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Related Documents:

These documents will provide additional information.

Ref no	Doc Reference Number	Title	Version
1	NPFIT-FNT-TO-TOSCI-007	SNOMED CT [®] representations to support care planning functionality	1.0
2	External Audiences: http://www.connectingforhealth.nhs.uk/about/acronyms	Glossary of Terms Consolidated	
3	NPFIT-FNT-TO-TOSCI-0046	Care plan content using SNOMED CT [®] editorial guidance	1.2
4	13940-1:2007	Health informatics - System of concepts to support continuity of care - Part 1: Basic concepts	Final Draft
5	NPFIT-FNT-TO-TOSCI-0045	Care plan content publication on Technology Reference Data Update Distribution Service (TRUD) (superseded by this document)	2.0

Glossary of Terms:

Term	Acronym	Definition
Technology Reference Data Update Distribution Service	TRUD	Technology Reference Data Update Distribution Service
NPFIT Local Ownership Programme	NLOP	Accountability for the delivery of National Programme for IT transferred to strategic health authorities strategic health authorities on 1 April 2007, as part of the National Programme for IT Local Ownership Programme
London Programme for Information Technology	LPfIT	Part of NHS London, LPfIT has overall responsibility for upgrading NHS information technology to make it possible for hospitals, community services, mental health trusts and GPs to share electronic patient records across the capital.
North, Midlands and East Programme for Information Technology	NMEPfIT	The six strategic health authorities (SHAs) overseeing the geographic area covered by the former East, North East, and North West and West Midlands Clusters are: East of England SHA East Midlands SHA North East SHA North West SHA West Midlands SHA Yorkshire and the Humber SHA
Southern Programme for Information Technology	SPfIT	The three SHAs overseeing the Southern Programme for IT are: South Central SHA South East Coast SHA South West SHA
x Programme for Information Technology	xPfIT	Under the NLOP NPFIT Local Ownership Programme to describe any of the three regional programmes, LPfIT, NMEPfIT or SPfIT
SCTID	SCTID	The SctId data type is a 64-bit integer, which is subject to the following constraints: <ul style="list-style-type: none"> • Only positive integer values are permitted. • Leading zeros are not permitted. • The minimum permitted value is 100,000 (6 digits) • The maximum permitted value is 999,999,999,999,999,999 (18-digits). • As a result of rules for the partition-identifier and check-digit, many integers within this range are not valid SctIds.
Primary Key		A Primary Key uniquely identifies each row
DSCN		Data Set Change Notice, note these are now Information Standard Notices
ISN		Information Standard Notices are issued by the Information Standards Board for Health and Social Care http://www.isb.nhs.uk/documents/dscn/dscn2010/dataset/dscn182010.pdf
ISB HaSC		Information Standards Board for Health and Social Care

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1 About this Document

1.1 Purpose

This document gives technical guidance to support the implementation of care planning content in clinical systems.

This document provides guidance on using Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT[®]) in the design and configuration of multidisciplinary care/treatment planning functionality within electronic health care systems to be compatible with anticipated and current clinical system capabilities for routine documentation.

Reference to other documentation regarding SNOMED CT[®], care planning functionality and content will be required. Specifically SNOMED CT[®] post-coordination conventions for any messages travelling outside the system or to different areas of the application will ensure any reports or other functionality will behave as intended.

This document is intended to give guidance on the use of SNOMED CT[®] in care planning type functionality but is not a proxy for the comprehensive requirements and functional design process, and should in no way be considered a contractual obligation in the current framework for the NHS in England.

1.2 Audience

This guidance is for NHS Connecting for Health (NHS CFH) teams, xPfITs, LSP, suppliers, and clinical leaders or health informatics staff involved in electronic care planning design and configuration for patients/clients/service users¹. A good general understanding of SNOMED CT[®] and its use in clinical systems is required prior to using this document.

1.3 Scope

This document provides guidance on the use of SNOMED CT[®] in care planning and related functionality, irrespective of the system's information model although it may also have an impact on system architecture, user interface design, system configuration and clinical content development. The document also provides guidance for those designing electronic care planning or other applications, which may wish to interface with these systems.

The care planning content is for use in electronic care planning applications within NHS England; however, national content has been utilised in a paper format ahead of deployment and could be used in other countries within the United Kingdom subject to appropriate governance arrangements. Implementation using this guidance beyond this scope should include consultation with the relevant national release centre until full international guidance is available from the IHTSDO.

¹ Across health and social care, the people that care plans may refer to patients, clients and service users by various agencies. This list is not exhaustive but reflects the major references. For clarity, this document refers to any of these variants as service users.

1.4 Not in Scope

At this point care pathways; full resource scheduling and frequencies are not identified within this content. However, future iterations will include these values making use of data and clinical standards in development and this will propagate through the content.

This document does not:

- Deliver detailed guidance on generic post-coordination² principles, proprietary specific considerations and other aspects covered within guidance from NHS CFH, the IHTSDO and UKTC. General features of the SNOMED CT[®] concept model and its use in clinical systems will not be explored in detail
- Address differing models of professional care across the many disciplines involved in care/treatment planning, nor significantly influence them
- Detail the process of referral or task referral from one professional group to another whether within an application or by messaging.
- Address areas such as adult and child protection, multidisciplinary delivery of care, mental health and health and social care integration, although many principles will still be applicable to these areas
- Consider the design, usability and specification of any user interface. There needs to be consideration to making the care plan easy to use, accessible and consistent for service users in terms of both the terminology used and the ability to navigate a version of the care plan with little or no training.
- Give guidance on the service user's access to their care plan.
- Identify the specific training needs of staff leading up to configuration or use of any SNOMED CT[®] enabled system
- Identify the deployment timelines for specific application dependencies and antecedent reporting functionality
- Identify the timescales for delivery of full interoperability of care plans and care planning functionality between organisations, which is required to meet NHS business needs.
- Medication administration is considered out of the scope of care planning and this guidance
- Conditional statements to guide actions have not been considered in detail despite being required by many areas of care planning and therapeutic prescription (not just medication) require a combination of statements e.g. "If ... then ..." Within the information model "Arden Syntax"³ is well established, however it's combination with structured terminology less matured.

1.5 Assumptions

In this document, a "care plan" is described; however, some professions/sectors have differing descriptions for this concept. Application functionality and descriptions must reflect these varying needs, whilst bringing the record together as an integrated health record. The phraseology currently used differs slightly between professions;

² Post-coordination in SNOMED CT is a term for a piece of clinical information that requires more than one code or attribute to explain it. For example, arm | laterality | left.

³ There is guidance available for the information system within the Health Level Seven Arden Syntax for Medical Logic Systems; however, specific guidance on how SNOMED CT is used in conditional statements is under consideration.

for example medicine generally refers to “treatment plans”, midwifery has “birthing plans”, social care has “support plans” and nursing and many other health and social care professions refer to “care plans”, “intervention plans” or “management plans”.

The care plan content is designed to address the majority of patients with a given care need; however, a degree of personalisation may also be required at run time. The personalisation will include addition or removal of concepts and contextualisation using post-coordination or free text; this MUST be carried with the care plan and SHOULD be displayed clearly and without the need for additional interventions by the user. Contextual text SHOULD NOT be hidden as this adds to the cognitive burden of the user and may carry additional clinical risk.

There are likely to be systems from many different suppliers in use across all health and social care sectors, therefore any care plan design is likely to need to be transferable or accessible and updatable in multiple systems rather than dependent on any single application.

Some degree of post-coordination within the supplier application is expected to be present or available in imminent releases. Care planning and delivery is an iterative process and pre-coordination of every phase of planning and recording of a given procedure would be unrealistic and onerous for the application, record and terminology to manage.

Common User Interface design mandates and recommendations MUST/SHOULD be incorporated into the specific requirements identified by the NHS for care planning functionality. The way a given application presents this functionality to a user will differ between supplier systems; however, consistency in the user interface will be beneficial in reducing training and ensuring safe use. The CUI project has nine areas of guidance, mandated for basic demographic information. Please see the NHS Information Standards Board website⁴

An archive of historical releases of content MUST be retained for clinical record keeping purposes, to enable reconstruction of the clinical record. Unless time limited a concept will not be issued with an end date; however, a subsequent release may update a given row with an end date. This is normally synchronised with the SNOMED CT[®] release, however additional releases may be notified through TRUD for business or safety reasons. Content SHOULD NOT be used in live clinical systems beyond its end date or before its start date.⁵

Any examples shown are not for direct use in clinical systems; whilst based on real clinical documents, a comprehensive clinical assurance process for their generalisation has not been undertaken.

The contents of this document reflect a consultation process involving over 400 healthcare practitioners (predominantly nurses) and consultation with expert opinion at both a national and international level. Further guidance is likely to emerge alongside the development of clinical systems to support the health care process.

⁴ <http://www.isb.nhs.uk/docs/cui>

⁵

http://www.ihtsdo.org/fileadmin/user_upload/Docs_01/SNOMED_CT_Publications/SNOMED_CT_Technical_Implementation_Guide_20090131.pdf

2 Background

This document supports the implementation of national care planning content using SNOMED CT[®]. SNOMED CT[®] is an international clinical terminology that provides machine-readable codes for clinical concepts; the clinical concepts being also represented in a consistent and human readable form through descriptions.

This document provides guidance in the use of SNOMED CT[®] in care planning functionality to address requirements for support in this area, requested by the supplier community and the NHS.

2.1 Care planning

Care planning is a conceptual framework with many interrelated dependencies and antecedents. A complete understanding of the real world processes is required to specify and build and/or configure a system that supports clinical care planning. These processes include assessments, predefined care plans, bespoke care plans, integrated care pathways and may include care plan elements or combinations of the afore mentioned concepts.

In healthcare, multiple professional models of care co-exist which broadly follow a similar approach. This guidance seeks to support all common models without endorsing any one over any other. Figure 1 is a pictorial illustration of the basic model common to most care planning approaches, which all resemble the scientific method.

Figure 1 – Care planning process incorporating the key documentation points

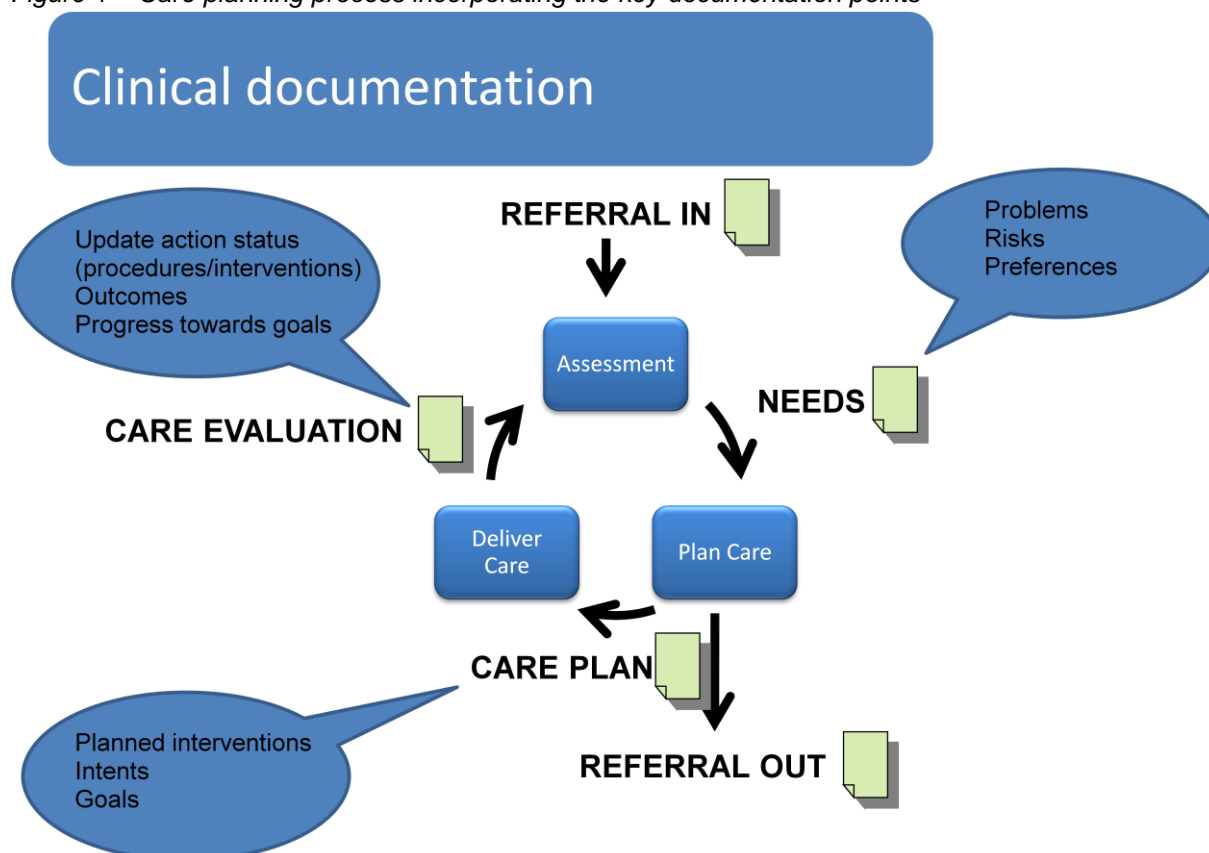


Figure 1 illustrates the Key “documentation” points associated with the care planning process. In this context, “referral” is either a handover of care or a service order

request without handover of care. The care transfer may be internal or external and is likely to involve integration with associated functionality. This will depend on system design, scope and configuration and the arrangements in place in a given health economy or health or social care environment.

Currently there is no standardisation of the content of care plans across the NHS; each organisation follows internal processes for the development of care plans. Development may be Trust-wide or for use by a single professional group or clinical speciality.

Electronic care planning can enable multi-professional care plans used by teams across organisational boundaries (primary, secondary and social care). National care plan content (Templates, Bundles and Frameworks⁶) will give a broad base to inform care plans and this approach should reduce the variation in care planning to support consistent, high quality, evidence based delivery of care.

A representation of the general associations within most professional models of care is in Section 5. The conventional SNOMED CT[®] subset format does not support the complexities of associated concepts in the context of care planning elements. The bespoke format and supplementary information is described for reference by implementers. Conventional SNOMED CT[®] subsets are supplied to derive suitable concepts for search purposes for ad-hoc care planning.⁷ The model and supplied fields reflect input from the wider NHS, NHS messaging standards and NPfIT acute suppliers. It is acknowledged that further development of content will be required to support the full requirements of integrated care pathways (ICPs) and multi-resource scheduling (MRS).

Any organisation implementing this content should have access to experienced clinical, technical and terminological input to any project team. Contact the Knowledge and Strategic Alignment team at NHS Connecting for Health for assistance knowledgeandstrategicallignment@nhs.net.

2.2 SNOMED CT[®]

SNOMED CT[®] can be implemented in software applications to represent clinically relevant information reliably and reproducibly. Through the use of this information, SNOMED CT[®] enabled applications can support effective delivery of high quality healthcare to individual people and populations.

The Department of Health Informatics Directorate Data Standards & Products intends that SNOMED CT[®] will be the sole supported terminology from 1st April 2015. ISB 0034 states that SNOMED CT[®] SHOULD be used for Care Plans; in particular for clinical content that will be transferred between systems.⁸

The IHTSDO describes SNOMED CT[®] as a comprehensive terminology for health care with declared guiding principles that:

- Development efforts must encompass broad, inclusive involvement of diverse clinical groups and medical informatics experts
- The clinical content must be quality focused and adhere to strict editorial policies

⁶ Care Plan Templates, Bundles and Frameworks are defined later in this document

⁷ Record Types and Procedure Intent Contexts are not supplied in traditional format in this release

⁸ Advance Notification for ISB 0034 <http://www.isb.nhs.uk/documents/isb-0034/amd-26-2006/0034262006an.pdf>

- The quality improvement process must be open to public scrutiny and vendor input, to ensure that the terminology is truly useful within healthcare applications

2.3 SNOMED CT[®] in care planning functionality

In preparation for understanding the contents of this paper, a thorough understanding of the contents of SNOMED CT[®] representations to support care planning functionality, and the general principles of care planning and SNOMED CT[®] are required. This document supports the Care Planning Sub Pack released as a draft for trial use in October 2011. Guidance focussed on the clinical content is in the *Care plan content using SNOMED CT[®] editorial guidance*; also in this Sub Pack.

A technical preview of this content published in April 2011 and as of 31st August 2011, there are 44 TRUD registrations for this sub pack. Limited feedback has led to some modifications of both SNOMED CT[®] and care planning content, without requiring significant change to the model.

Many elements of the care plan would usefully be coded; however, it should also be noted that there may also be a degree of narrative beyond the scope of the formal clinical terminology. In general, information is worth coding if there are any business processes that are driven by this coding.

There will also be structured elements of the system information model which provide essential business functionality but would not be coded using SNOMED CT[®] such as dates, times, frequencies and scheduling.

When considering how much SNOMED CT[®] to use within care planning functionality of electronic clinical systems, it is essential to consider the properties of SNOMED CT[®], any trigger/transition points for actions/intervention plus the likely retrieval and analysis requirements. Important clinical information intended for context and/or detail that does not need to be processed, need not be coded. There are also essential elements of healthcare that are represented in other ways that are important components of the care planning process, for instance the ability to measure progress over time or for particular demographic classes of service user. These requirements should normally be satisfied using other aspects of the information model. It is important to acknowledge that other parts of the record (over and above any SNOMED CT[®] concept coding) are also essential parts of the care planning process.

It is an important part of application training that associate free text must clarify or expand upon the structured entry and MUST NOT alter the context. For example, adding a name “John” to the concept 276043007 | Looks after chronically sick husband is appropriate personalisation, but adding “excluded” to 195967001 | Asthma is not. Reporting tools will normally function only on the coded entries and therefore any contextual modification MUST be done in a machine readable way.

The initial scope for care planning using SNOMED CT[®] (principally needs, activities, goals & outcomes) is illustrated in Table 1 below. Whilst this will not support all aspects of the care planning process conceptually, these are considered to deliver the most benefits to planning professional care.

Table 1 – Care planning elements and SNOMED CT[®] Chapters

Professional process	Principle relevant SNOMED CT [®] chapters
Assessment	Procedure
Assessment outcome	Finding, situation and/or observable entity + value
Health issue	Finding, situation, disorder +/- contextual modification
Need	Regime/therapy or Procedure
Plan of required actions	Procedure with contextual modification
Goals	Finding with contextual modification
Activities/actions	Procedure with contextual modification
Evaluation of care / reassessment, care outcomes	Finding +/- contextual modification

2.4 User interface guidance

Where available, Common User Interface (CUI) guidance takes precedence. The Concept ID is from the International Edition or UK Extension of SNOMED CT[®]. End users are not expected to see or need access to concept identifiers; they are for machine processing only.

The preferred term is for display to end users

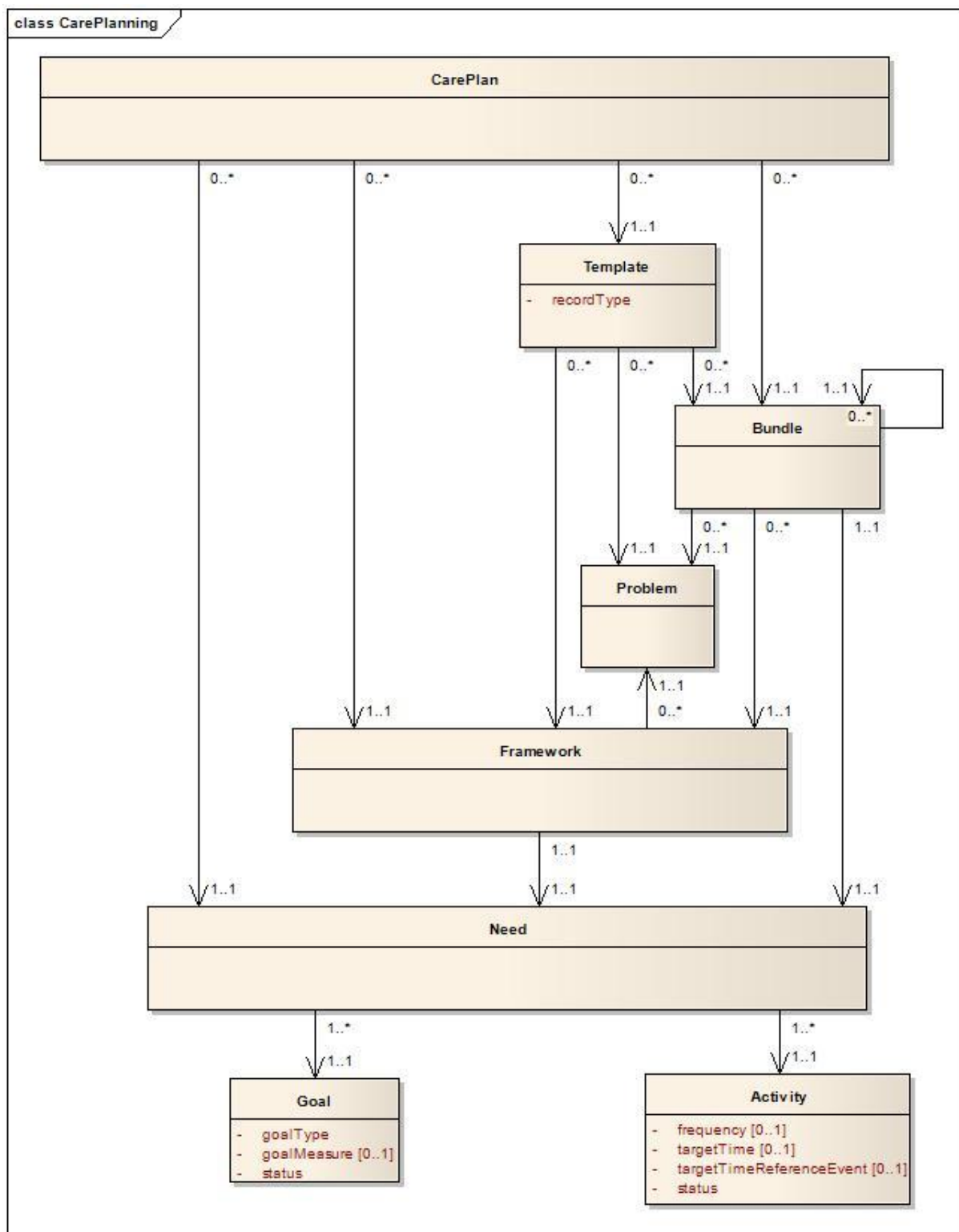
The fully specified name is for display to system configuration and should be available to end users.

The common user interface standards for the display and layout of common items of a healthcare IT system should be implemented according to existing DSCN's available from the Information Standards Board for Health and Social Care (ISB HaSC) website <http://www.isb.nhs.uk/use/baselines/cui>

2.5 Major groupings of care plan structures:

- Care Plan Templates
- Care Plan Bundles
- Care Plan Frameworks
- Care Plan Elements

2.5.1 Content schema



2.5.2 Care Plan Templates

The template provides the elements required for the service user’s overall care needs. Typically this might be based around a combination of speciality, acuity level, and setting, e.g. [774071000000109 | Gynaecology major surgery inpatient care plan](#). Normally a single care plan template would be ACTIVE in the electronic care record at any point in time. For example, a care plan for a long-term condition may be

suspended, whilst a service user was in hospital; although some of those care needs may need to be incorporated into the acute care plan.

A single template title (“(record artifact)”, a subtype of 184216000 | Patient record type)

Normally at least one of the following (both are not required, but can coexist)⁹

- Care Plan Bundles
- Care Plan Frameworks

2.5.3 Care Plan Bundles¹⁰

A logical association of care plan content based on frameworks or bundles to address a given care plan need. These are likely to include the elements of care from multiple care needs, e.g. to facilitate the care resulting from a co-morbidity e.g. 385806006 | [diabetic care management](#) |. Many could be incorporated in the overall care plan template.

A single need (“procedure” or “regime/therapy”, normally incorporating “management” or sometimes “care” in the term)¹¹

Normally at least two Care Plan Bundles or Frameworks

Associated “problem(s)” can exist to enable prioritisation of content in searches by defined problems identified in the care record. This only offers benefit to specialised needs, rather than those of a generic care nature.

2.5.4 Care Plan Frameworks¹²

A logical association of care plan content based on frameworks to address a given care plan need. This is a low-level association of content that can be expected to be reused many times, in different combinations.

A single need (“procedure” or “regime/therapy”, normally incorporating “management” or “care” in the term)¹³

At least one goal (“finding”), must support multiples

At least one activity (“procedure” and/or “regime/therapy”), must support multiples

Associated “problem(s)” can exist to enable prioritisation of content in searches by defined problems identified in the care record. This only offers benefit to specialised needs, rather than those of a generic care nature.

2.5.5 Care Plan Elements

A repository of elements for care planning, which may, or may not, exist in existing templates, bundles or frameworks which can be used to provide searchable content for end users.

⁹ A bespoke care plan may be built based on entirely individual criteria; however this is not usually the norm in most care environments

¹⁰ Please note that in searchable lists Bundles and Frameworks can be searched together as “Needs” with the relevant associated content. Both are conceptual constructs relevant to informatics, not clinical models.

¹¹ The need must be unique across bundles and frameworks

¹² Please note that in searchable lists Bundles and Frameworks can be searched together as “Needs” with the relevant associated content. Both are conceptual constructs relevant to informatics, not clinical models.

¹³ The need must be unique across bundles and frameworks

These elements SHOULD NOT be associated outside the context of a care framework, bundle or template as this can lead to unintended content presented to end users and the associated clinical risk of this reaching the instantiated care plan for the service user. This includes the recommended context values for actions and goals for “status” fields in applications. Procedure intent values are also available; however, the benefits of their post-coordinated use in clinical systems are, yet to be achieved.

Considerable analysis has been undertaken to make the content of the Problem, Need and Goal tables more focused on the content likely to be needed by end users. This is intended to improve the search experience, particularly for those using applications with primitive search algorithms. Please report any concepts that users identify they would wish to use in this way and where appropriate the subsets can be modified.

The activities table includes values for linked functionality within clinical systems. Any suggestions for additional groups of functionality should be forwarded to the Knowledge and Strategic Alignment team at NHS Connecting for Health knowledgeandstrategicalignment@nhs.net

2.6 Health issues / problems

Health issues / problems are not specifically identified in all care plan content; however, a specific subset exists to support their use. Principally, identify service user specific problems in the appropriate area of the application and the practitioner SHOULD associate the relevant “care plan record type” or “care plan need” at run time. They would normally come from the “clinical findings” or “situations” hierarchies within SNOMED CT[®]. The subset is to support high value health issues / problems to be identified in templates / bundles / frameworks to facilitate search ranking within clinical systems.

2.7 Record type

The record type is used as a title for the care plan and emerging is suggesting that this should be associated with a “service” and date to form the human readable display of the instantiated care plan/pathway type. Example shown below:

Cardiology | **Inpatient care plan** | 20110822T131615

In the associated content, this is the Template name.

2.8 Procedures and context

One of the more useful components of a care plan to code with SNOMED CT[®] are the actions (interventions/procedures) required or undertaken.

Expressions for clinical actions/interventions are found in the procedures hierarchy in SNOMED CT[®], which encompasses regimes/therapies, assessments, administrative procedures etc. Within this document, the term “procedure” includes any of these sub-categories unless explicitly stated otherwise.

SNOMED CT[®] procedures are expressed in “tense neutral” verb forms. This allows them to have context added, e.g. a commonly used expression in a care plan, such as “monitor blood pressure”, represented in SNOMED CT[®] as “blood pressure monitoring” and would indicate that it is “done” unless otherwise modified. To

represent other states such as to be done, or not to be done etc this concept could be modified using the SNOMED CT[®] context model and would allow a user to assert that. Anecdotal evidence suggests that the tense variation may be of little significance to users when displayed in the plan itself; however, those designing interfaces and search algorithms may need to account for end users using different tenses.

The SNOMED CT[®] context model is of particular importance when attempting to represent a service user's progress with respect to procedures (as part of a care plan) as it allows significant modification of concept meaning by combination with other concepts.

For care planning, a constrained range of "context values for actions" will support most generic cases and will provide the most value in the short to medium term whilst electronic systems incorporate greater degrees of sophistication. There may be specific circumstances in which others from the range of context values for actions are appropriate.

2.8.1 Context values for actions

The number of recommended state transitions has been kept to a minimum to reflect known requirements. In particular, the permitted context value for procedures of 'planned' was not included in the recommended set due to the absence of an initial requirement to represent, in a care plan, whether an action was "scheduled", "being organised", "accepted" or "requested". Likewise, action states such as "cancelled", "denied" or "not needed" are not suggested for most *clinical* requirements.

The range of procedure context values recommended for general care planning activities as part of a care plan at this time is:

To be done

This indicates that a considered action has been accepted and/or agreed and is going "to be done".

Done

This indicates that an action is completed and is the default status in the SNOMED CT[®] context model.

NOTE: This does not necessarily indicate that the action has been successful.

In certain circumstances it may be appropriate to automate this based on other functionality or messaging, e.g. if an investigation report is received, it is reasonable to infer that the test has been done.

Not done

This concept identifies where the action entered a pre-starting action state but ended before entering any other post-starting action state. It is important to be able to state that it was "not done" (following some degree of consideration); it does not mean 'not yet done'

Not to be done

This indicates that a considered action is "not to be done".

Stopped before completion

This indicates that an action that has been in progress ended before completion.

Under consideration

This indicates that a clinician is actively considering a given action.

In progress

Most anticipated procedures start in the plan as “To be done” and then following completion or otherwise, updated to an appropriate status. In most circumstances, a status update to “In progress” is superfluous; however, in the case of a prolonged or formal procedure, it may be appropriate, e.g. an operation, ECG monitoring or renal dialysis. Some degree of integration and communication with other systems will improve workflow and safety; for example if a start time is recorded, without a finish time, the status might be set as “In progress”. In the case of a recurring activity, the overarching activity may be “In progress” whilst individual instances are “Planned”, “Done” etc.

Action status unknown

Where the current state of a procedure is unknown, this status SHOULD be applied. A null context for a procedure would mean the default context of “done” is applied, which may have undesirable effects in reporting. Staff should be made aware that statuses not being applied appropriately may result in under/over reporting of activity and potentially this can have financial implications for the organisation.

Additional context values for actions (not recommended in most circumstances)

A broader range of contextual modifiers is available for specific use cases, these may augment these recommended, and supplementary context values listed above, and the full list is in appendix 1.

2.8.2 *Typical state transitions for procedures*

Most often a procedure will go from being needed to being done and may go through various states in between.

For example, a care professional applying a care plan to a service user record will consider whether a procedure within a care plan template is applicable to a service user – in which case the context will be set to ‘to be done’. If the procedure is contraindicated for any reason then it would be set to ‘not to be done’ (or ‘not done’ if previously planned), usually with an associated reason which may or may not be coded.

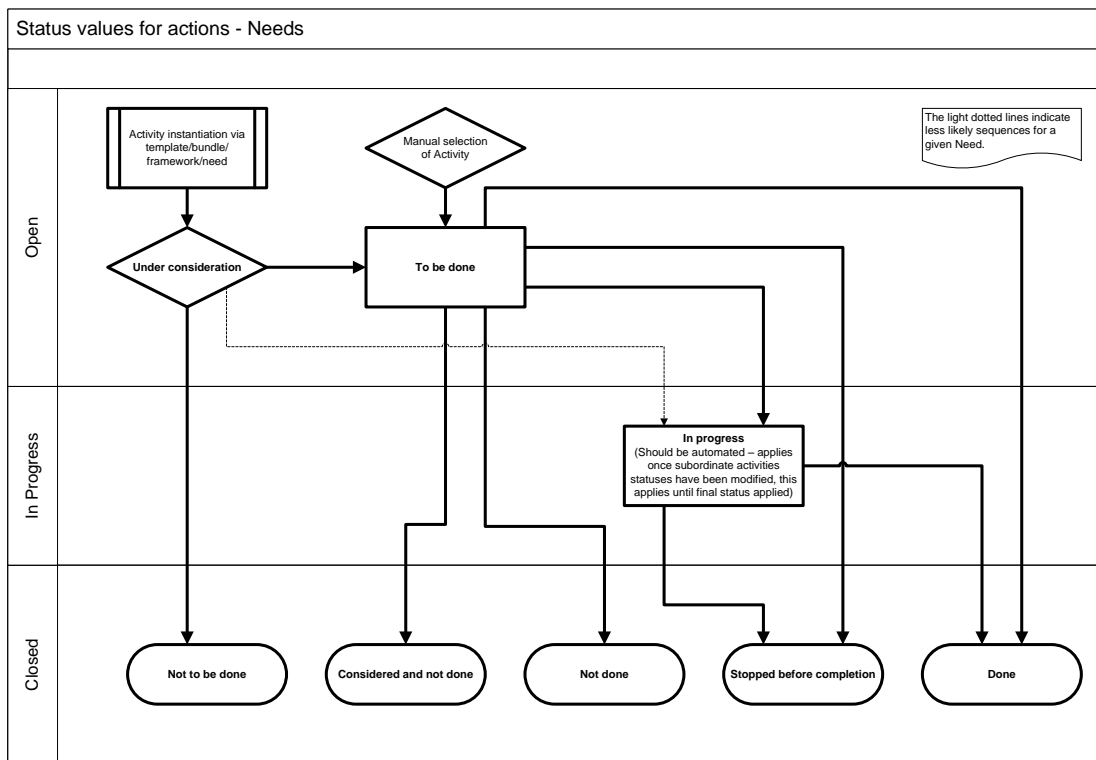
If the procedure was completed satisfactorily then the procedure status would be set as ‘done’, however, if started and problems were encountered forcing abandonment, then it could be assigned a context of ‘stopped before completion’.

This type of contextual post-coordination should be used to achieve representation of procedure status. There is therefore no need to create new pre-coordinated concepts for care planning across the entire procedure hierarchy such as:

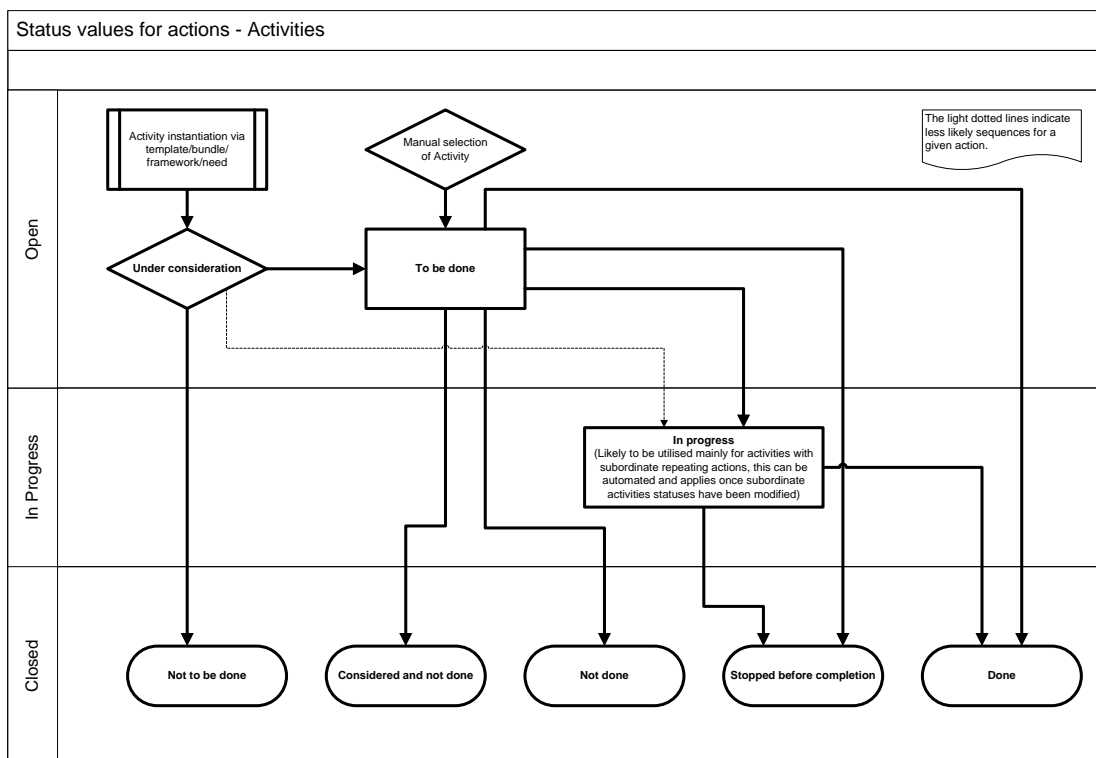
- Arthroscopy to be done
- Arthroscopy not to be done

- Arthroscopy done

2.8.2.1 Figure 3 – Context values for actions and state transitions (Needs)



2.8.2.2 Figure 4 – Context values for actions and state transitions (Activities)



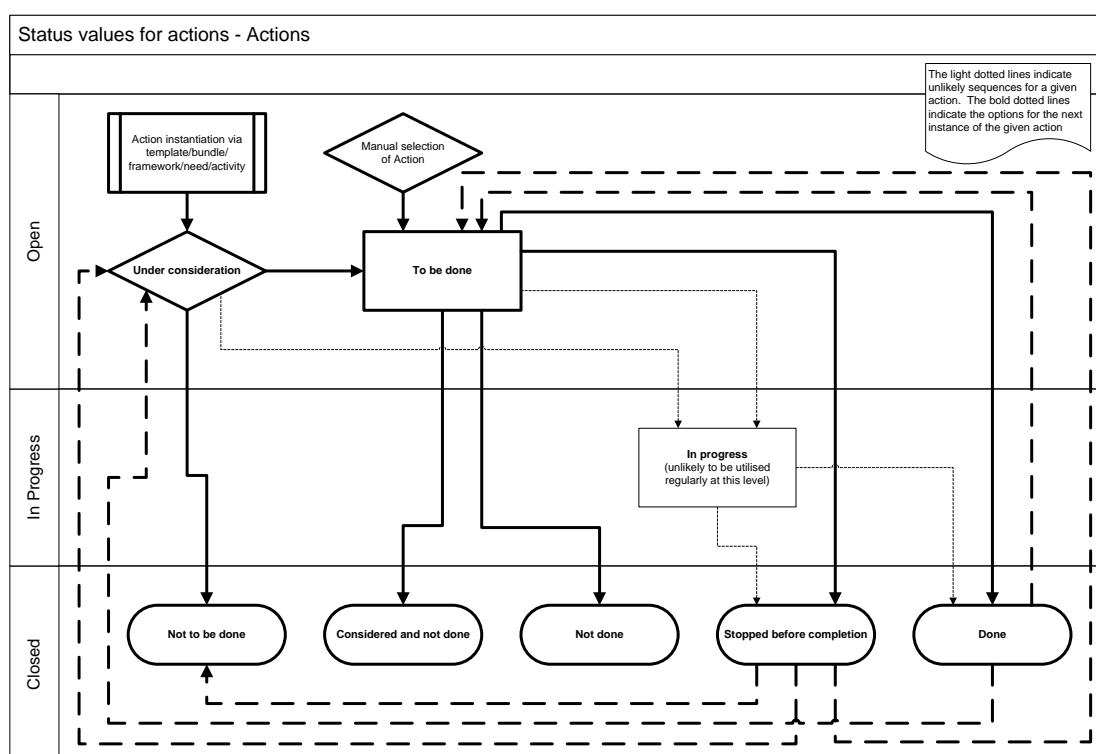
2.8.1 Frequency and representation of recurring procedures

Whilst some actions, e.g. an operative procedure are generally single occurrences in the service user plan, many occur several times throughout the care episode, e.g. vital signs investigations, medications administration, a course of therapy etc. An

alternative consideration is required for the state transition in that a procedure will still need “to be done” again once “done” for the first and subsequent times.

For many of these recurring procedures, a certain amount of linkage between record entries is appropriate. For example, if the care plan has a regular scheduled element of “peritoneal dialysis catheter maintenance” it would be reasonable to expect the plan to be updated with “Done” and the item rescheduled for the next due time as “To be done”.

2.8.1.1 Figure 5 – Context values for actions and state transitions (Actions)



2.8.2 Rendering of post-coordinated expressions for procedures

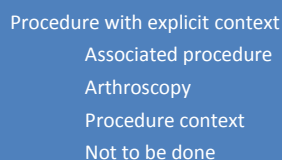
Where concepts are post-coordinated and then re-displayed in an environment, different to that where the information entered then consideration of readable simple rendering on screen is essential and this should be congruent with Common User Interface (CUI) guidance where available. The examples shown should be considered with caution; they illustrate the issue of presentation of post co-ordinated concepts, rather than a complete and generalisable model, which would come from CUI guidance.

Any care planning module should enable user interface functionality to combine the focus procedure concept with its context, e.g. using a radio button/check box.

However, upon subsequent retrieval, say in a summary screen, the user interface options may be different and it should be possible to display a sensible equivalent expression to that originally entered:

- ‘y’ procedure context – ‘x’ procedure, e.g. Not to be done – Arthroscopy

The application itself would retain the full SNOMED CT[®] expression, including default context and attribute relationships, but these additional attributes and some default values may not be needed for display purposes, e.g. considering the above example (numeric identifiers removed for clarity).



Procedure with explicit context
Associated procedure
Arthroscopy
Procedure context
Not to be done

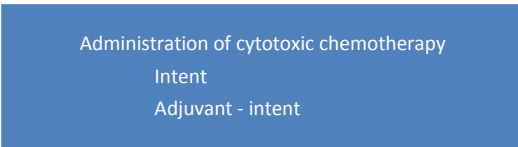
Consideration of specific use cases may be required for scenarios, which differ, even slightly, from the guidance issued as not all guidance is universally applicable.

2.9 Nature of the procedure (Intent)¹⁴

The aims of procedures, which can affect the way they are performed and their evaluation, such distinction can be provided by SNOMED CT[®] using the ‘Intent’ qualifier. There are examples of pre-coordinated concepts that incorporate the intent within the concept, e.g. “Palliative course of radiotherapy”; however, there are many more that do not incorporate the intent, but for which the intent is important for primary clinical or reporting purposes. The intent may be implicit in the action concept or superfluous to the clinical record, so this should be an optional field.

Where it is necessary to describe the intent of the procedure then the focus concept would be post-coordinated with a permissible value from the SNOMED intents range of values, for example, the rendering pattern for this type of expression might be:

- Intent y, Procedure x, e.g. Adjuvant – intent¹⁵, Administration of cytotoxic chemotherapy



Administration of cytotoxic chemotherapy
Intent
Adjuvant - intent

2.9.1 Suggested intent value range

Known use cases exist for post-coordination a constrained range of ‘intent’ values for care planning as follows:

- Palliative
- Therapeutic
 - Adjunct
 - Adjuvant
 - Neo-adjuvant
 - Curative
 - Supportive
- Preventative
 - Prophylactic

Whilst other intents exist, their use is not thought relevant at this point for care planning. Content also exists with intent already modelled within its procedure context, e.g. “palliative course of deep X-ray therapy”.

¹⁴ At present the national content does not issue any artefacts in relation to intent. When content is released that requires this to be considered in depth the detailed guidance will be associated with it.

¹⁵ It has been suggested that the word “intent” should be dropped from the preferred term of the concepts in the intents hierarchy to improve the natural language rendering of expressions.

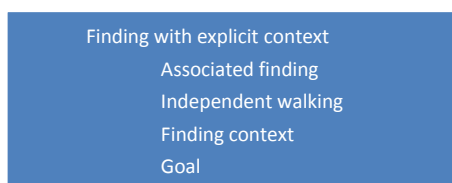
2.10 Representing goals in a care plan

An electronic care plan may need to represent the overall goal of the plan and/or subsidiary goals of individual actions within the care plan. A goal can be considered the same as the desired outcome. The finding in SNOMED CT[®] SHOULD normally be a positive state as negative states already include contextual modification and are unsuitable to use as goals.

2.10.1 Rendering of post-coordinated expressions for goals

Where it is important to associate a particular condition (or improvement to one) as the goal, then the pattern might be

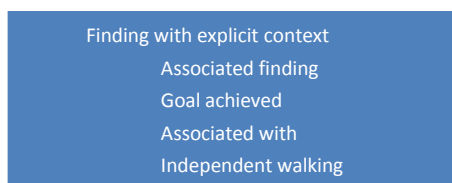
- y finding context (or goal), x finding, e.g. Goal, able to walk unaided



2.10.2 Goal statuses and state transitions

As with action statuses, there is a logical constraint to the sequence in which a goal status can transition. It is therefore suggested that care planning applications should only offer these possibilities to minimise the risk of inappropriate selection. The following sections illustrate the state transitions suggested for Goals. In addition to those shown in the state transition diagrams, “strikeout” is required for each group of possible statuses.

Any reference to time constraints for goal achievement is achieved through an interdependency between the terminology and information model in perpetuity within the electronic patient record.



2.10.3 Evaluation and Outcomes

An outcome unrelated to the overall plan may be significantly recordable in its own right as a finding, e.g. the identification of “high risk of venous thromboembolism” identified by a “venous thromboembolism risk assessment” on admission to hospital. Whilst it may not be their primary reason for admission, this finding will be important to record and communicate to others involved in their care.

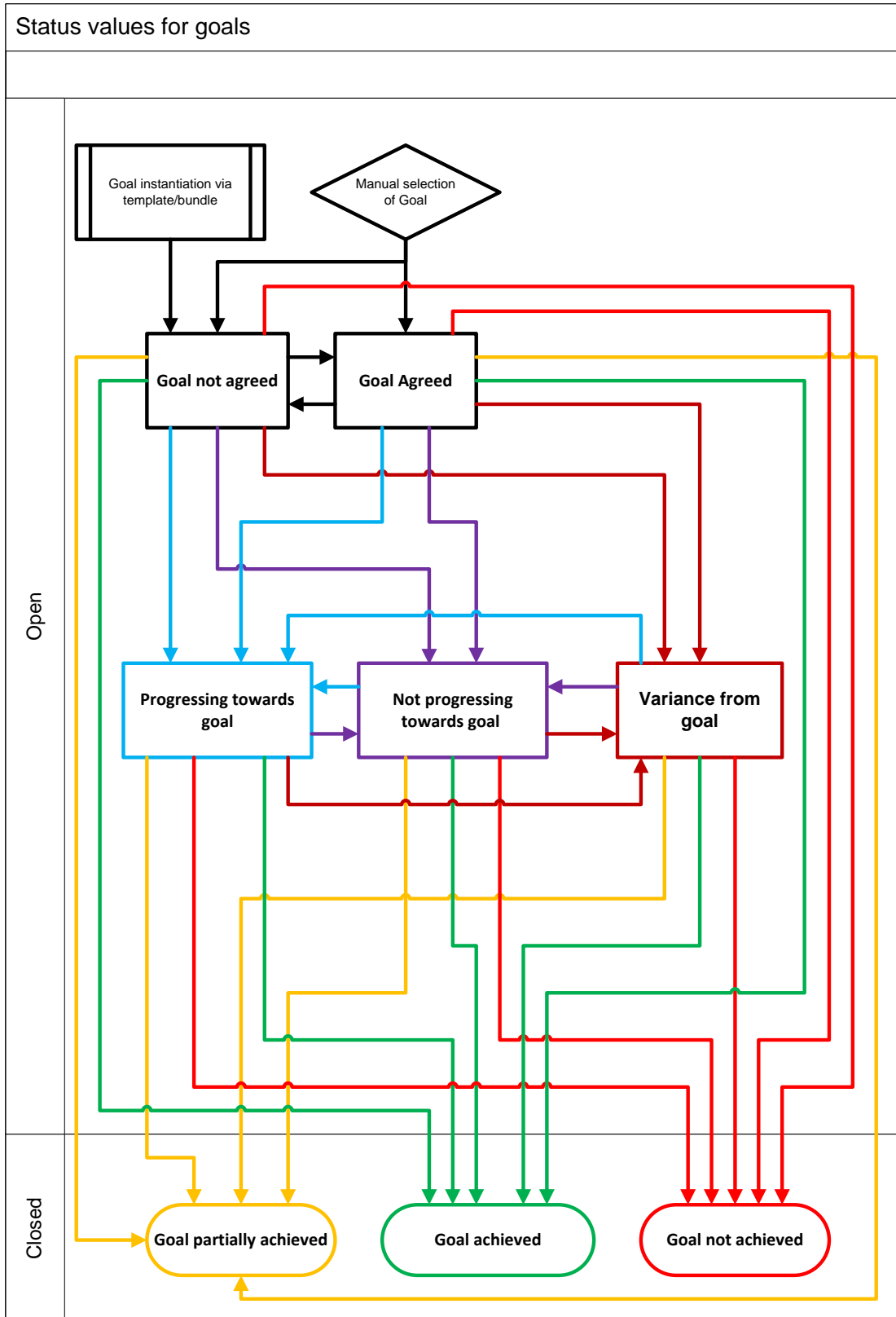
The system information model can be used to associating them in a care plan rather than using the terminology model, as there is no currently no SNOMED CT[®] standard way of representing these notions.

Illustrations of example outcome types are in the following sections:

2.10.4 Evaluation and review of the plan together with the expected and actual outcome

The process of evaluation also encompasses a degree of reassessment, thus there is likely to be a need to combine the recording of narrative text.

2.10.5 Figure 4 – Context values for goals and state transitions



2.11 Other technical considerations

In most cases, the UK preferred term for the SNOMED CT® concept will be used in configuration of care plans; however, the application should also be able to support any sanctioned synonym; decisions regarding the most appropriate descriptions will

be determined as part of the NHS content requirements and assurance processes. There may be situations where use of a formally supported SNOMED CT[®] synonym is acceptable but the system user should have immediate access to an unambiguous description e.g. using tool tip functionality.

The full term should normally be displayed, with any line wrapping complying with Common User Interface (CUI) guidance and truncation being avoided in screen displays and printing. The SNOMED CT[®] maximum string length of 255 characters should be available in displays to support CUI guidance.

2.11.1 Strikeout

This allows the user to roll back the status to the previous state and applies to many areas of the record, including statuses. Given that the recording should never have been in the record, this should continue to be managed entirely by the application model of the clinical application.

3 Document Lifecycle & Feedback

The content of this document is based on extensive consideration within the community of experts.

Experience gained from the application of this guidance will inform updated versions. It is anticipated that the provisions set out in the first formal release will not be subverted by subsequent releases of this document.

Feedback setting out experience of implementation and use of this guidance is sought and should in the first instance be sent to the UK Terminology Centre via the Data Standards helpdesk datastandards@nhs.net

4 Care planning content specifications

4.1 Release of data

Releases will be at least bi-annual synchronised with the UKTC bi-annual SNOMED CT[®] release. These MUST be applied to comply with SNOMED CT[®] licensing, intermediate releases SHOULD be made available at the earliest opportunity to give the greatest benefit to clinical users of the system. Where a higher priority is assigned to an intermediate release it will be made clear in the notification email, this will normally only to an identified clinical risk/benefit where there is an imperative to apply ahead of the next scheduled release.

The latest SNOMED CT[®] release will be available to users at the applicable release date and no care planning content can be used ahead of this date except as part of a formally agreed process with the UK Terminology Centre.

There are likely to be additional releases of data to meet the needs of deployments of care planning to additional specialties throughout NHS England during the initial phase of development (content is not precluded from wider distribution, but this is currently the defined scope).

Consideration of any additional fields required to support a specific supplier's system architecture can be considered; however, distribution will not be in a proprietary format. The national format is anticipated to incorporate sufficient fields for a given supplier to generate the formats required for their system by simple post release processing, rather than distributing in multiple proprietary formats.

4.1.1 *Five top-level folders*

- CarePlanTemplates
- CarePlanBundles
- CarePlanFrameworks
- CarePlanElements
- CarePlanSupplementarySubsetInformation

4.1.2 *SNOMED CT[®] subset files*

Within the SNOMED CT[®] subset files the traditional subset format will be used (currently RF1) and all supplementary file format and data type information are available in Section 6 of this document

4.1.3 *Folder – CarePlanSupplementarySubsetInformation*

This folder contains guidance documentation for implementation of the national care planning content. This includes:

- SNOMED CT[®] representations to support care planning functionality
- Care plan content publication on Technology Reference Data Update Distribution Service (TRUD)
- Care plan content using SNOMED CT[®] editorial guidance

4.2 Distribution format

Distribution of the technical preview will be in simple text format with tab delimitation, as is the standard for the main SNOMED CT[®] release files. All files will contain a header row detailing columns. Some SNOMED CT[®] concept descriptions contain multi-byte characters; the system must be able to support this in care planning, as it does in other areas of the application.

An xml schema and xml format will be issued once feedback has been received and the impact of the revised ISO 18104 Standard has been assessed. Application for the schema to become an Information Standards Board for Health and Social Care (ISB HaSC) Standard will follow approval of the antecedent Standard for SNOMED CT[®].

4.2.1 *Important note about technical preview (test) releases*

Any files distributed with an x preceding the file name are beta test files for technical preview and testing only, e.g.

- xNHS_CarePlanning_Templates_YYYYMMDD

4.2.2 *File name format*

- NHS_CarePlanning_Templates_YYYYMMDD
- NHS_CarePlanning_TemplateContent_YYYYMMDD
- NHS_CarePlanning_Bundles_YYYYMMDD
- NHS_CarePlanning_BundleContent_YYYYMMDD
- NHS_CarePlanning_Frameworks_YYYYMMDD
- NHS_CarePlanning_FrameworkContent_YYYYMMDD
- NHS_CarePlanning_Problems_YYYYMMDD
- NHS_CarePlanning_RecordType_YYYYMMDD
- NHS_CarePlanning_Needs_YYYYMMDD
- NHS_CarePlanning_Goals_YYYYMMDD

- NHS_CarePlanning_Activities_YYYYMMDD
- NHS_CarePlanning_ContextValuesGoals_YYYYMMDD
- NHS_CarePlanning_ContextValuesActions_YYYYMMDD
- NHS_CarePlanning_ContextValuesIntents_YYYYMMDD

4.3 Owing organisations of content

The assurance of the clinical content in this context should go through a local governance process in addition to the governance already applied. They **MUST NOT** be used without this, in a live clinical environment. The final arbiter is the clinician applying the content to the clinical record who **MUST** ensure the content is appropriate for the individual patient in their care.

The principle on which all content is published is a top down policy that if more than one of the same content exists, it is the lowest level one relevant to your organisation that applies. **ONLY** one given template/bundle/framework at each organisational level is permitted; thus, each is unique at an organisational level. Where not stated, this is UK Terminology Centre / National.

A good example of content that may benefit from more local development is very specialist areas where single or small numbers of centres manage the care of a given condition. Generic content is likely to cover the entire scope and additional content may be required. Another example may be for content that refers to legislation, which may differ in different countries within the United Kingdom, e.g. the Mental Health Act

This should be automated and invisible to end users and will be decided at configuration by each organisation whether they will accept the higher authority template unmodified, any modification means the assurance then becomes entirely the responsibility of the owning organisation. This principle is illustrated below and applies to all content:

Example organisations	Template A	Template B	Template C	Template D
IHTSDO (International)	*			
UKTC (National)		*	*	*
Clinical Network			Your network	Another network
Trust				
Site		*		
Template to be used	International	Site	Clinical network	National

4.4 SNOMED CT®

The content of care planning is based on SNOMED CT® concepts and preferred term descriptions. In most systems, and certainly those expecting to communicate care plan messages within the NHS, an underlying terminology infrastructure of SNOMED CT® is expected to be present. The clinical content can be used in less sophisticated systems (even paper), but advice should be sought to ensure the expected benefits can be delivered by these alternatives.

The latest release of SNOMED CT®, including the International Edition and United Kingdom Extension **SHOULD** normally be loaded ahead of any content referencing it. In time content may be developed referencing the UK Drug Extension too, at this time loading of drug data for **THIS** purpose is not compulsory. The following sections identify the file header and content descriptions.

Search keywords can be generated using the tables supplied with the release files.

4.4.1 SNOMED CT[®] expressions

Most SNOMED CT[®] concepts used in the care plan require context modification to be correctly understood outside the system in which they are held.

For more guidance, please reference the relevant IHTSDO documentation¹⁶ but an example for a goal of normal blood sugar within a [blood sugar management](#) framework is shown below.

```
413350009 | finding with explicit context | :  
    { 246090004 | associated finding | = ( 166921001 | blood glucose normal | :  
      255234002 | after | = 418389000 | blood sugar management | )  
    , 408729009 | finding context | = 410518001 | goal |  
    , 408731000 | temporal context | = 410512000 | current or specified |  
    , 408732007 | subject relationship context | = 410604004 | subject of record | }
```

¹⁶ <http://www.ihtsdo.org/publications>

5 Appendices

5.1 Appendix 1 – Context values for actions¹⁷

Context values for actions (288532009)

Not done (385660001)

Did not attend (410543007)
Pre-starting action status (410522006)

Under consideration (385642001)

Needed (410525008)
Wanted (410526009)
Offered (410527000)
Not wanted yet (410531006)
Not yet offered (410532004)
Consented (441898007)
Legal agent consented (442633000)
Recipient consented (442681007)

To be done (385643006)

Schedule rejected (385646003)
Being organised (385649005)
Requested (385644000)
Requested by recipient (443942000)
Accepted (385645004)
Planned (397943006)
Scheduled - procedure status (416151008)
Approved and scheduled (44996008)

Organised (385650005)

Not to be done (410521004)

Cancelled (89925002)
Rejected by performer (385647007)
Not wanted (410528005)
Not needed (410529002)
Not offered (410530007)
Denied (441889009)
Refused (443390004)
Rejected by recipient (385648002)
Was not started (410524007)
Cancelled (89925002)

Considered and not done (385661002)

Post-starting action status (410523001)

In progress (385651009)

Started (385652002)
Not to be stopped (385653007)
To be stopped (385654001)
Suspended (385655000)
Ended (385656004)
Done (385658003)
Performed (398166005)
Attended (410542002)

Stopped before completion (410545000)

Suspended (385655000)
Abandoned (385657008)
Discontinued (410546004)
Not indicated (410534003)
Indicated (410535002)
Contraindicated (410536001)

Action status unknown (410537005)

¹⁷ Highlight red is a header concept only and MUST NOT be made available in the status list, those highlighted in yellow are suggested for care planning statuses.

5.2 Appendix 2 – SNOMED CT[®] action status transitions

SNOMED CT[®] action status transitions
Under consideration
Considered and not done
Done
In progress
Not to be done
Stopped before completion
Strikeout
To be done
Action status unknown
To be done
Considered and not done
Done
In progress
Not done
Not to be done
Stopped before completion
Strikeout
Under consideration
Action status unknown
In progress
Done
Stopped before completion
Strikeout
Action status unknown
Not to be done
Strikeout
Considered and not done
Strikeout
Not done
Strikeout
Stopped before completion
Strikeout
Done
Strikeout

5.3 Appendix 3 – Goal achievement findings¹⁸

Goal achievement finding (390800000)

Goal not achieved (390801001)

Goal achieved (390802008)

Medication goal achieved (197191000000104)

Incongruent personal goals (425372005)

Progressing towards goal (782301000000103)

Goal partially achieved (782451000000109)

Not progressing towards goal (782481000000103)

Variance from goal (782781000000109)

Goal agreed (782791000000106)

Goal not agreed (782801000000105)

¹⁸ Highlight red is a header concept only and MUST NOT be made available in the status list, those highlighted in yellow are suggested for care planning statuses.

5.4 Appendix 4 – SNOMED CT® goal status transitions

SNOMED CT® goal status and possible transitions	Technical state
Goal not agreed	Open
Variance from goal	
Goal achieved	
Goal agreed	
Goal not achieved	
Goal partially achieved	
Not progressing towards goal	
Progressing towards goal	
Strikeout	
Goal agreed	Open
Variance from goal	
Goal achieved	
Goal not achieved	
Goal not agreed	
Goal partially achieved	
Not progressing towards goal	
Progressing towards goal	
Strikeout	
Variance from goal	Open
Goal achieved	
Goal not achieved	
Goal partially achieved	
Not progressing towards goal	
Progressing towards goal	
Strikeout	
Not progressing towards goal	Open
Variance from goal	
Goal achieved	
Goal not achieved	
Goal partially achieved	
Progressing towards goal	
Strikeout	
Progressing towards goal	Open
Variance from goal	
Goal achieved	
Goal not achieved	
Goal partially achieved	
Not progressing towards goal	
Strikeout	
Goal partially achieved	Closed
Strikeout	
Goal not achieved	Closed
Strikeout	
Goal achieved	Closed
Strikeout	

5.5 Appendix 5 – SNOMED CT[®] procedure intents¹⁹

Intents (363675004)

Preventive intent (129428001)

Prophylactic treatment - intent (129429009)*

Prophylaxis - intent (360271000)

Diagnostic intent (261004008)

Staging - procedure intent (373825000)

Therapeutic (262202000)

Prophylactic treatment - intent (129429009)*

Curative - procedure intent (373808002)

Adjuvant - intent (373846009)

Neo-adjuvant - intent (373847000)

Supportive - procedure intent (399707004)

Adjunct - intent (421974008)

Screening intent (360156006)

Palliative intent (363676003)

Guidance intent (429892002)

Forensic intent (447295008)

Ritual procedure (15751000000109)

¹⁹ Highlight red is a header concept only and MUST NOT be made available in the status list, those highlighted in yellow are suggested for care planning statuses. Whilst other intents MAY be used, the intent can normally be inferred by the procedure itself and thus only those where there is a significant use case are suggested

5.6 Appendix 6 – Additional Reference Materials

Ref	Website	Organisation
1	http://www.ihtsdo.org	International Health Terminology Standards Development Organisation
2	http://www.dh.gov.uk	Department of Health
3	http://www.medicine.ox.ac.uk/bandolier/booth/glossary/ICP.html	Bandolier
4	http://www.careplans.com	Care Plans
5	http://www.rcn.org.uk/newsevents/government/briefings/electronic_patient_record_brief	Royal College of Nursing
6	http://www.nice.org.uk	National Institute for Health and Clinical Excellence
7	http://www.ic.nhs.uk	Information Centre for Health and Social Care
8	http://www.projectsmart.co.uk	Project Smart
9	http://www.mercksource.com	Merck Source
10	http://www.askoxford.com/?view=uk	Ask Oxford
11	http://www.hl7.org.uk	HL7 UK

Please note – NHS CFH does not endorse or hold responsibility for the content of external internet sites.

5.7 Appendix 7 – Clinical episode walk through

This walk through provides edited highlights of a clinical episode, not a comprehensive care plan. For simplicity, terse or close-to-user forms are used for the example SNOMED CT[®] Expressions. Other, sometimes more expanded representations may be needed (e.g. for analysis purposes). Explanations of ‘close-to-user’ and other forms (and rules for transformation between them) is found in *Transforming Expressions to Normal Forms*²⁰

```
243796009|Situation with explicit context|:
  408731000|Temporal context|=410510008|Temporal context value|,
  363589002|Associated procedure|=315639002|Initial patient assessment|,
  408730004|Procedure context|=385658003|Done|
```

This document includes well-established assumptions about the record structure for SNOMED CT[®] observables, such that a clinical record will preserve an inseparable pairing of the observable and any documented value (and often, unit of measure).

Beth is a 34-year-old visiting an oncology outpatient unit for treatment of her breast cancer. At her first visit, her team appraise Beth’s treatment options, which might include a clinical trial depending on findings.

On arrival, the following are done:

129125009 Procedure with explicit context : 363589002 Associated procedure =315639002 Initial patient assessment , 408730004 Procedure context =385658003 Done
129125009 Procedure with explicit context : 363589002 Associated procedure =46973005 Blood pressure taking , 408730004 Procedure context =385658003 Done
129125009 Procedure with explicit context : 363589002 Associated procedure =65653002 Pulse taking , 408730004 Procedure context =385658003 Done
129125009 Procedure with explicit context : 363589002 Associated procedure =56342008 Temperature taking , 408730004 Procedure context =385658003 Done
129125009 Procedure with explicit context : 363589002 Associated procedure =82078001 Collection of blood specimen for laboratory , 408730004 Procedure context =385658003 Done

A summary of findings

271649006 Systolic blood pressure = 126
271650006 Diastolic blood pressure = 76
78564009 Pulse rate = 78

²⁰

http://www.ihtsdo.org/fileadmin/user_upload/Docs_01/Technical_Docs/SNOMED_CT_Expression_Transformations_20080131.pdf

415974002 Tympnic temperature = 36.7
166711002 Blood urea normal
166716007 Serum creatinine normal
165507003 White blood cell count normal
429009003 History of left mastectomy
373572006 Clinical finding absent : 246090004 Associated finding = 128462008 Secondary malignant neoplastic disease
373572006 Clinical finding absent : 246090004 Associated finding = 22298006 Myocardial infarction
373572006 Clinical finding absent : 246090004 Associated finding = 42343007 Congestive heart failure
373572006 Clinical finding absent : 246090004 Associated finding = 38341003 Hypertensive disorder
373572006 Clinical finding absent : 246090004 Associated finding = 44808001 Conduction disorder of the heart
The results of the tissue sample are available at the time of the appointment 427685000 HER2-positive carcinoma of breast

Care Plan Goal²¹

413350009 Finding with explicit context : 246090004 Associated finding =110279003 Inactive disease following therapy , 408729009 Finding context =410518001 Goal

Actions

129125009 Procedure with explicit context : 363589002 Associated procedure = 425196008 Insertion of peripherally inserted central catheter , 408730004 Procedure context =385643006 To be done
129125009 Procedure with explicit context : 363589002 Associated procedure = 38216008 Infusion chemotherapy for malignant neoplasm ,

²¹ Representation of negated findings as goals and/or outcomes is not recommended within the SNOMED CT concept model. Additionally pre-coordinated situations cannot be used as goals and/or outcomes. Positive findings should be used as goals and/or outcomes.

408730004|[Procedure context](#)|=385643006|[To be done](#)|
363703001|[Has intent](#)|=373846009|[Adjuvant - intent](#)|

129125009|[Procedure with explicit context](#)|:
363589002|[Associated procedure](#)|=8151003|[Echocardiography for detecting cardiac output](#) ,
408730004|[Procedure context](#)|=385643006|[To be done](#)|

Following the course of chemotherapy Beth is to receive Adjuvant Trastuzumab subject to satisfactory progress and investigation results. Specifically for this medication, cardiac function is evaluated and the following result is available prior to commencement.

371857005|[Normal left ventricular systolic function and wall motion](#)|

This further action is planned for a later appointment following several weeks of chemotherapy

129125009|[Procedure with explicit context](#)|:
363589002|[Associated procedure](#)|=
425196008|[Insertion of peripherally inserted central catheter](#) ,
408730004|[Procedure context](#)|=385643006|[To be done](#)|

129125009|[Procedure with explicit context](#)|:
363589002|[Associated procedure](#)|=
429624006|[Intermittent intravenous infusion of therapeutic substance](#) ,
408730004|[Procedure context](#)|= 385642001|[Under consideration](#)|

Evaluation

After five years the outcome is evaluated

390802008|[Goal achieved](#)|:
47429007|[Associated with](#)|=416312007|[Patient in full remission](#)|

5.8 Appendix 8 – File formats and data types

5.8.1 Care Plan Templates folder

5.8.1.1 Template

Field Name	Field Name Specification	Mandatory / Optional	Explanation
TemplateConceptID (Primary key)	SCTID, digits 0 to 9, length 6 to 18. (See Glossary of terms)	Mandatory	The concept ID of the Care Plan Template
TemplatePreferredTerm	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The term that is expected to be presented to end users
TemplateFullySpecifiedName	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The unambiguous description for the template, which includes the suffix, "record artifact" in parenthesis
OrganisationalGroup	Alphanumeric up to 25 characters IHTSDO UKTC NHS England Organisation	Optional	If Organisation, Organisation Code must also be completed
OrganisationCode	Alphanumeric up to 10 characters As per Organisation Data Service	Optional	The organisation code (Organisation Data Service) to which this template applies, including all subordinate organisations unless an alternative applies**
ExpectedDuration	Null or Numeric, 1 to 3 characters	Optional	Expected duration of care plan template
ExpectedDurationQualifier	String, length 3 to 6 characters, values one of: HOUR HOURS	Optional but Mandatory if Expected Duration completed	Only populated if ExpectedDuration value also populated

	DAY DAYS WEEK WEEKS MONTH MONTHS YEAR YEARS		
SingleEncounter	String, length 2 to 3 characters, values one of: YES NO	Optional	The template is only designed around a single encounter, not a longitudinal multiple encounter care plans. An example might be a surgical procedure care plan, which considers inpatient stay.
RequiresCrisisInformation	String, length 2 to 3 characters, values one of: YES NO	Optional	Crisis information (predominantly mental health) should be displayed with the plan of care, identifying previously successful strategies for managing a period of crisis.
TemplateElementsLocked	String, length 2 to 3 characters, values one of: YES NO	Optional	Elements of the template should be locked to prevent them being removed by the end user, e.g. core quality standards, basic human rights etc.
EffectiveFromDate	YYYYMMDD	Mandatory	The date the template should first be available
EffectiveToDate	YYYYMMDD	Optional	The last date the template should be available for use

5.8.1.2 Template Content

Field Name	Field Name Specification	Mandatory / Optional	Explanation
TemplateConceptID (1st field of Primary key)	SCTID, digits 0 to 9, length 6 to 18	Mandatory	The concept ID of the Care Plan Template
TemplatePreferredTerm	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The term that is expected to be presented to end users
TemplateFullySpecifiedName	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The unambiguous description for the template, including the suffix "record artefact" in parenthesis
OrganisationalGroup	Alphanumeric up to 25 characters IHTSDO UKTC NHS England Organisation	Optional	If Organisation, OrganisationCode must also be completed
OrganisationCode	Alphanumeric up to 10 characters As per Organisation Data Service	Optional	The organisation code to which this template applies, including all subordinate organisations unless an alternative applies**
TemplateContentLocked	String, length 2 to 3 characters, values one of: YES NO	Optional	This row of content is locked in the template if loaded, and cannot be removed at run time
TemplateContentOrder	Null or Numeric, length 1 to 3 characters	Optional	If undefined alpha sort is suggested until set at configuration or by user. Content order should be carried through from subcomponents to the template content. Problem(s) is/are not included in the sort order
TemplateContentType	String, length 6 to 9 characters, values one of:	Mandatory	At least one bundle or framework is compulsory with other content types optional. Problem MAY be populated and typically would be specified as a concept and all of its

	BUNDLE FRAMEWORK PROBLEM		subtypes
TemplateContentConceptID (2nd field of Primary key)	SCTID, digits 0 to 9, length 6 to 18	Mandatory	The concept ID of the Care Plan Template
TemplateContentPreferredTerm	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The term that is expected to be presented to end users
TemplateContentFSN	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The unambiguous description for the template content
EffectiveFromDate	YYYYMMDD	Mandatory	The date the template content should first be available
EffectiveToDate	YYYYMMDD	Optional	The last date the template content should be available for use

5.8.2 Care Plan Bundle folder**5.8.2.1 Bundle**

Field Name	Field Name Specification	Mandatory / Optional	Explanation
BundleConceptID (Primary key)	SCTID, digits 0 to 9, length 6 to 18	Mandatory	The concept ID of the Care Plan Bundle
BundlePreferredTerm	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The term that is expected to be presented to end users
BundleFullySpecifiedName	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The unambiguous description for the Bundle, which includes the suffix, "procedure" or "regime/therapy" in parenthesis, this is the same as the "Need"
OrganisationalGroup	Alphanumeric up to 25 characters IHTSDO UKTC NHS England Organisation	Optional	If Organisation, Organisation Code must also be completed
OrganisationCode	Alphanumeric up to 10 characters As per Organisation Data Service	Optional	The organisation code to which this Bundle applies, including all subordinate organisations unless an alternative applies**
BundleElementsLocked	String, length 2 to 3 characters, values one of: YES NO	Optional	Elements of the Bundle should be locked to prevent them being removed by the end user, e.g. core quality standards, basic human rights etc.
EffectiveFromDate	YYYYMMDD	Mandatory	The date the bundle should first be available
EffectiveToDate	YYYYMMDD	Optional	The last date the bundle should be available for use

5.8.2.2 Bundle Content

Field Name	Field Name Specification	Mandatory / Optional	Explanation
BundleConceptID (1st field of Primary key)	SCTID, digits 0 to 9, length 6 to 18	Mandatory	The concept ID of the Care Plan Bundle
BundlePreferredTerm	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The term that is expected to be presented to end users
BundleFullySpecifiedName	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The unambiguous description for the Bundle, which includes the suffix, "procedure" or "regime/therapy" in parenthesis, this is the same as the "Need"
OrganisationalGroup	Alphanumeric up to 25 characters IHTSDO UKTC NHS England Organisation	Optional	If Organisation, Organisation Code must also be completed
OrganisationCode	Alphanumeric up to 10 characters As per Organisation Data Service	Optional	The organisation code to which this Bundle applies, including all subordinate organisations unless an alternative applies**
BundleContentLocked	String, length 2 to 3 characters, values one of: YES NO	Optional	This row of content is locked in the bundle if loaded, and cannot be removed at run time
BundleContentOrder	Numeric, length 1 to 3	Optional	If undefined alpha sort is suggested until set at configuration or by user. Problem is not included in the sort order
BundleContentType	String, length 6 to 9 characters, values one of: BUNDLE	Mandatory	At least two frameworks are compulsory with other content types optional. Problem MAY be populated and typically would be specified as a concept and all of its subtypes

	FRAMEWORK PROBLEM		
BundleContentConceptID (2nd field of Primary key)	SCTID, digits 0 to 9, length 6 to 18	Mandatory	The Concept ID of the Care Plan Bundle(s) or Framework(s), these are the same as the "Needs"
BundleContentPreferredTerm	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The term that is expected to be presented to end users, this is the same as the "Need"
BundleContentFSN	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The unambiguous description for the Bundle or Framework, which includes the suffix, "procedure" or "regime/therapy" in parenthesis, this is the same as the "Need"
EffectiveFromDate	YYYYMMDD	Mandatory	The date the bundle content should first be available
EffectiveToDate	YYYYMMDD	Optional	The last date the bundle content should be available for use

5.8.3 Care Plan Framework folder**5.8.3.1 Framework**

Field Name	Field Name Specification	Mandatory / Optional	Explanation
FrameworkConceptID (Primary key)	SCTID, digits 0 to 9, length 6 to 18	Mandatory	The concept ID of the Care Plan Framework, this is the same as the "Need"
FrameworkPreferredTerm	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The term that is expected to be presented to end users, this is the same as the "Need"
FrameworkFullySpecifiedName	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The unambiguous description for the Framework, which includes the suffix, "procedure" or "regime/therapy" in parenthesis, this is the same as the "Need"
OrganisationalGroup	Alphanumeric up to 25 characters IHTSDO UKTC NHS England Organisation	Optional	If Organisation, OrganisationCode must also be completed
OrganisationCode	Alphanumeric up to 10 characters As per Organisation Data Service	Optional	The organisation code to which this Framework applies, including all subordinate organisations unless an alternative applies**
FrameworkContentLocked	String, length 2 to 3 characters, values one of: YES NO	Optional	Elements of the Framework should be locked to prevent them being removed by the end user, e.g. core quality standards, basic human rights etc.
EffectiveFromDate	YYYYMMDD	Mandatory	The date the framework should first be available
EffectiveToDate	YYYYMMDD	Optional	The last date the framework should be available

5.8.3.2 Framework Content

Field Name	Field Name Specification	Mandatory / Optional	Explanation
FrameworkConceptID (1st field of Unique key)	SCTID, digits 0 to 9, length 6 to 18	Mandatory	The concept ID of the Care Plan Framework, this is the same as the "Need"
FrameworkPreferredTerm	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The term that is expected to be presented to end users, this is the same as the "Need"
FrameworkFullySpecifiedName	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The unambiguous description for the Framework, which includes the suffix, "procedure" or "regime/therapy" in parenthesis, this is the same as the "Need"
OrganisationalGroup	Alphanumeric up to 25 characters IHTSDO UKTC NHS England Organisation	Optional	If Organisation, OrganisationCode must also be completed
OrganisationCode	Alphanumeric up to 10 characters As per Organisation Data Service	Optional	The organisation code to which this Framework applies, including all subordinate organisations unless an alternative applies**
FrameworkContentLocked	String, length 2 to 3 characters, values one of: YES NO	Optional	This row of content is locked in the framework if loaded, and cannot be removed at run time
FrameworkContentOrder	Numeric, length 1 to 3	Optional	If undefined alpha sort within the logical groupings of Goals or Activities until set at configuration or by the user. Problem is not included in the sort order
FrameworkContentType	String, length 4 to 8 characters, values one of: NEED	Mandatory	Only Need, Goal and Activity MUST BE populated. Problem MAY be populated and typically would be specified as a concept and all of its subtypes.

	GOAL ACTIVITY PROBLEM		
FrameworkContentConceptID (2nd field of Unique key)	SCTID, digits 0 to 9, length 6 to 18	Mandatory	The concept ID of the Care Plan Framework Element
FrameworkContentPreferredTerm	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The term that is expected to be presented to end users
FrameworkContentFSN	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The unambiguous description for the Care Plan Framework content
TargetTime	Numeric, length 1 to 3	Optional	Target time to first occurrence from TargetStartReferenceConceptID event
TargetTimeQualifier	String, length 3 to 6 characters, values one of: HOUR HOURS DAY DAYS WEEK WEEKS MONTH MONTHS YEAR YEARS	Optional but Mandatory if TargetTime completed	Only populated if TargetTime Value also populated
TargetStartReferenceConceptID	SCTID, digits 0 to 9, length 6 to 18	Optional	The concept ID of the activity's Target Start Reference Concept, i.e. this might be an event at which time the target starts from
TargetStartReferencePT	String (any characters except LF, CR and TAB), length 1 to 255	Optional	The term that is expected to be presented to end users
TargetStartReferenceFSN	String (any characters except LF, CR and TAB), length 1 to 255	Optional	The unambiguous description including the suffix

Frequency	Numeric, length 1 to 3	Optional	Frequency from first occurrence,
FrequencyQualifier	String, length 3 to 6 characters, values one of: HOUR HOURS DAY DAYS WEEK WEEKS MONTH MONTHS YEAR YEARS	Optional but Mandatory if Frequency completed	Only populated if Frequency value also populated
EffectiveFromDate	YYYYMMDD	Mandatory	The date the framework content should first be available
EffectiveToDate	YYYYMMDD	Optional	The last date the framework content should be available

To support systems unable to manage content without a concept ID there is a “blank” framework with a Need and Activity of “Procedure” this is an exception to the normal convention that a need and activity cannot be the same in a given framework.

5.8.4 Care Plan Elements Folder**5.8.4.1 Care Planning Problems**

Field Name	Field Name Specification	Mandatory / Optional	Explanation
ProblemConceptID (Primary key)	SCTID, digits 0 to 9, length 6 to 18	Mandatory	The concept ID of the "Problem"
ProblemPreferredTerm	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The term that is expected to be presented to end users
ProblemFullySpecifiedName	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The unambiguous description for the Problem, which includes the suffix, "disorder", "finding" or "situation" in parenthesis
OrganisationalGroup	Alphanumeric up to 25 characters IHTSDO UKTC NHS England Organisation	Optional	If Organisation, OrganisationCode must also be completed
OrganisationCode	Alphanumeric up to 10 characters As per Organisation Data Service	Optional	The organisation code to which the Problem applies, including all subordinate organisations unless an alternative applies**
EffectiveFromDate	YYYYMMDD	Mandatory	The date the problem should first be available
EffectiveToDate	YYYYMMDD	Optional	The last date the problem should be available for use

5.8.4.2 Care Planning Record Type

Field Name	Field Name Specification	Mandatory / Optional	Explanation
RecordTypeConceptID (Primary key)	SCTID, digits 0 to 9, length 6 to 18	Mandatory	The concept ID of the "RecordType"
RecordTypePreferredTerm	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The term that is expected to be presented to end users
RecordTypeFullySpecifiedName	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The unambiguous description for the "RecordType", which includes the suffix, "record artifact" in parenthesis
OrganisationalGroup	Alphanumeric up to 25 characters IHTSDO UKTC NHS England Organisation	Optional	If Organisation, OrganisationCode must also be completed
OrganisationCode	Alphanumeric up to 10 characters As per Organisation Data Service	Optional	The organisation code to which this Need applies, including all subordinate organisations unless an alternative applies**
EffectiveFromDate	YYYYMMDD	Mandatory	The date the need should first be available
EffectiveToDate	YYYYMMDD	Optional	The last date the need should be available for use

5.8.4.3 Care Planning Needs

Field Name	Field Name Specification	Mandatory / Optional	Explanation
NeedConceptID (Primary key)	SCTID, digits 0 to 9, length 6 to 18	Mandatory	The concept ID of the "Need"
NeedPreferredTerm	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The term that is expected to be presented to end users
NeedFullySpecifiedName	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The unambiguous description for the "Need", which includes the suffix, "procedure" or "regime/therapy" in parenthesis
OrganisationalGroup	Alphanumeric up to 25 characters IHTSDO UKTC NHS England Organisation	Optional	If Organisation, OrganisationCode must also be completed
OrganisationCode	Alphanumeric up to 10 characters As per Organisation Data Service	Optional	The organisation code to which this Need applies, including all subordinate organisations unless an alternative applies**
EffectiveFromDate	YYYYMMDD	Mandatory	The date the need should first be available
EffectiveToDate	YYYYMMDD	Optional	The last date the need should be available for use

5.8.4.4 Care Planning Goals

Please see associated guidance on SNOMED CT[®] expressions, it is very important that any message or report contains the correct context for goals.

Field Name	Field Name Specification	Mandatory / Optional	Explanation
GoalConceptID (1st field of Primary key)	SCTID, digits 0 to 9, length 6 to 18	Mandatory	The concept ID of the "Goal"

GoalPreferredTerm	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The term that is expected to be presented to end users
GoalFullySpecifiedName	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The unambiguous description for the goal, which includes the suffix "finding" in parenthesis
OrganisationalGroup	Alphanumeric up to 25 characters IHTSDO UKTC NHS England Organisation	Optional	If Organisation, OrganisationCode must also be completed
OrganisationCode	Alphanumeric up to 10 characters As per Organisation Data Service	Optional	The organisation code to which this Goal applies, including all subordinate organisations unless an alternative applies**
GoalType	String, length 9 to 10, values SUBJECTIVE OBJECTIVE	Optional	Where objective can link to a specific measure
GoalMeasureConceptID (2nd field of Primary key)	SCTID, digits 0 to 9, length 6 to 18	Optional	The concept ID of the goal measure
GoalMeasurePreferredTerm	String (any characters except LF, CR and TAB), length 1 to 255	Optional	The term that is expected to be presented to end users
GoalMeasureFullySpecifiedName	String (any characters except LF, CR and TAB), length 1 to 255	Optional	The unambiguous description for the goal measure, which includes the suffix "finding" in parenthesis
EffectiveFromDate	YYYYMMDD	Mandatory	The date the goal should first be available
EffectiveToDate	YYYYMMDD	Optional	The last date the goal should be available for use

5.8.4.5 Care Planning Activities

Please see associated guidance on SNOMED CT[®] expressions, it is very important that any message or report contains the correct context for actions linked with the relevant activity.

Field Name	Field Name Specification	Mandatory / Optional	Explanation
ActivityConceptID (Primary key)	SCTID, digits 0 to 9, length 6 to 18	Mandatory	The concept ID of the "Activity"
ActivityPreferredTerm	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The term that is expected to be presented to end users
ActivityFullySpecifiedName	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The unambiguous description for the "Activity", which includes the suffix , "procedure" or "regime/therapy" in parenthesis
OrganisationalGroup	Alphanumeric up to 25 characters IHTSDO UKTC NHS England Organisation	Optional	If Organisation, OrganisationCode must also be completed
OrganisationCode	Alphanumeric up to 10 characters As per Organisation Data Service	Optional	The organisation code to which this activity applies, including all subordinate organisations unless an alternative applies**
LinkedApplicationFunctionality	String, length 1 to 30 characters, values one of: Allergies - recording Allergies - viewing Alerts - recording Alerts - viewing Contact scheduling Day care scheduling Device/aid provision Discharge - actual Discharge - medical	Optional	The area of the electronic patient record expected to be linked with native application functionality. Where blank or "Non Native" is selected, no linkage has been assigned

	Discharge - planning Documents - CreateClinicalNote Documents - Create document Formal care plan reviews Health Issue - Recording Health Issue - Viewing Imaging requests Imaging results Initiate Assessment Form Inpatient scheduling Medication administration Non Native Outpatient scheduling Pathology requests Pathology results Prescribe Procedure - recording Procedure - viewing Referral - create Referral - manage Service requests Service results Theatre scheduling		
EffectiveFromDate	YYYYMMDD	Mandatory	The date the activity should first be available
EffectiveToDate	YYYYMMDD	Optional	The last date the activity should be available for use

IMPORTANT NOTE

There are a small number of cases where more than one design unit MAY be the target of the activity, a pragmatic decision based on the most likely to be required by a service user facing clinician using care planning functionality has been made.

- 81937003 | Red cell survival study
- 84146007 | Schilling test
- 273979009 | Red cell mass

Assigned to “Imaging requests” as it is usually the nuclear medicine departments that undertakes these investigations.

5.8.4.6 Care Planning Context Values Actions

Field Name	Field Name Specification	Mandatory / Optional	Explanation
ActionContextValuesConceptID (Primary key)	SCTID, digits 0 to 9, length 6 to 18	Mandatory	The concept ID of the context value for action
ActionContextValuesPT	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The term that is expected to be presented to end users
ActionContextValuesFSN	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The unambiguous description for the status value for activities, which includes the suffix "qualifier value" in parenthesis
EffectiveFromDate	YYYYMMDD	Mandatory	The date the context values for action should first be available
EffectiveToDate	YYYYMMDD	Optional	The last date the context values for action should be available for use

5.8.4.7 Care Planning Context Values Goals

Field Name	Field Name Specification	Mandatory / Optional	Explanation
GoalContextValueConceptID (Primary key)	SCTID, digits 0 to 9, length 6 to 18	Mandatory	The concept ID of the goal achievement finding
GoalContextValuePT	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The term that is expected to be presented to end users
GoalContextValueFSN	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The unambiguous description for the goal achievement finding, which includes the suffix "finding" in parenthesis
EffectiveFromDate	YYYYMMDD	Mandatory	The date the goal should first be available
EffectiveToDate	YYYYMMDD	Optional	The last date the goal should be available for use

5.8.4.8 Care Planning Context Values Intents

Field Name	Field Name Specification	Mandatory / Optional	Explanation
IntentContextValueConceptID (Primary key)	SCTID, digits 0 to 9, length 6 to 18	Mandatory	The concept ID of the intent qualifier value
IntentContextValuePT	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The term that is expected to be presented to end users
IntentContextValueFSN	String (any characters except LF, CR and TAB), length 1 to 255	Mandatory	The unambiguous description for the intent qualifier value, which includes the suffix "qualifier" in parenthesis
EffectiveFromDate	YYYYMMDD	Mandatory	The date the intent qualifier value should first be available
EffectiveToDate	YYYYMMDD	Optional	The last date the intent qualifier value should be available for use