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# Guidance for the National Interim Clinical Imaging Procedure (NICIP) Mapping Table to OPCS-4

# Document Management

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## Glossary of Terms

| Term / Abbreviation | What it stands for  |
|---------------------|---|
| NICIP               | National Interim Clinical Imaging Procedures  |
| OPCS-4              | Office of Population, Censuses and Surveys, Classification of interventions and Procedures (4 <sup>th</sup> revision) |
| PbR                 | Payment by Results  |
| HRG                 | Healthcare Resource Groups  |
| CDS                 | Commissioning Data Sets   |

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# 1 About this Document

## 1.1 Purpose

The purpose of this document is to provide guidance for maintaining and implementing the NICIP-OPCS-4 mapping table to support Trusts submitting Commissioning Data Sets (CDS) for secondary uses in clinical imaging information systems which have implemented the NICIP code set or SNOMED CT.

## 1.2 Audience

This document has been written for anyone working with clinical imaging information systems with a requirement to submit data in OPCS-4.7 coded format.

## 1.3 Content

This document is comprised of the following topics:

- Information about the NICIP-OPCS-4 mapping table
- Principles and methods for generating the NICIP-OPCS-4 mapping table
- Recommendations for implementing the NICIP-OPCS-4 mapping table

# 2 Information about the NICIP-OPCS-4 mapping table

The NICIP-OPCS-4 mapping table is released by the Health and Social Care Information Centre (HSCIC), and has been designed to help users transform clinical imaging codes from SNOMED CT or the NICIP code set into OPCS-4.7 codes as required for Payment by Results, or for other statistical, epidemiological or audit purposes.

The mapping table is automatically generated from SNOMED CT concepts which are mapped to appropriate OPCS-4.7 codes and titles.

All NICIP codes have had an accurate equivalent SNOMED CT concept since April 2008. The SNOMED CT terminology-to-classification mappings are developed and maintained centrally by NHS classification cross-mapping specialists who apply classification standards, rules and conventions to assure all three dimensions of accuracy. These are individual codes, totality of codes and sequencing of codes. As with all elements of the terminology release, the classification mappings are subject to a rigorous quality control process.

The first release of the NICIP-OPCS-4 mapping table was in October 2009 and the current release is still a **test product**. The table is currently considered a value added extra to the NICIP codes. It is highly recommended that the mapping table is subjected to local validation and assessment processes prior to use, although it has been reviewed by clinical imaging and coding experts. Feedback from any local validation/test use is welcome and

can be submitted via the Information Standards Service Desk at [information.standards@hscic.gov.uk](mailto:information.standards@hscic.gov.uk).

The UK Terminology Centre (UKTC) of the Health and Social Care Information Centre (HSCIC) are consulting with stakeholders to determine whether the National Interim Clinical Imaging Procedures (NICIP) to OPCS-4 mapping table is being used in the production of data to inform the Payment by Results (PbR) data in the field of Clinical Imaging. The consultation is intended to inform the decision making process and plans to adjust the mapping table to meet user requirements.

The mapping table is part of the national release of the NICIP code set. It is only available from the Technology Reference data Update Distribution (TRUD) service and can be obtained electronically by registering on line via the TRUD link at <http://systems.hscic.gov.uk/data/uktc/imaging>.

The mapping table is released every six months to coincide with the update schedule of SNOMED CT, the NICIP code set, and OPCS-4.

Requests for change or notifications of the format of the mapping table should be submitted to the Information Standards Service Desk – [information.standards@hscic.gov.uk](mailto:information.standards@hscic.gov.uk).

## 2.1 Format of mapping table

The data file is in an independent tab delimited text format.

All columns in the mapping table are divided into the following four sections. The specification of columns can be found in appendix A.

## 2.2 NICIP codes

The mapping table only includes the short code and preferred term of active codes in the current release. They can be used to identify the rest of the content of the NICIP code set.

## 2.3 SNOMED CT codes

The concept ID and Fully Specified Name (FSN) are included to present the NICIP equivalent in SNOMED CT.

## 2.4 OPCS-4.7 codes

These columns present the OPCS-4.7 codes and descriptions mapped to the NICIP codes in the first section of the mapping table.

## 2.5 Annotation

The letters C (change), N (new addition), and R (retired) in the annotation field denote the status of changes of the NICIP codes or their cross-maps since the previous release.

## 3 Principles and methods for generating the NICIP-OPCS-4 mapping table

The NICIP-OPCS-4 mapping table is derived from the default cross-maps from SNOMED CT to OPCS-4.7, which are part of the national terminology release. However, there are a few modifications in the NICIP-OPCS-4 mapping table in accordance with OPCS-4.7 coding guidance. The following describe the principles and the methods of modifications based on the default SNOMED CT cross-maps to produce the NICIP-OPCS-4 mapping table. Please note that possible alternative OPCS-4.7 codes in SNOMED CT cross-maps are not included.

### 3.1 Specified body area codes

The OPCS-4.7 codes for number of bilateral body areas in CT, MRI and X-ray scans (**Y98**) are explicitly specified according to the information derived from the laterality codes in the NICIP code set. This may result in a set of codes which are not the default in the SNOMED CT cross-maps, since laterality would normally be recorded in SNOMED CT using post-coordination. In cases where a NICIP procedure is specifically bilateral, right-sided or left-sided, the **Y98** code has been modified to express correct coding. For example, “MRI of knee Left” takes the default OPCS-4 cross-maps for “MRI of knee” in SNOMED CT. However, the cross-maps for “MRI of knee Both” has to be modified from the default **Y98.1** to **Y98.2** for the code defining the number of body areas.

In fluoroscopy and ultrasound scans, the **Y98** code is used to record the time taken for the examination, and a default code of **Y98.1 Radiology of one body area (or < twenty minutes)** is assigned in the NICIP-OPCS-4 mapping table.

The method of the scan will define whether the **Y98** code refers to time taken (fluoroscopy or ultrasound) or the number of areas scanned (MRI, CT or X-ray).

### 3.2 Primary codes

According to the OPCS-4.7 coding guidance for scans of multiple areas, the primary OPCS-4.7 code should be changed to a code from the category **U21 Diagnostic imaging procedures** (if it is not already in that category) if the number of body areas scanned is greater than one during the same visit to the Radiology department. A single NICIP procedure code involving more than one body area is treated as one visit in the NICIP-OPCS-4 mapping table for the following imaging modalities. However, visit information is not part of the NICIP code scheme, and it has to be derived from other information sources. Therefore, the mapping needs to be modified further by users if the separate body area scans are performed at different visits.

| Imaging modality | New primary OPCS code | Description of OPCS code       |
|------------------|-----------------------|--------------------------------|
| CT               | U21.2                 | Computed tomography NEC        |
| Fluoroscopy      | U21.5                 | Contrast fluoroscopy NEC       |
| MRI              | U21.1                 | Magnetic resonance imaging NEC |
| Ultrasonography  | U21.6                 | Ultrasound scan NEC            |
| X-ray            | U21.7                 | Plain x-ray NEC                |

While each entry on the mapping table contains default codes and is accurate in itself, combining two entries to describe a single scan will not necessarily produce the correct OPCS-4.7 codes for that scan. (For instance, adding together the OPCS-4.7 codes for “MRI of chest” and the OPCS-4.7 codes for “MRI of abdomen” does not necessarily produce the correct OPCS-4.7 codes for “MRI of chest and abdomen”.) In cases where combinations of scans take place which are not uniquely identified on the NICIP spreadsheet, those cases should be referred to the clinical coding department, to enable clinical coding standards rules and conventions to be applied.

### 3.3 Manual modifications

A very small number of OPCS-4.7 code maps in the NICIP-OPCS-4 mapping table were modified manually, in cases where there was also a difference between the cross-map for the NICIP codes and the default codes in SNOMED CT cross- maps. For example, the NICIP codes involving more than one body area for fluoroscopy or ultrasound are manually retained as **Y98.1** rather than **Y98.2** according to the OPCS-4.7 mapping guidance, since in the OPCS-4.7 classification, when coding ultrasound and fluoroscopy scans, codes from the category, **Y98 Radiology procedures** are used to denote the amount of time taken for the scan.

## 4 Recommendations for implementing the NICIP-OPCS-4 mapping table

Diagnostic Imaging (Radiology) services, activity and costs are separately identified irrespective of the admission status (e.g., inpatient, day case, outpatients, services accessed directly) of the patient. For the purpose of Casemix, all diagnostic imaging (MRI, CT, DEXA, Fluoroscopy, US, Nuclear Medicine) apart from plain film requires OPCS-4.7 codes to generate HRGs.

It is recommended that the NICIP-OPCS-4 mapping table is used as test data only and is subjected to local assessment and validation.

It is also recommended that users follow the guidance for HRG derivation from the Health and Social Care Information Centre (HSCIC) in order to obtain appropriate results for Reference Costs and Payment for Results (PbR).

The majority of NICIP codes are mapped to an appropriate OPCS-4.7 code in accordance with classification standards, rules and conventions. The OPCS-4.7 codes can be directly used for the appropriate CDS submissions with minor or no modifications. However, as noted earlier, while each entry on the mapping table is accurate in itself, combining two entries to describe a single scan will not necessarily produce the correct OPCS-4.7 codes for that scan.

In general, the NICIP codes have been mapped to the most appropriate default OPCS-4.7 codes. A NICIP concept may have possible alternate maps: however, the mapping table does not have the capacity to show these alternative mapping options. Clinical coders should always ensure that they are choosing the most appropriate OPCS-4.7 codes based



on the clinical record and the information available to them, rather than automatically choosing the default OPCS-4.7 codes given on the spreadsheet.

It is recommended that the accurate NICIP code be used in order to derive the appropriate OPCS-4.7 code. Some generic procedure codes in the NICIP code set, e.g. CT guided biopsy, did not provide sufficient information regarding body area for detailed OPCS-4.7 mappings. Those codes, which map to #NC, #HLT or #NIS, require manual assignment of OPCS-4.7 codes according to information from the RIS systems.

The mappings in the NICIP-OPCS-4 mapping table have been modified according to additional information from the NICIP code set. It is recommended that information departments should refer to section 3 of this document and follow the same method to modify the cross-maps if any mappings are taken using the default or alternative OPCS-4.7 codes directly from SNOMED CT cross-maps.

This systematic national approach ensures good quality automatic mappings as a natural by-product of the national terminology release. It will promote consistency, avoid an ad hoc approach and reduce discrepancies between different organisations. The NICIP-OPCS-4 mapping table is subjected to continuing quality assurance and improvement. The suggestions and feedback from users will be part of the validation and assurance process for future releases.

## 5 Appendix A: The specification of data items

| Column Number | Name            | Data Type | Description  |
|---------------|-----------------|-----------|--|
| 1             | DI_Code         | String    | The unique identifier of short code for active descriptions and data items in the NICIP code set |
| 2             | DI_Term         | String    | The preferred term description in the NICIP code set   |
| 3             | SCT_ID          | Integer   | The unique identifier for SNOMED CT concept  |
| 4             | SCT_Description | String    | The fully specified name of a SNOMED CT concept  |
| 5             | Primary_Code1   | String    | The first OPCS-4.7 code listed in the entire string of codes.                                    |
| 6             | Primary_Term1   | String    |  |
| 7             | Primary_Code2   | String    |  |
| 8             | Primary_Term2   | String    |  |
| 9             | Primary_Code3   | String    |  |
| 10            | Primary_Term3   | String    |  |
| 11            | Primary_Code4   | String    |  |
| 12            | Primary_Term4   | String    |  |
| 13            | Y_Code1         | String    |  |
| 14            | Y_Term1         | String    |  |
| 15            | Y_Code2         | String    |  |
| 16            | Y_Term2         | String    |  |
| 17            | Y_Code3         | String    |  |
| 18            | Y_Term3         | String    |  |
| 19            | Y_Code4         | String    |  |
| 20            | Y_Term4         | String    |  |
| 21            | Z_Code1         | String    |  |
| 22            | Z_Term1         | String    |  |
| 23            | Z_Code2         | String    |  |
| 24            | Z_Term2         | String    |  |
| 25            | Z_Code3         | String    |  |
| 26            | Z_Term3         | String    |  |
| 27            | Z_Code4         | String    |  |
| 28            | Z_Term4         | String    |  |
| 29            | Z_Code5         | String    |  |
| 30            | Z_Term5         | String    |  |
| 31            | O_Code          | String    | Only includes O11 – O14, O16, O28, O30, O31, O33 codes   |
| 32            | O_Term          | String    | Only includes O11 – O14, O16, O28, O30, O31, O33 terms   |
| 33            | Annotation      | String    | C(change), N(New addition), R(Retired)   |