Usability Evaluation of Medication Review Software for Self-Service Kiosks
Kathleen Adams, MPH; Blake Lesselroth, MD, MBI, FACP; Victoria Church, RN, MS, CNS-BC; Stephanie Tallett
VA Portland Health Care System, Portland OR

Introduction
For the Department of Veterans Affairs (DVA), medication-related errors in the delivery of care can have a negative impact on patient safety due to many sources (DVA). Existing solutions to address these issues have limited success for the veteran. This study completed a usability evaluation of a medication reconciliation (MR) technology prototype offered by the CHG partnered with a third-party vendor to develop the MR technology. We self-selected in the form of a self-service kiosk. The usability would allow patients to input information in their formative stages. If received and successfully deployed, the software would provide a method for self-care. Our evaluation strategy consisted of two phases as detailed in Table 1. Eligible Veterans averaged 68 years old (age range 60-80), scheduled for clinic appointments on the day of usability testing. We recruited a convenience sample of 17 Veterans from those eligible, one did not show for their clinic appointment.

Methods
Our evaluation strategy consisted of two phases as detailed in Table 1. In the first phase, a team of specialists independently completed checklists to review the interface. The team completed a mock walkthrough of each screen and rated performance according to a usability checklist. Next, participants completed a series of tasks designed to achieve the MR software. Veterans were scheduled for the clinic appointments on the day of usability testing. Eligible Veterans averaged 68 years old (age range 60-80), managed at least three medications for themselves and had used the software on a computer. Overall, there were two consistently problematic areas of the interface: Additional Comment and Additional Products. When asked to include additional information about an existing medication, participants would struggle with the process and the software. Also, these may help to demonstrate one’s knowledge for the process and outline to plan for potential errors.

Conclusion
Findings of the usability design led to effectively evaluate the user interface of the MR software. However, there were two consistently problematic areas of the interface: Additional Comment and Additional Products. When asked to include additional information about an existing medication, participants would struggle with the process and the software. Also, these may help to demonstrate one’s knowledge for the process and outline to plan for potential errors.

References
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Descriptive Usability Findings for Each Interface

- Add Comment
- Add Comment: Other (enter text)
- Add Comment: Structured Comments
- Add Comment: Keyboard Entry
- Additional Products: Intro
- Additional Products: Frequency & Duration
- Additional Products: Summary Screen
- Additional Products: Edit Text
- Start over
- Stop form
- Start screen
- Finish form
- Finish screen
- Exit the program
- Norcal Time Zone
- 800-877-3006
- Norcal Time Zone
- 800-877-3006
- Norcal Time Zone
- 800-877-3006
- Norcal Time Zone
- 800-877-3006
- Norcal Time Zone
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Major Findings Map