**Introduction:** The decision has been taken to use Snomed CT for the coding of the EHR in Belgium. In 2010 the development of a Belgian SNOMED CT subset has been started with physicians and terminologists.

**Objective:** This study aims at estimating the coverage of the Belgian SNOMED CT subset for concepts used in the Electronic Health Record (EHR) in hospitals.

**Design:** 4 Belgian hospitals each had to select 100 admissions randomized over the different specialisms. For these 400 admissions, the EHR labels for clinical findings and procedures were coded in SNOMED CT. The SNOMED CT concepts resulting from this translation were then matched against a Belgian Subset for clinical findings and procedures in Dutch and French.

**Results:**

1. For clinical findings, 84% of the codes were covered by the current Dutch subset and 73% by the French subset.
2. For procedures, 69% of the codes were covered by the current Dutch subset and 86% by the French subset.
3. The 3,321 EHR labels were divided in 3,344 primary concepts of which 2,641 labels could be coded with a single SNOMED CT concept.
4. Coded of the EHR label was not done or disregarded in 703 cases for the further analysis.

**Coverage Procedures**

- Of the 277 unique concepts of the sample, about 81% of the codes were covered by the current Dutch subset and 86% by the French subset.
- Missing codes for the 81 unique concepts of the study sample (n=56).

**Conclusion**

To limit the number of additions in a later stage it is desirable the subset to be as complete as possible at the beginning of routine coding. When codes are missing during routine use they should be added on request by the physician. This does not mean that the whole SNOMED CT Core should be selected and translated. Synonyms, obsolete and navigational concepts must be excluded.

The subset should be concise with distinctive and valid concepts which can be used in combination with sub-concepts for the refinement of attributes. The final Belgian subset should be the same for Dutch and French users.

At this stage there is a good correspondence for clinical findings between the temporary French and Dutch subset (kappa=0.80). However the concordance for procedures is poor (kappa = 0.34).

**References**