Telemedicine system model using Internet-technology

Klymash M.M., Romanchuk V.I., Krasko O.V.

Abstract – The telemedicine system model based on Internet technologies.

Keywords – Telemedicine, Internet resource, PHP, Java, MySQL.

I. INTRODUCTION

Telemedicine - represents a new direction in medicine, whose purpose is the development and implementation methods to provide specialized assistance and remote exchange of medical information through the use of modern information technology. Information technology used in telemedicine to diagnosis and medical counseling of patients, postgraduate education, training doctors and nurses, as well as to exchange official information of the nature of management between the authorities and institutions of health care. The total number of telemedicine that are in the world, estimated at 100-200 thousand per year and for five years has increased tenfold. Experience in development of information technology in developed countries shows that the telecommunications network, which is accessible to everyone, offers additional opportunities for clinical prevention and telemedicine.

Today in Ukraine the processes occurring Health Reform, the most important of them - a family doctor, the principles of health insurance, health system integration in the global information space, etc. There is no doubt that reform can not be realized without total information system of health care.

II. DISCUSSION

The aim of this work is to develop models telemedical online resource models that provides better quality and speed of health services. Its main purpose, implementation in practice of Health of Ukraine to remote consultative medical care and exchange of specialized information-based technologies to ensure the availability of skilled care for every citizen of Ukraine.

In Figure 1 depicts a telemedicine system model using information technology.

The relationship between the relational database MySQL and resource users are using PHP version 5.

Figure 1. Telemedicine system model

Others, depending on access to resources and functions as provided by them, are divided into unregistered doctors, patients and administrators.

Figure 2 Functional diagram of the Internet resource for telemedicine

Main topics of the resource: about the project, articles, finance, resources, private room, guestbook, calendar of events.

Internet resource designed for all categories of people who have skills using Internet technologies. Can be used for medical facilities and for public health.

III. CONCLUSIONS

In the paper the model of telemedicine system that allows you to easily and quickly introduce new services and monitor the effectiveness and quality of existing ones. This approach allows to improve the quality of medical services in remote areas and ensure their control in large cities.

REFERENCES


Klymash M., Romanchuk V., Krasko O. - Lviv Polytechnic National University, S. Bandery Str., 12, Lviv, 79013, UKRAINE, E-mail: mklimash@polynet.lviv.ua