New meta-analysis shows statistically significant improvements in patient outcomes associated with da Vinci surgery versus laparoscopic and open surgery across 13 common benign conditions

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Largest comparative meta-analysis of its kind found da Vinci robotic-assisted surgery was associated with shorter hospital stays and a faster return to work compared with laparoscopic and open surgery

SUNNYVALE, Calif., Sept. 08, 2026 (GLOBE NEWSWIRE) -- Intuitive (NASDAQ: ISRG), a global technology leader in minimally invasive care and the pioneer of robotic-assisted surgery, today announced the publication of a landmark systematic review and meta-analysis in the peer-reviewed *Annals of Surgery Open*.

The study analyzed data from more than 14 million da Vinci, laparoscopic and open procedures across 13 common benign (non-cancerous) conditions, making it the largest comparative meta-analysis of its kind. The authors found da Vinci surgery was associated with statistically significant improvements in select perioperative outcomes compared with laparoscopic and open surgery.

"Patients want confidence that their surgical approach will support a strong recovery and help them get back to work and to the people and moments that matter most to them. Surgeons and care teams need robust evidence to help guide those decisions," said Jaime Wong, MD, Chief Medical Officer at Intuitive. "Until now, evidence comparing surgical approaches for benign conditions has been spread across hundreds of studies. This analysis provides one of the most comprehensive assessments to date, helping patients and clinicians make more informed decisions."

Key findings
da Vinci surgery vs. laparoscopic surgery:

- 54% lower odds of conversion to open surgery
- 13% lower odds of requiring a blood transfusion
- Hospital stays approximately 4 hours shorter
- Return to work approximately 2 days sooner
- Lower postoperative pain scores and less pain medication use
- No statistically significant differences in complications, infections, readmissions, or 30-day mortality
- Average operative time approximately 24 minutes longer

da Vinci surgery vs. open surgery:

- 69% lower odds of requiring a blood transfusion
- 46% lower odds of 30-day postoperative complications
- 60% lower odds of surgical site infection
- Hospital stays approximately 2 days shorter
- Return to work approximately 5 days sooner
- Lower odds of intraoperative complications, readmission, reoperation, and 30-day mortality.
- 37% lower odds of requiring pain medication within 30 days
- Average operative time approximately 46 minutes longer

The analysis synthesized 14 years of published evidence spanning 32 countries, drawing from 13 randomized controlled trials, 21 prospective cohort studies, 101 database studies, and 231 retrospective cohort studies.

Led by Thomas H. Shin, MD, PhD, bariatric surgeon at Mass General Brigham, and conducted by researchers from the University of Virginia, Mass General Brigham, and Intuitive, the analysis examined procedures performed for benign conditions across gynecology, general surgery, bariatric surgery, urology, and hernia repair — including hysterectomy, cholecystectomy, and colorectal surgery.

“By bringing together evidence from randomized trials, prospective studies, and large real-world datasets, this analysis provides a broad view of perioperative outcomes across multiple procedures and specialties,” said Dr. Shin. “The findings add to our understanding of how surgical approaches compare while recognizing that the most appropriate approach depends on the procedure, patient, surgeon, and clinical setting.”

This study complements the previously published meta-analysis of 30-day surgical outcomes across seven oncological surgical procedures, led by Rocco Ricciardi, MD, MPH, chief of colon and rectal surgery at Massachusetts General Hospital. Together, the studies expand the comparative evidence available to patients, surgeons, and health systems across a broad range of benign and oncological conditions.

More than 21 million patients worldwide have been operated on by surgeons using the da Vinci system, with more than 3.1 million da Vinci procedures performed in 2025 alone.

About Intuitive
Intuitive (NASDAQ: ISRG), headquartered in Sunnyvale, California, is a global leader in minimally invasive care and the pioneer of robotic surgery. Our technologies include the da Vinci surgical system and the Ion endoluminal system. By uniting advanced systems, progressive learning, and value-

enhancing services, we help physicians and their teams optimize care delivery to support the best outcomes possible. At Intuitive, we envision a future of care that is less invasive and profoundly better, where disease is identified early and treated quickly, so that patients can get back to what matters most.

This material has been developed with, reviewed and approved by an independent physician/surgeon who is not an Intuitive employee. The physicians did not receive compensation from Intuitive.

About da Vinci Surgical Systems
There are several models of the da Vinci surgical system. The da Vinci surgical systems are designed to help surgeons perform minimally invasive surgery and 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.

For more information, please visit the company's website at www.intuitive.com.

Important Safety Information
Patient outcomes may depend on a number of factors including, but not limited to, patient characteristics, disease characteristics, and/or physician/surgeon experience. The da Vinci system is a tool used for minimally invasive surgery.

Patients should consult with their doctor to discuss both nonsurgical and surgical treatment options, including the benefits and risks associated with each. They should also ask whether surgery using the da Vinci system is appropriate for their specific situation. As with any surgical procedure, serious complications can occur, including, in rare cases, death. Potential risks include injury to tissues and organs, as well as the possibility of switching to alternative surgical techniques during the operation, which may result in longer operative times and increased risk of complications.

For a summary of the risks associated with surgery, refer to www.intuitive.com/safety.

For risks, contraindications, cautions, and warnings and full prescribing information, refer to the associated da Vinci surgical system user manual(s), or visit https://manuals.intuitivesurgical.com/market.

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