

Health Information Exchange (HIE) Project

Leading improvements in the health and medical service environment with technologies of the Fourth Industrial Revolution



What is the Health Information Exchange (HIE) project? It refers to a service that, for the purpose of ensuring continuity of medical treatment, enables the medical records of a patient who has given consent to disclose his/her personal information to be safely transferred to and from a medical institution electronically so that the doctor can refer to the records when treating the patient.

The Social Security Information Service (SSIS) of Korea through the HIE project is building a document repository for storing and managing HIE documents, applying the HIE program needed for medical institutions to use the HIE service in Electronic Medical Records (EMR) and improving the function, and building and operating an information security system to help the public (patients) and medical institutions safely and effectively use the HIE system. For the public (patients), the HIE project reduces medical costs by minimizing duplicate medical imaging tests and examinations and removes the trouble of having to deliver the medical records themselves while healthcare personnel can benefit

by referring to the patient's medical records and use them to improve the continuity of medical treatment and to assist decision-making. Medical institutions can guarantee patients' safety by preventing drug accidents and responding to emergency situations and can improve the quality of medical service by strengthening the network of cooperative medical diagnosis among participating medical institutions. On top of the SSIS, various related agencies are involved in the HIE project as it is an initiative made across the healthcare sector to electronically exchange patients' medical records among medical institutions.

Beginning from building base document repositories and designating participating medical institutions in 2017, the HIE project established 13 document repositories across Korea and expanded the scope to 33 regional base medical institutions in 2019. Especially noteworthy is that in the same year, a nationwide network was built through the designation of regional base medical institutions in Incheon, Gangwon and Jeju. Usability is being improved by linking the network with a pilot system for patient referral and returning

between participating institutions, with the Emergency Patient Transfer Support System and with the Personalized-Hospital Information System (P-HIS). In addition, the health information exchange feature was incorporated in 40 EMR solutions of Korea’s 33 EMR companies so that medical institutions can readily incorporate the standard connection (interface) module to their EMR system.

In order to help medical institutions successfully build their HIE system, the HIE project supports the effort by providing development training, distributing guidelines and offering technical assistance and is ensuring the interoperability of HIE programs by putting in place a procedure for confirming participation. In operating the project, SSIS issues notifications and guidelines to assist medical institutions in efficiently using the HIE system and is providing user-oriented services by regularly convening a consultative body tasked with discussing major issues and making decisions. In addition, through the HIE project, HIE-related statistics of medical institutions are compiled and managed to continuously assist medical institutions in their performance analysis and daily operation. Through the HIS project,

documents including the patient referral document, the patient returning document, the imaging information report, and the Care Record Summary (CRS) are provided. In case of imaging information in particular, Computed Tomography (CT) or Magnetic Resonance Imaging (MRI) images that comply with the Digital Imaging and Communications in Medicine (DICOM) standard can be electronically forwarded, and a web viewer is provided to allow users to view the imaging information without installing a separate system. Medical personnel can quickly provide medical care and guarantee a continuity in medical treatment by checking CRS and referring to the medical history when treating a previous patient.

SSIS is operating “mychart” as a part of the HIE project to enhance use accessibility. Hereafter, the HIE project aims to provide a stable service and an incentive by operating an EMR certification system, reflecting the results of medical treatment quality evaluations and supporting medical fees, and is planning to provide a customized service for promoting public health through connection with the Personal Health Record (PHR).

Health Information Exchange System

