

Data Migration Subpack

Map *from* 5 Byte READ Version 2
to Clinical Terms Version 3 (CTV3)

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1st April 2020

Dear User

5-Byte Read Codes (V2) to Clinical Terms Version 3 (CTV3) Map

Please find enclosed the scheduled **FINAL** April 2020 production release of the 5-Byte Read Codes (V2) to Clinical Terms Version 3 (CTV3) mapping table. The maps are synchronised with the final 21.0.0 production release of 5-Byte Read Codes (April 2016) and with the final 25.0.0 production release of CTV3 (April 2018). This release replaces all previous releases.

WARNING

This product is designed to support migration of
coded data in ONE direction only:

FROM

5-Byte Read Codes V2

TO

Clinical Terms Version 3 (CTV3)

Use of the table to migrate data in the opposite direction is
NOT RECOMMENDED OR SUPPORTED

Nature of changes since 28.0.0 (October 2019) release

One map was changed in response to user feedback.

Effect of READ Code end of maintenance (2016/18) and full withdrawal (2020):

Maintenance of the READ2 codeset itself ended at the April 2016 (21.0.0) integrated release; no new READ2 codes will be released after that date. Maintenance of the CTV3 codeset ended with the 25.0.0 production release (April 2018). New releases of this mapping table have, however, been issued biannually until April 2020. This permitted changes to correct mapping errors.

Product Status: this release is a **Deprecated with Support**.

This is the final release of this product. No further scheduled releases will occur and the content will therefore remain static. Only if required to resolve critical clinical safety issues, unscheduled updates may occur until April 2023.

Introduction

The UK Clinical Terminology Landscape

Many clinical systems capture part of the clinical information they hold using codes selected from a clinical terminology or classification. Within the NHS, seven different 'supported standard' terminology or classification artefacts were in common, concurrent use in 2007 (although individual systems normally use only one or two):

1. **READ4** 4-Byte READ Codes (support discontinued from October 2009)
2. **READ2** 5-Byte READ Codes (version 2)
3. **CTV3** Clinical Terms Version 3
4. **SNOMED CT**
5. **ICD-9**
6. **ICD-10**
7. **OPCS 4.x**

Additionally, a number of drug dictionaries are in use including NHS DM&D, Multilex (FDB), and the EMIS Drug Dictionary.

Finally, for a variety of reasons including that none of the supported terminology or classification standards provides complete 'within terminology' coverage of everything a clinical enduser might wish to code, most suppliers have in fact actually deployed hybrid solutions in which most codes are taken from one of the supported standards where possible, but this single-standard codeset is augmented by either or both of proprietary (by the supplier) or local (within enterprise) extensions.

From April 2018, clinical systems throughout Primary Care will begin migrating toward exclusive use of SNOMED CT, and correspondingly stop using READ4, READ2 and CTV3 for new data entry. Historical data already captured using these legacy terminologies will become 'dual coded'.

Requirements for data transformation/migration

Partly as a direct result of NHS programmes, and partly due to changes in the clinical informatics market occurring independent of these initiatives, there is an increasing requirement for systems to be able to send and receive information that is coded using coding systems other than that used natively within the application. This data transformation may occur piecemeal and *ad hoc* e.g. when sending information about one patient to the national summary care record, or as *en bloc* migration e.g. when all historic patient data held by a healthcare enterprise is moved from an old system to a newly commissioned one (such as must necessarily occur across the entire Primary Care estate from April 2018 as it moves to SNOMED CT).

Before 2006, NHS policy with respect to the migration of data coded using its terminology products had been to support data migration in one 'forward'

direction only along the existing legacy pipeline of terminologies, ie from 4-Byte READ through 5-Byte (V2), CTV3 and finally to SNOMED CT. Additionally, rather than providing supported mappings as finished 'look-up table' products, technical guidance documents were distributed describing how the required mappings might be derived from intermediate products.

The guidance for deriving a mapping between 5-Byte Read Codes (V2) and Clinical Terms Version 3 (CTV3) is contained within the wider set of CTV3 documentation, but suppliers have empirically experienced difficulty in both finding and correctly implementing it.

In response to these problems, selected mapping table artefacts have been developed, released and maintained as 'finished products' since October 2007.

Mapping Quality, Coverage and Assurance

The methodology used to determine the maps and the assurance of these has been undertaken in partnership with the Joint GP IT Committee and the SNOMED CT in primary care project, using the expertise of the NHS Terminology Service with additional tooling from Clinical Architecture.

The maps have been determined as clinically safe to use in the transition of general practice systems from Read v2 to CTV3 by the Joint GP IT Committee and GPSoC.

It is **strongly recommended** that the original rubric text, original source code and mapping table version used are preserved in any migrated dataset, alongside the mapped SNOMED CT code.

The mapping files do not include or provide maps for any of the Read Drug and Appliance Dictionary Codes.

Reporting and Managing Mapping Errors

Implicit in the preceding section is an acceptance that the mapping table may still contain errors – even when IS_ASSURED=TRUE. However, if any such errors exist such codes are likely to have extremely small usage.

Users of the mapping tables have a duty of care to report any suspected mapping errors they detect to information.standards@nhs.net and to avail themselves at the earliest opportunity of all update releases, in which such errors may be fixed.

Safe Use

The NHS Terminology Service within NHS Digital makes no express or implied assurances about the clinical safety or suitability of the map either in general or for any specific use case. Use of the maps must be undertaken in conjunction with any additional contractual requirements or guidance provided in relation to any specific use of the maps.

Product History and Status

The first release of the 5-Byte READ2 to CTV3 map occurred in May 2009. Minor design changes followed a consultation with implementers in June 2010.

From December 2012 the map content was expanded to provide maps from all READ2 codes found in either the UNIFIED or UNISCOT editions. Maps relating to those READ2 codes that appear in *both* editions but with different term strings are by default no longer assured unless the difference between terms is considered trivial. Although an unassured map is still provided for these codes, the UNIFIED edition term string interpretation is assumed.

'Snapshot' map tables after October 2013 no longer include rows for the nine sexuality-related READ2 codes that were withdrawn from READ2 in Oct 2013.

The original specification was approved as a 'Draft for Trial Use' in March 2012, and then as a 'Supported Product' from June 2015.

From April 2020, this release has **Deprecated With Support** status within the NHS Terminology Product Development Lifecycle¹. This means that:

1. Both the release format specification of the product and the method of its content preparation shall remain fixed indefinitely *unless* a significant safety risk is identified that cannot be mitigated without changing them. Where changes are deemed necessary to improve a product then a formal consultation procedure will be undertaken which may include some or all parts of the product development process and may include an option for parallel running (i.e. support for both existing and new specification).
2. NHS Digital commits to continue limited support until April 2023, after which proper product termination and data withdrawal procedures will occur. There will be no further scheduled maintenance updates of the product. Only if required to resolve critical clinical safety issues, unscheduled updates *may* occur until April 2023.
3. Quality assurance may be ongoing but the product is approved for deployment in live clinical systems, subject to standard safety assessment procedures associated with deployment of any product into a live environment
4. The commitment to release against a stable specification does not preclude continued parallel evolution of the specification and consequent development of improved variants which may or may not be considered as new products.

¹ <http://systems.hscic.gov.uk/data/uktc/snomed/governance/lifecycle.pdf>

RctCtv3Map Mapping File Format

The mapping file is presented as a TAB delimited file. Rows are terminated by CR/LF combination. The first row contains the relevant field names, as detailed below. Further description follows of the individual fields, and some example complete rows from the table (Table 2):

Table 1. CTV3 Code + Term mapping structure (RctCtv3Map_uk_YYYYMMDD.txt)

Column	Length	Type / Pattern	Database type	Note
MAPID	38	UUID	HUGEINT (INT128)	Unique Identifier
V2_ConceptID	5	STRING	VARCHAR (5)	5-Byte Read V2 Concept code
V2_TermID	2	STRING	VARCHAR (2)	5-Byte Read V2 Term code
CTV3_TermID	5	STRING	VARCHAR (5)	CTV3 Term Identifier for the same combination of 30-, 60- or 198 Character strings as specified by the 5-Byte Read V2 concept code and term code pair
CTV3_TermTyp	1	STRING	VARCHAR (1)	Type of CTV3_TermID in CTV3 with respect to CTV3_ConceptID in same row (P=preferred S=synonym)
CTV3_ConceptID	5	STRING	VARCHAR (5)	Identifier for CTV3 Concept mapped to a V2_ConceptID + V2_TermID pair in READ V2
USE_CTV3_TermID	5	STRING	VARCHAR (5)	Recommended CTV3 Term Identifier to use after data migration Usually same as CTV3_TERMID except where CTV3_TERMID is not a valid term to use with CTV3_ConceptID in current CTV3 release
STAT	1	STRING	VARCHAR (1)	Status of CTV3_ConceptID in release of CTV3 current at EffectiveDate C=current O=optional E=extinct R=redundant
MapTyp	3	STRING	VARCHAR (3)	Mapping metadata: information about how the map was derived, and how frequently the Read concept and term code combination is used.
MapStatus	1	0 1	TINYINT	0=Inactive 1=Active. Value 1 for all columns in technology preview
EffectiveDate	8	YYYYMMDD	DATETIME	Date as YYYYMMDD e.g. 20061218
IsAssured	1	0 1	BOOLEAN	0 = Not assured, 1=Assured

Table 2 :RctCtv3Map Mapping File Example Rows

MAPID	V2_CONCEPTID	V2_TERMID	CTV3_TERMID	CTV3_TERMTYP	CTV3_CONCEPTID	USE_CTV3_TERMID	STAT	MAPTY	MAPSTATUS	EFFECTIVEDATE	ISASSURED
{00c7155c-f340-102a-b93e-9e9f426d5d8c}	44T..	00	Y7GNJ	P	44T..	Y7GNJ	0	zN1	1	20071203	1
{00c717b2-f340-102a-b93e-9e9f426d5d8c}	44T..	11	Y7GNK	P	44T..	Y7GNJ	0	cN1	1	20071203	0
{00f30e63-f340-102a-b93e-9e9f426d5d8c}	685..	00	Y79bA	P	685..	Y79bA	C	bN1	1	20071203	1
{06ec4acf-f340-102a-b93e-9e9f426d5d8c}	685..	11	Y79bC	P	685..	Y79bA	C	b01	1	20071203	0
{06ec4be3-f340-102a-b93e-9e9f426d5d8c}	685..	12	Y79bB	P	685..	Y79bA	C	a01	1	20071203	0
{00f30e63-f340-102a-b93e-9e9f426d5d8c}	685..	00	Y79bA	P	685..	Y79bA	C	bN1	0	20080311	1
{4212c0b5-f22-1000-b3b6-7a47f6fc0e4f}	685..	00	Y79bA	P	685..	Y79bA	C	zN1	1	20080311	1
{0630fce8-f340-102a-b93e-9e9f426d5d8c}	74145	00	Y02e1	P	Xa9eL	Y02e3	C	cR1	1	20071203	0
{0630fdfa-f340-102a-b93e-9e9f426d5d8c}	74145	11	YMJnf	P	Xa9eL	Y02e3	C	zR1	1	20071203	0
{0630fce8-f340-102a-b93e-9e9f426d5d8c}	74145	00	Y02e1	P	Xa9eL	Y02e3	C	cR1	0	20080311	0
{4212c287-f22-1000-b3b6-7a47f6fc0e4f}	74145	00	Y02e1	P	Xa9eL	Y02e3	C	zR1	1	20080311	0
{083a0950-f340-102a-b93e-9e9f426d5d8c}	S64..	00	YA0Vd	P	XE1m6	YA0Vd	0	zS1	1	20071203	1
{083a0a68-f340-102a-b93e-9e9f426d5d8c}	S64..	11	YA0VF	P	XA049	YA0VF	0	zS1	1	20071203	1
{083a0b79-f340-102a-b93e-9e9f426d5d8c}	S64..	12	YA005	P	XA004	YA005	0	zS1	1	20071203	1
{08404990-f340-102a-b93e-9e9f426d5d8c}	S64..	13	YA004	S	S64..	YA004	E	aA2	1	20071203	1
{083a0b79-f340-102a-b93e-9e9f426d5d8c}	S64..	12	YA005	P	XA004	YA005	0	zS1	0	20090826	1
{e04ed3eb-90c5-11de-96a8-e716ba62bd8d}	S64..	12	YA005	P	XA004	YA005	0	cS1	1	20090826	1
{083a586e-f340-102a-b93e-9e9f426d5d8c}	S8z..	00	YA092	P	XE1mX	YA092	0	cS1	1	20071203	1
{083a5980-f340-102a-b93e-9e9f426d5d8c}	S8z..	11	YA094	P	XA00o	YA094	0	aS1	1	20071203	1
{083a5a8c-f340-102a-b93e-9e9f426d5d8c}	S8z..	12	YA093	P	XA00n	YA093	0	zS1	1	20071203	1
{083a5b9e-f340-102a-b93e-9e9f426d5d8c}	S8z..	13	YM40S	P	XC09J	YM40S	C	bS1	1	20071203	1
{083b3184-f340-102a-b93e-9e9f426d5d8c}	SE11.	00	Y7CLU	P	XE1nK	Y7CLU	C	zS1	1	20071203	1
{083b3290-f340-102a-b93e-9e9f426d5d8c}	SE11.	11	Y7CLT	P	XE1nK	Y7CLU	C	zS1	1	20071203	0
{083b33a5-f340-102a-b93e-9e9f426d5d8c}	SE11.	12	Y7CLS	S	XE1nK	Y7CLS	C	zS1	1	20071203	1
{083b34b1-f340-102a-b93e-9e9f426d5d8c}	SE11.	13	YaYBV	P	XE1nK	Y7CLU	C	zS1	1	20071203	0

Updates to the mapping table will use the EffectiveDate and MapStatus fields to indicate changes to each mapping.

This is described further below.

Mapping File Column Details

MAPID

A unique and persistent globally unique (or near unique) identifier for the triad of a READ V2 concept identifier (V2_ConceptID), a READ V2 Term Code (V2_TermID) and a specific CTV3 concept identifier (CTV3_ConceptID).

Each MapId is a 128-bit Universally Unique Identifier (UUID / GUID) generated using the conventions of RFC-4122 and expressed in the file using the standard 38-character alphanumeric string (for details please refer to RFC-4122 at the following URL <http://www.ietf.org/rfc/rfc4122.txt>) .

V2_CONCEPTID

A five-character alphanumeric Read V2 code for a clinical concept.

Note: V2_CONCEPTID must be processed in a Case Sensitive manner.

V2_TERMID

A two character numeric Read V2 code for a particular triple comprising 30-, 60- and 198-character string length variants of a single valid clinical term for the specified V2_CONCEPTID.

Individual Read V2 concept codes, such as '74145' in Table 2, can have multiple different terms associated with them. Each term is available in 30-, 60- and 198- character variants and each such triple of string length variants has its own two-character term code (e.g. '00', '01', '11'); there is no distinct code for each of the string length variants. The '00' code denotes the 'preferred' term for the base Read concept code. Other term codes may be either synonyms for the preferred term, or have entirely different meanings; these two classes are not distinguishable.

Note: V2_TERMID must be processed in a Case Sensitive manner.

CTV3_TERMID

The five-character alphanumeric CTV3 term code corresponding to the same triple of 30-, 60- and 198-character string length variants of a term as specified by the V2_CONCEPTID + V2_TERMID pair natively in Read V2. The corresponding CTV3 term identifier is retrieved from the v2termv3.v3 table in the vafs subdirectory of the current CTV3 release dataset.

Individual CTV3 concept codes, such as 'XE1nK' in Table 2, can have multiple different terms, each in 30-, 60- and 198- character string length variants, associated with them. Each string length variant triple has its own term code (e.g. 'Y21Eu', 'Y21Ev', 'Y21Ew' and 'Y21Ex'); there is no distinct code for each of the string length variants. One of the term codes will be of type 'preferred' whilst the others are 'synonyms'.

Note: CTV3_TERMID must be processed in a Case Sensitive manner.

CTV3_TERMTYP

The type of CTV3_TERMID in CTV3 with respect to the CTV3_CONCEPTID in the same row.

Either:

P = USE_CTV3_TermID is the Preferred term for CTV3_CONCEPTID

S = USE_CTV3_TermID is a Synonym term for CTV3_CONCEPTID

CTV3_CONCEPTID

The five-character alphanumeric CTV3 code for the concept corresponding to the meaning specified by the combination of V2_CONCEPTID and V2_TERMID.

Note: The CTV3_CONCEPTID must be processed in a Case Sensitive manner.

USE_CTV3_TERMID

The recommended five character alphanumeric CTV3 term code to use after migration.

Where it **is** legal, in the current CTV3 release, to associate CTV3_TERMID (the original V2 term, in CTV3) with the recommended CTV3 map target (CTV3_CONCEPTID), then USE_CTV3_TERMID will be the same as CTV3_TERMID. In these cases it **will** be possible to show *exactly* the same human readable string after data migration as before using the native CTV3 mechanisms, provided the 'after migration' system is able to display CTV3 Synonyms.

Where it is **not** legal in the current CTV3 release to associate CTV3_TERMID (the original V2 term, in CTV3) with the recommended CTV3 map target concept (CTV3_CONCEPTID), then USE_CTV3_TERMID will be different from CTV3_TERMID: it will be the same as the CTV3_TERMID for the preferred term of, in CTV3, for the CTV3_CONCEPTID in question. In these cases it will **not** be possible to show *exactly* the same human readable string after data migration as before using the native CTV3 mechanisms, whether or not the 'after migration' system is able to display CTV3 Synonyms. It is therefore strongly recommended that the original V2 rubric be preserved in the post-migration dataset as text attached to the coded item.

See e.g. the mapping row relating to V2_CONCEPTID=74145, V2_TERMID=11 in Table 2.

STAT

From CTV3 content current at EffectiveDate, the status of CTV3_CONCEPTID within that content as specified in the Concept.v3 table (part of the CTV3 release)

MAPTYP

Metadata about the mapping between V2_CONCEPTID+V2_TERMID and CTV3_CONCEPTID+USE_CTV3_TERMID. MAPTYP is a 3-character code, formed as the concatenation of two subcodes:

The first character in MAPTYP indicates how frequently the V2_CONCEPTID+V2_TERMID combination (RCT) is used in typical GP records:

- a = member of set of top 1000 most frequently used RCTs
- b = member of set of next 4000 most frequently used RCTs
- c = member of set of next 5000 most frequently used RCTs
- z = all other RCTs (ie those used very rarely or never)

ie the union of RCTs where LEFT(MapTyp,1) IN ('a','b') equals the top 5000 RCTs by usage. The set of RCTs where LEFT(MapTyp,1) IN ('a','b','c') equals the top 10,000 by usage.

The remaining two characters of MAPTYP indicate how the mapping was derived:

- N1 = the base V2_CONCEPTID is still a current code current in CTV3 and all permutations of that V2 code and any of its term codes carry the same meaning (map to the same CTV3_CONCEPTID)
- O1 = the base V2_CONCEPTID is optional in CTV3 but a single current alternative can be identified using the RMF and/or DCF tables
- R1 = the base V2_CONCEPTID has been retired in CTV3 because it means the same as one other current CTV3 concept code. The current alternative has been identified using the RMF and/or DCF tables
- S1 = the set of terms associated with the original V2_CONCEPTID are not true synonyms of each other. The DCF table provides a single alternative CTV3 code for the particular combination of the base Read code **and** a term code.
- An = the original V2_CONCEPTID and V2_TERMID combination is inherently ambiguous. The mapping table gives the original V2 code as the suggested candidate CTV3 map, but this will usually be inaccurate and unsatisfactory (e.g. it will usually be an inactive CTV3 code). The DCF provides **n** possible more accurate candidate mappings to current CTV3 codes, but which (if any) of these should apply can only be accurately determined on a case-by-case basis by inspecting each individual coded record item instance that uses the original V2 code and deciding which candidate CTV3 map most closely represents the intended meaning in that record item.

Where the MAPTYP indicates that the V2 Code mapping to CTV3 is ambiguous, the safest and most correct mapping solution is to require a clinician to individually and separately inspect each EPR entry so coded in order to determine by hand the most appropriate mapping to CTV3.

Without this manual inspection, the CTV3ID mapping entries for an ambiguous V2_CONCEPTID provided in this table will typically result in post-migration data that does not behave correctly in subsequent database queries for clinical decision support, audit or payment by results.

MAPSTATUS

The status of a mapping, as described in the table definitions. Normally:

- 0=Inactive
- 1=Active

EFFECTIVEDATE

The date from which a MapStatus value holds true: A given MapStatus for a mapping (as uniquely identified by a MapId) holds true indefinitely from the EffectiveDate unless and until superseded by a subsequent update release in which the same MapId appears but with a more recent value in the EffectiveDate field.

In the mapping file the date is represented in the ISO standard separator free from YYYYMMDD (e.g. "20061218")

IS_ASSURED

Use of the IS_ASSURED field should be in line with any contractual or use case specific guidance.

The current clinical assurance status of each map assertion between a READ2 concept and term ID pair, and a CTV3 concept and term ID pair.

0=Not assured

1=Assured

A semi-automatic quality assurance process was agreed with the NHS GP Systems of Choice (GPSoc) programme in October 2010 and subsequently with the Joint GP IT Committee. Under this process, maps are automatically assured if at least one of the three string-length variant strings encoded for by the target USETUI CTV3 TermID is exactly lexically equivalent to at least **one** of the three string-length variants similarly encoded for by the original 5-Byte READ TermID (both strings normalised to lowercase).

In addition to this entirely automatic assurance, a targeted manual inspection process sponsored by GPSoc was concluded in late 2010. From the April 2011 release, both the IS_ASSURED field and the map more generally take account of that manual inspection.

Thus, where the IS_ASSURED field holds a TRUE value, this now indicates:

EITHER that the recommended term (USETUI) for the CTV3 map target is lexically identical to the original READ2 rubric as defined above

OR that, after inspection by at least two clinicians, the clinical consensus was that the meaning conveyed by the original READ2 rubric was the same as (or sufficiently similar to) that conveyed by the preferred term for the CTV3 map target, even though the two strings are not lexically identical.

About the manual review

Detailed information on the mapping principles and an overview of the work undertaken to date is available on request from the SNOMED CT in primary care programme within NHS Digital.

Preparation and Use of the Mapping File

Note: the Data Migration Workbench is available as a Prototype/Demonstrator Implementation (available via TRUD).

Preparation

The mapping file is provided in a form that supports tracking of historical changes to the maps. Therefore, the file may contain multiple rows relating to different mappings for the same pairing of a V2_CONCEPTID and V2_TERMID, where the mapping has been changed over time. Each of the mappings will be uniquely identified by a MapID.

At any given point in time only one row for a given combination of V2_CONCEPTID and V2_TERMID has the MapStatus value 1 (active). Previous mappings will be reset to inactive by distribution of an additional table row in which the MapStatus value is 0.

Therefore, on receiving an update of the mapping table artefact, the combination of the updated rows and the pre-existing rows should be processed to inactivate or ignore these rows.

The following query can be applied to determine the active map rows at a given date:

```
SELECT * FROM RctCtv3Map AS Map
WHERE Map.MapStatus>0 AND Map.EffectiveDate=
  (SELECT MAX(LatestMap.EffectiveDate) AS LatestDate
   FROM RctCtv3Map AS LatestMap
   WHERE LatestMap.MapId=Map.MapId
   AND LatestMap.EffectiveDate<='<Date as YYYYMMDD>')
```

Using the mapping file

These active map rows can then be used to map from a combination of a V2_CONCEPTID and V2_TERMID to the relevant CTV3_CONCEPTID and an associated CTV3 USE_CTV3_TERMID

The following query illustrates the complete process. However, for practical purposes it may be more efficient to use a pre-generated view based on the query above and a simplified follow-on query for the individual mapping.

```
SELECT CTV3_CONCEPTID, CTV3_TERMID, CTV3_TERMTYP,
       USE_CTV3_TERMID, MAPTYP, ISASSURED
FROM RctCtv3Map AS Map
WHERE Where Map.V2_CONCEPTID='<ReadCode>' AND Map.V2_TERMID='<TermCode>'
AND Map.MapStatus>0 AND Map.EffectiveDate=
  (SELECT MAX(LatestMap.EffectiveDate) AS LatestDate
   FROM RctCtv3Map AS LatestMap
   WHERE LatestMap.MapId=Map.MapId
   AND LatestMap.EffectiveDate<='<Date as YYYYMMDD>')
```


Notes:

The database must treat V2_CONCEPTID, V2_TERMID, CTV3_CONCEPTID, CTV3_TERMID and USE_CTV3_TERMID as Case Sensitive. The V2_CONCEPTID “65a0.” has a different meaning from “65A0.”.

Using the map with V2_CONCEPTID+Term but no V2_TERMID

Use the terms.v3 table in the CTV3 release data to identify the CTV3_TermID for the term string you have; use this to identify the correct row in the mapping table

```
SELECT CTV3_CONCEPTID, CTV3_TERMID, CTV3_TERMTYP,
       USE_CTV3_TERMID, MAPTYP, ISASSURED
FROM RctCtv3Map AS Map
WHERE Where Map.V2_CONCEPTID='<ReadCode>'
AND Map.CTV3_TERMID=(SELECT MAX terms_v3.termID FROM terms_v3
                     WHERE (Term30='<Term>' OR Term60='<Term>' OR Term198='<Term>'))
AND Map.MapStatus>0 AND Map.EffectiveDate=
  (SELECT MAX(LatestMap.EffectiveDate) AS LatestDate
   FROM RctCtv3Map AS LatestMap
   WHERE LatestMap.MapId=Map.MapId
   AND LatestMap.EffectiveDate<='<Date as YYYYMMDD>')
```

Using the map file with V2_CONCEPTID only

The set of terms associated with a given V2_CONCEPTID (identifiable by their different term code) are often not true synonyms of each other. This is particularly the case for the commonly used Read Codes. For this reason we strongly advise that data should only be migrated by reference to both the V2_CONCEPTID **and** either the V2_TERMID, or to the 30-, 60- or 198-character strings it originally specifies (see above).

When **neither** the original V2 term code **nor** any of the 30-, 60- or 198-character strings specified by a term code are available, an approximate map only can be achieved by selecting the map for the preferred ('00') V2 term code:

```
SELECT CTV3_CONCEPTID, CTV3_TERMID, CTV3_TERMTYP,
       USE_CTV3_TERMID, MAPTYP, ISASSURED
FROM RctCtv3Map AS Map
WHERE Map.V2_CONCEPTID='<ReadCode>' AND Map.V2_TERMID='00'
AND Map.MapStatus>0 AND Map.EffectiveDate=
  (SELECT MAX(LatestMap.EffectiveDate) AS LatestDate
   FROM RctCtv3Map AS LatestMap
   WHERE LatestMap.MapId=Map.MapId
   AND LatestMap.EffectiveDate<='<Date as YYYYMMDD>')
```