Introduction to Health Informatics

Author name

Affiliations

The electronic health record (EHR) is the systematic collection of electronic health information of patients that can be transferred between health care centers while computerized Provider Order Entry (CPOE) is a procedure of a medical professional entering and sending medication orders as well as treatment instructions electronically. There is a use of computer application instead of paper charts. Computerized provider order entry (CPOE) assist in the extensive implementation of electronic EHR and make the treatment effective. CPOE systems are also used for ordering medications (Rai, Keil, & Mindel, 2015). Moreover, these can be used for real-time patient identification as these can be used to review medication dosage recommendations for patients. In this way, patients can also be screened for different allergies and treatment conflicts.

These electronic systems are used with an aim to improve patient safety. They reduce medication errors as well as succeeding adverse drug events (ADEs). With the use of EHR and CPOE, health care providers have complete information that increases the effectiveness of decisions. Practitioners receive alerts on the right choices of diagnosis that also reduce errors (Prgomet, Li, Niazkhani, Georgiou, & Westbrook, 2016).

Despite numerous advantages of the use of these electronic systems, there are many barriers that do not allow the implementation of these systems in healthcare settings. Organizations are required transformations during the implementation of the EHRs and these require resources. All organizations do not have enough resources for the implementation of these systems. They may not have enough time and computer skills. Enhancing computer skills and arranging technical support requires financial investment (Palabindala, Pamarthy, & Jonnalagadda, 2016). Moreover, there are also attitudes and behaviors of people that make the implementation process difficult. Sometimes stakeholders do not show confidence in the security and confidentiality of the systems and show reluctance in adoption (Ajami & Bagheri-Tadi, 2013). All the information in the health records is shared with different stakeholders that reduce the security of the system.

References

Ajami, S., & Bagheri-Tadi, T. (2013). Barriers to adopting electronic health records (EHRs) by physicians. *Acta Informatica Medica*, *21*(2), 129.

Palabindala, V., Pamarthy, A., & Jonnalagadda, N. R. (2016). Adoption of electronic health records and barriers. *Journal of Community Hospital Internal Medicine Perspectives*, *6*(5), 32643.

Prgomet, M., Li, L., Niazkhani, Z., Georgiou, A., & Westbrook, J. I. (2016). Impact of commercial computerized provider order entry (CPOE) and clinical decision support systems (CDSSs) on medication errors, length of stay, and mortality in intensive care units: a systematic review and meta-analysis. *Journal of the American Medical Informatics Association*, *24*(2), 413–422.

Rai, A., Keil, M., & Mindel, V. (2015). *How Does Computerized Provider Order Entry Implementation Impact Clinical Care Quality, Cycle Time, and Physician Job Demand Over Time?*