Leading-Edge Surgical Technology To Benefit Prostate Cancer Patients

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Sunnybrook is to be one of the first Toronto hospitals to adopt a leading-edge surgical robot tool to allow urology surgeons greater minimally-invasive and nerve-sparing approaches in performing radical prostatectomies.

Sunnybrook plans to adopt the latest model of the da Vinci robotic system, the most technologically advanced surgical robotic system proven helpful in reducing surgical side effects and in facilitating faster recovery and shorter hospital stays for prostate cancer patients.

A full view of the da Vinci Robotic System

"Our goal is to continue to provide patients with treatment options made more effective and tailored based on the latest clinical research and technological advances, "says Dr. Laurence Klotz, chief, division of urology, Sunnybrook.

The da Vinci robotic system allows for better visualization by 'immersing' the surgeon in a magnified three-dimensional image of the surgical field. This view is housed in a console from which the surgeon controls a patient-side surgical robot. The robot features a series of arms equipped with an endoscope and a stereoscopic camera and laparoscopic instruments designed to allow the surgeon more degrees of 'wrist' freedom of movement than traditional minimally invasive instruments.

"For early diagnosis of aggressive prostate cancer, the patient in consultation with their oncologist may choose to undergo a radical prostatectomy or surgical removal of the prostate. Because the prostate can be a challenge to access, there can sometimes be side effects related to the patient's erectile and voiding function," says Dr. Klotz, head, Genitourinary Site Group, Odette Cancer Centre and professor, Department of Surgery, University of Toronto.

With the assistance of the robotic system, radical prostatectomies are performed through a few small keyhole incisions and with an enhanced magnification view for the surgeon. These functions facilitate more precision and less blood loss during surgery, faster post-operative recovery, shorter hospital stays and less chance of side effects.

The adoption of the da Vinci robotic system is being made possible through generous funding from the community.