2.5 New SNOMED CT requests</td>
</tr>
<tr>
<td>2.6 SNOMED CT updates</td>
</tr>
<tr>
<td>2.7 How is SNOMED CT Structured?</td>
</tr>
<tr>
<td>2.7.1 Concepts</td>
</tr>
<tr>
<td>2.7.2 Descriptions</td>
</tr>
<tr>
<td>2.7.3 Relationships</td>
</tr>
<tr>
<td>2.7.4 SNOMED CT Hierarchies</td>
</tr>
<tr>
<td>2.7.5 Subsets</td>
</tr>
<tr>
<td>2.8 Recording in SNOMED CT</td>
</tr>
<tr>
<td>2.9 Searching SNOMED CT</td>
</tr>
<tr>
<td>Term searching</td>
</tr>
<tr>
<td>Abbreviations and acronyms</td>
</tr>
<tr>
<td>Hierarchical searching</td>
</tr>
<tr>
<td>2.10 Reporting from SNOMED CT coded items</td>
</tr>
<tr>
<td><strong>3. Data translation between Coding Schemes</strong></td>
</tr>
<tr>
<td><strong>4. Support and Training</strong></td>
</tr>
<tr>
<td><strong>Appendix 1. SNOMED CT 19 hierarchies in detail</strong></td>
</tr>
</tbody>
</table>
1. Introduction

SNOMED CT is the clinical terminology chosen to replace Read codes within the NHS. This document provides a guide for General Practice on some of the key aspects of SNOMED CT. The guide is ‘generic’ in that it is intended to provide the fundamentals that support use with any general practice computer system that is licensed to use SNOMED CT. The reader should therefore bear in mind that the way SNOMED CT terms are, for example, actually selected will vary from system to system.

1.1 Background

Currently there are two versions of clinical codes (Read v2 and CTV3) in existence within general practice, so not all GP systems use the same coding system and they do not provide the sophisticated features now expected from a clinical terminology.

The NHS needs a single clinical terminology (SNOMED CT) in order for clinical data to be exchanged accurately and consistently across all care settings; this will enable better patient care and improve the analysis and reporting of clinical data.

Systems used by, or communicating coded clinical data to, General Practice service providers will use SNOMED CT as the clinical terminology within the system. The Principal Clinical System suppliers (GPSoC) are currently designing their systems for the use of SNOMED CT in general practice and are developing their deployment schedules. In order to minimise disruption at year-end, SNOMED CT will go live in primary care from April 2018 in a phased approach and the deployment rollout will not commence until the 2017/2018 end of year processes are completed for GP practices.

Secondary Care, Acute Care, Mental Health, Community systems and other systems used in the direct management of care of an individual are to use SNOMED CT before 1 April 2020, although a number already do use SNOMED CT.

SNOMED CT is an international terminology and this will enable the UK to participate more effectively in research and analysis of health information to support national and global health care improvements.

1.2 Audience

The intended audience is anyone who works in or with general practice and has an interest in the way clinical data is coded.

1.3 Scope

The document explains in the simplest of terms the key aspects of SNOMED CT. Out of scope are a detailed account of the older terminologies Read v2 and CTV3.

1.4 Further information

This document is provided by the SNOMED CT in Primary Care project within NHS Digital. Any questions arising from the content of this document or requests for further information can be sent
2. SNOMED CT

2.1 What is SNOMED CT?

SNOMED CT is a collection of clinical terms specifically for use by clinicians in the day to day recording of patient care. In addition, SNOMED CT is structured in such a way that meaningful information can be used by systems to support activities such as clinical alerts, decision support, and the triggering of additional functions such as links to clinical pathways and knowledge resources.

SNOMED CT enables elements of a patient’s electronic health record to be coded in a clear unambiguous way that is consistent across all of healthcare. It covers areas such as diseases, symptoms, operations, treatments, devices and drugs. Systems that accurately record healthcare encounters in a way that can be reliably communicated and exchanged across different systems will reduce the requirement of additional manual input and thus reduce data entry errors as well as provide business efficiencies.

The coding of clinical content within the electronic patient record also allows analysis of patient episodes over a period of time: both to identify health trends that enable decisions on services; and to investigate approaches for improved patient outcomes such as reducing re-presentation by particular patient types/groups in emergency departments.

SNOMED CT is being incorporated into electronic healthcare applications across the whole of healthcare including secondary, primary, community and mental health; and while it is not essential for everyone in the NHS to understand SNOMED CT in depth, it is important to have some background understanding of SNOMED CT to maintain high levels of data quality.

2.2 Why Use SNOMED CT?

SNOMED CT is the natural successor to the current coding schemes in use, Read codes version 2 (Read v2) and clinical terms version 3 (CTV3), and has been developed with the knowledge gained through these terminologies. SNOMED CT addresses the current issues we know exist with those legacy terminologies. It is the only terminology that meets the requirements of both primary and secondary care in the UK; and is the most extensive international clinical terminology in existence.

Read v2 already presents a number of issues which cannot be resolved: it has a number of terms which are no longer current, some are actually incorrect or misspelt, and some are no longer appropriate. In addition some of the hierarchies are full, meaning that new terms cannot be put in the correct logical place. Those responsible for writing reports have to know where the logic of Read v2 is no longer correct and compensate in the way they write their reports; this is not sustainable long term and constitutes a risk that reports are currently not identifying...
all the required records.

CTV3 was developed to address the problems with Read v2, but this experience highlighted that an internationally maintained terminology would be more comprehensive and desirable and so SNOMED CT was born. The international collaboration provides international effort and resource to develop and maintain the terminology; CTV3 contributing over half of the original content for SNOMED CT.

As SNOMED CT provides a dynamic terminology that can meet the changing requirements of healthcare and better supports today’s technology and systems, the Standardisation Committee for Care Information (SCCI) has approved SNOMED CT as the terminology standard for use within clinical computer systems in England.

2.3 Benefits of using SNOMED CT

In primary care, where uptake of structured electronic records is already advanced, much of the benefit of using SNOMED CT within the patient record will be seen through improved sharing of information across care settings, the ability to receive electronic data such as discharge summaries in a coded format, and the ability to aggregate data across care settings to support for example quality outcomes analysis. Some of the benefits that can be achieved through SNOMED CT include:

Table 1. Benefits of SNOMED CT

<table>
<thead>
<tr>
<th>Key Benefits of SNOMED CT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provides unambiguous clinical language for direct care across all care settings, all professionals and all clinical and care specialties</td>
</tr>
<tr>
<td>Allows electronic recording in a consistent which reduces errors and can help to ensure record completeness</td>
</tr>
<tr>
<td>Provides for the capture of clinical information at the different levels of detail</td>
</tr>
<tr>
<td>Enables meaningful information exchange reducing the need to repeat health history at each new encounter and the potential for machine reading</td>
</tr>
<tr>
<td>Reduces data transformation that is required using multiple terminologies and decrease the potential for differing interpretation of the same information</td>
</tr>
<tr>
<td>Enables analysis of clinical data to support clinical audit and research work</td>
</tr>
<tr>
<td>Enables decision support e.g. Alerts and knowledge linkage</td>
</tr>
<tr>
<td>The use of SNOMED CT is free to the NHS</td>
</tr>
</tbody>
</table>

SNOMED CT is also an international terminology. The ongoing development of SNOMED CT is an international collaborative effort. The benefits of this being:

- Costs of the terminology are shared across more than one nation
- Data can flow across national and international boundaries
A single international terminology facilitates a competitive international market for software systems and functionality
Healthcare systems provided by international suppliers will reduce overall software development costs by using a single international terminology.

2.4 Who develops and supports SNOMED CT?

SNOMED International is a not-for-profit organisation based in the UK and owns the intellectual property rights for SNOMED CT. More information about the SNOMED International can be found here.

In the UK, NHS Digital is responsible for the UK Edition of SNOMED CT, and as the national release centre, it distributes both the international and UK Edition of SNOMED CT. National and international arrangements have been established to ensure there is adequate and relevant governance of SNOMED CT and its content, to ensure it meets the needs of healthcare in the respective jurisdictions. The UK Edition contains terms that are specific to the UK but not internationally relevant, and so ensures we meet UK healthcare requirements.

More information about the NHS Digital Terminology and Classifications Service can be found here.

2.5 New SNOMED CT requests

Requests for new content or changes to content that is of national relevance can be made by any user within the UK using the NHS Digital request submission portal. NHS Digital proactively engages with Professional Bodies and new developments for national reporting to ensure that where possible required codes are available when needed.

We recommend that an individual user’s request for change is made via their system supplier or system user group. This will allow suppliers to manage the changes and to provide temporary codes, where necessary, while the new content is being authored.

2.6 SNOMED CT updates

The UK Edition of SNOMED CT is currently released every six months at the start of April and October. Usually changes in systems can take up to 8 weeks. Content continuously evolves to meet clinical need including the inactivation of content that is no longer appropriate as well as the addition of new terms. The SNOMED CT UK Drug Extension is released more often, every four weeks, to provide up to date changes in drugs as they come on the market.

2.7 How is SNOMED CT Structured?

SNOMED CT is made up of the components; Concepts, Descriptions and Relationships.

2.7.1 Concepts

Healthcare professionals in recording information can use different clinical terms e.g. myocardial infarction or heart attack, that mean the same clinical ‘thought’. SNOMED CT supports this by allowing more than one clinical term (description) for the same clinical ‘thought’
(concept). The concept is the basic building block in SNOMED CT and each concept has a unique ID (Code). Concept IDs are not memorable and do not indicate any hierarchical information about the nature of the concept. SNOMED CT concepts are never deleted but may be inactivated, for example if they become outdated.

2.7.2 Descriptions

There are two commonly used description types, Fully Specified Name (FSN) and Synonym (S), each description has a unique ID (code). The FSN is the unique, unambiguous description of a concept’s meaning, in the example (Figure 1), myocardial infarction (disorder). Synonyms allow for different to be used that have the same clinical meaning, in the example, the concept has a number of synonyms e.g. heart attack, cardiac infarction. A Synonym that is marked as preferred for use in a particular language or dialect is referred to as a Preferred Term (PT). This is the description that most healthcare professionals will use and in the example myocardial infarction. Each description also has a unique ID (Code).

Figure 1. SNOMED CT Concepts and Descriptions

2.7.3 Relationships

Concepts are also associated with other concepts using relationships. These relationships are used to define and model in a logical manner the concepts, which give the concepts “meaning” that can be used by computer software to process information. Relationships are a very powerful mechanism which allow not only grouping of closely related concepts, but also machine processing of the information in SNOMED CT. It is designed to enable aggregation of clinical information for secondary uses without any loss of the detail required for primary clinical use. There are two types of relationships that exist in SNOMED CT, the ‘Is-A relationship’ and the attribute relationship (Figure 2).

Figure 2. Relationships
The ‘is-a relationship’ which relates a concept to more general concept(s) is often known as the parent-child relationship. Each active child concept has at least one parent concept in its hierarchy but can have more than one. For example, the concept that represents infective pneumonia has two parent concepts that represent pneumonia and infectious disease of lung (Figure 3). Which means infective pneumonia is-a pneumonia and is-a infective disease of lung. Also the concept infective pneumonia has other concepts that are children e.g. bacterial pneumonia, which means the concept bacterial pneumonia has an ‘is-a relationship’ to infective pneumonia.

Figure 3. Is-A Relationships

Concepts can also be further defined using an attribute relationship. Attribute relationships are an association between two concepts that specifies a defining characteristic of one of the concepts (the source of the relationship). Each attribute relationship has a name (the type of relationship) and a value (the destination of the relationship), all of which are concepts in their own right. The concept infective pneumonia (Figure 4) has three attribute relationships, for example it has a finding site (the type of relationship) of lung structure (the destination of the relationship).
2.7.4 SNOMED CT Hierarchies

SNOMED CT concepts are organised into 19 distinct hierarchies (Figure 5), each of which cover different aspects of healthcare. More details about the hierarchies are shown in Appendix 1, with definitions and examples. Concepts are organized from the general to the more detailed. This allows detailed clinical data to be recorded and later accessed or aggregated at a more general level. The FSN description for a concept ends with a “semantic tag” in parentheses, which indicates the semantic category (hierarchy) to which each concept belongs. The “semantic tag” helps to disambiguate different concepts which may be referred to by the same commonly used word or phrase. Some concepts within the hierarchies are used for recording information about the care of a patient e.g. asthma (disorder) whereas other concepts are used to help categorise or define concepts within the SNOMED CT structure e.g. infectious process (qualifier value) and may not be seen at the point of data entry by healthcare professionals. More detailed information on SNOMED CT components and hierarchies can be found in the SNOMED International Starter Guide.

Figure 5. SNOMED CT hierarchies
2.7.5 Subsets

SNOMED CT is very comprehensive and using subsets of SNOMED CT is a mechanism to grouping components of SNOMED CT that supports a particular requirement. Subsets can contain any number of concepts, e.g. a short pick list used to identify types of male infertility to a larger list of all clinical diagnoses. These subsets can then be used in systems to support, for example, data entry and provide only terms appropriate at that place in the patient record. A number of the professional bodies are developing subsets that contain the terms relevant to their needs. There are even GP subsets to help with the transition from the older Read coding schemes to SNOMED CT. More information about nationally released subsets provided by NHS Digital can be found on the Data Dictionary for Care (DD4C) website.

2.8 Recording in SNOMED CT

SNOMED CT aims to minimise ambiguity that can come from reading clinical notes recorded by a different person by providing standardised terms. The following is worth understanding when it comes to using SNOMED CT.

The meaning conveyed by a SNOMED CT code in a medical record is affected by the context in which it is recorded. For instance, the code for "breast cancer" might be used to indicate a family history of breast cancer, a past history of breast cancer, or a current diagnosis of breast cancer. Each of these three meanings differs in regard to the context in which breast cancer is being described. Family history of breast cancer refers to breast cancer occurring in a family member of a patient. Past history of breast cancer indicates that the breast cancer occurred in the patient, at some time in the past, and it is not necessarily present now. Current diagnosis of breast cancer indicates that the breast cancer is present now, and in this patient. These differences are important for data retrieval, because it would be incorrect when searching for patients with breast cancer to retrieve those who merely have a family history of breast cancer. When a SNOMEDCT code appears in a record without any explicitly stated context, that code is considered to have a default context.

The default context for a clinical finding code implies that the finding IS PRESENT (vs. being absent), that it applies to the subject of the record (the patient); i.e. the default context is CURRENT or may be overridden by a SPECIFIED TIME, in the past, linked to the code.

The default context for a procedure code implies that the procedure was completed, that it was performed on the subject of the record (the patient), and that it was done at the present time or in the past at a time that is given by a date - time record linked to the code.

There are concepts where the description actually contains a specific context e.g. father smokes, No nausea, suspected poisoning and these are all grouped in a special hierarchy known as situation with explicit context (explained in appendix 1).

When recording in the patient record, free text should only be used to add additional detail and never be used to negate or modify the meaning of the coded item. For example: family history of or excluded added as a free text comment to a coded entry fundamentally changes its meaning. In the first case it is saying that the condition applies to someone other than the patient and in the latter that the patient definitely does not have the condition.
A general approach to data entry is when deciding which term to select use the one that is completely true and closest to what you would normally record, and aim to be consistent across patients. Some practices have agreed the sets of codes they will use to get consistency within the practice. The relationships in SNOMED CT will ensure that synonymous terms selected by colleagues, or more detailed terms can be identified in a search.

In some systems, at data entry you may only be presented with, for example, procedures if you can only enter a procedure at this point in the system. However, in some places within the patient record, it may be possible to enter concepts from more than one hierarchy and so you are presented with a full list of terms from more than one hierarchy – in this case it is important you know you are selecting the right type of term. Therefore in this instance, knowledge of the hierarchies can help you with the correct term selection.

### 2.9 Searching SNOMED CT

The method by which you search is likely to be different from system to system but the following describes some key points to consider. NHS Digital has developed a [browser](#) which allows users to view SNOMED CT content and its hierarchies. It contains UK and International content for both clinical descriptions and drugs.

#### Term searching

The preferred way of searching does not require you to know any codes, in fact in SNOMED CT it is highly unlikely that the actual codes will be known by the user. SNOMED CT’s use of multiple descriptions for the same concept means that finding an exact match is more likely.

The method by which you search is likely to be different from system to system, but many allow a search by entering the first few letters of the key word(s) within the clinical phrase required. It is generally not necessary to enter the full word, the first few characters (3 or 4) of the word are often sufficient. As related words can often have different endings such as diabetes and diabetic; this approach ensures all relevant clinical terms are retrieved. If you include the last few characters of the word you may exclude important choices.

As with internet searching, it is important to search on the key words you are looking for; you should avoid using words such as ‘acute’ only, which will return a significant number of codes. Think carefully about the search words you use so that your returned list is manageable. As you become more familiar with SNOMED CT you will quickly know which search words to enter to achieve fast data entry.

#### Abbreviations and acronyms

Abbreviations and acronyms can be ambiguous so those that are included in SNOMED CT are usually found with the expanded text following, e.g. MI – myocardial infarction. Abbreviations and acronyms, on their own, do not generally exist in SNOMED CT (though there are some exceptions for unambiguous acronyms). This approach facilitates searching for terms using the abbreviation or acronym, for example MI, while ensuring the full description is seen to ensure
the correct term is selected. There are some abbreviations in use that mean different things in different clinical specialties, this approach avoids misinterpretation of such abbreviations. For example if you search for PID in SNOMED CT you will find ‘PID - pelvic inflammatory disease’ and ‘PID - Prolapsed intervertebral disc’ ensuring you select the correct term.

Note. For historical reasons you will find some ambiguous abbreviations that are not expanded these are slowly being addressed and retired from SNOMED CT.

Hierarchical searching

If your application allows it, you can search for terms within hierarchies. This allows you to start with a more general term and drill down to more detailed terms below this, or vice versa, e.g. a search for diabetes mellitus could be used to display all the children of diabetes mellitus (all the different types of diabetes mellitus) to enable you to select the most appropriate term to record.

Note. The above approach is more preferable than starting right at the top of the hierarchies, as SNOMED CT has multiple levels of detail and concepts can have multiple parents so it is hard to find the concept if you start from the top level.

The example below illustrates a search for diabetes mellitus showing its parents and some of its children:

Figure 6. SNOMED CT Search in NHS Digital Browser
2.10 Reporting from SNOMED CT coded items

Unlike older coding schemes, the codes for each of the SNOMED CT descriptions and concepts are unmemorable; so it is not possible to ask for all patients with the coded items that begin with “C10..” for example. However, SNOMED CT is structured in a more logical way so finding the desired content does not require prior knowledge of structural anomalies that existed in the older coding schemes.

In SNOMED CT a common way of reporting is to search for a term and all its children, e.g. diabetes mellitus and all its children would provide all the different entries that relate to types of diabetes (as in Figure 6). This is a representation of the terms your search would identify in the patient record when searching for “all the different types of diabetes mellitus” by searching for the code for diabetes mellitus and all its children.

There are times when a list of related terms is not sufficient for your requirements as the terms you are looking for may not be clinically related to each other. In this instance it is necessary to create a report from a query where you individually select the terms you need, sometimes known as “cherry picking”.

There are also occasions when a combination of relationships and specific terms are required for a report, for example you may want to search for a term and its children but exclude specific terms.

So reporting using SNOMED CT is very much about using the terms within SNOMED CT and their hierarchies and not aspects of the codes themselves.

3. Data translation between Coding Schemes

In order to assist in the transition from Read codes to SNOMED CT, cross-maps between the terminologies have been created and quality assured. Cross-maps provide the mappings from Read v2 to SNOMED CT and CTV3 to SNOMED CT. These cross-maps can be used to support data migration when moving terms from either Read v2 or CTV3 to SNOMED CT.

4. Support and Training

Any requests for further information or support can be sent to snomedprimarycare@nhs.net

The following is a list of some of the useful resources and training provided by NHS Digital, all available on the SNOMED CT Implementation in Primary Care.

1) Animations – short video clips
2) Introducing SNOMED CT in General Practice webinar

This provides a basic understanding for SNOMED CT for those who currently use the Read codes. It illustrates the basics of SNOMED CT, the difference between SNOMED CT and Read, as well as providing hints and tips on code selection. A recorded version of this presentation is also available.

3) Exploring SNOMED CT content for General Practice webinar

This provides a basic overview of SNOMED CT and how to use a browser to look at content. This session also covers different ways of searching and an understanding of 4 key hierarchies. A recorded version of this presentation is also available.

4) Designing queries and searches in SNOMED CT webinar

This session is designed for those whose role involves writing searches using the Read codes in relation to data recorded in General Practice. It will show attendees how to design a search on data recorded using SNOMED CT. This search can then be used as part of a report, business protocol/business rules or data extract, such as for a mail merge. It will cover writing new searches as well as advice on what to consider if updating existing searches designed using the Read codes.

A guidance document "Designing Searches" is available to support this webinar.

5) Data Quality for General Practice: Considerations in moving from Read to SNOMED CT Recorded Presentation.

This recording provides valuable information for those interested in primary care data quality, for example, data quality specialists and primary care coding trainers. It covers some key differences between Read and SNOMED CT and how this affects data quality.

A guidance document “Data Quality Guidance” is available to support this recording.
## Appendix 1. SNOMED CT 19 hierarchies in detail

### a) Regularly used in clinical records

<table>
<thead>
<tr>
<th>Hierarchy</th>
<th>Description</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clinical finding</strong></td>
<td><em>What phenomena is found</em> Contains the sub-hierarchies of finding including symptoms and diseases (disorder). Important for documenting clinical disorders, symptoms and examination findings.</td>
<td>Swelling of arm (finding) Normal breath sounds (finding) Headache (finding) Tired all the time (finding) Pneumonia (disorder) Depression (disorder)</td>
</tr>
<tr>
<td><strong>Procedure</strong></td>
<td><em>What is being done</em> Purposeful activities performed in the provision of health care.</td>
<td>Biopsy of lung (procedure) Diet education (procedure) Referral to paediatrician (procedure) Review of medication (procedure)</td>
</tr>
<tr>
<td><strong>Event</strong></td>
<td><em>What is taking place</em> Describes the situation around the individual at a specific time which is relevant to their healthcare. This does not include procedures or interventions.</td>
<td>Flash flood (event) Motor vehicle accident (event) Exposure to measles virus (event) Fall (event) Death (event)</td>
</tr>
<tr>
<td><strong>Observable Entity</strong></td>
<td><em>An observation that can produce an answer or result</em> Terms that are used to record measurements, readings, numerical results, etc. and always have an associated value entry.</td>
<td>Body weight (observable entity) Tumour size (observable entity) Body mass index (observable entity) Gender (observable entity), Serum bilirubin level (observable entity)</td>
</tr>
<tr>
<td><strong>Situation with Explicit Context</strong></td>
<td><em>Phrases that have the context specified</em> For example, terms about another family member, absence or has happened in the past</td>
<td>Family history of stroke (situation) No nausea (situation) Referral to psychiatrist declined (situation) Suspected sepsis (situation) Both parents smoke (situation)</td>
</tr>
<tr>
<td><strong>Pharmaceutical/biologic product</strong></td>
<td><em>A drug or other substance that is used to treat a patient</em> This hierarchy is separate from the substance hierarchy in order to clearly distinguish drug products (products) from the chemical constituents (substances) of drug products.</td>
<td>Tamoxifen (product) Tramadol (product) Paracetamol 500mg tablet (product) Multivitamin tablet (product) Motilium 10 tablets (McNeil Ltd) (product) Anadin Extra soluble tablets (Wyeth Consumer Healthcare) (product)</td>
</tr>
<tr>
<td><strong>Social Context</strong></td>
<td><em>Non clinical demographic information</em> Contains social conditions and circumstances significant to healthcare. Includes family and economic status, ethnic and religious heritage, and lifestyle and occupations.</td>
<td>Economic status (social concept) Asian (ethnic group) Clerical supervisor (occupation) Donor (person) Thief (life style) Judaism (religion/philosophy)</td>
</tr>
</tbody>
</table>
b) Used in clinical records, but usually require additional context

<table>
<thead>
<tr>
<th>Hierarchy</th>
<th>Description</th>
<th>Examples</th>
</tr>
</thead>
</table>
| Body Structure| *Normal and abnormal anatomical body structure*  
Abnormal structures are represented in a sub-hierarchy as morphologic abnormalities. | Structure of thyroid (body structure)  
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. | Suture needle (physical object)  
Cardiac pacemaker, device (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)  
Hemoglobin 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)                                                              |

c) Used in clinical records to provide context to other terms

<table>
<thead>
<tr>
<th>Hierarchy</th>
<th>Description</th>
<th>Examples</th>
</tr>
</thead>
</table>
| Physical Force                         | *The influence that causes an object to undergo a change.*  
Includes motion, friction, electricity, sound, radiation and air pressure. | 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. | Cornwall (geographic location)  
Intensive care unit (environment)  
Out of hours service care setting (environment)  
Cancer hospital (environment)                                                              |
| 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)  
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)

SNOMED CT Model Component

Contains technical data
supporting the SNOMED CT release.
Contains subhierarchy
Attributes which is 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)
Severity (attribute)
Method (attribute)
Laterality (attribute)

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

<table>
<thead>
<tr>
<th>Hierarchy</th>
<th>Description</th>
<th>Examples</th>
</tr>
</thead>
</table>
| 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
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) |