

Implementation of SNOMED CT in NHS Information Systems

Requirements of systems

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Introduction

The National Information Board for England states in its framework for action within ‘Personalised Health and Care 2020’¹:

*... SNOMED CT is to be used as the single terminology in all care settings in England
... the entire health system should adopt SNOMED CT by April 2020.*

This document outlines requirements for use in the procurement of EHR systems as well as some guidance for software development that utilises SNOMED CT² in NHS Information Systems. It provides the expectations for the use of SNOMED CT within electronic record systems in order that systems are able to deliver information sharing across the NHS thus complying with NHS Policy.

1. Definitions

The following definitions are used alongside each requirement and should be interpreted as:

Must	This word, or the terms “required” or “shall”, means that the definition is an absolute requirement of the specification
Should	This word, or the adjective “recommended”, means that there may exist valid reasons in particular circumstances to ignore a particular item, but the full implications must be understood and carefully weighed before choosing a different course.

2. High Level Requirements

Requirements for systems very much depend on the functionality within the system. As an overall guide the following illustrates the general principles of where SNOMED CT should be available within a system:

- Data Entry: Enable the end user to use SNOMED CT for data entry in all aspects of the system where clinical terms are provided for selection say through a dictionary
- Business Rules: Enable all system functionality that is based on clinical terms to use the SNOMED CT terminology for those clinical terms
- Interoperability and national specifications: Data extractions, interactions and messages have to provide and accept data in SNOMED CT for interoperability and national processing
- As a minimum, but not necessarily exclusive to, the system Should use SNOMED CT for problems, symptoms, medications, allergies, diagnosis and procedures
- Where family history, assessment scales and observables can be recorded using structured content, this Must be in SNOMED CT

¹ https://www.gov.uk/government/uploads/attachment_data/file/384650/NIB_Report.pdf

² SNOMED® and SNOMED CT® are registered trademarks of the IHTSDO® (www.ihtsdo.org)

As the NHS estate matures in terms of interoperability and its use of SNOMED CT, then the more advanced features of SNOMED CT such as post coordination will be utilised. However, currently specifications provided nationally will be based on pre-coordinated terms within specified data items. Further information on what is meant by post coordination and pre-coordination can be found in the document 'Implementing the SCCI Fundamental Standard: SNOMED CT – A guide on Where to Start'.

3. Sample Requirements statements

The following represent sample statements that the reader may wish to use in their procurement documentation; it also aims to indicate to suppliers the requirements to be considered for inclusion with their product features. As such, you may find it necessary to make some requirements more specific if you have particular needs from your solution.

The following is aimed as a guide only; if you require further advice and guidance please contact information.standards@nhs.net

Requirement	Status
The system must allow the user to enter SNOMED CT clinical terms in individual patient records	Must
The system must support the use of SNOMED CT to analyse and report on data held in individual patient records	Must
Structured clinical coded data in individual patient records must be stored using SNOMED CT. NOTE: Free text may be used to supplement where appropriate	Must
SNOMED CT should be used as a minimum to store/record structured coded information for the following data items: diagnoses, procedures, laterality, symptoms, family history, assessment tools, observables, allergies, medications	Should
Where SNOMED CT is used at the user interface, the features of SNOMED CT should be utilised to aid selection of the required term e.g. subsets, synonyms for searching and data entry, content restricted by context (e.g. procedures only offered for a procedure field).	Should
The system must support the display of SNOMED CT descriptions which can be up to 255 characters, but where the complete description cannot be displayed in a field, the complete description must be viewable by another user friendly method.	Must
The system must support the storage of the SNOMED CT description asserted on data entry	Must
The system must use the UK Edition of SNOMED CT and be capable of incorporating new releases into the system. NOTE: The system should use the Realm Description Subset available within The UK Release files to provide UK only descriptions.	Must

Integrated systems must use the same release of SNOMED CT.	Must
The UK Edition of SNOMED CT is released biannually by April 1 st and October 1 st .	Should
A responsible officer must use reasonable endeavours to ensure the most recent version of SNOMED CT is deployed before the next national release is available.	Must
Systems migrating from National legacy terminologies (the Read codes) to SNOMED CT must use UKTC approved mapping tables.	Must
UKTC mapping tables from SNOMED CT to UK mandated classifications, currently OPCS-4 and ICD-10, should be used to support secondary care reporting based on classifications (where this is supported through system functionality).	Should
The system should provide a mechanism to incorporate national and local SNOMED CT Subsets/Refsets	Should
The system must support the transmission or receipt of SNOMED CT data from/to other systems, such as requests and results in pathology and imaging	Must
When searching SNOMED CT it should be possible to constrain the search to a particular domain/hierarchy/subset	Should
Where a SNOMED CT post coordinated expression is recorded, all attribute value relationships must be stored along with the focus concept.	Must
Any SNOMED CT search facility should allow navigation to other terms within SNOMED CT from the search results through parent or child relationships.	Should
The system should extend searching using equivalent words e.g. Renal for Kidney	Should