

THE DA VINCI EFFECT

The growing benefits of robotic surgery have been broadly documented, and it is an increasingly popular way of operating. But what is the machine, and why is it so good?

Robotic surgery is by no means a new concept. It has been used in particular areas of surgery for the past two decades. The first surgical robot 'Arthrobot' was first developed and used in Canada, in 1983. The da Vinci® Si™ however, is the most advanced form of surgical robotic technology so far. The Wellington Hospital is just one of four hospitals in the UK that have access to this super robot.

HOW IT WORKS

The da Vinci® Si™, the newest da Vinci system available, consists of three components: the robot, the console and the operating workspace.

The latest robot has four arms that hold surgical instruments and perform surgery better than a human hand, and can rotate at an astounding 720°. Offering heightened dexterity, they are able to negotiate the more awkward, tighter spaces that

could ordinarily present surgeons with problems. One arm contains a microscopic high definition camera, and the other three arms are used to interchange surgical instruments.

The surgeon performs the procedure via a console booth, sitting just metres away from the patient. From this position, the surgeon manipulates the instruments by simulating his normal surgical techniques, holding onto two hand sensors. The surgeon can view the procedure by looking through the internal display and also on a larger screen above. The robot has a number of safety features, meaning that when the surgeon lifts his head from the display or his hands from the sensors, the robots halts; the surgeon is thus in complete control at all times.

BENEFITS

This extraordinary piece of equipment has huge advantages to offer both patients and surgeons.

Patients that undergo robotic surgery experience:

- smaller scars
- less pain
- lower risk of infection
- reduced bleeding
- faster healing

All of this results in a shorter hospital stay and a quicker return to normal activities.

Wellington Hospital consultant urologist Mr Barry Maraj, praised the new robot's features: "Because the machine has a fourth arm and with high definition 3D, we can be much more precise in our surgery; and being three dimensional, it takes the guesswork out of depth of measurement."

Performing surgery in this way provides surgeons with greater agility and better control, as the robot is able to sense any tremors in the surgeon's hand movements. The new camera offers enhanced visual clarity with its superior 3D high definition vision with up to 10x magnification. Mr Roberto Casula, cardiothoracic surgeon at The Wellington Hospital, also acknowledges the impact the robot will have: "These new instruments can move in a way that my hands cannot. This is the new gold standard. With the acquisition of this machine we have the best technology, in the best hospital in the private sector."

THE FUTURE

Around the world, the da Vinci robot has been used to carry out a number of highly specialised surgeries since its development. It can be used for a multitude of procedures, including: coronary artery bypass, mitral valve repair, colorectal surgery, prostatectomy, hysterectomy, and myomectomy, but it isn't limited to just these.

This advance in surgical technology means that major and routine operations can now be performed with better outcomes than ever before, which is great news for surgeons and patients.

In time, could we see this become the preferred method of surgery?

If you would like more information about our hospital or the da Vinci Si System, please contact The Enquiry Helpline 020 7483 5148, or visit www.thewellingtonhospital.com

