Robotic assisted surgery introduced at Netcare Pretoria East Hospital

The team of experts using the robotic system are Drs Johan Venter, Michael Heyns and Paul Smit. Picture: Supplied.

Published May 8, 2023

Pretoria - A first of its kind in surgery, robotic assisted surgery using the latest da Vinci Xi surgical system has been introduced at the Netcare Pretoria East Hospital.

This robotic system is the first of its kind to be installed in the private sector in the country. The hospital is the fourth in the Netcare Group to use da Vinci technology for a range of surgical procedures.

“With the introduction of robotic assisted general and urological surgery at our hospital, and with plans to also offer robotic assisted procedures in more disciplines in future, more patients will now benefit from this sophisticated technology,” Pieter Louw, general manager of Netcare Pretoria East Hospital said.

The da Vinci Xi system was installed at the hospital in April and the initial robotic surgical team comprising urologists Johan Venter and Paul Smit, and general surgeon Dr Michael Heyns will use this advanced surgical technology for prostate and colorectal cancers.

This will include those involving pelvic lymphadenectomy, as well as for surgical procedures for inguinal hernia, and other colorectal, pelvic floor and renal conditions.

Venter, who has been performing robotic assisted surgery at Netcare Waterfall City Hospital since 2015, where the first da Vinci system in a Netcare hospital was installed the previous year, said that in appropriate

cases robotic assisted prostatectomies can completely remove localised cancerous tissue, while preserving erectile function and urinary continence.

“This fourth-generation version of the robotic system offers even greater control and vision of the operating field, enabling us to operate with absolute precision.

“In the case of prostate surgery, this is crucial for nerve sparing and, ultimately, continence and potency retention,” Venter said.

He added that the tiny instruments were more dexterous than the human hand, and enabled them to work at the exact location needed within the body without the interfering with healthy tissues to access the surgical site.

The magnified, 3D imaging aspect of the robotic system also allows the surgeons to see the fine nerves and tissues with much greater clarity and detail than human vision.

Smit, who is also highly experienced in robotic assisted urology procedures, explained that the da Vinci system is always operated by trained, robotic accredited specialists.

Slender instruments enter the skin through four small punctures, far less invasive than is possible with traditional open and laparoscopic surgery.

“Robotic assisted surgery is not an option for all patients, however when indicated, there are significant benefits to patients in terms of a shorter hospital stay and less post-operative pain.”

Smit added that for men undergoing robotic assisted prostatectomies, not only are there lower complication rates and less blood loss, but there is also less discomfort and fewer days with a catheter required after the procedure.

“The robotic system allows good blood vessel control, and this is especially important in the case of complete and partial nephrectomies where time is especially critical. The precision of the robotic system enables us to suture and release the blood supply within a crucial 20-minute window with greater ease than is possible with the traditional open, as well as laparoscopic surgical approaches.”

Heyns will be leading the introduction of robotic assisted general surgery alongside urological procedures at the hospital in Pretoria East.

“This broadens the options available to patients not only in Pretoria, but also those from neighbouring provinces. For people requiring a colorectal resection for cancer, one of the greatest advantages associated with da Vinci Xi is that we can access the area more readily.

“With the enhanced precision it allows, patients are far less likely to need a permanent colostomy.”

Robotic assisted sacrocolpopexy, or pelvic organ prolapse repair surgery, is also associated with shorter hospital stays, fewer surgical risks and less post-operative discomfort.

“In addition to Netcare Pretoria East and Netcare Waterfall City hospitals in Gauteng, robotic assisted surgery is also offered at Netcare Christiaan Barnard Hospital in Cape Town and Netcare Greenacres Hospital in Gqeberha.