

Steward Health Forum

Steward Robotics Surgery Services at St. Elizabeth's Medical Center: **Quality Outcomes**

Steward Health Care System, LLC

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Robotic Surgery Services at St. Elizabeth's Medical Center

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Introduction

Robotic-assisted surgery was introduced in the mid-1980s and the number of procedures has increased dramatically since then. Surgeons are using robotic-assisted procedures to perform radical prostatectomies and other cardiac, urologic, gynecologic, orthopedic, and colorectal surgeries.

Given the increase in use of robotic-assisted surgery, this document provides the steps doctors at Steward Health Care's Robotic Surgery Services at St. Elizabeth's Medical Center in Brighton, Mass., take to guarantee overall safety of patients having robotic-assisted prostatectomies. This document also outlines general information, data, safety practices and quality outcomes, specifically, for robotic prostatectomies performed at St. Elizabeth's.

Background: Robotic-assisted surgery at Steward Health Care

Steward Health Care continually seeks the best treatment and procedure options for patients. Considered a leader in the area of minimally invasive robotic-assisted surgery, Steward offers patients robotic surgery through the da Vinci® surgical system, an option offered since 2006. The da Vinci robot provides surgeons with an alternative to both traditional open surgery and conventional laparoscopy, putting a surgeon's hands at the controls of a state-of-the-art robotic platform, while giving them an advantageous three-dimensional view of the surgical area.

Other robotic services Steward provides includes MAKOpasty®, a robotic orthopedic surgical option for patients coping with osteoarthritis; Praxim™ Surgical Navigation for total knee replacement; and the CorPath® 200 System (Corindus Vascular Robotics), which is used by interventional cardiologists to perform percutaneous coronary intervention.

At St Elizabeth's Medical Center, two da Vinci systems, including the da Vinci Dual Console Surgical System, outfit the operating room. The second console allows another surgeon or surgeon-in-training to participate in surgeries under the direction of a more experienced robotic surgeon. With two active da Vinci Surgical Systems, surgeons at St. Elizabeth's have mastered this minimally invasive, robotic-assisted surgical technique.

Robotic Prostatectomy

Robotic Prostatectomy, using the da Vinci® surgical system, is a minimally invasive, robotic-assisted surgical procedure that removes the cancerous prostate gland and related structures. The da Vinci system enables Steward's surgeons to perform even the most complex and delicate procedures through very small incisions with unmatched precision.

Experience. At the Steward Robotic Surgery Services at St. Elizabeth's Medical Center, Dr. Ingolf Tuerk, and his team, have completed more than 1,187 robotic-assisted prostatectomies. Dr. Tuerk, who is the chief of urology and director of the Robotic-assisted Surgery Program at St. Elizabeth's, reached this milestone in just three years (2009 through May 17, 2012), making him and his team the most experienced, prolific team using the da Vinci Surgical System in all of New England.

Dr. Tuerk is a world renowned expert in laparoscopic and robotic urologic surgery and has pioneered several laparoscopic techniques including radical prostatectomy, radical and partial nephrectomy, right side donor nephrectomy, pyeloplasty, and radical cystectomy with continent urinary diversion.

Benefits to patients. da Vinci Prostatectomy offers patients many potential benefits over traditional open surgery. Benefits of robotic-assisted surgery can include:

- Faster recovery and shorter hospital stay
- Fewer stitches and less scarring
- Lower risk of complications and infections
- Less blood loss and the need for transfusions
- Quicker return to normal activities

Dr. Tuerk, and his specially trained robotic surgery team, tailor each surgical procedure for the individual patient, providing comprehensive care before, during and after the surgery.

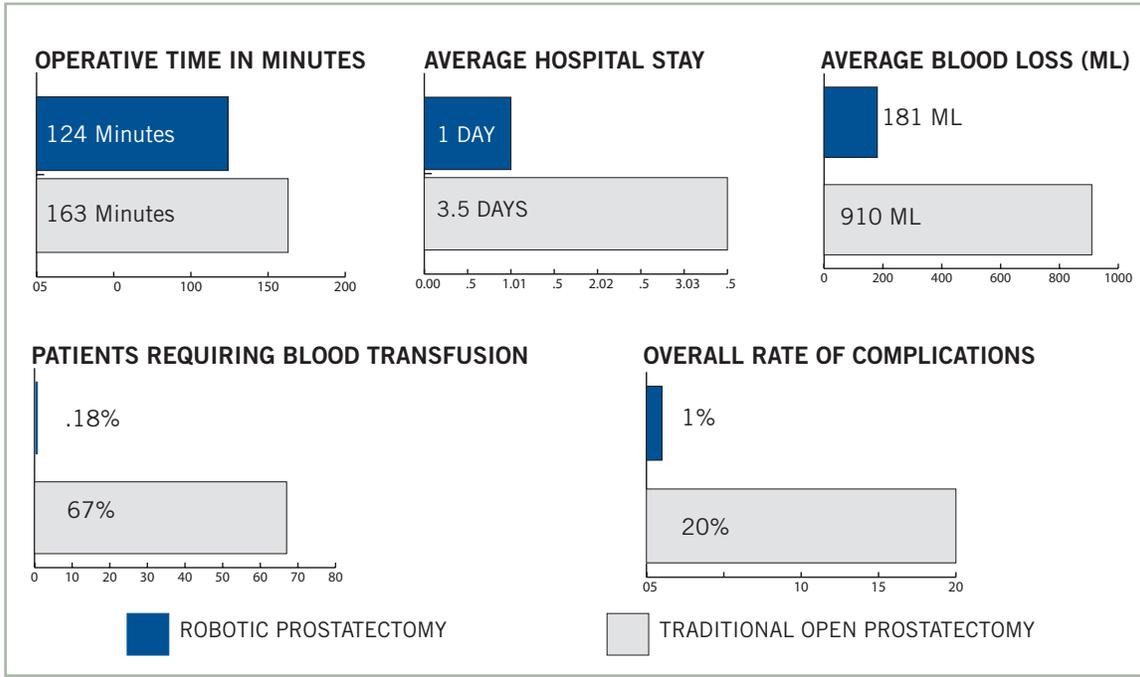
Risks to patients. Just like with any type of surgical procedure, there can be risks associated with robotic-assisted surgery. The likelihood of complication is dependent upon many factors, including a patient's age, general health, and cancer stage, as well as the surgeon's level of expertise can all influence the outcomes of a robotic-assisted prostatectomy. Potential complications for robotic prostatectomy may include: blood loss, as the prostate gland is nestled amongst a number of large blood vessels; a deep venous thrombosis or blood clot originating in the legs or pelvic region; herniation of the bowel occurring at the port site, or area where the endoscope and robotic instrumentation enter the abdominal cavity; incontinence; and impotence.*

Quality outcomes. The safety practices and experience of Dr. Tuerk and his team at St. Elizabeth's are unprecedented. Dr. Tuerk has completed more than 3,000 prostatectomies during his career, including several hundred traditional open procedures and laparoscopic procedures.

Under Dr. Tuerk's leadership, his team receives extensive training on the da Vinci Surgical System prior to performing an actual robotic-assisted surgery. Using the da Vinci Dual Console Surgical System, the second console allows a surgeon-in-training to participate in surgeries under the direction of Dr. Tuerk, a more experienced robotic surgeon. By providing patients undergoing robotic-assisted prostatectomies with a well-trained and experienced team, it reduces the risks for complications.

Data collected on 1,093 robotic prostatectomies performed at St. Elizabeth's between 2009 and 2013, reinforces the safety practices and record of Dr. Tuerk and his team. The data also endorses the overall benefits of robotic prostatectomies versus open surgery.

The following is a comparison of Dr. Tuerk's data to data,** published in 2003 in the *British Journal of Urology*, of outcomes for traditional open prostatectomy surgeries:



The data also confirms that after having a robotic prostatectomy, St. Elizabeth's patients have at least the same outcome as open surgery patients, or in many cases potentially better, particularly for continence and potency. The research indicates that continence is 90 percent for patients over age 70 and 98 percent for patients 40 to 50 years old one year after having a robotic prostatectomy. Potency after one year is 60 percent for patients over age 70 and 90 percent for patients 40 to 50 years of age.

Conclusion

Experienced, highly trained robotic surgeons are the hallmark of successful, safe robotic-assisted surgeries. At Steward Robotic Surgery Services at St. Elizabeth's Medical Center, the extensive training robotic surgeons receive is testament to the high quality outcomes for robotic prostatectomies performed. By providing patients undergoing robotic-assisted prostatectomies at St. Elizabeth's with the most experienced team it increases the treatment options available while reducing the risks for complications.

*Source: <http://www.prostate-cancer.com/robotic-prostatectomy/side-effects/robotic-prostatectomy-side-effects.html>.

**Source: Tewari, A; Srivasatava, A; Menon, M (2003). A prospective comparison of radical retropubic and robot-assisted prostatectomy: experience in one institution. *British Journal of Urology*. 92(3), 205-210.

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Steward Health Care System is a community-based accountable care organization and community hospital network with more than 17,000 employees serving more than one million patients annually in more than 150 communities.



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