



A Photo History

Human Patient Simulation



Human Patient Simulation™ at the College of Pharmacy and Pharmaceutical Sciences began in 2007 when a nursing professor and a pharmacy professor put their heads together...



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February 2007

Suzan Kardong-Edgren, above left, arrived at WSU's College of Nursing in 2006 as a faculty expert in nursing education using simulation. Nursing bought two adult and one baby Human Patient Simulation™ manikins in October of 2006, and shortly thereafter, College of Pharmacy faculty member **Brenda Bray**, above right, became interested in how pharmacy might use the teaching tool.



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February 2007

Pharmacy borrows the simulator from nursing and uses it to teach third-year pharmacy students for the first time.

Clinical Assistant Professor **Catrina Schwartz** demonstrates a procedure on the HPS manikin. The Human Patient Simulator can breathe, speak, take medication and be programmed to have a number of different diseases or conditions.



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2007

The pharmacy students listen to the manikin's bowel sounds



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2007

Then they listen to the heart sounds



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2007

The manikin can be programmed to react the same physiologically as a human would to receiving an injection.



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2007

They use an air bag on the manikin and watch the computer to see how the "patient" responds. The manikin can be dressed as a man or woman



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2007

A closer view of the computer attached to the manikin



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July 2007

The College of Pharmacy buys a high-tech manikin from Laerdal®, becoming one of the few pharmacy schools in the country to be using the technology.

September 2007

Pharmacy's "SimMan" rides in a car from Spokane to Pullman to be part of a week-long physical assessment training for second-year students. It becomes an annual practice for SimMan to be a part of that training in Pullman.



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January 2009

"SimMan" is used at the WSU Alumni Center in Pullman during physical assessment training for first-year students. It's the first time the simulator is used with first-year students.

Pictured above **Brenda Bray**, center, explains SimMan to first-year students at the WSU Alumni Center during a week of physical assessment training.



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April 2009

SimMan pays a visit to students in Eastern Washington University's dental hygiene program so he can get his teeth cleaned, and while there, he experiences some chest pain and the dental students have to treat him.



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April 2009

Brenda Bray, far right, and **Lisa Bilich**, front right, from Eastern Washington University's dental hygiene department, use Pharmacy's SimMan with EWU dental hygiene students.



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May 2009

Students in pharmacy, nursing and a physician assistant program in Spokane work in teams to diagnose and treat two "patients" brought into a hospital with a shortness of breath.

A pharmacy student, back left, learns to work with a nursing student and a student in the physician's assistant program to treat a "patient" entering the hospital.



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May 2009

The pharmacy student is in the back, the nursing student in blue and the physician's assistant student listens to SimMan's heartbeat.



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2009

Pharmacy students are included in interprofessional simulations with the baby simulator owned by the WSU College of Nursing.



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2009

Since May 2009, faculty from the WSU Colleges of Pharmacy and Nursing and the University of Washington physician assistant program have collaborated to conduct interprofessional simulation scenarios including pediatric respiratory distress.



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2009

The College of Pharmacy begins using Human Patient Simulation™ with teenagers attending summer camps at WSU to introduce them to what a pharmacist does beyond counting pills.



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2009

Campers are introduced to the “patient”, are allowed ask him questions, and are taught how to use basic physical assessment skills (i.e. blood pressure, pulse, respiratory rate, heart and lung sounds).



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2009

High school students interact with SimMan.



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2009

A new class of pharmacy students are introduced to the simulator. The students learn about normal and abnormal sounds from the heart, bowels, and breath, and how to check blood pressure, pulse, blood glucose, cholesterol and more.



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2010 – Acute Care and Ambulatory Emergencies

Recognition and appropriate treatment of medical emergencies is an important patient care skill for pharmacists.



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2010

Students gain experience interacting with SimMan.

Patient case scenarios developed by the College of Pharmacy include acute coronary syndrome, community acquired pneumonia, *Clostridium Difficile* disease, and cyanide toxicity. A pain management scenario is also being developed.



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2010

Through Human Patient Simulation™ scenarios in a community pharmacy setting, student pharmacists are challenged to use their physiological assessment skills and clinical knowledge to implement appropriate treatment.



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2010

Student pharmacists work in groups of 3-4 during these realistic, hospital-based scenarios to implement a therapeutic plan for the patient.



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2010

Students discuss their experiences from the trauma simulation.



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2010

Immediately following the simulation, the faculty facilitator conducts a debriefing. Pictured above, facilitator **Brenda Bray** reviews the SimMan exercise with pharmacy students.



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