

SNOMED CT

SNOMED in Mental Health



Information and technology
for better health and care

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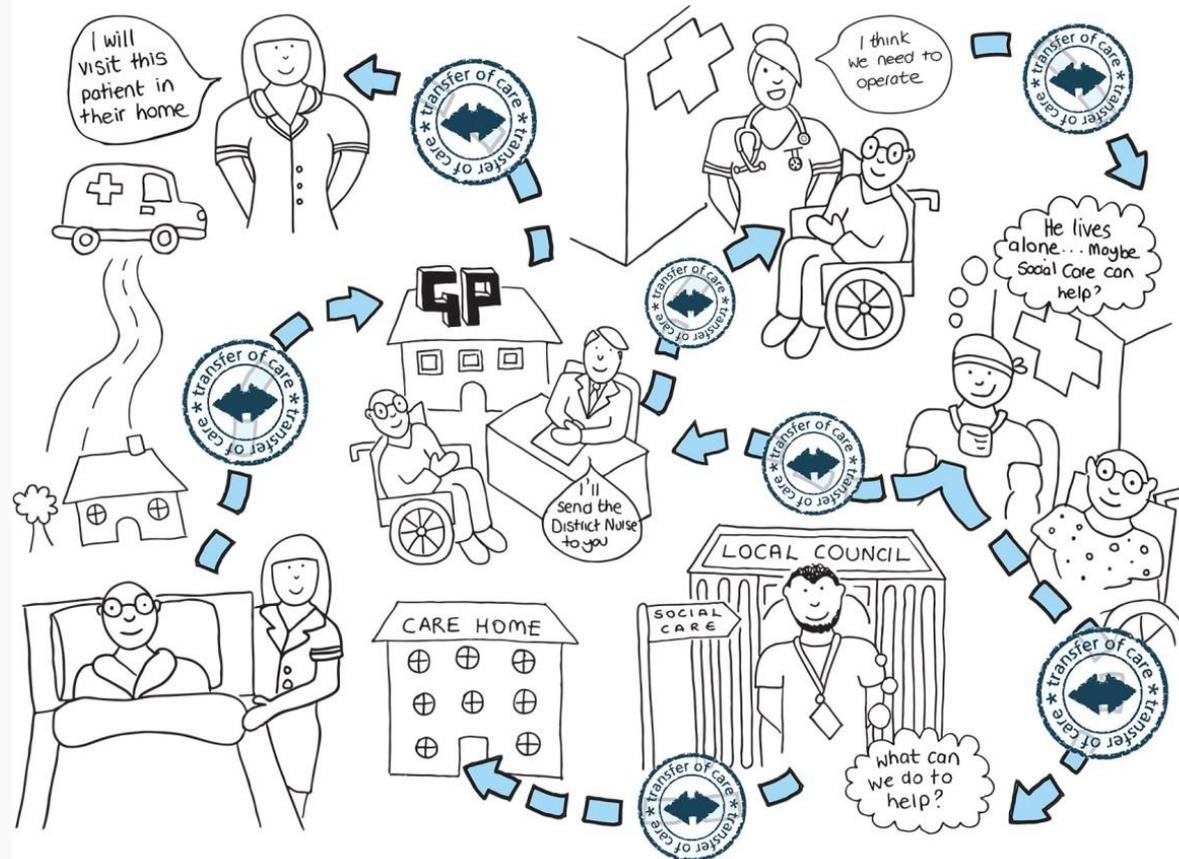
What is SNOMED CT?

- A national vocabulary of 'Clinical phrases' for electronic systems
- Has content for all clinical professions and specialties e.g. general practice, mental health, SLT, emergency care, renal ...
- dm+d is a separate product (dictionary of medicines and devices) but also uses SNOMED CT
- To be used to record clinical terms relevant to the care of the patient in all systems.

Examples:

- Depression
- Thoughts of self harm
- Cognitive behavioral therapy
- Referral to mental health team
- Body weight
- Serum lithium level
- No speech problem
- Family history:
Schizophrenia
- Suspected drug abuse

Fundamental to Interoperability



- Reduce Burden
- Improve care

Why SNOMED CT - Benefits



CONSISTENT DATA ENTRY
e.g. Record Once,
Easier to see clinical information



IMPROVED ANALYSIS OF DATA
e.g. clinical audit,
care improvements



ENABLES DATA SHARING
e.g. Discharge Summary



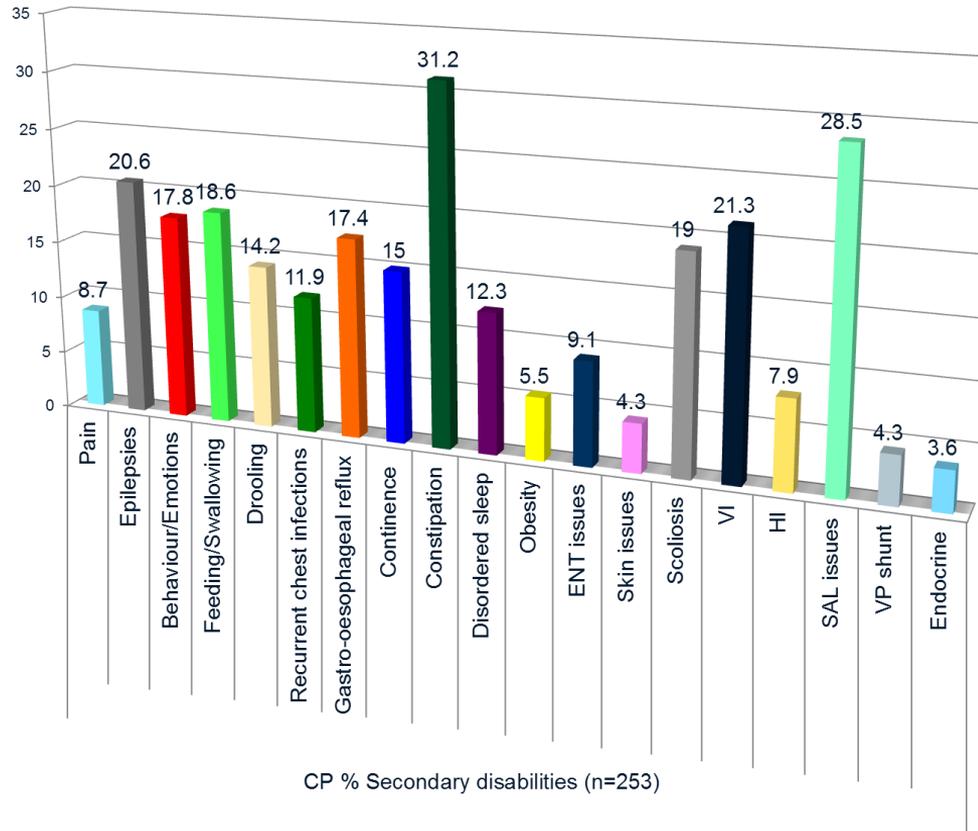
ENABLES DECISION SUPPORT
e.g. Allergy Alerts

SNOMED CT in systems

Onset	Problem / Detail
Current Problems	
29-Aug-2012	Osteoporosis
02-Jul-2012	Referral for further care
29-Oct-2010	Ischaemic optic neuropathy
2008	Myeloproliferative disorder
28-Apr-1995	Backache NOS
Past Problems	
26-Sep-2014	Postoperative wound infection, unspecified
29-Jul-2014	Total prosthetic replacement of hip joint NOS
11-Jun-2014	Hip pain
07-Feb-2013	Diagnostic colonoscopy
31-May-2012	[D] Pelvic pain
31-May-2012	Hip pain
26-Aug-2011	Myeloproliferative disorder
14-Jun-2011	Posterior vitreous detachment
22-Mar-2010	raised bp (without diagnosis of hypertension)
06-Jan-2010	Other retinal disorders
13-Nov-2009	Essential thrombocytosis
06-Nov-2008	Essential thrombocytosis

The screenshot shows a web-based interface for an "Inpatient Summary". The page is organized into several sections, each with a header and a list of items. The "Allergies" section shows "No Known Allergies". The "Diagnoses/Current Problem" section lists "Chronic myeloproliferative disease (207443019)". The "Problems" section lists five items: "AION - anterior ischaemic optic neuropathy (2161359010)", "Cholesterol level - finding (489233011)", "Chronic myeloproliferative disease (207443019)", "Non-smoker (14866014)", and "OA - Osteoarthritis of hip (359418010)". The "Procedures and Procedure History" section lists "Colonoscopy" on 07/02/2013 and "Specimen from bone marrow obtained by biopsy" on 21/11/2008. The "Past Medical History" and "Family History" sections are currently empty.

Analysis of data in SNOMED CT



Analysis can improve care

This analysis was undertaken once they adopted SNOMED, they discovered things about their patients they didn't know

Resulted in simple service changes that improved care

Karen Horridge et. al.
City Hospitals Sunderland
NHS Foundation Trust

SNOMED CT Use Case Benefits



Reduced duplication of data entry: removes the need to keep re-entering the same data helped by consistent use of terms



Quicker selection of diagnoses/procedures through pre-defined lists for specialist areas



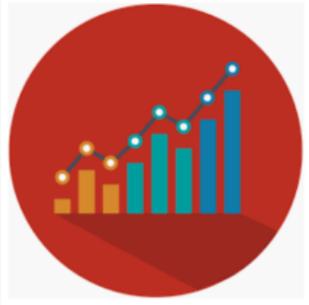
CONSISTENT DATA ENTRY

Record once, use many times

Comprehensive clinical data capture = increased depth of coding for patient episodes - increase in the average income (11.8%) for each FCE



SNOMED CT Use Case Benefits



IMPROVED ANALYSIS OF DATA

e.g. clinical audit, care improvements

Clinical and management audits are quicker, easier and more comprehensive. Audits of C-sections before 39 weeks now takes senior midwife two hours instead of several days

Oxford University Hospitals 
NHS Foundation Trust

Extensive data analysis on data not previously recorded resulted in service re-organisation and better care of the patients


City Hospitals Sunderland
NHS Foundation Trust

As research centre : important to quickly identify patients suitable for clinical trials and thus gain trial contracts

Moorfields Eye Hospital 
NHS Foundation Trust

Reports available for each clinician to support their clinical audit work: a clinician can quickly identify patients relevant for audit, saving over a day per month per clinician


University Hospitals of
Morecambe Bay
NHS Foundation Trust

SNOMED CT Use Case Benefits



**ENABLES
DATA SHARING
& EXTRACTION**

Facilitates Integrated care models e.g. care planning



Public Health England take an automatic feed of diagnoses in SNOMED CT for infection surveillance



Discharge Summaries are automatically generated from the data recorded in the patient record in SNOMED CT; such as symptoms, diagnoses and operations



Reduced effort to extract data for national data sets e.g. CIDS, CYPHS, MHSDS, HARS, COSD, ECDS, CTAD, FG MED



SNOMED CT Use Case Benefits



**ENABLES
DECISION SUPPORT &
KNOWLEDGE LINKAGE**

e.g. Allergy Alerts

Increase in the recording of allergies within the EPR; this doubled between September and December 2014.
The number of clinical alerts increased five-fold over the same three months

Oxford University Hospitals **NHS**
NHS Foundation Trust

Systems using SNOMED CT include

- Multilex DDF from First Data Bank
- British National Formulary
- Map of medicine
- DialeCT encoder from 3M
- BMJ Evidence

NICE Interventional procedure guidance references
SNOMED CT diagnosis and procedure codes

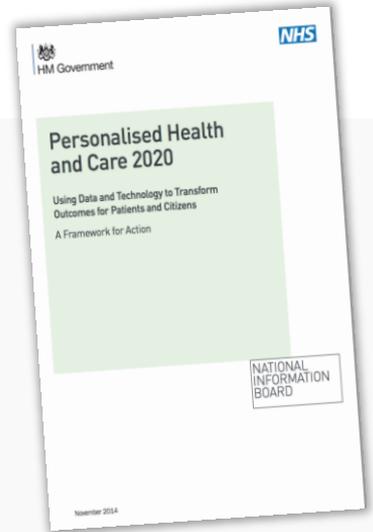
NHS Informatics Strategy (England)

The requirement has been re-iterated in all national policy and strategy for many years!

Required implementation dates now exist via an Information Standards Notice!



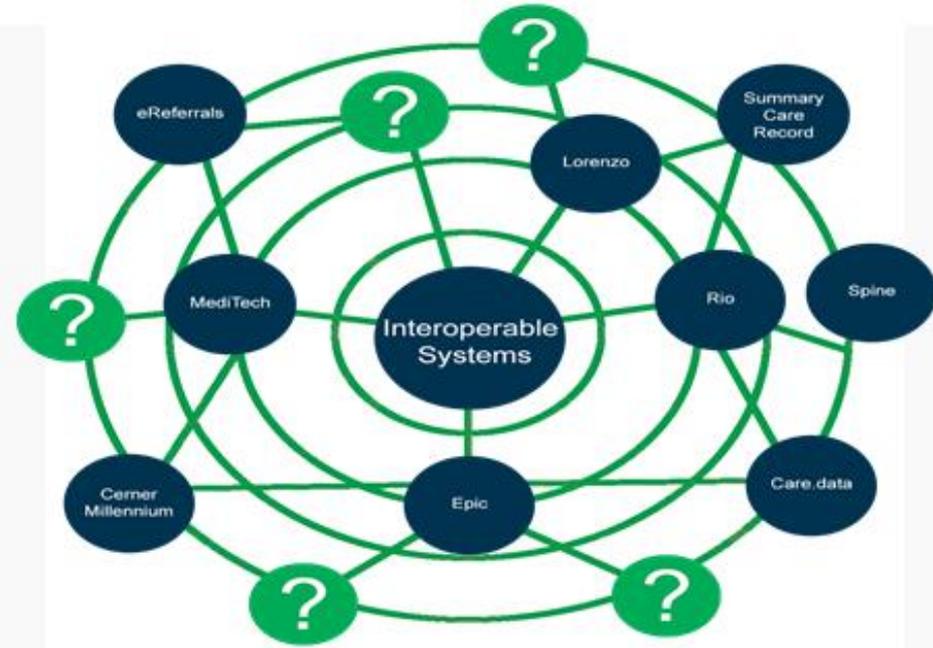
- **Secondary Care, Acute Care, Mental Health, Community systems, Dentistry** and other systems used in the direct management of care of an individual must use SNOMED CT as the clinical terminology before **1 April 2020**.



Where are we now?

SNOMED CT in :

- General Practice: EMIS, Microtest, TPP, Vision (2019)
- Cerner Millennium, Lorenzo, Rio, MediTech, Allscripts, EPIC
- Summary Care Record
- e-Referral, Electronic Prescription Service
- National datasets: e.g. Emergency Care Data Set, Mental Health Service Data Set



What would compliance incorporate?

- Key data items can be sent/received/recorded using terms from SNOMED CT:
 - Diagnosis/symptoms
 - Procedures
 - Allergies
 - Medicines
 - Observables, Assessment scores
- Increasingly clinical data requested for MHSDS or in relation to national guidelines and processes will be for SNOMED CT e.g.
 - Reason for referral
 - Family history
 - test results
 - Smoking status

What do we want to achieve

- EPR procurements require SNOMED CT
- Appropriate data items required to be entered in SNOMED (eg. diagnosis, procedures, allergies)
- Clinical data items **can** be entered in SNOMED e.g. observations, symptoms, family history
- Supplier solutions support entering clinical terms from SNOMED CT; can receive/ send SNOMED CT and process extracts specified in SNOMED

Now is the time to reflect

- Are all clinical EPR systems you procure or develop currently SNOMED CT enabled?
- What's your plan to becoming compliant by 2020 ?
- What help, if any, do you need to get there ?

Central resources:

- [Introduction to SNOMED – live webinar](#)
- [SNOMED CT ISN Implementation Guide](#)
- [SNOMED CT Implementation Requirements](#)
- See [web resources](#) and [discussion forum](#) for mental health
- See [case studies](#)

Resource webpages

HOME: SNOMED CT IN MENTAL HEALTH

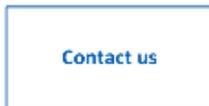
DELEN :: collaborate and share

TERMINOLOGY AND CLASSIFICATIONS STANDARDS



Adoption of SNOMED CT in mental health systems and provider organisations is to be undertaken by April 2020 ([ISN](#)). Data submitted to MHSDS has been acceptable in SNOMED CT since 2016; and is to be provided in SNOMED CT by, at the latest, 2020.

A collaborative project within NHS Digital is coordinating activity to achieve SNOMED CT adoption. Further resources will be added to this website as the project progresses. This workspace aims to provide the following:



Possible change in approach...

- Assessing a patient for antipsychotic side effects: EPSE's are often treated with an antimuscarinic like Procyclidine and determining the presence of EPSE's requires a brief physical examination. This 'intervention' could occur up to 3 times per day. For a patient who is with us for 200 days (quite a short spell sadly) would we be expected to see this code assigned up to 600 times, plus the medication codes, plus the EPSE symptoms? Assuming there is only one observable symptom of EPSE that is 1800 codes.

Shift in perception ...

- Conversation with a trust: the problem is you only count the episode when the mother has been in the maternity unit for over 4 hours, so we end up recording that information on paper because we cant count it.
- **The EPR should primarily support the business and secondary is providing Management Information**
- **‘Coding’ is not primarily a way of providing others data BUT is about using the system to help manage the care of the patient e.g a drug alert, alerting to a planned intervention that hasn’t taken place, linking to NICE guidelines. Secondary is data extraction.**

Any Questions ?



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