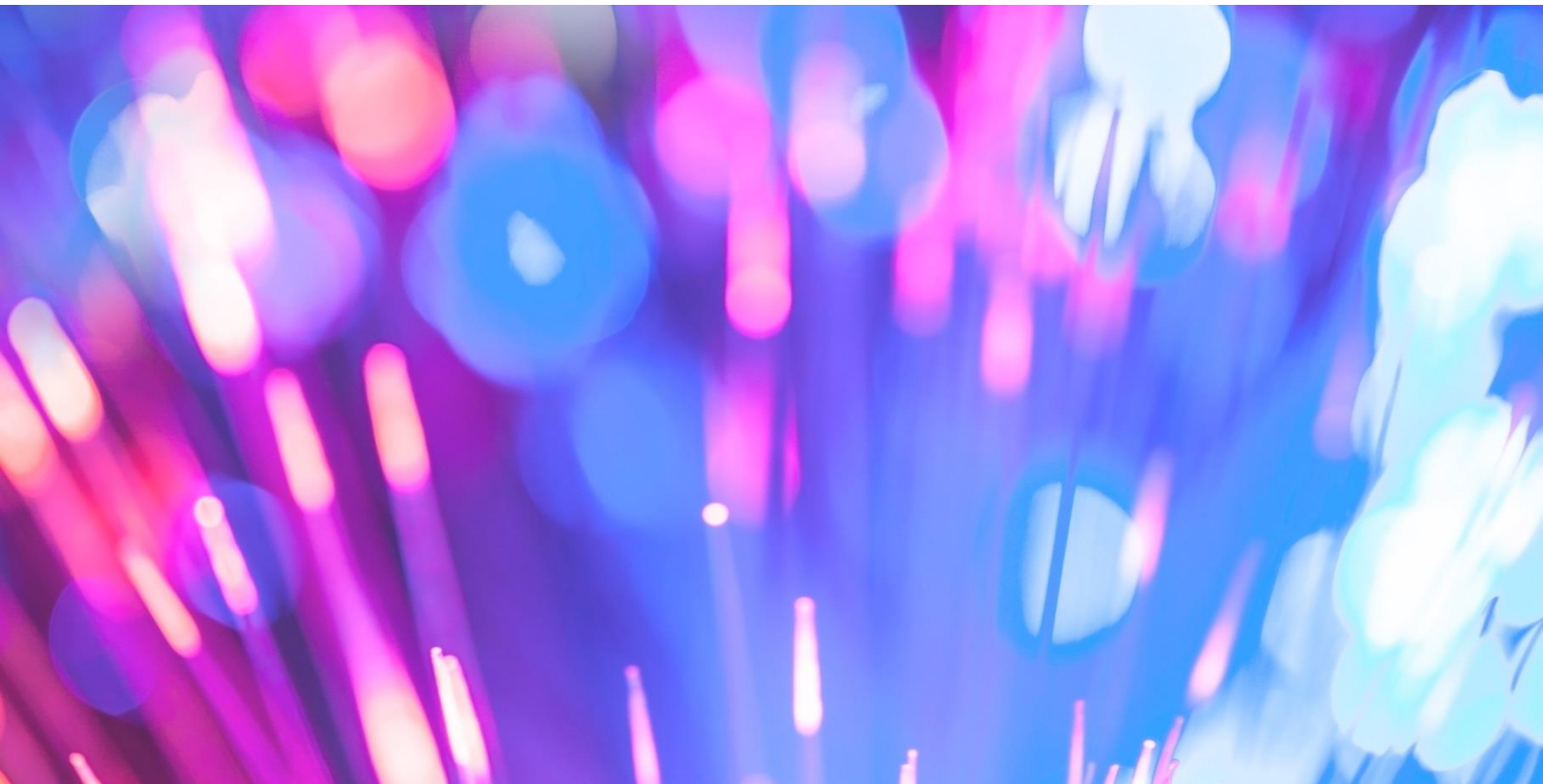


SNOMED CT

A user guide for Mental Health

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Information and technology
for better health and care

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1. Introduction

SNOMED CT is the clinical terminology mandated for capturing structured clinical content in electronic patient records within the NHS. This document provides a guide on SNOMED CT for those involved in Mental Health. The guide is 'generic' in that it is intended to illustrate the fundamentals that support use with any Mental Health electronic system. The reader should therefore bear in mind that the way SNOMED CT is utilised within a system, may vary from system to system.

Any questions about or arising from reading this document can be sent to snomedmentalhealth@nhs.net.

Please Note. SNOMED CT is used within the NHS under license and those organisations who provide the actual SNOMED data to end users should ensure they have the appropriate [license](#); these licenses are free within the UK.

1.1 Background

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

Mental Health 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. National data has been required in SNOMED CT since 2014.

New and existing information standards/datasets often require SNOMED CT as the standard for clinical information recording; when standards are updated this is now a requirement.

The Mental Health Service Data Set (MHSDS) already has a requirement that procedures and assessment scales are submitted in SNOMED CT as well as allowing diagnosis, observables and findings to flow using SNOMED CT. Other datasets also have requirements for the use of SNOMED CT e.g. Accessible information, Electronic Yellow Card Reporting, Female Genital Mutilation Enhanced Dataset, HIV and AIDS Reporting Data Set, Community Services Data Set.

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.

SNOMED CT is dynamic; new clinical terms are added, and terms can be made inactive (for example out-dated terms). SNOMED CT is released every 6 months within the UK (April and October), and can contain UK specific content in addition to the international content.

1.2 Audience

This document is intended for anyone who works in or with Mental Health 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. It does not contain the technical information for those implementing SNOMED CT in systems; this is provided in the [Implementation Guide](#) provided as part of the [standard](#).

1.4 Further information

This document is provided by the Mental Health SNOMED CT project within NHS Digital. Any questions arising from the content of this document or requests for further information can be sent to snomedmentalhealth@nhs.net. A user and implementation guide are provided as part of the [Information Standard Notice](#). Further resources and education material are available on our [website](#). Also an overview of clinical terminologies in the NHS, including SNOMED CT and the NHS dictionary of medicines and devices (dm+d) is available : [Clinical Terminologies in the NHS: SNOMED CT and dm+d](#).

2. Background on 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 in electronic systems 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 recorded in a clear unambiguous way that is consistent across all of healthcare. It covers areas such as diseases, symptoms, interventions, 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 re-input and thus reduce data entry errors as well as provide business efficiencies.

Capturing clinical content in a consistent way 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. Because SNOMED CT enables the capture of symptoms, outcomes (assessments), drugs, specific therapies undertaken etc; it enables a level of analysis not possible with ICD-10 and OPCS-4, which are designed for the analysis of large populations. Note that nationally tables are provided that link SNOMED CT to ICD-10 and OPCS-4.

SNOMED CT is being incorporated into electronic healthcare applications across the whole of healthcare including community, mental health, secondary and primary; 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, by design, the natural successor to older terminologies such as the Read codes 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 all healthcare sectors in the UK; and is the most extensive international clinical terminology in existence. The international collaboration, of which the UK is a member, provides international effort and resource to develop and maintain the terminology.

SNOMED CT provides a dynamic terminology that can meet the changing requirements of healthcare and better supports today's technology and systems. The UK was instrumental in its development and over half of the original content was provided by the UK from its Clinical Terms project (CTV3). Following extensive scrutiny of the terminology and its processes for maintenance, the [Standardisation Committee for Care Information \(SCCI\)](#) (now the Data Coordination Board) has approved and mandated SNOMED CT as the terminology standard

for use within clinical computer systems in England. Mandated mental health data collections e.g. Early Intervention in Psychosis (EIP), Children and Young People (CYP) with an Eating Disorder (ED) require the use of SNOMED CT for reporting via the MHSDS.

2.3 Benefits of using SNOMED CT

There are many benefits from using SNOMED CT within the patient record, some of which will evolve as systems make use of such data. Those already using SNOMED CT have reported benefits such as: improved sharing of information across care settings (interoperability), consistent recording and reuse of clinical information (thus reducing data entry), the ability to analyse data at a detailed level, decision support and knowledge linkage, and a significant reduction in cost to provide national datasets by extracting data captured using SNOMED CT from the Electronic Patient Record (EPR). Some of the benefits that can be achieved through SNOMED CT include:

Table 1. Benefits of SNOMED CT

Key Benefits of SNOMED CT
Provides unambiguous clinical language for direct care across all care settings, all professionals and all clinical and care specialties
Allows electronic recording in a consistent way which reduces errors and can help to ensure record completeness
Provides for the capture of clinical information at the different levels of detail required as the care pathway progresses
Enables meaningful information exchange reducing the need to repeat health history at each new encounter and the potential for system alerts such as contra-indications
Reduces data transformation effort that is required when using multiple coding schemes and decreases the potential for differing interpretation of the same information
Enables analysis of clinical data to support clinical audit and research work
Enables decision support e.g. Alerts and knowledge linkage
The use of SNOMED CT is free to the NHS

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 can reduce overall software development effort and thus costs by using a single international

terminology.

Another benefit is that once providers are using SNOMED CT codes consistently in mental health, there will be less need for national collections that duplicate the MHSDS. It will also add benefits around local and national understanding/reporting of the types of treatment and on patient outcomes. This supports the understanding of patient pathways, local performance and enables future policy development.

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 SNOMED International can be found [here](#).

In the UK, NHS Digital is responsible for the UK Edition of SNOMED CT, and is the UK 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. NHS Digital manages a UK Edition Committee whose members are clinicians and provide advice on UK content; they publish decisions made and a document which brings together the UK Edition editorial principles.

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, external organisations such as Public Health England, NICE and NHS England as well as new developments for national reporting to ensure that where possible required codes are available when needed.

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 such changes can take up to 8 weeks to be reflected in systems. 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.

3. Structure of SNOMED CT

SNOMED CT is made up of the components: Concepts, Descriptions and Relationships. In essence a concept is the clinical thought to be recorded, the descriptions are the words used to express that clinical thought (e.g. depression) and the relationships link concepts using the clinical relationships between concepts (an anorexia nervosa *is* a type of eating disorder).

3.1 The basic building blocks

3.1.1 Concepts

Healthcare professionals can use different clinical phrases when recording information e.g. Induced delusional disorder or Shared psychotic disorder, 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) known as the Concept ID. Concept IDs are not memorable and do not indicate any hierarchical information about the nature of the concept such as that seen in ICD-10. SNOMED CT concepts are never deleted but may be inactivated, for example if they become outdated.

3.1.2 Descriptions

The descriptions are the clinical phrases associated with a clinical concept. There are two commonly used description types: Fully Specified Name (FSN) and Synonym (S); each description also has a unique ID (code). The FSN is the unique, unambiguous description of a concept's meaning, see the example below (Figure 1) for Bipolar disorder (disorder). Synonyms allow for different phrases to be used that have the same clinical meaning but for the system to recognise as the same clinical concept, in this example, the concept has several synonyms e.g. Manic-depressive psychosis. A Synonym that is marked as preferred is referred to as the Preferred Term (PT) and often is the most commonly used clinical phrase. This is the description that most healthcare professionals will use; in this example, bipolar disorder.

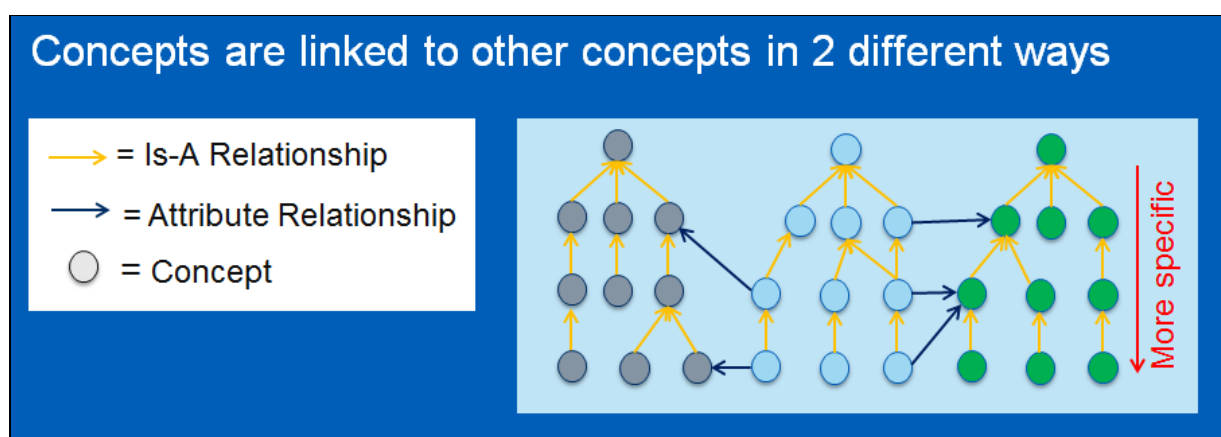
Figure 1. SNOMED CT Concepts and Descriptions

Concept ID 13746004				
	Description	Type	Description ID	
F ☆	Bipolar disorder (disorder)	FSN	739182010	Preferred
S ★	Bipolar disorder	PT	23447014	Preferred
S ✓	Bipolar affective disorder	S	2839307017	Acceptable
S ✓	MDI - Manic-depressive illness	S	1221013017	Acceptable
S ✓	Manic-depressive illness	S	1221012010	Acceptable
S ✓	Manic-depressive psychosis	S	1221011015	Acceptable

3.1.3 Relationships

Concepts are also associated with other concepts using relationships. These relationships are used to define and model the concepts in a logical manner; which gives the concepts “meaning” that can be used by computer software to process information. For example, bipolar disorder is a mental disorder – so if the software were to identify all patients with ‘mental disorder, it would include patients with bipolar disorder. 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 relates a concept to more general concept(s) and 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 “Recurrent Depression” has three parent concepts that represent “Chronic mental disorder”, “Depressive disorder” and “Recurrent disease” (Figure 3). Which means “Recurrent Depression” is-a “Chronic mental disorder”, is-a “Depressive disorder” and is-a “Recurrent disease”. Also, the concept “Recurrent Depression” has other concepts that are children e.g. “Recurrent major depression”, which means the concept “Recurrent major depression” has an ‘is-a relationship to “Recurrent Depression”.

Figure 3. Is-A Relationships

Parents

- >  Chronic mental disorder (disorder)
- >  Depressive disorder (disorder)
- >  Recurrent disease (disorder)

 Recurrent depression (disorder)  











SCTID: 191616006

191616006 | Recurrent depression (disorder) |

Recurrent depression
Recurrent depression (disorder)




Clinical course → Recurrent

Children (7)

-  Endogenous depression - recurrent (disorder)
-  Recurrent brief depressive disorder (disorder)
-   Recurrent depression with current moderate episode (disorder)
-   Recurrent depression with current severe episode and psychotic features (disorder)
-   Recurrent depression with current severe episode without psychotic features (disorder)
- >  Recurrent major depression (disorder)
- >  Seasonal affective disorder (disorder)

Concepts can also be further defined using attribute relationships. 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 “Cannabis delusional disorder” (Figure 4) has two attribute relationships, it has a Finding site of Brain structure and it has a Causative agent of Cannabis.

Figure 4. Attribute Relationships

 Cannabis delusional disorder (disorder)  

SCTID: 63649001

63649001 | Cannabis delusional disorder (disorder) |

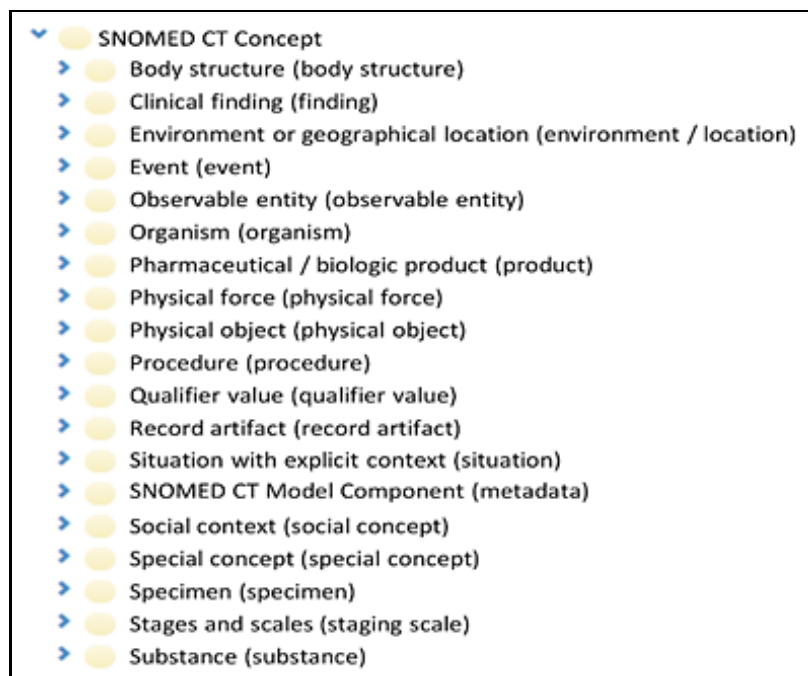
Cannabis delusional disorder
Cannabis-induced psychotic disorder with delusions
Cannabis delusional disorder (disorder)

Finding site → Brain structure
Causative agent → Cannabis

3.1.4 SNOMED CT Hierarchies

SNOMED CT concepts are organised into 19 distinct hierarchies (Figure 5), each of which cover different types of concepts e.g. procedures.

Figure 5. SNOMED CT hierarchies



More details about the hierarchies are shown in Appendix 1, with definitions and examples. Concepts are organised 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. anxiety (disorder) whereas other concepts are used to help categorise or define concepts within the SNOMED CT structure e.g. Causative agent (attribute). Please note that in some systems these concepts used for categorising may be unseen 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](#).

3.1.5 Subsets

SNOMED CT is very comprehensive and using subsets of SNOMED CT is a mechanism to restricting/grouping components of SNOMED CT to support a particular requirement, for example, the terms seen in a template data entry field may be restricted to a specific set of SNOMED CT terms. Subsets can contain any number of concepts, e.g. a short pick list used

to show sexual orientation findings to a larger list of mental health assessment scales procedures and observables (which are SNOMED CT codes listed in MHSDS). These subsets can then be used in systems to support a variety of functionality, for example, identify all diabetic patients, for data entry to provide only terms appropriate at that place in the patient record.

A number of the professional bodies and NHS programs develop subsets that contain the terms relevant to their needs. More information about nationally released subsets provided by NHS Digital can be found on the [Data Dictionary for Care \(DD4C\) website](#).

3.2 Recording correctly using 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 terms.

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 "anorexia nervosa" might be used to indicate a family history of anorexia nervosa, a history of anorexia nervosa, or a current diagnosis of anorexia nervosa. Each of these three meanings differ regarding the context in which anorexia nervosa is being described. Family history of anorexia nervosa refers to anorexia nervosa occurring in a family member of a patient. History of anorexia nervosa indicates that the anorexia nervosa occurred in the patient, at some *time* in the past, and it is not necessarily present now. Current diagnosis of anorexia nervosa indicates that the anorexia nervosa is present now for this patient. These differences are important for data retrieval, because it would be incorrect when searching for patients with anorexia nervosa to retrieve those who merely have a family history of anorexia nervosa. When a SNOMED CT 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), and that it applies to the subject of the record (the patient); i.e. the default context is CURRENT. This context 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*. This context may be overridden by a SPECIFIED TIME in the past, **linked** to the code.

There are concepts where the description actually contains a specific context e.g. Father smokes, No history of depression, Suspected drug overdose and these are all grouped in the 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 but **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. Free text will generally not be picked up in analysis and so the data in such a record would be incorrectly interpreted. A general approach to data entry, when deciding which term to select, is to use the one that is

completely true and closest to what you would want to record; and aim to be consistent across patients. The relationships in SNOMED CT will ensure that synonymous terms selected by colleagues, or more detailed terms can be identified in a search for patients with particular conditions.

In some systems, terms available for data entry may be restricted in some contexts, for example, only procedures are seen when entering the procedure undertaken. However, in some places within the patient record, it may be possible to enter concepts from more than one hierarchy and so when searching you see terms which are observables, symptoms and diagnoses – in this case it is important you know you are selecting the correct term with the required meaning. Understanding the different hierarchies can help you with the correct term selection:

For example, assessment scales are referenced in three different ways in SNOMED CT:

- The assessment scale itself i.e. the questionnaire or the assessment form
e.g. Health of the Nation Outcome Scales for working age adults rating scale 1 - overactive, aggressive, disruptive or agitated behavior (assessment scale)
- The procedure i.e. the action of performing the assessment
e.g. Assessment using Health of the Nation Outcome Scales for working age adults (procedure)
- The observable i.e. the concept to which a score would be assigned.
e.g. Health of the Nation Outcome Scale for working age adults score (observable entity)

3.3 Searching SNOMED CT

A number of systems allow the user to quickly search for the clinical term (i.e. clinical phrase) to be added to the record. The method by which you search is likely to differ from system to system, but the following describes some key points to consider. NHS Digital provides a [browser](#) which enables users to view SNOMED CT content and its hierarchies; this is useful in gaining familiarity with the clinical terms available. It contains UK and International content for both clinical descriptions and drugs.

3.3.1 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 unless copied from electronic guidance. SNOMED CT's use of multiple descriptions for the same concept, where those descriptions have been identified from clinical literature and guidance, means that finding the required clinical term is more likely. Most searching does not require you to know the exact clinical term in SNOMED CT.

Many systems support searching by entering the first few letters of the significant 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. A number of clinicians indicate that data entry becomes quicker than simply typing once they are familiar with the terms they frequently use.

3.3.2 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. CBTP - cognitive behavioural therapy for psychosis. 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 CBT, 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 OCD in SNOMED CT you will find '**OCD - Obsessive-compulsive disorder**' and '**OCD - Osteochondritis dissecans**' 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.

3.3.3 Hierarchical searching

Many systems enable you to 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 schizophrenia could be used to display all the children of schizophrenia (all the different types of schizophrenia) 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 schizophrenia showing its parent and some of its children:

Figure 6. SNOMED CT Search in NHS Digital Browser

The screenshot shows a search interface for 'Schizophrenia' in the NHS Digital Browser. The search bar contains 'schizop' and a blue box highlights the search results. A blue callout box labeled 'Search for Schizophrenia' points to the search bar. The search results are displayed in a table with 90 matches found in 0.046 seconds. The results include various terms related to schizophrenia, such as 'Schizophrenia (disorder)', 'Schizophyllum (organism)', 'Schizopyrenida (organism)', 'Schizoporaceae (organism)', 'FH: Schizophrenia (situation)', 'H/O: schizophrenia (situation)', 'Schizophrenia clinic (environment)', 'Simple schizophrenia (disorder)', 'Cyclic schizophrenia (disorder)', 'Latent schizophrenia (disorder)', 'Chronic schizophrenic (disorder)', 'Schizotypal disorder (disorder)', and 'Schizophyllum commune (organism)'. A blue callout box labeled 'Parents' points to the 'Psychotic disorder (disorder)' result. A blue callout box labeled 'Children (14)' points to a list of 14 related terms, including 'Acute schizophrenic episode (disorder)', 'Catatonic schizophrenia (disorder)', 'Cenesthopathic schizophrenia (disorder)', 'Chronic schizophrenia (disorder)', 'Disorganized schizophrenia (disorder)', 'Late onset schizophrenia (disorder)', 'Paranoid schizophrenia (disorder)', 'Paraphrenia (disorder)', 'Residual schizophrenia (disorder)', 'Schizophrenia in remission (disorder)', 'Schizophrenic disorders (disorder)', and 'Schizophrenic prodrome (disorder)'. A blue callout box labeled 'No attributes' points to the 'Schizophrenia (disorder)' result.

3.4 Reporting from SNOMED CT coded items

Unlike older coding schemes, the codes for each of the SNOMED CT descriptions and concepts are unmemorable. However, SNOMED CT is structured in a more logical clinical way so finding the desired description does not require prior knowledge of structural anomalies.

In SNOMED CT a common way of reporting is to search for a term and all its children; as all child concepts are a type of the parent concept this is an effective way of identifying groups of patients. For example: schizophrenia and all its children would provide all the different entries that relate to types of schizophrenia (as in Figure 6)..

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.

Understanding SNOMED CT hierarchies is also of benefit when reporting to national datasets. For example, in MHSDS there is a requirement when appropriate to flow both a SNOMED CT procedure code and a qualifier value. To flow a procedure and qualifier, three pieces of information are required:

- The procedure code (for example: 718026005 Cognitive behaviour therapy for psychosis (procedure))
- The qualifier code (for example: 410527000 Offered (qualifier value))
- A code that links the procedure and the qualifier (in this case: 408730004 Procedure context (attribute) – see section 3.2 which describes changing the context of a concept).

The three codes are concatenated for submission as follows:

718026005:408730004=410527000

(Cognitive behaviour therapy for psychosis: Procedure context=Offered)

4. SNOMED CT and Classifications

SNOMED CT is designed to capture the detailed clinical information for the direct care of the patient and it is required to be recorded at a particular moment in time. Classifications are designed to be allocated at the end of an episode of care, based on information abstracted from the medical record. A record may therefore contain many SNOMED CT terms (and their codes) within an episode of care. These may be used by the system to support care, for example triggering alerts if a medication has not been provided within a specified timeframe, providing an alert if a drug is being prescribed with a contra-indication to their condition. SNOMED CT and ICD-11/OPCS-4 are therefore seen as complementary; however, it is recognised that ICD-10 may have inappropriately been used previously to record information in relation to a patients care in the absence of an alternative 'coding' system.

Mapping tables from SNOMED CT to the classifications ICD-10 and OPCS-4 are provided nationally and these can assist deriving the classification codes based on the SNOMED CT terms in a record. These mappings (known as [Cross-maps](#)) are semi-automated thus allowing consideration of additional information from within the EHR¹ that may need to be considered before the final assignment of classification codes.

ICD-11 is being designed for use in electronic health information systems which contain content captured using terminology. Following a collaborative agreement between the WHO and SNOMED International, work has been ongoing to ensure harmonisation between ICD-11 and SNOMED CT.

Within the UK we are keeping abreast of the ICD-11 developments. As part of the WHO-FIC collaborating centre network we will be co-ordinating the UK involvement in the field trials of ICD-11; this is a key activity to test the fitness for purpose within the UK of this new classification. Further information can be found on the [NHS Classifications web pages](#).

¹ Electronic Health Record – also sometimes referred to as an EPR or electronic patient record

5. Support and Training

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

The [SNOMED CT Mental Health Website](#) provides useful resources and training from NHS Digital, including:

SNOMED CT in Mental Health webinar

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

Discussion Forum

A collaborative space is available to support open questions and comments from those working within the mental health space, including CCIOs, CIOs, clinical staff, suppliers, data analysts. If you wish to join this collaborative space, more details can be found on our [website](#).

[General resources](#), including a number of [case studies](#), on SNOMED CT itself are provided by the [NHS Digital Terminology Service](#) as well as by [SNOMED International](#).

Appendix 1. SNOMED CT 19 hierarchies in detail

a) Regularly used in clinical records

Hierarchy	Description	Examples
Clinical finding	<i>What phenomena is found</i> Contains the sub-hierarchies of finding including symptoms and diseases (disorder). Important for documenting clinical disorders, symptoms and examination findings.	Under care of mental health team (finding) Self management of mental health problems (finding) At Risk Mental State for psychosis (finding) Thoughts of self harm (finding) Chronic paranoid psychosis (disorder) Depression (disorder)
Procedure	<i>What is being done</i> Purposeful activities performed in the provision of health care.	Referral to mental health team (procedure) Diet education (procedure) Mental health review (procedure) Cognitive behavioral therapy for psychosis (regime/therapy) Assessment using DIALOG patient rated outcome measure (procedure)
Event	<i>What is taking place</i> Describes the situation around the individual at a specific time which is relevant to their healthcare. This does not include procedures or interventions.	Motor vehicle accident (event) Fall in shower (event) Death (event) Exposed to noise (event)
Observable Entity	<i>An observation that can produce an answer or result</i> Terms that are used to record measurements, readings, numerical results, etc. and always have an associated value entry.	Body weight (observable entity) Health of the Nation Outcome Scale for working age adults score (observable entity) Gender (observable entity), General mental state (observable entity) Serum lithium level (observable entity)
Situation with Explicit Context	<i>Phrases that have the context specified</i> For example, terms about another family member, absence or has happened in the past	Family history: Schizophrenia (situation) History of anxiety state (situation) No speech problem (situation) Referral to psychiatrist declined (situation) Suspected drug abuse (situation) Both parents smoke (situation)

Pharmaceutical / biologic product	<p><i>A drug or other substance that is used to treat a patient</i></p> <p>This hierarchy is separate from the substance hierarchy in order to clearly distinguish drug products (products) from the chemical constituents (substances) of drug products.</p>	<p>Product containing sertraline (medicinal product)</p> <p>Citalopram 40mg tablets 28 tablet (product)</p> <p>Denzapine 200mg tablets (Merz Pharma UK Ltd) (product)</p> <p>Priadel 200 modified-release tablets (Sanofi-Synthelabo Ltd) (product)</p> <p>Olanzapine 300mg powder and solvent for suspension for injection vials (product)</p>
Social Context	<p><i>Non clinical demographic information</i></p> <p>Contains social conditions and circumstances significant to healthcare. Includes family and economic status, ethnic and religious heritage, and life style and occupations.</p>	<p>Asian (ethnic group)</p> <p>Accountant (occupation)</p> <p>Legal guardian (person)</p> <p>Voluntary body tattooing (life style)</p> <p>Judaism (religion/philosophy)</p> <p>Borderline poverty (economic status) (social concept)</p>

b) Used in clinical records, but usually require additional context

Hierarchy	Description	Examples
Body Structure	<p><i>Normal and abnormal anatomical body structure</i></p> <p>Abnormal structures are represented in a sub-hierarchy as morphologic abnormalities.</p>	<p>Extrapyramidal system structure (body structure)</p> <p>Substantia nigra structure (body structure)</p> <p>Lesion (morphologic abnormality)</p> <p>Giant cell glioblastoma (morphologic abnormality)</p>
Organism	<p><i>An organism of significance in human medicine</i> such as animal, bacteria, fungus, or plant.</p>	<p>Mycobacterium tuberculosis (organism)</p> <p>Candida albicans (organism)</p> <p>Atropa belladonna (organism)</p> <p>Human herpes simplex virus (organism)</p>
Physical Object	<p><i>A tangible and visible object</i></p> <p>Includes natural and man-made objects focusing on those associated with healthcare.</p>	<p>Scar dressing (physical object)</p> <p>Cardiac pacemaker, device (physical object)</p> <p>Colostomy bag (physical object)</p> <p>Midstream urine specimen container (physical object)</p>
Substance	<p><i>Non-living and chemical materials</i></p> <p>Includes foods, nutrients, allergens and materials. Used to record the active chemical constituents of all drug products.</p>	<p>Dust (substance)</p> <p>Cat dander (substance)</p> <p>Alcohol (substance)</p> <p>Lithium (substance)</p> <p>Hemoglobin antibody (substance)</p> <p>Codeine phosphate (substance)</p>

Specimen	<i>A specimen for observation, study, testing or evaluation</i> Represents entities that are obtained for examination or analysis, usually from a patient.	Urine specimen (specimen) Blood specimen (specimen) Tissue specimen from brain (specimen) Specimen from patient (specimen)
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c) Used in clinical records to provide context to other terms

Hierarchy	Description	Examples
Physical Force	<i>The influence that causes an object to undergo a change.</i> 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	<i>An identifiable place</i> Includes all types of environments as well as named locations such as countries, counties, and regions.	Cornwall (geographic location) Psychiatric intensive care unit (environment) Hospital-based outpatient mental health clinic (environment) Out of hours service care setting (environment) Prison hospital (environment)
Staging and Scales	<i>Assessment scales</i> Includes naming assessment scales and tumour staging systems. Used to indicate the scale used.	DIALOG patient rated outcome measure (assessment scale) Alcohol use inventory (assessment scale) Mental Health Clustering Tool Summary Assessments of Risk and Need (assessment scale) Process of Recovery Questionnaire (assessment scale)
Qualifier Value	<i>A word or phrase that, along with a linkage concept, adds detail to the term</i> For example, in MHSDS, to record an offer and/or decline of an intervention, the relevant SNOMED CT intervention code should be flowed, alongside the suitable 'qualifier' e.g. offered, refused.	Offered (qualifier value) Refused (qualifier value) Planned (qualifier value) Mild (qualifier value) Unit dose (qualifier value) Right (qualifier value)

SNOMED CT Model Component	<p><i>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</i></p> <p>e.g. Cognitive behavioral therapy for psychosis Procedure context offered</p> <p><i>Note.</i> used with qualifier values or other terms such as body structure.</p>	<p>Procedure context (attribute) Finding site (attribute) Severity (attribute) Method (attribute) Laterality (attribute)</p>
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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 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)