

Medication Use Simulation

A mid-fidelity, tablet-based simulation replicates the hospital medication use process and electronic health records to provide safe, hands-on training for best medication safety practices.

At present, there are not many ethical methods to teach medication safety through practice based learning in the classroom environment. Purdue University added medication safety as a core course in 2014, when other universities had yet to fully implement the course. In healthcare facilities, professionals are not encouraged to experiment with safe practices as this can cost patient lives. In addition, no standardized level of training for safe practice is available.

To bridge this gap in training, Purdue University professors have developed a tablet-based, mid-fidelity simulation that replicates the medication use process in a hospital environment. This simulator allows students to complete tasks according to their roles in the simulation. The tablets will simulate an electronic health record with real-time updates on medications prescribed and administered, as well as the clinical condition of the simulated patients. The focus of this technology is to track the impact of hospital processes on patient outcomes, especially with adherence of best practices in that setting. Compared to currently available options, the simulator would place the student in a physical environment similar to that of a professional site and includes peer interaction in a safe manner, with continuous tracking of outcomes. Since this is a mid-fidelity technology, it is less expensive to develop and maintain compared to high fidelity programs, but at the same time, it is more detailed and accurate to real world scenarios than low fidelity programs. This technology has potential for use in coursework and training for students in healthcare environments to replicate best medication use practices. It will be an adjunct to regular classroom lecture material.

Advantages:

- Hands on simulation of hospital environment
- Practice for safe medication use

Technology ID

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Category

Education & EdTech/Industrial &
Workforce Training Platforms

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View online



-Mid-fidelity technology

Potential Applications:

-University coursework and training

-Replicate best medication use practices

-Continuing education on medication safety for professionals

TRL: 6

Intellectual Property:

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Keywords: Medication safety simulation, tablet-based training, mid-fidelity simulation, healthcare education technology, hospital environment simulation, electronic health record simulation, medication use process training, patient safety training, clinical condition simulation, best practices adherence