Royal College of Surgeons framework for improving surgical terminology

Aim of paper

This paper has been developed with the Work Programme 1 Data Group and through discussions held at a workshop on 23rd June 2016. It proposes an agreed framework for surgical specialties to work with the College and NHS Digital (formerly The Health and Social Care Information Centre (HSCIC)) to develop specialist subsets of terminology within SNOMED-CT.

What is SNOMED-CT?

SNOMED-CT stands for the 'Systematized Nomenclature of Medicine Clinical Terms' and is a “common clinical language” consisting of sets of clinical phrases or terms, that can be grouped together with relationships between terms.

The Department of Health has agreement that SNOMED will become the terminology adopted across the NHS in England within electronic patient records (EPR). The aim is to utilise a single agreed taxonomy to ensure clearer and more consistent communication between hospitals, GPs and patients. It will also allow for improved ability to extract activity data that accurately reflects practice as SNOMED terms link with the codes within OPCS (Office of population censuses and surveys) classification of interventions and procedures and ICD-10 codes (International classification of diseases).

SNOMED CT is managed and maintained internationally by the International Health Terminology Standards Development Organisation (IHTSDO) and in the United Kingdom by the UK Terminology Centre (UKTC). Development and updating of SNOMED is by NHS Digital who are keen to involve clinicians to ensure that the terminology is clinically relevant and provides the granularity required in different specialties.

Areas of terminology that can be reviewed:

- Diagnostic terms
- Information regarding surgical procedures
- Outpatients/ Inpatients

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- Emergency/ elective care

How does SNOMED work?

When describing a procedure or diagnosis, it is broken down into different levels, in a hierarchical structure. At each level there may be different options e.g. open or closed approach, where a choice can be made. As you go through each choice at each level you gradually build up a detailed description of either a diagnosis or procedure. For example when describing a surgical procedure of a cholecystectomy, there are multiple choices made by the surgeon which cannot just be reflected in saying 'cholecystectomy'. Was it open or closed? Was there a cholangiogram or not? When putting in a hip replacement you may want to describe each procedure differently dependent on the technique used, type of implant, method of insertion, use of cement or not.

Each of these descriptions then has a unique SNOMED code and this is then linked to the other coding systems (OPCS and ICD10- see below) which are currently in use for monitoring and paying for healthcare.

Each term is also linked to synonyms e.g. the historical or other names a procedure or diagnosis may be called dependant on surgeon, area of country, specialty or the coding system. This is why it is important that the terminology is owned by and agreed with the surgical community.

Having your 'hip replacements' subdivided by technique, implant etc. and also having a single agreed term used across all surgeons, then allows for clearer communication and ability to code as well as better long term audit outcomes

What is the role of the SSA or College in improving terminology?

There is a need for surgeons to act as clinical champions to advocate the use and the benefits of SNOMED CT and to start illustrating real examples of what is possible, with improving the language that will be utilised within electronic patient records.

NHS digital would like each surgical specialty to review diagnostic and procedural terminology that is relevant to them as clinicians. This requires a small expert clinical reference group (ECRG) of 2-3 clinicians who agree to carry out this work. The ECRG must

be sanctioned by the relevant professional body, so that all new terminology represents a national standard and adherence to sound principals of data recording can be encouraged across the specialty

The process of developing the terminology is outlined in Appendix 1 and varies in the commitment and length of time required dependant on the level of granularity required

Why is it important for surgeons to get involved?

The current terminology within SNOMED was developed by terminologists and clinicians in the 1990's and in many cases has not been updated to current clinical information required for diagnoses or procedures. This means that as more hospitals procure electronic record systems, the language embedded in the systems does not help clinicians in describing their population or the healthcare they receive.
Ensuring EPR is embedded in the NHS is a key aim of the government and provides clinicians with a great opportunity to analyse and audit their data, as well as ensure that there is increased clarity of communication between different parts of healthcare system.

Why don't we just improve our coding systems rather than address terminology?

There are two other main coding systems in use in UK:

1. OPCS (Classification of surgical operations and procedures) is a system to identify treatments and interventions that are then linked to payments. The codes are often fairly broad in their scope and do not allow for differentiation between different types of situation. The system also collects data longitudinally and so great care is taken when adapting the codes, due to difficulty in then doing longitudinal analysis. For this reason the OPCS system is only updated every 3-4 years and it is very rare for major changes to be made.

2. ICD (International Statistical Classification of Diseases and Related Health Problems) is owned by World Health Organisation. It describes symptoms and signs of disease and is used alongside OPCS to code hospital care. Due to its global status, change is very slow. We are currently on version ICD10 which was developed in 1992.

SNOMED can be amended every 6 months and allows for a high level of granularity is much more flexible than OPCS and ICD10. There is also the ability for SNOMED terms developed by a specialty to be ring fenced so that they can be used for different subgroups. For

example the way a rheumatologist and an orthopaedic surgeon might describe rheumatoid arthritis is likely to be very different. There are correlations and links and but each specialty can choose descriptions that pertain to their needs.

Changing terms regularly could cause confusion, so the main stems of descriptions remain the same and sublevels are added. Each service with an EPR system can then easily update their systems without removing previous classifications.

What surgical specialties have reviewed their terminology so far?

Several surgical specialties have worked with HSCIC to review their terminology and add in revised or new codes

- Orthopaedics: foot and ankle surgery- diagnoses that came through elective procedures, top diagnoses, limited granularity
- Urology- diagnostic terminology for outpatients
- Cosmetic surgery: Detailed review of main cosmetic surgery procedures with a high level of granularity
- Lung cancer: NHS Digital are working with The Lung Cancer Audit to review terminology

Proposed process going forward

The College

Following the recent workshop resources will be made available to the specialty associations by the RCS

a. Amended framework
b. Presentations from the meeting
c. Explanation of possible methodologies for reviewing SNOMED concepts
d. Link to key resources, including browsers to view SNOMED
e. Examples of SNOMED use in practice
f. List of FAQs for members

If SSAs wish to develop this work, The College is able to provide the following:

- Liaison with NHS Digital and development of a schedule for work – to be agreed by NHS Digital and SSAs
- Liaison with other Colleges or surgical groups as required to share knowledge or find appropriate clinicians to discuss cross specialty matters

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- The College will then develop a schedule, based on available NHS Digital resources by October 2016. This can be agreed with SSAs
- Provide telephone support if required by sub groups

The College will NOT be able to fund or administer meetings for each subgroup

Surgical Specialty Associations

Each SSA who wishes to develop their subsets of terminology would need to agree the following:

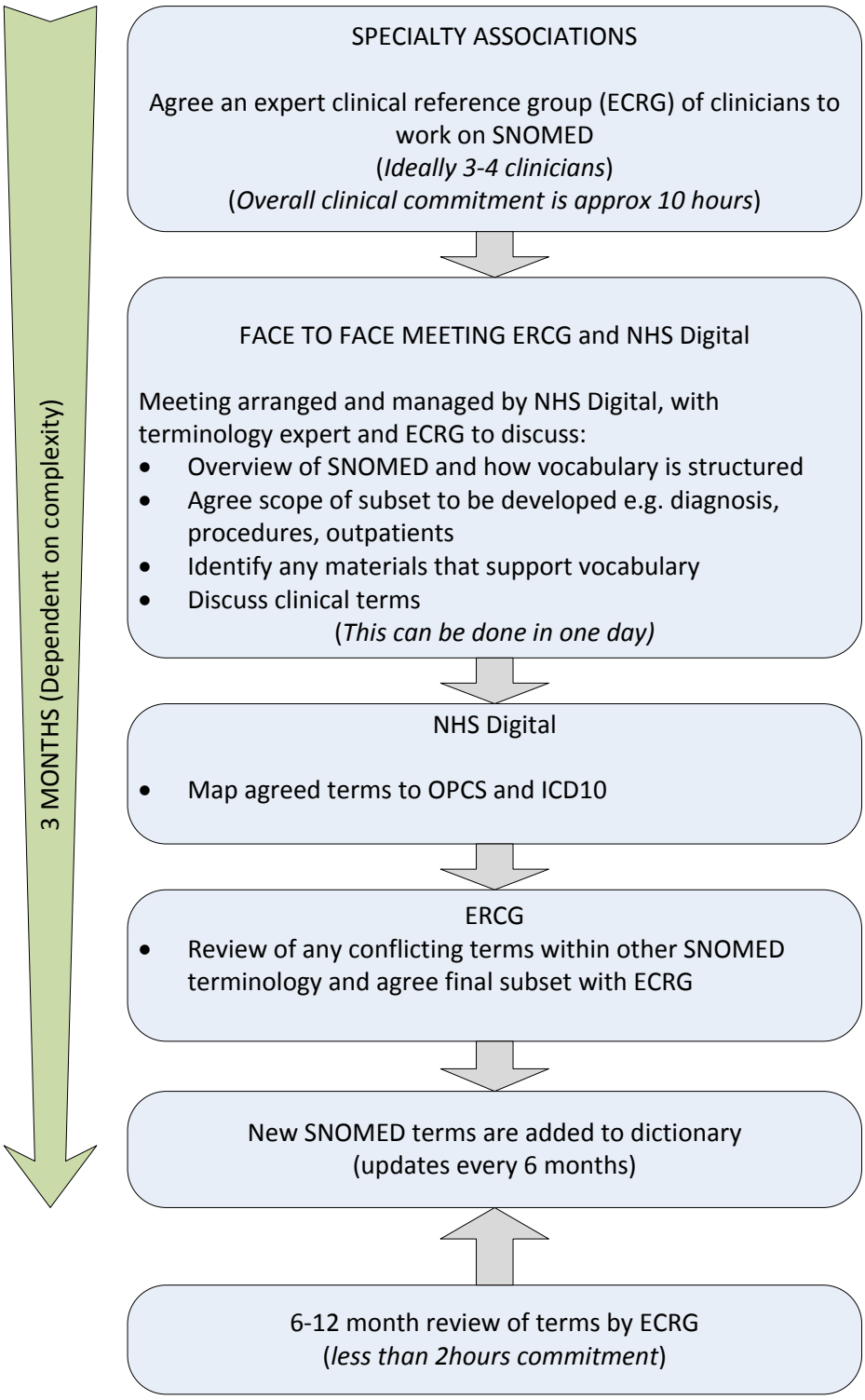
- Whether they wish to review terminology of diagnosis and procedures or both
- The number of diagnoses and procedures they wish to review -these can be split into subsets, we would suggest the most common e.g. most common 100 procedures that capture at least 80% activity within your specialist area
- The order of priority in which they would ideally like these subsets developed
- Identify a named lead clinician/ point of contact
- Identify a small group of surgeons (2-3) who will carry out this work
- SSA agree to support funding of meetings this work can be done virtually, although it may be easier to have at least one face to face discussion
- Agree a process for sign off and dissemination amongst members
- Agree to manage the initial and ongoing clinical assurance of those subsets

NHS Digital (HSCIC)

NHS Digital have resources in terms of available terminologists to support this work, but would still not be able to update all surgical procedures at a very granular level at the same time and this work will need to be paced according to their capacity. However the SNOMED system is updated every six months, allowing adequate opportunities for change.

- Provide expertise and terminologists to support the development of subsets
- Create subsets in line with SSA requirements
- Map against existing SNOMED content and OPCS and ICD10
- Make new subsets available for national distribution

Appendix 1: Flow chart showing process and timescale for developing SNOMED subset



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