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## COLLEGE OF PHARMACY

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## ADDRESSing Healthcare with iPads

**October 10, 2017** - A quick, interactive checklist taken on an iPad could help pharmacists and patients better use their brief time together to detect and eliminate unpleasant expected adverse drug reactions, commonly known as side effects. Dr. Matthew Murawski, Associate Professor of Pharmacy Administration, has developed new technology to identify patients in need of an intervention to detect ongoing side effects. His copyrighted ADDRESS Application (**AD**verse **D**rug **R**eaction/**E**vent **S**creening **S**ystem), which can be used on a tablet PC or iPad, presents patients with a five-question checklist for each drug that catches up to 60% of all known medication-related side effects for each drug.

Dr. Murawski is putting iPads into the hands of Purdue College of Pharmacy students who are on Advanced Pharmacy Practice Experience (APPE) rotations in community pharmacy in order to better deploy the ADDRESS application. “Students are armed with information they’ve gained from their instructors and textbooks as they march confidently into their rotations, but their confidence and comfort levels decline during those initial face-to-face interactions with actual patients,” he says. “Using the ADDRESS technology gives students a tool to help them navigate through their ‘communication reluctance’—giving them a much more meaningful opportunity to practice their communication skills with patients—and we can track their improvement over time.” Students complete pre- and post-tests to quantify their confidence, willingness, and anxiety regarding communication with patients, as well as their familiarity with side effects in the 15 most commonly prescribed chronic medications. “Using this technology can trigger the due diligence needed to ‘challenge’ a patient’s therapy by skipping a few days of all drugs potentially causing side effects until a specific cause is identified. It provides the chance to use education and training to work with primary care providers to improve drug therapies by lowering dosages, giving lower doses more

frequently, or selecting a different compound from the same therapeutic class with a lower reported incidence of a particular side effect.”

The students are required to screen two patients daily using the latest iteration (version 4.10) of the ADDRESS technology. All of the data is collected automatically through this new technology, and as students screen patients, graphs of the data are updated and available to view online in real time. Students can learn to be more comfortable speaking with patients and become familiar with the most common side effects of the most commonly prescribed drugs, all the while being able to track the data online. Also, since ADDRESS creates a patient-unique non-identifying HIPPA compliant identifier, patients can be followed over time and by different students attending the same sites to document impact on patient side effect burden and eventually in patient well-being and/or patient adherence to prescribed therapy.

“Our goal as faculty is to intellectually, emotionally, and mentally prepare our students to be the pharmacy leaders of tomorrow,” says Dr. Murawski. “Ultimately, using the ADDRESS application provides better education for students and better treatment for patients.”

Learn more about ADDRESS, view a demonstration of the technology, and view the real time data graphs by visiting <https://address.pharmacy.purdue.edu/>.

*Purdue University photo/Andrew Hancock*

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