

Human Factors Evaluation of Electronically Generated Best Possible Medication History Forms

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ABSTRACT

Patient Safety Concern

Medication reconciliation (MedRec) is a process designed to accurately and completely transfer medication information between care providers to reduce errors and adverse drug events. It is also an Accreditation Canada Required Organizational Practice. An electronic system is used by AHS for managing some patient health information. In order to conduct a best possible medication history (BPMH) for MedRec, clinicians need to verify and document all medications a patient is currently taking, often using the electronic system as one source of information.

The project tested whether a pre-populated form that prints a report from the electronic system affects a provider's ability to completely and accurately conduct a Best Possible Medication History.

Project Details

The pre-populated BPMH paper form was tested with end users (nurses, pharmacy staff, unit clerks, and physicians) to find anticipated patient safety issues when collecting and reconciling patient medications. The goal was to identify and mitigate occurrences of preventable harm.

Part One: Physicians, pharmacists, pharmacy technicians and nurses participated in simulated patient interviews where one of two pre-populated paper form options were used and assessed for accuracy, completeness, and usability. One form was chosen and the design was improved based on the results and feedback from the users.

Part Two: The form from Part One was tested for creating and interpreting medication orders through task-based online interviews with physicians, pharmacists, pharmacy technicians, nurses and unit clerks. Again, the results were used to improve the form's design. The improved design was then incorporated in to the electronic system for clinicians to use.

Contact humanfactors@ahs.ca for more information about this project