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THE "DA VINCI" ROBOT

Currently, information technology (IT) is being implemented in virtually all healthcare sectors. Due to this, medicine has acquired completely new features today.

This process is accompanied by significant changes in medical theory and practice related to making adjustments to the training of related to making adjustments to the training of medical workers. IT helps to objectively diagnose diseases, to accumulate and effectively use the information obtained at all stages of the healing process and, most importantly for medical science, is invaluable in scientific knowledge.

Among medical computer systems, robotics attracts special attention. Robotic couriers, robotic mannequins, and many others robots already exist. A large number of robots have emerged that perform extremely complex manipulations. Let's take the "Da Vinci Surgical System" as an example. This is a robotic surgical system made by the American company "Intuitive Surgical". A working prototype was developed in the late 1980s. Approved by the Food and Drug Administration (FDA) in 2000, it is designed to facilitate surgery using a minimally invasive approach, and is controlled by a surgeon from a console. It consists of two parts, the first one is intended for a surgeon-operator, and the second part - a four-armed robot manipulator - is an actuator.

One of the "arms" of the robot holds a video camera transmitting the image of the area being operated; the other two reproduce the movements made by the surgeon in real time, and the fourth "arm" acts as an assistant to the surgeon.

The system doesn't resemble a robot so much as a video game. A surgeon sits behind a screen and looks at a magnified view of the surgical site while operating the machine's robotic arms.

The robotic arms can get into hard-to-reach places, promising patients less bleeding, faster recovery, less chance of damage to important nerves, and smaller scars than traditional surgeries.

A single robot costs about $2 million. Some of the attachments that go on the arms are disposable. And robotic surgery generally costs anywhere from $3,000 to $6,000 more than traditional laparoscopic surgery.

"Da Vinci" was originally designed to do cardiovascular surgery, but it's fallen out of favor for heart surgeries. Next it was picked up for gynecological surgeries. And finally it was acknowledged for use in urology.

While known as a "robot", the "Da Vinci System" is in truth an extension of the surgeon. It is a state-of-the-art tool that ensures that it makes most of the skill and expertise of the surgeon performing procedure.

In general, the field of robotic surgery is not standstill. It is constantly expanding and evolving. And I believe that robotic surgery is indeed the future of healthcare.

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