M. Brian Harkins, MD, FACS

Robotic Surgery

# Know the Facts! Your Patients Will Be Asking!

## Robotic-Assisted Laparoscopy...An Evolving Standard in Minimally Invasive Surgery

Its too expensive! Its adding technology without adding benefit! It will never last!...Robotic Surgery? No! Those were pushback comments in the early 1990's about the introduction of laparoscopy into the world of surgery. Improved patient outcomes rolled right over those objections to create a new standard in many surgical procedures. But if we recognize that minimally invasive surgery is better for patients, then after 30 years of laparoscopy, why isn't every procedure being done that way? The short answer...some procedures were just too "hard". Laparoscopy had limitations that kept if from completely replacing open surgery altogether.

Enter **Robotic-Assisted Laparoscopy**!! With the addition of a highly sophisticated robotic interface, many of the limitations of laparoscopy have been overcome making the benefits of minimally invasive surgery accessible to greater numbers of patients for many more procedures. The end result is an evolving trend of better patient outcomes in terms of lengths of stay, complications, post-operative pain, blood loss, and readmissions. Wow! The long awaited upgrade for laparoscopy is finally here!...and its available right here in Tomball!!

## Safety, Experience, New Horizons

Little did I know when I did my first robotic case on 29 September 2014 that by the end of my first year I would be the second most experienced general surgeon in performing cases with the DaVinci Xi system in the world, but that's what has happened! I already have many personal examples of patients who would have likely undergone an open procedure if it weren't for the robotic platform. The vast majority of these patients have enjoyed the benefits as complication rates have remained low when compared to the previous year. I wish I could say that low meant zero, but that's just not the reality with surgery and medicine. However, I do have great hope that in the robotic platform I now have the tools and ability to move even closer to that zero complication rate threshold. In my efforts as the Robotics Chairman of the Department of Surgery I have continued to focus the program on patient safety and staff education. TRMC Administration and Surgical Services have responded in establishing us as the only robotic program in Houston with 24/7 full access to accomplish surgeries on the robot. The evolving standard is always available here!

I am very excited to be on the forefront of this new horizon in general surgery and will continue to offer your patients the most advanced surgical care available. Best of all, they can get that care right here in Tomball.



30 August 2015

### What Is "The Robot"

The robot consists of 3 separate but interconnected parts. The "Patient Cart" (above) holds the instruments and connects to the trocars. The "Vision Cart" is similar to the laparoscopic tower. The "Surgeon's Console" is where the surgeon sits and controls the "robot".

### Why Is Robotics Better?

- Improved Vision! Surgery with an HD, 3D, magnified, totally immersed view.
- Wristed Instruments!! This is a huge return of dexterity that was lost in laparoscopy.
- Improved Ergonomics! Now surgeons can sit in the same supported, comfortable position for every case.
- FireFly Visualization! A special dye is injected into the patient. A built in laser light is turned on. Presto! In the laser light the dye glows and now the surgeon can see incredible detail about bowel vascularity or the bile ducts right through other tissues.
- Vessel Sealer and Stapler! Rock stable control of these technologies allows greater precision and control in the critical use of these devices.

#### M. Brian Harkins, MD, FACS

#### Training:

LSU Medical School, New Orleans Eisenhower Army Medical Center, General Surgery 1989-1994 Surgeon at TRMC since 1997



Outstanding Graduating Resident Outstanding Laparoscopic Resident – Surgeon Army Commendation Medal for Meritorious Service Board Certified in General Surgery

Fellow- American College of Surgeons

## A Brief History of the DaVinci Robot

Intuitive Surgical Incorporated's first robot was developed in 1997 but the system did not get FDA approval until the year 2000. Improvements over the original resulted in the **DaVinci S** release in 2006. In 2009 the **DaVinci Si** platform furthered propelled the success of the robotic surgery movement with ongoing transition of prostate surgery and malignant gynecological surgery to being almost completely done with the robotic



platform. The advanced technology additions to the **DaVinci Si** platform began to show promise in the adoption by general and colon and rectal surgical specialties. The "game changer" as many surgeons refer to it, was the release of the **DaVinci Xi** platform in 2014. Our first robot at TRMC was the early model **DaVinci S** which we obtained in 2012. We traded that in for our new **DaVinci Xi**, the second one to arrive here in the Houston area, in July 2014. The rest, as they say, is history...in the making!!!

Dr. Harkins has been caring for patients in Tomball since 1997.

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