A Model for Data Integration into a Regional Research Platform

Nilay YÜKSEKOGUL, Katharina CHRUSCZ, Björn SCHREIWEIS, Benjamin SCHNEIDER, Dominik OSE, Björn BERGH and Oliver HEINZE

a Center for Information Technology and Medical Engineering, Heidelberg University Hospital, Germany
b Department of general practice and health services research, Heidelberg University Hospital, Germany

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Introduction

The University Hospital Heidelberg is implementing a regional research platform (RRP) to support public health researchers evaluating and analysing 38 cross-institutional quality indicators. This work describes the definition and implementation of patient controlled data flows from a regional cross-institutional personal electronic health record (PEHR) to the RRP.

1. Methods

First of all, relevant data sources were identified and analyzed concerning data quality, representation of data and interfaces. Second an integration concept was outlined.

2. Results

Two standardized data transfer options to the RRP were identified. Most data are transferred from the PEHR using triggers and a pseudonymization service during the ETL process. Other data sources can send data via the pseudonymization service manually. The architecture of the RRP is standardized and based on IHE Profiles.

3. Discussion

The concept is rigorous but the suitability of the triggers has to be still tested. Moreover it has to be evaluated which types of format could be used for a proper pseudonymization process.

1 Corresponding Author.