

Researchers: Experience needed on robot-aided prostate surgeries

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Bloomberg News

Doctors who perform robotic-assisted prostate cancer surgery aren't proficient and able to remove all the malignant cells surrounding the tumor until they have done the procedure more than 1,600 times, researchers say.

Results from a study suggest the operations using Intuitive Surgical Inc.'s da Vinci robot are being performed too often at community hospitals by surgeons without enough experience, said Prasanna Sooriakumaran, lead author and urologist at the Weill Cornell Medical College in New York. Doctors have embraced the approach because studies show it can be learned quickly, uses smaller incisions, causes less blood loss and speeds recovery.

More than 90,000 men in

the United States have their prostate gland removed each year because of cancer, according to the American Society of Clinical Oncology. The surgery is done mainly with robotic technology introduced in 2000 by Sunnyvale, Calif.-based Intuitive Surgical, typically by doctors who perform 100 or fewer procedures annually, Sooriakumaran said.

"The operation is not easy to perform and it takes a lot of experience in order to get the best results for our patients," he said. "The enthusiasm in the United States needs to be tempered in terms of what sort of hospital needs to be purchasing this equipment and what sort of surgeons should be allowed to do these operations."

The researchers tracked three surgeons learning the technique over a six-year period at high-volume centers at the University of Pennsylvania in Philadelphia, Karolinska Institute in Stockholm and Weill Cornell in New York City. Surgery times decreased with each operation, while the

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doctor's ability to remove all the cancer increased, Sooriakumaran said.

The surgeons needed to perform more than 1,600 operations before they were able to gauge with at least 90 percent accuracy how much tissue surrounding the tumor they needed to remove to get all the malignant cells. Leaving stray cancerous cells in the margins, at the edge of the tissue removed during surgery, can lead to recurrences of the disease.

Every hospital has its own

system to train surgeons and it's not up to the company to determine when the doctors reach proficiency, said Calvin Darling, a spokesman for Intuitive Surgical.

Numbers questioned

While he hadn't yet seen the study, the 1,600 number "strikes me as absurd," Darling said.

"The average time it takes to get to proficiency as defined by our hospitals in their training protocols is typically mid-double digits," he said. "This is an order of magnitude higher."

Intuitive Surgical reported \$660.3 million in 2010 sales of the da Vinci system, according to a company filing.

More than 700 operations a year are done in medical centers that specialize in the surgery, compared with just a handful a month for smaller, community-based hospitals, Sooriakumaran said. The procedure needs to be centralized so that surgeons can get the amount of experience needed to gain the best results for their patients, he said.

The results were presented at the Genitourinary Cancer Symposium in Orlando. The investigators are now gathering information on additional surgeons to expand their findings. It is likely that other doctors, who are in lower-volume medical centers, will take even longer to get the experience they need, Sooriakumaran said. Intuitive Surgical has provided funding for Ashutosh Tewari, an author of the study and a urology professor at Weill Cornell.

Use of robotic technology is growing exponentially, said Nicholas Vogelzang, an oncologist at the Comprehensive Cancer Centers of Nevada in Las Vegas and chair of U.S. Oncology's developmental therapeutics committee. Doctors need to ensure their abilities are keeping up, he said.

"This data today will make everyone pause," said Vogelzang, who pointed out that traditional open surgery also requires years of practice. "Maybe it's time to go a little bit farther before we rush into this surgery. Experience really does matter."