Description

The procedure of medication error reporting necessitate the healthcare practitioners to fill a paper-based medication error form for the hospital and another form for FDA through an online portal. The practitioner should register online through and then fill the form. The suggested system will include an electronic Medication Error form in each EPR that is directly linked to Medication Error Reporting System and networking it to FDA. The proposed system will be a platform for sharing Medication Error reports between Hospitals and FDA. In addition, the proposed system will be a database for medication errors.

the procedure of medication error is paper based, the healthcare provider should fill a form and then submit it to hospital safety officer. In addition, the practitioner should register online through FDA Portal and fill another Medication Error report. Error reporting helps to understand why errors occur, to emphasize opportunities for error prevention and to generate improvements in patient safety (Elden N et al, 2016). Although several studies have demonstrated that specific interventions in the medication orders and processing might reduce the risk of error (Kaushel et al., 2001), many hospitals have no system for recording medical errors which are thus under reported across HealthCare organizations. Existing error reporting system lack integration between two organization and practitioner needs to register in each system which is time consuming and absence of standard medication error reporting form (Kohn LT et al. 2000).

A study from Iran (Poorolajal et al. 2015) categorized the major reasons for medication errors "the main reasons mentioned for underreporting were lack of effective medical error reporting system (60.0%), lack of proper reporting form (51.8%), lack of peer supporting a person who has committed an error (56.0%), and lack of personal attention to the importance of medical errors (62.9%)". Based on the data collected by Hartnell et al. Three of the things that participants felt served as obstacles to medication error reporting were the additional time it takes to report, the more work it takes to report, and frustrations of unfavorable characteristics of incident report forms. The proposed system would allow healthcare practitioner to fill just one form. The report will be stored in the medication error reporting system. Due to confidentiality reasons no one will have access to those report except Hospital Safety officer and FDA safety officer. We visualize that this Medication Error Reporting System could revolutionized the gathering, usage, and retrieval of information from Medication Error reports and thus serves as an information database for medication error incidence. Furthermore, the automatic solution could use recent advances in artificial intelligence methods to learn from medication incident report resources and is promising to the prevention of adverse drug events and promotion of safety in medical care.

Errors should be identified through an active management and effective reporting system, so they could be removed before they can reach or cause harm to patients. Additionally, this system would allow the management to provide the practioners a feedback report. Our proposed system attempted to overcome medication error report burden through making reporting process safer, easier and more effective by including a medication error form into hospital system and standardize it. Thus, any practitioner will have a direct access to the form. Furthermore, the system will alert the safety officer

when there is a new report. Practitioner will use this system safely due confidentiality related to their submitted report. The integration of the system will improve root cause analysis due to availability of patient database. Moreover, Compliance to FDA laws and guideline related to medication error reporting.

confidentiality. Interoperable interfaces will be offered to integrate and share data within the local sites (Hospital system and medication Error reporting system) we will use of HL7.

Additionally, networking services will be used to access medication errors data using clearly specified and standards-based interfaces to FDA system. These services implement an abstraction layer between the error reporting system and FDA system. Sharing will be System improvements involve communication channels for sharing information and their accessibility and ease of use in allowing reporters to enter the details of a medication error efficiently and effectively. Providing a highly visible and open means of communicating information between hospital and Food and Food and Drug Authority.

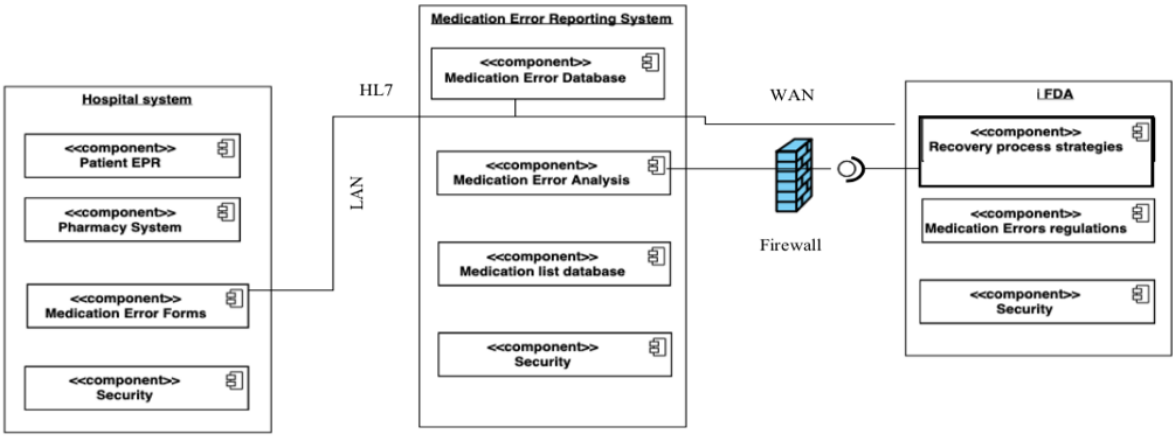

Figure 3. Deployment and Implementation Diagram (Ambler, 2004)