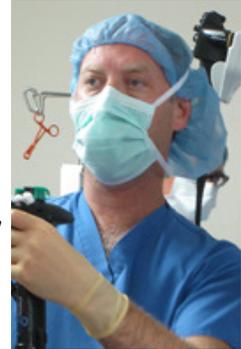


Notes on Surgery's Game-Changer

Cheryl Clark, for HealthLeaders Media , December 2, 2010

"Whatever we are doing is making them say, 'Wow!' It shows people want something different, something better."

*In our annual [HealthLeaders 20](#), we profile individuals who are changing healthcare for the better. Some are longtime industry fixtures; others would clearly be considered outsiders. Some are revered; others would not win many popularity contests. All of them are playing a crucial role in making the healthcare industry better. This is **Santiago Horgan's** story.*



When nighttime talk show hosts make jokes about surgeon Santiago Horgan and his novel approach in the operating room, he says, "Bring it on."

"If people are making jokes, like on The Colbert Report or Jay Leno, it's because they are paying attention, and whatever we are doing is making them say, 'Wow!' It shows people want something different, something better."

In the past four years, Horgan, with his surgical team at the University of California San Diego Health System, has performed 80 surgeries that use the body's natural openings—the vagina or the mouth—to remove organs and tissue; that's eight times more procedures done in this fashion than anywhere else in the country.

In so doing, the surgical team is well on the way to proving it can reduce operating time and the risk of infection, lower the need for anesthesia, minimize pain and lessen or eliminate scarring, hasten patients' recovery and reduce complications better than with traditional laparoscopic approaches, he says.

Instead of traditional incisions in inches, the procedures use much smaller cuts to insert cameras and specialized versions of surgical tools. Horgan calls the technique a "game changer."

The strategy is called NOTES, for natural orifice transluminal endoscopic surgery. Although about 2,000 have been done around the world, only 120 have been done so far in the United States and most of those at UC San Diego.

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So promising is the technique that Horgan's team's successes have launched a national clinical trial to test the approach in multiple centers nationally. Every one of Horgan's patients is being followed and each has recovered without complication.

At UCSD, Horgan, with members of his team, has repaired hernias through the vagina and removed gall bladders and appendixes through the vagina and the mouth.

He has repaired a condition called achalasia, a disorder marked by difficulty in swallowing, through the mouth.

Most recently, he and his team performed the first sleeve gastrectomy—the removal of 80% of an obese woman's stomach—through the mouth, an alternative to the more invasive laparoscopic bariatric surgery.

Next up, he says, are efforts to see if they can safely remove an appendix or a gall bladder through the colon and rectum.

It seems the possibilities are endless.

In the last several years, UCSD's successes with NOTES have been featured in national newspapers and magazines. Even Hollywood called to incorporate the scarless surgery in an episode of "ER" he says smiling.

Although they've come very far in the four years of the operation, Horgan acknowledges that significant challenges remain.

The field needs better tools that allow greater flexibility for surgeons to close incisions inside the body after the diseased or unwanted tissue has been removed. That requires venture capital investment that has been lacking during this recession, Horgan says.

And there remains a question about whether surgeons outside of an academic center or hospital specializing in such procedures can perform these operations with equal success, working with cameras and mirrors inside the body.

"A big challenge is in the training. We are much more careful today in terms of making sure that the patient doesn't get the learning curve when we operate," Horgan says.

The national clinical trial, Natural Orifice Surgery Consortium for Assessment and Research, is a joint venture between the [American Society for Gastrointestinal Endoscopy](#) and the [Society of American Gastrointestinal and Endoscopic Surgeons](#). NOSCART also is financially supported by a variety of endoscopic equipment manufacturers.

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To help doctors learn the technique, UC San Diego is building the Center for the Future of Surgery on the La Jolla medical school campus, where physicians from around the world can learn NOTES tools and techniques.

Horgan acknowledges that many surgeons, including his father who is a surgeon in Argentina, have been skeptical.

"My father was a surgeon who said, 'The bigger the scar, the better the surgeon.' Well that's not true anymore. We are making almost no incisions and the operations are better."

Now, even his father is impressed, Horgan says. "He never thought it would get this far. He is amazed."