**The Dutch ICU Data Warehouse: towards a standardized multicenter electronic health record database**

**Background:** For research purposes, Intensive Care Unit professionals have initiated a widespread collaboration to collect routinely stored electronic health record data from different ICUs and unify them in the Dutch ICU Data Warehouse. The Data Warehouse will be standardized to the OMOP common data model.

**Methods**

1. **Organisational structure of ICUdata**

   - Bestuur Stichting ICUdata
   - Regiegroep
   - Projectteam Dutch ICU Data Warehouse
   - Zorgverzekeraars Nederland
   - Metavision
   - HIX
   - EPIC

   **Diagram:**
   - Secure transfer to cloud environment
   - Querying, pseudonymisation, extraction of all routinely collected data
   - Joint Data Registry Agreement
   - Raw EHR tables
   - Aggregated data of hospital variables
   - OMOP Common Data Model, available for research
   - Map hospital variables to standardized concepts with Machine Learning mapping software
   - Transform every hospital variable to a row and calculate aggregated statistics

2. **Technical infrastructure**

3. **Mapping tool for standardization of concepts**

**Results:** The ICUdata foundation was formally established in 2022. Nine hospitals have signed the data sharing agreement. The first data extraction has been successfully transferred and is ready to be mapped to standardized concepts.

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