Robotic surgical tool, not medical evidence, drives free hernia screenings

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Some hospitals are trying a curious new tactic to attract patients: free hernia screenings.

One Illinois hospital raffled off tickets for a smart speaker to entice people to get their abdomens checked by a surgeon, while an Indiana hospital offered a chance to win dinner at a chophouse.

Announcements for screening events in Colorado and Maryland warned about "life-threatening" complications that could arise if hernias are left untreated. And hospitals in Georgia and California included a chance to "test-drive" a surgical robot.

Hospitals say such screenings provide valuable education about treatment options for the common medical condition, in which part of the intestine protrudes through a weak spot in the abdominal wall.

But no research has been done on hernia screenings, and some experts worry that these outreach efforts—some of which showcase da Vinci robotic surgery devices made by Intuitive Surgical based in Sunnyvale, Calif. - could lead people to get potentially harmful operations they don't need.

"My question is: Why are we doing this?" said University of Michigan Medical School associate professor Dr. Dana Telem, the director of Michigan Medicine's Comprehensive Hernia Program. "Even with the best intent, it makes me worry about the unintended consequences down the line."

An estimated 1.6 million groin hernias are diagnosed and 500,000 are surgically repaired annually in the U.S., according to the Centers for Disease Control and Prevention. Some 27% of men and 3% of women are expected to have a groin hernia—the most common type—during their lifetimes.

Hernias can cause pain and abnormal bulges, and many patients eventually opt to get them fixed with surgery. Surgery can also prevent a

rare but serious condition called strangulation, in which a hernia can entrap the intestine and cut off blood flow, requiring emergency surgery.

However, complications from hernia surgery are common. While any surgery carries risks, such as infection, groin hernia repairs leave as many as 12% of patients with chronic pain that can be debilitating, according to a 2016 study.

There's also good evidence that people who have few symptoms can safely opt for watchful waiting rather than go under the knife, according to a 2018 article in JAMA. But such cautionary information is often missing in hospital screening announcements.

In fact, experts, including the American College of Surgeons, say there's no data to back the use of such hernia screenings.

"A screening for hernia? That makes no sense to me," said Dr. Michael Rosen, director of the Cleveland Clinic's Hernia Center and medical director of the Americas Hernia Society Quality Collaborative, a consortium that tracks treatment outcomes. "Obviously, it's just there to drive people to the operating room."

Some hospitals say warnings about the risks of letting hernias go untreated are appropriate, and these events educate the public, quell fears about robotic surgery and serve people who otherwise can't or won't see a doctor. Several hospitals said their doctors inform patients about all treatment options, not just robotic surgery.

"Unfortunately, you can get people in the door for their own protection with the word 'free,'" said Victoria Montei, system director of surgical services at Midland-based MidMichigan Health system, which has hosted two hernia screening events that attracted 52 people and detected 33 hernias. "For a lot of people, a $20, $50, $100 copay (to see a doctor)

can be a lot. They put it off."

Some hospitals also use hernia screening to show off their flashy da Vinci surgical robots, often claiming that the robots' 3-D imaging and precision movements lead to reduced pain, fewer complications and faster recovery times.

Northeast Georgia Health System in Gainesville recently took one of its four da Vinci devices out of commission for three days to demo it at a hernia screening and other community events. Seeing the da Vinci up close "helps explain to the patient the value of it," said Health System spokeswoman Kristin Grace.

Yet some hospitals seem to be rethinking their strategies. Dr. Sari Nabulsi, the chief medical officer of Medical Center Hospital in Odessa, Texas, which hosted a hernia screening event in 2018, said via email that the hospital "does not promote screening for hernia as there is no clinical value to such tests." Its 2018 event was for "awareness" and the hospital "does not anticipate repeating the event in 2019," he added.

Ben Drew, a spokesman for Walnut Creek, Calif.-based John Muir Health, which advertised a robot test drive as part of a hernia screening event, said in an email that the robot was "not the focus of the assessment or the information provided to patients" and its announcement "could have been worded more clearly."

The robot has been marketed as a way for surgeons to add minimally invasive surgery to their toolkits. Most hernias are repaired by open surgery, which uses large cuts. Conventional laparoscopic surgery, which uses smaller cuts, is technically challenging to learn for hernia repair, Rosen said.

But experts say there's no firm evidence that robotic surgery provides

better outcomes for hernia repair.

In fact, robotic surgery has sometimes been adopted ahead of evidence that it offers a benefit. Claims haven't panned out for hysterectomies, and the Food and Drug Administration has issued a safety notice about the use of robots in cancer surgeries.

Results of a pilot randomized clinical trial to compare robotic hernia repair with conventional laparoscopic surgery are expected to be published this fall, said Rosen, who is leading the study.

The trial will compare the two approaches on patient-reported pain, cost, ergonomics for surgeons and long-term recurrence rates. Still, larger studies will be needed to guide clinical practice, leaving answers years away, said Rosen.

Nevertheless, da Vinci's manufacturer, Intuitive Surgical, has been pressing ahead with efforts to promote its use for hernia repair. In an email, Intuitive confirmed it has provided demo robots and "educational information" for hernia screenings at the request of surgeons and hospitals.

The company said the information it provides for screening events includes "descriptions of surgical and non-surgical options for hernia repair, including associated risks and benefits," and it expects that "a large portion of hernia repairs will continue to be performed via different surgical modalities." In other words, the way they've traditionally been done.

Intuitive's 2018 annual report identified hernia repair as a "significant" growth opportunity, with general surgeries, including hernia repair, becoming the largest category of U.S. procedures in 2018. The company reported net income of $1.1 billion in 2018, up from $671 million in

2017.

The Economics Of Robotic Surgery

General surgery is a mainstay of community hospitals, which have recently begun to invest in robotic systems as a way to market themselves as "up on the latest technology," said Diane Robertson, director of health technology assessment at ECRI Institute, a nonprofit that studies safety and cost-effectiveness of medical interventions.

But ECRI wrote an advisory warning that hospitals' rapid adoption of robotic systems has outpaced the development of training and credentialing standards for the surgeons who use them.

Hospitals may not be thinking about whether it's best for the patient or the most cost-effective option, Robertson added. For hernia repairs, she said, "There's a huge question about why you would need to do them robotically."

Each da Vinci costs an average of $1.5 million, plus hundreds of thousands of dollars annually to maintain and equip, according to Intuitive's annual report.

Intuitive advertises in a video on its website that the robotic systems help hospitals woo surgeons and win market share. The website says robotic programs can help hospitals become "more efficient and cost effective."

But robotic surgeries cost hospitals more to provide and often are reimbursed by insurers at the same rate as for conventional laparoscopy, according to some experts. A review of 510 hernia repairs at the University of Virginia found that the median hospital cost of a robotic hernia repair was $7,162, versus $4,527 for laparoscopic procedures and $4,264 for open surgeries.

Though individual patients may not necessarily pay more for a robotic surgery, Robertson said, the technology contributes to higher overall health care spending and may divert resources from other priorities. In addition, taxpayer-funded Medicare may end up reimbursing hospitals indirectly for robotic surgeries.

For at least one hospital, robotic surgery didn't pay off.

Fifty-bed Massena Memorial Hospital in upstate New York ended its robotic services in June to help slash an operating deficit, according to chief financial officer Patrick Facteau.

The da Vinci didn't increase the hospital's surgical volume despite a marketing push that included free monthly hernia screenings, Facteau said.

"Part of the sales pitch is, you will get more surgeries and reduce costs," he said. "We didn't really see that."

Nor, he said, did the da Vinci improve the hospital's surgical quality measures or reduce lengths of stay. Most hernia procedures are already done on an outpatient basis.

The hospital—in the 12,000-person town of Massena, just south of the St. Lawrence River—was paying about $500,000 a year to lease a da Vinci and cover maintenance and instruments, he said.

Unlike most hospitals, which have bought their systems, Massena had the flexibility to ditch its lease. "Once you purchase it, getting out of it is not so easy," Facteau said.