

formed from one system into another, thus facilitating the searches on the Web.

In addition to the description of patient care records, the standards for sharing and exchanging patient care records are also important.<sup>8,15-17</sup> Health Level Seven (HL7) is known as the standard in exchange of electronic medical care information in healthcare environments.<sup>14</sup> HL7 is designed to standardize the format and protocol for the exchange of certain key sets of data, especially with information on finance, diagnosis, and patient care flow, among healthcare computer application systems. However, few hospital information systems in Taiwan conform to this standard, and consequently, its implementation to exchange information needs to be expanded.

The referral information system presented in this paper allows patient care records to be shared or exchanged among affiliated hospitals over the Internet. The system workflow basically follows existing systems which can be easily adapted. Hence, it can not only facilitate the referral process but also maintain the integrity of a patient's medical records from distributed hospitals. The working group on integration of city hospital information systems, the Department of Health, Taipei City Government, has decided to adopt this system for referral practice among city hospitals.

Although medical images, such as x-rays, sonographs, computer tomography (CT), and magnetic resonance imaging (MRI), are very useful for diagnosis,<sup>23, 25</sup> they are not currently supported by our system. In addition, the access control of a referral's RIF in this system depends only on authorized usernames and their passwords, and may not be secure in terms of patients' privacy and confidentiality. In the next phase of this project, we will continue to study unified schemes for representing and integrating both non-image data and medical images in the referral information system, and to enhance the policies for accessing the patient care records through the Internet.<sup>18,19</sup>

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