4.3 Benefits of Products of the Cooperative Work

Once the work of the Cooperative Agreement is completed, users of each terminology will receive added benefits.

LOINC Benefits to SNOMED CT Users

- LOINC codes will provide to SNOMED CT terminology extensive coverage of clinical laboratory tests and some types of clinical measurements. Likewise, the addition of SNOMED CT concepts from LOINC Parts will expand coverage in areas like substances, cell types, kinds of property, etc.
- LOINC provides greater granularity and specificity for coding of laboratory tests.
- Links between the terminologies will promote the usage of SNOMED CT by LOINC large global community.
- The Observables model related to clinical lab tests in SNOMED CT was based on the LOINC semantic model.

Additional benefits of linking SNOMED CT and LOINC are described in referenced papers written by Adamusiak and Bodenreider referenced at the end of this Chapter. [

SNOMED CT Benefits in Laboratory Area for LOINC Users

Linking LOINC terms to the SNOMED CT subtype hierarchy and description logic definitions provides an inferred hierarchy for LOINC terms. Some of these benefits were described by Adamusiak and Bodenreider (referenced at the end of this Chapter), including:

- SNOMED CT is currently being used in the laboratory area for reporting Microbiology results. Linkage to related LOINC codes provides a more integrated pattern of usage in this domain.
- The richness of SNOMED CT relations can provide novel insights into the original resource
- The hierarchy of parts used by LOINC terms can be informed by the SNOMED CT hierarchy, thus reducing duplicative work
- Hierarchical organization of LOINC terms can be inferred automatically
- SNOMED CT relationships can also provide enhanced subsumption for LOINC terms. New paths are not limited to abstract observations that group LOINC codes, but also LOINC codes themselves can be in direct relationships. This limits the need for creating abstract observations to group them.
- The SNOMED CT DL representation can enhance navigation among LOINC terms by providing access to more paths between the codes in the SNOMED CT hierarchy. Such navigation can make it easier to find an appropriate code.
- SNOMED CT DL can also enhance curation of LOINC content by enabling detection of duplicates and missing hierarchical relations.

References

Adamusiak T, Bodenreider O. Quality assurance in LOINC using Description Logic. AMIA Annu Symp Proc. 2012;2012:1099-108.

- http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3540427/pdf/amia_2012_symp_1099.pdf

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