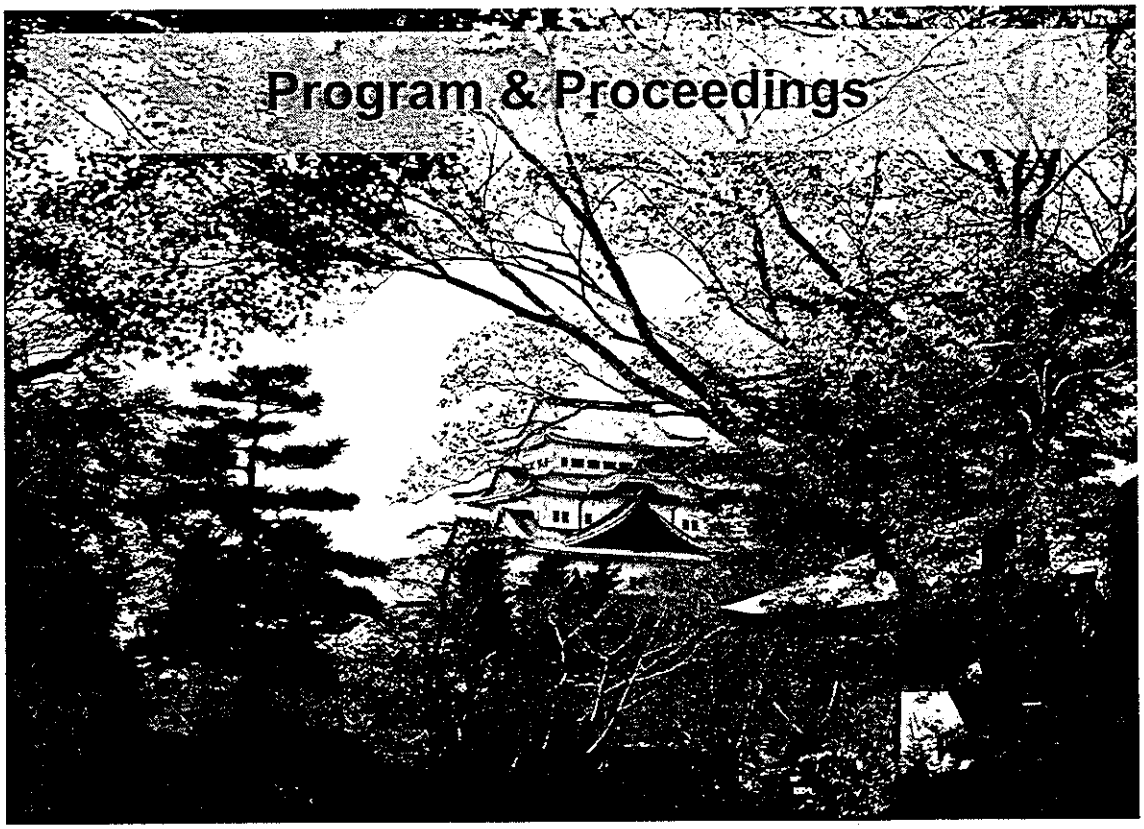
CJK-MI
2004
NAGOYA, JAPAN

The 6th China-Japan-Korea Medical Informatics Conference



26 November 2004

Nagoya Congress Center, Nagoya, Japan

Japan Association for Medical Informatics

PROGRAM

Friday, November 26, 2004

10:30 Welcome Note

Hiroshi Tanaka, JAMI president, Tokyo Medical and Dental University

10:48-11:48 Standards

Chair **Hune Cho**, Kyongpook University

Michio Kimura, Hamamatsu University

S-1 Adoption of CDA for Discharge Summary in Korea

Hwa-Sun Kim, Kyongpook National University, Taegu, Korea

S-2 Enhancement of MML and CLAIM Medical Data Exchange Standards for Localized Chinese Version

Jinqiu Guo, Kumamoto University, Kumamoto, Japan

S-3 The Development of a Triple-Tier Distributed Medical Image Database System (TTD-MIDBS)

Hongxia Yin, Capital University of Medical Sciences, Beijing, China

S-4 A bio-signal telemonitoring system using HL7 and MFER standard

Jae-pil Kim, Seoul National University, Seoul, Korea

S-5 Shizuoka Prefectural EMR Project

Michio Kimura, Hamamatsu University, Hamamatsu, Japan

11:48-13:00 Break

13:00-14:24 Decision Support

Chair **Yun-Sik Kwak**, Kyongpook University

Eiko Uchiyama, Keio University

D-1 The Application of Rough Set for Echocardiography Data Mining

Zhou Yi, Guangdong College of Pharmacy, Guangdong, China

D-2 A Novel Approach for Protein Subcellular Prediction Using PSI-BLAST and Support Vector Machine

Ao Li, University of Science and Technology of China, Hefei, China

D-3 LOCSVMpsi: A Subcellular Localization Web Server Based on A Novel Method Using Profile-based SVM

Dan Xie, University of Science and Technology of China, Hefei, China

D-4 Prognostic Factors in Lung Cancer Patients

Tong Longzheng, Capital University of Medical Science, Beijing, China

S-5

Shizuoka Prefectural EMR Project

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Abstract

Shizuoka prefecture launched an EMR development project of $4.5M in 2004. It develops common use EMR parts, such as HL7 gateway, PACSystem, sign & symptom description, referral system, nursing observation record, and clinical data warehouse.

Keywords: Electronic medical record, HL7, MERIT-9, Shizuoka prefecture

1. Backgrounds

Shizuoka prefecture is located in the middle of Japan (fig.1). It has 3.8 million population and 110 hospitals. In 2003 it launched an EMR project, which is to develop and share some parts of EMR. Total budget for 2004/5 is 500 million yen (4.5 million USD).

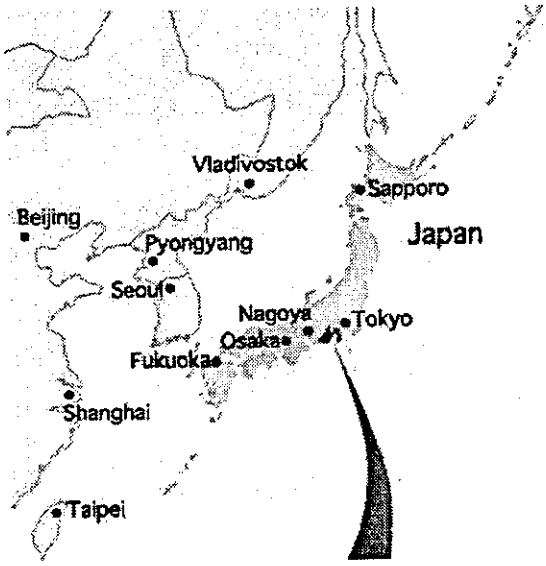

Figure 1 Shizuoka Prefecture

2. Objectives

a. Promotion of continuity of care by electronic referral

b. Care data made visible by patients

c. Careful management of patient data using standards, even in event of HIS vendor change, and for rather small hospitals which has no informatics staff

d. Showing painless deployment of EMR[1]

e. Promotion of health informatics skill in Shizuoka prefecture

f. Letting vendors prepare for HL7 data export

3. What it develop and what it doesn't

It does not develop CPOE (Computer-based Physician Order Entry), or billing system. As CPOE installation rate is very high in Japan (More than 55% for hospitals with 500+ beds), it is not feasible to assume a single vendor CPOE to base on. However, it develops some parts of EMR, i.e., 1) electronic referral documents, 2) paperless description of signs and symptoms, 3) nursing observations, 4)

PACSystem, 5) clinical information data warehouse, and 6) HL7 gateway from CPOE.

4. Configurations

Fig.2 shows its configurations. Each hospital prepares CPOE and billing system at their costs. Project prepares an HL7 gateway server, which receives orders, results, patient demographics in HL7 messages. Hospitals choose which feature they prefer to install. Selections are among above five mentioned in last chapter. As message between CPOE and HL7 gateway is single direction from CPOE to gateway, there are some limitations. Rewriting orders is not possible from nursing observation subsystem. This is why we call this nursing observation, not nursing departmental system. Critical pathway management is not possible.

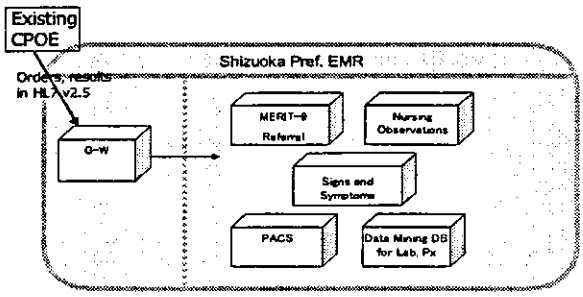

Figure 2 Configurations

5. Referral documents are in MERIT-9 form, which is double conformant to HL7 CDA R2 and IHE PDI (portable data for image).

Fig 3 shows basic idea of referral. Referring side makes a CD which comprises referral document with lab results (Fig 4), prescriptions, images, etc. Referred side views it by browsers(Fig 5). Referring document is in XML, which is actually an HL7 CDA R2. With other files of information, it constructs MERIT-9 referral document[2]. Images in this disc are in IHE PDI conformant. Therefore it is viewable both by MERIT-9 browser (with labs and Px's) and by IHE PDI DICOM browser (images only).

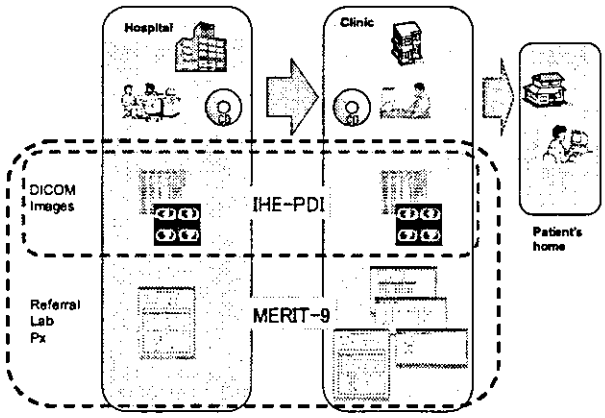

Figure 3 Referring with MERIT-9

6. Timelines

On Oct 2004, $4.5M budget was approved. Hopefully, in the 3rd quarter of 2005, 4-6 hospitals install Shizuoka EMR, while some clinic EMR system become ready to send/receive MERIT-9 referral documents.

Reference

[1] Kimura M. Synopsis, What can we currently expect from patient records? 2002 IMIA (International Medical Informatics Association) Yearbook of Medical Informatics, 329-331, 2002.

[2] Kimura M., Sakamoto N., Ohe K., Hamanaka Y., Sakusabe T., Hirose Y. : CDA for MERIT-9 Japan, HL7 International CDA Conference, Berlin, Germany, October 7-9, 2002.