



New Study Shows Robotic-Assisted Surgery Benefits For Ventral Hernia Patients

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Clinical evidence supportive of the adoption of da Vinci® technology for hernia repair

SUNNYVALE, Calif., Aug. 16, 2016 (GLOBE NEWSWIRE) -- Intuitive Surgical, Inc. (Nasdaq:ISRG) today announced the results of a first-of-its-kind, multi-institutional [robotic-assisted ventral hernia study](#). The study titled, "Robotic-Assisted Ventral Hernia Repair: A Multi Center Evaluation of Clinical Outcomes," was recently published in *Surgical Endoscopy*. This study provides real-world evidence for patients undergoing robotic-assisted ventral hernia procedures performed by *da Vinci* surgeons during their initial experience.¹

The study, which focuses on five surgeons using *da Vinci* Surgical Systems, was conducted at four medical institutions and analyzed data for 368 patients who underwent robotic-assisted ventral or incisional hernia procedures between 2011 and 2015. There was a low incidence of conversion (0.8%), intra-operative complications (e.g. bowel injury 0.5%) and a 30 day post-operative complications rate of 8.4% (including: Seroma (3.8%) and surgical site infections (1.4%)). Patients also had short recovery time. A majority of these patients, 219 out of 368 (59.7 percent) were discharged on the same day of the procedure, and 94 of 368 (25.6 percent) the following day.

The results from this study showed that the short-term results for surgeons during their early experience for robotic-assisted cases are in the range of what is reported in the existing published data on laparoscopic and open ventral hernia repairs.

"The perioperative outcomes from the study provide impactful evidence for the role of robotic surgery as an evidence-based minimally invasive surgical option," said Anthony Gonzalez, MD, Chief of Surgery for Baptist Hospital in Miami and lead author of the study. "From the tools needed to perform the procedure to the improvements in reach and access provided, the robotic-assisted approach has many potential benefits for hernia surgeons and patients alike."

While evidence is growing of the benefits of robotic-assisted and laparoscopic surgery, open surgery is still the standard for repairing hernias. A review of the American College of Surgeon's National Surgical Quality Improvement Program database shows that of the 26,766 primary/incisional hernia repairs performed between 2009 and 2010, 72 percent were open repairs compared to 28 percent done with a laparoscopic approach.

"As the evidence mounts, we continue to see unequivocal patient benefits in hernia enabled by robotic-assisted surgery," said Myriam Curet, M.D., Senior Vice President, Chief Medical Officer at Intuitive Surgical. "With this study, we are pleased to see further clinical evidence supportive of the adoption of *da Vinci* technology for hernia repair."

In addition to this multi-center study, Intuitive Surgical is one of the foundation partners with the Americas Hernia Society Quality Collaborative Foundation (AHSQC) – a continuous quality improvement initiative created by the Americas Hernia Society. This partnership supports the generation of real-world evidence for hernia repair surgical modalities. The AHSQC provides surgeons with a forum to prospectively collect real-world data regarding outcomes for robotic-assisted, open and laparoscopic ventral hernia repair. Intuitive Surgical's partnership with AHSQC is designed to identify best practices and will support the visibility of outcomes associated with hernia repair.

¹ Gonzalez A., Escobar E, Romero R, Walker G, Mejias J, Gallas M, Dickens E, Johnson C, Rabaza J, Kudsi O. Postoperative surgical site infections after ventral/incisional hernia repair: a comparison of open and laparoscopic outcomes. *Surgical Endoscopy*. 2016.

About Intuitive Surgical, Inc.

Intuitive Surgical, Inc. (Nasdaq:ISRG), headquartered in Sunnyvale, Calif., is the global leader in robotic-assisted, minimally invasive surgery. Intuitive Surgical develops, manufactures and markets the *da Vinci*® Surgical System.

About the *da Vinci* Surgical System

There are several models of the *da Vinci* Surgical System. The *da Vinci* Surgical Systems are designed to help surgeons perform minimally invasive surgery. *da Vinci* Systems are not programmed to perform surgery on their own. Instead, the procedure is performed entirely by a surgeon who controls the system. *da Vinci* Systems offer surgeons high-definition 3D vision, a magnified view, and robotic and computer assistance. They use specialized instrumentation, including a miniaturized surgical camera and wristed instruments (i.e., scissors, scalpels and forceps) that are designed to help with precise dissection and reconstruction deep inside the body.

Important Safety Information

Surgical Risks for Hernia: recurrence, bowel injury, infection of mesh, urinary retention.

Serious complications may occur in any surgery, including *da Vinci* Surgery, up to and including death. Risks include, but are not limited to, injury to tissues and organs and conversion to other surgical techniques. If your doctor needs to convert the surgery to another surgical technique, this could result in a longer operative time, additional time under anesthesia, additional or larger incisions and/or increased complications. Individual surgical results may vary. Patients who are not candidates for non-robotic minimally invasive surgery are also not candidates for *da Vinci* Surgery. Patients should talk to their doctors to decide if *da Vinci* Surgery is right for them. Patients and doctors should review all available information on non-surgical and surgical options in order to make an informed decision. Please also refer to www.daVinciSurgery.com/Safety for Important Safety Information.

Forward-Looking Statement

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are necessarily estimates reflecting the best judgment of our management and involve a number of risks and uncertainties that

could cause actual results to differ materially from those suggested by the forward-looking statements. These forward-looking statements should, therefore, be considered in light of various important factors, including those under the heading "Risk Factors" in our annual report on Form 10-K for the year ended December 31, 2015, as updated from time to time by our quarterly reports on Form 10-Q and our other filings with the Securities and Exchange Commission. Statements using words such as "estimates," "projects," "believes," "anticipates," "plans," "expects," "intends," "may," "will," "could," "should," "would," "targeted" and similar words and expressions are intended to identify forward-looking statements. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this press release. We undertake no obligation to publicly update or release any revisions to these forward-looking statements, except as required by law.

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