MUDRLite Components Usage for Sharing EHR Data in Dental Medicine

Josef Špidlen[1,2], Martin Pieš[1], Zuzana Teuberová[3], Miroslav Nagy[1], Petr Hanzlíček[1], Jana Zvárová[1], Taťjana Dostálová[3]

[1] Institute of Computer Science AS CR, EuroMISE Centre, Prague
[2] BC Cancer Research Centre, Terry Fox Laboratory, Vancouver
[3]Department of Prosthodontics, Charles University, First Faculty of Medicine, General University Hospital and EuroMISE Centre, Prague

Abstract:

Several partners from academy as well as from industry are joined within the project Information Technologies for Shared Health Care in order to cooperate on new approaches to the electronic health record design with the main goal of solving various problematic issues connected with sharing medical data among heterogeneous hospital information systems (HIS) and electronic health record (EHR) applications. Together they are preparing solutions to model various EHRs and HISs using worldwide-used standards, based mainly on the HL7 version 3 specification; however, taking into account the specifics of the environment in the Czech Republic. Cardiology is chosen as the main pilot field to test these solutions; nevertheless, in order to prove that they are independent on the application area we are also trying to apply it to dental medicine. A pilot application chosen to test this approach in dental medicine is the MUDRLite universal EHR system that provides interfaces to include user-defined components or modules. These interfaces enable to develop and integrate special components to share data of this EHR application among other systems based on a defined EHR communication standard. Moreover, these interfaces are universal and thus they were used to integrate a high-advanced component representing the dental cross, which is a crucial part of medical documentation in dental medicine. This component is described in the paper more in detail.

Keywords: electronic health record, dental medicine, dental cross