



LOINC[®] Mapping

AND MAINTENANCE SERVICES

CLINICAL DATA NORMALIZATION through LOINC Mapping

Halfpenny Technologies offers **LOINC[®] code mapping** as one of our clinical data services (CDS). With basic test directory information provided by our clients, our experienced medical technologists and advanced technology can **accurately map legacy test codes** to any standard LOINC code. Logical Observation Identifiers Names and Codes (LOINC[®]) is a data set that universally identifies clinical laboratory tests. The LOINC database was created by the non-profit Regenstrief Institute, at Indiana University in 1994, when clinical laboratories were in the early stages of transmitting test results to hospitals, physician offices and payers. While the Current Procedural Terminology, 4th Edition (CPT4) of a clinical test is adequate for billing purposes, it does not describe the test at the level of granularity required to compare test data in a shared database where results are received from multiple sources.

A LOINC code, however, specifically **differentiates a test result by multiple possible attributes**. The LOINC database includes a compilation of all of the different characteristics of a clinical laboratory test. It differentiates each test by component, property being measured (concentration, enzyme activity, etc.), timing, specimen type, reporting units, type of measurement (qualitative, quantitative, nominal, narrative, etc.), methodology and other data. **Mapped LOINC codes greatly facilitate** the comparison of data from multiple sources because it not only assures an “apple-to-apple” comparison, but further discriminates a “golden delicious” from a “red delicious.”

While there are 2,667 CPT4 codes for laboratory and pathology, there are **almost 40,000 laboratory LOINC codes**. These numbers alone indicate the degree of specificity in the LOINC database. Halfpenny offers the expertise and technology to evaluate a test dictionary and associate a LOINC code with each and every test.

Test Dictionary Process

The process for mapping a test dictionary is tedious work and requires thorough knowledge of the LOINC database. Our experienced personnel will review the client test dictionary. We will **map as many tests as possible to a LOINC code**. Other tests will require additional information from the laboratory technical staff. Subsequent follow-up calls with clients may be necessary in order to obtain the information needed to enable the selection of the correct LOINC code for those difficult to code tests.

An **individual test dictionary** may take from a few days to a few weeks to complete a LOINC project. The complexity of the testing being performed in the laboratory is a leading factor for LOINC coding. Laboratories that perform highly complex testing will require a greater degree of interaction with the client laboratory to determine the proper LOINC codes. The preparation and input by the client laboratory's technical staff is key to an effective LOINC mapping project. Occasionally, some testing performed by the client laboratory does not match to existing LOINC codes. Halfpenny provides the documentation to the client for the request of a new LOINC code.

Halfpenny's **test dictionary requirements** include: order and result test codes, order and result test names and aliases, if available, profiles/panels with associated components, units of measure for results, specimen type and collection container. Additional helpful data elements include the CPT4 and methodology. The data file can be provided to us in an electronic format, such as Microsoft Excel or a text file. Once a test dictionary is mapped, we can maintain the ongoing updates and map new test procedures as needed.

The **benefits of LOINC code mapping**, which Halfpenny can provide, include reduced errors, improved communication in integrated healthcare delivery networks, improved electronic health records (EHRs), automatic transfer to public health authorities of case reports for reportable diseases, and improved transfer of payment information.

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TO LEARN MORE**

Call us toll-free at 855-277-9100 or visit www.halfpenny.com for more information.

LOINC Mapping: Linking legacy test codes accurately to the LOINC standard for improved EHRs, payment transfers and network communication while reducing errors.

An Example of LOINC Mapping:

LOINC database – High Degree of Specificity:
 <1,500 CPT4 codes for laboratory and pathology vs. >44,000 laboratory LOINC codes

	Physician Office A	Physician Office B	Lab A	Lab B	Lab C
Test Name	Chloride U	Urine Chloride	Chloride 24 Hr Chloride	24 Hour Urine	Chloride, 24Ur
Lab Code	CLU	URCHL	CLCU	CL24	8944.671
LOINC Code	21194-6	2079-2	21194-6	2078-4	2078-4

LOINC	Component	System	Timing	Long Name
2078-4	Chloride	Urine	Pt	Chloride [Moles/volume] in Urine
2079-2	Chloride	Urine	24H	Chloride [Moles/time] in 24 hour Urine
21194-6	Chloride	Urine	24H	Chloride [Moles/vol] in 24 hour Urine
26762-5	Chloride	Urine	Pt	Chloride [Moles/volume] in Urine
32542-3	Chloride	Urine	XXX	Chloride [Molar amt] in unspecified time
35676-6	Chloride	Urine	XXX	Chloride [Molar vol] in unspecified time
51695-5	Chloride	Urine	24H	Chloride [Moles/time] in 24 hour Urine

One CPT4 code - 82436

About Halfpenny Technologies®

Halfpenny is a leading provider of clinical data exchange solutions, enabling hospitals and labs to integrate with disparate physician EHR systems. Halfpenny's SaaS-based ITF-Hub® provides a reliable, secure platform to exchange clinical, financial and administrative data while reducing complexity and costs. ITF-Portal® is a Web-based order entry and results reporting system to rapidly search and retrieve various clinical reports. ITF-GoDoc® is a mobile application to access laboratory, pathology, radiology and other clinical results reports securely. ITF-GoDoc® MobileOE is a mobile CPOE system for secure billing information, ask-at-order entry questions, specimen types and medical necessity compliance.

Learn more about LOINC Mapping on our Web site.
 Get the free mobile app for your phone at <http://gettag.mobi>



Interested in learning about how your clinical lab can benefit from our LOINC Mapping and Maintenance Services?

Call us toll-free at 855-277-9100 or visit our Web site at www.halfpenny.com for more information.