A Web-based Clinical Information System Supporting Pattern Identification Examination of a Stroke in Oriental Medicine

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Abstract

We developed a web-based clinical information system that can examine symptoms for Stroke in oriental medicine. This research enforced clinical research to examine closely Stroke's symptoms in oriental medicine. In this clinical research, We made out case report form(CRF) by many oriental medicine specialists to normalize typical symptoms that examine the Stroke. It needs confirmation whether clinical data by this CRF can examine. So, we confirmed if specialist's diagnosis views only CRF consist with specialist's diagnosis in real clinical environment. At this phase, we need system that should be convert the CRF row data to oriental medical language and then specialists can diagnoses by it. In addition to, we have developed a web-based system because it works anywhere, anytime through several specialists.

Keywords

Stroke, Clinical Laboratory Information Systems, Oriental Medicine, Signs and Symptoms, World Wide Web

Introduction

Unfortunately, an oriental medicine has not yet standardized most of disease and symptoms. That's why pattern identification for examination of various symptoms in oriental medicine is so important. So, we decided to do symptoms examination about cerebrovascular disease that happens most frequently. In this research, it is most important that establish the gold standard of Stroke diagnosis. Therefore, we developed a web-based clinical information system of pattern identification to establish gold standard about Stroke.

Methods

In this research, we developed the CRF entry system on web and then keep it in the web database. Specialist (it means Oriental Medical Doctor) sees clinical information that is stored on web and then diagnose. Because it can not diagnose from CRF row data, the data has converted to Oriental Medicine standard terminology.

A web database has the metadata table that being combined each CRF question and answer information do mapping to a symptoms. A metadata table is comprised of mapping information of CRF item and symptoms terminology in Oriental Medicine by several specialists. When specialist logged in, the web page shows doing to do mapping per CRF clinical item that is stored recently. A mapping result of per item is same that see a patient. That is, a CRF data that is gathered in this research is data of such as medical record contents that a doctor sees a patient. Specialist sees this web page and input diagnosis result. And then several specialists decide diagnosis accuracy with this diagnosis result and clinical data of CRF.

Results

This system shows hereafter that such mapping mechanism is possible for conversion to medical records from CRF clinical data. Also, it can know that is possible to link composition with standard terminology. Forward research, we will progress a research about medical document applied HL7 CDA conversion and Clinical Document Repository (CDR).

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