

Use of Information Technologies in Medicine Medical Nanotechnologies

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Abstract: This article provides information on the use of information technology in medicine, the use of new and modern technologies in the detection, diagnosis and treatment of diseases, their management. There is also talk of the use of nanotechnology in the treatment of diseases in the human body.

Keywords: modern technologies, 3D model, touch, light, laser devices, medical nanotechnology, nanoparticles in the blood.

The use of information technology in medicine today requires the proper use of information technology in solving medical problems, as well as in the conduct of quality medical and scientific-practical activities. Undergraduates need to be able to process and analyze medical and biological information obtained using modern computer technology, automate work processes, and make informed decisions. In particular, it is necessary to know the methods of mathematical modeling, working with the Internet, modern computer technology. Knowledge of the importance and development trends of information technology requires the ability to effectively use technical, software, network resources.

"New technologies new medical technologies The term" new technologies "creates a very interesting and positive, wonderful sense of the future. But often these technologies are not very concerned about people themselves, they are incomprehensible and far away. interested in almost everyone. Sooner or later, everyone understands that health is not weak and not forever. Thus, new technologies in medicine are very relevant.

On the world's first 3D printed breast, a Salamani doctor at a university in Spain operated on the patient's injured breast. It was decided to use Titanium alloy as a material for the new breast. After performing high-resolution computed tomography, the scientists created a new titanium chest that cost \$ 1.3 million from an ARCam printer. The operation on the placement of a new sternum in the patient was successful and the man had already undergone a full course of rehabilitation.

Implant Retina eye implantation is designed to partially reduce vision in people who are lost due to degenerative eye diseases. The invention of this device hoped to see millions of people around the world. Argus Ii Retina Implant Implantation gained access to the American market in February 2013 and was the first in the world to be implanted two years ago.

The pancreas works on the basis of technologies that allow people with diabetes to control their blood glucose levels through mechanisms specific to a healthy pancreas. The first patient to experience this device was four-year-old Australian Xavier Partner, who suffers from type 1 diabetes.

Surgical and android robots are working on thousands of Davin surgical robots around the world. Some medical schools are starting to teach future surgeons the skills needed to operate a robot instead of managing surgery. This craft is more sophisticated and more reliable and sensitive at the same time. Surgery and android robots will soon be robots that can convert the movement of a human hand into an ultra-precise movement of a robot. Perhaps where there is a shortage of time doctors, simple surgeries are performed by a doctor who controls a robot from another city.

3D printing DNA printing has led to the appearance of a unique printing industry and the sale of DNA. Millions of DNA fragments are placed on tiny metal substrates and scanned by a computer that selects that chain, while the entire DNA must be in a chain sequence. Researchers at the Caroline Institute in Sweden further developed this research and began to create different parts of the DNA chain. After that, the laser is cleaned and placed in a new pre-ordered chain. There are practical possibilities to use this technology.

Smartphones used as biosensors and wearable medical devices allow patients to measure almost any health parameter directly at home. The lifestyle adapts to the requirements of such devices that want to make us healthier. These devices are called health sensors for portable diagnostics.

Nanorobots living in our blood? The insane question posed in 1996 is the basis of the scientific work of the two scientists in 6 years. In short, the answer is that in 1996, nanorobots would theoretically be able to replace our blood. They can interact with our bodies, measure health parameters, and act when needed. On the other hand, imagine bioterrorism and how vulnerable our personal lives and our knowledge of it are. In the future, before these technologies are already available to us, people need to find the right balance in this area. Nanorobot lives in blood.

Today in medicine there are great achievements of science and technology development, which are significantly reflected in modern technologies. Every year, all new and new technologies appear in medicine, which simply surprises many patients with their capabilities and effectiveness. Many diseases that were previously considered difficult are now facing modern medical interventions.

Nanotechnology in medicine. It must be said that in the last few decades about thirty infectious defects have been revealed. Among them we should mention AIDS, "bird flu", Ebola and others. Every year millions of new cases of cancer are diagnosed worldwide. In this case, the mortality rate of this pathology is around five hundred thousand people a year.

In medicine, Nanotechnology is of great importance to all people. The advantages of using the latest techniques for conventional treatment are obvious. Nanotechnology in medicine mainly involves the chemical action of one or another disease through a drug. As a result, the body creates a certain environment that is conducive to accelerating the healing process.

As mentioned above, nanotechnology is human in a variety of used fields of activity. Scientists around the world are working to develop a variety of materials that can be applied in one field. The application of nanotechnology in cosmetology is the simplest and most striking example, for example, the whole soap solution is known. It has not only disinfectant and detergent properties. This cluster is formed of nanoparticles. Today, of course, these nanotechnologies are used for any purpose in the development of any field of human activity. There are many examples of the use of nanotechnology in medicine. For example, scientists have created a new class of particles. Nanoparticles - nanogilzy - are available equipped with unique properties of optical properties. Having a microscopic diameter (twenty times smaller than red blood cells), these elements are able to move freely through the circulatory system. The part is attached to the surface of the antibody. The purpose of this application of nanotechnology in medicine - the destruction of cancer cells. After administration of the sleeves to the body for several hours, the lighting is done with infrared light.

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