

# **Introduction to the Guide to the Top 2000+ US and SI LOINC Laboratory Observations**

## **Why a Table of the Top 2000+ Tests?**

We created this list for laboratories, practices, researchers, and others who wish to map their laboratory test codes to universal LOINC codes (<http://loinc.org>). The “Mapper’s Guide” provides a starter, target set of LOINC codes against which to map local test codes, as well as guidance about which LOINC codes to choose for which purpose. The Top 2000+ list originally contained 2017 of the most commonly reported LOINC codes, representing about 98% of the test volume carried by three large organizations in the United States that mapped all of their laboratory tests to the LOINC codes. Starting with Version 1.4, the Top 2000+ list contains approximately 2170 codes, as described in more detail below. We also created a derivative Top 2000 SI version that contains equivalent molar concentration terms for many of the tests listed in the original Top 2000.

Each row in the spreadsheet and the corresponding PDF report carries information about one laboratory test observation including its LOINC code and name, example units of measure expressed in UCUM units (<http://unitsofmeasure.org>), its relative frequency (rank), guidance (in some cases) about when to choose that test code, and more. The LOINC Top 2000+ Lab Observations CSV file is a stripped down format of this list. The CSV file does not contain the mapping guidance, but just some basic information about the LOINC code and its rank.

If you are a laboratory, we advise you to organize your mapping effort by LOINC class override, which will correspond roughly to your laboratory section.

## **Download Formats**

You can obtain the Mapper’s Guide in three formats downloadable from the LOINC web site at no cost (<http://loinc.org/usage>):

- 1) PDF format: for manual review.
- 2) Excel spreadsheet: contains all of the information as the PDF format, but can be manipulated as a spreadsheet or exported as a CSV file.
- 3) CSV file: Top 2000+ list that contains only the LOINC#, long and short LOINC name, class, and rank.

## Organization of the Mapper's Guide

The Mapper's Guide shows the LOINC codes sorted in alphabetic order by adjusted class name, adjusted specimen name and long common name.

The **adjusted class** is a slight modification of the usual LOINC class. It was designed to further subdivide some classes so you can more easily find groups of closely related tests in one place. For example, the LOINC chemistry class is broken down into "Chem-Blood Gas", "Chem-Prenatal screen", etc.

The boundaries between tests in these adjusted classes are signaled by a dark blue title row that names the class as shown in Figure 1.

	B	C	E	F	G	H	I	P
	LOINC #	Long Common Name	Class Override	Rank	Example UCUM	Example UCUM Display	Comments	System Adjusted
1								
1199		<b>Fertility Male</b>						
1200	10587-4	Sexual abstinence duration	Fertility Male	1481	d	d	Days of abstinence prior to semen specimen collection	^Patient
1201	34696-5	Collection method [Type] of Semen	Fertility Male	1810				Semen
1202	13358-7	Collection time of Semen	Fertility Male	1373				Semen
	13627-5	Erythrocytes [Presence] in Semen by Light microscopy	Fertility Male	1813			Laboratories use many specific terms to report semen analysis observations that are not included in the top 2000. LOINC has >130 such observation codes in the full table	Semen
1203								
	13943-6	Fructose [Presence] in Semen	Fertility Male	1532			Absence of fructose may indicate a problem with the seminal vesicles. Normal cut off is >300 mg/mL	Semen
1204								
1205	10579-1	Leukocytes [# /volume] in Semen	Fertility Male	1489	10*6/mL	10*6/mL		Semen
1206	10580-9	Liquefaction [Time] in Semen	Fertility Male	1767	min	min		Semen
1207	2752-4	pH of Semen	Fertility Male	1166	[pH]	pH		Semen
1208	10585-8	Round cells [# /volume] in Semen	Fertility Male	1101	10*6/mL	10*6/mL		Semen
1209	9780-8	Spermatozoa [# /volume] in Semen	Fertility Male	1001	10*6/mL	10*6/mL		Semen
1210	38544-3	Spermatozoa [# /volume] in Semen --pre washing	Fertility Male	1766	10*6/ml	10*6/ml		Semen

Figure 1. Example of the blue title row for the adjusted class

We also created an **adjusted specimen** column to produce a better sort order for the report. For example, we converted the name in the adjusted specimen column for all of the intravascular specimen types to a single specimen name (bld/ser/plas) so that analytes with blood, serum and plasma as specimen would sort together, but urine and CSF would sort separately. The specimen name that is part of the LOINC formal name was not touched by this process. Row to row changes in the adjusted specimen within class are marked by row borders that are thicker than the ordinary row as you can see between the first and second row following the adjusted class title line in Figure 1.

You can of course sort the file any way you would like; however, the explanatory banners we have placed at class boundaries and in front of certain groups of tests will not display correctly if you change the sort orders or delete or move columns. So keep a copy of the original spreadsheet handy for review of the guidance.

## Guidance in the Mapper's Guide

The Mapper's Guide includes general mapping guidance as well as more specific guidance at the level of the adjusted class, specimen, groups of related tests and individual tests.

### General guidance

The general mapping guidance section at the beginning of the Mapper's Guide provides overall strategies and information about tools that can help facilitate your mapping process.

### Guidance about test classes

Guidance about how to map test observations of a given (adjusted) class follows immediately after the class title. It is highlighted by a blue background, as shown in Figure 2.

647	<b>Chem-Bld Gas</b>					
	Notice that hemoglobin and a few other chemistries that are not strictly part of blood gas measures have distinct codes for blood arterial (BldA) and for blood venous (BldV) as well as just blood (Bld). These distinctions are a convenience for defining blood gas panels and showing the same specimen across all tests within the panel. Panels that mix classic blood gas measures like PO2 and PCO2 with routine chemistries like electrolytes and creatinine are increasingly common because such tests are available along with classic blood gas tests on point of care instruments used in the ICU.					
	For most of these there should be no significant difference in concentrations on the venous versus the arterial side. For glucose, one report describes a 4% difference between venous and arterial samples, but the ISTAT manual reports the same expected range for the venous and arterial specimens for routine chemistries with the exception of the gases and lactate. There should be no difference in the concentration of hemoglobin in an arterial versus a venous blood sample, so we do not encourage this distinction.					
	If you use the specimen type Bld (not BldA or BldV) for blood gas reports, e.g. PO2, you must also include notation either in the specimen segment or in an additional LOINC variable to indicate whether the specimen is arterial or venous.					
648	30318-0	Base deficit in Blood	Chem-Bld Gas	471 mmol/L	mmol/L	Rarely reported as such. The base excess says it all.
649	11555-0	Base excess in Blood	Chem-Bld Gas	84 mmol/L	mmol/L	
650	34705-4	Carbon dioxide [Partial pressure] adjusted to patients actual temperature in Blood	Chem-Bld Gas	618 mm[Hg]	mmHg	
651	11557-6	Carbon dioxide [Partial pressure] in Blood	Chem-Bld Gas	86 mm[Hg]	mmHg	
652	20563-3	Carboxyhemoglobin/Hemoglobin.total in Blood	Chem-Bld Gas	875 %	%	
653	11559-2	Fractional oxyhemoglobin in Blood	Chem-Bld Gas	1808 %	%	Fractional oxygen saturation (HbO2)
654	2614-6	Methemoglobin/Hemoglobin.total in Blood	Chem-Bld Gas	820 %	%	
655	19254-2	Oxygen [Partial pressure] adjusted to patients actual temperature in Blood	Chem-Bld Gas	619 mm[Hg]	mmHg	
656						

**Figure 2. Example of class guidance for a given class of LOINC terms**

### Guidance about tests of a specific specimen type

We have provided guidance about mapping terms of a given specimen type within a class. This guidance is highlighted by a light brown "sand" color. So far, we have only added specimen guidance for urine chemistry.

### Guidance about named groups of related tests

The Mapper's Guide also includes guidance for small groups of related tests, such as micro albumin testing. Group guidance has a light pink "salmon" background color and the rows of LOINC terms to which guidance applies have a slightly darker shade of the same color. The end of a group is marked by a thick red border. This formatting is illustrated in Figure 3.

605	<b>Microalbumin</b> Be aware that the routine albumin measure is insensitive to small amounts of albumin, and thus cannot detect the albumin leakage that is a sign of early damage in diabetics. This damage can be slowed or prevented if treated early; so for diabetics, the physician should order the test called micro-albumin, which is a more sensitive measure of urine albumin (detection limit of <= 20 micrograms/deciliter) that can detect such early damage. Also, some laboratories report the albumin excretion rate as both mg/(24.h) and ug/min in the same report. To accommodate this dual reporting, LOINC has made an exception to its usual rule about not creating different codes for terms with the same property of the 2nd part of the formal LOINC name just because they have different units of measure. We have provided different LOINC codes for those tests.						Group guidance
	14956-7	Microalbumin [Mass/time] in 24 hour Urine	Chem	1294	mg/(24.h)	mg/24h	
	30003-8	Microalbumin [Mass/volume] in 24 hour Urine	Chem	1973	mg/dL	mg/dL	
	14957-5	Microalbumin [Mass/volume] in Urine	Chem	175	mg/dL	mg/dL	
	58448-2	Microalbumin ug/min [Mass/time] in 24 hour Urine	Chem	176			
	14958-3	Microalbumin/Creatinine [Mass ratio] in 24 hour Urine	Chem	1979	mg/g{creat}	mg/gcreat	
	14959-1	Microalbumin/Creatinine [Mass ratio] in Urine	Chem	212	mg/g{creat}	mg/gcreat	
	2640-1	Myoglobin [Presence] in Urine	Chem	1264			
	2668-2	Norepinephrine [Mass/time] in 24 hour Urine	Chem	1257	ug/(24.h)	ug/24h	
	2667-4	Norepinephrine [Mass/volume] in Urine	Chem	1796	ug/mL	ug/mL	

**Figure 3. Group guidance highlighted in two shades of pink “salmon” set off from succeeding rows by a red row boundary**

### Individual Test Comments

On occasion, we provide some information/guidance about individual tests in the column labeled “Comments”, as illustrated in Figure 4.

	LOINC #	Long Common Name	Class Override	Rank	Example UCUM	Example UCUM Display	Comments
1							
1437		<b>Heme-Hemoglobinopathies</b>					
	4546-8	Hemoglobin A/Hemoglobin.total in Blood	Heme-Hemoglobinopathies	506	%	%	
1438							
	4547-6	Hemoglobin A1/Hemoglobin.total in Blood	Heme-Hemoglobinopathies	836	%	%	
1439							
	35127-0	Hemoglobin A2,prime/Hemoglobin.total in Blood	Heme-Hemoglobinopathies	1333	%	%	Hb A2 prime is characterized by a single substitution of glycine with arginine.
1440							
	4551-8	Hemoglobin A2/Hemoglobin.total in Blood	Heme-Hemoglobinopathies	1545	%	%	
1441							

**Figure 4. Comment for hemoglobin A2 prime**

## Data Sources and their Characteristics

The Mapper’s Guide was developed by the Regenstrief Institute, in collaboration with the Lister Hill National Center for Biomedical Communications (LHNCBC) at the National Library of Medicine (NLM). We originally obtained the grist for this guide from three large organizations whom we acknowledge and thank. These are:

the Indiana Network for Patient Care (INPC)<sup>1</sup>, Partners Healthcare System of Boston<sup>2</sup> and United Healthcare (UHC)<sup>3</sup>. Each of these sources maintains a large clinical repository and applies LOINC codes to their laboratory test observations. Two of these sources apply LOINC codes to all of their non-laboratory observations as well. Each source provided us with the LOINC codes and the counts and percent that each LOINC code represented of their total test volume. We converted figures to ranks, assigning 1 to the most frequently occurring test and increasingly larger numbers to less frequently occurring tests. We received no patient level data of any kind.

The tests originally included in the table represented more than 99.5% of the test volume from each of the three sources. However, most of them included one or more terms with non-informative test names e.g. “Miscellaneous send out”. Up to 2% of the test volume from some of the sources had such names. Because we want to discourage such naming practices, we did not include the non-specific codes in the mapper's guide; so, the coverage of the mappers guide represents proportionately less of the test volumes.

The sources differ in their geographic scope and the kinds of settings from which they gathered data. The data from UHC includes tests that office practices ordered from commercial laboratories and is a national sample from the United States. The UHC data does not include tests run within the office practice nor results from hospitalized patients. The data from the INPC represent tests ordered from hospital inpatient services, hospital associated clinics, and freestanding office practices. Its geographic scope is central Indiana. It is the only source that provided statistics about bacterial antibiotic susceptibilities. Partners’ data comes from a similar mix of inpatient and outpatient, but has a different geographic scope, the New England region around Boston.

Collectively, the three sources cover a broad national spectrum of hospital, clinic, and office practice testing in the United States. Each of the sources obtains their data from many different laboratories. The rank we report is based on the un-weighted average of the statistics provided by the three sources which together represent a sample of more than 300 million test results.

We reviewed the entire set of the top 2000 tests, manually adding explanations to distinguish the use of tests that users might otherwise confuse, looking for problematic terms like those that had been deprecated and other inconsistencies. In some specific cases we took the liberty of replacing the LOINC codes for some of the 2000 most frequently reported tests with more appropriate codes. We did this in order to correct for mapping errors, to replace deprecated test codes with their replacement code, and achieve better consistency in the final guidance. When we did replace a term, the substitute test inherited the statistics of the term it replaced.

We also removed some terms from the Top 2000+ without replacing them. We did this either because a) they were not laboratory tests but other clinical variables included in the retrieval from the source system, or b) for reasons similar to the above but the appropriate replacement was already in the table.

Prior to publication of version 1.4, we had added a few test terms that had not been included in any of the three source tables because they had only become important after we obtained the data from the original sources. In version 1.4, we added about 150 new tests to the table, not based on empiric statistics but rather, on our opinion that these are or should be in increased use based on more recent recommendations or approaches to testing. For these LOINC codes, we assigned a rank value of 3000 as a way to distinguish them from the tests originally included in the Top 2000+.

### Development of an SI Top 2000+ Version

The original Top 2000 table is derived from the reporting patterns of three large organizations in the United States, which commonly report in mass units, e.g. mg/dL, rather than molar units, e.g. mmol/L. However, LOINC codes are in use by many countries that report various tests in molar units. With the help of Dr. Gilbert Hill at The Hospital for Sick Children, Toronto, Ontario, Canada, we created an analogous Top 2000+ SI version derived from the original Top 2000+ tests. Dr. Hill identified tests within the Top 2000 that are typically reported in molar and/or mass units. For those that are commonly reported in molar units in Canada, the equivalent mass term was replaced (Figure 5). For those tests that are reported in either mass or molar units, the mass term remained and the molar term was added (Figure 6).

#### Top 2000 US Version

2098	20405-7	Urobilinogen [Mass/volume] in Urine by Test strip	UA-Test Strip	117	mg/dL	mg/dL
2099	5818-0	Urobilinogen [Presence] in Urine by Test strip	UA-Test Strip	134		

#### Top 2000 SI Version

2112	34928-2	Urobilinogen [Moles/volume] in Urine by Test strip	UA-Test Strip	117	umol/L	umol/L
2113	5818-0	Urobilinogen [Presence] in Urine by Test strip	UA-Test Strip	134		

Green shading indicates molar term replaced mass term

**Figure 5. Since testing for urobilinogen with a test strip using a urine sample is more commonly reported in molar units, the mass term was replaced by the molar term.**

1033	22751-2	Tobramycin [Moles/volume] in Serum or Plasma --peak	Drug/Tox	1574	umol/L	umol/L
1034	4057-6	Tobramycin [Mass/volume] in Serum or Plasma --peak	Drug/Tox	1574	ug/mL	ug/mL

Yellow shading indicates molar term was added

**Figure 6. In this case, tobramycin may be reported in mass or molar concentration. Therefore, the mass term was kept and the molar term added. The molar term was given the same rank (1574) as the mass term.**

## Limitations

The original Top 2000+ table was derived from the reporting patterns in the United States; so it may not reflect the testing patterns in many other countries. We bootstrapped the U.S. version to create a Top 2000+ SI Version, but have not analyzed raw data from sources outside the United States.

Only one of the sources reported statistics for antibacterial susceptibilities; so the reported frequency statistics reported in the Mapper's Guide will under-estimate the frequency of susceptibility testing.

The set of 121 of allergens included in this Mapper's Guide is a very small fraction of the 5000 allergen tests carried by the full LOINC database. Because of the geographic variability in allergen prevalence, a given laboratory may not find their most frequently reported allergens in our table of the Top 2000 tests. You will, however, likely find them in the full LOINC database.

For many kinds of common tests, method distinctions are ignored by laboratories (and LOINC) because the testing procedures are so well standardized that the method distinctions do not matter. Methods are only distinguished by general type of method within LOINC; they are not excessively specific. We have noticed that laboratories and receiving systems tend to have different mapping preferences. Laboratories tend to prefer LOINC codes that specify a type of method and receiving medical record systems tend to prefer a LOINC term that does not specify a type of method. Such differences in mapping preferences are especially prevalent among tests that measure for antibodies and antigens. If a receiving system translated a method-specific LOINC code to a methodless one for internal purposes, the LOINC Committee recommends always retaining the method type information delivered by the sending system.

Although, these frequency statistics come from very large samples of test results with a large geographic distribution, they are based on only 3 aggregate sources. Among these three large sources, at the 99.5% cut off, more than 20% of the tests within any one source's data table did not appear in the other two.<sup>a</sup> So, although our table represents the 98 percentile testing volume from the source systems, it will not necessarily include all tests within your 98 percentile. You may have to look into the full LOINC database to cover a given percentile of your testing volume. The full LOINC table along with the RELMA mapping program can be found at <http://loinc.org> and an online LOINC search application is available at <http://search.loinc.org>.

Finally, the original data that were collected may not exactly reflect current laboratory practices due to new recommendations or approaches to testing. Until we are able to obtain new data, we have added more than 150

---

<sup>a</sup> Vreeman DJ, Finnell JT, Overhage JM. A rationale for parsimonious laboratory term mapping by frequency. AMIA Annu Symp Proc. 2007 Oct 11:771-5. PubMed PMID: [186939](https://pubmed.ncbi.nlm.nih.gov/186939/)

new tests to the table that we think are, or should be, in increased use. We have given them an arbitrary rank of 3000 in order to distinguish them from the original set.

## Feedback is Welcome

We welcome suggestions and feedback about this Mapper's Guide (<http://loinc.org/contact-loinc>).

## Data Sources

- 1) The [Indiana Network for Patient Care](#) is a regional health information exchange that has been operating in central Indiana since the mid 1990s.
- 2) Partners HealthCare of Boston is a non-profit, integrated health system founded by Brigham & Women's Hospital and Mass General Hospital. We obtained statistical summary data from Partners' Research Computing's Research Patient Data Registry that is directed by Shawn Murphy, MD.
- 3) United Health Care (<http://home.uhc.com>) is a health and well-being company serving 70 million Americans with insurance coverage, preventive and condition management services. David A Stumpf, MD, PhD contributed to this report.

## Version History for Mapper's Guide to Top 2000+ LOINC Laboratory

### Observations

- Version 1.0 (05/31/2011): Initial release
- Version 1.0a (06/01/2011): Contains a couple of corrections to the UCUM units. Rest of the content is unchanged.
- Version 1.1 (06/29/2012): Updated the Top 2000+ to replace a few Deprecated and Discouraged terms. Edited units in US version that were not consistent with their corresponding LOINC term. Edited mapping guidance for clarity and for neutrality with respect to mass versus molar terms. Release of the Top 2000+ SI version based on the updated Top 2000+ U.S. version.
- Version 1.2 (12/22/2014): Updated the Top 2000+ US and SI versions to replace a few Deprecated terms (see table below).
- Version 1.3 (6/26/2015): Updated the Top 2000+ US and SI versions to replace one Deprecated term (see table below).
- Version 1.4 (6/24/2016): Added about 150 new tests based on our opinion that these are or should be in increased use based on more recent recommendations or approaches to testing. For these LOINC codes, we assigned a rank value of 3000 as a way to distinguish them from the tests originally included in the Top 2000+.



Added general mapping guidance as well as extensively edited existing mapping guidance for clarity. We also replaced one Deprecated term (see table below).

- Version 1.5 (12/21/2016): Updated the Top 2000+ US and SI versions to replace one Deprecated term (see table below).
- Version 1.6 (5/31/2017): Updated the Top 2000+ US and SI versions to 1) replace the Deprecated Streptococcus pneumoniae terms and 2) update the Long Common Name for Active Streptococcus pneumoniae terms to align with the widely accepted Danish nomenclature for Streptococcus pneumoniae serotypes (see table below).

## Revisions, Version 1.2

Row # US Version 1.1	Row # SI Version 1.1	LOINC	Long Common Name	Description of Change
1443	1457	38390-1	Cryptococcus neoformans Ag [Presence] in Cerebral spinal fluid	Deprecated term. LOINC 38390-1 replaced with 31788-3, Cryptococcus sp Ag [Presence] in Cerebral spinal fluid
742	745	40844-3	Immunoglobulin light chains.kappa.free/Immunoglobulin light chains.lambda [Mass ratio] in Serum	Deprecated term. LOINC 40844-3 replaced with 48378-4, Immunoglobulin light chains.kappa.free/Immunoglobulin light chains.lambda.free [Mass Ratio] in Serum
1846	1860	48577-1	HFE gene p.G845A [Presence] in Blood or Tissue by Molecular genetics method	Deprecated term. LOINC 48577-1 replaced with 21695-2, HFE gene p.C282Y [Presence] in Blood or Tissue by Molecular genetics method
1444	1458	5119-3	Cryptococcus neoformans Ag [Titer] in Serum by Latex agglutination	Deprecated term. LOINC 5119-3 replaced with 9820-2, Cryptococcus sp Ag [Titer] in Serum by Latex agglutination
1801	1815	9785-7	Microscopic observation [Identifier] in Stool by Ova & Parasite Preparation	Deprecated term. LOINC 9785-7 replaced with 10704-5, Ova and parasites identified in Stool by Light microscopy

## Revisions, Version 1.3

Row # US Version 1.2	Row # SI Version 1.2	LOINC	Long Common Name	Description of Change
866	869	49543-2	Calcidiol+Calciferol [Mass/volume] in Serum or Plasma	Deprecated term because ambiguous. LOINC 49543-2 replaced with 62292-8, 25-Hydroxyvitamin D2+25-Hydroxyvitamin D3 [Mass/volume] in Serum or Plasma

## Revisions, Version 1.4

Row # US Version 1.3	Row # SI Version 1.3	LOINC	Long Common Name	Description of Change
1719	1733	6556-5	Streptococcus pyogenes Ag [Presence] in Throat by Immunoassay	Deprecated term and mapped to rapid immunoassay test, LOINC 78012-2, Streptococcus pyogenes Ag [Presence] in Throat by Rapid immunoassay

## Revisions, Version 1.5

Row # US Version 1.4	Row # SI Version 1.4	LOINC	Long Common Name	Description of Change
165	165	23925-1	Penicillin [Susceptibility] by Gradient strip	Deprecated term and replaced with Penicillin G and Penicillin V terms, LOINC 7041-7 Penicillin G [Susceptibility] by Gradient strip and LOINC 7042-5 Penicillin V [Susceptibility] by Gradient strip

## Revisions, Version 1.6

Row # US Version 1.5	Row # SI Version 1.5	LOINC	Long Common Name	Description of Change
1824	1836	27092-6	Streptococcus pneumoniae 1 IgG Ab [Mass/volume] in Serum	Deprecated term and replaced with LOINC 85954-6, Streptococcus pneumoniae Danish serotype 1 IgG Ab [Mass/volume] in Serum
1825	1837	27227-8	Streptococcus pneumoniae 1 IgG Ab [Mass/volume] in Serum by Immunoassay	Deprecated term and replaced with LOINC 85955-3, Streptococcus pneumoniae Danish serotype 1 IgG Ab [Mass/volume] in Serum by Immunoassay
1826	1838	27374-8	Streptococcus pneumoniae 12 IgG Ab [Mass/volume] in Serum	Deprecated term and replaced with LOINC 85977-7, Streptococcus pneumoniae Danish serotype 12F IgG Ab [Mass/volume] in Serum
1827	1839	40903-7	Streptococcus pneumoniae 12 IgG Ab [Mass/volume] in Serum by Immunoassay	Deprecated term and replaced with LOINC 85974-4, Streptococcus pneumoniae Danish serotype 12F IgG Ab [Mass/volume] in Serum by Immunoassay
1828	1840	27387-0	Streptococcus pneumoniae 14 IgG Ab [Mass/volume] in Serum	Deprecated term and replaced with LOINC 85991-8, Streptococcus pneumoniae Danish serotype 14 IgG Ab [Mass/volume] in Serum
1829	1841	27229-4	Streptococcus pneumoniae 14 IgG Ab [Mass/volume] in Serum by Immunoassay	Deprecated term and replaced with LOINC 85992-6, Streptococcus pneumoniae Danish serotype 14 IgG Ab [Mass/volume] in Serum by Immunoassay
1830	1842	27390-4	Streptococcus pneumoniae 19 IgG Ab [Mass/volume] in Serum	Deprecated term and replaced with LOINC 86024-7, Streptococcus pneumoniae Danish serotype 19F IgG Ab [Mass/volume] in Serum
1831	1843	27230-2	Streptococcus pneumoniae 19 IgG Ab [Mass/volume] in Serum by Immunoassay	Deprecated term and replaced with LOINC 86021-3, Streptococcus pneumoniae Danish serotype 19F IgG Ab [Mass/volume] in Serum by Immunoassay
1832	1844	27389-6	Streptococcus pneumoniae 23 IgG Ab [Mass/volume] in Serum	Deprecated term and replaced with LOINC 86064-3, Streptococcus pneumoniae Danish serotype 23F IgG Ab [Mass/volume] in Serum
1833	1845	27231-0	Streptococcus pneumoniae 23 IgG Ab [Mass/volume] in Serum by Immunoassay	Deprecated term and replaced with LOINC 86061-9, Streptococcus pneumoniae Danish serotype 23F IgG Ab [Mass/volume] in Serum by Immunoassay
1834	1846	27118-9	Streptococcus pneumoniae 26 IgG Ab [Mass/volume] in Serum	Updated Long Common Name to the corresponding Danish serotype number (6B).
1835	1847	40905-2	Streptococcus pneumoniae 26 IgG Ab [Mass/volume] in Serum by Immunoassay	Updated Long Common Name to the corresponding Danish serotype number (6B).

<b>1836</b>	1848	27096-7	Streptococcus pneumoniae 3 IgG Ab [Mass/volume] in Serum	Deprecated term and replaced with LOINC 86080-9, Streptococcus pneumoniae Danish serotype 3 IgG Ab [Mass/volume] in Serum
<b>1837</b>	1849	27228-6	Streptococcus pneumoniae 3 IgG Ab [Mass/volume] in Serum by Immunoassay	Deprecated term and replaced with LOINC 86081-7, Streptococcus pneumoniae Danish serotype 3 IgG Ab [Mass/volume] in Serum by Immunoassay
<b>1838</b>	1850	27094-2	Streptococcus pneumoniae 4 IgG Ab [Mass/volume] in Serum	Deprecated term and replaced with LOINC 86107-0, Streptococcus pneumoniae Danish serotype 4 IgG Ab [Mass/volume] in Serum
<b>1839</b>	1851	40908-6	Streptococcus pneumoniae 4 IgG Ab [Mass/volume] in Serum by Immunoassay	Deprecated term and replaced with LOINC 86108-8, Streptococcus pneumoniae Danish serotype 4 IgG Ab [Mass/volume] in Serum by Immunoassay
<b>1840</b>	1852	25296-5	Streptococcus pneumoniae 51 IgG Ab [Mass/volume] in Serum	Updated Long Common Name to the corresponding Danish serotype number (7F).
<b>1841</b>	1853	40911-0	Streptococcus pneumoniae 51 IgG Ab [Mass/volume] in Serum by Immunoassay	Updated Long Common Name to the corresponding Danish serotype number (7F).
<b>1842</b>	1854	27395-3	Streptococcus pneumoniae 56 IgG Ab [Mass/volume] in Serum	Updated Long Common Name to the corresponding Danish serotype number (18C).
<b>1843</b>	1855	40913-6	Streptococcus pneumoniae 56 IgG Ab [Mass/volume] in Serum by Immunoassay	Updated Long Common Name to the corresponding Danish serotype number (18C).
<b>1844</b>	1856	40974-8	Streptococcus pneumoniae 57 IgG Ab [Mass/volume] in Serum	Updated Long Common Name to the corresponding Danish serotype number (19A).
<b>1845</b>	1857	40915-1	Streptococcus pneumoniae 57 IgG Ab [Mass/volume] in Serum by Immunoassay	Updated Long Common Name to the corresponding Danish serotype number (19A).
<b>1846</b>	1858	30153-1	Streptococcus pneumoniae 68 IgG Ab [Mass/volume] in Serum	Updated Long Common Name to the corresponding Danish serotype number (9V).
<b>1847</b>	1859	40926-8	Streptococcus pneumoniae 68 IgG Ab [Mass/volume] in Serum by Immunoassay	Updated Long Common Name to the corresponding Danish serotype number (9V).
<b>1848</b>	1860	27113-0	Streptococcus pneumoniae 8 IgG Ab [Mass/volume] in Serum	Deprecated term and replaced with LOINC 86147-6, Streptococcus pneumoniae Danish serotype 8 IgG Ab [Mass/volume] in Serum
<b>1849</b>	1861	40920-1	Streptococcus pneumoniae 8 IgG Ab [Mass/volume] in Serum by Immunoassay	Deprecated term and replaced with LOINC 86148-4, Streptococcus pneumoniae Danish serotype 8 IgG Ab [Mass/volume] in Serum by Immunoassay
<b>1850</b>	1862	27392-0	Streptococcus pneumoniae 9 IgG Ab [Mass/volume] in Serum	Deprecated term and replaced with LOINC 86169-0, Streptococcus pneumoniae Danish serotype 9N IgG Ab [Mass/volume] in Serum
<b>1851</b>	1863	40923-5	Streptococcus pneumoniae 9 IgG Ab [Mass/volume] in Serum by Immunoassay	Deprecated term and replaced with LOINC 86166-6, Streptococcus pneumoniae Danish serotype 9N IgG Ab [Mass/volume] in Serum by Immunoassay

## Terms of Use

Copyright © 2017 Regenstrief Institute, Inc. All Rights Reserved. This material contains content from LOINC® (<http://loinc.org>). To the extent included herein, the LOINC table and LOINC codes are copyright © 1995-2017, Regenstrief Institute, Inc. and the Logical Observation Identifiers Names and Codes (LOINC) Committee and available at no cost under the license at <http://loinc.org/terms-of-use>. This file can be obtained at <http://loinc.org/usage>.