

### What are inactive codes?

SNOMED CT is kept up to date to reflect current clinical requirements: this means new concepts and descriptions are added BUT descriptions and/or concepts can also be declared *inactive*.

Descriptions of an active concept are made inactive if, for example, they are out-dated or are no longer acceptable.

Concepts are made inactive if they are duplicates, ambiguous, erroneous or outdated.

### How this impacts on data entry

Inactive descriptions and any description of an inactive concept will not be available to select by a user in a browser used for data entry.

Existing data entry templates containing inactive codes (descriptions or concepts) will need to be updated, ideally before the next release. However, it will still be possible for inactive codes to be entered via a template, thus giving time for templates to be updated.

### How this impacts on historical data

There is no mandate to recode existing entries that now have inactive SNOMED CT codes. Historical inactive codes should still be visible to users; must be searchable in the system but should be identifiable as inactive.

#### Contact

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### How this impacts on searches

**Note.** Searches are only executed using the Concept Id.

It must be possible to select inactive concepts in search criteria and to find inactive concepts in patient records via a search specification. Suppliers have tools to support the finding of inactive concepts in patient records. Your system may provide a choice of how a search takes account (or not) of inactive concepts. Users need to clinically assess which is the most appropriate for the required search:

**Only active concepts** – this option would not include any inactive concepts; this could miss patients who would legitimately have been included when a concept was active.

**Active and Inactive concepts (non-ambiguous)** – this option should be considered as the minimum for local searches; it identifies patients who have inactive concepts in historical data that are duplicates or deemed equivalent to some concepts in the search criteria.

**Active and Inactive concepts (non-ambiguous and ambiguous)** – this option will select any concepts with links to those in the search criteria, including *may be a*. As such it may require sifting out records that are not appropriate. The link is to all possible meanings of the concept and therefore could include some concepts that are not required. If it is critical all patients are found, then this option should be considered.

**Please Note:** Descriptions and Concepts in SNOMED CT originating from Read/CTV3 which are outdated, erroneous or ambiguous will gradually be made inactive as part of the ongoing maintenance of SNOMED CT.

## Technical details of inactivation

**This section is aimed at suppliers or those managing data repositories.**

The reasons for inactivation can be found in the SNOMED International Editorial Guide: [Descriptions](#) and [Concepts](#).

Inactive descriptions have a status of 0 in the *active field* in the description file and in the language reference set file. Inactive concepts have a status of 0 in the *active field* in the concept file and in any rows where they appear in the relationship file.

Inactive concepts have no active relationships to their original hierarchy. When a concept is made inactive, it is added to two reference sets which give an indication of the reason for inactivation and links to possible replacement concepts. The *association reference set* (e.g. POSSIBLY EQUIVALENT TO association reference set) includes a target concept (i.e. concept(s) to which the inactivated concept is linked); and the *Concept inactivation indicator attribute value reference set* provides a reason for inactivation (e.g. Ambiguous). Inactivated concepts may be linked to more than one active concept (e.g. when ambiguous); may be linked to just one active concept (e.g. when a duplicate); and may not be linked to any active concepts (e.g. retired, erroneous). Active Descriptions associated with inactive concepts are not inactivated so always use the concept status to decide which descriptions should be visible for data entry.

### Dealing with concept inactivation – Duplicates

System suppliers and database administrators may consider offering (for user confirmation) automated bulk replacements for inactive concepts with reason 'duplicate' in order to improve user experience and performance. In this instance, the original concept description

must be visible in the record and the fact that the this has occurred must be flagged to users. It is also acceptable for systems to automatically replace inactive concepts with reason 'duplicate' within the system in templates and protocols.

### Dealing with concept inactivation – Outdated, Ambiguous, Erroneous

Concepts that are inactivated due to being outdated, ambiguous or erroneous *should* be removed from data entry as soon as possible. Tooling should be provided by suppliers to enable practices to identify such codes within user defined artefacts and offer alternative codes where available. Users will need to clinical review changes to manage these appropriately.

### Dealing with concept inactivation – Received data

Where data is received from another system, if this contains inactive codes, functionality may be provided to enable the practice to replace an inactive code. The system should offer alternatives using the SNOMED links to possible replacements; where outdated or erroneous users may prefer to leave the inactive code, the original must always be retained.

### Dealing with concept inactivation – Searches

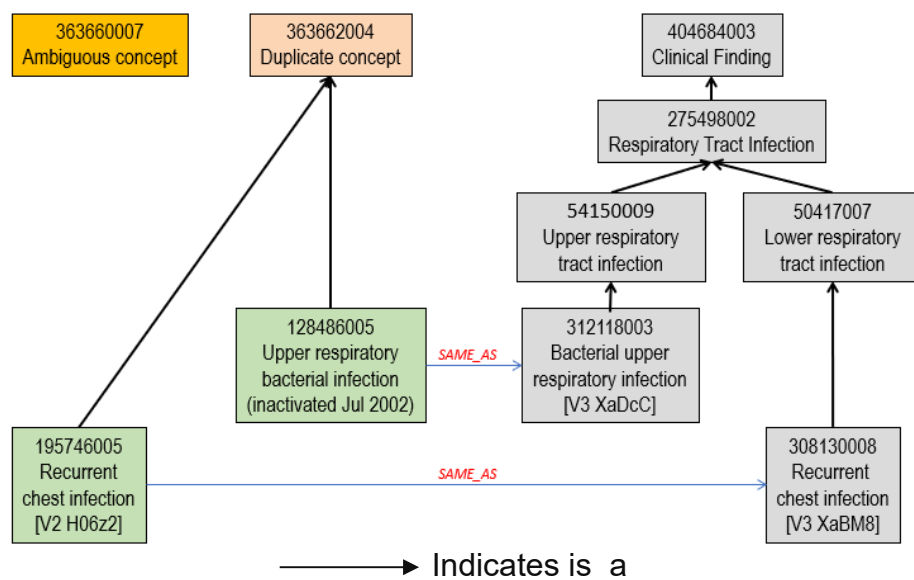
NHS Digital provides a 'History Substitution Table' and a 'Query Table' to support searching. These are available from [TRUD](#) with technical documentation. The Query Table must be used to support searching where both active and inactive codes descendant from a particular concept must be found. The History Substitution Table must be used to find active code equivalents for a single inactive concept (i.e. not including any descendants). GPES searches include inactive concepts in the specification so currently do not require the use of these tables. Note. Reference sets can include inactive codes as well as active codes when used in searches.

## Appendix

This section illustrates diagrammatically how SNOMED manages inactive codes.

Consider the following:

### Before October 2011...

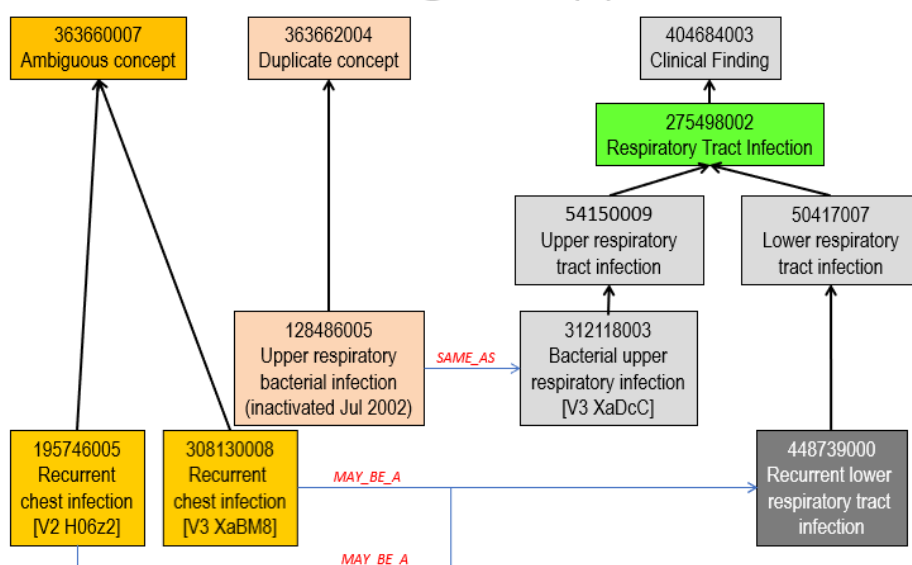


‘Upper respiratory bacterial infection’ and ‘Bacterial upper respiratory infection’ clinical mean the same but were separate concepts inherited from Read.

‘Upper respiratory bacterial infection’ is made inactive and added to the duplicate concept reference set, as well as a link of *same as* to the concept ‘Bacterial upper respiratory infection’.

A search for ‘Respiratory Tract Infection’ and all its descendants would not pick up records containing concept ‘Upper respiratory bacterial infection’. When the Query table is used, and duplicate concepts included (i.e. non-ambiguous), then ‘Upper respiratory bacterial infection’ will be identified as it has a *same as* link.

### ...changes happen...



In a later release, both concepts ‘Recurrent chest infection’ are made inactive as they are ambiguous; a new concept ‘Recurrent lower respiratory tract infection’ is created and these concepts are linked with a *may be a* relationship.

A search for ‘Respiratory Tract Infection’ and all its descendants would not pick up records containing concept ‘Recurrent chest infection’ unless the Query Table is used and includes ambiguous concepts.