The development of additional automatic mapping protocols for local LIS system which do not make one-to-one correspondence with LOINC code set

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Abstract

The Logical Observation Identifier Names and Codes (LOINC) code set is the only publicly available universal standard for laboratory test names and essential for EMR system. Although Regenstrief Institute maintaining the LOINC database provide an automatic LOINC mapping tool (RELMA), it is not sufficient for applying LOINC code set to LIS system of local hospitals. LOINC code has up to six attributes and if one of six attributes has the different value, it means different LOINC code is defined. Because many local hospitals have used their own LIS system with arbitrary codes which is not followed by LOINC attributes and some codes contain several same attributes (especially specimen), one code of LIS system would match with several LOINC codes. So we cannot help developing protocols and tools to match codes of LIS system to codes of LOINC as one to one.

As the authors develop automatic tools to connect LIS system of Pusan National University Hospital with LOINC code set, we has also developed additional protocols converting own LIS data to correspond with LOINC. And it may be valuable as facilities for applying of LOINC code set essential for EMR system to the local hospitals which has their own LIS system.