An OMOP Cancer Data warehouse for data Quality Control, collaborative Real World Evidence Studies and data submission to the Belgian Cancer Registry

**Data OMOPisation of cancer data at Cliniques universitaires Saint-Luc**

**Background:** Our hospital including a large cancer center increased significantly its digital maturity end 2020 following the implementation of an integrated Electronic Medical Record (EMR) based on EPIC®.

To make the multiple collected data Findable, Available, Interoperable and Reusable (FAIR), we decided to set-up an OMOP data warehouse (DWH) in collaboration with other European centres within the DigiONE project.

**Results:** Planned architecture

![Diagram of planned architecture](image)

**Methods**

- 40 essential concepts identified for DigiONE: many already structured, evaluation of NLP needs.
- Extraction, transformation and loading (ETL) from EMR to OMOP DWH requires to agree on mapping between centers and according to international standards.
- The OMOP DWH allows to apply Quality Control rules and detection of outliers. Corrections will be implemented in the source data in the EMR.
- We need to set-up a federated research tool.
- We need to adapt our data governance and technologies according to the fast evolving legal framework.

**Opportunities:** Solid collaborations are needed between DigiONE members and beyond with the OMOP user community in order to reach CDMs and availability of FAIR data for further federated research and learning.

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