Mapping “Parc de Salut Mar” Hospitals Information System to the OMOP Common Data Model

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IMASIS: Electronic Health Record System

The IMASIS information system is the Electronic Health Record (EHR) system of the Parc Salut Mar Barcelona Consortium (Spain), which is a complete healthcare services organization.

Currently, this information system includes the clinical information of two general hospitals, one mental health care center, one social-healthcare center and five emergency room settings in the Barcelona city area in Spain.

IMASIS includes clinical information from patients who have used the services of this healthcare system since 1990 and from different settings such as admissions, outpatients, emergency room and major ambulatory surgery.

IMASIS-2 is the relational model database containing anonymized patient information from IMASIS used for research purposes.

IMASIS-2 Database Schema and Mapping process

The IMASIS-2 database is based on a patient centered schema. Visit data and clinical information is directly connected to the “patient” table. Time dependent connectivity between the “visit” table and the tables containing clinical information is available through the “visit_period” table.

IMASIS-2 Mapping process to CDMV5.2.0

The RabbitInAHat application was used in the design of a ETL enabling the IMASIS-2 data migration into the CDMV5.2.

IMASIS-2 Database (Parc de Salut Mar)

- Patients in the System
  - 1,467,493 Patients
  - 825,194 ICD9-CM

Expected impacts

The expected impacts are:

- To accelerate the access and translation of the clinical information for research purposes
- To improve the original database structure and quality of data
- To enhance the understanding of our database

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