Hospital Information Systems: are they sufficiently helpful for the management of patient safety? Valuable lessons from the Japanese experience

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Abstract and objectives

The authors examined how electronic health record systems improved healthcare safety. According to the survey of 503 hospitals in Japan, there was a gap between the system function and the operation of medical staffs. For the aim of the effective availability of EHR systems, the authors conclude that appropriate education for medical staffs is required to improve their accuracy and secure management. The Electronic Health Record (EHR) is a crucial means for establishing collaborative healthcare processes across multiple clinical specialties. The EHR depends on integrated hospital information systems that are designed to secure patient safety whilst fulfilling crucial information disclosure demands. This poster will draw out key lessons for the development of the next generation of EHRs based upon the practical experiences of Japanese health institutions.

Keywords:

Electronic health records, Safety management, Information management, Education, Professional

Background

Medical specialists are facing a number of challenges from the computerization of clinical processes and the spread of health information and communication technology. The Japan Council for Quality Health Care (JCQHC) recently undertook a collection of data on how serious medical accidents occurred in the public hospitals including national hospitals with reporting obligations to authorities. As of June 30, 2009, 273 medical facilities were chosen representing a total of 144,019 beds. Among them, 172 facilities reported 946 serious accidents from January through June 2009. Based on the authors' analyses, these accidents were classified into the following six categories: a) Wrong use of medicine; b) Lack of communication among medical attendants; c) Misunderstanding of order (e.g. prescription-medicine); d) Subjective decision making; e).Skill level failure, f) Failings in hospital organization management. [1]

Survey

The EHR is widely understood to be a strategic tool to improve healthcare safety. To examine this a JCQHC survey on health information management systems and the operation of safety information systems (including the inspection and evaluation of EHR structure) was conducted across 503 affiliated JCQHC hospitals. Patient information was found to be computerized in 94% (92% in 2006, 60% in 2004) of surveyed hospitals [2]. In about 54.7% of them, structured health care processes for the achievement of an EHR were described. However, despite the nationwide progress of system computerization; unfamiliarity with browser-led information checking by staff resulted in the misreading of orders or cases where words were missing. In addition, the survey showed that 50% of hospitals do not have a health record audit system to record the occurrence of adverse events. In these hospitals the management of information systems is either not organized or dependent on clerical staffs who lack sufficient medical knowledge. Furthermore medical specialists of such hospitals lack appropriate opportunities to gain the necessary skills to contribute to improving accuracy and secure management of these systems.

Assessments

The aim of acquiring an integrated EHR in Japan in this decade requires that priority be given to achieving safe ordering procedures, enhancing the quality of clinical processes as well as the development of information recording systems to guarantee safety. However, the effective availability of the EHR has yet to be achieved. In order to raise the awareness of the accurate information exchange, it is essential to provide medical staff with specialized training about why data gathering is conducted and who is responsible for it.

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References

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