Monthly Reporting – June

Within the German Medical Informatics Initiative (MII), four consortia are funded by the Federal Ministry of Education and Research (BMBF): DIFUTURE (Data Integration for Future Medicine), HiGHmed (Heidelberg - Göttingen - Hannover Medical Informatics), MIRACUM (Medical Informatics for Research and Care in University Medicine) and SMITH (Smart Medical Information Technology for Healthcare).

In today's report we would like to give you an example of the use of SNOMED CT in Germany based on the activities of one site of the MII: the University Hospital Schleswig-Holstein (UKSH). As one of the participating sites of the MII's HiGHmed consortium (interactive map), the UKSH received a SNOMED CT license in May 2020.

Since then the UKSH joined forces with the whole consortium to integrate SNOMED CT into the consortium's use cases "Cardiology" and "Infection Control". UKSH Campus Kiel is responsible for conducting a register study as part of the HiGHmed use case "Cardiology" and is continuously recruiting patients with heart failure. Relevant patient data are integrated into the "medical data integration center" (MeDIC) at UKSH and will be made available for HiGHmed queries based on patient consents. Cardiological data integrated into the MeDIC will be enriched with SNOMED CT codes in order to standardize the data internationally. UKSH Campus Lübeck focuses on the use case "Infection Control" and is therefore responsible for establishing a "Smart Infection Control System" (SmICS) based on an openEHR repository. SmICS will be used to monitor and prevent infection chains and outbreaks in the hospital based on patient movement data and pathogens.

Therefore, the UKSH supports the joint modeling of standardized data structures using SNOMED CT for full semantic interoperability as well as the integration of SNOMED CT into the local microbiology IT-systems to enable accurate and interoperable test reporting. A first draft of mapping local terms to standardized and meaningful SNOMED CT concepts is currently under review. Further implementation into existent software and interfaces will follow in close collaboration with the domain experts.

Furthermore, a local FHIR terminology server (Ontoserver) was set up to flexibly query SNOMED CT contents and use its extensive features from within applications. Researchers at the UKSH are excited about the new possibilities offered by the licensing of SNOMED CT in Germany and will continue to explore the potential offered by both its comprehensive terminology and logic-based foundation.

In addition to the UKSH, 30 university hospitals, 19 universities, 3 research institutions, 4 industrial partners and 2 other partner institutions (in total 59) received a license by the end of June.