SNOMED CT
Mixed Terminology Economy

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IHTSDO Conference, Amsterdam, October 27th 2014

Outline

Context: The UK legacy problem
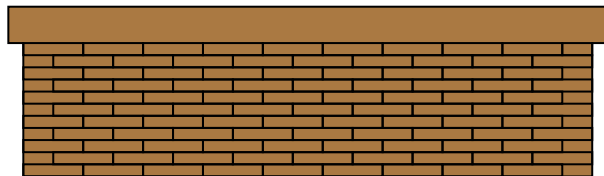
Crossmap construction and validation

Transcoding EPR data

Demo

Context : UK's mixed terminology economy
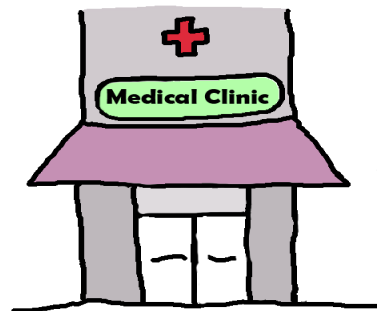
5-Byte READ2
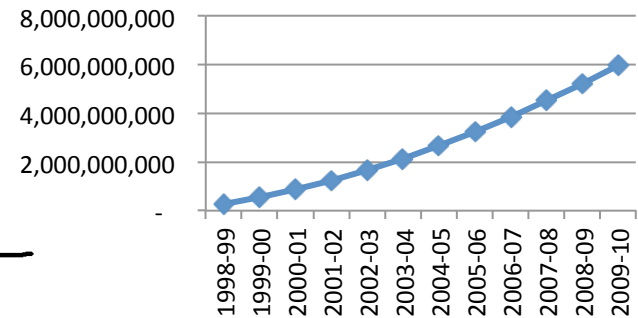
Clinical Terms Version 3
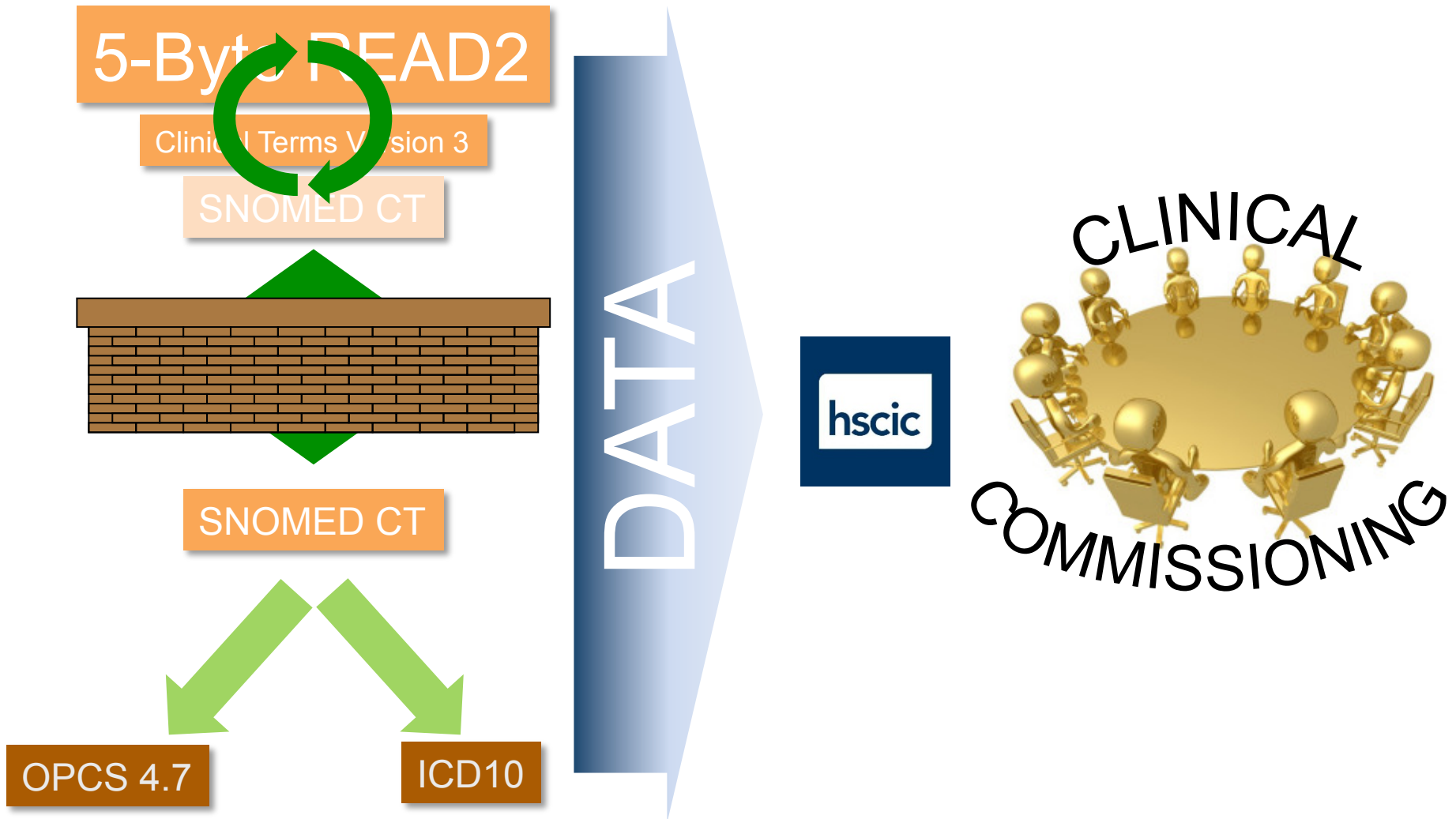
SNOMED CT

SNOMED CT

OPCS 4.7   ICD10

Cumulative coded EPR items in UK Family Medicine

hscic   GOV.UK

Context : UK's mixed terminology economy

Outline
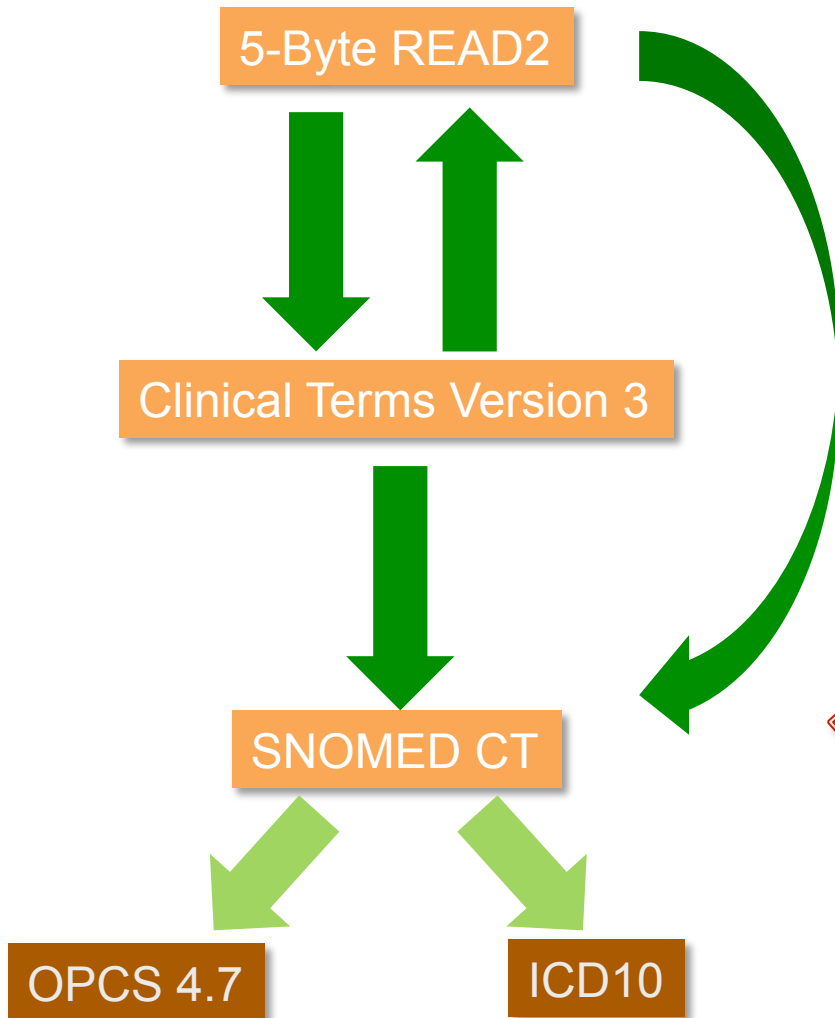
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Crossmaps : Construction and Validation

5-Byte READ2

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Review 792,656 maps in duplicate
45s each = 6 person years of effort (!!)

Compromise assurance methodology:

- Auto-assure if 100% exact term match
- Dual review residual top 20,000 codes
  with no 100% exact term match
- Map code+term to code+term
- Certified deployment: mandatory text
  degrade where no assured map

= ~100 person days of review effort
5% of *reviewed* maps were rejected

Result: >97.5% of coded data by volume
can pass through an assured map.
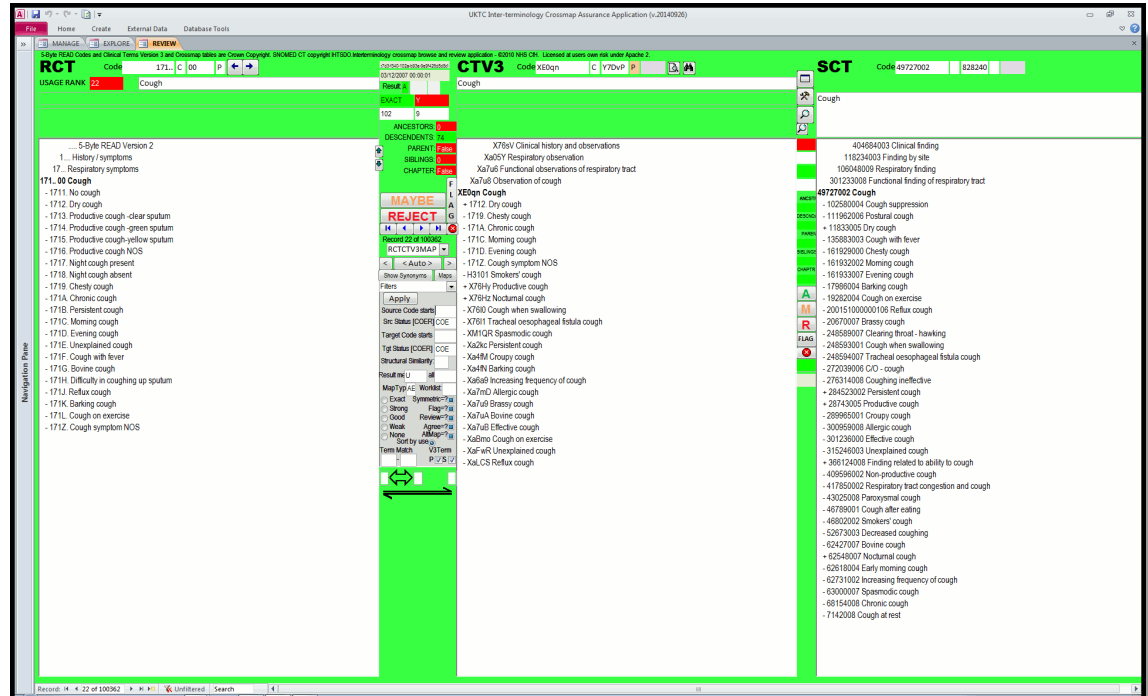
Map Assurance : Requirements

Professionally led

Expert terminologist

~10 expert *clinical* reviewers

Code usage data – exploit the Pareto effect!

Application to expose maps and support review process

Map reference implementation

Outline

Data Migration : Bulk and single item

4 maps deployed biannually

GP2GP

READ2 ⇔ CTV3 ⇨ SNOMED

Summary Care Record

READ2 ⇨ SNOMED

CTV3 ⇨ SNOMED
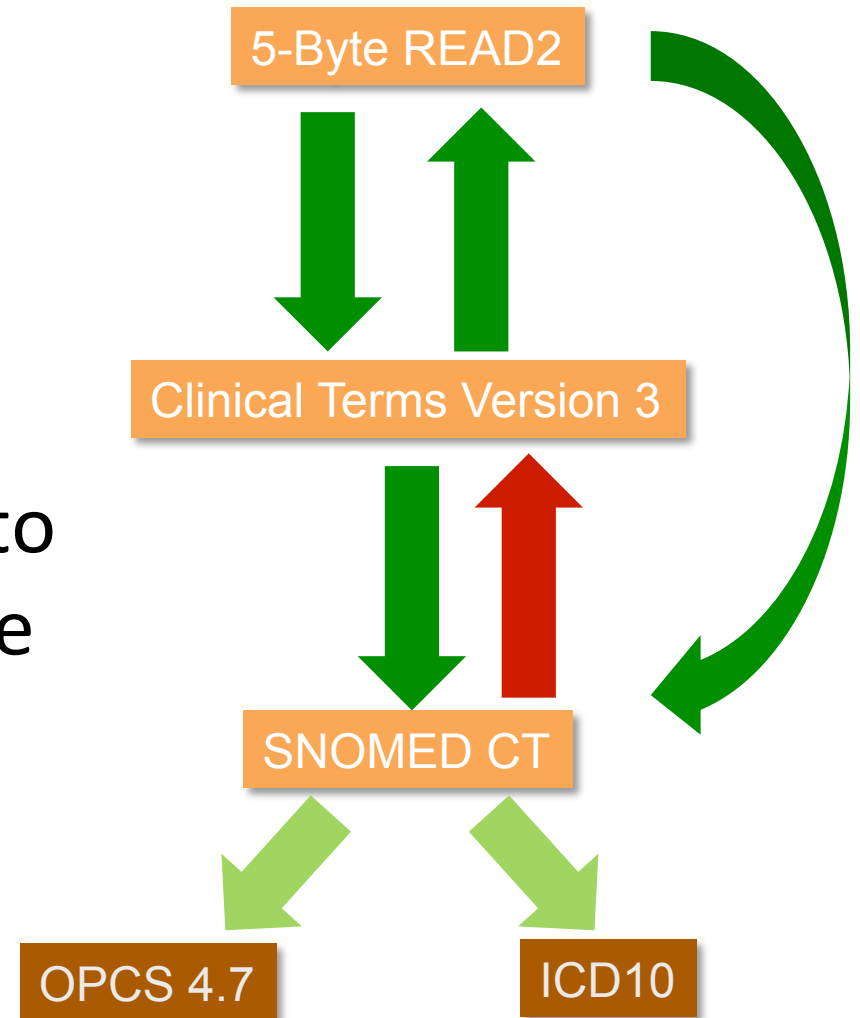
5-Byte READ2

Clinical Terms Version 3
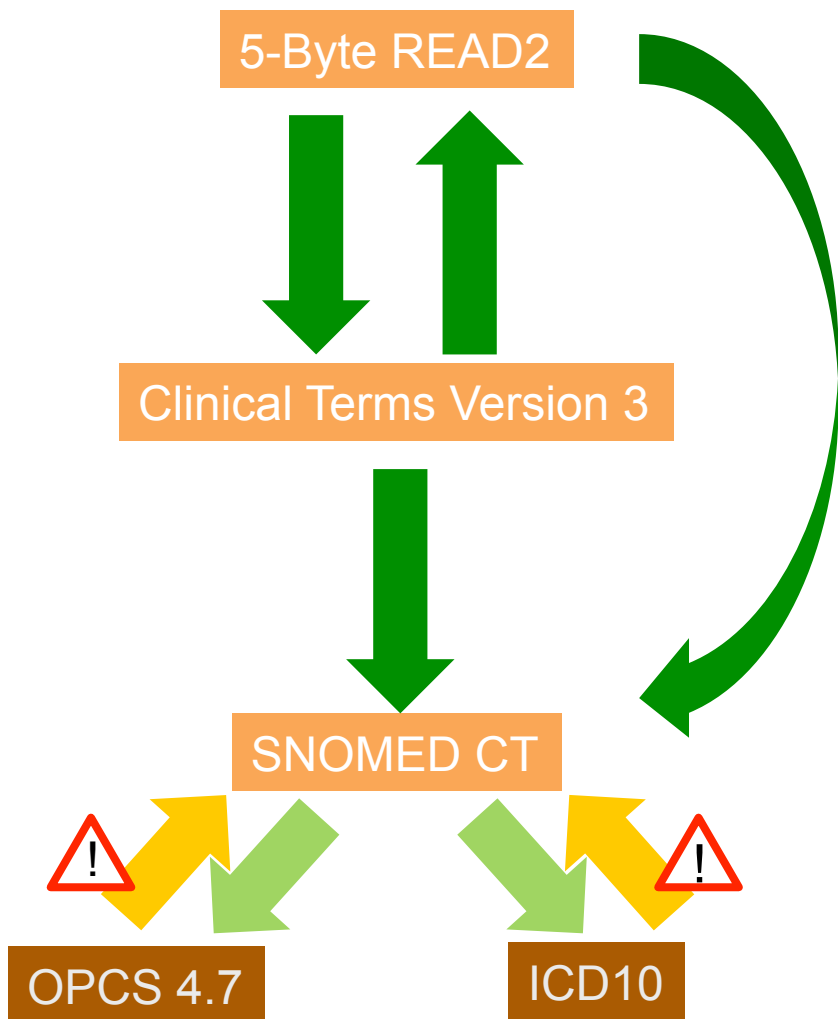
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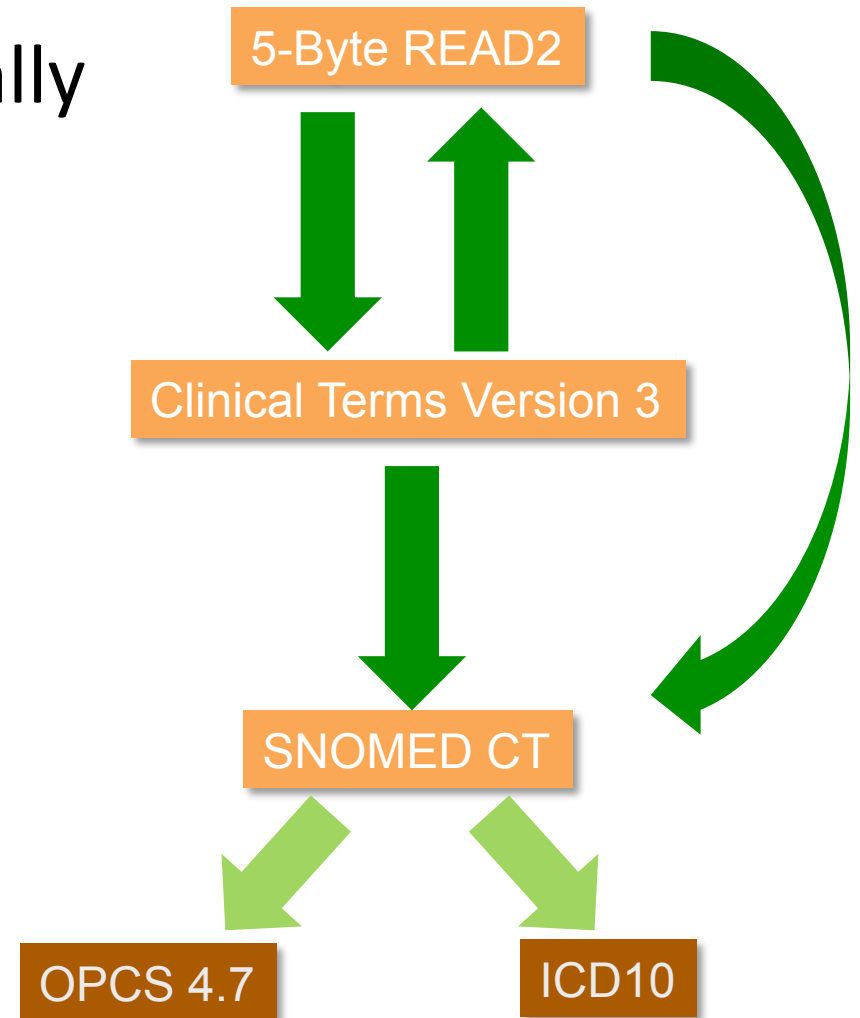
Data Migration : Limitations

No map route back from SNOMED CT to legacy systems..

So comms from Hospital to Primary Care only possible if Primary Care data migrated to SNOMED CT

5-Byte READ2

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Data extraction?

5-Byte READ2

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EXTRACT SPECIFICATION

DATA

hscic

Extract specifications needed in five parallel dialects
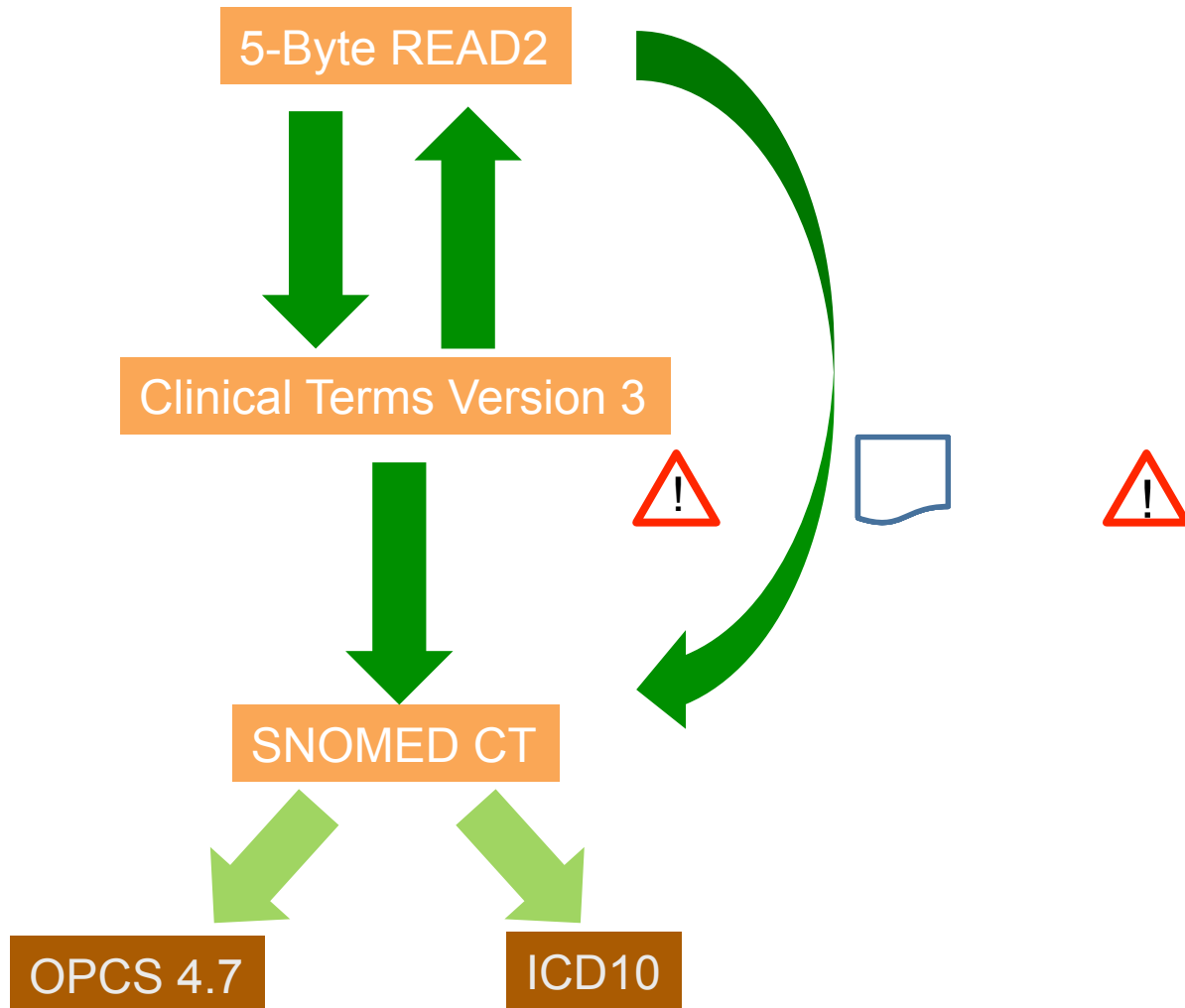e.g. 'assisted conception'

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Transcoding EPR data *and* queries

Demo

Transcoding Queries

One ring to rule them all…

5-Byte READ2

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Transcoding of query specifications

<<22298006 myocardial infarction (78 codes)

471711000000109; ;[X]Acute transmural myocardial infarction of unspecified site (disorder)
444321000000101; ;[X]Subsequent myocardial infarction of other sites (disorder)
409621000000103; ;[X]Subsequent myocardial infarction of unspecified site (disorder)
194798004; ;Acute anteroapical infarction (disorder)
52035003; ;Acute anteroapical myocardial infarction (disorder)
62695002; ;Acute anteroseptal myocardial infarction (disorder)
194809007; ;Acute atrial infarction (disorder)

233831007; ;Acute Q wave infarction - inferolateral (disorder)
233833005; ;Acute Q wave infarction - lateral (disorder)
233836002; ;Acute Q wave infarction - widespread (disorder)
...914007; ;Acute Q wave myocardial infarction (disorder)
...03003; ;Acute ST segment elevation myocardial infarction (disorder)
...1000119103; ;Acute ST segment elevation myocardial infarction involving left anterior descending coronary artery (disorder)
...1000119100; ;Acute ST segment elevation myocardial infarction involving left main coronary artery (disorder)

G30..; ;Acute myocardial infarction
G300.; ;Acute anterolateral infarction
G301.; ;Other specified anterior myocardial i...
G3010; ;Acute anteroapical infarction

G30y1; ;Acute papillary muscle infarction
...e septal infarction
...ute myocardial infarction NOS
...ocardial infarction NOS

READ2
INCLUDE:
  << G30.. Acute myocardial infarction (code and all its descendants)
  << G31y1 Microinfarction of heart (code and all its descendants)
  << G32.. Old myocardial infarction (code and all its descendants)
  << G35..
  << G38..
  << Gyu3
  << Gyu3
  << Gyu3
EXCLUDE
  << G30A

ICD10
INCLUDE:
  < I21 Acute myocardial infarction (descendants only but NOT also code itself)
  < I22 Subsequent myocardial infarction (descendants only but NOT also code itself)
  << I248 Other forms of acute ischaemic heart disease (code and all its descendants)
  << I252 Old myocardial infarction (code and all its descendants)
EXCLUDE:
-< No exclusion clauses >-

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Google 'TRUD DATA MIGRATION'

THANKYOU!