

# SNOMED CT Update

As part of PRIMIS' ongoing commitment to support, training, software and quality improvement tools through SNOMED CT implementation and beyond, we have now run two successful national SNOMED CT events.

This report looks at the key points of interest raised by speakers and PRIMIS staff at SNOMED CT Update, the PRIMIS event held in May 2017. The event looked at how to prepare for the challenges and make the most of the opportunities that implementation will bring.

## Fit for the future

The PRIMIS team was delighted to welcome more than 100 colleagues from across health care to the SNOMED CT Update event on Thursday 11th May 2017 at Donington Park. The meeting was Chaired by Dr John Robinson (Chair of the BCS Primary Healthcare Specialist Group and PRIMIS Clinical Adviser) and attracted delegates from diverse backgrounds including primary care, commissioning, secondary care and academia.

From 1st April 2018, SNOMED CT will replace existing coding systems in England as the information standard for clinical terminology required by the Department of Health (DH). The PRIMIS update event provided access to expert insights and guidance concerning the introduction of SNOMED CT, highlighting the opportunities and potential challenges ahead.

Opening the event, Kerry Oliver (PRIMIS Managing Director) and Miriam Lemar (PRIMIS Commercial Director) invited attendees to engage with the speaker panel and PRIMIS representatives to gain essential technical and practical advice concerning the integration of SNOMED CT in primary care.

## NHS Digital update

Denise Downs (Senior Technology Implementation and Education Specialist, NHS Digital) provided an update on the national project responsible for the smooth and gradual transition to SNOMED CT across primary care.

NHS Digital is working closely with the four main system suppliers (EMIS, Microtest, TPP and Vision) to ensure that SNOMED CT-compatible systems are available and assured under the GPSoc framework by December 2017. Clinical Commissioning Groups (CCGs) will assume responsibility for ensuring practices are aware of the transition to SNOMED CT at a local level providing support alongside GP IT delivery partners.

To ensure accurate transfer of data, a dual coding project will be undertaken with the original Read codes retained and SNOMED CT codes alongside. A national project has mapped a subset of SNOMED CT codes (the 'GP subset') to current Read v2 and CTV3 codes. Initially, SNOMED CT coding will be restricted to this defined, clinically safe GP subset. These measures will act as a safety net to reduce risk during transition.

The new terminology will have the greatest impact on data reporting and searching. Denise commented that new reports should be easier to generate using SNOMED CT coding and in the long-term provide for more sophisticated analysis. Existing reports will need to be reviewed as data entry uses codes outside the GP subset. However, in-house tools may not be compatible with SNOMED CT and local users must check this well ahead of the April deadline and contact NHS Digital for further support.

SNOMED CT has been adopted as the national clinical standard across all care settings within the NHS in England.

Its implementation will affect everyone working with primary care data from 2018.



*"Examine your searching and reporting tools to ensure that they will work with SNOMED CT. If you need further support, please contact us. NHS Digital are here to help." ~ Denise Downs*

## A GP's view of the impact on primary care

Dr Paul Maddy (PRIMIS Clinical Adviser and recent Secretary of the EMIS National User Group) and Dr Dai Evans (GP and PRIMIS Lead Clinical Adviser) provided insights concerning the use of SNOMED CT in clinical practice.

Dr Maddy shared his enthusiasm concerning the opportunities that SNOMED CT brings in terms of improving quality, accuracy and completeness of patient records. The new terminology will provide greater consistency across the system while enabling effective and appropriate data sharing. The future-proof design incorporates a comprehensive international clinical vocabulary and includes specific national concepts (the UK drug extension).

SNOMED CT is based upon clinical concepts. Each concept has a fully specified name (FSN) that unambiguously describes the concept and a preferred description, as well as acceptable alternatives or synonyms. Polyhierarchy within the SNOMED CT system allows correct relationships to be maintained between terms or concepts.

Dr Evans went on to discuss the complexities associated with SNOMED CT coding. Fortunately, most systems suppliers will provide user-friendly interfaces, enabling healthcare professionals to access SNOMED CT effectively without becoming involved in the intricacies of the terminology.

Users are most likely to use concept IDs, description IDs, terms and FSNs. Parent and child relationships between conditions will also be useful elements. The FSN indicates the hierarchy (e.g. disorder) and is helpful when selecting a code, but it is not essential to put this in a record. In practice, the preferred synonym will probably be used.

Over time, the system may allow key data to be obtained from other providers. Eventually, hospital services will also feed in to this system, providing a greater level of interoperability and efficiency.

Organisations must assign appropriate resources to prepare for SNOMED CT implementation. PRIMIS can provide local consultancy and help with specification development as well as offering support and advice concerning SNOMED CT implementation in general.

## SNOMED CT and dm+d

Stuart Abbott (Head of Pharmacy Development, NHS Digital) and Dr Malcolm Duncan (Medical Object Oriented Software Ltd) presented an overview of the benefits and challenges associated with the Dictionary of Medicines and Devices (dm+d) in the context of SNOMED CT.

The dm+d is the body of terms covering the technical application of all NHS medicines and medical devices. The dm+d is a NHS SCCI standard (0052) supporting interoperability and it is already embedded within primary care systems. NHS England (NHSE) have stated that secondary care providers must also implement dm+d moving forwards.

The dm+d data is described as comprising 5 boxes, each representing a major concept class. Each concept has a corresponding code within the international or UK SNOMED CT extension. dm+d content is rigorously quality controlled and updates are added each week, following requests from manufacturers, end users, system suppliers or NHS organisations. Updates are requested via the dm+d service desk<sup>1</sup> or online In-Demand tool<sup>2</sup>.

Two versions of the dm+d are regularly released via the Technology Reference data Update Distribution (TRUD) system. The XML format is released weekly and this information is used to build the SNOMED CT UK drug extension (published every 4 weeks). This may present data handling challenges as these systems are not fully synchronised at the time of their release and can lead to situations where versions do not match between systems or conceivably within a single system if both sources are used.

Some content is only published in SNOMED CT format and is not available in dm+d XML format, and vice versa, so it may be necessary to load both versions. For example, the dm+d XML format does not contain concepts such as drug types (e.g. penicillins,  $\beta$ -adrenoceptor agonists) - these upper tier SNOMED CT concepts are useful in aggregation, for forming hypotheses and assisting in searches.



*"Don't panic! The power and benefit to practice will come when SNOMED CT is opened up." ~ Dr Paul Maddy*



*"I'm looking forward to the day when in-bound hospital letters contain extractable SNOMED CT codes, enabling accurate data flow and quality improvement." ~ Dr Dai Evans*



*"A key piece of advice would be to use a platform capable of validating codes and identifying and handling changes between releases for data queries and reporting (eg tools using bespoke terminology services or a formal database management system) rather than Excel spreadsheets and other informal cut and paste tools that may currently be in use locally." ~ Dr Malcolm Duncan*



*"The dm+d is already in place and working extremely well within primary care systems. Soon, secondary care organisations will also be required to implement dm+d codes across their systems to support greater interoperability." ~ Stuart Abbott*

Users should be aware that International SNOMED CT content is not subject to the same quality control process as the NHS drug extension / dm+d. Hierarchies can be reorganised and editorial policy can change within the international release. This, and concept inactivation (in both international and UK extension content) must be considered especially when analysing historical data.

Dr Duncan emphasised the value of dm+d as an analytical tool and stressed the importance of checking information when conducting data analyses and searches, particularly following every major (six monthly) terminology release.

## SNOMED CT implementation at EMIS Health

John McLusky (Solutions Architect and Database Development Lead, EMIS) updated delegates on the integration of SNOMED CT within EMIS Web systems.

EMIS Web was originally designed as a SNOMED CT-compliant system, so many of the appropriate design elements are already in place. EMIS code IDs have been mapped across to Read v2 and SNOMED CT concept IDs, and full SNOMED CT support will be in place well ahead of April 2018.

To provide maximum stability within the system, EMIS will continue to support Read v2 coding within the background of EMIS Web beyond April 2018. Reporting is a priority area and EMIS plan to create a validation utility for searches, concepts and protocols that will display Read v2 and SNOMED CT hierarchies, highlighting relevant differences.

Interface mechanisms will be released to customers over the coming months, allowing systems to be upgraded as early as possible. A new code picker will be available shortly for download as a standalone piece of software from the EMIS support centre alongside online support materials, including an e-learning package and practice checklists to support integration of SNOMED CT.



*"Please do get in touch with EMIS Health via the customer support centre with any concerns or training needs so that we can support you effectively." ~ John McLusky*



## SNOMED CT training education and advice

Additional guidance concerning SNOMED CT is available via the NHS Digital website alongside training and educational materials. SNOMED CT maps and tools can be accessed via TRUD and Delen.

TRUD: <https://isd.digital.nhs.uk>

Delen: [https://hscic.kahootz.com/connect.ti/t\\_c\\_home/grouphome](https://hscic.kahootz.com/connect.ti/t_c_home/grouphome)

### Preparing for SNOMED CT

Ensuring high quality patient data will facilitate a smoother transition to SNOMED CT as well as being a good practice model. PRIMIS' tools (many of which are free) and services are uniquely placed to help practices and CCGs prepare effectively for SNOMED CT implementation:

**we can help you assess and improve overall data quality in practice**

**we can advise on record curation to prepare for SNOMED CT**

**our training services will support your staff**

**PRIMIS Data Quality Indicators offers a thorough data quality health check**

**we can develop, review and QA specifications**

**we can help you deliver on data quality aspects of Local Digital Roadmaps**

**our tools will be converted to SNOMED CT**

**we can develop bespoke tools to deliver your Local Incentive Schemes**

**advise and support you in your transition to SNOMED CT**

**provide training and awareness events**

**perform bridging studies and validation exercises**

**offer helpful resources and information**

#### footnotes

<sup>1</sup> [servicedesk@medicines.org.uk](mailto:servicedesk@medicines.org.uk)

<sup>2</sup> <https://indemand.medicines.org.uk/help/background.aspx>

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## making clinical data work

Date of issue: Jun 2017

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