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Examining Causes, Consequences, and Interventions to Address E-Prescribing Errors in Community Pharmacies

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Objectives

- 1) Characterize e-prescribing errors, contributing factors and their potential consequences
2) Examine the process of addressing e-prescribing errors in community pharmacies and work system factors facilitate or hinder this process
3) Identify interventions to reduce e-prescribing errors encountered in community pharmacies

Methods

Table with 2 columns: Method Category (Design, Study endpoints) and Description of methods used in the study.

Results

- Four main types of e-prescribing errors detected in community pharmacies include: wrong drug quantity, wrong dosing directions, wrong duration of therapy, and wrong dosage formulation.
• Factors that contributed to e-prescribing errors included technological incompatibility between the pharmacy and clinic systems, and usability issues that could lead to incorrect drug or patient information, such as, auto-populate features and dropdown menus.
• E-prescribing errors could have negative consequences for patients, such as, poor disease management or failed drug therapy.
• Most e-prescribing errors were detected by pharmacy personnel during the inputting of e-prescription information into the pharmacy system by using strategies such as printing to paper and verifying information on the computer screen with information on the printed e-prescription.
• Pharmacy personnel addressed detected e-prescribing errors by carefully reviewing patients' medication history, making educated guesses of prescribers' intent, or contacting prescriber offices via telephone or fax.
• Work system factors related to people, tasks, environment, tools/technologies, and the organization play a significant role in making prevention of e-prescribing errors either easier or harder.

Conclusion

This research sheds light on the important role that community pharmacy personnel play in preventing and mitigating e-prescription errors. Findings suggest that implementation of health information technology like e-prescribing does not always yield improved patient safety but instead can introduce new kinds of safety hazards that need to be studied and addressed.

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