ELECTRONIC PRESCRIPTIONS TO IMPROVE PATIENT SAFETY IN HOSPITAL: A SYSTEMATIC REVIEW

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ABSTRACT

Background: Electronic prescription (E-prescribing) automates the manual prescription process which enables physicians, pharmacies and payers to gain access to information that contributes to patient safety, controlling costs, and gaining business intelligence. E-Prescribing eliminates handwriting errors/illegibility and gives both physician and pharmacist access to a patient's prescription history to reduce the chance of the wrong drug being dispensed. According to the FDA, more than 95,000 prescription drug errors have occurred since 2000, mainly due to mistakes when reading a handwritten prescription and dispensing a similar-sounding, but different drug.

Subjects and Methods: A systematic review was conducted by searching published articles from 2014 to 2019 from database including Proquest, Cochrane, Pubmed, and Scopus. The keywords were "electronic prescription", "e-prescription", "e-prescribing", "patient safety", and "hospital". Inclusion criteria were full text articles and English. Exclusion criteria were non-systematic review, literature review or narrative review, inaccessible, and not focused on patient safety. A total of 10,852 abstracts were obtained by searched database. After review process, 7 were finally retained in this review.

Results: Seven articles stated that e-prescriptions increased patient safety in hospital. E-prescribing had several advantages including (1) eliminates errors in handwriting and dispensing; (2) provide access patient prescription history; and (3) availability of patient's documented allergies to prevent negative reaction.

Conclusions: The e-prescription increases patient safety in hospital. E-prescribing has several advantages including (1) eliminates errors in handwriting and dispensing; (2) provide access patient prescription history; and (3) availability of patient's documented allergies to prevent negative reaction.

Keywords: electronic prescription, e-prescription, e-prescribing, patient safety, hospital.

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