

Briefing note for Content Managers Advisory Group 21 January 2022

Changes to the Universal Definition and Classification of Heart Failure Impact on SNOMED CT

Purpose

In February 2021 a position paper was published in the European Journal of Heart Failure describing updates to the definition and classification of heart failure (HF)¹ The purpose of this briefing is to inform the community of practice of changes to be made to SNOMED CT content as a result of this clinical consensus document and obtain feedback on potential impact.

Background

The new universal definition is clear that heart failure can be caused by valvular as well as ventricular disease.

UNIVERSAL DEFINITION OF HF

HF is a clinical syndrome with current or prior:

- symptoms and or signs (Table 6) caused by a structural and/or functional cardiac abnormality (as determined by EF <50%, abnormal cardiac chamber enlargement, E/E' >15, moderate/severe ventricular hypertrophy or moderate/severe valvular obstructive or regurgitant lesion)
- and corroborated by at least one of the following:
 - Elevated natriuretic peptide levels (for values refer to Table 7)
 - Objective evidence of cardiogenic pulmonary or systemic congestion by diagnostic modalities such as imaging (e.g. by chest X-ray or elevated filling pressures by echocardiography) or haemodynamic measurement (e.g. right heart catheterization, pulmonary artery catheter) at rest or with provocation (e.g. exercise).

¹ <https://doi.org/10.1002/ejhf.2115>

Existing content is represented as follows:

- 85232009 |Left heart failure (disorder)| - has the synonym, Left ventricular failure
- 367363000 |Right ventricular failure (disorder)| - has the synonym, Right heart failure

In addition to the information in the position paper, cardiology experts from a member country have requested that this existing content be inactivated and replaced as both left and right heart failure can be caused by ventricular or valve disease. On further investigation, this action would ensure consistency with the position paper and current international consensus. As part of our continuous clinical quality improvement, changes to existing content is needed.

Issues

The concepts to be inactivated and replaced are high usage concepts and additional restructuring of the hierarchy will be needed to ensure all descendants of the new concepts are captured. This could involve significant impact to implementations and historical data repair.

Next Steps

Option 1

Inactivation of 85232009 |Left heart failure (disorder)| and 367363000 |Right ventricular failure (disorder)| in the July 2022 release. The inactivation reason will be Ambiguous and our intention would be to add historical associations of “Possibly equivalent to” to the following target replacement concepts:

85232009 |Left heart failure (disorder)| possibly equivalent to:

Left heart failure (disorder)

Left ventricular failure (disorder)

367363000 |Right ventricular failure (disorder)| possibly equivalent to:

Right heart failure (disorder)

Right ventricular failure (disorder)

Option 2

- 85232009 |Left heart failure (disorder)| - inactivation of the synonym Left ventricular failure as not semantically equivalent and a new concept created Left ventricular failure (disorder)

- 367363000 |Right ventricular failure (disorder)| - inactivation of the synonym Right heart failure as not semantically equivalent and a new concept created Right heart failure (disorder)

Option 2 looks to be the least disruptive solution for implementers but SNOMED International would appreciate any feedback on these options.

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