Medical medicine : force of change

Introduction :

Identify risk factors for disease, make earlier diagnostic and improve treatment effectiveness while taking into account the comfort patient.

All challenges to the development of better prevention and management of diseases.

Beyond the indispensable knowledge of physiology and human diseases, new technological approaches can contribute significantly to medical progress. These approaches today are the result of close collaboration between researchers and engineers, biologists and physicians.

Problèmatique :

In what measure can we say that technologies will revolutionize the medical sector?

Annonce du plan :

1. How is medical technology defined (firsly, I will define what is the medical technology)

2. The issues and benefits of medical technology (i will talk about the benefits and issues of medical technologies)

3. The medical profession is divided (The use of technology in the health sector continues to divide the medical profession)

Développement :

1. How is medical technology defined

Medical technology can be considered as any technology used to save lives in individuals suffering from a wide range of conditions.

Booming, these new health technologies fall into four main areas:

* imagery

This is all the anatomical and functional imaging technology, cellular and molecular.

* drugs

The emergence of new drugs result of a long and costly process. It begins with the screening of thousands of molecules to be completed by any marketing.

* biotechnology and bioengineering

This area covers all diagnostic technologies and analysis, their implantation in the living and biomaterials related to regenerative medicine and bio-production.

* surgery and interventional techniques

Surgical technologies include many methods and knowledge that the fundamental issue is to minimize the risk of complications for the patient and reduce the response time as hospitalization.

The best way to describe Medical technology is :

Any instrument, apparatus, appliance, software, material or other article, whether used alone or in combination, including the software intended by its manufacturer to be used specifically for diagnostic and/or therapeutic purposes.

1. The issues and benefits of medical technology

The common thread through all applications of medical technology is the beneficial impact on health and quality of life. They all contribute to living longer, better and empowering citizens to contribute to society for longer. In so doing, they improve the quality of care, and the efficacy and sustainability of healthcare systems. In Europe, medical technology is also a major contributor to the economy, employing over 575,000 people in high quality jobs. The market size is estimated at roughly €100 billion.

A Canadian institute is working on the development of technologies for poor countries, to detect diseases quickly.

With the funding allocated , scientists have already developed a portable analyzer capable of detecting malaria easily. The analyzer determines the kind of parasite and the proportion of infected red blood cells. This replaces, for a limited cost, lengthy operations conducted by a specialized laboratory, and this in less than an hour.

One of the great revolution in the health sector is the medical robotics !

Robotics much progress in the areas of health ( robotic surgery , rehabilitation ) assistance to the person ( companion " personal robot " , monitoring , dependency, disability, etc.). We are witnessing a revolution in robotics services.

The aging population demographics in the world and the increasing number of motor or sensory disabilities incentive to implement various systems such as remote support , physical assistance, rehabilitation , or "smart" assistants or multitasking . For example: prostheses, exoskeletons , companions robots ( cognitive, social , and physical security ).

Today, we can manipulate the prostheses by thought and be assist in a chiurgie by a robot. But for now very few hospitals use these innovations.

1. The medical profession is divided

Advances in technology, new drugs and new diagnostic tools, for example, can improve the health and overall performance of the healthcare system . But innovations also have drawbacks since their adoption changes the balance of resources and increases the cost of care.

To invest in modern medical technology , poor countries should sacrifice the primary level services that are of vital importance .

Rich countries must , for their part , find a balance between the needs of the general population and demand for advanced medical examinations, which tends to increase the overall cost of care.

The use of new technologies in the medical sector improves the quality of services: the majority of physicians recognize that this is indeed a time saver for them and allows better coordination of care. Therefore , many doctors who adopt technologies , but this adoption is far from being easy.

**A justified distrust**

A large number of doctors (57%) refuse to use mobile health technology ( tablets and smartphones ) for clinical purposes . 44 % of them , in fact , do not want to use personal devices , 29% are concerned about patient privacy, and 26 % believe the applications and proposed programs are not suitable to the needs of doctors. In addition , many doctors are skeptical regarding the clinical value of these technologies and are mindful of the implementation costs.

Conclusion :

To conclude, we can say that the medical community is moving increasingly towards technologies. At the moment, the simple use of tablet, sotware, but in the near future , the robotics in all hospitals.

The trend seems to lean in favor of these new methods , the question is how long will the refractory doctors to adopt them.

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