Nursing Informatics 2016 W. Sermeus et al. (Eds.)

© 2016 IMIA and IOS Press.

This article is published online with Open Access by IOS Press and distributed under the terms of the Creative Commons Attribution Non-Commercial License.

doi:10.3233/978-1-61499-658-3-903

Organizational Benefits of Computerized Physican Order Entry (CPOE) System in Pakistan

Suleman ATIQUE^{a,1}, Chien-Yeh HSU^b, Syed-Abdul SHABBIR^{a,1}

^a Graduate Institute of Biomedical Informatics, Taipei Medical University, Taiwan
^b Department of Information Management, National Taipei University of Nursing and
Health Sciences

Abstract. Electronic prescribing is also known as Computerized Physician Order Entry (CPOE). It is a computer-aided system which offers the health professionals a robust platform for entering the prescription electronically. Due to paucity of facilities in Pakistan which are available around the world, there is an observable overburden on the health professionals and practitioners. CPOE system has shown to be very effective in minimizing medication errors. CPOE is beneficial for both patient and health organizations. There is great deal of interest in the adoption of this system in our healthcare system. The results state clearly that this system is equally beneficial for organizations who want to adopt this system as perceived by the health professionals. It supports the idea of adoption and implementation of CPOE in healthcare facilities healthcare institutes. CPOE must be adopted to ease and optimize nursing services in Pakistani healthcare system.

Keywords. Organizational benefits; CPOE; health professionals; adoption; implementation

1. Introduction

Electronic prescribing or e-prescribing is system of electronic entry of medication orders. These instructions are shared over a network which is accessible to every medical department. This system not only saves time but also reduces chances of medication errors due to legibility problems and transcription of medication orders and reduces delays in order completion [1]. It also aids in error checking and duplicate entry for doses and laboratory tests.

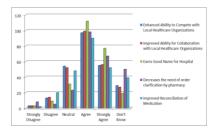
CPOE systems became more popular and important after the publication of findings of the "Committee on Quality on Health Care in America on Medical Errors and Improvement of the Quality of the Health System". The findings recommended and suggested that the extensive introduction of CPOE would significantly reduce the medication errors. Bates et.al, [2, 3] have reported that CPOE aids in reducing medication errors up to 84% in US. Literature witnesses that CPOE offers more advantages over paper based system of prescribing, the old one [4].

¹ Assistant Professor, Graduate Institute of Biomedical Informatics, Taipei Medical University, Taiwan. Email: drshabbir@tmu.edu.tw

2. Methods

We used a questionnaire as data collection tool. It is a part of larger study conducted to find perceptions regarding overall benefits of CPOE, while this paper only aims to find organizational benefits of CPOE. Data was collected from four major cities of Punjab province. 251 participants responded out of 500 distributed questionnaires and response rate was 50%.

3. Results





4. Discussion

The results call for an action to implementation of CPOE in healthcare system of Pakistan. Lack of infrastructure as well as political will might be the major factors impeding the adoption and implementation in Pakistan. It was found that majority of the population has a useful knowledge of computer and its application in health sector. As evidenced by the literature review CPOE is not only supportive to health professionals in proper care delivery but also is an important tool to save the expenses incurred on the healthcare delivery.

CPOE has been implemented in developed world showing its potential benefits. There is need to implement this system in our healthcare system. Now it is proper time to implement this system in our healthcare system as IT industry is rapidly expanding in Pakistan. In future further studies must be conducted to establish the evidence among other health professionals including the Pharmacists and nurses.

References

- [1] P. Sengstack, B. Gugerty. CPOE systems: success factors and implementation issues. Journal of healthcare information management: JHIM. 2003;18(1):36-45.
- [2] E.M. Campbell, D.F. Sittig,J.S. Ash, K.P. Guappone, R.H. Dykstra. Types of unintended consequences related to computerized provider order entry. Journal of the American Medical Informatics Association. 2006;13(5):547-56.
- [3] G.J. Kuperman, R.F. Gibson. Computer physician order entry: benefits, costs, and issues. Annals of internal medicine. 2003;139(1):31-9.
- [4] D.W. Bates, J.M. Teich, J. Lee, D. Seger, G.J. Kuperman, N. Ma'Luf et al. The impact of computerized physician order entry on medication error prevention. Journal of the American Medical Informatics Association. 1999;6(4):313-21.