

Exchanging Radiology Reporting System with Electronic Health Record: Designing a Conceptual Model

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Abstract : Introduction: In order to better designing of electronic health record system in Iran, integration of health information systems based on a common language must be done to interpret and exchange this information with this system is required. Background: This study, provides a conceptual model of radiology reporting system using unified modeling language. The proposed model can solve the problem of integration this information system with electronic health record system. By using this model and design its service based, easily connect to electronic health record in Iran and facilitate transfer radiology report data. Methods: This is a cross-sectional study that was conducted in 2013. The student community was 22 experts that working at the Imaging Center in Imam Khomeini Hospital in Tehran and the sample was accorded with the community. Research tool was a questionnaire that prepared by the researcher to determine the information requirements. Content validity and test-retest method was used to measure validity and reliability of questioner respectively. Data analyzed with average index, using SPSS. Also, Visual Paradigm software was used to design a conceptual model. Result: Based on the requirements assessment of experts and related texts, administrative, demographic and clinical data and radiological examination results and if the anesthesia procedure performed, anesthesia data suggested as minimum data set for radiology report and based it class diagram designed. Also by identifying radiology reporting system process, use case was drawn. Conclusion: According to the application of radiology reports in electronic health record system for diagnosing and managing of clinical problem of the patient, provide the conceptual Model for radiology reporting system; in order to systematically design it, the problem of data sharing between these systems and electronic health records system would eliminate.

Keywords : structured radiology report, information needs, minimum data set, electronic health record system in Iran

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