

Directorate / Programme	Data Services	Area	Terminology and Classifications Development Service
Document Reference	SCCI0034		
Head	Lynn Bracewell	Status	Final
Owner	Lynn Bracewell	Version	2.0
Author	Denise Downs	Version issue date	07/05/2020

SCCI0034 SNOMED CT

Product Specification

Document Management

Revision History

Version	Date	Summary of Changes
V0.1	14/07/2016	First draft for comment
V0.2	01/09/2016	Revised following comments
V0.3	10/09/2016	Changed to NHS Digital Document
V1.0	14/10/2016	Address comments from ISAS discussion
V1.1	18/03/2020	Updated to reflect beyond April 2020
V2.0	07/05/2020	Final version, taking account of reviewer comments.

Reviewers

This document must be reviewed by the following people:

Reviewer name	Title / Responsibility	Date	Version
Pete Turnbull	Principal SNOMED Implementation Specialist	18/03/2020	1.1
Matt Watson	Programme Manager	18/03/2020	1.1
Data Coordination Board publication	Final review	21/04/2020	2.0

Approved by

This document must be approved by the following people:

Name	Signature	Title	Date	Version
Lynn Bracewell		Head of Terminology and Classifications Development Service	18/03/2020	2.0



This information standard (SCCI0034) has been approved for publication by the Department of Health under [section 250 of the Health and Social Care Act 2012](#).

Assurance that this information standard meets the requirements of the Act and is appropriate for the use specified in the specification document has been provided by the Standardisation Committee for Care Information (SCCI), a sub-group of the National Information Board.

This information standard comprises the following documents:

- Requirements Specification
- Implementation Guidance
- Change Specification.

An Information Standards Notice (SCCI0034 Amd 35/2016) has been issued as a notification of use and implementation timescales. Please read this alongside the documents for the standard.

The controlled copies of these documents can be found on the [NHS Digital website](#). Any copies held outside of that area, in whatever format (e.g. paper, email attachment), are considered to have passed out of control and should be checked for currency and validity.

Date of publication: 7 May 2020

NOTE: From 1 February 2023, Delen - the information sharing and collaboration platform for Terminology and Classifications products, has migrated from <https://hscic.kahootz.com> to <https://nhsengland.kahootz.com>. URLs in this document have been corrected to ensure continuity of access. No other changes have been made.

Glossary of Terms

Term / Abbreviation	What it stands for
Archetypes	Archetypes are data models for the collection of clinical information. For example there are national specifications for a blood pressure archetype and an allergies archetype.
Terminology and Classifications Service	The Terminology and Classifications Service is part of NHS Digital. The service manages, maintains and provides national guidance on Terminology and Classifications i.e. SNOMED CT, OPCS-4 and the version of ICD-10 implemented in the UK.
CTV3	Clinical Terms version 3; also known as Read v3. CTV3 was developed as part of the Clinical Terms project and extended the content from Read v2. This is a clinical terminology that provides the vocabulary for electronic record systems. CTV3 provided over 60% of the original SNOMED CT content. CTV3 is now a deprecated standard.
concept	The SNOMED clinical vocabulary is organised as concepts. Each clinical thought or idea such as the diagnosis, the symptoms is represented in SNOMED CT as a concept. A concept is described via two or more text descriptions: the FSN and one or more synonyms. For more information see the Jargon Buster and animations .
DHSC	The Department of Health and Social Care (DHSC) supports ministers in leading the nation's health and social care to help people live more independent, healthier lives for longer.
EHR	Electronic Health Record. Also referred to as the EPR (electronic patient record)
FSN	Fully specified name. The fully specified name is one of the SNOMED Concept descriptions, is unambiguous and provides the point of reference for the meaning of the concept. Every concept has a FSN.
GPES	The General Practice Extraction Service ; collects information from general practice (GP) clinical systems in England and forms part of NHS Digital's GP Collections service.
GPSoC	GP Systems of Choice . GP Systems of Choice (GPSoC) was a contractual framework to supply IT systems and services to GP practices and associated organisations in England. The GPSoC Framework ended on 31 March 2018, when a continuity agreement was agreed, to ensure that the essential core services from GPSoC remain available until a replacement GP IT Framework is in place. Details of the new framework can be found under Future GP IT systems and services .
ICD-10	The World Health Organisation's (WHO) International Statistical Classification of Diseases and Related Health Problems – Tenth Revision is an existing NHS Information Standard - SCCI 0021: ICD-10 5th Edition.
IHTSDO	International Health Terminology Standards Development Organization. IHTSDO is a not-for-profit organization that owns, administers and develops SNOMED CT; the UK is a founder member of the IHTSDO. IHTSDO now operates under SNOMED International .
NHS Digital	A non-departmental public body of the Department of Health and Social Care. NHS Digital is the national provider of high-quality information, data and IT systems for health and social care. NHS Digital was previously known as the HSCIC.
PBCL	The Pathology Bounded Code List (formerly known as the Laboratory Messaging Subset) provides a defined or bounded subset of Read codes for use in lab to GP messaging.

OPCS-4	The Classification of Interventions and Procedures version 4 , formerly from the Office of Population Censuses and Surveys.
QOF	Quality Outcomes Framework, the annual reward and incentive programme detailing GP practice achievement results
Read v2	Read v2 is the terminology developed in the UK for primary care systems; it provides the clinical vocabulary for electronic systems. Read v2 is a deprecated standard.
Refset	Reference Set. A mechanism within SNOMED CT to define and distribute components from within SNOMED CT for example a subset of terms can be provided in a simple refset.
RF1	Release Format 1. The file structure specified by the IHTSDO for the files used to distribute SNOMED CT content in 2002. This format is no longer provided.
RF2	Release Format 2. The file structure specified by the IHTSDO for files used to distribute SNOMED CT content from 2011.
SCCI	Standardisation Committee for Care Information , SCCI replaced the previous Information Standards Board ISB and issues ISNs (information standard notices)
SNOMED CT	SNOMED CT is the clinical vocabulary for use in electronic record solutions in health and care. SNOMED CT has been adopted as the standard clinical terminology for the NHS in England. A standard clinical terminology is essential for the interoperability of electronic health records. Earlier legacy terminologies in use are The Read Codes Version 2 and Clinical Terms Version 3 (The Read Codes); both of which are no longer current standards
TRUD	Technology Reference data Update Distribution site ; the distribution site for NHS Digital which provides the SNOMED CT release files as well as SNOMED CT derivative products and tools.
UKTC	The UK Terminology Centre. The Centre is now known as the Terminology and Classifications Service within NHS Digital and it manages, maintains and provides guidance on the use of terminology within the UK.



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1 Introduction

This document describes the Fundamental Standard: SNOMED CT¹.

SNOMED CT is required in systems and applications that support the direct management of the health and care of the patient (see section 2). It applies to those data items that relate to clinically relevant information, for example symptoms, diagnoses, interventions, observations (a minimum list is provided in the user guide). For ease of reading throughout this document, it will simply refer to these as systems or applications (apps) and appropriate data items.

SNOMED CT can also be used in systems for secondary uses because of the extensive vocabulary and relationships provided, however this use is not mandated by the standard. Where such systems use the data captured at the point of care, it makes sense to use SNOMED CT.

SNOMED CT was first mandated as the clinical terminology for the NHS in England in 2003; it was an approved standard under the Information Standards Board (ISB0034) and was subsequently approved with required implementation dates by the Standardisation Committee for Care Information (SCCI) in November 2016. Required implementation dates for all NHS care settings is April 2020; this document reflects that we are now beyond April 2020.

This specification replaces the previous SCCI documentation and provides an overview of the standard itself; the document: 'Implementing the SCCI Standard: SNOMED CT' should be consulted for further information in relation to its implementation in the NHS.

This document provides guidance for both those contracting SNOMED solutions and those charged with its implementation within systems.

Why has this document been updated?

The requirement to enable all health and care systems to use SNOMED CT by 1st April 2020, as specified in SCCI0034, has not changed. The ability to flow patient data electronically and safely between health and care systems remains a high priority. Since December 2019, this objective has been achieved in General Practice. However, the requirement to enable SNOMED CT content in Secondary, Dentistry and Optometry care systems by 1st April 2020 is still be fully achieved; although we appreciate many providers have SNOMED CT enabled EPR systems in place.

Recognising this is the case, the NHS Digital Terminologies Delivery Service has gained approval from the Data Coordination Board, supported by NHSX, to provide an uplift to the key and supporting documentation to enable further progress of SNOMED CT implementation across health and care systems.

The information in this document has been refreshed to ensure links to current guidance and information is correct; clarifications have been made based on feedback from those systems that have adopted SNOMED CT; additional advice, where necessary, has been provided on the support available to help implementation.

It is expected that all secondary, optometry and dentistry service providers will have detailed plans in place with an associated implementation schedule for SNOMED CT **by December 31st 2020**. These will be required by NHSX/NHS England and NHS Improvement as part of provider planning activity.

¹ SNOMED CT is managed by SNOMED International, also known as the International Health Terminology Standards Development Organisation (IHTSDO): <http://www.snomed.org/>

2 Summary of the standard

Standard	
SCCI unique identifier	SCCI0034
Title	SNOMED CT
Description	<p>SNOMED CT is an international clinical terminology that provides the vocabulary for use in systems to support the recording of information in relation to the direct management of the health and care of an individual. The vocabulary consists of clinical concepts which enables structured data capture of the patient's symptoms, diagnoses, interventions and other terms related to their on-going care. The concepts have associated unique codes along with the text descriptions users associate with the particular concept.</p> <p>SNOMED CT is provided via a set of data files that need to be incorporated in electronic applications with the associated functionality provided in the system to enable users to utilise SNOMED CT in their structured data recording.</p> <p>SNOMED CT provides the terms for health and care related data items in software applications to enable the capture of clinically relevant information consistently, reliably and in a way that is processable by the computer system. This enables applications to exchange processable data across the health and care environment; provide clinical decision support tools and undertake enhanced analytics to support effective delivery of high quality healthcare to individual people and populations.</p> <p>The UK Edition of SNOMED CT must be used in the UK and not the International Edition. The UK Edition extends the International Edition with UK English descriptions (in preference to US English descriptions) and UK required components; for example clinical concepts such as PHE screening programmes are only provided by the UK Edition of SNOMED CT.</p> <p>The standard includes the coding structure, editorial rules, governance and distribution; it does not determine specific use. SNOMED CT is a fundamental standard and thus will be used by other standards where clinical terms are referenced; for example in a FHIR specification or a dataset collection.</p>
Applies to	<p>All organisations directly providing and /or commissioned to provide NHS, Public Health and /or Adult Social Care Services.</p> <p>All organisations who produce specifications for data recording, data analysis or data extraction from data</p>

	recorded at the point of care by organisations providing NHS, Public Health and /or Adult Social Care Services.
Release	
Release title	UK Edition of SNOMED CT
Version of Standard	Version 3
Description	<p>The UK Edition of SNOMED CT is composed of:</p> <ul style="list-style-type: none"> • International Edition • UK Clinical Extension • UK Drug Extension <p>Within the UK, systems must implement either:</p> <ul style="list-style-type: none"> • UK Clinical Edition (International Edition plus the UK Clinical Extension) • <i>or</i> UK Clinical Edition plus dm+d and/or UK Drug Extension <p>Systems may incorporate the full Edition or a subset, depending on the system. EPR systems that are used across an organisation must implement the full Edition (where medication management is provided by a 3rd party it may be acceptable to implement the UK Clinical Edition). Systems that are very specialised, for example an app to capture the findings of a patient asthma review, may use a subset.</p>
Implementation Completion date	<p>Providers of health and care were required to be paperless at the point of care before April 2020; systems relating to the direct management of patient care must incorporate SNOMED CT as the clinical terminology to provide the content for structured data capture within the system. This will enable interoperability of such data.</p> <p>The SNOMED CT standard was first approved by ISB in 2011 and in 2016 SCCI published an implementation requirement for the NHS of April 2020; providers implementing electronic health and care patient record systems must now ensure those systems are SNOMED CT enabled.</p> <p>Systems used by all other providers of health related services where the flow of information for the direct management of patient care comes into the NHS must provide such information utilising SNOMED CT.</p> <p>SNOMED CT is a fundamental standard; as such it will be referenced by other standards for representing health and care data. Health and care related data items that are:</p> <ul style="list-style-type: none"> • exchanged with other organisations (such as interventions and diagnosis); • are extracted for national collections; • need to be recorded to demonstrate accordance with national policy and professional guidelines;

	<p>must be captured using SNOMED CT.</p> <p>To implement SNOMED CT, reference must therefore be made to such additional information (for example a dataset collection specification) in order to understand any specific SNOMED CT requirements; for example national guidance may indicate how to record the housing situation for a mental health patient, a data collection may require the assessment scale score to be provided.</p> <p>Where data elements are required by a standard which are beyond the minimum set specified in SCCI0034, the date for implementation completion will be as stated in that standard.</p> <p>Social Care: Mandated dates for implementation in social care are expected to be part of a future update of the standard. However, organisations should already be preparing for this and alerting their suppliers of the forthcoming requirements. Where data flows between social care and health services, clinical data must be exchanged using SNOMED CT codes and terms (text descriptions).</p>
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3 Related documents

3.1 Supporting documents

Ref #	Title
1	Information Standards Notice
2	Advance Notification
3	Change Document
4	User Guide
5	Implementing the SCCI Standard: SNOMED CT

3.2 Related documents

Ref #	Title
1	SNOMED CT Product Page
2	Terminology and Classification Information and Resources
3	SNOMED CT Editorial Principles
4	SNOMED CT Release Notes (published in the TRUD release packs)
5	SNOMED International Technical Implementation Guide

6	Guidance for primary care (Implementation Guidance, Requirements, Assurance) (this is now archived and current requirements can be found via GP IT Futures)
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3.3 Related standards

Ref #	Reference	Title
1	SCCI0052 dm+d	dm+d – The dictionary of medicines and devices

4 Background

(Note. The following re-iterates detail in the SCCI Information Standards Notice issued in 2016 with an update in relation to current priorities).

SNOMED CT is owned and managed by SNOMED International (formerly known as IHTSDO). It is an international clinical terminology that is managed by its member countries. The UK is one of the founder members of the IHTSDO and contributed the UK CTV3 terminology to enable the creation of SNOMED CT.

SNOMED CT is now the only current NHS standard for terminology. A terminology enables recording of information at a level of detail appropriate for clinician to clinician communication. It is designed to support recording of information at the point of care that is relevant to their health and care. It is therefore different to the practice in some care settings where 'codes' are allocated to categories designed for population analysis and the category is allocated at some time after the point of care data has been captured.

SNOMED CT is therefore required for:

- recording data about the care of the patient
- communicating clinical information across health and care NHS organisations
- defining decision support and business rules
- submitting data to national dataset collections which extract from the EPR
- defining report and search specifications on point of care recorded data
- specifying data from the point of care to be supplied as part of commissioning

The Classifications ICD-10 and OPCS-4 are current standards for in-patient care and day care cases. It is acceptable to specify aggregate data requirements using the classifications in these care settings; in care settings other than in-patient care and day care then terminology should be used. National strategy is to remove the additional burden of every provider having to categorise their data solely for data returns to other bodies such as commissioners, NHSE, PHE; and to extract the data captured at the point of care in SNOMED. This enables providers to focus on the quality of data captured and for systems to then trigger decision support, ensure interventions have been done in a timely manner, offer drug contra-indications etc, all of which support the improvement of patient care.

By using SNOMED CT, we can reduce the burden on provider organisations and improve patient care by providing more relevant up-to-date data; a number of the [Case Studies](#) created by NHS Digital demonstrate the benefits organisations are already attaining following implementation of SNOMED CT.

Note. The Read codes (Read v2, CTV3) are deprecated standards; they are no longer maintained and **must not** be used in patient care management systems. The antecedent versions of SNOMED (SNOMED II, SNOMED 3.x, SNOMED RT) came out of licence on 26 April 2017 and **must not** be used within the UK.

5 Details of the standard

5.1 The UK version

The applicable standard within the UK is the UK Edition of SNOMED CT.

The UK Edition consists of three parts:

- The International Edition
- The UK Clinical Extension
- The UK Drug Extension

The files structure of each is the same.

As their titles suggest, the UK Clinical Extension extends the international content with additional clinical components and the UK Drug Extension extends the content with drugs and medical devices. The UK Drug Extension is derived from dm+d and hence contains the same current drugs and devices; the identifier is the same in the UK Drug Extension and dm+d for the same item. The UK Drug Extension contains additional information such as Trade Family Name, but does not contain the pricing data provided within dm+d.

Suppliers **should** utilise the UK Language reference set (provided as part of the release; see the SNOMED Technical Implementation Guide for more details) to filter the full set of descriptions available within SNOMED CT in order to provide English British descriptions.

Suppliers **must not** update the subsets in a system without first updating the release of SNOMED CT in use in the system as the new subset may now contain inactive concepts that were previously active and/or may have new concepts that were not in the previous release. In specialist solutions (e.g. ophthalmology), utilising subsets rather than the full UK Edition is an appropriate implementation of the standard. (SNOMED CT uses reference sets to represent subsets of SNOMED components).

Note. UK organisations deploying systems in other countries **should** ensure that the correct Edition is used as a number of countries also produce their own Edition of the terminology. The UK Edition **must** not be deployed outside the UK without first checking with the Health organisation of that country and the UK; to do so may be against conditions in the licence.

5.2 Release Formats

The data files provided are designed to provide efficient distribution of the content; they are not designed to any specific implementation data model. It is expected that those using the data files will transform the data provided into a data model that suits their application. As the applications that use SNOMED CT are varied, it is not possible to provide an appropriate data model and set of database files. However the SNOMED CT content model should be followed as outlined in the SNOMED Technical Implementation Guide, for example only using the attributes that are allowed for a procedure.

The release format for the SNOMED CT standard is Release Format 2 (RF2).

Full details of RF2, the files types in RF2 (Full, Snapshot, Delta) and the file format specification can be found the SNOMED Technical Implementation Guide. NHS Digital also provide a number of short [animations](#).

5.3 Frequency of releases

An updated version of the UK Clinical Extension is normally provided every 6 months with a release date of 1 April and 1 October; the actual files are usually provided a few days in advance.

Updated versions of the UK Drug Extension are provided every 4 weeks, with an additional twice yearly interim release provided to synchronise to the 6-monthly UK Clinical Edition.

The files **must** be implemented in systems on or after the notified release date. Systems **should** endeavour to have implemented a new release within 2 months of its release date and at the latest before the next release; however local requirements **should** be provided by the contract holder for the specific system.

Note. The International Edition is available on 31st January and 31st July; these releases **must not** be implemented within the UK until the UK Edition release dates.

5.4 Distribution

SNOMED CT is distributed by the Terminology and Classifications Service within NHS Digital. Obtaining copies of the standard is undertaken electronically via a web distribution site known as the Technology Reference data Update Distribution site ([TRUD](#)). Users need to subscribe for the appropriate pack of the standard (depending on requirements for file types); guidance on how to use TRUD is provided on the site and email notifications of when a new release is available are provided based on the packs subscribed to.

Details on the TRUD website assist users of the standard in deciding which pack is most appropriate to their needs. The pack contains release notes and further documentation which should be consulted before implementing a new release.

5.5 Requests for new content

End users and suppliers may request new content within SNOMED CT as well as changes; to do this, 'requests for change' need to be submitted through the SNOMED [request submission portal](#). Requestors should note that all terms are authored to national and international Editorial Principles in order to provide consistency across the terminology and that they must be of national relevance. A link to the Editorial Principles is provided in Section 3 of this document and on the Requests for Change Portal.

5.6 Governance

Governance of the products that fall within the remit of Terminology and Classifications Service is undertaken via a Governance Board known as the UK Strategy Board. This has representation from all four UK countries. The UK Strategy Board allocates some of its responsibilities to its sub-committees; in particular the Editorial Board.

The secretariat for the Governance Board is provided by NHS Digital; queries for the UK Strategy Board can be sent to information.standards@nhs.net.

5.7 Additional Products to support implementation

5.7.1 Subsets

The [Data Dictionary for Care \(DD4C\)](#) provides a searchable database of all the subsets provided nationally within the UK Edition. Any subsets specified in a national data set are included in this database.

The subsets available as part of the release are constantly being added to, and range from clinical specialty based subsets (e.g. paediatrics, renal, urology) which have been developed with the professional bodies, to subsets developed as part of a national requirement.

Further details are provided within the release pack of the UK Clinical Edition (for clinical subsets) and the UK Drug Extension (from pharmacy based subsets). An [animation](#) on subsets is also available.

5.7.2 Added Value Products

In addition to the core data files, a number of tools and products (e.g. maps to legacy codes – Read v2, CTV3, SNOMED RT, PBCL) are provided that can be used to aid the implementation of SNOMED CT. These broadly fall into two categories:

- **Derivative products:** these are essentially data files and provide extractions of terminology from the full UK Edition. These may be subsets of components (known as refsets) or mapping products developed to meet a particular requirement, data set or specialty.
- **Tools:** pilot/beta versions of software tools developed by the service may be of interest to support those involved in implementation.

Details of those products currently available can be found on TRUD (see the [Terminology Products page](#) and select the appropriate category from the left hand menu).

5.8 Licensing

SNOMED CT is issued under licence but is free to deploy within the UK. Organisations deploying SNOMED CT within their product **must** register for a licence; but individual users do not need to register. Anyone downloading the SNOMED datafiles will be asked to agree to the license, it is at this point you can register.

For further details see the licensing information in the NHS Digital section on [Downloading and Licensing](#) and the [SNOMED International](#)² website; the actual license can be viewed on TRUD.

² <http://www.ihtsdo.org/snomed-ct/get-snomed-ct>

6 Maintenance of the standard

The International Edition of SNOMED CT is maintained and updated by SNOMED International, with the UK Extensions being maintained and updated by NHS Digital. The Terminology and Classifications Development Service within NHS Digital is ISO:9001 2008 certified.

The International Edition of the standard is managed and maintained through the SNOMED International Management Team with contribution from the international advisory groups, for example Content Managers, Modelling, and Tooling advisory groups of SNOMED International. Further information can be found on the [SNOMED International webpages](#), as well as how to participate in discussions and participate in the activity of the SNOMED International.

The UK Clinical Extension and the UK Drug Extension is managed by the Terminology and Classifications Development Service. Overall governance for the UK is provided by the UK Strategy Board. The Edition Committee, which is a sub-committee of the Governance Board, is responsible for advising on the UK Edition and maintenance of the [UK Editorial Principles](#).

The Terminology and Classifications Development Service endeavours to maintain active engagement and appropriate influence in decisions of SNOMED International to ensure the terminology meets the needs of the UK.

6.1 Product Life Cycle

Terminology products are managed through a [product life cycle](#). This ensures that products are managed from initial development and proof of concept state (*Draft for Trial use*), to *supported* through to deprecation (*legacy* product). The status of each product is provided as part of the description on TRUD. Users should ensure they are aware of the status of a product and what that means before fully deploying a product into live systems.

6.2 Keeping abreast of developments

SNOMED International operates a number of forums and committees to enable individuals to contribute to the development and content of the standard. Access to the collaborative site which hosts the discussions of the committees and project groups can be gained via emailing info@snomed.org.

The Terminology and Classifications Development Service aims to ensure that UK stakeholders are kept well-informed of developments and changes; this it does via the [UK SNOMED Implementation Forum](#) and when appropriate via emails to those subscribing to SNOMED via TRUD. Individuals can join the UK SNOMED Implementation Forum by sending a request to information.standards@nhs.net and can also contribute to the [Discussion Forum](#) via emailing the [workspace manager](#).

6.3 Distribution of data files

The data files that constitute the standard can be downloaded from the [web](#). Details are provided in section 5.4.

6.4 Release Cycle

The standard is maintained through 6-month release cycles. See Section 5.3.

6.5 Requests for Change

SNOMED CT is dynamic and designed to accommodate the constantly evolving needs of health and care so that it can be updated to reflect those changes. Content must be nationally relevant rather than only having meaning to a region or locality. NHS Digital authors new content or makes changes to existing content in response to requests from individuals, solution providers, professional bodies or national organisations such as NICE, Public Health England and NHS England. New requests are assessed against 'editorial principles' (see Section 3) that are applied internationally and nationally.

If you wish to request changes to existing content and/or subsets please use the [Request Portal](#); Requests for change can be made at any time; however processing of requests is closed during late December and late June prior to the April and October releases respectively. This is to enable alignment with the respective International Release, to undertake thorough quality assurance, and to prepare the files for testing prior to release. National subsets and supporting products are updated to reflect the current release.

7 Requirements

SNOMED CT is a fundamental standard; it is therefore a requirement in other standards where it is necessary to record in a nationally consistent way terms that relate to the health and care of an individual. Where SNOMED CT is part of another standard, for example a data collection, then the requirements in this section must be read alongside the specifics within that standard.

7.1 Overall Requirements

Software systems **must** use SNOMED CT to provide the vocabulary for data elements that need to be:

- Shared outside the organisation,
- Extracted from the EPR,
- recorded in line with national guidelines (for example NICE guidelines) or
- used by national/regional specifications (for example QOF, service commissioning, clinical calculators, decision support rules)

where the data elements are in scope of the SNOMED terminology. (For example a postcode is not in scope, but an intervention is).

A minimum set of data elements to be captured using SNOMED CT is provided in section 7.4.3; other information standards may extend that list as they conform to enabling extraction of data from systems and not burdening providers with additional data entry codes. In such a scenario, that standard will provide the implementation conformance date for those data elements to be in SNOMED CT. For a definitive list of data elements that currently require SNOMED CT, please consult the [NHS Data Model and Dictionary](#).

Where an application only uses a restricted vocabulary or specialty dictionary (for example an app to support completion of an asthma review), the terms provided for data entry **must** be valid terms from within the SNOMED CT terminology. It is not necessary for users to view the codes, but data transferred from the app to other systems **must** include the SNOMED codes. Where the interface is say graphical then it is acceptable for the codes and terms to be within the software and not visible to the end user as long as there has been sign off that the terms mean what is conveyed on screen.

It may not be necessary for an application to use all of the components within SNOMED CT, for example a restricted list of options can use just a subset; where only pick-lists are provided relationships within SNOMED may not be required. However, where the application is an organisation wide EPR, it is expected that users can browse the full set of terms provided within the SNOMED datafiles and use the SNOMED hierarchy to aid such browsing.

In summary, the business requirements of the standard are:

- SNOMED CT to be the terminology utilised for clinical terms within all electronic communications. National message specifications must use and thus will require data to be captured using the SNOMED CT terminology when transmitted between systems.
- End users to be able to enter data into the clinical system using the terms from within SNOMED CT. This can be through various interfaces and end users do not necessarily need to see the codes. However, national guidance and national recording requirements will increasingly specify requirements utilising the terms within

SNOMED CT. For example NICE guidelines in relation to medical technologies; PHE national screening programmes; national guidelines in relation to frailty; national consent models – all contain requirements expressed using the terms within SNOMED CT.

- Data extractions (including reports) from the system to be specified using SNOMED CT; those specifying extractions must use SNOMED CT (e.g. commissioners, national ALBs) and for the system to facilitate those specifications to be executed. For example all stroke patients could be expressed as all patients containing the concept 'cerebrovascular accident' and any children of that concept. National data set reporting; national extractions to organisations such as national registries; national data returns (for example QOF - Quality Outcomes Framework) or GPES (General Practice Extraction Service) in primary care, must all be specified using SNOMED CT and thus systems must provide reporting functionality that can incorporate queries written using clinical terms from SNOMED CT.

This must be done in such a way that both the text and the code of the concept within SNOMED CT are available for processing and onward communication.

7.2 Scope of Use

The standard **must** be used to support the management of the health and care of the patient in the following, but not restricted to, ways within electronic systems:

- In messages that are used to transfer patient related data from one system to another.
- Patient Summaries including Discharge summaries.
- Problem lists.
- Allergy Lists and Allergy Management.
- Decision Support tools.
- Clinical Documentation.
- Care Plans; in particular for clinical content that will be transferred between systems.
- Keyword lists for metadata in care pathways, research documents, evidence based content.
- Reporting from data captured using SNOMED CT: systems will need to enable queries to be constructed that utilise the features and hierarchies within SNOMED CT.

7.3 NHS Data Model and Dictionary

The [NHS Data Model and Dictionary](#)³ provides details of information standards and any data elements within those standards that are required to be provided coded using SNOMED CT. Where subsets are required to be used these will be detailed within the NHS Data Model and Dictionary.

Note: It is possible to search the Data Dictionary for all data elements that are defined to utilise SNOMED CT. This will provide system developers with a good indication of what data within their system needs to accommodate SNOMED CT; note that this list may change as new standards are developed.

³ <http://www.datadictionary.nhs.uk/index.asp>

7.4 Detailed Requirements

7.4.1 Data Entry

End users **must** be able to enter SNOMED CT terms into the electronic patient record. How those terms are made available is part of the user interface design of the solution, and may vary considerably depending on the application. How terms are stored is also the domain of the application, however the application must be able to process and transmit the concept id and an appropriate description. Techniques such as:

- searching using the beginning of words in the clinical term, for example ‘fract femur’ for ‘fracture of femur’ (in any order),
- subsets to provide just procedures or just paediatric terms,
- shortcodes, abbreviations, equivalent terms etc.

can be used in order to provide a good user experience for data entry. For more information see the SNOMED International Search and Data Entry Guide in their [document library](#).

When SNOMED is provided in an EPR system, users **must** be able to search on any of the synonyms. It **should** be possible for the user to select and enter any of the SNOMED CT descriptions, although it is generally advised that systems **should** not utilise the FSN in a patient record. Some applications **may** wish to guide the user to only enter the preferred term.

Systems **should** wherever possible, restrict the terms available based on the context of the data item, for example only allow procedures in a procedure field. Care should be taken with diagnosis that this isn't too restrictive as often symptoms may be entered if a diagnosis has not been possible.

7.4.2 English British Descriptions

SNOMED CT is an international standard and provides mechanisms for descriptions of concepts to be provided in a number of languages. The default authoring approach is to author in English US.

The UK Edition provides English British descriptions where required. The language Refset, provided as part of the UK release, provides the English British descriptions which enables suppliers to provide only English British descriptions if required; details are provided in the release notes with the UK Clinical Edition and in the document: [Creating Terminology Tables in a Database](#) .

Applications **may** restrict terms available within a system to those provided by this refset; i.e. just to English British descriptions.

7.4.3 Data Items

As a minimum, systems that incorporate any of the following data items **must** be using SNOMED CT to capture their content:

- Symptoms
- Diagnosis
- Procedures (interventions)
- Assessment Scales
- Family History
- Medications

- Allergies
- Observations such as Blood pressure, weight, height
- Documentation Type and documentation care setting
- Laterality
- Body Site

Other data items whose content is in scope of SNOMED CT **should** also capture that content using terms from SNOMED CT.

Any data currently recorded using the Read codes **must** use SNOMED CT in place of the Read codes. The Read codes (both Read v2 and CTV3) are now deprecated standards; national mapping tables are provided on TRUD to enable the mapping from Read codes to SNOMED CT.

Many systems use local codes; where local codes are used for content that is in scope of SNOMED CT, users and system developers **should** start to replace these with SNOMED CT content. The burden of maintaining local codes is not trivial and such content is not interoperable.

Note. There is an increase in the use of data Archetypes for specifying the data model for data objects (versus data fields); current examples are blood pressure and allergies. System Developers **must** check via the [NHS Digital interoperability webpages](#)⁴ or NHS Digital help desk enquiries@nhsdigital.nhs.uk with a request to the messaging team for any such specifications.

7.4.4 Relationships

As part of the terminology release, there are two types of relationships provided: stated relationships and inferred relationships. Implementers **must** use the relationships file provided in the terminology release unless they have a specific use case that does not require all relationships. Further details on stated relationships can be found in Section 4.3.5 in the SNOMED International Technical Implementation Guide.

7.4.5 Reporting and data extraction

The terminology provides a number of features to assist in information retrieval; both the 'is-a' relationships and the attribute relationships can be used to retrieve data from data captured using SNOMED CT.

Solutions that provide reporting and data extraction features **should** use the operators provided in the SNOMED International document '[SNOMED CT Expression Constraint Language Specification](#)'. Where systems have used a more user-oriented interface (for example clicking to say include all descendants of this code as well), this is acceptable; however system developers **should** also allow users to enter an ECL expression.

7.4.6 Inactive content

SNOMED CT is a dynamic terminology; as well as adding new terms it is possible to also make concepts, descriptions and relationships inactive.

⁴ <https://digital.nhs.uk/services/transfer-of-care-initiative>

Systems **must** be able to maintain user data entry provision so that inactive content is no longer presented.

Historical data recorded which now has inactive content **must** still be retrievable when appropriate.

Solutions in the primary care environment **must** use the UKTC Query Table to process data recorded using inactive content; all other solutions **should** use the UKTC Query Table (available to download via TRUD in the [SNOMED CT Derivative Products](#) section). For some use cases developers may use the UK History Substitution Table. Full documentation is provided within the download pack.

7.4.7 Pre and Post Coordination

As products mature and interoperability in the health and care environment develops, systems will increasingly use post-coordination. Further information on post coordination is available via the SNOMED International Technical Implementation Guide and further advice can be obtained from the Terminology and Classifications Service in NHS Digital. Some national data collections already use a simplified form of post coordination for specified data elements.

System suppliers **must** conform to any specific requirements within national standards. Those providing systems specifications **must** be clear on any requirements for post coordination.

Those providing population health systems may find the algorithms provided by SNOMED International useful in determining equivalence and subsumption (i.e. is-a type of) where data is captured in a mixture or pre and post coordinated forms.

8 Training and education

The Terminology and Classifications Development Service provides a variety of guides; recorded presentations and animations; and live webinars to aid both the use of and the implementation of SNOMED CT. These products relate to implementation in the UK and the UK Edition of SNOMED CT. See the Education and training section on the [SNOMED CT Product Page](#) and also materials in the specific projects highlighted at the top of that page.

SNOMED International provide the specifications for the standard and also provide a variety of [education materials](#) including documentation, guidance and on-line courses (with certification on successful completion of the course). Of particular interest is the [SNOMED Document Library](#).

The respective websites should be consulted as the materials available changes over time.

For those unfamiliar with SNOMED CT, a good start point is:

- The NHS Digital [Quick guide to key resources](#).
- [SNOMED International starter guide](#): this provides a comprehensive overview of SNOMED CT and is written for non-technical audiences.

Terminology in NHS Digital also provide a [helpdesk](#) to support individuals and organisations in the implementation and effective use of SNOMED CT.

9 Mapping to SNOMED CT

A number of mapping products are provided to support the business of the NHS. Where maps are used to support the transition to SNOMED CT, these should not be seen as a permanent solution and adoption of SNOMED CT within a software system is recommended.

9.1 SNOMED CT to classifications

The Clinical Classifications Service provides the national maps from SNOMED CT to the classifications (ICD-10 and OPCS-4). The maps support the standard and are distributed as part of the regular terminology releases via TRUD. These are subject to the licence conditions for SNOMED CT, ICD-10 and OPCS-4.

The maps adhere to the national clinical coding standards and guidance. The application of the national classification standards, as part of the mapping process, is pivotal to users of SNOMED CT in order to meet the mandatory requirement to supply consultant episodes coded to the OPCS-4 and ICD-10 standards.

9.2 Read codes to SNOMED CT

The NHS Digital Terminology Service provides maps from Read v2 to SNOMED CT and from CTV3 to SNOMED CT. The methodology for the production of the maps is agreed with the Joint GP IT Committee who also provided clinical oversight. The maps must be used as described in the accompanying documentation within the release pack; those using the maps should be aware of the alternate maps provided as an additional product for Read codes that may or may not take values.

The maps are provided within the 'NHS Data Migration' pack and can be downloaded from TRUD; these maps will no longer be regularly updated after 1st April 2020. In addition, an on-line look-up is provided for end users; these can be found as follows:

- [Look-up the SNOMED CT concept](#) for a Read v2 code.
- [Look-up the SNOMED CT concept](#) for a Read CTV3 code.

SNOMED CT is a comprehensive and much richer terminology than the Read codes; in addition Read v2 has some duplicate codes which map to the same SNOMED CT concept. Users of the maps are strongly recommended to read the [Data Quality guide](#) which explains how some codes have been mapped, for example NOS codes. Also, back-maps from SNOMED CT to Read v2 and from SNOMED CT to CTV3 can only be provided for a subset of SNOMED CT. To aid processing during a mixed terminology environment, a 'GP subset' has been produced which includes maps from SNOMED CT to the Read codes for a restricted set of SNOMED CT terms. The GP subsets (one for Read v2 and one for CTV3) with the associated maps are provided within the Derivative products area of the Terminology Products on TRUD. **Note.** That while this is referred to as the GP subset, the SNOMED concepts and terms available in GP systems is far greater than provided by this subset.

A product called the NHS Data Migration Workbench is available on TRUD; this enables end users to enter a Read code and identify the SNOMED CT term to which it is mapped, as well as being able to browse through the Read v2/CTV3 with the terms synchronised across the different terminologies on screen. A list of codes can also be created or imported into the tool

and all mapped to SNOMED CT. The workbench is provided as an Access database, all the tables and code are visible to those familiar with Access.

Wherever possible, the maps are to active concepts within SNOMED CT. **Note.** Some Read codes map to inactive SNOMED concepts and are therefore no longer available for data entry in a SNOMED system. In the main these are erroneous, out-dated, ambiguous or terms that are not interoperable (eg. Refer to clinic A).

9.3 Legacy SNOMED to SNOMED CT

The legacy versions of SNOMED (SNOMED II, SNOMED 3.x, SNOMED RT) came out of licence in April 2017 and have not been maintained since 2006; they must not be used within the NHS in England after 26 April 2017.

To aid end users to transition to SNOMED CT, maps are provided from the legacy version of SNOMED to SNOMED CT. These are available on the TRUD website within the Derivative Products area of the Terminology Products in the pack: 'SNOMED Antecedent Versions Data Migration'.

9.4 Pathology Bounded Code List Maps

The Pathology Bounded Code List (PBCL – for details on PBCL see the [NHS Digital webpages](#)) is defined in terms of the Read codes. As these are now deprecated products, 1:1 bi-directional maps are provided from the Read v2 codes within PBCL to SNOMED CT and for the CTV3 codes within PBCL to SNOMED CT. These are available in the pack: 'PBCL Read Code to SNOMED Code Translation Table' within the Derivative Products area of the Terminology Products on TRUD.

10 Contacts

The following table lists the contacts for the standard:

Helpdesk	
Terminology	Information.standards@nhs.net
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