Informative note about results of testing of changes to MRCM rules for the Procedure approach (attribute)

April 2024

Results from testing of MRCM changes to 424876005 |Surgical approach (attribute)|

Purpose

To inform the Editorial Advisory Group about the results of testing of changes to MRCM rules and substitution of 424876005 |Surgical approach (attribute)| with 116688005 |Procedure approach (attribute)|

Background

The proposal is to replace the use of 424876005 |Surgical approach (attribute)| with the currently unapproved attribute 116688005 |Procedure approach (attribute)|to allow Non-surgical procedures to be modeled with subtypes of <<103379005 |Procedural approach (qualifier value)|. This proposal has been reviewed by the EAG, which asked for an impact analysis of the proposed change.

Test

Testing was conducted on Surgical and Non-surgical procedures in different ways:

1. Application of the new rules
    a. Reclassification of the 116688005 |Procedure approach (attribute)| to be subsumed by 762705008 |Concept model object attribute (attribute)|.
    b. A new MRCM rule for the 116688005 |Procedure approach (attribute)| with domain constraint: << 71388002 |Procedure (procedure)| and range constraint: < 103379005 |Procedural approach (qualifier value)|was applied.

2. Testing of substitution of 424876005 |Surgical approach (attribute)|
    a. Replacement of the 424876005 |Surgical approach (attribute)| with 116688005 |Procedure approach (attribute)| leaving the original relationship values untouched.
    b. Classification.
    c. Review of the results.
3. Testing the addition of 116688005 |Procedure approach (attribute)| to models for Non-surgical procedures
    a. Addition of 116688005 |Procedure approach (attribute)| to Non-surgical procedures with value = < 103379005 |Procedural approach (qualifier value)|.
    b. Classification
    c. Review of the results.
4. Testing the replacement of 424876005 |Surgical approach (attribute)| and changing 260686004 |Method (attribute)| values.
    a. Once concepts were modeled with the 116688005 |Procedure approach (attribute)| the model was tested using Surgical and Non-surgical values for 260686004 |Method (attribute)|.
    b. Classification.
    c. Review of the results.

Results

1. Reclassification of the 116688005 |Procedure approach (attribute)| to be subsumed by 762705008 |Concept model object attribute (attribute)|.
    a. There was no impact in the terminology before adding the attribute to other concept models.
2. Classification after the substitution of the 424876005 |Surgical approach (attribute)| by 116688005 |Procedure approach (attribute)|, leaving original values from 103379005 |Procedural approach (qualifier value)|untouched in both Surgical and Non-surgical procedures.
    a. No impact was found in the classification of re-modeled concepts. Supertypes and subtypes in each tested sub-hierarchy were also remodeled with the new rules.
        i. Surgical procedures remained being subsumed by 387713003 |Surgical procedure (procedure)|
        ii. Non-surgical procedures remained being subsumed by Non-surgical supertypes.
        iii. No supertypes/subtypes lost.
3. Testing of the replacement of 424876005 |Surgical approach (attribute)| and changing of 260686004 |Method (attribute)| values.
    a. As expected, classification of procedures under Surgical or Non-surgical procedures is defined by the value for 260686004 |Method (attribute)|.

Conclusions

No impact on the generalization of modeling of Surgical and Non-surgical procedures with a Procedure approach attribute was found in the Classification for tested concepts.

No impact on the current split of procedures into Surgical and Non-surgical was found with MRCM changes tested.

Broad impact: Non-surgical procedures performed using an approach can be modeled with the 116688005 |Procedure approach (attribute)|leading to sufficient definitions for~350 Non-surgical concepts.

Approvals	**Date**	**Name**
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