ITCs

TeleStroke: eHealth system for the care of patients with acute stroke

A research group of the Andalusian Public Health System has developed a software application that enables to provide a telemedicine service between hospitals to treat patients with acute stroke.

Oficina de TRANSFERENCIA DE TECNOLOGÍA
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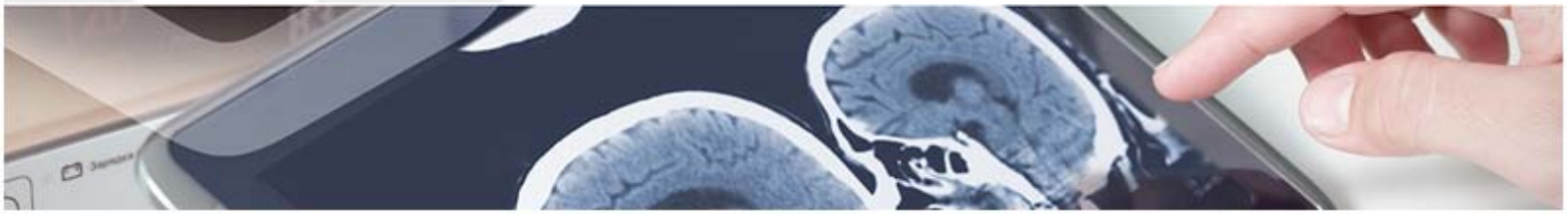

Description

This technology consists of software that enables to provide a telemedicine service between hospitals, offering the following functionalities:

1. Connecting with a videoconference system between both hospitals. It enables not only to access sound but also video.
2. Performing Interconsultation (associated to a case of acute ictus) between professionals of both hospitals, by sharing:
   - Administrative data.
   - Clinical data from patient examination.
   - Laboratory data.
   - Imaging reports.
   - X-ray and clinical images (videoconference with the patient).
   - Other data (diagnosis, treatment, scale results, etc.).
3. Carrying out the registries of the previously mentioned data by interoperating with the hospital information systems.

The logic of the system is composed by an application container (OC4J) developed in the JSP/JAVA (JEE) language for connection purposes. For the TeleStroke database, JDBC connectors are used.

TeleStroke has been evaluated in a study conducted from October 2008 to January 2011, involving patients who presented acute stroke symptoms confirmed by the emergency physician. They were examined using TeleStroke in two hospitals, at a distance of 16 and 110 kilometers from the referral hospital (Virgen del Rocío University Hospital). The implementation of TeleStroke has made it possible for patients in the acute phase of stroke to receive effective treatment, something that was previously impossible because of the time required to transfer them to referral hospitals.

Advantages

- Use of communications standards, providing the system with greater flexibility.
- Accordance with semantic and organization interoperability standards of the Health domain.
- Development has been directed towards the care process, and expert health personnel have been involved in the design and definition of requirements.
- Improvement in serviceability.
- Assurance of the accuracy of the results.

Intellectual property

This technology is protected by intellectual property rights.

Aims

We are looking for a partner interested in a license to commercialize this innovative technology.

Classification

Field: IT – Computing – Biocomputing
Technology: Others
Pathology: Central Nervous System

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