Medical IT Solution to Connect Local Healthcare Providers with Advanced Medical Services

Electronic Medical Record Regional Alliance System

## Advances in Regional Health System Reforms

Japan is now undertaking a variety of healthcare system reforms to enable efficient use of limited medical resources and ensure that citizens have fair and equal access to medical services. One of these reforms is to explicate the scale and jurisdiction of medical facilities, such as local clinics positioned as primary care providers, regional core hospitals, and specialized hospitals that provide advanced medical services, and then to provide a framework, called a medical district, in which each of these facilities has defined responsibilities for medical treatment, as well as an infrastructure for using that framework.

These reforms also are intended to eliminate the disparities between the major cities where hospitals that provide leading-edge treatments are concentrated and localities lacking such facilities by creating a structure whereby patients can receive high-quality medical services wherever they live through a diagnostic relay system that enables collaboration between facilities within a medical district.
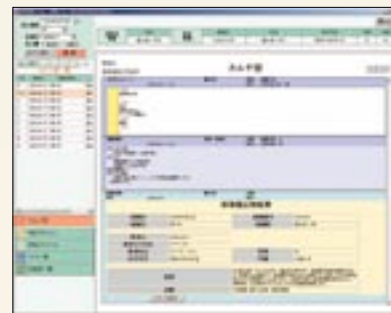
Medical District Concept
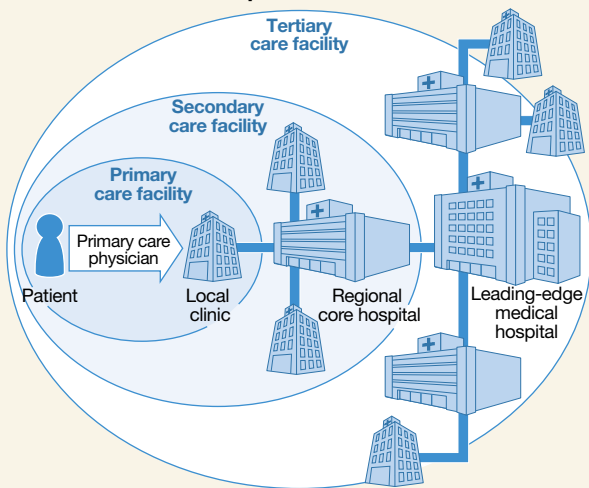
Electronic Medical Records Enable More Extensive Information Sharing

Electronic medical records are a key technology for achieving closer and more sophisticated collaboration among medical facilities. In addition to allowing multiple staff members within a single facility to share patient information simultaneously, electronic medical records, by holding data that follows standardized rules, also provides the significant advantage of allowing the sharing and exchange of information with other facilities regardless of the vendor of the IT system used. That

is to say, in order to create an intra-regional collaborative information infrastructure, it is first essential that electronic medical record systems be widely deployed at the various medical facilities wishing to share information.

We have developed a next-generation electronic medical record regional alliance system that can record or reference information from any medical facility so equipped. This system takes advantage of our leading-edge information and

communications technologies and experience in building medical information systems for facilities ranging from small local clinics to large-scale leading-edge hospitals.

Electronic medical record regional alliance system (Sample screen image)

IT Solutions that Earn the Confidence and Satisfaction of Doctors and Patients

Using this electronic medical record regional alliance system, medical resources such as hospital beds and sophisticated medical facilities and equipment can be used widely and effectively. This will lead to cost reductions for necessary medical procedures while also enabling more patients to receive even better medical care. Also, it will close the technical and informational gap between regions and different medical facilities, and support enhanced medical care in many facilities. For example, by using electronic medical records to share diagnostic information with a central hospital, doctors at local clinics will come in contact with the latest medical information and cases outside their specialty, and be able to acquire the latest medical know-how. In addition, the system will make it possible to implement a "diagnostic relay" process, in which the case history of a patient brought to another hospital in an emergency can be quickly retrieved from the patient's primary care physician. This will also help to reduce the burden on the patient when he or she recovers and returns to the primary care physician, since care can continue without interruption.

We are committed to fostering even higher levels of IT utilization and are working to develop IT solutions that can benefit patients and doctors alike.

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With Our Employees

For Our Shareholders

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With Local and International Communities

For the Environment

Used in the "Hungry for Success" School Meals Program in Scotland

Palm Vein Authentication System

Drawbacks to the Buffet Serving System

While the buffet-style serving system that is well established for school meals in the UK has the advantage that students can take exactly as much as they want of what they want, it can also lead to unbalanced nutrition and obesity.

Also, in this type of serving system, students usually pay for their meals directly after selecting their meal. However, there are some students who, due to their family economic situation, receive financial assistance to help cover the costs of the meals. Previously, it has been easy to identify students receiving assistance as, for example, they would be provided with color-coded meal vouchers or made to pay for their meals at a separate register. The resulting psychological impact on these students became problematic. Seeking to resolve these problems, the Scottish government launched the "Hungry for Success" program to promote student health and improve welfare.

Prescription: Palm Vein Authentication

The state-run Todholm Primary School in Paisley, a city near the Scottish metropolis of Glasgow, became one of the earliest schools where school meal reform was launched as part of the "Hungry for Success" program. In addition to switching from

a buffet style to a nutritionally balanced set menu style, effort was made to leverage IT to create an environment that would resolve the previously mentioned problems. The technology that made this new environment possible was Fujitsu's palm vein authentication system. Adopting this system made it possible to implement a cash-less payment process in which each student's meal charges are automatically recorded simply by having the student pass his or her hand over a sensor to authenticate their identity when picking up their meal. Moreover, the same payment environment is applied for all students. Thus students receiving aid for meal costs can pay for their meals without any social stigma.
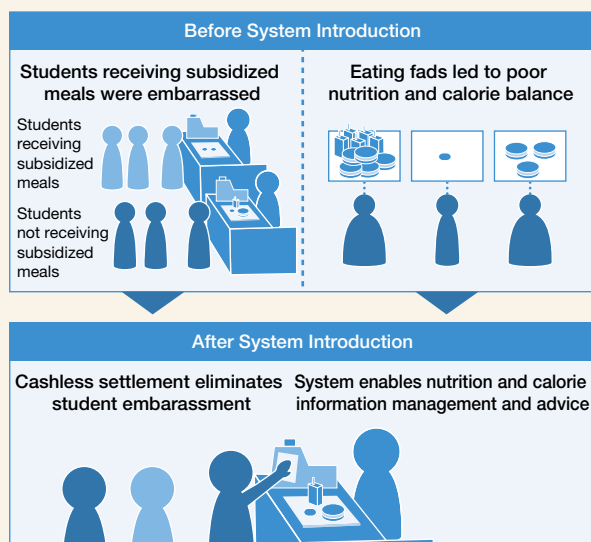
Furthermore, at the time of student authentication, information regarding previously ordered meals, food allergies and other matters can be displayed to cafeteria staff, enabling them to offer personalized advice on nutrition and calorie consumption.

Another Reason the Palm Vein Authentication System was Chosen

It was the Scottish company Yarg Biometrics that directly undertook introducing the palm vein authentication system at Todholm Primary School. Yarg had previously tried introducing a cashless payment system based on fingerprint authentication technology at a different primary school, but the results were not favorable. As with other fingerprint systems, many students were unable to use the original system. As a result, they were unable to achieve the desired authentication rates. Furthermore, since fingerprint authentication is associated with criminal investigations, there was resistance to this method by the parents and guardians of the students. Yarg, which had been searching for an authentication system to use instead of fingerprints, became interested in and decided to adopt our palm vein authentication system, which performs reliably even when the hand is injured or scraped.

In Scotland, the palm vein authentication system has become associated with the smiling faces of schoolchildren, illustrating how IT can be used to tackle social problems. We will continue to provide IT solutions that meet society's needs.

Palm vein recognition system helps improve Scottish school meals environment

Before System Introduction

Students receiving subsidized meals were embarrassed

Students receiving subsidized meals

Students not receiving subsidized meals

Eating fads led to poor nutrition and calorie balance

After System Introduction

Cashless settlement eliminates student embarrassment

System enables nutrition and calorie information management and advice

Promoting Reform of the Judicial System

Information System for the Japan Legal Support Center (Houterasu)

Progress in Judicial System Reform – To Achieve a More Accessible Legal System

In Japan, reforms that are aimed at making the judicial system more accessible and familiar to people are now under way. The Comprehensive Legal Support Law enacted in 2004 proposed the ideal of achieving a society in which anyone can receive information and services to resolve legal disputes anywhere in the country. The corporation that was established in April 2006 as a central body for providing legal support to the Japanese people is the Japan Legal Support Center (Houterasu). In the prefectural capitals and rural areas with limited judicial services, Houterasu has opened and is operating 78 offices (as of May 2007) throughout Japan.

The Five Main Houterasu Services

(1) Information Services: Provides free information on national and local government organizations, bar associations, judicial scriveners' associations and related organizations which are responsible for providing information and legal services for resolution of legal disputes.

(2) Civil Legal Aid: When people need assistance of legal experts but have limited financial resources, this service aims at offering free legal consultations, and where necessary referring their cases to legal experts and granting loans to cover the expenses of trials or lawyers and judicial scriveners.

(3) Measures for areas with limited judicial services: For areas where it is difficult to receive legal services due to a lack of lawyers or judicial scriveners. Houterasu will provide legal services at an appropriate cost through staff lawyers who work for Houterasu.

(4) Victim Support: For crime victims and their families. Houterasu provides information on available victim aid systems, such as procedures for participation in criminal proceedings or recovery of damages for victims and other related persons. Information is also provided on victim support organizations and lawyers with expertise in the field of victim support.

(5) Court-Appointed Defense Counsel Services: Houterasu swiftly and reliably enlists candidates for court-appointed defense counsel, provides assistance in arranging court-appointed defense counsel right from the investigation to the trial.

Fujitsu is handling the construction of the information system that supports these core Houterasu functions. One important point in constructing this system was to deploy the system simultaneously at all sites. We took full advantage of our nationwide network and provided support to all the Houterasu sites throughout Japan to implement this information system network.

Striving for Ease of Use and Thorough Security

To provide timely and appropriate legal aid services, it is important that the information system be easy to use. In addition to working to improve the operability of the business management system, we have implemented an easy-to-use system environment which, for example, makes possible the consolidated management of the sequence of operations from a request from a user, to the disbursal of funds for various expenses, through full settlement. From the fact that, due to the nature of its work, Houterasu handles large amounts of personal information, a high level of security is required. We have proposed and are implementing thorough security measures, including preventing the installation of private software such as the "Winny" file-sharing program.

Achieving Barrier-Free Information

Concern for the elderly and disabled is incorporated as an important aspect of Japan's Comprehensive Legal Support Law, and this concern must be reflected in information issued by Houterasu. Using the Fujitsu Web accessibility tool WebUD, we implemented barrier-free information access in the Houterasu website by providing features such as voice readout of Web page text and adjustable font color and size. (See page 17 for more information on our Web accessibility solutions.)

Since starting operation, the Houterasu website has been accessed on average about 12,000 times per day, and its call center receives about 800 telephone inquiries per day. We will continue to propose information systems that will contribute to improvements in Houterasu services.

Houterasu website
http://www.houterasu.or.jp/

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