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Faculty of Basic Medicine, Moscow State University by M.V.Lomonosov
Society "Internet in Medicine"

Abstract Book

13th World Congress "Internet in Medicine" – MedNet 2008



сборник тезисов

13^{го} Международного Конгресса "Интернет в медицине" – МедНет 2008

St. Petersburg
2008

The basic requirements for the different types of application are presented spatially for the e-health/telemedicine services. To this end, we present emergency situation scenarios, designed as a possible e-health emergency scenario. Resource allocation for e-health application is inherited in many aspects including the offered services, traffic requirements, propagation's characteristics and network structure. Within the medical network [15] delay is a critical factor, since there are many cases in which a communication should be timely in order to save the life of critical patient. This paper presents architecture and novel scenarios for QoS provisioning in emergency telemedicine. Some performance evaluation results are obtained by simulations.

Telemedical Centre in Tambov State Technical University at the Heart of the Regional Telemedical Net

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Background. The background of this abstract is to show the role of the Tambov State Technical University telemedical centre, which forms the telemedical net of the Tambov Region on the basis of a central server and Internet-portal [1].

Objective. It is suggested to set up and develop a Telemedical centre in Tambov State Technical University (TSTU). The TSTU Telemedical centre is located in the TSTU hospital and is considered to ensure technical, organizational and financial sides of the work of the regional telemedical net.

Methods. It is suggested to set up a telemedical net in Tambov Region [2]. Telemedical consultations in this net will involve doctors working in small hospitals in villages and well-qualified specialists from central medical centers. Using the Telemedical net doctors from small villages in Tambov Region can be consulted with doctors in Tambov; doctors in Tambov can in turn be connected to specialists of federal telemedical centers. Telemedical consulting stations will be set up in regional hospitals and in hospitals in Tambov.

The functionality of the whole telemedical net is made possible by means of the central telemedical centre and Internet portal that automates the TSTU telemedical centre.

IP-connection with fiber-optic nets, ADSL and satellite Internet is used in the regional telemedical net.

The telemedical centre includes not only the central server but also a room for telemedical videoconferencing, a classroom fitted out with equipment necessary for videoconferencing. In this telemedical centre telemedical consultations and presentations of new medical equipment and pharmaceutical products for doctors are held. Remote education for doctors is also organized there.

Results. A number of teleconsultations have been held at the TSTU telemedical centre. As a result, previous diagnoses are usually clarified. Telemedical consultations at the TSTU telemedical centre are held with National Research Centre of Surgery (<http://tele.med.ru>), Russian Clinical Hospital for Children (www.rdkb.ru), Moscow and with other telemedical centers. Some remote education courses for doctors have also been held.

Conclusion. The upshot of this work at the TSTU telemedical centre is that everyone in Tambov Region can have well qualified medical assistance, and people do not have to spend their time and money to travel to a specific doctor. Moreover, education for doctors and raising the level of their skill is now easier because of the telemedical technology that can be applied. The work of the portal improves cooperation between doctors in the Tambov region.

References.

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