Effect of E-Prescribing Implementation on Reducing Medication Error in Hospital

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ABSTRACT

Background: Medication error (ME) is a failure in the treatment process that can harm and endanger patient safety. One of the causes of ME is error in prescribing. Several studies have shown that electronic prescribing (e-Prescribing) is beneficial in reducing prescribing errors and improving patient safety. This study aimed to determine the effect of e-Prescribing in reducing ME.

Subjects and Method: This was a systematic review study. The keywords used in this study were "implementation" AND "electronic prescribing" AND "hospital". The articles were obtained from PubMed and Google Scholar. The articles were selected from 2015 to 2019, in English and Indonesian languages, full text, hospital setting area, and evaluate about implementation E-Prescribing in Hospital. The data were collected and analyzed based on PRISMA flow diagram.

Results: A total of 11 out of 27 articles were reviewed for this study. Nine articles stated that the impact of implementing e-Prescribing were to reduce ME, facilitate prescription services, process data input faster, and increase the effectiveness of communication between pharmacist and doctor. One article showed a non-significant changes after the implementation of the e-Prescribing, although it encourages certain types of errors and mitigates others. While the other article discussed recommendation in implementing e-Prescribing, such as increased coordination between users, modification and flexibility of the hospital information system, optimising systems from the outset, how expertise should be developed as well as increased learning by experience.

Conclusion: Implementation of e-Prescribing can reduce medication errors so that it has a positive impact on patient safety.

Keywords: implementation, electronic prescribing, medication error, hospital

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