

Simulation training improves skills for catheter insertion

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New technology allows student doctors to practice operations and other procedures on simulators before trying them out on real patients, just as pilots practice for emergencies on aircraft simulators. Medical educators feel that this will increase patient safety, by avoiding first-time mistakes being made on live patients. But does education by simulation actually work? Can doctors learn new skills on simulators instead of on humans?

A team of researchers at Yale University, led by Dr. Leigh Evans, trained half of a group of junior [doctors](#) a new skill using simulation, while the other half of the group learned the skill in the old-fashioned "bedside" manner. The skill being studied, inserting a "central line" into one of the major veins in the body, is a very important one for doctors in many specialties.

After watching these junior doctors perform the procedure on nearly five hundred patients, the team found a much higher success rate for the doctors who trained with simulation. The technical error and complication rates were roughly the same, showing no increase in risk to training doctors on a simulator instead of on human patients.

Dr. Evans and colleagues feel that these findings support using simulation to allow for safe training of complex technical skills that could pose a risk to [patients](#) if tried for the first time by inexperienced students and doctors.

[More information:](#) The presentation, entitled "[Simulation](#) Training for

Central Venous Catheter Insertion on a Partial Task Trainer Improves Skills Transfer to the Clinical Setting," will be given by Dr. Leigh Evans at the plenary paper session at the 2009 SAEM Annual Meeting at the Sheraton New Orleans on Thursday, May 14. Abstracts are published in Vol. 16, No. 4, Supplement 1, April 2009 of *Academic Emergency Medicine*, the official journal of the Society for Academic Emergency Medicine.

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