

Medication Use Simulation Software for Pharmacy, Nursing, and Medical Students

Track Code: 2015-HULT-66986

Categories:

- Computer Technology
- Medical/Health

Keywords:

- Computer Technology
- Drug Management
- Medical IT
- Medical/Health
- Pharmaceuticals
- Simulation
- Software

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
- Mid-fidelity technology

Potential Applications:

- University coursework and training
- Replicate best medication use practices
- Continuing education on medication safety for professionals

People:

- Hultgren, Kyle Emerson (Project leader)
- Caldwell, Barrett
- Hertig, John Bailey
- Plake, Kimberly Sue

Intellectual Property:

Application Date: June 16, 2015

Type: Copyright

Country of Filing: United States

Patent Number: TX 8-180-507

Issue Date: June 16, 2015

Contact OTC:

Purdue Office of Technology Commercialization
The Convergence Center
101 Foundry Drive, Suite 2500
West Lafayette, IN 47906

Phone: (765) 588-3475

Fax: (765) 463-3486

Email: otcip@prf.org