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Plan of Interoperable EHR in Korea

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Abstract

This study describes the plan of development of interoperable EHR as the core element of National Information Network (NHIN) Framework in Korea. At the present time center for interoperable EHR is try to preparing architecture for EHR implementation. The EHR architecture could be composed of EHR functionality, data dictionary, standards, and Privacy and Security and these are essential elements for interoperable architecture design and Healthcare Information Technology (HIT) adoption of hospitals.

Keywords:

interoperable EHR, National Information Network, Healthcare Information Technology

Introduction

The aim of EHR implementation in Korea includes a Healthcare Information Technology (HIT) adoption of public hospitals and an interoperable EHR. Architecture for EHR implementation includes primary and secondary users' requirements, To-Be model related to EHR system functionality, standard documents, guideline of healthcare information exchange, and privacy and security.

Methods

In 2007, the plan of EHR architecture is aimed for implementing logical level. The steps of implementation are follows. First, the analysis of requirements for primary and secondary users as a clinical information exchange for patient care and a use of policy decision-making and research etc., respectively) and current status of general circumstance should be done. Second, EHR functionality with the work process To-Be model in the middle and large-sized hospitals is produced. Third, data dictionary will be structured by analyzing clinical documents of public hospitals. Standard clinical documents will be defined by users' agreements and then will be modeling CDA (Clinical Document Architecture)-based document structure. After third step, EHR functionality and stand clinical document will be matched.

Fourth, for implementing EHR services we will design a technical architecture for application architecture and technical standard. The shard EHR data (Laboratory, medication, health summary, image) has written scenarios and use case. Lastly, we make a Standard and Privacy and Security (P&S) guideline for interoperable EHR. In order to interoperable EHR, it is necessary to standard and P&S. Figure 1 shows the fundamental connection design for implementing EHR logical architecture.

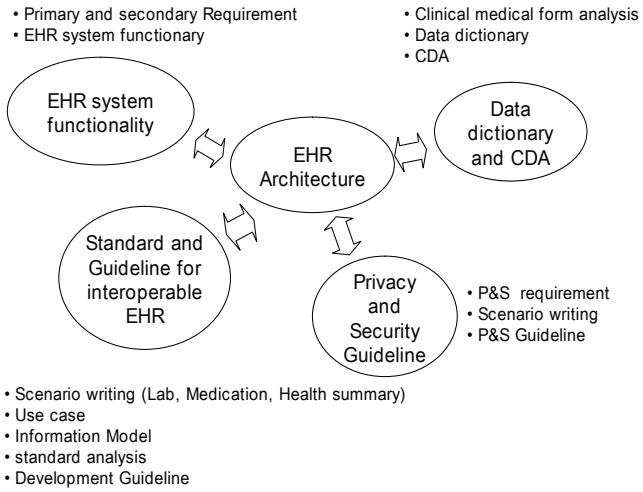

Figure 1-Fundamental connection design for EHR logical architecture

Results

This study presented a plan of implementing for EHR logical architecture. From now on, a more prescriptive approach will be needed to solve this EHR architecture.

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