Briefing note for the EAG: Review of 48537004 |Bypass graft (procedure)| v0.1.0

March 2024

Review and remodeling proposal for << 48537004 |Bypass graft (procedure)|hierarchy

Purpose

Briefing Paper for the Editorial Advisory Group about issues found in the 48537004 |Bypass graft (procedure)|hierarchy and proposal for remodeling and revision.

Background

As part of the QI project, the 48537004 |Bypass graft (procedure)|hierarchy is under review. Several requests for revision of the hierarchy have been issued in the past. It is a complex hierarchy given the nature of the procedures and fast-evolving surgical techniques in this field. Full review can be found here:

https://docs.google.com/document/d/13mj4qh9j5UygjJ405IYKGBgklpAgXtzZesnRPqXpzbg/edit

Issues

- Inconsistency in the way descriptions are termed due to a lack of clear definitions for each type of Bypass/Shunt procedure in SCT.
  - Some of the different terms used interchangeably in descriptions are: fistulization, conduit, bypass-shunt, bypass anastomosis, shunt anastomosis, bypass transplantation, diversion, etc.
- Some concepts state the term "Graft" in the descriptions but are modeled with more than one action in an inconsistent manner.
- Some Actions used to model the concepts aren't aligned with the descriptions and other concepts are modeled redundantly with more than one inferred redundant action, including the combination of Bypass - action and Shunt - action in 21 concepts.

- Many procedures currently classified as subtypes of 48537004 |Bypass graft (procedure)| may be performed without using a Graft.
- Bypass- action and Shunt - action are the intended METHOD attribute values to model these concepts but the terms Bypass and Shunt are used interchangeably as verbs (action) or as a procedure, leading to confusion while modeling.
- Groupers in the hierarchy should be reviewed for their clinical significance and potential inactivation as pure groupers.
- Given the complexity of some concepts in the hierarchy, potential duplicate, erroneous, or outdated concepts should be identified.
- When using Bypass- action and Shunt - action as values for the METHOD attribute, it's not always possible to define all the structures involved in the procedure. This is an important issue because concepts modeled this way can't be sufficiently defined.
- The existence of many different types of procedures under 48537004 |Bypass graft (procedure)|require consistent modeling approaches.

Proposal

Step 1. Create, review, and agree on consistent and unambiguous definitions for procedures in the hierarchy.

Step 2. Where necessary, create intermediate primitives modeled with Method (attribute) = Proximal anastomosis (qualifier value) and Distal anastomosis (qualifier value). i.e.: Construction of bypass (procedure) and Construction of shunt (procedure). The purpose of these concepts is to ensure the proper classification of Bypass and Shunt procedures.

Step 3. Inactivate 360021005 |Bypass - action (qualifier value)| and 424208002 |Shunt - action (qualifier value)|. Instead of using those two Method (attribute) values, model using 245854003 |Proximal anastomosis (qualifier value)| and 245855002 |Distal anastomosis (qualifier value)|.

Step 4. Consistent and appropriate usage of 425362007 |Surgical insertion - action (qualifier value)|and 129407005 |Grafting - action (qualifier value) in the model.

Step 5. Reclassification of 129376004 |Construction - action (qualifier value)| as a direct subtype of 129284003 |Surgical action (qualifier value)| as opposed to 257903006 |Repair - action (qualifier value)|.

Step 6. Develop Editorial guidance for consistent usage of 714577002 |Graft, device (physical object)| and 260667007 |Graft (substance)| in this hierarchy. Review related devices, systems, and substances for consistent classification and usage.

Step 7. Inactivation of 299893001 |Interposition anastomosis - action (qualifier value)|and revision and substitution with Method = Proximal / Distal anastomosis as needed in 15 concepts currently under 48537004 |Bypass graft (procedure)| and 39 concepts from other hierarchies.

Step 8. Remodel 595 concepts including 48537004 |Bypass graft (procedure)| using Method (attribute) = Proximal anastomosis (qualifier value) and Distal anastomosis (qualifier value). Includes thorough review and revision for the proper definition of each concept and identifying duplicate, erroneous, and outdated concepts.

Step 9. Review and remodeling of concepts under 78817002 |Construction of anastomosis (procedure)| considered or defined erroneously as Bypass or Shunt procedures and vice versa.

Approvals	Date	Name
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