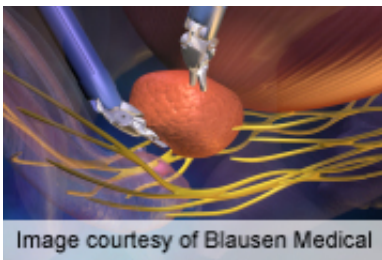


# Simulator-based robotic sx curriculum hones skills

May 13 2013

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A simulator-based curriculum incorporating fundamental skills of robotic surgery is feasible and improves effectiveness in basic robotic surgery skills, according to a study published in the April issue of *Urology*.

(HealthDay)—A simulator-based curriculum incorporating fundamental skills of robotic surgery (FSRS) is feasible and improves effectiveness in basic robotic surgery skills, according to a study published in the April issue of *Urology*.

Andrew P. Stegemann, from the Roswell Park Cancer Institute in Buffalo, N.Y., and colleagues developed a FSRS curriculum and incorporated it into a virtual reality simulator. A cohort of 53 participants were randomly allocated into an experimental group (EG), which completed the FSRS and one final test on the da Vinci Surgical System (dVSS; ball placement, suture pass, and fourth arm manipulation) or a control group (CG), which was tested directly on the dVSS. Following the dVSS test, the [control group](#) was offered the

chance to complete the FSRS and re-test on the dvSS (crossover [CO] group).

The researchers found that 65 percent of the participants had never had formal laparoscopic [surgery training](#). The EG exhibited shorter time ( $P = 0.134$ ) and was significantly more precise ( $P = 0.014$ ) in ball placement. The CO group also demonstrated significantly greater precision as well as taking a significantly shorter time. The EG demonstrated significant improvements in camera utilization in the suture pass and proper camera usage, with significantly less instrument loss. The EG took less time in fourth arm manipulation and lost fewer instruments, although neither was statistically significant. In the CO group, precision improved significantly, and improvement was seen in camera control and safe instrument manipulation.

"FSRS curriculum is a valid, feasible, and structured curriculum that demonstrates its effectiveness by significant improvements in basic robot-assisted surgery skills of the participants," the authors write.

Several authors disclosed [financial ties](#) to the medical device industry.

**More information:** [Abstract](#)  
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