

# Robotic Surgery for Gynecologic Cancer

*The da Vinci Surgical System Offers Patients New Options*

By Patricia Sullivan



Dr. Tashanna Myers recently performed Baystate Medical Center's 1,000<sup>th</sup> robotic surgery: a robot-assisted hysterectomy, pelvic and paraaortic lymph node dissection.

For some gynecologic oncology procedures, including radical hysterectomies, robot-assisted surgery may be the most effective, least invasive treatment option.

Tashanna Myers, MD, a specialist in gynecologic oncology at Baystate Medical Center, was pleased after completing her rounds on a recent morning. The day before, she had performed a robot-assisted hysterectomy, pelvic and paraaortic lymph node dissection using the *da Vinci* surgical system on a patient with endometrial cancer. The 61-year-old diabetic woman presented some medical challenges; however, she was recovering well.

“The surgery went beautifully,” says Dr. Myers. “She’s walking, eating, her catheter is out. She’ll be going home today.”

## 1,000 Robotic Surgeries

Baystate surgeons have been performing robot-assisted minimally invasive surgery using the *da Vinci* system since its acquisition in 2005. Baystate now has two *da Vinci* systems, and the radical hysterectomy Dr. Myers recently performed was the 1,000<sup>th</sup> robotic surgery at the medical center.

Baystate’s gynecologic oncologists also perform other procedures, such as lymph node dissections, and staging for early cervical cancer, early ovarian and endometrial cancers, with the robotic system. Radical hysterectomies using the *da Vinci* system, however, are relatively recent in Western Massachusetts. Dr. Myers came to Baystate in September 2009; this was the second robotic radical hysterectomy she performed here.

## Beneficial for Patients and Surgeons

According to Dr. Myers, a faster recovery time and quicker return to normal activities are the chief advantages of robot-assisted surgery for patients. “The progression to minimally invasive surgery, both traditional laparoscopy and robotic surgery, is really getting people back to their jobs and their life faster,” she says. “Right now, after an open incision for a hysterectomy, patients usually stay in the hospital two or three days and there is a six-week recovery. With minimally invasive surgery,

they can go home in 24 hours and they are often wanting to go back to work in two weeks.”

Julia Donovan, MD, chief of Gynecologic Oncology at Baystate, says there is no question that robot-assisted surgery offers improvements over traditional laparoscopy.

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Both minimally invasive procedures offer patients the benefits of less pain and scarring, less risk of infection, less blood loss, and fewer transfusions.

However, the robot-assisted procedure has an edge over traditional laparoscopy in visualization. The image of the surgical site is three-dimensional, rather than two-dimensional, and is not reversed. And, since the magnification is higher, the surgeon can view parts of the procedure he or she couldn’t see at standard magnification, such as an individual nerve strand.

In addition, says Dr. Myers, four robotic arms essentially give the surgeon two sets of hands. “You can control the camera and three instruments,” Dr. Myers says. “You can effectively assist yourself.” The robotic arms are wristed, allowing the surgeon more precision, and are longer than traditional laparoscopic tools, an advantage when treating morbidly obese patients.

Another benefit for the surgeon, Dr. Donovan points out, is that the ability to operate while seated at a console helps prevent fatigue and ergonomic strain.

Operating with robotic assistance does result in a loss of tactile sensation for the surgeon, but Dr. Myers says the system's other advantages and the skill of the surgical team at the patient's side far outweigh that drawback.

Baystate Medical Center nurses, surgical assistants, and computer systems operators have special training on the *da Vinci* system. Anesthesiologists receive extra education, too, particularly in fluid management, because of the special patient positioning required with the system.

## Looking Forward

Since it was cleared by the Federal Drug Administration in 2005, surgeons have performed more than 100,000 hysterectomies using the *da Vinci* system. One in three women in the U.S. will have a hysterectomy before she turns 60. Though most of these can be done with conventional laparoscopy, or vaginal hysterectomy, safely and quickly, and with speedy recovery, when cancer is involved the robot has clear advantages.

The only patients who are not good candidates for robotic gynecological surgery, Dr. Myers says, are those who have had multiple abdominal surgeries, resulting in scarring. Of course, some cancers cannot

be treated laparoscopically because there are diseases that require that the abdomen be opened.

"It's an exciting time to be in this field," says Dr. Myers. "In oncology, as long as people are still dying of the diseases we treat, you always feel like there is a lot of work to be done. Now, we can offer women something that is new."

Says Dr. Donovan, "As surgical oncologists at Baystate and around the world become more familiar with what they can safely do on the *da Vinci* system, the applications and possibilities for improved minimally invasive surgery will increase."

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## Refer a Patient

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