THE NEW TENDENCIES OF TECHNICAL TOOLS IN HEALTH INFORMATICS

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Abstract: Nowadays in the healthcare we use so many kind of tool, which are very expensive for the economy. In the next future, we can realize that the informatic tools transform our life. We think that the informatic tools help us to get a better, quicker health service. The development in the informatics are very important case to our social security. In Health Informatics there are so many mechatronics tools, which are quicker than in previous years. The technological companies realized that the opportunities are bigger and bigger in health technologies.

Keywords: Health, informatics, tools

Introduction

The health informatics the most important thing is to define what does it mean health informatics. In the different kind of cultures it can mean different knowledge. In the United States there is another method to educate the subject. Hungary is very good from the theoretical way. It contains more practical appliances. That is what this article about. One definition describes it as the data and knowledge that intelligent systems (human and artificial) use to support their decisions. Health informatics helps doctors with their decisions and actions, and improves patient outcomes by making better use of information – making more efficient the way patient data and medical knowledge is captured, processed, communicated, and applied [1]. In this article, we presents the main informatical tools in nowadays in United States and Hungary.

New Situation at the Consultation Between Doctor-Patient

In the United States there are so many technical equipments to keep the connect between doctor-patient. One of this there is the teleconsultation. If the person finds an electronic resource that covers their query, then no consultation may be needed. Often, however, general information will need to be supplemented by knowledge of a person’s situation. The patient may e-mail her general practitioner or follow a website link to a specialist in the genetics of familial liver cancer. The advantages of email contain asynchronous actions-interaction, easy

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The exchange of follow-up information, patient education and automatic documentation of consulting behaviour or service requests. Regulation of teleconsultation varies between countries, and guidelines are available. The data security is solved [1].

NEW MECHANICAL AND INFORMATICAL TOOLS IN THE HEALTH INFORMATICS

There are several problems, which is too heavy to get any kind of medicines. Fortunately there are available so many medical, informatical, and mechanical tools to handle the illnesses or help the patients after the operation. As you can see on the figure 1 there is a supportive, responsive and preventive circle (bubble). It is important to separate them from the others. Every circle is very important to handle any kind of illness. Some of there are available in the United States Social-Security systems. Fortunately, there are available in Hungary too.

In a previous article we discussed the fundamentals of developments of Health Informatics [2]. There are similar equipments tools in the industry [3].

*Figure 1. Categorised sensing devices [1]*
ABOUT THE TOOLS:

In the preventive tools there is a big significance the event monitoring. For example it gives a sign to the General practitioner or a hospital if it necessary. Maybe there is a significance of the hospitals softwares or it is necessary to use smart watches to keep the connect with patients.

In the responsive circle there are more and more alarm systems. It is enough to consider the Cardiotachometer or the Respiration monitor. These kind of tools could be fit for the Computer or a smart phone cell or for the smart watches. All of these tools are intelligent. With another word it creates a Health information systems.

In supportive circles, there are assistive and smart home technologies. The smart wheelchair is important tools to keep the connect with the General Practitioner.

The keyless entry system is good for those kind of patients who is at home after that the hospitals rehabilitation. It makes much more easier to move in his/her home. It can helps for the ambulance or the doctor to entry the house (if he has licence to enter). The reminder unit has the analogize function like cell phones. The therapy units can also contain the smart watches or smart cells. The peacemaker or the dialysis machine could also have a part like an intelligent tool. For example, all of this home and alarm technologies could communicate with a tablet, a smart cell, smart watches, or maybe in the next future can communicate with each other.

In a legal security, sense there is important to mention the cast of the video doorbell. Especially in United States, but in everywhere the patient has to count that a possible case if somebody wants to intrude his/her home (for example a robber). Video doorbell can gives a sign not just the patients it can give a sign for the policing authorities too. The peacemaker and the personal heating systems are for special kind of patiens.

CONCLUSION

The mentioned technical tools are the parts of the modern health informatics. These kind of tools can realize an intelligent health informational system. In the United States the presented tools and social-security model works. Some of these kind of tools naturally are int he Hungarian social security system too.

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REFERENCES:

