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## Robotic da Vinci arrives at Evans

By Jeff Troth MEDDAC PAO



In the late 15th Century Leonardo da Vinci created anatomically correct drawings of humans that assisted doctors for centuries. Now in the 21st Century a new da Vinci has arrived at Fort Carson to assist Evans Army Community Hospital's doctors.

The da Vinci is a robotic surgical system that will allow the doctors to perform less invasive surgery than before. The device allows for much smaller incisions in patients than those required for traditional surgery.

"We are very excited to be able to offer this technology to our patients," said Maj. (Dr.) Dayne Nelson, an Evans urologist who has already been trained on the device. "The da Vinci is a tool that allows us to do laparoscopic surgeries with the added benefit of a high-definition 3D picture."

"Normal" laparoscopic surgery is accomplished by making an incision in the patient, then employing a 2-dimensional fiber optic camera, and by using two "sticks" the doctor performs the surgery. According to Nelson, these sticks are straight, and can only be used horizontally or vertically.

Although the da Vinci may look like something out of a science-fiction movie, the robot does not operate on its own and its movements are controlled by a surgeon sitting at the control module.

"The most important advantage that the da Vinci has is three laparoscopic arms, instead of two; this allows articulation of the wrist," said Nelson. "When I have my hands in the control modular I can move the robotic arms 360 degrees; it is like operating with my own hands...[in addition] the difference between the 2D of regular laparoscopic to the da Vinci's high-definition 3D view of the tissue is huge when operating."

Nelson said that although our doctors will not be performing traditional "hands-on" surgery, patients shouldn't worry. The doctor performing the surgery will be in the same operating room as the patient but at a console while another doctor will be bedside assisting.

The da Vinci will not just make surgery easier for Evans' doctors, but will make the whole surgical process easier for patients.

"Surgery with the da Vinci results in less blood loss during the operation, a shorter hospital stay and less pain after the surgery," said Nelson. "This will allow our patients a quicker recovery."

The surgical system can be used for a wide range of operations in the following specialties: gynecologic, urologic, general, cardiac, thoracic and head and neck surgeries.

“We will be able to perform more challenging cases,” said Lt. Col. (Dr.) Kimberly DeVore, chief of Evans hospital’s Department of Obstetrics and Gynecology. “So, a wider variety of patients will be eligible for laparoscopic surgery.”

Before Evans’ doctors use this technology to operate on their patients they will go through an extensive training program which includes both book and hands-on training with a simulator.

“We have a very good training program in place for our staff,” said DeVore. “And there will be people who have used the technology before who will be in the OR with us for our first few cases.”

“The reason robotic surgery has become so popular is that it has really been a patient-driven phenomenon,” said Nelson. “Now that we have the da Vinci here at Evans I am looking forward to using it to its full capabilities for our patients.”



Lt. Col. (Dr.) Kimberly DeVore, chief of Evans Department of Obstetrics and Gynecology, practices with the da Vinci surgical system control modular. (U.S. Army Photo by Jeff Troth)



Surgical team members familiarize themselves with the da Vinci and its robotic arms.  
(U.S. Army Photo by Jeff Troth)



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