

# Using RELMA

*Or...In Search of the Missing LOINC*

Clinical LOINC Meeting – Sept. 2017

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# What will we cover today?

- Overview of LOINC – Dan Vreeman
- LOINC Foundations - TBD
- Reviewing RELMA features
- Searching for a LOINC Term
- Loading a Local Observation File (LMOF)
- Preparing LMOF for Mapping
- Review of Map Screen Functions
- Setting Search Limits
- Mapping Local Terms to LOINC
- Viewing LOINC Term Details
- Proposing/Submitting New LOINC Terms
- Exporting/Printing Mapped Terms
- Mapping Special Situations
- Mapping your own LMOF data

# New in Recent Versions

- Ability to search and filter mapping terms by tag
  - Supports a logical 'NOT' operator
- Double clicking a row in the "View all local terms" grid will open the local term editor allowing local term edits
- You can map your local terms directly on the "View all Working Set Terms" grid
- A new search restriction of "PanelType" has been added
- "Export full panel structure to Excel" function includes the LOINC answer list id ("LL" code) and answer list name on the ANSWERS tab of the spreadsheet.

# Download of latest version

- The latest version of the installation file may be downloaded from:
- <https://loinc.org/downloads>



# Purpose of Tutorial

- “Eliminate” need to read the User’s Manual
- Become familiar with RELMA features
- Provide some insight into mapping tips/pitfalls
- Help begin the mapping process for your institution
- Hang with some really cool folks

# RELMA Functions

- LOINC files and indexes
- Manual and automated mapping functions
- RELMA tools transform local words in local file
  - User creates file of local term/name and codes
- Assigns LOINC term to local test/battery code
- “Common tests” subset to speed mapping
- Context sensitive hierarchies for local use.
- Flexible “Google-like” search functions

# LOINC Web Site

## <https://loinc.org/>

Download LOINC Version 2.61 and RELMA Version 6.20

[Log In](#) [Sign Up](#)



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### The universal standard for identifying health measurements, observations, and documents.

Reference labs, healthcare organizations, U.S. federal agencies, insurance companies, software vendors, *in vitro* diagnostic testing companies, and more than 52,500 registered users from 170 countries use LOINC to move data seamlessly between systems.

*It's free, but invaluable.*

[Get Started](#)



[search.loinc.org](https://search.loinc.org)



[Sponsor LOINC](#)



[Learn LOINC](#)



[LOINC Essentials](#)

# What's available to download?

- LOINC and RELMA Complete
  - RELMA - mapping and browsing tool
  - LOINC database and spreadsheets
  - RELMA and LOINC manuals
- à la carte
  - LOINC Table
    - Contains fields for LOINC codes, each of the six parts of the formal name of the LOINC, synonyms, comments...
    - Distributed as a CSV format text file or a Microsoft Access database
  - RELMA
  - Accessory files (panels, forms, top 2000, etc.)

# RELMA Highlights

- Browse-able hierarchies of LOINC parts
- Display search results in tree view
- Enhanced “details” view of terms/parts
  - References
  - Descriptions
  - Sample units
- Empirically-derived common test list
- Empirically-derived common order list
- Special features for panels/forms
- Enhanced export/copy-paste options

# RELMA Terminology (Local)

- **Local Term:** A concept composed of a code (or name) and a description.
- **Local Term File:** An organized collection of local terms. (NOTE - in previous versions this was called a "working set")
- **Local Word:** A word (e.g. "AB", "GLUCOSE", etc.) that is derived from a local term description.
- **Mapped Term:** This a local term that has previously been mapped to a LOINC term.
- **Mapping:** The process of matching a LOINC term to a local term.

# RELMA Terminology (LOINC)

- **LOINC Database:** A Microsoft Access® database published by the Regenstrief Institute that contains LOINC codes and their definitions. This database may also contain information necessary for the operation of the RELMA program.
- **LOINC Hierarchy** A structured arrangement of LOINC elements (a.k.a. parts) designed by the Regenstrief Institute for use in the RELMA program. Most often a hierarchy is used to restrict searches performed using RELMA.
- **LMOF Database:** A Microsoft Access® database designed to store the user's local terms and mappings between the local terms and LOINC terms.

# Installing RELMA®





# Running RELMA®

Version 6.12



# Copyright Screen



The Regenstrief LOINC® Mapping Assistant (RELMA®)  
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## LOINC and RELMA Terms of Use

### Copyright Notice and License

The LOINC® codes, LOINC® Table (regardless of format), LOINC® Table Core, LOINC® Release Notes, LOINC® Changes File, and LOINC® Users' Guide are copyright © 1995-2017, Regenstrief Institute, Inc. and the Logical Observation Identifiers Names and Codes (LOINC) Committee. All rights reserved.

The RELMA® program, RELMA® database and associated search index files (subject to the copyright above with respect to the LOINC® codes and LOINC® Table included therein), RELMA® Community Mapping Feature Database, RELMA® Release Notes, and RELMA®

Decline

Accept

# Join the LOINC Community



 Log in

 **The Regenstrief LOINC® Mapping Assistant (RELMA®)**  
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Boost your LOINCing and support a noble cause  
Become a LOINC Premium Member today  
<http://members.loinc.org>

**Username**

**Password**

Remember me

Do not show on start up

[Register](#)

# LOINC Crowd-Sourcing



All of loinc.org

Log in New user?

## Interoperable Data Exchange with LOINC - Learning from the Crowd

Tap into the wisdom of the LOINC crowd.

Over the past few months we've build a community mapping repository that stores mappings of local test codes to LOINC codes We added some exciting new features to RELMA that tap into that community wisdom.



crowd photo via jamescridland

**RELMA now shows counts of how many others have mapped to a particular LOINC code and the names of those local tests/variables.**

Plus, RELMA now makes it easy to add your mappings into the shared repository so others can benefit from what you've done.

We think these will be really helpful, particularly to novice LOINC mappers.

All you have to do to see these mappings is login to RELMA with your loinc.org credentials and they'll magically appear in your search results. Look for the ComMaps and ComInst columns!

### Current Versions

**LOINC 2.48**  
Released: 2014-06-27

**RELMA 6.6**  
Released: 2014-06-27



### Recent Forum Posts

Other Lab | Re: Cancer-specific panels and biomarkers

System Implementation | Re: Using LOINC to link results from labs

More posts...

### Follow LOINC on Twitter

MT to @djvreeman: Great work by @loincnurse and @westr006 enhancing nursing @LOINC content and new framework #AMIA2014 pic.twitter.com/Ov4vKSUos2

# of codes and institutions mapped to this LOINC

Click here to see the local codes!

Row	LOINC	Component	Property	Timing	System	Scale	Method	bcIU	Compl	Co	Inst	Rank	MB
9	13458-5	Cholesterol-VLDL	MCNC	PT	Ser/Plas	Qn	Calculated	mg/dL	23	1	1	18	101
23	43796-1	Cholesterol-HDL	MCNC	PT	Ser/Plas	Qn	mg/dL	18	1	2	289	101	
38	15123-3	Lipoprotein(a)-beta/Lipoprotein(a)	MPV	PT	Ser/Plas	Qn	%	1	2	2			
39	56777-6	Lipoprotein(a)-beta/Lipoprotein(a)	MPV	PT	Ser/Plas	Qn	%	2	2	2			
8	2091-7	Cholesterol-VLDL	MCNC	PT	Ser/Plas	Qn	mg/dL	2	2	2	213	101	
35	43728-8	Lipoprotein(a)-beta/apolipoprotein B	SCNC	PT	Ser/Plas	Qn	mg/dL	2	2	2			
42	10478-9	Triglyceride-ester	MCNC	PT	Ser/Plas	Qn	mg/dL	1	1	1	101		
41	10452-2	Triglyceride-ester	MCNC	PT	Ser/Plas	Qn	mg/dL	1	1	1	101		
18	48864-8	Cholesterol-VLDL3	MCNC	PT	Ser/Plas	Qn	mg/dL	1	1	1	763	101	
13	61125-4	Cholesterol-VLDL	SCNC	PT	Ser/Plas	Qn	Calculated	mmol/L	1	1	1		101
25	64695-3	Cholesterol-VLDLbeta	MCNC	PT	Ser/Plas	Qn	mg/dL	1	1	1	101		
31	11947-5	Lipoprotein(a)-beta	ACNC	PT	Ser/Plas	Qn	mg/dL	1	1	1			
2	2087-5	Cholesterol-EX	MCNC	PT	Ser/Plas	Qn	mg/dL	1	1	1	763	101	
6	51194-8	Cholesterol-IDL+Cholesterol-VLDL3	MCNC	PT	Ser/Plas	Qn	mg/dL	1	1	1	764	101	
32	62524-8	Lipoprotein(a)-beta	EMEN	PT	Ser/Plas	Qn	mg/dL	1	1	1			
15	36182-4	Cholesterol-VLDL1+2+3	MCNC	PT	Ser/Plas	Qn	mg/dL	1	1	1			
40	53524-0	Triglyceride-VLDL	SCNC	PT	Ser/Plas	Qn	mmol/L	1	1	1			
13	48818-3	Cholesterol-VLDL	MCNC	PT	Ser/Plas/Stream	Qn	mg/dL	1	1	1			
26	39885-6	Lipoprotein(a)-intermediate density	ACNC	PT	Ser/Plas	Qn	mg/dL	1	1	1			
37	12474-4	Lipoprotein(a)-beta/Lipoprotein(a)	MPV	PT	MPV	Qn	%	1	1	1			
25	47228-2	Cholesterol-HDL/Cholesterol-beta	MPV	PT	Ser/Plas	Qn	%	1	1	1			
36	44718-5	Lipoprotein(a)-beta/Triglyceride	MPV	PT	Ser/Plas	Qn	mg/dL	1	1	1			
9	56135-7	Cholesterol-EX2	SCNC	PT	Ser/Plas	Qn	mmol/L	1	1	1			



# Crowd-Sourcing Results

Download LOINC Version 2.61 and RELMA Version 6.20

Susan Matney  Log Out



<https://loinc.org/articles/?id=566>

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## Learning from the crowd while mapping to LOINC.

To describe the perspectives of Regenstrief LOINC Mapping Assistant (RELMA) users before and after the deployment of Community Mapping features, characterize the usage of these new features, and analyze the quality of mappings submitted to the community mapping repository. We evaluated Logical Observation Identifiers Names and Codes (LOINC) community members' perceptions about new "wisdom of the crowd" information and how they used the new RELMA features. We conducted a pre-launch survey to capture users' perceptions of the proposed functionality of these new features; monitored how the new features and data available via those features were accessed; conducted a follow-up survey about the use of RELMA with the Community Mapping features; and analyzed community mappings using automated methods to detect potential errors. Despite general satisfaction with RELMA, nearly 80% of 155 respondents to our pre-launch survey indicated that having information on how often other users had mapped to a particular LOINC term would be helpful. During the study period, 200 participants logged into the RELMA Community Mapping features an average of 610 times per month and viewed the mapping detail pages a total of 6686 times. Fifty respondents (25%) completed our post-launch survey, and those who accessed the Community Mapping features unanimously indicated that they were useful. Overall, 95.3% of the submitted mappings passed our automated validation checks. When information about other institutions' mappings was made available, study participants who accessed it agreed that it was useful and informed their mapping choices. Our findings suggest that a crowd-sourced repository of mappings is valuable to users who are mapping local terms to LOINC terms.

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# Main Menu/Welcome Screen

Regenstrief LOINC Mapping Assistant

File Tools HIPAA Lab Auto Mapper Help Welcome log in Register

welcome to  
**RELMA<sup>®</sup>**  
the Regenstrief LOINC Mapping Assistant

 Search LOINC

 Propose New LOINC Term

 Map Local Terms to LOINC

 Panels, Forms, & Surveys

 View/Add/Edit Local Terms

 Import Local Terms

 Export Local Terms

 Report Local Terms

 User Preferences

 Exit Program

OPA matching | Copyright © 1995-2017 Regenstrief Institute. All rights reserved. | Version 6.20

# Set Preferred Language

The image shows a screenshot of the Regenstrief LOINC Mapping Assistant software. The window title is "Regenstrief LOINC Mapping Assistant". The menu bar includes "File", "Tools", "HIPAA", "Lab Auto Mapper", and "Help". The "File" menu is open, displaying a list of options. A blue callout box with a black border and a pointer to the "Set Preferred Language" option contains the text "Click File, Set Preferred Language".

**Click File, Set Preferred Language**

File | Tools | HIPAA | Lab Auto Mapper | Help

- Search LOINC database
- Map local terms to LOINC
- View/Add/Edit Local Terms
- Change Local Term File
- Report Local Terms and Their LOINC Mappings
- Export Local Terms and Their LOINC Mappings to a File
- View Local Term File Summary
- Review Panels, Forms & Surveys
- Review HIPAA Attachments
- Import Local Terms from Delimited File or Excel Spreadsheet
- Import Local Terms from HL7 File
- Propose a new LOINC
- Review and Submit Proposed LOINCs
- Set User Preferences
- Set Preferred Language
- Backup/Restore Local Terms Database
- Exit

OPA matching | Copyright © 1995-2017 Regenstrief Institute. All rights reserved. | Version 6.20

# Select Linguistic Variant(s)

Regenstrief LOINC Mapping Assistant (RELMA) - Preferred Linguistic Variant

RELMA supports multiple linguistic variants which can be displayed in the search results screen. You may select your preferred linguistic variant from the list below. You may change this setting later using this dialog.

You may view all of the linguistic variants for a particular LOINC anytime using the following link:

Additional information about linguistic variants, including full text of the LOINC International Terminology, is available at:

<http://loinc.org/international>

NOTE - selecting a linguistic variant for searching may require the creation of one or more additional indexes. This process can take several minutes to complete, so please be patient. These indexes will need to be refreshed with each update to the LOINC data. Additionally, these index files will not be removed if RELMA is un-installed. You may safely delete these files at any time.

Selecting a translation may require indexes to be built

## My preferred linguistic variant is...

Display	Search	Variant	Producer
<input type="checkbox"/>	<input type="checkbox"/>	Greek (GREECE)	Efstratia Kontaxi, MD, MSc, and Evripidis Stefanidis, MD, with technical su...
<input type="checkbox"/>	<input type="checkbox"/>	Italian (ITALY)	Consiglio Nazionale delle Ricerche
<input type="checkbox"/>	<input type="checkbox"/>	Italian (SWITZERLAND)	CUMUL, Switzerland
<input type="checkbox"/>	<input type="checkbox"/>	Korean (KOREA, REPUBLIC OF)	Korean Ministry for Health, Welfare, and Family Affairs
<input type="checkbox"/>	<input type="checkbox"/>	Portuguese (BRAZIL)	HL7 Brazil Institute
<input type="checkbox"/>	<input type="checkbox"/>	Russian (RUSSIAN FEDERATI...)	Yaroslavl State Medical Academy
<input type="checkbox"/>	<input type="checkbox"/>	Spanish (ARGENTINA)	Conceptum Medical Terminology Center
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Spanish (SPAIN)	the Clinical Laboratory Committee of SERVICIO EXTREMEÑO DE SALUD,...
<input type="checkbox"/>	<input type="checkbox"/>	Spanish (SWITZERLAND)	CUMUL, Switzerland

OK

Cancel



# LOINC Terms with Spanish Linguistic Variant

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

**Local Term File**

Next  
Previous  
First  
Last

View: All

#: 1 of 190

Mapped to: Name:   [Local Term Details](#)

OBR-4 Code:  OBX-3 Code:  Units:  Sample Values:  Limit to Default Specimen:

[Click to add tag...](#)

Accept or enter OBR name and/or OBX name

**ALLERGY** [Search](#)

Show Words Propose Term Clear Inputs Reset Limits

**All Spanish!**

Grid Tree

Row	LOINC	Component	Property	Timing	System	Scale	Method	Rank	LongN...	ShortName	T
1	71375-0	(Alternaria...	Concentrac...	Punto...	Suero	Qn	Multidisco		ALLERGY	Inhala...	(Alternaria... 1
2	63199-4	(Anacardium...	Concentrac...	Punto...	Suero	Qn	Multidisco		ALLERGY	Food...	(Anacardiu... 1
3	63151-5	(Anacardium...	Concentrac...	Punto...	Suero	Qn	Multidisco		ALLERGY	Food...	(Anacardiu... 1
4	56331-2	(Anacardium...	Concentrac...	Punto...	Suero	Qn			ALLERGY	Food...	(Anacardiu... 1
5	71374-3	(Daucus...	Concentrac...	Punto...	Suero	Qn	Multidisco		ALLERGY	Food...	(Daucus... 1
6	71376-8	(Dermatophagoides...	Concentrac...	Punto...	Suero	Qn	Multidisco		ALLERGY	Inhala...	(Dermatop... 1
7	56781-8	(Pluma...	Concentrac...	Punto...	Suero	Ord	Multidisco		ALLERGY	Epider...	(Pluma... 1
8	11191-4	Abadejo (Polladius...	Concentrac...	Punto...	Suero	Qn			ALLERGY	Pollock...	Abadejo... 1
9	21470-0	Abadejo (Polladius...	Concentrac...	Punto...	Suero	Ord			ALLERGY	Pollock...	Abadejo... 1
10	41874-9	Abedul blanco...	Concentrac...	Punto...	Suero	Qn		1025	ALLERGY	White...	Abedul... 1
11	61227-5	Abedul blanco...	Fracción	Punto...	Suero	Qn			ALLERGY	White...	Abedul... 1
12	56422-9	Abedul blanco...	Concentrac...	Punto...	Suero	Qn			ALLERGY	White...	Abedul... 1
13	43841-6	Abedul blanco...	Concentrac...	Punto...	Suero	Ord			ALLERGY	White...	Abedul... 1

Truncated Text Print Preview

Entry #: 1 of 190 Units Specimen Methodless No Common Limits Battery 3773 records found: 0.24s

# Setting User Preferences



# Set User Preferences

Regenstrief LOINC Mapping Assistant

Welcome log in Register

File Tools HIPAA Lab Auto Mapper Help

- Search LOINC database
- Map local terms to LOINC
- View/Add/Edit Local Terms
- Change Local Term File
- Report Local Terms and Their LOINC Mappings
- Export Local Terms and Their LOINC Mappings to Delimited File
- View Local Term File Summary
- Review Panels, Forms & Surveys
- Review HIPAA Attachments
- Import Local Terms from Delimited File or Excel spreadsheet
- Import Local Terms from HL7 File
- Propose a new LOINC
- Review and Submit Proposed LOINCs
- Set User Preferences
- Set Preferred Language
- Backup/Restore Local Terms Database
- Exit

Set User Preferences

...or from Welcome Screen

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# Set User Preference Dialog

Regenstrief LOINC Mapping Assistant (RELMA) - User Preferences

General | Map Screen | Details Pages | Submissions | Local Terms Backup

Local Term Backup Tab

Path to LOINC Database: C:\Users\Public\Documents\RELMA\RELMA.MDB Browse...

Path to Local Terms: C:\Users\Public\Documents\RELMA\RELMA.MDB Browse...

NOTE: You must restart RELMA

File Locations:  
*(See prior slide for location)*

When RELMA starts, it should

- Take me to the Welcome Screen
- Take me to the Mapping Screen
- Take me to the Simple Search Screen

Startup Screen Preference

Do not show log in screen on start up

Apply OK Cancel

# User Map Screen Preferences

Click Map Screen Tab

Auto create search terms

Include/Exclude Battery Terms

Add comments on Mappings

Regenstrief LOINC Mapping Assistant (REEMA) - User Preferences

General | **Map Screen** | Details Pages | Submissions | Local Terms

**Pre-Search Options**

- Auto Select Keyword
- Auto Wildcard Keywords (\*)
- Use Local Battery Terms in Search

**Post-Search Options**

**Sort Search Results**

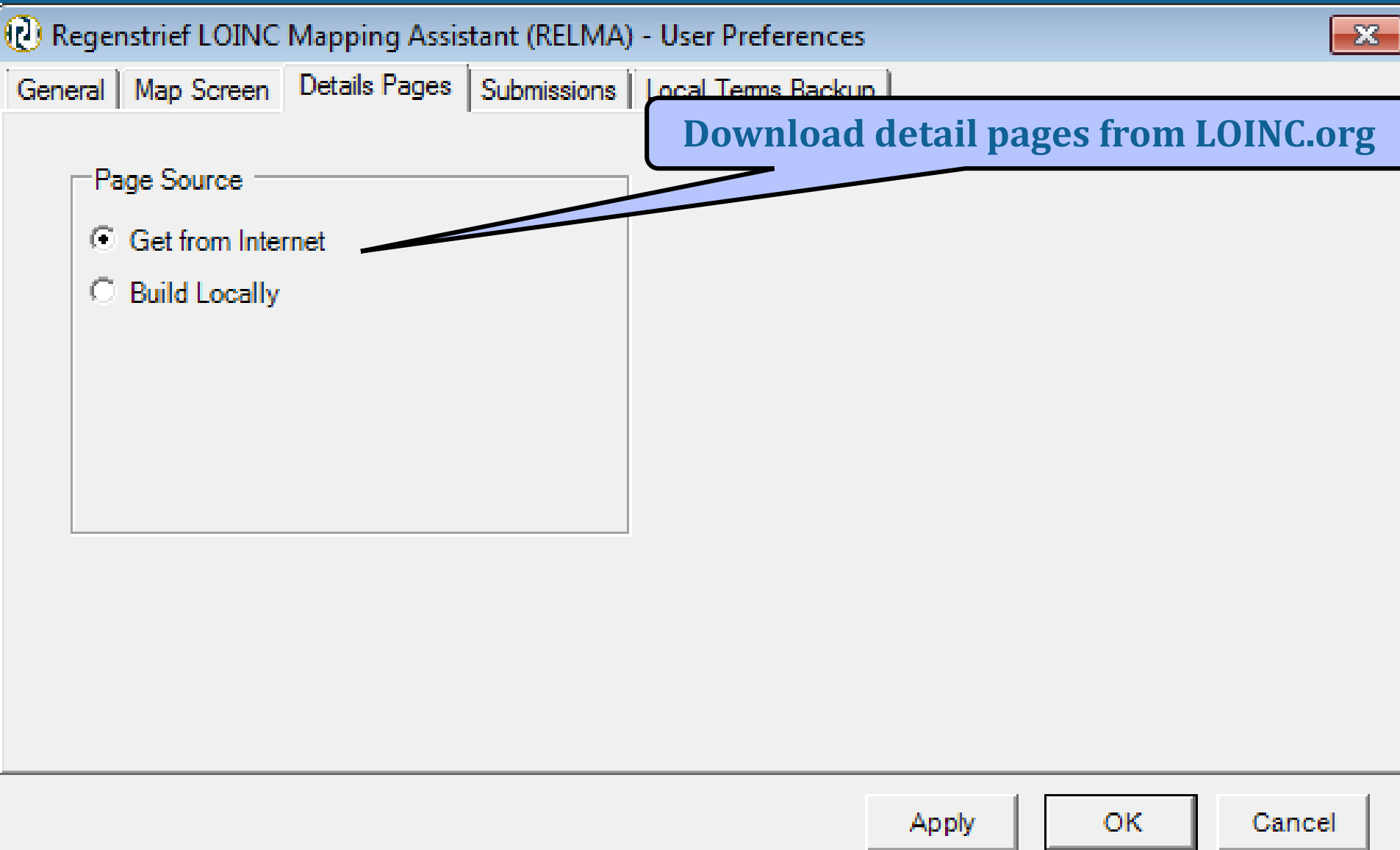
- By Component, System, Property
- By...

**Mapping & Linguistic Options**

- Prompt for comments when mapping

Current Linguistic Preference:

# User Detail Pages Preferences



# Request Submission Preference

Regenstrief LOINC Mapping Assistant (RELMA) - User Preferences

General | Map Screen | Details Pages | Submissions | Local Terms Backup

Preferred Submission Type

WEB

EMAIL

Timeout in Minutes

Preferred method of request submission

# Local Backup Preferences

Regenstrief LOINC Mapping Assistant (RELMA) - User Preferences

General | Map Screen | Details Pages | Submissions | Local Terms Backup

Automatic Backup Frequency

- Never make a backup, I'd rather do it manually.
- Make a backup every time I exit the program.
- Make a backup every  days (only occurs when program is exited).

Backup Retention Policy

- Keep the last  backups on disk.
- Never delete backup files. I'll clean them myself.

Apply OK Cancel



# Searching for LOINC Terms



welcome to  
**RELMA**  
the Regenstrief LOINC Mapping Assistant

Comprehensive Search  
Only Tool

 Search LOINC

 Map Local Terms to LOINC

 View/Add/Edit Local Terms

 Export Local Terms

 Propose New LOINC Term

 Panels, Forms, & Surveys

 Import Local Terms

 Report Local Terms

 User Preferences

 Exit Program

# Search Window

The screenshot shows the Regenstrief LOINC Mapping Assistant (RELMA) interface. The title bar reads "Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR". The menu bar includes "File", "Tools", "HIPAA", "Lab Auto Mapper", "View", and "Help". A secondary menu bar contains "Search", "Mapping", "View All Working Set Terms", "Hierarchy & Search Limits", "Part Search", and "Answer List Search".

The main search area features a text input field labeled "Enter LOINC search words", a "Units" dropdown menu, and a "Search" button with a help icon. Below this are two dropdown menus: "Use Standard Search" and "No Common Limits". A callout "Enter Search Terms" points to the search input field. A callout "Use different logic" points to the "Use Standard Search" dropdown. A callout "Restrict Limits \*\*NEW\*\* Clinical Terms" points to the "No Common Limits" dropdown. A callout "Limit to Specific Units" points to the "Units" dropdown.

The search results are displayed in a table with columns "Row", "LOINC", and "Component". The table is currently empty. A callout "Help File" points to the "Help" menu item. A "Register" button is located in the top right corner.

At the bottom of the window, the status bar shows "Entry #: 1 of 190" and a list of filters: "Units", "Specimen", "Methodless", "No Common Limits", and "Battery". The bottom right corner displays "Start-up: 9.92s".

Help File

Enter Search Terms

Use different  
logic

Restrict Limits  
**\*\*NEW\*\*** Clinical Terms

Limit to  
Specific Units

# Search Window

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for SAMPLE

File Tools HIPAA Lab Auto Mapper View Help

Welcome smatney log out

Search | Mapping | View All Working Set Terms | Hierarchy & Search Limits | Part Search | Answer List Search

braden scale Units Search ?

Use Clinical Automapper Search No Common Limits

Grid	Tree	Row	Score	LOINC	Component	Property	Timing	System	Scale	Method	ExUCJ...	ExUnits	Rank	SIRank	ComMaps
		1	2/7	38224-2	Physical mobility	Find	Pt	^Patient	Ord	Obse					
		2	2/7	38223-4	Physical activity		Pt	^Patient	Ord	Obse					
		3	2/7	38229-1	Moisture exposure		Pt	Skin	Ord	Obse					
		4	2/7	38222-6	Sensory perception		Pt	Skin	Ord	Obse					
		5	2/7	38226-7	Friction & shear		Pt	Skin	Ord	Obse					
		6	2/8	38225-9	Nutrition intake pattern		Pt	^Patient	Ord	Obse					
		7	2/9	38227-5	Performance		Pt	^Patient	Qn	Obse					

Units Specimen Methodless No Common Limits Battery

7 records found: 0.8s

**“Clinical Automapper” rank**

**“No Limits” selected**

# RELMA Search Helpfile

**Basic Search Syntax**

The search syntax is similar to that of Google. Basic searches will follow the rules outlined below.

- Searches are case-insensitive so an upper case search term will return the same results as a lower case search term.
- Search terms will be separated by the AND operator when no operator is specified.

The following special characters can also be used in a basic search.

Special Characters	Example	Definition
" "	influenza "virus A"	Phrase.
AND	morphine AND opiates	Both terms must exist somewhere in each search result.
OR	influenza OR parainfluenza	Either of the terms exist somewhere in each search result.
NOT	influenza NOT equine	Excludes records that contain the term after NOT. The NOT operator cannot be used with just one term.
?	allergy artemi?	Single character wildcard search. Cannot be used in phrases.
*	allergy artemi*	Multiple character wildcard search. Cannot be used in phrases.
FieldName:	Field1:opiates AND Field2:hair	Field that must contain the term. The field is only valid for the term that it directly precedes. See the <a href="#">Basic LOINC Field Names section</a> and <a href="#">Basic Part Field Names section</a> for a list of the basic field

# Context Menu

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help log in | Welcome

Search | Mapping | View All Working Set Terms | Hierarchy & Search Limits | Part Search | Answer List Search

hematocrit bld qn Units Search ?

Use Standard Search Common Labs US

Grid	Tree	Row	LOINC	Component	Property	Timing	System	Scale	Method	Rank	Class	LongName
		1	20570-8	Hematocrit	VFr	Pt	Bld	Qn		28	HEM/BC	Hematocrit [Volume Fraction] of Blood
		2	4544-3	Hematocrit	VFr	Pt	Bld	Qn	Automated count	14	HEM/BC	
		3	31100-1	Hematocrit	VFr	Pt	Bld	Qn	Impedance	164	HEM/BC	
		4	4545-0	Hematocrit	VFr	Pt	Bld	Qn	Spun	545	HEM/BC	

- Export
- Configure Export
- Sort Grid
- Configure Grid
- View Details - Simple
- View Details - Comprehensive
- View Details - Custom
- View Panel Children
- Truncate Text
- Wrap Text
- Print
- Map
- Repeat Mapping
- Propose a new LOINC
- Propose a LOINC based on selected term
- Find Panels with all these LOINCs
- Find Panels with any of these LOINCs

Units Specimen Methodless Common Labs US Battery

02s ...

**Right click to bring up context menu**

# Basic Search Syntax

Special Character(s)	Example	Definition
“ ”	Influenza “virus A”	Linked terms must appear together
AND	Morphine AND Opiates	Both terms must appear in the search result term
OR	Influenza OR Parainfluenza	Either or both terms must appear in the search result term
NOT	Influenza NOT equine	Excludes terms with the word following the NOT. Cannot be used alone.
?	Gluc?se (glucose,glucase)	Substitutes a single character in the string. Cannot be used as the first character; cannot be used in “phrases”
*	Gluc*se (glucose, glucuronidase, etc.)	Substitute multiple characters in the string. Cannot be used as the first character; cannot be used in “phrases”

# Advanced Search Syntax

based on Google-like search syntax

Parameter	Description
+	Term must be included in search
-	Term must be excluded from the search
( )	Group terms for subquery (i.e. A OR B; A AND B)
Fieldname:	Limit term search to the associated field (e.g. Component: glucose)
Fieldname:()	Group multiple terms in a single field
~	Fuzzy search (e.g. Hemophilus~)
" " ~	Proximity search for multiple terms (e.g. "function panel"~1)
{}, []	Upper and lower bounds; {} exclusive, [] inclusive
\	Special character escape



# Search Qualifiers

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

gluc\*ase Units Search ?

Use Standard Search No Common Limits

Grid	Tree	Row	LOINC	Component	Property	Timing	System	Scale	Method	Rank	Class	LongN...	Short...	Type
		1	21064-1	Acid alpha glucosidase	CCnc	Pt	Amnio fld	Qn			CHEM	Add...	A...	1
		2	55827-0	Acid alpha glucosidase	CCnc	Pt	Bld.dot	Qn			CHEM	Add...	A...	1
		3	24050-7	Acid alpha glucosidase	CCnt	Pt	Fibroblasts	Qn			CHEM	Add...	A...	1
		4	1814-3	Acid alpha glucosidase	CCnc	Pt	Semen	Qn			CHEM	Add...	A...	1
		5	38475-0	Acid alpha glucosidase	CCnc	Pt	Ser/Plas	Qn			CHEM	Add...	A...	1
		6	1815-0	Acid alpha glucosidase	CCnt	Pt	Tiss	Qn			CHEM	Add...	A...	1
		7	30315-6	Acid alpha glucosidase	CCnt	Pt	Tsmi	Qn			CHEM	Add...	A...	1
		8	1816-8	Acid alpha glucosidase	CCnc	Pt	WBC	Qn			CHEM	Add...	A...	1
		9	24051-5	Acid alpha glucosidase	CCnt	Pt	WBC	Qn			CHEM	Add...	A...	1
		10	44037-0	Acid beta glucosidase	ACnc	Pt	Bld	Qn			CHEM	Add...	A...	1
		11	55917-9	Acid beta glucosidase	CCnc	Pt	Bld.d	Qn			CHEM	Add...	A...	1
		12	25829-3	Acid beta glucosidase	CCnt	Pt	Fibroblasts	Qn			CHEM	Add...	A...	1
		13	38477-6	Acid beta glucosidase	CCnc	Pt	Ser/Plas	Qn			CHEM	Add...	A...	1
		14	18195-8	Acid beta glucosidase	ACnc	Pt	Bld	Qn			CHEM	Add...	A...	1
		15	1943-0	Acid beta glucosidase	CCnc	Pt	Bld	Qn			CHEM	Add...	A...	1
		16	32540-7	Acid beta glucosidase	CCnt	Pt	Bld	Qn			CHEM	Add...	A...	1
		17	33661-0	Acid beta glucosidase	CCnc	Pt	Bld	Qn			CHEM	Add...	A...	1
		18	35303-7	Acid beta glucosidase	CCnt	Pt	Bld	Qn			CHEM	Add...	A...	1
		19	24091-1	Alpha-N...	CCnc	Pt	Bld	Qn			CHEM	Alpha...	A-NAG Fib...	1
		20	1837-4	Alpha-N...	CCnc	Pt	Bld	Qn			CHEM	Alpha...	A-NAG...	1
		21	1838-2	Alpha-N...	CCnc	Pt	Bld	Qn			CHEM	Alpha...	A-NAG Tiss...	1
		22	2644-3	Alpha-N...	CCnc	Pt	Urine	Qn			CHEM	Alpha...	A-NAG Ur...	1
		23	24092-9	Alpha-N...	CCnt	Pt	WBC	Qn			CHEM	Alpha...	A-NAG...	1

Detailed help available

Includes Glucuronidase, Glucosidase, Glucosylceramidase, etc.

Units Specimen Methodless No Common Limits Battery

75 records found: 0.02s

# Combining Search Terms

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search | Mapping | View All Working Set Terms | Hierarchy & Search Limits | Part Search | Answer List Search

gluc\*ase -glucosidase Units Search ?

Use Standard Search No Common Limits

Grid	Tree	Row	LOINC	Component	Property	Timing	Scale	Method	Rank	Class	LongN...	ShortName	Type
		1	24091-1	Alpha-N...	CCnt	Pt	Qn			CHEM	Alpha...	A-NAG Fib...	1
		2	1837-4	Alpha-N...	CCnc	Pt		Ser		CHEM	Alpha...	A-NAG...	1
		3	1838-2	Alpha-N...	CCnt	Pt						A-NAG Tiss...	1
		4	2644-3	Alpha-N...	CCnc	Pt						A-NAG Ur...	1
		5	24092-9	Alpha-N...	CCnt	Pt						A-NAG...	1
		6	63429-5	Bacterial beta...	Pr	Pt						uidA gene...	1
		7	11209-4	Beta glucuronidase	CCnc	Pt	CSF	Qn		CHEM	Beta...	B...	1
		8	24064-8	Beta glucuronidase	CCnt	Pt	Fibroblasts	Qn		CHEM	Beta...	B...	1
		9	13962-6	Beta glucuronidase	CCnc	Pt	Ser/Plas	Qn		CHEM	Beta...	B...	1
		10	14284-4	Beta glucuronidase	SCnc	Pt	Ser/Plas	Qn		CHEM	Beta...	B...	1
		11	1944-8	Beta glucuronidase	CCnt	Pt	Tiss	Qn					
		12	1945-5	Beta glucuronidase	CCnc	Pt	Urine	Qn					
		13	24065-5	Beta glucuronidase	CCnt	Pt	WBC	Qn					
		14	34191-7	Beta glucuronidase	CCnc	Pt	XXX	Qn					
		15	49862-6	G6PC gene mutation...	Prid	Pt	Bld/Tiss	Nar	Molgen	MOLPAT...	G6PC...	G6PC...	
		16	53732-4	GCK gene mutation...	Prid	Pt	Bld/Tiss	Nar	Molgen	MOLPAT...	GCK...	GCK...	
		17	32779-1	Glucose-6...	CCnc	Pt	RBC	Qn		CHEM	Glucos...	G...	
		18	2354-9	Glucose-6...	CCnc	Pt	Ser	Qn		CHEM	Glucos...	G6P...	
		19	2355-6	Glucose-6...	CCnt	Pt	Tiss	Qn		CHEM	Glucos...	G6Pas...	
		20	2361-4	Glucosylceramidase	CCnt	Pt	Tiss	Qn		CHEM	Glucos...	Glucosy...	
		21	35473-8	HEXA gene 7.6kb...	Arb	Pt	Bld/Tiss	Ord	Molgen	MOLPAT...	HEXA...	HEXA...	
		22	51773-0	HEXA gene mutation...	Prid	Pt	Bld/Tiss	Nar	Molgen	MOLPAT...	HEXA...	HEXA gene...	
		23	32632-2	HEXA gene mutation...	Prid	Pt	Bld/Tiss	Nom	Molgen	1739 MOLPAT...	HEXA...	HEXA gene...	

Units Specimen Methodless No Common Limits Battery

36 records found: 0.01s

**Exclude Glucosidase**

**Reduced number of terms**

# Applying advanced search

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for SAMPLE

Welcome smatney log out

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

hight~ property:len Units Search ?

Use Standard Search No Common Limits

Row	Score	LOINC	Component	Property	Timing	System	Scale	Method	ExUCJ...	ExUnits	Rank	SIRa
1	5.518	60643-4	Anterior facial height	Len	Pt	Skull	Qn	XR.measured	mm	mm		
2	2.7043	29013-0	Argon laser coagulation Rx spot size	Len	Pt	Eye.right	Qn		um	um		
3	2.7043	29023-9	Argon laser trabeculoplasty Rx spot...	Len	Pt	Eye.right	Qn		um	um		
4	2.7043	64742-0	Axial length	Len	Pt	Eye.right	Qn	PhenX	cm	cm		
5	2.7043	28927-2	Base curve 1	Len	Pt	Contact lens.prescriptionright	Qn		mm	mm		
6	2.7043	28876-1	Base curve 1	Len	Pt	Contact lens.right	Qn		mm	mm		
7	2.7043	28974-4	Base curve 1	Len	Pt	Eye.right	Qn	Ophthalmometer	mm	mm		
8	2.7043	28928-0	Base curve 2	Len	Pt	Contact lens.prescriptionright	Qn		mm	mm		
9	2.7043	28877-9	Base curve 2	Len	Pt	Contact lens.right	Qn		mm	mm		
10	2.7043	28976-9	Base curve 2	Len	Pt	Eye.right	Qn	Ophthalmometer	mm	mm		
11	2.7043	28937-1	Bevel radius	Len	Pt	Contact lens.prescriptionright	Qn		mm	mm		
12	2.7043	28886-0	Bevel radius	Len	Pt	Contact lens.right	Qn		mm	mm		
13	2.7043	28936-3	Bevel width	Len	Pt	Contact lens.prescriptionright	Qn		mm	mm		
14	2.7043	28885-2	Bevel width	Len	Pt	Contact lens.right	Qn		mm	mm		
15	6.6939	8302-2	Body height	Len	Pt	^Patient	Qn		[in_i]	inches;...		
16	6.6939	8301-4	Body height	Len	Pt	^Patient	Qn	Estimated	[in_us]...	in;cm		
17	6.6939	3137-7	Body height	Len	Pt	^Patient	Qn	Measured	[in_us]...	in;cm		
18	6.6939	3138-5	Body height	Len	Pt	^Patient	Qn	Stated	[in_us]...	m-...		
19	6.1432	56066-4	Body height^at age 25	Len	Pt	^Patient	Qn	Stated	cm	cm		
20	6.6939	8306-3	Body height^lying	Len	Pt	^Patient	Qn		[in_us]...	m-...		
21	6.6939	8305-5	Body height^post partum	Len	Pt	^Patient	Qn		[in_us]...	in;cm		
22	6.6939	8307-1	Body height^pre surgery	Len	Pt	^Patient	Qn		[in_us]...	in;cm		
23	7.3533	8308-9	Body height^standing	Len	Pt	^Patient	Qn		[in_us]...	m-...		

129 terms

Units Specimen Methodless No Common Limits Battery

129 records found: 0.25s

# Applying advanced search

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for SAMPLE

File Tools HIPAA Lab Auto Mapper View Help

Welcome smatney log out

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

component:hight~ property:len methodless:true Units Search ?

Use Standard Search No Common Limits

Grid	Tree	Row	Score	LOINC	Component	Property	Timing	System	Scale	Method	ExUCU...	ExUnits	Rank	SIRank
		1	3.3039	8302-2	Body height	Len	Pt	^Patient	Qn		[in_i]	inches;...		
		2	4.0241	8306-3	Body height^lying	Len	Pt	^Patient	Qn		[in_us]...	m-...		
		3	4.0241	8305-5	Body height^post partum	Len	Pt	^Patient	Qn		[in_us]...	in;cm		
		4	4.0241	8307-1	Body height^pre surgery	Len	Pt	^Patient	Qn		[in_us]...	in;cm		
		5	4.0241	8308-9	Body height^standing	Len	Pt	^Patient	Qn		[in_us]...	m-...		
		6	3.3039	56061-5	Knee height	Len	Pt	^Patient	Qn		cm	cm		

6 terms

Units Specimen Methodless No Common Limits Battery

6 records found: 0.04s

# Limiting Searches



# Setting Search Limits

- Narrows search to specific subset of LOINC terms
- Reduces number of candidate terms
- Limits can be applied to all components
- Component attribute can be further restricted by number of words
- Tree structure allows for hierarchical constraints

# General Search Constraints

- Controls features including:
  - Limit to LOINC terms compatible with submitted units
  - Forced match with any specimen contained in name
  - Method-less terms only
  - Restrict by class type
  - Remove lateralized terms
- Use carefully or search may not be successful  
(Note parallel control switches at bottom of screen)

# Setting Search Limits

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

**Local Term File**

Mapped to: 2075-0 Name: Chloride [Moles/volume] in Serum or Plasma Local Term Details

OBR-4 Code: 665670 OBX-3 Code: 755366 Units: mmol/L Sample Values: Limit to Default Specimen:

Click to add tag...

View: All

#: 184 of 190

CHLORIDE SERP... Search

Show Words Propose Term Clear Inputs Reset Limits Standard Search No Common Limits

Row	LOINC	Component	Property	System	Scale	Method	Rank	Class	LongN...	ShortName	Type
1	13006-2	1,4-Dichlorobenzene	MCN...	Ser/Plas	Qn			DRUG/T...	1,4-...	1,4DCB...	1
2	2075-0	Chloride	SCN...	Ser/Plas	Qn		8	CHEM	Chlorid...	Chloride...	1
3	54369-4	Chloride^post dialysis	SCN...	Ser/Plas	Qn			CHEM	Chlorid...	Chloride p...	1
4	9505-9	Chlorobenzene	MCN...	Ser/Plas	Qn			DRUG/T...	Chloro...	Chlorobenz...	1
5	54937-8	Chlorofom	MCN...	Ser/Plas	Qn			DRUG/T...	Chlorof...	Chlorofom...	1
6	39357-9	Cholinesterase,chlorig...	Q...	Ser/Plas	Qn			CHEM	Cholin...	Chloride...	1
7	72570-5	Cholinesterase,chlorig...	Q...	Ser/Plas	Qn			CHEM	Cholin...	Chloride...	1
8	12999-9	Epichlorohydrin	MCN...	Ser/Plas	Qn			DRUG/T...	Epichlo...	Epichlorohy...	1
9	17661-0	Succinylcholine	MCN...	Ser/Plas	Qn			DRUG/T...	Succin...	Succinylcho...	1

View Details Print Grid Map Same Export Configure Export Configure Grid

Truncated Text Print Preview

Entry #: 184 of 190 Units Specimen Methodless No Common Limits Battery 9 records found: 0.03s

**Click Hierarchy & Search Limits Tab**



# Changed search function – Max words

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for SAMPLE

Welcome smatney log out

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

component:Circumference +componentwordcount:1 Units Search ?

Use Standard Search No Common Limits

Row	Score	LOINC	Component	Property	Timing	System	Scale	Method	ExUCJ...	ExUnits	Rank	SIRank
1	5.5289	5611	Circumference	Len	Pt	Abdomen.mid	Qn	NCFS	cm	cm		
2	5.5289	5612	Circumference	Len	Pt	Abdomen.mid	Qn	NHANES	cm	cm		
3	5.5289	5613	Circumference	Len	Pt	Abdomen	Qn	WHI	cm	cm		
4	5.5289	5614	Circumference	Len	Pt	Neck	Qn		cm	cm		
5	5.5199	2000	Circumference	Circ	Pt	Region of	Qn	US	mm;cm	mm;cm		
6	5.5289	5615	Circumference	Len	Pt	Upper arm	Qn		cm	cm		
7	5.5289		Circumference	Len	Pt	XXX	Qn		cm	cm		
8	5.5289		Circumference	Prctl	Pt	XXX	Qn		%	%		

Units Specimen Methodless No Common Limits Battery

8 records found: 0.01s

**Restricting to "Component Axis" refines further**

**Keyword ComponentWordCount restricts word count**

# Setting search limits

Can also set most of them by toggling buttons at the bottom of the screen

The screenshot displays a software interface with a data grid and a control panel. A blue callout box labeled "Toggle Buttons" points to a red-bordered area at the bottom of the screen containing several buttons: "Units", "Specimen", "Methodless", "No Common Limits", and "Battery".

Row	LOINC	Component	Property	Timing	System	Scale	Method	ExUCUMu...	ExUnits	Rank	ComMaps	ComInst	Class
1	13006-2	1,4-Dichlorobenzene	MCnc	Pt	Ser/Plas	Qn		mg/L	mg/L				DRUG/TOX
2	2075-0	Chloride	SCnc	Pt	Ser/Plas	Qn		mmol/L	mmol/L	8			CHEM
3	54369-4	Chloride^post dialysis	SCnc	Pt	Ser/Plas	Qn		mmol/L	mmol/L				CHEM
4	9505-9	Chlorobenzene	MCnc	Pt	Ser/Plas	Qn		mg/L	mg/L				DRUG/TOX
5	54937-8	Chloroform	MCnc	Pt	Ser/Plas	Qn		ug/L	ug/L				DRUG/TOX
6	39357-9	Cholinesterase.dlori...	CFr	Pt	Ser/Plas	Qn		%	%				DRUG/TOX
7	72570-5	Cholinesterase.dlori...	CFr.DF	Pt	Ser/Plas	Qn							DRUG/TOX
8	12999-9	Epichlorohydrin	MCnc	Pt	Ser/Plas	Qn							DRUG/TOX
9	17661-0	Succinylcholine	MCnc	Pt	Ser/Plas	Qn							DRUG/TOX

Entry #: 7 of 190    Units | Specimen | Methodless | No Common Limits | Battery    9 records found: 0.09s

# Search Constraints

Attribute trees

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

Search Constraints Class Hierarchy Multi-axial Hierarchy Component Hierarchy System Hierarchy Method Hierarchy

## Restrict Search

Limit results based on my local code

- Exclude terms inconsistent with local units
- Exclude terms inconsistent with specimen

Limit results by LOINC term status

- Include "active" terms
- Include "trial" terms
- Include "discouraged" terms
- Include "deprecated" terms

Limit results by other attributes

- Exclude terms not in the common orders subset
- Exclude terms with system 'left' or 'right'
- Exclude internal lab use terms
- Exclude limited use lab orders
- Exclude public health terms
- Exclude veterinary terms
- Exclude honorary terms

Limit results by method

- Exclude method specific terms
- Return method specific terms when no methodless term exist

Limit results by

- Include "order" terms
- Include "observation" terms
- Include terms that are
- Include "subset" terms
- Include "unclassified" terms

Limit results by Mass or Substance

- Favor mass when possible
- Favor substance when possible
- Favor both

Limit results by

- Include MS terms
- Exclude MS terms
- MS terms Only

Limit to LOINC terms consistent with local units

Expanded predefined, general search constraints

# Terms Consistent with Units

File Tools HIPAA Lab Auto Mapper View Help Welcome smatney log out

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

**Local Term File**

Next  
Previous  
First  
Last

View: All

#: 2 of 28

Mapped to: 10427-3 Name: Transfuse whole blood autologous [Volume] Local Term Details

OBR-4 Code: OBX-3 Code: 6114030 Units: ml Sample Values: Limit to Default Specimen:

Click to add tag...

Accept or enter OBR name and/or OBX name

**TRANSFUSE WHOLE BLOOD AUTOLOGOUS** Search ?

Show Words Propose Term Clear Inputs Reset Limits Standard Search No Common Limits

Grid Tree

Row	Score	LOINC	Component	Property	Timing	System	Scale	Method	ExUCU...	ExUnits	Rank	
1	27.5003	10427-3	Transfuse whole blood autologous	Vol	Pt	^Patient	Qn		mL	mL		<a href="#">View Details</a>
2	27.8505	51885-2	Transfuse whole blood autologous...	Num	Pt	^BPU	Qn					<a href="#">Print Grid</a>

Map  
Same  
Export  
Configure Export  
Configure Grid

Truncated Text Print Preview

Entry #: 2 of 28 Units Specimen Methodless No Common Limits Battery 2 records found: 0.1s

**Only terms consistent with ml appear**

# Setting Search Limits

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

Search Constraints Class Hierarchy Multi-axial Hierarchy Component Hierarchy System Hierarchy Method Hierarchy

### Restrict Search

- Limit results based on my local code
  - Exclude terms inconsistent with local units
  - Exclude terms inconsistent with specimen
- Limit results by LOINC term status
  - Include "active" terms
  - Include "trial" terms
  - Include "discouraged" terms
  - Include "deprecated" terms
- Limit results by other attributes
  - Exclude terms not in the common orders subset
  - Exclude terms with system 'left' or 'right'
  - Exclude internal lab use terms
  - Exclude limited use lab orders
  - Exclude public health terms
  - Exclude veterinary terms
  - Exclude honorary terms
- Limit results by method
  - Exclude method specific terms
  - Return method specific terms when no methodless term exist
- Limit results by order/observation
  - Include "order" terms
  - Include "observation" terms
  - Include terms that include "orders" and "observations"
  - Include "subset" terms
  - Include "unclassified" terms
- Favor Mass or Substance
  - Favor mass terms when possible
  - Favor substance terms when possible
  - Favor neither
- Limit results by special properties for the pharmaceutical industry
  - Include MS\* terms
  - Exclude MS\* terms
  - MS terms Only

**Specimen constraints**

Units Specimen Methodless Battery

8 records found: 0.14s

# Setting Search Limits

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

Search Constraints Class Hierarchy Multi-axial Hierarchy Component Hierarchy System Hierarchy Method Hierarchy

### Restrict Search

- Limit results based on my local code
  - Exclude terms inconsistent with local units
  - Exclude terms inconsistent with specimen
- Limit results by LOINC term status
  - Include "active" terms
  - Include "trial" terms
  - Include "discouraged" terms
  - Include "deprecated" terms
- Limit results by other attributes
  - Exclude terms not in the common orders subset
  - Exclude terms with system 'left' or 'right'
  - Exclude internal lab use terms
  - Exclude limited use lab orders
  - Exclude public health terms
  - Exclude veterinary terms
  - Exclude honorary terms
- Limit results by method
  - Exclude method specific terms
  - Return method specific terms when no methodless term exist
- Limit results by order/observation
  - Include "order" terms
  - Include "observation" terms
  - Include terms that are both "orders" and "observations"
  - Include "subset" terms
  - Include "unclassified" terms
- Favor Mass or Substance
  - Favor mass terms when possible
  - Favor substance terms when possible
  - Favor neither
- Limit results by special properties for the pharmaceutical industry
  - Include MS\* terms
  - Exclude MS\* terms
  - MS terms Only

**Exclude laterality**

Units Specimen Methodless Battery

8 records found: 0.14s

# Exclude laterality

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

Welcome log in Register

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

**Local Term File**

Next  
Previous  
First  
Last

View: All

#: 184 of 190

Mapped to: Name:

Local Term Details

OBR-4 Code: OBR-3 Code: Units: Sample Values: Limit to Default Specimen:

Click to add tag...

Accept or enter OBR name and/or OBX name

**EYE ACCOMMODATION**

Show Words Propose Term Clear Inputs Reset Limits

Grid Tree

Row	LOINC	Component	Property	Timing	System	Scale	Method	ExUnits	Rank	Class	LongN...	Short
1	28761-5	Accommodation...	InvLen	Pt	Eye.left	Qn		Diopter		EYE.REF...	Accom...	Accw
2	28749-0	Accommodation...	InvLen	Pt	Eye.left	Qn	Hand optometer	Diopter		EYE.REF...	Accom...	Accw
3	28755-7	Accommodation...	InvLen	Pt	Eye.left	Qn	Minus glass	Diopter		EYE.REF...	Accom...	Accw
4	28760-7	Accommodation...	InvLen	Pt	Eye.right	Qn		Diopter		EYE.REF...	Accom...	Accw
5	28748-2	Accommodation...	InvLen	Pt	Eye.right	Qn	Hand optometer	Diopter		EYE.REF...	Accom...	Accw
6	28754-0	Accommodation...	InvLen	Pt	Eye.right	Qn	Minus glass	Diopter		EYE.REF...	Accom...	Accw
7	28763-1	Accommodation...	Len	Pt	Eye	Qn		cm		EYE.REF...	Accom...	Accw
8	28751-6	Accommodation...	Len	Pt	Eye	Qn	Hand optometer	cm		EYE.REF...	Accom...	Accw
9	28757-3	Accommodation...	Len	Pt	Eye	Qn	Minus glass	cm		EYE.REF...	Accom...	Accw
10	29131-0	Accommodation...	Len	Pt	Eye	Qn		cm		EYE.REF...	Accom...	Accw
11	28752-4	Accommodation...	Len	Pt	Eye	Qn	Hand optometer	cm		EYE.REF...	Accom...	Accw
12	28758-1	Accommodation...	Len	Pt	Eye	Qn	Minus glass	cm		EYE.REF...	Accom...	Accw
13	29132-8	Accommodation...	Len	Pt	Eye	Qn		cm		EYE.REF...	Accom...	Accw
14	28753-2	Accommodation...	Len	Pt	Eye	Qn	Hand optometer	cm		EYE.REF...	Accom...	Accw
15	28759-9	Accommodation...	Len	Pt	Eye	Qn	Minus glass	cm		EYE.REF...	Accom...	Accw

Truncated Text Print Preview

View Details  
Print Grid  
Map  
Same  
Export  
Configure Export  
Configure Grid

Entry #: 184 of 190 Units Specimen Methodless No Common Limits Battery 18 records found: 0.02s

Laterality terms

# Setting Search Limits

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

Search Constraints Class Hierarchy Multi-axial Hierarchy Component Hierarchy System Hierarchy Method Hierarchy

### Restrict Search

- Limit results based on my local code
  - Exclude terms inconsistent with local units
  - Exclude terms inconsistent with specimen
- Limit results by LOINC term status
  - Include "active" terms
  - Include "trial" terms
  - Include "discouraged" terms
  - Include "deprecated" terms
- Limit results by other attributes
  - Exclude terms not in the common orders subset
  - Exclude terms with system 'left' or 'right'
  - Exclude internal lab use terms
  - Exclude limited use lab orders
  - Exclude public health terms
  - Exclude veterinary terms
  - Exclude honorary terms
- Limit results by method
  - Exclude method specific terms
  - Return method specific terms when no methodless term exist
- Limit results by order/observation
  - Include "order" terms
  - Include "observation" terms
  - Include terms that are both "orders" and "observations"
  - Include "subset" terms
  - Include "unclassified" terms
- Favor Mass or Substance
  - Favor mass terms when possible
  - Favor substance terms when possible
  - Favor neither
- Limit results by special properties for the pharmaceutical industry
  - Include MS\* terms
  - Exclude MS\* terms
  - MS terms Only

**Restrict to common orders**

Units Specimen Methodless Battery

8 records found: 0.14s



# Restriction to common orders

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

**Local Term File**

Next Previous First Last

View: All

#: 184 of 190

Mapped to: Name:   Local Term Details

OBR-4 Code:  OBX-3 Code:  Units:  Sample Values:  Limit to Default Specimen:

Click to add tag...

Accept or enter OBR name and/or OBX name

**GLUCOSE** Search

Show Words Propose Term Clear Inputs Reset Limits Standard Search No Common Limits

Grid Tree

Row	LOINC	Component	Property	Timing	System	Scale	Method	ExUnits	Rank	Class	LongN...	ShortNa
1	2339-0	Glucose	MCnc	Pt	Bld	Qn		mg/dL	13	CHEM	Glucos...	Glucose
2	32016-8	Glucose	MCnc	Pt	BldC	Qn		mg/dL		CHEM	Glucos...	Glucose
3	41653-7	Glucose	MCnc	Pt	BldC	Qn	Glucometer	mg/dL		CHEM	Glucos...	Glucose
4	2344-0	Glucose	MCnc	Pt	Body fld	Qn		mg/dL	788	CHEM	Glucos...	Glucose
5	2342-4	Glucose	MCnc	Pt	CSF	Qn		mg/dL	550	CHEM	Glucos...	Glucose
6	2345-7	Glucose	MCnc	Pt	Ser/Plas	Qn		mg/dL	4	CHEM	Glucos...	Glucose
7	1504-0	Glucose^1H post 50...	MCnc	Pt	Ser/Plas	Qn		mg/dL	338	CHAL	Glucos...	Glucose
8	1518-0	Glucose^2H post 75...	MCnc	Pt	Ser/Plas	Qn		mg/dL	835	CHAL	Glucos...	Glucose
9	1558-6	Glucose^post CFst	MCnc	Pt	Ser/Plas	Qn		mg/dL	332	CHAL	Fastin...	Glucose

View Details Print Grid Map Same Export Configure Export Configure Grid

Truncated Text Print Preview

Entry #: 184 of 190 | Units Specimen Methodless No Common Limits Battery | 9 records found: 0.02s

# Setting Search Limits

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

Search Constraints Class Hierarchy Multi-axial Hierarchy Component Hierarchy System Hierarchy Method Hierarchy

**Restrict Search**

- Limit results based on my local code
  - Exclude terms inconsistent with local units
  - Exclude terms inconsistent with specimen
- Limit results by LOINC term status
  - Include "active" terms
  - Include "trial" terms
  - Include "discouraged" terms
  - Include "deprecated" terms
- Limit results by other attributes
  - Exclude terms not in orders subset
  - Exclude honorary terms
- Limit results by method
  - Exclude method specific terms
  - Return method specific terms when no methodless term exist
- Limit results by order/observation
  - Include "order" terms
  - Include "observation" terms
  - Include terms that are "orders" and "observations"
  - Include "subset" terms
  - Include "unclassified" terms
- Favor Mass or Substance
  - Favor mass terms when possible
  - Favor substance terms when possible
  - Favor neither
- Limit results by special properties
  - Include MS\* terms
  - Exclude MS\* terms
  - MS terms Only

**Methodless Terms Restriction**

**Override Methodless Terms Restriction**

Units Specimen Methodless Battery

8 records found: 0.14s

# Limit to Methodless Terms

body weight Property:mass system:patient

Units

Search



Use Standard Search

No Common Limits

Grid	Tree	Row	Score	LOINC	Component	Property	Timing	System	Scale	Method	ExUCU...	ExUnits	Rank	SIRank	ComM
		1	9.8106	73708-0	Body fatmass	Mass	Pt	^Patient	Qn	Calculated	kg	kg			
		2	9.7747	73964-9	Body musculmass	Mass	Pt	^Patient	Qn	Calculated	kg	kg			
		3	13.9301	18833-4	Body weight	Mass	Enctr...	^Patient	Qn	Measured	kg;...	kg;lb			
		4	14.9024	29463-7	Body weight	Mass	Pt	^Patient	Qn		kg	pound...	593	593	
		5	14.9108	8335-2	Body weight	Mass	Pt	^Patient	Qn	Estimated	kg;...	kg;lb			
		6	14.9108	3141-9	Body weight	Mass	Pt	^Patient	Qn	Measured	[lb_av]	gm;lb-oz	1170	1170	
		7	14.9108	3142-7	Body weight	Mass	Pt	^Patient	Qn	Stated	[lb_av]	gm;lb-oz			
		8	15.7085	50064-5	Body weight ideal	Mass	Pt	^Patient	Qn		kg	kg			
		9	12.422	56069-8	Body weight.max	Mass	Pt	^Patient	Qn	Reported	[lb_av]	gm;lb-oz			
		10	14.9108	8338-6	Body weight^ante partum	Mass	Pt	^Patient	Qn	Measured	[lb_av]	lb	1164	1164	
		11	14.3669	56092-0	Body weight^at birth	Mass	Pt	^Patient	Qn	GNWCH	[lb_av]	gm;lb-oz			
		12	14.3669	8339-4	Body weight^at birth	Mass	Pt	^Patient	Qn	Measured	g	g			
		13	14.3669	56093-8	Body weight^at birth	Mass	Pt	^Patient	Qn	NVSS	[lb_av]	gm;lb-oz			
		14	14.3669	56056-5	Body weight^at birth	Mass	Pt	^Patient	Qn	Reported	[lb_av]	gm;lb-oz			
		15	13.9301	68494-4	Body weight^at delivery	Mass	Pt	^Patient	Qn		g	g			
		16	13.9301	70962-6	Body weight^at peritoneal dialysis...	Mass	Pt	^Patient	Qn	Measured	kg	kg			
		17	14.9108	8344-4	Body weight^post dialysis	Mass	Pt	^Patient	Qn	Measured	kg;...	kg;lb			
		18	14.9108	8345-1	Body weight^post partum	Mass	Pt	^Patient	Qn	Measured	kg;...	kg;lb			
		19	14.9108	8346-9	Body weight^post surgery	Mass	Pt	^Patient	Qn	Measured	kg;...	kg;lb			
		20	13.9301	56077-1	Body weight^pre current	Mass	Pt	^Patient	Qn		[lb_av]	gm;lb-oz			
		21	14.9108	8347-7	Body weight^...	Mass	Pt	^Patient	Qn	Measured	kg;...	kg;lb			
		22				Mass	Pt	^Patient	Qn		[lb_av]	gm;lb-oz			
		23				Mass	Pt	^Patient	Qn	Measured	kg;...	kg;lb			

Both method and method-less terms

# Limit to Methodless Terms

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for RelmaTest

File Tools HIPAA Lab Auto Mapper View Help

Welcome smatney log out

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

body weight Property:mass system:patient Units Search ?

Use Standard Search No Common Limits

Grid	Tree	Row	Score	LOINC	Component	Property	Timing	System	Scale	Method	ExUCU...	ExUnits	Rank	SIRank	ComMaps
		1	14.9956	29463-7	Body weight	Mass	Pt	^Patient	Qn		kg	pound...	593	593	<a href="#">52</a>
		2	15.797	50064-5	Body weight ideal	Mass	Pt	^Patient	Qn		kg	kg			
		3	14.0291	68494-4	Body weight^at delivery	Mass	Pt	^Patient	Qn		g	g			
		4	14.0291	56077-1	Body weight^pre current pregnancy	Mass	Pt	^Patient	Qn		[lb_av]	gm;lb-oz			
		5	14.0291	56079-7	Body weight^pre most recent...	Mass	Pt	^Patient	Qn		[lb_av]	gm;lb-oz			
		6	14.0291	56083-9	Body weight^XXX time ago	Mass	Pt	^Patient	Qn		[lb_av]	gm;lb-oz			

**Only Methodless Terms Appear**

Units Specimen Methodless No Common Limits Battery

6 records found: 0.03s

# More on Methodless Terms

- Some LOINC categories do not have methodless terms
- Checking methodless only will remove these from view on results grid
- Checking additional box allows these to be seen

# Setting Search Limits

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

Search Constraints Class Hierarchy Multi-axial Hierarchy Component Hierarchy System Hierarchy Method Hierarchy

### Restrict Search

- Limit results based on my local code
  - Exclude terms inconsistent with local units
  - Exclude terms inconsistent with specimen
- Limit results by LOINC term status
  - Include "active" terms
  - Include "trial" terms
  - Include "discouraged" terms
  - Include "deprecated" terms
- Limit results by method
  - Exclude method specific terms
  - Return method specific terms when no methodless term exist
- Limit results by order/observation
  - Include "order" terms
  - Include "observation" terms
  - Include terms that are both "orders" and "observations"
  - Include "subset" terms
  - Include "unclassified" terms
- Limit results by other attributes
  - Exclude terms not in the common orders subset
  - Exclude terms with system 'left' or 'right'
  - Exclude internal lab use terms
  - Exclude limited use lab orders
  - Exclude public health terms
  - Exclude veterinary terms
  - Exclude honorary terms
- Favor Mass or Substance
  - Favor mass terms when possible
  - Favor substance terms when possible
  - Neither
- Limit results by special properties for the pharmaceutical industry
  - Include
  - Exclude M
  - MS terms Or

Units Specimen Methodless Battery

8 records found: 0.03s

**Include Trial, Deprecated or Discouraged LOINC Codes with Returned Terms**

# Include Deprecated LOINC Terms

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

**Local Term File**

Mapped to: Name:

OBR-4 Code: OBR-3 Code: Units: Sample Values:

Click to add tag...

Accept or enter OBR name and/or OBX name

HEMOGRAM

#: 184 of 190

Show Words Propose Term Clear Inputs Reset Limits Standard Search No Common Limits

Grid Tree

Row	LOINC	Component	Property	Timing	System	Scale	Method	ExUnits	Rank	Class	LongN...	ShortNa	View Details
1	57021-8	CBC W Auto...	-	Pt	Bld	Qn				PANEL...	CBC W...	CBC W...	
2	74412-8	CBC W Differential...	-	Pt	BldCo	Qn				PANEL...	CBC W...	CBC WD	Print Grid
3	69742-5	CBC W Differential...	-	Pt	Bld	Qn				PANEL...	CBC W...	CBC WD	Map
4	57782-5	CBC W Ordered...	-	Pt	Bld	Qn				PANEL...	CBC...	CBC W...	Same
5	57022-6	CBC W Reflex...	-	Pt	Bld	Qn				PANEL...	CBC W...	CBC W...	Export
6	47288-6	CBC WO Differential...	-	Pt	Bld	Qn				PANEL...	CBC W...	CBC W...	Configure Export
7	58410-2	Complete CBC...	-	Pt	Bld	Qn				PANEL...	CBC W...	CBC W...	Configure Grid
8	24317-0	Hemogram &...	-	Pt	Bld	Qn				PANEL...	Deprec...	Deprecat	
9	24359-2	Hemogram WO...	-	Pt	Bld	Qn				PANEL...	Deprec...	Deprecat	
1	24358-4	Hemogram WO...	-	Pt	Bld	Qn				PANEL...	Deprec...	Deprecat	
1	47287-8	Hemogram WO...	-	Pt	Bld	Qn				PANEL...	Deprec...	Deprecat	
1	24361-8	Hemogram, platelets...	-	Pt	Bld	Qn				PANEL...	Deprec...	Deprecat	
1	24527-2	Hemogram,...	-	Pt	Bld	Qn				PANEL...	Deprec...	Deprecat	

Entry #: 184 of 190 Units Specimen Meth

13 records found: 0.02s

**You cannot map to deprecated LOINC terms**

**The map button is grayed out if one of these terms is selected**

**Discouraged LOINC Terms appear as an inverted triangle**

**Deprecated LOINC Terms appear as Strikethrough Text with a "Do Not" Symbol**

# Order/Observation Restriction

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

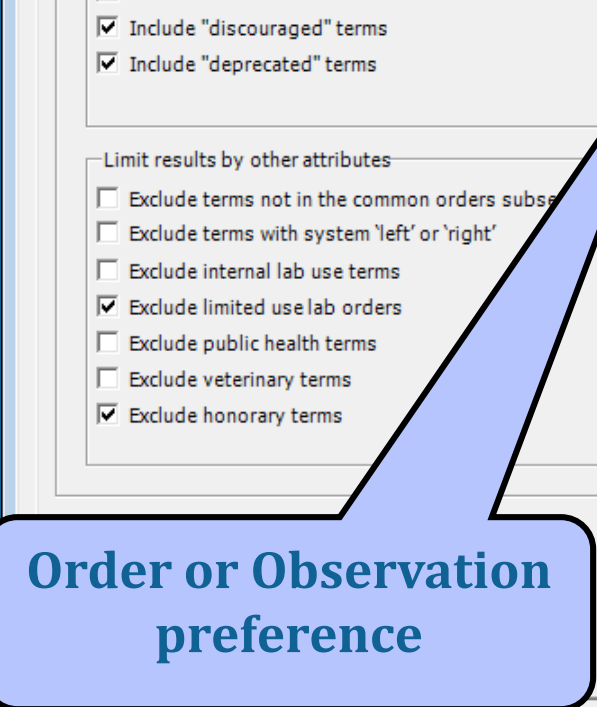
Search Constraints Class Hierarchy Multi-axial Hierarchy Component Hierarchy System Hierarchy Method Hierarchy

### Restrict Search

- Limit results based on my local code
  - Exclude terms inconsistent with local units
  - Exclude terms inconsistent with specimen
- Limit results by LOINC term status
  - Include "active" terms
  - Include "trial" terms
  - Include "discouraged" terms
  - Include "deprecated" terms
- Limit results by other attributes
  - Exclude terms not in the common orders subset
  - Exclude terms with system 'left' or 'right'
  - Exclude internal lab use terms
  - Exclude limited use lab orders
  - Exclude public health terms
  - Exclude veterinary terms
  - Exclude honorary terms
- Limit results by method
  - Exclude method specific terms
  - Return method specific terms when no methodless term exist
- Limit results by order/observation
  - Include "order" terms
  - Include "observation" terms
  - Include terms that are both "orders" and "observations"
  - Include "subset" terms
  - Include "unclassified" terms
- Favor Mass or Substance
  - Favor mass terms when possible
  - Favor substance terms when possible
  - Favor neither
- Limit results by special properties for the pharmaceutical industry
  - Include MS\* terms
  - Exclude MS\* terms
  - MS terms Only

Units Specimen Methodless Battery

13 records found: 0.02s



**Order or Observation preference**



# LOINC Hierarchies – Class Tree

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

Search Constraints Class Hierarchy Multi-axial Hierarchy Component Hierarchy System Hierarchy Method Hierarchy

Row	Category orName	Component	Property	Timing	System	Scale	Method	ExU...	DocS...	Rank	Code	Details
1	<input type="checkbox"/> <b>Laboratory Categories</b>										LP29693-6	
53506	<input type="checkbox"/> <b>Clinical...</b>										LP29694-4	
82877	<input type="checkbox"/> <b>Attachments</b>										LP29695-1	

Three top-level branches

Tree Navigation Buttons

Truncated Text Expand Branch Collapse Branch Show LOINCS Configure Export

Units Specimen Methodless Battery

13 records found: 0.02s

# Before Class Restriction

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

**Local Term File**

Next Previous First Last

View: All

#: 184 of 190

Mapped to: Name:

OBR-4 Code: OBR-3 Code: Units: Default Specimen:

Click to add tag...

Accept or enter OBR name and/or OBX name

**XYLOSE**

Search

Show Words Propose Term Clear Inputs Standard Search No Common Limits

Grid Tree

Row	LOINC	Component	Property	Timing	System	Scale	Method	Rank	Class	LongN...	Short
1	3134-4	Xylose	MCnc	Pt	Bld	Qn			CHEM	Xylose...	Xylos
2	29999-0	Xylose	MCnc	Pt	Ser/Plas	Qn	mg/...		CHEM	Xylose...	Xylos
3	47806-5	Xylose	ACnc	Pt	Urine	Ord			CHEM	Xylose...	Xylos
4	3135-1	Xylose	MCnc	Pt	Urine	Qn	mg/dL		CHEM	Xylose...	Xylos
5	12274-7	Xylose	MRat	5H	Urine	Qn	g/5 H		CHEM	Xylose...	Xylos
6	49241-3	Xylose absorption	Imp	Pt	Urine+Ser/Plas	Nar			CHAL	Xylose...	Xylos
7	44085-9	Xylose absorption	Imp	Pt	Urine+Ser/Plas	Nom			CHAL	Xylose...	Xylos
8	4462-8	Xylose.PO	Mass	Pt	Dose	Qn			DRUGD...	Xylose...	Xylos
9	22630-8	Xylose/Xylose.dose^...	SFr	5H	Urine	Qn	%		CHAL	Xylose...	Xylos
10	22631-6	Xylose/Xylose.dose^...	SFr	5H	Urine	Qn	%		CHAL	Xylose...	Xylos
11	22632-4	Xylose/Xylose.dose^...	SFr	5H	Urine	Qn	%		CHAL	Xylose...	Xylos
12	25817-8	Xylose^15H					mmol/...		CHAL	Xylose...	Xylos
13	13028-6	Xylose^15H					mg/dL...		CHAL	Xylose...	Xylos
14	46428-9	Xylose^15M					mg/dL...		CHAL	Xylose...	Xylos
15	9772-5	Xylose^1H					mg/dL		CHAL	Xylose...	Xylos

View Details Print Grid Map Same Export Configure Export Configure Grid

Truncated Text Print Preview

Entry #: 184 of 190 Units Specimen Methodless No Common Limits Battery 73 records found: 0.02s

**Many terms have class of "CHAL"**

**Large number of candidate terms**

# Search Trees

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

Search Constraints Class Hierarchy Multi-axial Hierarchy Component Hierarchy System Hierarchy Method Hierarchy

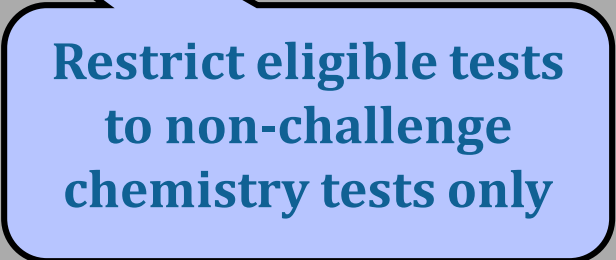
+chem

Row	Category orName	Component	Property	Timing	System	Scale	Method	ExU...	DocS...	Rank	Code	Details
1	<input type="checkbox"/> Laboratory Categories										LP29693-6	
11866	<input checked="" type="checkbox"/> Chemistry non challenge tests										LP7786-9	
50435	<input type="checkbox"/> Laboratory Order Panels										LP29697-7	
52753	<input type="checkbox"/> Chemistry Panels										LP7834-7	
53506	<input type="checkbox"/> Clinical Categories										LP29694-4	
63193	<input type="checkbox"/> Consensus measures for Phenotypes and Exposures (PhenX)										LP95321-3	

Truncated Text Expand Branch Collapse Branch Show Tree Find Show LOINCS Configure Export

Units Specimen Methodless Battery

73 records found: 0.02s



# Limiting Search by Subclass

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for SAMPLE

File Tools HIPAA Lab Auto Mapper View Help

Welcome smatney log out

Search | Mapping | View All Working Set Terms | Hierarchy & Search Limits | Part Search | Answer List Search

Search Constraints | Class Hierarchy \* | Multi-axial Hierarchy | Component Hierarchy | System Hierarchy | Method Hierarchy

Row	Category or Name	Component	Property	Timing	System	Scale	Method	ExJ...	DocS...	Rank	Code	Detail:
1	<input type="checkbox"/> Laboratory Categories										LP29693-6	
54333	<input type="checkbox"/> Clinical Categories										LP29694-4	
54334	<input type="checkbox"/> Antiretroviral therapy										LP66375-4	
54383	<input type="checkbox"/> Body measurements										LP30604-0	
54478	<input type="checkbox"/> Cardiology studies and variables										LP29708-2	
56475	<input type="checkbox"/> Clinical										LP7787-7	
56633	<input type="checkbox"/> Dental										LP31759-1	
56912	<input type="checkbox"/> Devices										LP35960-1	
57040	<input type="checkbox"/> Documents										LP32525-5	
58313	<input type="checkbox"/> Emergency Department (DEEDS) variables										LP7792-7	
58467	<input type="checkbox"/> Florida Medical Quality Assurance, Inc (FMQAI)										LP134065-4	
58469	<input type="checkbox"/> Gastroenterology studies and variables										LP29710-8	
58618	<input type="checkbox"/> Hemodynamics										LP29712-4	
58927	<input type="checkbox"/> History and Physical sections										LP29711-6	
60536	<input checked="" type="checkbox"/> Intake and Output Measurements										LP29714-0	
60634	<input type="checkbox"/> IO Panels										LP31906-8	
60637	<input type="checkbox"/> Intake measures										LP29715-7	
60910	<input type="checkbox"/> Output measurements										LP29716-5	
61218	<input type="checkbox"/> I/O Tube										LP7810-7	
61314	<input type="checkbox"/> National Emergency Medical Services Information System (NEMSI)										LP133214-9	
61505	<input type="checkbox"/> Neonatal Apgar status										LP7829-7	
61535	<input type="checkbox"/> Obstetrical Studies and Measures										LP29717-3	
63108	<input type="checkbox"/> Ophthalmology/Optometry variables										LP7797-6	
64150	<input type="checkbox"/> Organ Transplant										LP26771-1	

Truncated Text | Expand Branch | Collapse Branch | Show LOINC | Configure Export

Units | Specimen | Methodless | Battery

0 records found: 2.76s

Selecting subclass constrains search to all members

# Following Class Restriction



Grid	Tree	Row	Score	LOINC	Component	Property	Timing	System	Scale	Method	ExUCU...	ExUnits	Rank	SIRank
		1	1.4568	8582-9	A wave amplitude	Pres	Pt	Heart.atrium.left	Qn		cm...	cm H2O		
		2	1.4568	8583-7	A wave amplitude	Pres	Pt	Heart.atrium.right	Qn		cm...	cm H2O		
		3	1.4568	8584-5	A wave amplitude	Pres	Pt	Pulmonary...	Qn		cm...	cm H2O		
		4	1.9474	59081-0	A wave.max	Vel	Pt	Heart.valve.XXX	Qn	US				
		5	1.9364	17978-8	A wave.max	Vel	Pt	Mitral valve	Qn	US.doppler				
		6	1.9364	11641-8	A wave.max	Vel	Pt	Mitral valve^fetus	Qn	US.doppler	cm/s	cm/s		
		7	1.9364	18030-7	A wave.max	Vel	Pt	Tricuspid valve	Qn	US.doppler				
		8	1.9364	11643-4	A wave.max	Vel	Pt	Tricuspid...	Qn	US.doppler				
		9	2.3237	58299-9	Age began taking high blood...	Time	Pt	^Patient	Qn		a	years		
		1	2.3237	58294-0	Age began taking high blood...	Time	Pt	^Patient	Qn		a	years		
		1	2.3237	58296-5	Age when told have high blood...	Time	Pt	^Patient	Qn		a	years		
		12	1.4568	41905-1	Altitude	Len	Pt	^Patient	Qn		m;...	m;ft		
		1	2.3237	66176-9	Are you nowtaking diabetic pills to...	Find	Pt	^Patient	Ord	PhenX				
					(Gs)	-	Pt	^Patient	-					
					ngen...	MFr	Pt	Bld	Qn					
					aturation...	MFr	Pt	Bld	Qn					
					e panel	-	Pt	^Patient	-					
							Pt	^Patient	Nom	PhenX				
						Vel	Pt	Circulatory...	Qn	US.doppler	m/s;...	m/s;...		
		20	2.3128	20254-9	Blood flow2.max	Vel	Pt	Tricuspid...	Qn	US.doppler				
		21	2.3128	20356-2	Blood flow2.mean	Vel	Pt	Circulatory...	Qn	US.doppler	m/s;...	m/s;...		
		22	2.3128	20262-2	Blood flow2.mean	Vel	Pt	Tricuspid...	Qn	US				
		23	1.9474	59111-5	Blood flow E wave/Annulus E wave	VelRto	Pt	Heart.valve.XXX	Qn	US	{ratio}...	ratio;in...		

Only clinical codes (no lab) returned

# System Hierarchy

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

Search Constraints Class Hierarchy \* Multi-axial Hierarchy Component Hierarchy System Hierarchy Method Hierarchy

Row	Category or Name	Component	Property	Timing	System	Scale	Method	ExU...	DoCS...	Rank	Code	Details
1	<input checked="" type="checkbox"/> Specimen										LP7593-9	
71286	<input type="checkbox"/> Body region										LP30643-8	
76985	<input type="checkbox"/> Body systems										LP32505-7	
92505	<input type="checkbox"/> Cardiology...										LP30633-9	
92520	<input type="checkbox"/> Claims...										LP30613-1	
94942	<input type="checkbox"/> Clinical document										LP177620-4	
94948	<input type="checkbox"/> Devices										LP30607-3	
95818	<input type="checkbox"/> Family										LP7225-8	<a href="#">details</a>
95838	<input type="checkbox"/> Guardian										LP76055-0	
95843	<input type="checkbox"/> Escort										LP35158-2	
95848	<input type="checkbox"/> Responsible...										LP35157-4	
95853	<input type="checkbox"/> Proxy										LP95357-7	
95855	<input type="checkbox"/> Gas										LP7253-0	
96119	<input type="checkbox"/> History										LP30639-6	
96127	<input type="checkbox"/> Medication										LP30459-9	
96248	<input type="checkbox"/> Miscellaneous										LP30632-1	
100815	<input type="checkbox"/> Setting										LP175688-3	
101715	<input type="checkbox"/> Tube or drain										LP7663-0	
101884	<input type="checkbox"/> Tumor registry										LP30616-4	

Truncated Text Expand Branch Collapse Branch Show LOINCS Configure Export

Units Specimen Methodless Battery 5 records found: 0.02s

# Component Hierarchy

Click on details for more information about the selection

Show the LOINC Codes associated with these components

Row	Category orName	Code	Details
1	<input checked="" type="checkbox"/> Microbiology	LP31755-9	<a href="#">details</a>
7551	<input checked="" type="checkbox"/> Antibiotic Susceptibilities	LP7755-4	<a href="#">details</a>
8512	<input checked="" type="checkbox"/> Skin tests	LP31388-9	<a href="#">details</a>
8543	<input checked="" type="checkbox"/> Chemistry	LP40271-6	
13468	<input checked="" type="checkbox"/> Chemistry, challenge	LP31389-7	
14680	<input checked="" type="checkbox"/> Drug/Tox	LP40474-6	
18521	<input checked="" type="checkbox"/> Drug doses	LP31756-7	<a href="#">details</a>
18910	<input checked="" type="checkbox"/> Hematology	LP19284-6	<a href="#">details</a>
19687	<input checked="" type="checkbox"/> Coagulation	LP31625-4	
20129	<input checked="" type="checkbox"/> Allergy	LP32651-9	<a href="#">details</a>
24986	<input checked="" type="checkbox"/> Blood Bank	LP32737-6	
26031	<input checked="" type="checkbox"/> Cell markers - Flow Cytometry	LP32738-4	
26841	<input checked="" type="checkbox"/> Fertility testing	LP32739-2	<a href="#">details</a>
27060	<input checked="" type="checkbox"/> Human Leukocyte Antigens	LP66339-0	<a href="#">details</a>
27349	<input checked="" type="checkbox"/> Human Platelet Antigens	LP172757-9	
27365	<input checked="" type="checkbox"/> Human Neutrophil Antigens	LP175756-8	
27386	<input checked="" type="checkbox"/> Major histocompatibility complex class I chain-related antigen A (MICA)	LP32740-0	<a href="#">details</a>
27471	<input checked="" type="checkbox"/> Molecular...	LP32741-8	<a href="#">details</a>
28744	<input checked="" type="checkbox"/> Pathology	LP32744-2	<a href="#">details</a>
29181	<input checked="" type="checkbox"/> Urinalysis	LP32742-6	<a href="#">details</a>
29348	<input checked="" type="checkbox"/> Serology	LP32743-4	
31510	<input checked="" type="checkbox"/> Specimen...	LP32760-8	<a href="#">details</a>
31667	<input checked="" type="checkbox"/> Cytology		

Truncated Text

Expand Branch

Collapse Branch

Show LOINC S

Configure Export

# Details Screen LOINC Part

Details for Part record # LP14855-8

LP14855-8

Virus

## DESCRIPTION

**Description:** A virus (Latin, poison) is an infection agent usually made of a nucleic acid molecule (RNA or DNA) and a protein coat called a capsid. Viruses infect a wide variety of organisms: both eukaryotes (animals, fungi and plants) and prokaryotes (bacteria). A virus cannot survive and multiply outside of a living cell.

Examples of common human diseases caused by viruses include the common cold, influenza, chickenpox and cold sores. Many serious diseases such as ebola, AIDS, avian influenza and SARS are caused by viruses. Virus are also thought to contribute to some neurological diseases, such as multiple sclerosis and chronic fatigue syndrome, as well as psychiatric illnesses.

Some viruses can cause lifelong or chronic infections, where the viruses continue to replicate in the body despite the host's defence mechanisms. This is common in hepatitis B virus and hepatitis C virus infections. People chronically infected are known as carriers, as they serve as reservoirs of infectious virus.

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Source: Wikipedia, URL: [Virus \(Wikipedia\)](#)

## BASIC PROPERTIES

Part Type:

COMPONENT

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*Generated from LOINC version 2.42.*

Text Size - Larger

Separated pages

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Close

Type Ctrl-F to search the text of the details.

LP14855-8

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# Show Associated LOINCs

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help Welcome log in Register

Search | Mapping | View All Working Set Terms | Hierarchy & Search Limits | Part Search | Answer List Search

Search Constraints | Class Hierarchy \* | Multi-axial Hierarchy | Component Hierarchy | System Hierarchy | Method Hierarchy

cytomegalovirus

Row	Category orName	Component	Property	Timing	System	Scale	Method	ExU...	DocS...	Rank	Code	Details
1	<input checked="" type="checkbox"/> <b>Microbiology</b>										LP31755-9	<a href="#">details</a>
2	<input checked="" type="checkbox"/> <b>Microorganism</b>										LP14559-6	<a href="#">details</a>
4182	<input checked="" type="checkbox"/> <b>Virus</b>										LP14855-8	<a href="#">details</a>
4323	<input checked="" type="checkbox"/> <b>Cytomegalovirus</b>										LP14255-1	<a href="#">details</a>
4324	<input checked="" type="checkbox"/> <b>Cytomegalovirus Ab</b>										LP37878-3	
4325	..... Cytome...	Cytomegalovirus Ab	ACnc	Pt	Body fld	Qn					16712-2	<a href="#">details</a>
4326	..... Cytome...	Cytomegalovirus Ab	ACnc	Pt	CSF	Qn					16713-0	<a href="#">details</a>
4327	..... Cytome...	Cytomegalovirus Ab	Titr	Pt	CSF	Qn		titer			22240-6	<a href="#">details</a>
4328	..... Cytome...	Cytomegalovirus Ab	ACnc	Pt	Ser	Ord					22239-8	<a href="#">details</a>
4329	..... Cytome...	Cytomegalovirus Ab	ACnc	Pt	Ser	Ord	LA				15377-5	<a href="#">details</a>
4330	..... Cytome...	Cytomegalovirus Ab	ACnc	Pt	Ser	Qn	LA				16714-8	<a href="#">details</a>
4331	..... Cytome...	Cytomegalovirus Ab	Titr	Pt	Ser	Qn		titer			22241-4	<a href="#">details</a>
4334	<input checked="" type="checkbox"/> <b>Cytomegalovirus IgG</b>										LP37880-9	
4335	..... Cyto...	Cytomegalovirus Ab.IgG	ACnc	Pt	CSF	Qn					22243-0	<a href="#">details</a>
4336	..... Cyto...	Cytomegalovirus Ab.IgG	Titr	Pt	CSF	Qn		titer			22245-5	<a href="#">details</a>
4337	..... Cyto...	Cytomegalovirus Ab.IgG	Titr	Pt	CSF	Qn	IF	titer			11008-0	<a href="#">details</a>
4338	..... Cyto...	Cytomegalovirus Ab.IgG	ACnc	Pt	Ser	Ord					22244-8	<a href="#">details</a>
4339	..... Cyto...	Cytomegalovirus Ab.IgG	ACnc	Pt	Ser	Ord	EIA				13949-3	<a href="#">details</a>
4340	..... Cyto...	Cytomegalovirus Ab.IgG	ACnc	Pt	Ser	Qn	IF				16715-5	<a href="#">details</a>
4341	..... Cyto...	Cytomegalovirus Ab.IgG	Imp	Pt	Ser	Nom				1004	20475-0	<a href="#">details</a>
4342	..... Cyto...	Cytomegalovirus Ab.IgG	Titr	Pt	Ser	Qn		titer			22246-3	<a href="#">details</a>
4343	..... Cyto...	Cytomegalovirus...	ACnc	Pt	Ser	Qn					13225-8	<a href="#">details</a>
4344	..... Cyto...	Cytomegalovirus...	ACnc	Pt	Ser	Qn					22247-1	<a href="#">details</a>
4345	..... Cyto...	Cytomegalovirus...	ACnc	Pt	Ser	Qn	EIA				16716-2	<a href="#">details</a>

Truncated Text | Expand Branch | Collapse Branch | Show Tree | Find | Hide LOINC S | Configure Exprt

Units | Specimen | Methodless | Battery | 5 records found: 0.02s

# LOINC Term Details Screen

Simple Display for LOINC record # 34201-4

## 34201-4 Cytomegalovirus [Presence] in Amniotic fluid by Organism specific culture

### NAME

Fully-Specified Name:	<b>Component</b>	<b>Property</b>	<b>Time</b>	<b>Aspe</b>	<b>System</b>	<b>Scale</b>	<b>Method</b>
	Cytomegalovirus	ACnc	Pt		Amnio fld	Ord	Organism specific culture

### PART DEFINITION/DESCRIPTION(S)

Cytomegalovirus (CMV), a genus of Herpes viruses known as Human herpesvirus 5 (HHV-5), belongs to the Betaherpesvirinae subfamily ( family Herpesviridae). CMV attacks several organs ( salivary glands, liver, spleen, lungs, eyes) and may cause severe diseases in fetuses. CMV infection can also be life threatening for patients who are immunocompromised (e.g. patients with HIV or organ transplant recipients). CMV viruses infect many mammals.

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Source: Wikipedia, URL: [Cytomegalovirus \(Wikipedia\)](#)

### BASIC ATTRIBUTES

Class/Type:	MICRO/Lab
Last Updated:	2009/09/17
Order vs. Obs.:	Both
Status:	Active

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*Generated from LOINC version 2.42.*

Simple Display

Text Size - Larger

Separated pages

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Close

Type Ctrl-F to search the text of the details.

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# Tree Export Tools

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

Search Constraints Class Hierarchy \* Multi-axial Hierarchy Component Hierarchy System Hierarchy Method Hierarchy

cytomegalovirus

Row	Category or Name	Component	Property	Timing	System	Scale	Method	ExU...	DocS...	Rank	Code	Details
1	Microbiology										LP31755-9	<a href="#">details</a>
											LP14559-6	<a href="#">details</a>
											LP14855-8	<a href="#">details</a>
41												
43												
43												
4325		Cytome...	Cytomegalovirus Ab	ACnc	Pt	Body fld	Qn					
4326		Cytome...	Cytomegalovirus Ab	ACnc	Pt	CSF	Qn					
4327		Cytome...	Cytomegalovirus Ab	Titr	Pt		Qn					
4328		Cytome...	Cytomegalovirus Ab	ACnc		Ser	Ord					
4329							Ord	LA				
4330							Qn	LA				
4331							Qn					
4334		<input checked="" type="checkbox"/> Cytomegalovirus IgG										
4335		Cyto...	Cytomegalovirus Ab.IgG	ACnc	Pt	CSF	Qn					
4336		Cyto...	Cytomegalovirus Ab.IgG	Titr	Pt	CSF	Qn					
4337		Cyto...	Cytomegalovirus Ab.IgG	Titr	Pt	CSF	Qn	IF				
4338		Cyto...	Cytomegalovirus Ab.IgG	ACnc	Pt	Ser	Ord					
4339		Cyto...	Cytomegalovirus Ab.IgG	ACnc	Pt	Ser	Ord	EIA				
4340		Cyto...	Cytomegalovirus Ab.IgG	ACnc	Pt	Ser	Qn	IF				
4341		Cyto...	Cytomegalovirus Ab.IgG	Imp	Pt	Ser	Nom					
4342		Cyto...	Cytomegalovirus Ab.IgG	Titr	Pt	Ser	Qn					
4343		Cyto...	Cytomegalovirus...	ACnc	Pt	Ser	Qn					
4344		Cyto...	Cytomegalovirus...	ACnc	Pt	Ser	Qn					
4345		Cyto...	Cytomegalovirus...	ACnc	Pt	Ser	Qn	ETA				

Export

- Configure Export
- Configure Grid
- View Details - Simple
- View Details - Comprehensive
- View Details - Custom
- View Panel Children
- Expand Selected
- Collapse Selected
- Check
- Clear
- Truncate Text
- Wrap Text
- Print
- Propose a new LOINC
- Propose a LOINC based on selected term
- Find Panels with all these LOINCs
- Find Panels with any of these LOINCs

Truncated Text Expand Branch Collapse Branch Show Tree Find

Units Specimen Methodless Battery

5 records found: 0.02s

Export according to Configuration

Configure Export Format

# Tree Export Configuration

Custom Export

#	Column Name
<input checked="" type="checkbox"/>	1 Row
<input checked="" type="checkbox"/>	2 Category or Name
<input checked="" type="checkbox"/>	3 Component
<input checked="" type="checkbox"/>	4 Property
<input checked="" type="checkbox"/>	5 Timing
<input checked="" type="checkbox"/>	6 System
<input checked="" type="checkbox"/>	7 Scale
<input checked="" type="checkbox"/>	8 Method
<input checked="" type="checkbox"/>	9 ExUnits
<input checked="" type="checkbox"/>	10 DocSection
<input checked="" type="checkbox"/>	11 Rank
<input checked="" type="checkbox"/>	12 Code
<input checked="" type="checkbox"/>	13 Details

Copy to Clipboard  
 Save to File  
 Export to Excel  
 Send as Email  
 Print

Rows to Export  
 Selected Rows  All Rows  Include column headers

Select All Clear All Export and Save Configuration Save Configuration Cancel

# RELMA - Tree Features

- All trees operate the same way
- Shows terms spelled out
- Can expand and collapse parts or all of tree.
- Tree is string searchable
- Search can be based on one or more branches of a tree with or without other criteria
- Use “Clear Most Limits” button on Mapping Screen to remove all tree selections

# LOINC Part Search

- Same look as term search
- Uses same “Google-like” query language
  - Extremely fast
  - Include and exclude criteria
  - Partial string matching (using wildcards)
- LOINC CLASS values may now be search using "ClassList:<searchterm>" field
- Demo
  - Campylobacter fetus, not Ab

# LOINC Answer List Search

- Nominal LOINC terms are now “required” to be submitted with answer lists.
- Finding answer lists and the use of them can be done with “Answer List Search” tab

# Search function - Answerlist

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for SAMPLE

Welcome smatney log out

File Tools HIPAA Lab Auto Mapper View Help

Search | Mapping | View All Working Set Terms | Hierarchy & Search Limits | Part Search | Answer List Search

+wound answerlist:true Units Search ?

Use Standard Search No Common Limits

Grid	Tree	Row	Score	LOINC	Component	Property	Timing	System	Scale	Method	ExUCU...	ExUnits	Rank	SIRa
		7	10.5681	39114-4	Depth		Pt	Wound	Nom					
		8	10.5681	39116-9	Drainage amount	Find	Pt	Wound	Ord					
		9	11.3571	39121-9	Dressing	Type	Pt	Wound	Nom					
		10	10.5588	72285-0	Dressing purpose	Type		Wound	Nom					
		11	12.7323	72304-9	Edge of wound description	Type		Wound.edge	Nom					
		1	10.5681	52585-7	Major wound (excluding pressure...	Find		Patient	Ord	CARE				
		13	10.5192	542-1	Mycobacterium sp identified	Prid	Pt		Nom	Organism specific...				
		14	8.7518	72301-5	Periwound description	Find	Pt		Nom					
		15	13.4242	72300-7	Skin alteration	Type	Pt		Nom					
		16	10.5681	46534-4	Skin lesion or open wound	Find	Pt	^Patient	Ord	OASIS				
		17	11.3571	46550-0	Status of most problematic surgical...	Find	Pt	^Patient	Ord	OASIS				
		18	10.5681	57236-2	Status of most problematic surgical...	Find	Pt	^Patient	Ord	OASIS-C				
		19	10.5681	46547-6	Surgical wound	Find	Pt	^Patient	Ord	OASIS				
		20	10.5681	57235-4	Surgical wound	Find	Pt	^Patient	Ord	OASIS-C				
		21	10.5681	45796-0	Surgical wound care	Find	Pt	^Patient	Ord	MDS				
		22	10.5681	54977-4	Surgical wound care provided in last...	Find	Pt	^Patient						
		23	10.5681	54966-7	Surgical wound(s) in last 7D	Find	Pt	^Patient						
		24	10.5588	72298-3	Tunneling	Find	Pt	Wound						
		25	10.5588	72297-5	Tunneling clock position	Find	Pt	Wound						
		26	10.5588	72295-9	Undermining	Find	Pt	Wound						
		27	10.5588	72294-2	Undermining clock position	Find	Pt	Wound						
		28	10.5681	46549-2	Unobserved surgical wound	Find	Pt	^Patient	Ord	OASIS				
		29	14.0447	72305-6	Wound closure type	Type	Pt	Wound	Nom					

Units | Specimen | Methodless | No Common Limits | Battery

30 records found: 0.02s

Restricting to terms that have answer lists



# Answerlist details

Simple Display for LOINC record # 72300-7

## 72300-7 Skin alteration of Wound

**NAME**

Fully-Specified Name:	<b>Component</b>	<b>Property</b>	<b>Time</b>	<b>System</b>	<b>Scale</b>	<b>Method</b>
	Skin alteration	Type	Pt	Wound	Nom	

**BASIC ATTRIBUTES**

Class/Type: H&P.PX/Clinical  
Created On: 2012/09/19  
Last Updated: 2012/09/19  
Order vs. Obs.: Observation  
Status: Active

**EXAMPLE ANSWER LIST** ([LL2215-3](#))

SEQ#	Answer	Answer ID
1	Abrasion	LA7410-9
2	Avulsion	LA18220-6
3	Bite	LA19023-3
4	Blister	LA19024-1
5	Burn	LA7318-4
6	Gunshot wound	LA17212-4
7	Contusion	LA7423-2
8	Crush injury	LA17229-8
9	Erythema	LA7433-1
10	Fissure	LA19025-8
11	Laceration	LA7452-1
12	Maceration	LA19026-6
13	Pressure ulcer	LA19028-2
14	Ulcer	LA16827-0
15	Puncture	LA19027-4

Simple Display | Text Size - Medium | Separated pages | Previous | 72300-7 | Next | Print | Close

Type Ctrl-F to search the text of the details. | 72300-7 | 1 of 1

# Answer List Search

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto

Search Mapping View All Working Sets

cholesterol

Row	AnswerList	Name
1	LL2100-7	MDSv3-K1510-N
2	LL1116-4	PhenX07_07_con
3	LL1397-0	PhenX13_32_oth
4	LL1772-4	PhenX16_13-med
5	LL891-3	UA_crystals
6	LL626-3	USSG-FHT disea
7	LL627-1	USSG-FHT disea

Answer

Custom Export

#	Column Name
<input checked="" type="checkbox"/>	1 #
<input checked="" type="checkbox"/>	2 Answer
<input checked="" type="checkbox"/>	3 Code

Copy to Clipboard  
 Print

Rows to Export  
 Selected Rows  All Rows

Include column headers

Select All Clear All Export and Save Configuration Save Configuration Cancel

#	Answer	Code
1	Acetaminophen crystals	
2	Ammonium urate crystals	
3	Bilirubin crystals	
4	Calcium carbonate crystals	
5	Calcium hydrogen...	
6	Calcium oxalate crystals	
7	Calcium oxalate dihydrate...	
8	Calcium phosphate crystals	
9	Calcium sulfate crystals	
10	Cholesterol crystals	
11	Crystals.amorphous	
12	Crystals.unidentified	
13	Cystine crystals	
14	Dimagnesium phosphate...	
15	Drug crystals	
16	Hippurate crystals	
17	Leucine crystals	
18	Phosphate...	
19	Pyrophosphate crystals	
20	Sodium urate crystals	
21	Sulfonamide crystals	
22	Triple phosphate crystals	
23	Tyrosine crystals	
24	Urate crystals	
25	Urate crystals.amorphous	

log in | Welcome

25 answers

# Importing Local Terms into RELMA



# 5 Ways to Load LMOF Files

- Direct entry into LMOF from within RELMA (painful)
  - Handy for individual entries/edits
- Create an Access table that mimics the LMOF structure (less painful but tedious)
  - Appendix A: RELMA Manual
- Create a delimited ASCII file from your local test catalog (good choice)
- Import Excel file
- Load directly from HL7 v2.x messages
  - Pulls data from OBR and OBX segments
  - Stores NTE segment data

# Constructing a Local Dataset

Create extract of your test catalog with:

- Battery/Panel Code
- Battery/Panel Description or Name
- \*Local Code
- \*Test Description or Name
  - Include Method if Important
- Units
- Example Values
- Laboratory Section (if matching lab)

\*Mandatory data

# Creating Delimited ASCII File

- RELMA can't parse free text
  - Need to create separate fields
- Can use any of these delimiters
  - Tab, Semicolon, Comma, Space
  - Can define your own
- Fields can be in any order
- Minimum required fields
  - Local Code
  - Local Description
  - *Units (highly recommended)*

# Entering New Local Terms into RELMA



# Steps to Import Local Terms

1. Click **Import Local Terms** Button from Main Menu



- a) **File>Import Local Terms from Delimited File**
2. Locate your local terms text file
3. Name your Working Set (Mandatory)
  - a) LMOF database can contain multiple work sets
4. Define default section (Optional)
5. Identify file delimiter
6. Assign fields to LMOF attributes
  - a) Ignore fields you don't need
  - b) Combine fields if needed
7. Check "Case-sensitive" if needed
8. Click **Import**.



# Example Tab-Delimited File

File	Edit	Format	View	Help
312370	MIC	309651	Nafcillin	
312370	MIC	708007	Moxifloxacin	
665670	Basic Metabolic Panel	754689	Anion Gap	mmol/L
665670	Basic Metabolic Panel	755363	Creatinine SerPl QN	mg/dL
665670	Basic Metabolic Panel	755364	Sodium SerPl QN	mmol/L
665670	Basic Metabolic Panel	755365	Potassium SerPl QN	mmol/L
665670	Basic Metabolic Panel	755366	Chloride SerPl QN	mmol/L
665670	Basic Metabolic Panel	755367	Carbon Dioxide SerPl QN	mmol/L
665670	Basic Metabolic Panel	755368	Glucose SerPl QN	mg/dL
665670	Basic Metabolic Panel	755369	BUN SerPl QN	mg/dL
665670	Basic Metabolic Panel	755370	Calcium Total SerPl QN	mg/dL
667682	Factor VIII(8)-Assay	755177	Factor VIII-C Assay	%
667685	Factor X(10) Assay	755179	Factor X Assay	%
667688	Factor XI(11) Assay	755181	Factor XI Assay	%
684308	ABO and Rh	810892	Anti-A	
684308	ABO and Rh	810893	Anti-B	
685703	Cooximetry Panel Bld QN	755435	Carboxyhemoglobin Bld QN	%
685703	Cooximetry Panel Bld QN	755474	Methemoglobin Bld QN	%
685703	Cooximetry Panel Bld QN	755475	Oxyhemoglobin Bld QN	%
685733	CRP SerPl QN	755479	C-Reactive Prot SerPl QN	mg/dL
685796	Drug Scn SerPl QL	755372	Benzodiaz Scn SerPl QL	
685796	Drug Scn SerPl QL	755496	Tricyclic Antidepressants Scn SerPl QL	
685796	Drug Scn SerPl QL	755497	Salicylate SerPl QN	mg/dL
685796	Drug Scn SerPl QL	755498	Ethanol Pl QN	mg/dL
685849	Hgb A1C HPLC Bld QN	755572	Hemoglobin A1C HPLC Bld QN	%
685853	Hgb A1C POC	755573	"Hemoglobin A1C, POC"	%
686283	PTH Intact Ser QN	755757	PTH Intact Ser QN	pg/mL
693154	B Cell Subsets	755895	B Cells- IgG	%
693154	B Cell Subsets	755896	B Cells- IgM	%
693154	B Cell Subsets	755897	B Cells- IgD	%
693154	B Cell Subsets	755898	B Cells- IgA	%
693154	B Cell Subsets	755906	Flow Cytometry Interpretation	
693154	B Cell Subsets	2773454	B Cell Subset	
693154	B Cell Subsets	7124661	Flow Cytometry ASR Comment	

# Importing Local Files

Regenstrief LOINC Mapping Assistant

Welcome log in Register

File Tools HIPAA Lab Auto Mapper Help

- Search LOINC database
- Map local terms to LOINC
- View/Add/Edit Local Terms
- Change Local Term File
- Report Local Terms and Their LOINC Mappings
- Export Local Terms and Their LOINC Mappings to Delimited File
- View Local Term File Summary
- Review Panels, Forms & Surveys
- Review HIPAA Attachments
- Import Local Terms from Delimited File or Excel Spreadsheet
- Import Local Terms from HL7 File
- Propose a new LOINC
- Review and Submit Proposed LOINCS
- Set User Preferences
- Set Preferred Language
- Backup/Restore Local Terms Database
- Exit

**Select Import Local Terms from Delimited File or Excel Spreadsheet**

Propose New LOINC Term

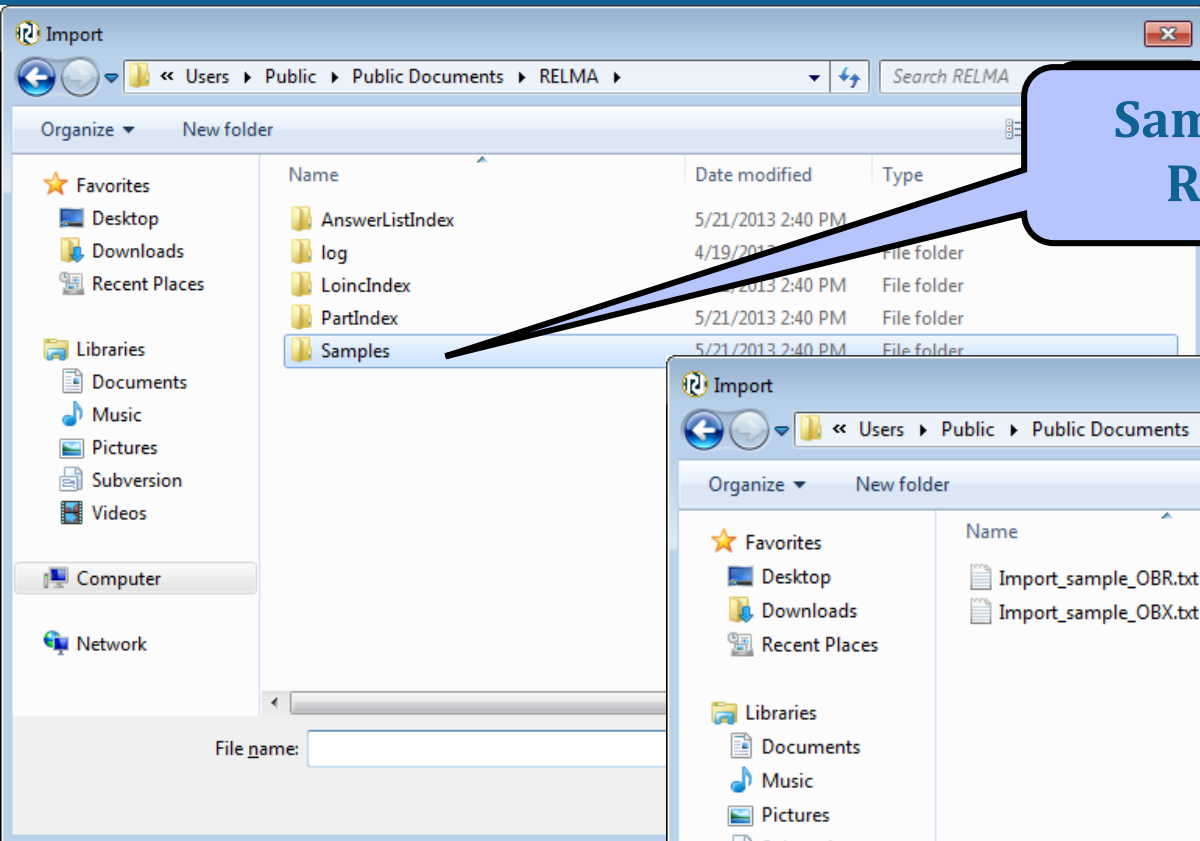
Review Panels, Forms, & Surveys

Import Local Terms

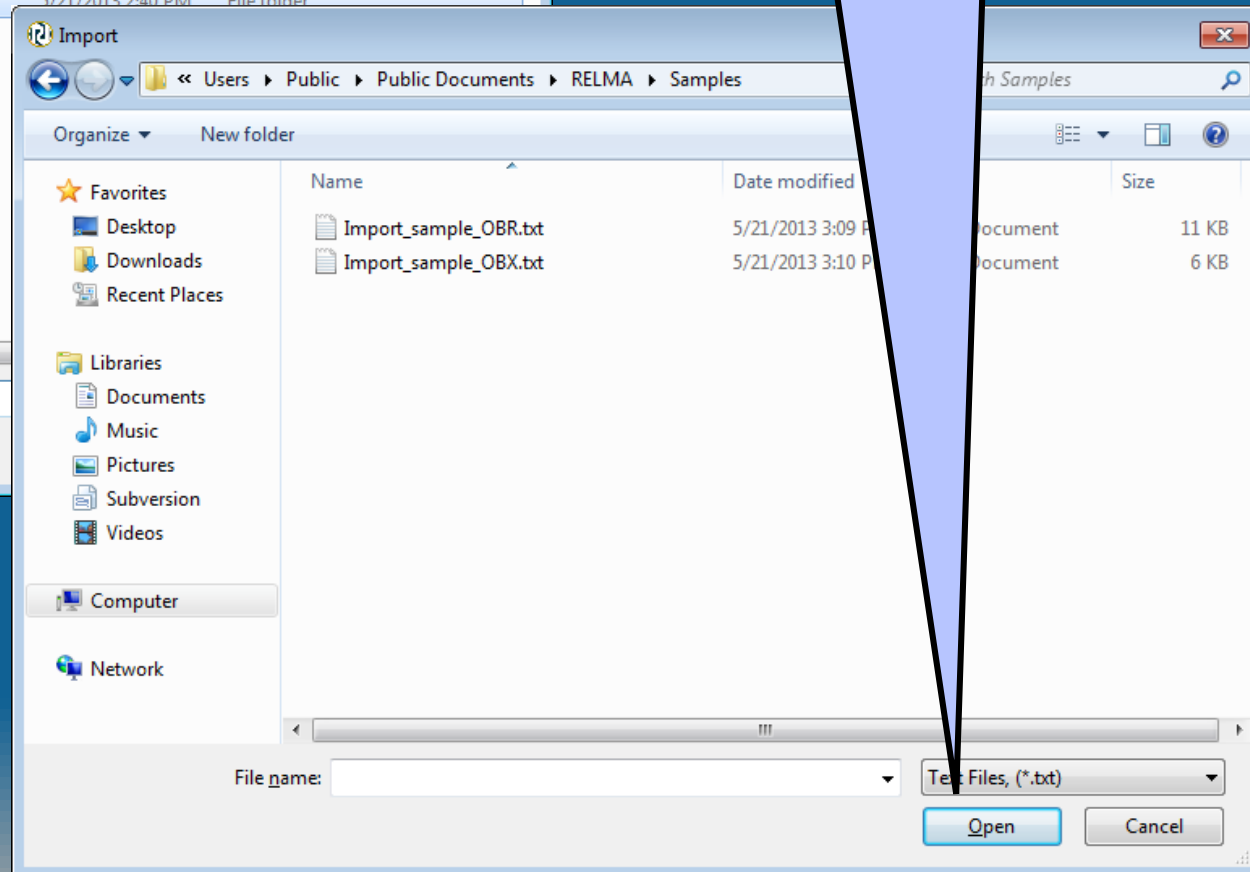
Export Local Terms

Exit Program

# Navigate to File Location



Sample files stored in  
RELMA Directory



# Open File in RELMA

**Name your working set. RELMA allows multiple sets in LMOF database**

**Import Button**

**Need Import Information**

You still need to enter the local term file name, test code, and test description before RELMA can import your data.

OK

1	312370	MIC	309651	Nafcil	
2	312370	MIC	708007	Moxif	
3	665670	BasicMetabolic Panel			
4	665670	BasicMetabolic Panel			
5	665670	BasicMetabolic Panel	755364	Sodium SerPl QN	mmol/L
6	665670	BasicMetabolic Panel	755365	Potassium SerPl QN	mmol/L
7	665670	BasicMetabolic Panel	755366	Chloride SerPl QN	mmol/L
8	665670	BasicMetabolic Panel	755367	Carbon Dioxide SerPl QN	mmol/L
9	665670	BasicMetabolic Panel	755368	Glucose SerPl QN	mg/dL
10	665670	BasicMetabolic Panel	755369	BUN SerPl QN	mg/dL
11	665670	BasicMetabolic Panel	755370	Calcium Total SerPl QN	mg/dL
12	667682	Factor VIII(8)-Assay	755177	Factor VIII-C Assay	%
13	667685	Factor X(10) Assay	755179	Factor X Assay	%
14	667688	Factor XI(11) Assav	755181	Factor XI Assav	%

Case-sensitive Import

Import Terms Exit

C:\Users\Public\Documents\RELMA\Samples\Import\_sample\_OBR.txt

# Fields Segregated

Regenstrief LOINC Mapping Assistant (RELMA) - Import Local Codes

Name of Local Term File:

Default Lab Section:  You may create a new lab section by typing a name in the box.

Choose the delimiter that separates your fields

Tab  Semicolon  Comma  Space  Other:

First Row Contains Column Headers

To assign a column of data to one of the fields, click on the second header row of the grid, click on right of the drop down list, and select the field into which you desire your data to be imported. Test Description are required fields.

	#1	#2	#3	#4	#5
	Ignore Field	Ignore Field	Ignore Field	Ignore Field	Ignore Field
1	Ignore Field		309651	Nafcillin	
2	Battery Code		708007	Moxifloxacin	
3	Battery Description	Basic Metabolic Panel	754689	Anion Gap	mmol/L
4	Battery Code System	Basic Metabolic Panel	755363	Creatinine SerPI QN	mg/dL
5	Test Code	Basic Metabolic Panel	755364	Sodium SerPI QN	
6	Test Description	Basic Metabolic Panel	755365	Potassium SerPI QN	
7	Test Code System	Basic Metabolic Panel	755366	Chloride SerPI QN	mmol/L
8	Units	Basic Metabolic Panel	755367	Carbon Dioxide SerPI QN	mmol/L
9	665670	Basic Metabolic Panel	755368	Glucose SerPI QN	mg/dL
10	665670	Basic Metabolic Panel	755369	BUN SerPI QN	mg/dL
11	665670	Basic Metabolic Panel	755370	Calcium Total SerPI QN	mg/dL
12	667682	Factor VIII(8)-Assay	755177	Factor VIII-C Assay	%
13	667685	Factor X(10) Assay	755179	Factor X Assay	%
14	667688	Factor XI(11) Assay	755181	Factor XI Assay	%

Case-sensitive Import

C:\Users\Public\Documents\RELMA\Samples\Import\_sample\_OBR.txt

**Assign working set name**

**Assign LMOF Attribute**

# Working set import

Regenstrief LOINC Mapping Assistant (RELMA) - Import Local Codes

Name of Local Term File:

Default Lab Section:

You may create a new lab section by typing a name in the box.

Choose the delimiter that separates your fields

Tab  Semicolon  Comma  Space  Other:

First Row Contains Column Headers

To assign a column of data to one of the fields, click on the second header row of the grid, click on the arrow to the right of the drop down list, and select the field. Description are required fields.

**Need Import Information**

You still need to enter the local term file name before RELMA can import your data.

OK

	#1		#		
	Battery Code		Battery D		
1	312370	MIC			
2	312370	MIC			
3	665670	Basic Metabol			
4	665670	Basic Metabolic Panel			
5	665670	Basic Metabolic Panel	755364	Sodium SerPl QN	mmol/L
6	665670	Basic Metabolic Panel	755365	Potassium SerPl QN	mmol/L
7	665670	Basic Metabolic Panel	755366	Chloride SerPl QN	mmol/L
8	665670	Basic Metabolic Panel	755367	Carbon Dioxide SerPl QN	mmol/L
9	665670	Basic Metabolic Panel	755368	Glucose SerPl QN	mg/dL
10	665670	Basic Metabolic Panel	755369	BUN SerPl QN	mg/dL
11	665670	Basic Metabolic Panel	755370	Calcium Total SerPl QN	mg/dL
12	667682	Factor VIII(8)-Assay	755177	Factor VIII-C Assay	%
13	667685	Factor X(10) Assay	755179	Factor X Assay	%
14	667688	Factor XI(11) Assav	755181	Factor XI Assav	%

Case-sensitive Import

C:\Users\Public\Documents\RELMA\Samples\Import\_sample\_OBR.txt

# Ready to Import

Regenstrief LOINC Mapping Assistant (RELMA) - Import Local Codes

Name of Local Term File:

Default Lab Section:

Choose the delimiter that separates your fields:

First Row Contains Column Headers

To assign a column of data to one of the fields, click right of the drop down list, and select the field into which Description are required fields.

	#1	#2		#5
	Battery Code	Battery Description	Test	Units
1	312370	MIC		
2	312370	MIC		
3	665670	Basic Metabolic Panel		mmol/L
4	665670	Basic Metabolic Panel		mg/dL
5	665670	Basic Metabolic Panel		mmol/L
6	665670	Basic Metabolic Panel	755365	mmol/L
7	665670	Basic Metabolic Panel	755366	mmol/L
8	665670	Basic Metabolic Panel	755367	
9	665670	Basic Metabolic Panel	755368	
10	665670	Basic Metabolic Panel	755369	
11	665670	Basic Metabolic Panel	755370	
12	667682	Factor VIII(8)-Assay	755177	%
13	667685	Factor X(10) Assay	755179	%
14	667688	Factor XI(11) Assav	755181	%

Case-sensitive Import

C:\Users\Public\Documents\RELMA\Samples\Import\_sample\_OBR.txt

**Minimum assignments**

LOINC Workshop OBR

**Import Process Results:**

Total Records: 190  
Imported Records: 190  
Duplicate Records: 0  
Records Missing Value: 0

**Now you can click the Import button!**

# Import tags

- You can include “tags” in your import file that allow you to categorize your local terms
- New fields in import function allow assignment of “Tag with”
- Provides ability to filter by “tags”



# Local term file with added tags

Regenstrief LOINC Mapping Assistant (RELMA) - Import Local Codes

Name of Local Term File:

Default Lab Section:

You may create a new lab section by typing a name in the box.

Choose the delimiter that separates your fields:

Tab  Semicolon  Comma  Space  Other:

First Row Contains Column Headers  Text Qualifier:

To assign a column of data to one of the fields, click on the second header row of the grid, click on the arrow to the right of the drop down list, and select the field into which you desire your data to be imported. TestCode and Test Description are required fields.

	#1						
	Ignore Field						
1	312370	MIC	309651	Nafcillin	High	Pending	
2	312370	MIC	708007	Moxifloxacin	High	Pending	
3	665670	BasicMetabolic Panel	754689	Anion Gap	mmol/L High	Pending	
4	665670	BasicMetabolic Panel	755363	Creatinine SerPl QN	mg/dL High	Pending	
5	665670	BasicMetabolic Panel	755364	Sodium SerPl QN	mmol/L High	Pending	
6	665670	BasicMetabolic Panel	755365	Potassium SerPl QN	mmol/L High	Pending	
7	665670	BasicMetabolic Panel	755366	Chloride SerPl QN	mmol/L High	Pending	
8	665670	BasicMetabolic Panel	755367	Carbon Dioxide SerPl QN	mmol/L High	Pending	
9	665670	BasicMetabolic Panel	755368	Glucose SerPl QN	mg/dL High	Pending	
10	665670	BasicMetabolic Panel	755369	BUN SerPl QN	mg/dL High	Pending	
11	665670	BasicMetabolic Panel	755370	Calcium Total SerPl QN	mg/dL High	Pending	
12	667682	Factor VIII(8)-Assay	755177	Factor VIII-C Assay	% High	Pending	
13	667685	Factor X(10) Assay	755179	Factor X Assay	% High	Pending	
14	667688	Factor XI(11) Assay	755181	Factor XI Assay	% High	Pending	

Case-sensitive Import

C:\Users\Public\Documents\RELMA\Samples\Import\_sample\_OBR.txt

**Tag terms**

# Assign tag values

Regenstrief LOINC Mapping Assistant (RELMA) - Import Local Codes

Name of Local Term File:

Default Lab Section:  You may create a new lab section by typing a name in the box.

Choose the delimiter that separates your fields:

Tab  Semicolon  Comma  Space  Other:

First Row Contains Column Headers Text Qualifier:

To assign a column of data to one of the fields, click on the second header row of the grid, click on the arrow to the right of the drop down list, and select the field into which you desire your data to be imported. TestCode and Test Description are required fields.

#1	#2	#3	#4	#5	#6	#7
Battery Code	Battery Description	Test Code	Test Description	Units	Ignore Field	Ignore Field
1	312370 MIC	309651	Nafcillin		Normal Range	
2	312370 MIC	708007	Moxifloxacin		LOINC Code	
3	665670 Basic Metabolic Panel	754689	Anion Gap	mmol/L	Lab Section	
4	665670 Basic Metabolic Panel	755363	Creatinine SerPl QN	mg/dL	Tag With	
5	665670 Basic Metabolic Panel	755364	Sodium SerPl QN	mmol/L	Related Code	
6	665670 Basic Metabolic Panel	755365	Potassium SerPl QN	mmol/L	Related Code System	
7	665670 Basic Metabolic Panel	755366	Chloride	mmol/L	Related Code Description	
8	665670 Basic Metabolic			mmol/L	Abnormal Flag	
9	665670 Basic Metabolic			mg/dL	High	Pending
10	665670 Basic Metabolic			mg/dL	High	Pending
11	665670 Basic Metabolic			mg/dL	High	Pending
12	667682 Factor VIII(8)-Assay	755177	Factor VIII-C Assay	%	High	Pending
13	667685 Factor X(10) Assay	755179	Factor X Assay	%	High	Pending

**New field assignment**

Case-sensitive Import

Import Terms Exit

C:\Users\Public\Documents\RELMA\Samples\Import\_sample\_OBR.txt

# Tagged local terms

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for Sample OBR 122014

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

Edit Term in Local Term File Add New Term to Local Term File Delete Term from Local Term File Export Local Term File

**User Tags**

Tag	Count
<input type="checkbox"/> Completed	141
<input type="checkbox"/> High	117
<input type="checkbox"/> Low	73
<input type="checkbox"/> Pending	34
<input type="checkbox"/> Processing	15

Enter words to find:

Row	Battery Code	Battery Description	Battery Codesystem	Test Code	Test Description	Test Codesystem
1	312370	MIC		309651	Nafcillin	
2	665670	Basic Metabolic Panel		755363	Creatinine SerPl QN	
3	665670	Basic Metabolic Panel		755364	Sodium SerPl QN	
4	665670	Basic Metabolic Panel		755366	Chloride SerPl QN	
5	665670	Basic Metabolic Panel		754689	Anion Gap	
6	665670	Basic Metabolic Panel		755368	Glucose SerPl QN	
7	665670	Basic Metabolic Panel		755369	BUN SerPl QN	
8	665670	Basic Metabolic Panel		755370	Calcium Total SerPl QN	
9	665682	Factor VIII(8)-Assay		755177	Factor VIII-C Assay	
10	665682	Factor X(10) Assay		755179	Factor X Assay	
11	665682	Factor XI(11) Assay		755181	Factor XI Assay	
12	684308	ABO and Rh		810892	Anti-A	
13	684308	ABO and Rh		810893	Anti-B	
14	685703	Cooximetry Panel Bld QN		755435	Carboxyhemoglobin Bld...	
15	685703	Cooximetry Panel Bld QN		755474	Methemoglobin Bld QN	
16	685703	Cooximetry Panel Bld QN		755475	Oxyhemoglobin Bld QN	
17	685733	C-Reactive Prot SerPl QN		755479	C-Reactive Prot SerPl QN	
18	685796	Benzodiaz Scn SerPl QL		755372	Benzodiaz Scn SerPl QL	
19	685796	Tricyclic...		755496	Tricyclic...	
20	685796	Salicylate SerPl QN		755497	Salicylate SerPl QN	
21	685796	Drug Scn SerPl QL		755498	Ethanol Pl QN	
22	685849	Hgb A1C HPLC Bld QN		755572	Hemoglobin A1C HPLC...	
23	685853	Hgb A1C POC		755573	Hemoglobin A1C, POC	
24	686283	PTH Intact Ser QN		755757	PTH Intact Ser QN	

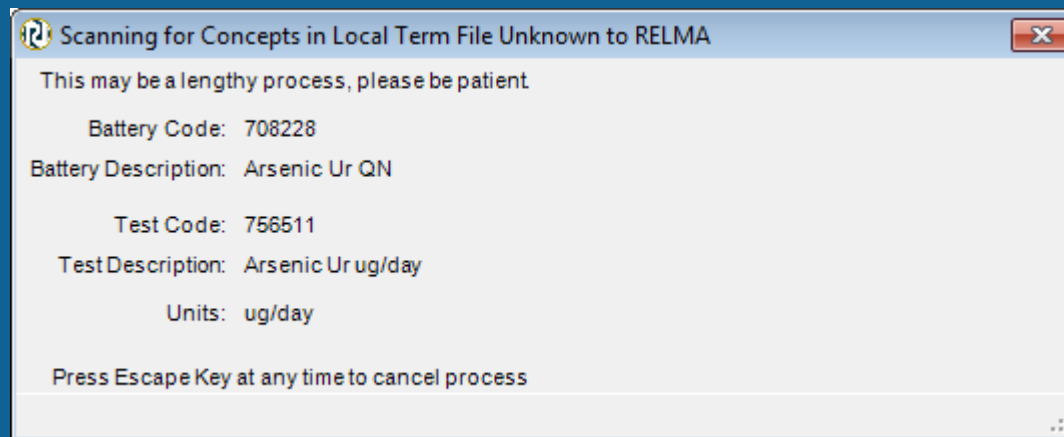
**Imported tags**

Truncated Text Print Preview

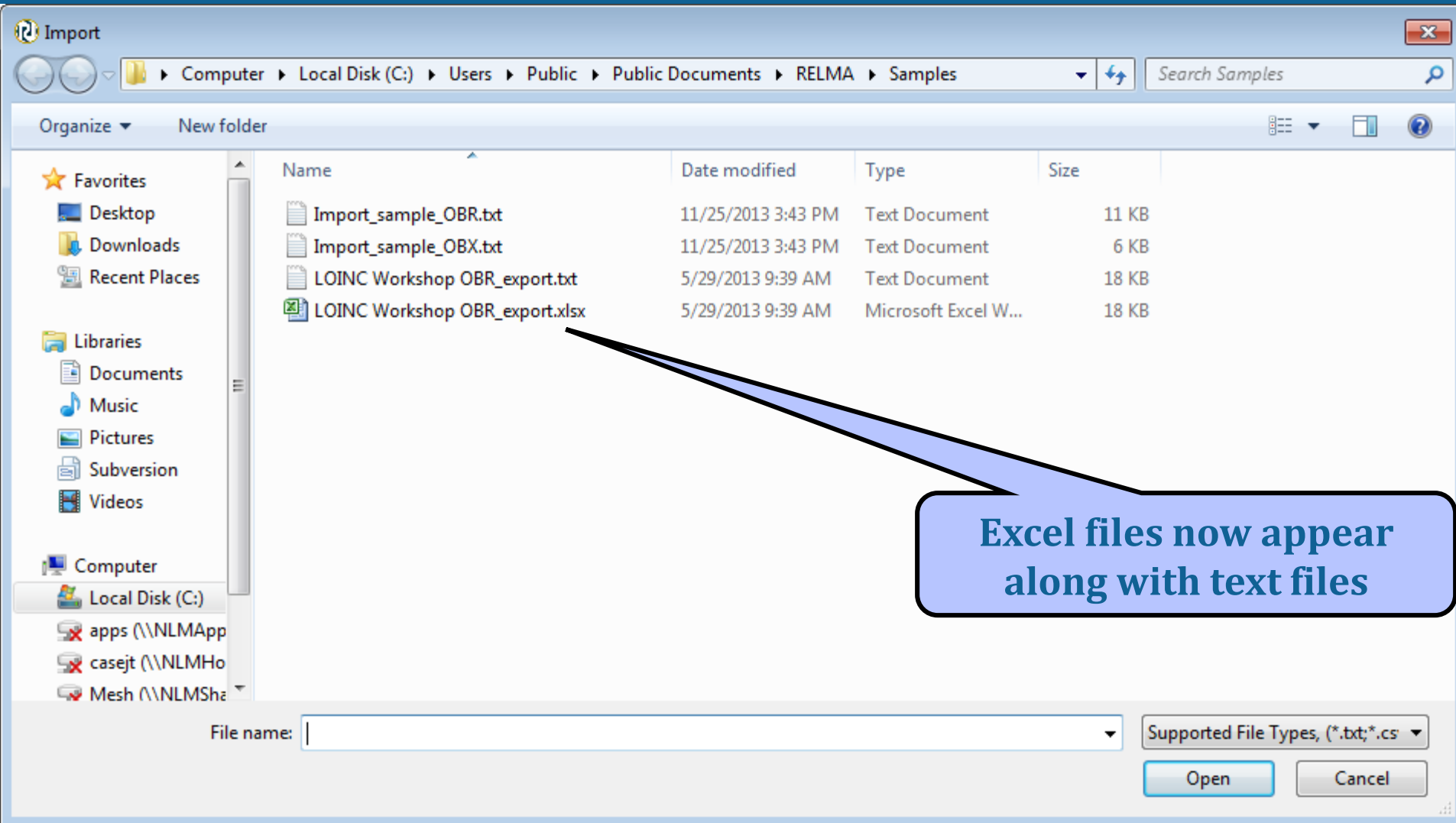
Entry #: 1 of 190 5 records found: 0.01s

# Post-Processing of Local File

- After import, RELMA Searches for terms (words) that it does not recognize
- Stored in a file for future reconciliation



# Importing Excel file



# Excel format for import

Regenstrief LOINC Mapping Assistant (RELMA) - Import Local Codes

Name of Local Term File:

Default Lab Section:  You may create a new lab section by typing a name in the box.

Choose the delimiter that separates your fields:

Tab  Semicolon  Comma  Space  Other:

First Row Contains Column Headers Text Qualifier:

To assign a column of data to one of the fields, click on the second header row of the grid, click on the arrow to the right of the drop down list, and select the field into which you desire your data to be imported. Test Code and Test Description are required fields.

	#1	#2	#3	#4	#5	#6	#7	#8
	Ignore Field	Ignore Field	Ignore Field	Ignore Field	Ignore Field	Ignore Field	Ignore Field	Ignore Field
1	LOCALTERMFILE	TESTCODE	TESTDESCRIPTION	TESTCODESYSTEM	LOINC	BATTERYCODE	BATTERYCODESYSTEM	BATTERYDESCRIPTION
2	LOINC Workshop OBR	309651	Nafcillin			312370		MIC
3	LOINC Workshop OBR	708007	Moxifloxacin			312370		MIC
4	LOINC Workshop OBR	754689	Anion Gap			665670		Basic Metabolic Panel
5	LOINC Workshop OBR	755363	Creatinine SerPl QN			665670		Basic Metabolic Panel
6	LOINC Workshop OBR	755364	Sodium SerPl QN			665670		Basic Metabolic Panel
7	LOINC Workshop OBR	755365	Potassium SerPl QN			665670		Basic Metabolic Panel
8	LOINC Workshop OBR	755366	Chloride SerPl QN			665670		Basic Metabolic Panel
9	LOINC Workshop OBR	755367	Carbon Dioxide SerPl QN			665670		Basic Metabolic Panel
10	LOINC Workshop OBR	755368	Glucose SerPl QN			665670		Basic Metabolic Panel
11	LOINC Workshop OBR	755369	BUN SerPl QN			665670		Basic Metabolic Panel
12	LOINC Workshop OBR	755370	Calcium Total SerPl QN			665670		Basic Metabolic Panel
13	LOINC Workshop OBR	755177	Factor VIII-C Assay			667682		Factor VIII(8)-Assay

Case-sensitive Import

Import Terms Exit

# Local Term File Options



# Change Local Term File

Regenstrief LOINC Mapping Assistant

File Tools HIPAA Lab Auto Mapper Help

Welcome [log in](#) [Register](#)

Search LOINC database  
Map local terms to LOINC  
View/Add/Edit Local Terms

Regenstrief LOINC Mapping Assistant (RELMA) - Select Local Term File

Choose a Local Term File:

Term File Name	# of Terms	# Mapped	Unmapped	% Mapped
SAMPLE	190	97	93	51
Workshop OBR	190	0	190	0
LOINC Workshop OBR	190	0	190	0

Can delete local term set; not the active one

Delete OK Cancel

SAMPLE Copyright © 1995-2014 Regenstrief Institute. All rights reserved. Version 6.5



# Alternative Pragmatic Way

- Use large set of HL7 messages
- Automatically make dataset of:
  - OBR ID
  - OBR description
  - OBX ID
  - OBX description
  - Sample of results with
    - Real values
    - Units
    - Abnormal flags
    - Normal ranges

# Generate Local term file from HL7 messages

Regenstrief LOINC Mapping Assistant

Welcome log in Register

File Tools HIPAA Lab Auto Mapper Help

- Search LOINC database
- Map local terms to LOINC
- View/Add/Edit Local Terms
- Change Local Term File
- Report Local Terms and Their LOINC Mappings
- Export Local Terms and Their LOINC Mappings to Delimited File
- View Local Term File Summary
- Review Panels, Forms & Surveys
- Review HIPAA Attachments
- Import Local Terms from Delimited File or Excel Spreadsheet
- Import Local Terms from HL7 File
- Propose a new LOINC
- Review and Submit Proposed LOINC
- Set User Preferences
- Set Preferred Language
- Backup/Restore Local Terms Database
- Exit

Select Import Terms from HL7 File

Propose New LOINC Term

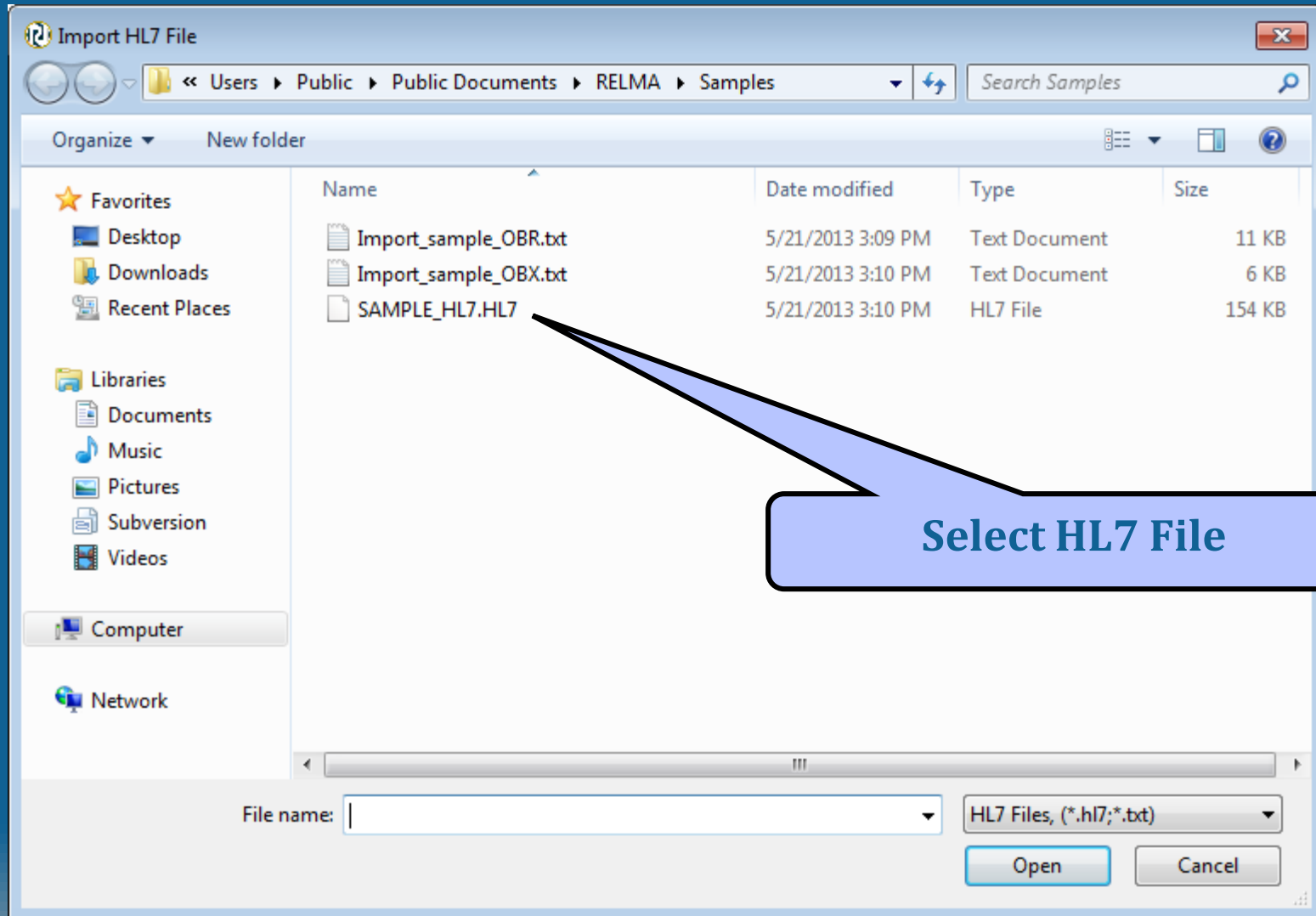
Review Panels, Forms, & Surveys

Import Local Terms

Submit Local Terms

Exit Program

# Select File to Import



# Specify HL7 File Name and Sample Size

Regenstrief LOINC Mapping Assistant (RELMA) - Import HL7 File

Path to HL7 File:

Name of Local Term File:

Default Lab Section:  You may create a new lab section by typing a name in the box.

Import Local Terms from:

- Primary Codes Only (Default)
- Both Primary and Alternate Codes
- Alternate Codes Only

HL7 Message Filter:

Import Progress:

Sample Values to Store

Skip Import Process

# of Most Frequent

# of Highest (numeric)

# of Lowest (numeric)

Statistics	Value
------------	-------

**Name the Local Term File (working set)**

**Skip import of sample values**

**Select which codes to store**

**Select the number of sample values**

# HL7 Messages Data Statistics

Regenstrief LOINC Mapping Assistant (RELMA) - Import HL7 File

Path to HL7 File: C:\Users\Public\Documents\RELMA\Samples\SAMPLE\_HL7.HL7 Browse...

Name of Local Term File: LOINC Workshop HL7

Default Lab Section: You may create a new lab section by typing a name in the box.

Import Local Terms from:  Primary Codes Only (Default)  Both Primary and Alternate Codes  Alternate Codes Only

Sample Values to Store:  Skip Import Process # of Most Frequent: 5 # of Highest (numeric): 5 # of Lowest (numeric): 5

HL7 Message Filter: ORU^R01

Import Progress: ████████

Statistics	Value
Number of Messages	70
Number of OBR Segments	70
Number of OBX Segments	300
Number of NTE Segments	5
Msgs / Sec	19
Total Time	00:00:03
Estimated Time till Completion	00:00:08
File Size	157,491

Import Completed

**i** Import Process Results:

Total Records: 195  
Imported Records: 195  
Skipped Records: 0

OK

Stop Import Terms Exit

# New Terms added to LMOF

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for HL7 LOINC Workshop

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

Edit Term in Local Term File Add New Term to Local Term File Delete Term from Local Term File Export Local Term File

Enter words to find:

Row	Battery Code	Description	Battery Codesystem	Test Code	Test Description	Test Codesystem	Units	LOINC
1								
2	315			6481	MEDIA TYPE	LCR		
3	315				BLOOD ORG 1	LCR		
4	315				BLOOD ORG 2	LCR		
5	315				MEDIA TYPE 2	LCR		
6	315				ORG 1	LCR		
7	315				ORG 2	LCR		
8	1795	URINE CULTURE	L	1796				
9	1795	URINE CULTURE	L	4705				
10	1795	URINE CULTURE	L	1798	URINE CULTURE	LCR		
11	1795	URINE CULTURE	L	4706	COLONY COUNT2	LCR		
12	1795	URINE CULTURE	L	1801	URN ORG 3	LCR		
13	1795	URINE CULTURE	L	1797	COLONY COUNT3	LCR		
14	1795	URINE CULTURE	L	1802	URN ORG 4	LCR		
15	1795	URINE CULTURE	L	4708	COLONY COUNT4	LCR		
16	1795	URINE CULTURE	L	1795	URINE CULTURE	LCR		
17	4039	R-URN ALBUMIN/CREAT	L	4018	ALBUMIN:R-URN	L	mcg/mL	
18	4039	R-URN ALBUMIN/CREAT	L	7982	CREAT:R-URN	L	mg/dL	
19	4039	R-URN ALBUMIN/CREAT	L	7989	R-URN ALB/CR RATIO	L	mcg/mg Cr	
20	52	DIFFERENTIAL		19167	NEUTROPHILS	L	%	
21	52	DIFFERENTIAL		55	LYMPHS	L	%	
22	52	DIFFERENTIAL		56	MONO	L	%	

Truncated Text Print Preview

Entry #: 1 of 284 Start-up: 9s

Click on "Edit Term" to see Sample Data

New Battery Code

# Sample Results for Observation

New Test Code

Sample Values from Messages

Regenstrief LOINC Mapping Assistant (RELMA) - Edit Local Term from HL7 LOINC

Local Term

Local Term File: HL7 LOINC Workshop      Mapped To:

Lab Section:       Institution:

Battery Code: 20725      Units: k/cumm

Battery Name: ROUTINE HEMATOLOGY

Battery Code System:

Test Code: 62

Test Name: WBC

Test Code System: L

Comments:

# Obs:

# Patients:

Min Value:

Max Value:

Avg Value:

Earliest Obs: 12/6/2004

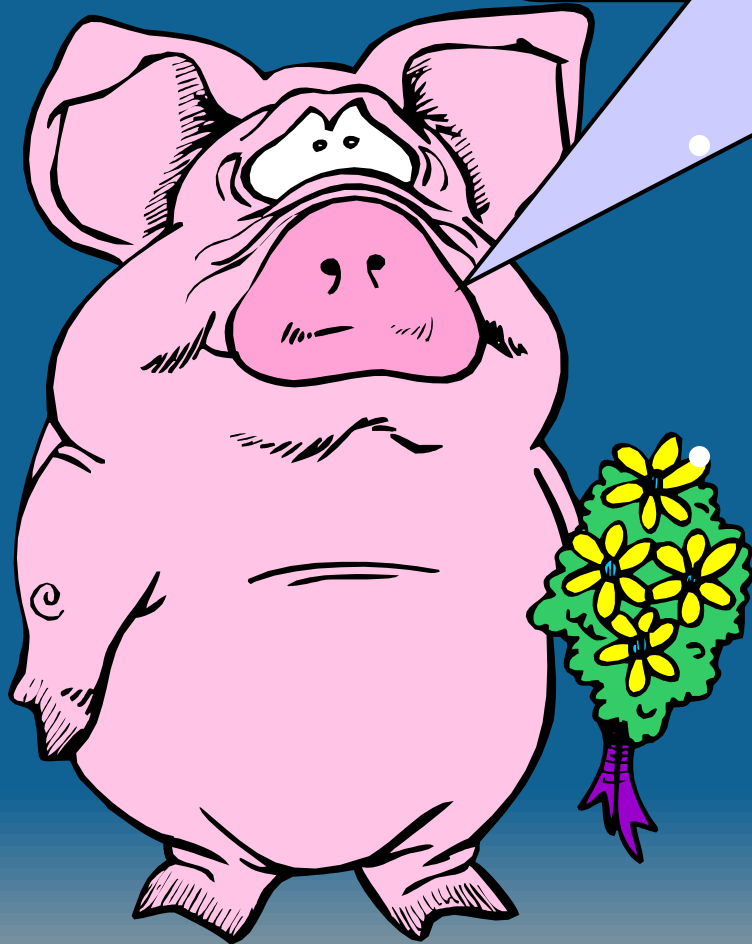
Sample Data:

Row	Count	Sample Value	Units	Abnormal Flag	Normal Range	OBR Note	OBX Note
1	1	3.7	k/cumm	L	4.5-11.5		
2	3	6.6	k/cumm		4.5-11.5		
3	1	18.3	k/cumm	H	4.5-11.5		
4	1	9.6	k/cumm		4.5-11.5		
5	1	6.0	k/cumm		4.5-11.5		
6	2	10.8	k/cumm		4.5-11.5		
7	1	13.8	k/cumm	H	4.5-11.5	, Critical Value...	
8	1	3.5	k/cumm	L	4.5-11.5		
9	1	6.3	k/cumm		4.5-11.5		
10	1	14.1	k/cumm	H	4.5-11.5		

Truncated Text      Print Preview

Save      Cancel

**Lenny L'OINC says:  
“Load the Sample File  
Into RELMA now!”**



- Import the sample file provided
  - ClinicalRelmaImportTestFile.xlsx
    - Contains battery code and descriptions
- Load your personal data set



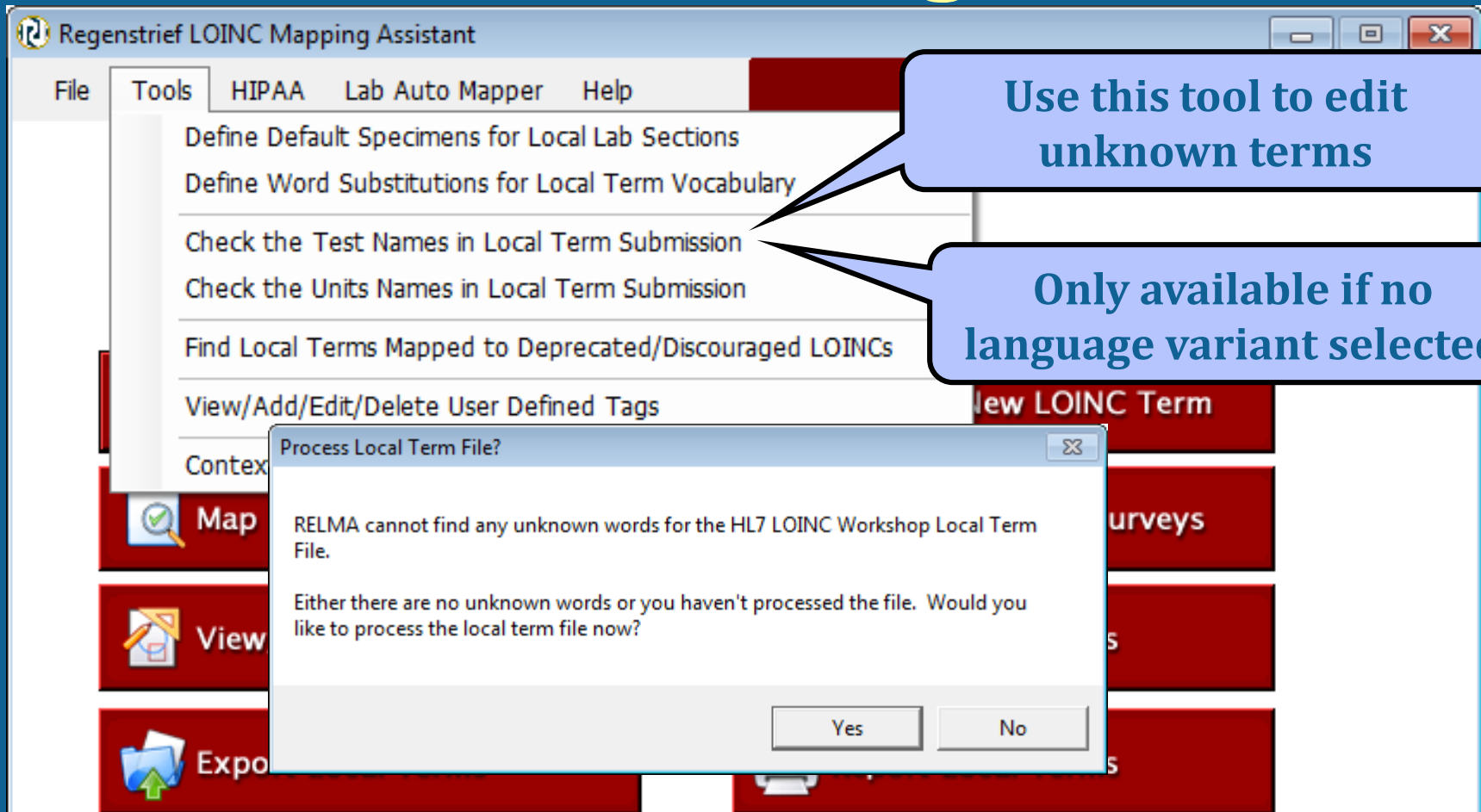
# Cleaning your data



# Preparing your Data for Mapping

- Improve mapping success by:
  - Expanding abbreviations
  - Standardizing colloquial terms
  - Ignoring “administrative” terms
  - Standardizing time references
- Can be done prior to importing
- Better to use tools built into RELMA

# RELMA Cleaning Tools



User Preferences



Exit Program

# Review Unknown Local Terms

Regenstrief LOINC Mapping Assistant (RELMA) - Revise Unknown Local Term Concepts

## Match RELMA Concepts to Unknown Words

Local Term Information

ID	Battery	Battery Description	Test	Test Description	Units	Lab Section
1860	693431	Auto Diff	75			
1859	693431	Auto Diff	75			
1858	693431	Auto Diff	75			
1861	693431	Auto Diff	755979	Basophils %	%	
1857	693431	Auto Diff	755975	Neutrophils %	%	

If the word or unit is an abbreviation, acronym or truncation of a word or phrase, please type in a fully spelled out version of the complete word or phrase. If already spelled out, see if there is a equivalent in the LOINC dictionary.

Unknown Word: %

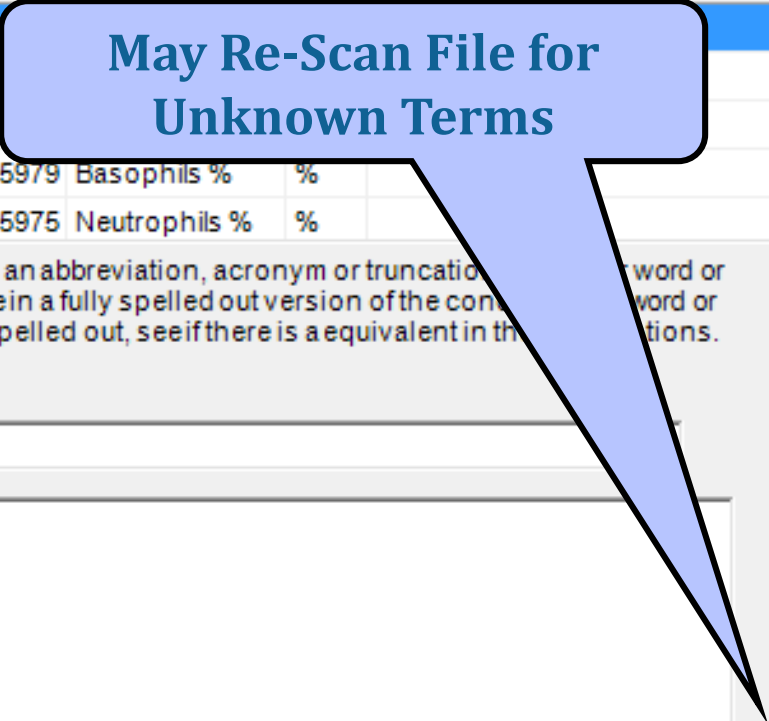
Enter Your Word:

Known Words:

Replace Everywhere  
Replace for Lab Section  
Replace for Term  
Ignore Everywhere  
Ignore for Lab Section  
Ignore for Term  
Scan For Unknown Concepts  
Print Concepts Not in LOINC  
Exit

First Previous Next Last

Item 1 of 16 unknown words | LOINC Workshop OBR



# Replace Local Terms

Regenstrief LOINC Mapping Assistant (RELMA) - Revise Unknown Local Term Concepts

## Match RELMA Concepts to Unknown Words

### Local Term Information

ID	Battery	Battery Description	Test	Test Description	Units	Lab Section
1915	768328	Allergen Helminthospr IgG	772546	Allergen Helminthosporium spp IgG		
1916	768328	Allergen Helminthospr IgG	963253	Allergen Helminthospr IgG		

If the word or unit is an abbreviation, acronym or truncation of a larger word or phrase, please select the appropriate replacement options.

### Replacement Options

Unknown Word: **helminthospr**

Enter Your Word:

Known Words:

- helminths
- helminth
- helianthus
- helminthosporium**
- mevinphos
- menthol
- months
- helping
- mints

Replace Everywhere

Replace for Lab Section

Replace for Term

Ignore Everywhere

Ignore for Lab Section

Ignore for Term

Scan For Unknown Concepts

Print Concepts Not in LOINC

Exit

First

Previous

Next

Last

# RELMA Cleaning Tools

Regenstrief LOINC Mapping Assistant

File Tools HIPAA Lab Auto Mapper Help

Define Default Specimens for Local Lab Sections  
Define Word Substitutions for Local Term Vocabulary  
Check the Test Names in Local Term Submission  
Check the Units Names in Local Term Submission  
Find Local Terms Mapped to Deprecated/Discouraged LOINC  
View/Add/Edit/Delete User Defined Tags  
Context Specific Hierarchies

Use this tool to make global substitutions

Map Local Terms to LOINC

Panels, Forms, & Surveys

View/Add/Edit Local Terms

Import Local Terms

Export Local Terms

Report Local Terms

User Preferences

Exit Program

# Term Substitution

Regenstrief LOINC Mapping Assistant (RELMA) - Define Word Substitutions for Local Term Vocabulary

Local Word

Local Translation

RELMA's Suggestions

Options

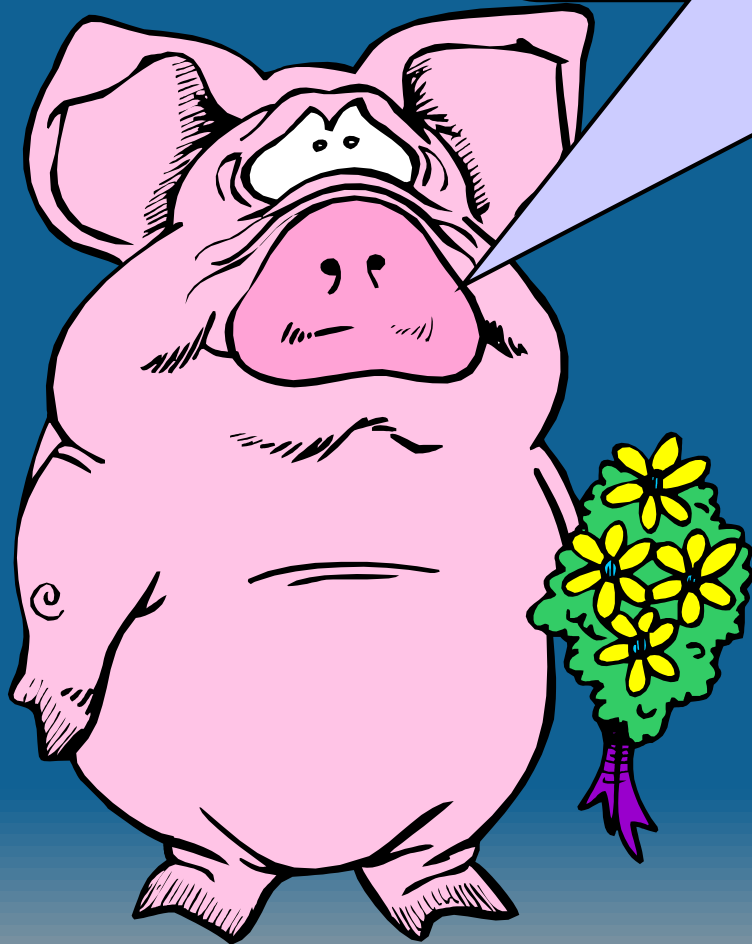
Ignore Local Word

Limit to Local Term File LOINC Workshop OBR

Add New Save Delete Exit

Save this global substitution  
for only this working set

**Lenny L'OINC says:  
“Begin to clean your  
data now!”**



- Using the OBR sample file or your own data, take 15-20 minutes to clean up these unrecognized terms



# Manual Enter/Edit

Regenstrief LOINC Mapping Assistant

File Tools HIPAA Lab Auto Mapper Help

- Search LOINC database
- Map local terms to LOINC
- View/Add/Edit Local Terms
- Change Local Term File
- Report Local Terms and Their LOINC Mappings
- Export Local Terms and Their LOINC Mappings to Delimited File
- View Local Term File Summary
- Review Panels, Forms & Surveys
- Review HIPAA Attachments
- Import Local Terms from Delimited File or Excel Spreadsheet
- Import Local Terms from HL7 File
- Propose a new LOINC
- Review and Submit Proposed LOINCs
- Set User Preferences
- Set Preferred Language
- Backup/Restore Local Terms Database
- Exit

View/Add/Edit Local Terms

Assistant

Use New LOINC Term

s, Forms, & Surveys

t Local Terms

t Local Terms

it Program

# Edit Term Dialog

The screenshot shows the Regenstrief LOINC Mapping Assistant (RELMA) interface. The title bar reads "Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for SAMPLE". The menu bar includes "File", "Tools", "HIPAA", "Lab Auto Mapper", "View", and "Help". A search bar is located below the menu bar. The main toolbar contains four buttons: "Edit Term in Local Term File", "Add New Term to Local Term File", "Delete Term from Local Term File", and "Export Local Term File".

On the left side, there is a "User Tags" section with a list of tags and their counts:

Tag	Count
<input type="checkbox"/> High Priority	26
<input type="checkbox"/> Medium Priority	55
<input type="checkbox"/> Low Priority	2
<input type="checkbox"/> Have Questions	8
<input type="checkbox"/> Tentative mapping	190
<input type="checkbox"/> In review	190

The main area displays a table with columns: "Row", "Battery Code", "Battery Description", "Battery Codes", "Test Code", "Test Description", and "Test Codesystem". The first row is highlighted in blue and contains the following data:

Row	Battery Code	Battery Description	Battery Codes	Test Code	Test Description	Test Codesystem
1	ZZ01	SUSCEPTIBILITY				

Callouts highlight the following features:

- Edit\Add\Delete Terms** and **Export Terms**: A red bracket highlights the top toolbar buttons.
- User assigned tags**: A callout points to the "User Tags" section.
- Text alignment option**: A callout points to the "Truncated Text" button at the bottom.
- Print Preview List**: A callout points to the "Print Preview" button at the bottom.

At the bottom left, it says "Entry #: 1 of 190". At the bottom right, it says "Start-up: 25.04s".

# Export Local Term File

Regenstrief LOINC Mapping Assistant (RELMA) - Export Local Term File

Term File to Export: LOINC Workshop OBR

Export File Format:  Microsoft Excel  Delimited Text File

Field Delimiter:  Comma  Tab  Semicolon  Vertical Bar

Surround fields with double quotes

Select Fields to Export

- Battery Code
- Units
- Comments
- Name of Mapper
- Date Term was Mapped
- Include field names as first row

Output File

- LOINC Version
- LOINC Number
- LOINC Long Common Name
- LOINC Short Name
- LOINC Component
- LOINC Property
- LOINC Aspect
- LOINC ...
- LOINC ...
- LOINC ...
- Tags

[Deselect All](#)

File Name: C:\Users\Public\Documents

Open When Finished

Buttons: Browse..., Export, Exit

Export to Microsoft Excel or Text File

New feature! Export assigned tags

Delimiters supported: Tab, comma, bar (|)

# Add Local Term

Regenstrief LOINC Mapping Assistant (RELMA) - Add Local Term to Sample OBR 122014

Local Term

Local Term File: Sample OBR 122014

Lab Section: MICRO

Battery Code:

Battery Name:

Battery Code System:

Test Code: BUBPLAG

Test Name: BUBONIC PLAGUE - RRT PCR

Test Code System:

Mapped To:

Institution:

Units:

# Obs:

# Patients:

Min Value:

Max Value:

Avg Value:

Earliest Obs:

Latest Obs:

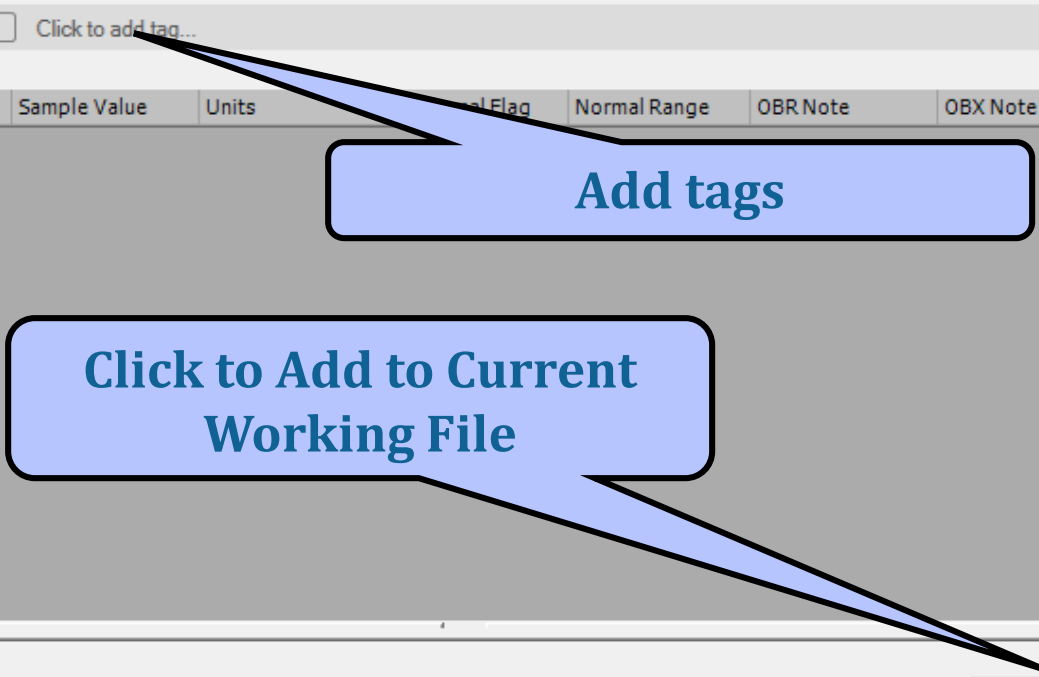
Comments:

High Pending Click to add tag...

Sample Data:

Row	Count	Sample Value	Units	Local Flag	Normal Range	OBR Note	OBX Note
-----	-------	--------------	-------	------------	--------------	----------	----------

Save Cancel



# Map Local Term(s)

The screenshot shows the Regenstrief LOINC Mapping Assistant (RELMA) application. The main window has a menu bar (File, Tools, HIPAA, Lab Auto Mapper, View, Help) and a toolbar with buttons for 'Edit Local Term', 'Add New Local Term', 'Delete Local Term', 'Export Local Term File', and 'Map to LOINC'. Below the toolbar is a search bar and a table of local terms. The table has columns for 'Ro', 'Battery Code', 'Battery...', 'Test...', and 'Test Description'. Row 35 is selected, showing '123485' in the 'Test...' column and 'Facility ID' in the 'Test Description' column. A blue callout bubble points to the 'Map to LOINC' button with the text 'Click "Map to LOINC"'. Another blue callout bubble points to row 35 with the text 'Selected row to map single LOINC code to'. A third blue callout bubble points to the 'Add LOINC code to selected rows' button with the text 'Add LOINC code to selected rows'. A dialog box is open in the foreground, titled 'Regenstrief LOINC Mapping Assistant (RELMA)'. It contains instructions: 'Enter a valid LOINC code in the LOINC # box and an optional mapping comment in the comment box. Then click the OK button to map your local terms.' and 'To unmap a term, leave the LOINC # box empty and click the OK button.' The dialog has a 'LOINC #' field with the value '75524-9' and a 'Mapping Comment' field. There are 'OK' and 'Cancel' buttons at the bottom.

File Tools HIPAA Lab Auto Mapper View Help Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

Edit Local Term Add New Local Term Delete Local Term Export Local Term File Map to LOINC

Enter words to find:

Ro	Battery Code	Battery...	Battery...	Test...	Test Description
1				1	Facility Identifier
35				123485	Facility ID
32				6	Ethnicity
13					Diastolic Blood Pressure
30					Date R
22					Date o
34				5	Date o
23				26	Date H
26				29	Date H
31				34	Date H
25				28	Date C
24				27	Date C
15				18	Current

Click "Map to LOINC"

Selected row to map single LOINC code to

Add LOINC code to selected rows

Regenstrief LOINC Mapping Assistant (RELMA)

Enter a valid LOINC code in the LOINC # box and an optional mapping comment in the comment box. Then click the OK button to map your local terms.

To unmap a term, leave the LOINC # box empty and click the OK button.

LOINC # 75524-9

Mapping Comment

OK Cancel

# Search Local Term File

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for SAMPLE

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

Edit Term in Local Term File Add New Term to Local Term File Delete Term from Local Term File Export Local Term File

**User Tags**

Tag	Count
<input type="checkbox"/> High Priority	26
<input type="checkbox"/> Medium Priority	55
<input type="checkbox"/> Low Priority	2
<input type="checkbox"/> Have Questions	89
<input type="checkbox"/> Tentative mapping	190
<input type="checkbox"/> In review	190

Enter words to find:  
Calcium

Found: 3 (1.58%) of

Row	Battery Code	Test Description	Test Codesystem
135	0000316	calcium	TST
136	0000317	calcium-U 24 hour	TST
137	0000318	pot Vol, Urine	TST

Tags panel only appears if tags have been assigned

Open or close tag list

Return to Full List

Truncated Text Return to Local Term File Find Local Term in File Print Preview

Entry #: 1 of 190 Start-up: 25.04s

# Using tags to filter local terms

The screenshot shows the Regenstrief LOINC Mapping Assistant (RELMA) interface. The title bar reads "Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for SAMPLE". The menu bar includes "File", "Tools", "HIPAA", "Lab Auto Mapper", "View", and "Help". A red banner at the top right says "Welcome log in Register". Below the menu bar are search and mapping options: "Search | Mapping | View All Working Set Terms | Hierarchy & Search Limits | Part Search | Answer List Search".

Four buttons are visible: "Edit Term in Local Term File", "Add New Term to Local Term File", "Delete Term from Local Term File", and "Export Local Term File".

On the left, a section titled "2 terms match selected tags" shows a list of tags and their counts:

Tag	Count
<input type="checkbox"/> High Priority	26
<input type="checkbox"/> Medium Priority	55
<input checked="" type="checkbox"/> Low Priority	2
<input type="checkbox"/> Have Questions	89
<input type="checkbox"/> Tentative mapping	190
<input type="checkbox"/> In review	190

The main area contains a search box "Enter words to find:" and a table of local terms:

Row	Battery Code	Battery Description	Battery Codesystem	Test Code	Test Description	Test Codesystem
9	CTFLD	CELL COUNT BF		COLB	BODYFLD-COLOR	
186	ZZ01	SUSCEPTIBILITY		AMC	AMOXICILLIN/CLAVUL...	

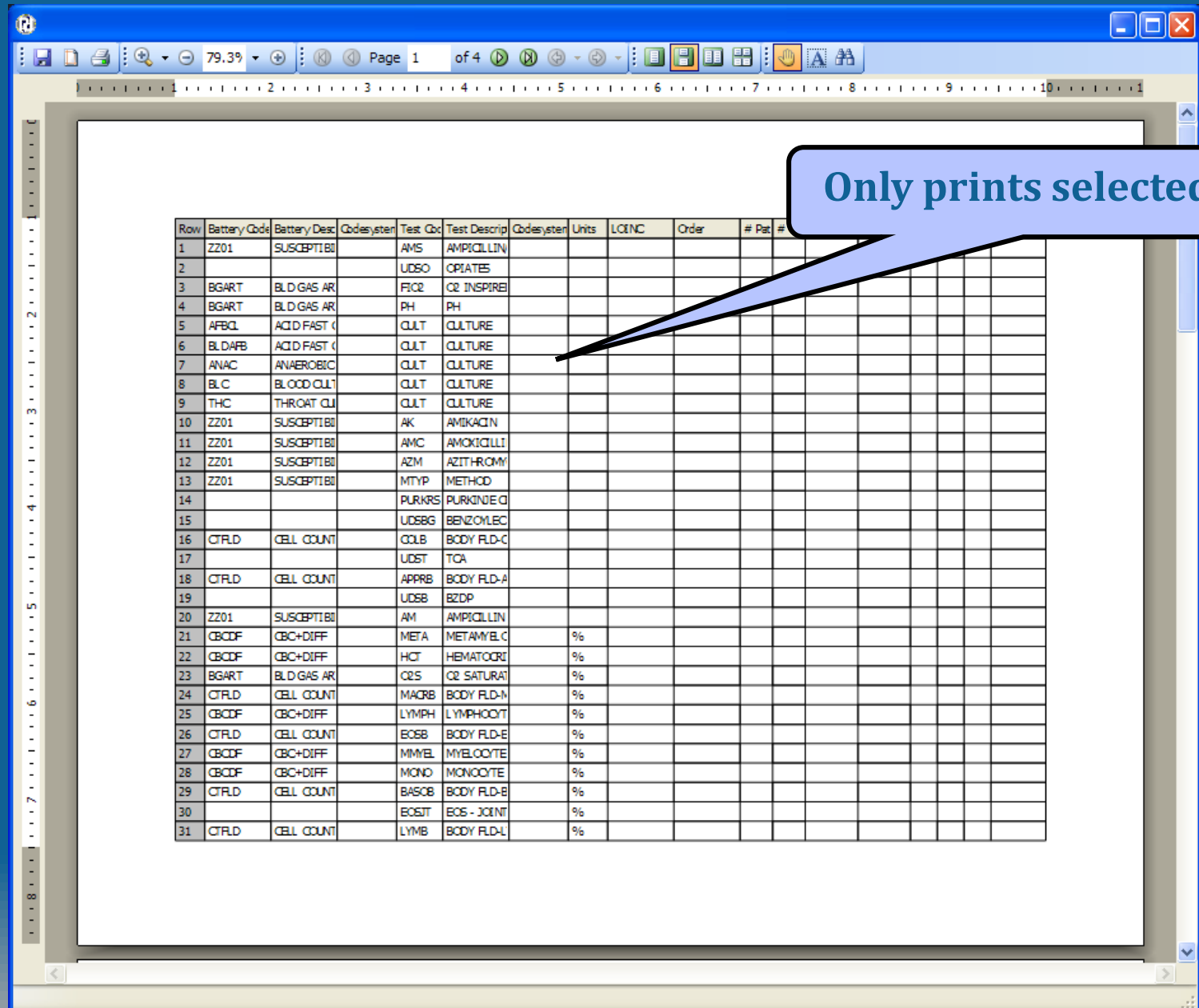
A context menu is open over the table, listing the following options: "Export", "Configure Export", "Sort Grid", "Configure Grid", "Truncate Text", "Wrap Text", and "Print".

Two blue callout boxes provide instructions:

- "Configure output prior to viewing and printing" points to the "Configure Grid" option in the context menu.
- "Print preview local term file" points to the "Print" option in the context menu.

At the bottom of the window, there are two buttons: "Truncated Text" and "Print Preview". The status bar at the bottom left shows "Entry #: 1 of 190" and the bottom right shows "Start-up: 25.04s".

# Print Preview Local Term File



79.3% Page 1 of 4

Only prints selected rows

Row	Battery Code	Battery Desc	Codesystem	Test Cdc	Test Descrip	Codesystem	Units	LCINC	Order	# Pat	#
1	ZZ01	SUSCEPTIB		AMS	AMPICILLIN						
2				UDSO	OPIATES						
3	BGART	BLD GAS AR		FIC2	O2 INSPIRE						
4	BGART	BLD GAS AR		PH	PH						
5	AFBCL	ACID FAST C		QULT	CULTURE						
6	BLDAFB	ACID FAST C		QULT	CULTURE						
7	ANAC	ANAEROBIC		QULT	CULTURE						
8	BLC	BLOOD CULT		QULT	CULTURE						
9	THC	THROAT CU		QULT	CULTURE						
10	ZZ01	SUSCEPTIB		AK	AMIKACIN						
11	ZZ01	SUSCEPTIB		AMC	AMOXICILLI						
12	ZZ01	SUSCEPTIB		AZM	AZITHROMY						
13	ZZ01	SUSCEPTIB		MTYP	METHCD						
14				PURKRS	PURKINJE C						
15				UDSBG	BENZOLEC						
16	CFRLD	CELL COUNT		COLB	BODY FL-D-C						
17				UDST	TCA						
18	CFRLD	CELL COUNT		APPRB	BODY FL-D-A						
19				UDSB	BZDP						
20	ZZ01	SUSCEPTIB		AM	AMPICILLIN						
21	CBODF	CBC+DIFF		META	METAMYBLC		%				
22	CBODF	CBC+DIFF		HCT	HEMATOCRI		%				
23	BGART	BLD GAS AR		C2S	O2 SATURAT		%				
24	CFRLD	CELL COUNT		MACRB	BODY FL-D-M		%				
25	CBODF	CBC+DIFF		LYMPH	LYMPHOCT		%				
26	CFRLD	CELL COUNT		EO6B	BODY FL-D-E		%				
27	CBODF	CBC+DIFF		MYEYL	MYELOCTE		%				
28	CBODF	CBC+DIFF		MONO	MONOCYTE		%				
29	CFRLD	CELL COUNT		BASOB	BODY FL-D-B		%				
30				EOSJT	EOS - JOINT		%				
31	CFRLD	CELL COUNT		LYMB	BODY FL-D-L		%				



# Mapping Local Terms



# Mapping Local Terms

- Select your Working Set to Map
  - File>Select Local Term File to Process
- Select “Map Local Terms to LOINC” from Welcome Screen
- Select the subset of terms to work with:
  - All
  - Mapped
  - Unmapped
- Set your Search Limits
  - Set Search Limits Button

# Standard Mapping Window Features

- Customizable grid
- View details of LOINC term
- **New!** Add searchable tags to local term
- Sort by column
  - Click column
  - Custom Sort
- Print or export results grid
- Spell check squiggly line to signify words not known to RELMA

# Mapping Screen

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

Welcome log in Register

File Tools HIPAA Lab Auto Mapper View H

Search Mapping View All Working Set Terms Hierarchy & Search

**Local Term File**

Next  
Previous  
First  
Last

Mapped to: Name:

OBR-4 Code: 312370 OBR-3 Code: 309651 Units:

Click to add tag...

View: All

#: 1 of 190

Accept or enter OBR name and/or OBX name

nafcilin

Search

Standard Search No Common Limits

Use Local Words # Hits

<input checked="" type="checkbox"/>	1	nafcilin							
<input type="checkbox"/>	2			<input type="checkbox"/>	6				
<input type="checkbox"/>	3			<input type="checkbox"/>	7				
<input type="checkbox"/>	4			<input type="checkbox"/>	8				

Grid Tree

Row	LOINC	Component	Rank	Class	LongN...	ShortName	Type	View Details
								Print Grid
								Map
								Same
								Export
								Configure Export
								Configure Grid

Truncated Text Print Preview

Entry #: 1 of 190 Units Specimen Methodless No Common Limits Battery Start-up: 15.4s

**View or edit local term**

**User assigned tags**

**Enter local term number**

**Quick select button list**

**Custom Grid Configuration**

# Configure Grid

The screenshot shows the 'Configure Result Grid' dialog box. It features a list of columns with checkboxes for selection and a width column. Callouts highlight the 'Select elements to display' (checkboxes), 'Reorder grid elements' (Move Up/Down buttons), and 'Visually resize elements' (width column). A 'Reset Default Configuration' callout points to the 'Reset column order' and 'Reset column widths' buttons. A preview window at the bottom shows the resulting grid layout.

Move/resize columns: Check the boxes next to the columns that you want displayed. Use the MOVE UP and MOVE DOWN buttons to re-order the columns. Click a row in the grid to select it. You can adjust the width of a column by clicking and dragging the right edge of the column. Adjustments using your mouse on the sample grid at the bottom of the screen. When you have everything arranged the way you want it, click OK.

Column Name	Width
<input checked="" type="checkbox"/> Row	
<input type="checkbox"/> Score	66
<input checked="" type="checkbox"/> LOINC	72
<input checked="" type="checkbox"/> Component	285
<input checked="" type="checkbox"/> Property	102
<input checked="" type="checkbox"/> Timing	41
<input checked="" type="checkbox"/> System	96
<input checked="" type="checkbox"/> Scale	39
<input checked="" type="checkbox"/> Method	111
<input checked="" type="checkbox"/> ExUCUMunits	50
<input checked="" type="checkbox"/> ExUnits	50
<input checked="" type="checkbox"/> Rank	50
<input checked="" type="checkbox"/> SIRank	50
<input checked="" type="checkbox"/> ComMaps	57

output - move columns and modify widths:

LOINC	Component	Property	Timing	System	Scale

Reset column order    Reset column widths    OK    Cancel

Select elements to display

Reorder grid elements

Visually resize elements

Reset Default Configuration

# Quick choice buttons

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

Welcome log in Register

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

**Local Term File**

Mapped to: Name:   [Local Term Details](#)

OBR-4 Code: 665670 OBX-3 Code: 755367 Units: mmo/L Sample Values:  Limit to Default Specimen:

[Click to add tag...](#)

View: All

#: 8 of 190

Accept or enter OBR name and/or OBX name

**CARBON DIOXIDE SERPL QN** [Search](#) [?](#)

[Hide Words](#) [Propose Term](#) [Clear Inputs](#) [Reset Limits](#) Standard Search No Common Limits

**Use Local Words** # Hits

<input checked="" type="checkbox"/>	1	carbon											
<input checked="" type="checkbox"/>	2	dioxide											
<input checked="" type="checkbox"/>	3	serpl		8521									
<input checked="" type="checkbox"/>	4	qn		36308									

[View Details](#) [Print Grid](#) [Map](#) [Same](#) [Export](#) [Configure Export](#) [Configure Grid](#)

Row	LOINC	Component	Property	Timing	System	Scale	Method	Rank	Class	LongN...	ShortName	Typ
1	2028-9	Carbon dioxide	SCnc	Pt	Ser/Plas	Qn		7	CHEM	Carbon...	CO2 SerPl...	1
2	57922-7	Carbon dioxide	SCnc	Pt	Ser/Plas	Qn	Calculated		CHEM	Carbon...	CO2 SerPl...	1
3	74684-2	Carbon dioxide^post...	SCnc	Pt	Ser/Plas	Qn			CHEM	Carbon...	CO2 p...	1

Truncated Text [Print Preview](#)

Entry #: 8 of 190 Units Specimen Methodless No Common Limits Battery 3 records found: 0.1s

**Viewing LOINC term detail**

# View Local Term Details

2028-9 Carbon dioxide, total [Moles/volume] in Serum or Plasma

NAME	Property	Time	System	Method
Fully-Specified Name: Carbon dioxide	SCnc	Pt	Ser/Plas	Qn

blood. Most of it is in the form of bicarbonate ( $\text{HCO}_3$ ) controlled by the kidney. A small amount (5%) of carbon dioxide is dissolved in the blood as carbonic acid ( $\text{H}_2\text{CO}_3$ ). The ultimate effect of carbon dioxide on the body is determined by its partial pressure in the blood. Most of it is in the form of bicarbonate ( $\text{HCO}_3$ ) controlled by the kidney. A small amount (5%) of carbon dioxide is dissolved in the blood as carbonic acid ( $\text{H}_2\text{CO}_3$ ). The ultimate effect of carbon dioxide on the body is determined by its partial pressure in the blood. Most of it is in the form of bicarbonate ( $\text{HCO}_3$ ) controlled by the kidney. A small amount (5%) of carbon dioxide is dissolved in the blood as carbonic acid ( $\text{H}_2\text{CO}_3$ ). The ultimate effect of carbon dioxide on the body is determined by its partial pressure in the blood.

oxide ( $\text{CO}_2$ ) is a compound composed of one carbon and two oxygen atoms. It is a colorless, odorless gas that is a major component of the atmosphere. It is a greenhouse gas. In its solid state, it is called dry ice. Atmospheric carbon dioxide is produced by the combustion of organic matter, and the respiration of aerobic organisms. Man-made sources of carbon dioxide include the burning of fossil fuels and the use of carbon dioxide in the production of carbonated beverages. In the process, they release carbon dioxide into the atmosphere. Carbon dioxide is carried in the blood by the venous system and is breathed out through the lungs. There is a partial pressure of carbon dioxide in the blood, and the partial pressure of carbon dioxide in the atmosphere is lower than that in the blood. Carbon dioxide content in the body is measured as the partial pressure of carbon dioxide in the blood. Carbon dioxide content in this sense is the partial pressure of carbon dioxide in the blood. Carbon dioxide content in this sense is the partial pressure of carbon dioxide in the blood.

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Source: Wikipedia, URL: [Carbon dioxide \(Wikipedia\)](https://en.wikipedia.org/wiki/Carbon_dioxide)

**BASIC ATTRIBUTES**

Class Type: HEM/Lab  
CDISC Lab Test: V

Simple Display | Text Size - Medium | Separated pages | Previous | 2028-9 | Next | Print | Close

Simple Display | Comprehensive Display | Custom Display | the details. | 2028-9 | 1 of 1

Can scroll down a single formatted page

Select level of detail to display

Can scroll through returned subset of terms

Change text size

# Details Text Size

Select text size

Simple Display for LOINC record # 2028-9

2028-9 Carbon dioxide, total [Moles/volume] in Serum or Plasma

NAME

Fully-Specified Name:	Component	Property	Time Aspect	System	Scale	Method
	Carbon dioxide	SCnc	Pt	Ser/Plas	Qn	

PART DEFINITION/DESCRIPTION(S)

CO2 content is a measurement of total CO2 in the blood. Most of it is in the form of bicarbonate (HCO3) controlled by the kidney. A small amount (5%) of CO2 is dissolved in the blood as insoluble carbonic acid (H2CO3). Changes in CO2 content generally relate to metabolic issues, renal function and unusual losses (diarrhea). Respiratory disease can ultimately effect CO2 content, but only slightly and only if prolonged. (Operational Medicine 2001, Arterial Blood Gas, Brookside Associates Medical Education Division)

Source: Regenstrief Institute

Carbon dioxide (CO2) is a compound composed of one carbon and two oxygen atoms. It is present in the Earth's atmosphere at a low concentration and acts as a greenhouse gas. In its solid state, it is called dry ice. Atmospheric carbon dioxide derives from multiple natural sources including volcanic outgassing, combustion of organic matter, and the respiration of aerobic organisms. Man-made sources of CO2 come mainly from the burning of fossil fuels. Plants utilize carbon dioxide during photosynthesis, using both the carbon and the oxygen to synthesize carbohydrates. In the process, they release oxygen.

In humans, carbon dioxide is carried through the venous system and is breathed out through the lungs. Therefore, the carbon dioxide content in the body is high in the venous system, and decreases in the respiratory system, resulting in lower levels along any arterial system. Carbon dioxide content in this sense is often given as the partial pressure, which is the pressure which carbon dioxide would have had if it alone occupied the volume

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Source: Wikipedia, URL: [Carbon dioxide \(Wikipedia\)](#)

BASIC ATTRIBUTES

Class Type:	CHEM/Lab
CDISC Lab Test:	Y
Common Lab Results Rank:	#7
Common SI Lab Results Rank:	#7
Common Orders Rank:	#233
Last Updated:	1998/03/11
Order vs. Obs.:	Both
Status:	Active

EXAMPLE UNITS

Unit	Source Type
mmol/L	EXAMPLE UCUM UNITS
mmol/L	REGENSTRIEF
mmol/L	eCHN

CURATED RANGE AND UNITS

Simple Display | Text Size - Smallest | Separated pages | Previous | 2028-9

Type Ctrl-F to search the text of the details.

Simple Display for LOINC record # 2028-9

2028-9 Carbon dioxide, total [Moles/volume] in Serum or Plasma

NAME

Fully-Specified Name:	Component	Property	Time Asj	System	Scale	Method
	Carbon dioxide	SCnc	Pt	Ser/Plas	Qn	

PART DEFINITION/DESCRIPTION(S)

CO2 content is a measurement of total CO2 in the blood. Most of it is in the form of bicarbonate (HCO3) controlled by the kidney. A small amount (5%) of CO2 is dissolved in the blood as insoluble carbonic acid (H2CO3). Changes in CO2 content generally relate to metabolic issues, renal function and unusual losses (diarrhea). Respiratory disease can ultimately effect CO2 content, but only slightly and only if prolonged. (Operational Medicine 2001, Arterial Blood Gas, Brookside Associates Medical Education Division)

Source: Regenstrief Institute

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In humans, carbon dioxide is carried through the venous system and is breathed out through the lungs. Therefore, the carbon dioxide content in the body is high in the venous system, and decreases in the respiratory system, resulting in lower levels along any arterial system. Carbon dioxide content in this sense is often given as the partial pressure, which is the pressure which carbon dioxide would have had if it alone occupied the volume

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Simple Display | Text Size - Largest | Separated pages | Previous | 2028-9 | Next | Print | Close

Type Ctrl-F to search the text of the details. | 2028-9 | 1 of 1



# Select detail display level

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

**Local Term File**

Mapped to: Name:

OBR-4 Code: 665670 OBR-3 Code: 755367 Units: mmo/L Sample Values: Limit to Default Specimen:

Click to add tag...

View: Accept or enter OBR name and/or OBX name

All

#:

Use

Use	Local Words
<input checked="" type="checkbox"/> 1	<input type="checkbox"/> 5
<input checked="" type="checkbox"/> 2	<input type="checkbox"/> 6
<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 7
<input checked="" type="checkbox"/> 4	<input type="checkbox"/> 8

Grid Tree

Row	LOINC	Component	Property	Timing	System	Scale	Method
1	2028-9	Carbon dioxide	SCnc	Pt	Ser/Plas	Qn	
2	57922-7	Carbon dioxide	SCnc	Pt	Ser/Plas	Qn	Calculated
3	74684-2	Carbon dioxide^post...	SCnc	Pt	Ser/Plas	Qn	

Truncated Text

Entry #: 8 of 190 Units Specimen Methodless No Common Limits Battery

Export  
Configure Export  
Sort Grid  
Configure Grid  
View Details - Simple  
View Details - Comprehensive  
View Details - Custom  
View Panel Children  
Truncate Text  
Wrap Text  
Print  
Map  
Repeat Mapping  
Propose a new LOINC  
Propose a LOINC based on selected term  
Find Panels with all these LOINC's  
Find Panels with any of these LOINC's

View Details  
Print Grid  
Map  
Same  
Export  
Configure Export  
Configure Grid

Words found: 0.1s

**Select level of detail to display**

# Standard Mapping Screen

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

**Local Term File**

Next  
Previous  
First  
Last

View: All

#: 7 of 190

Mapped to: 2075-0 Name: Chloride [Moles/volume] in Serum or Plasma Local Term Details

OBR-4 Code: 665670 OBR-3 Code: 755366 Units: mmol/L Sample Values: Limit to Default Specimen:

Click to add tag...

Accept or enter OBR name

**BASIC METABOLIC PANEL CARBON DIOXIDE SERPL QN**

Show Words

Search ?

No Matches

No records matched your search criteria. Note that the following search restrictions caused records to be eliminated from the search result set.

No LOINC's were found to contain the keywords basic, metabolic, panel, carbon, dioxide, serpl, and qn.

OK

Grid Tree

Row	LOINC	Component	ShortName	Typ	View Details
-----	-------	-----------	-----------	-----	--------------

Print Grid

Map

Truncated Text

Print Preview

Entry #: 7 of 190 Units Specimen Methodless No Common Limits Battery 0 records found: 0.03s

Begin a search (or hit "enter")

EEK! What'll I do?!

# Standard Mapping Screen

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

**Local Term File**

Next  
Previous  
First  
Last

View: All

#: 7 of 190

Mapped to: 2075-0 Name: Chloride [Moles/volume] in Serum or Plasma Local Term Details

OBR-4 Code: 665670 OBX-3 Code: 755366 Units: mmol/L Sample Values: Limit to Default Specimen:

Click to add tag...

Accept or enter OBR name and/or OBX name

**BASIC METABOLIC PANEL CHLORIDE SERPL QN** Search

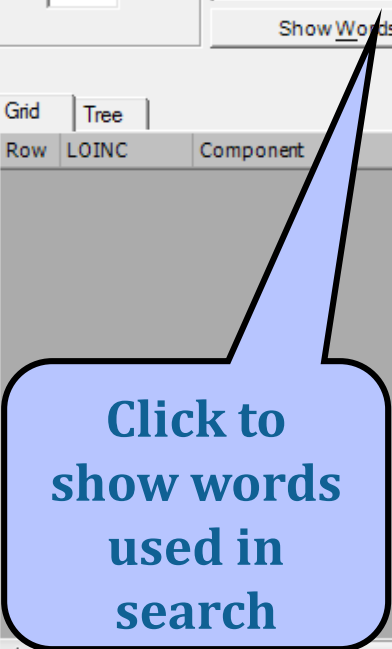
Show Words Propose Term Clear Inputs Reset Limits Standard Search No Common Limits

Grid Tree

Row	LOINC	Component	Property	Timing	System	Scale	Method	Rank	Class	LongN...	ShortName	Typ
Truncated Text												

View Details  
Print Grid  
Map  
Same  
Export  
Configure Export  
Configure Grid

Entry #: 7 of 190 Units Specimen Methodless No Common Limits Battery 0 records found: 0.03s



# Initial Mapping Results

### Local Term File

Next

Previous

First

Last

View:

All

#: 7 of 190

Mapped to:

2075-0

Name:

Chloride [Moles/volume] in Serum or Plasma

Local Term Details

OBR-4 Code:

665670

OBX-3 Code:

755366

Units:

mmol/L

Sample Values:

Limit to Default Specimen:

Click to add tag...

Accept or enter OBR name and/or OBX name

BASIC METABOLIC PANEL CHLORIDE SERPL QN

Search

Hide Words

Propose Term

Clear Inputs

Reset Limits

Standard Search

No Common Limits

Use	Local Words	# Hits	Use	Local Words	# Hits
<input checked="" type="checkbox"/> 1	basic	24	<input checked="" type="checkbox"/> 5	serpl	8521
<input checked="" type="checkbox"/> 2	metabolic	20	<input checked="" type="checkbox"/> 6	qn	36308
<input checked="" type="checkbox"/> 3	panel	2240	<input type="checkbox"/> 7		
<input checked="" type="checkbox"/> 4	chloride	126	<input type="checkbox"/> 8		

Grid	System	Scale	Method	Rank	Class	LongN...	ShortName	Typ
------	--------	-------	--------	------	-------	----------	-----------	-----

Row	Component	Property	System	Scale	Method	Rank	Class	LongN...	ShortName	Typ

View Details

Print Grid

Map

Same

Export

Configure Export

Configure Grid

Use term checkbox

Number of LOINC terms containing keyword

Battery terms included in search

# Revised Mapping Results

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

Welcome log in Register

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

**Local Term File**

Mapped to: 2075-0 Name: Chloride [Moles/volume] in Serum or Plasma Local Term Details

OBR-4 Code: 665670 OBX-3 Code: 755366 Units: mmol/L Sample Values: Limit to Default Specimen:

Click to add tag...

Accept or enter OBR name and/or OBX name

CHLORIDE SERPL QN Search

#: 7 of 190

Hide Words Propose Term Clear Inputs Reset Limits Standard Search No Common Limits

Use	Local Words	# Hits	Use	Local Words	# Hits
<input checked="" type="checkbox"/> 1	chloride	126	<input type="checkbox"/> 5		
<input checked="" type="checkbox"/> 2	serpl	8521	<input type="checkbox"/> 6		
<input checked="" type="checkbox"/> 3	qn	36308	<input type="checkbox"/> 7		
<input type="checkbox"/> 4			<input type="checkbox"/> 8		

Grid Tree

Row	LOINC	Component	Property	Timing	System	Scale	Method		
1	13006-2	1,4-Dichlorobenzene	MCnc	Pt	Ser/Plas	Qn		DRUG/T...	1,4-...
2	2075-0	Chloride	SCnc	Pt	Ser/Plas	Qn	8	CHEM	Chlorid...
3	54369-4	Chloride^post dialysis	SCnc	Pt	Ser/Plas	Qn		CHEM	Chlorid...
4	9505-9	Chlorobenzene	MCnc	Pt	Ser/Plas	Qn		DRUG/T...	Chloro...
5	54937-8	Chlorofom	MCnc	Pt	Ser/Plas	Qn		DRUG/T...	Chlorof...
6	39357-9	Cholinesterase.chlori...	CFr	Pt	Ser/Plas	Qn		CHEM	Cholin... Chloro...
7	72570-5	Cholinesterase.chlori...	CFr,DF	Pt	Ser/Plas	Qn		CHEM	Cholin... Chlorid...
8	12999-9	Epichlorohydrin	MCnc	Pt	Ser/Plas	Qn		DRUG/T...	Epichlo... Epichloro...

Truncated Text Print Preview

View Details Print Grid Map Same Export Configure Export Configure Grid

Entry #: 7 of 190 Units Specimen Methodless No Common Limits Battery 9 records found: 0.04s

Number of matching records found

# Re-revised Mapping Results

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

**Local Term File**

Next  
Previous  
First  
Last

View: All

#: 7 of 190

Mapped to: 2075-0 Name: Chloride [Moles/volume] in Serum or Plasma Local Term Details

OBR-4 Code: 665670 OBX-3 Code: 755366 Units: mmol/L Sample Values: Limit to Default Specimen:

Click to add tag...

Accept or enter OBR name and/or OBX name

CHLORIDE SERPL QN Search

Hide Words Propose Term Clear Inputs Reset Limits Standard Search No Common Limits

Use	Local Words	# Hits	Use	Local Words	# Hits
<input checked="" type="checkbox"/> 1	chloride	126	<input type="checkbox"/> 5		
<input checked="" type="checkbox"/> 2	serpl	8521	<input type="checkbox"/> 6		
<input checked="" type="checkbox"/> 3	qn	36308	<input type="checkbox"/> 7		
<input type="checkbox"/> 4			<input type="checkbox"/> 8		

Grid Tree

Row	LOINC	Component	Scale	Method	Rank	Units	Specimen	Methodless	No Common Limits	Battery
1	2075-0	Chloride	Qn	CHEM	8	Chlorid...				
2	54369-4	Chloride^post an	Qn	CHEM		Chlorid...				

Truncated Text

Print Preview

View Details  
Print Grid  
Map  
Same  
Export  
Configure Export  
Configure Grid

Entry #: 7 of 190

2 records found: 0.02s

**Match units selected**

**Number of matching records found**

# Standard Mapping Screen

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

**Local Term File**

Next  
Previous  
First  
Last

View: All

#: 7 of 190

Mapped to: Name:

OBR-4 Code:  OBX-3 Code:  Units:  Sample Values:  Limit to Default Specimen:

Click to add tag...

Accept or enter OBR name and/or OBX name

**CANINE DISTEMPER VIRUS IF**

Search

Hide Words Propose Term Clear Inputs Reset Limits Standard Search No Common Limits

Use	Local Words	# Hits	Use	Local Words	# Hits
<input checked="" type="checkbox"/> 1	canine	78	<input type="checkbox"/> 5		
<input checked="" type="checkbox"/> 2	distemper	15	<input type="checkbox"/> 6		
<input checked="" type="checkbox"/> 3	virus	4831	<input type="checkbox"/> 7		
<input checked="" type="checkbox"/> 4	if	1696	<input type="checkbox"/> 8		

Grid Tree

Row	LOINC	Component	Property	Timing	System	Scale	Method	Rank	Class	LongN...	ShortName	Typ
1	23689-3	Canine distemper...	ACnc	Pt	Ser	Ord	IF		MICRO	Canine...	CDV Ab Ser...	1
2	26903-5	Canine distemper...	Titr	Pt	CSF	Qn	IF		MICRO	Canine...	CDV IgG...	1
3	23691-9	Canine distemper...	Titr	Pt	Ser	Qn	IF		MICRO	Canine...	CDV IgG...	1
4	26890-4	Canine distemper...	Titr	Pt	CSF	Qn	IF		MICRO	Canine...	CDV IgM...	1
5	23693-5	Canine distemper...	Titr	Pt	Ser	Qn	IF		MICRO	Canine...	CDV IgM...	1
6	20742-3	Canine distemper...	ACnc	Pt	Cnjt	Ord	IF		MICRO	Canine...	CDV Ag...	1
7	23695-0	Canine distemper...	ACnc	Pt	Tiss	Ord	IF		MICRO	Canine...	CDV Ag...	1

Truncated Text

Print Preview

View Details  
Print Grid  
Map  
Same  
Export  
Configure Export  
Configure Grid

Entry #: 7 of 190 Units Specimen Methodless No Common Limits Battery

7 records found: 0.01s

# Standard Mapping Screen

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

**Local Term File**

Next  
Previous  
First  
Last

Mapped to: 2075-0 Name: Chloride [Moles/volume] in Serum or Plasma Local Term Details

OBR-4 Code: 665630 OBX-3 Code: 755366 Units: mmoVL Sample Values: Limit to Default Specimen:

Click to add tag...

View: All

Accept or enter OBR name and/or OBX name

chloride serum

Search

#: 7 of 190

Show Words Propose Term Clear Inputs Reset Limits Standard Search No Common Limits

Grid Tree

Row	LOINC	Component	Property	System	Scale	Method	Rank	Class	LongN...	ShortName	Type
Truncated Text											

View Details  
Print Grid  
Map  
Same  
Export  
Configure Export  
Configure Grid

Print Preview

Entry #: 7 of 190 Units Specimen Methodless No Common Limits Battery 7 records found: 0.01s



# Tabbed Access to Functions

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

**Local Term File**

Next  
Previous  
First  
Last

View: All

#: 7 of 190

Mapped to: 2075-0 Name: Chloride [Moles/volume] in Serum or Plasma Local Term Details

OBR-4 Code: 665670 OBX-3 Code: 755366 Units: mL Sample Values: Limit to Default Specimen:

Click to add tag...

Accept or enter OBR name and/or OBX name

chloride serpl c Search ?

et Limits Standard Search No Common Limits

Grid Tree

Row	LOINC	Component	Property	Timing	System	Scale	Method	Rank	Class	LongN...	ShortName	Typ

View Details  
Print Grid  
Map  
Same  
Export  
Configure Export  
Configure Grid

Truncated Text Print Preview

Entry #: 7 of 190 Units Specimen Methodless No Common Limits Battery 7 records found: 0.01s

**Navigate to Functions from Mapping Page**

**Switch between Grid and Tree Views**

# Tree View

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

**Local Term File**

Mapped to: 2075-0 Name: Chloride [Moles/volume] in Serum or Plasma Local Term Details

OBR-4 Code: 665670 OBX-3 Code: 755366 Units: mmo/L Sample Values: Limit to Default Specimen:

Click to add tag...

View: All

#: 184 of 190

Accept or enter OBR name and/or OBX name

**CHLORIDE SERPL QN** Search

Show Words Propose Term Clear Inputs Reset Limits Standard Search No Common Limits

Grid Tree

Row	Category or ShortName	Component	Property	Timing	System	Scale	Method	Rank	Code	Details
18886	<b>Chemistry</b>								LP31...	<a href="#">details</a>
22436	<b>Enzymes (see also Inborn errors metabolism lysosomal)</b>								LP31...	<a href="#">details</a>
22948	<b>Cholinesterase</b>								LP14...	<a href="#">details</a>
22949	<b>Cholinesterase.chloride Inhibited   Bld-Ser-Plas</b>								LP51819-8	
22950	Cholinest...	Cholinesterase.chloride...	CFr	Pt	Ser/Plas	Qn			39357-9	<a href="#">details</a>
22951	Cholinest...	Cholinesterase.chloride...	CFr.DF	Pt	Ser/Plas	Qn			72570-5	<a href="#">details</a>
31628	<b>Electrolytes - single valence</b>								LP19...	<a href="#">details</a>
31707	<b>Chloride</b>								LP15...	<a href="#">details</a>
31710	<b>Chloride   Bld-Ser-Plas</b>								LP46433-6	
31712	Chloride...	Chloride	SCnc	Pt	Ser/Plas	Qn		8	2075-0	<a href="#">details</a>
31713	Chloride...	Chloride^post dialysis	SCnc	Pt	Ser/Plas	Qn			54369-4	<a href="#">details</a>
35938	<b>Drug/Tox</b>								LP31389-7	
36693	<b>Halogenated organic molecules</b>								LP18116-1	
36746	<b>Chlorobenzene</b>								LP17...	<a href="#">details</a>
36747	<b>Dichlorobenzene</b>								LP18...	<a href="#">details</a>
36755	<b>1,4-Dichlorobenzene</b>								LP18...	<a href="#">details</a>

Truncated Text Expand Branch Collapse Branch Hide LOINC S

View Details Print Grid Map Same Export Configure Export Configure Grid

# Tree View

- Results displayed hierarchically
  - Defined by the multi-axial hierarchy in search restrictions (covered later)
- Map to a term in tree by clicking Map button or double clicking term
  - Only to rows that have LOINC Codes

# Tree View

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

Welcome log in Register

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

Local Term File

Next Previous First Last

View: Accept or enter OBR name and/or OBX name

Propose Term Clear Inputs Reset Limits Standard Search No Common Limits

Row	Category or ShortName	Property	Timing	System	Scale	Method	Rank	Code	
18886	Chemistry							LP31...	<a href="#">details</a>
22436	Enzymes (see also Inborn errors of metabolism lysosomal)							LP31...	<a href="#">details</a>
22948	Cholinesterase							LP14...	<a href="#">details</a>
22949	Cholinesterase.chloride	Bld-Ser-Plas						LP51819-8	
22950	Cholinest...	Cholinesterase	CFr	Pt	Ser/Plas	Qn		39357-9	<a href="#">details</a>
22951	Cholinest...	Cholinesterase.dio	r,DF	Pt	Ser/Plas	Qn		72570-5	<a href="#">details</a>
31628	Electrolytes - single valence							LP19...	<a href="#">details</a>
31707	Chloride							LP15...	<a href="#">details</a>
31710	Chloride   Bld-Ser-Plas							LP46433-6	
31712	Chloride...	Chloride	SCnc		Ser/Plas	Qn	8	2075-0	<a href="#">details</a>
31713	Chloride...	Chloride^post dialysis	SCnc	Pt	Ser/Plas	Qn		54369-4	<a href="#">details</a>
35938	Drug/Tox							LP31389-7	
36693	Halogenated organic molecules							LP18116-1	
36746	Chlorobenzene							LP17...	<a href="#">details</a>
36747	Dichlorobenzene							LP18...	<a href="#">details</a>
36755	1,4-Dichlorobenzene							LP18...	<a href="#">details</a>

Truncated Text Expand Branch Collapse Branch Hide LOINC S

View Details Print Grid Map Same Export Configure Export Configure Grid

Entry #: 184 of 190 Units Specimen Methodless No Common Limits Battery 9 records found: 0.03s

**Can map to terms with LOINC Codes**

**Cannot map to terms representing LOINC parts**

**Tree Navigation Buttons**

# Assigning a LOINC Map

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

**Local Term File**

Next  
Previous  
First  
Last

View: All

# 184 of 190

Mapped to: 2075-0 Name: Chloride [Moles/volume] in Serum or Plasma Local Term Details

OBR-4 Code: 665670 OBX-3 Code: 755366 Units: mmo/L Sample Values: Limit to Default Specimen:

Click to add tag...

Accept or enter OBR name and/or OBX name

**CHLORIDE SERPL QN** Search

Show Words Propose Term Clear Inputs Reset Limits Standard Search No Common Limits

Row	LOINC	Component	Property	Timing	System	Scale	Method	Rank	Class	LongN...	ShortName	Type	
1	13006-2	1,4-Dichlorobenzene	MCnc	Pt	Ser/Plas	Qn			DRUG/T...	1,4-...	1,4DCB...	1	View Details
2	2075-0	Chloride	SCnc	Pt	Ser/Plas	Qn		8	CHEM	Chlorid...	Chloride...	1	Print Grid
3	54369-4	Chloride^post analysis	SCnc	Pt	Ser/Plas	Qn			CHEM	Chlorid...	Chloride p...	1	Map
4	9505-9	Chlorobenzene	MCnc	Pt	Ser/Plas	Qn			DRUG/T...	Chloro...	Chlorobenz...	1	Same
5	54937-8	Chlorofom	MCnc	Pt	Ser/Plas	Qn			DRUG/T...	Chlorof...	Chlorofom...	1	Export
6	39357-9	Cholinesterase, chloro...	Fr	Pt	Ser/Plas	Qn			CHEM	Cholin...	Chlor...	1	Configure Export
7	72570-5	Cholinesterase, chloro...	DF	Pt	Ser/Plas	Qn			CHEM	Cholin...	Chlor...	1	Configure Grid
8	12999-9	Epichlorohydrin		Pt	Ser/Plas	Qn			DRUG/T...	Epichl...	epichlorohy...	1	
9	17661-0	Succinylcholine		Pt	Ser/Plas	Qn			DRUG/T...	Succinyl...	Succinylcho...	1	

Grid Tree

Trunc

Print Preview

Entry #: 184 of 190 Units Specimen Methodless No Common Limits Battery 9 records found: 0.03s

**Highlight correct term**

**Click "Map" Button (or doubleclick)**

# Adding Mapping Comments

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for OPA matching

Welcome log in Register

File Tools HIPAA Lab Auto Mapper View Help

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

**Local Term** Mapped to: 8462-4 Name: Diastolic blood pressure Local Term Details

OBR-4 Code: OBX-3 Code: 16 Units: mmHg Sample Values: Limit to Default Specimen:

Click to add tag...

View: All

Accept or enter OBR name and/or OBX name

**DIASTOLIC BLOOD PRESSURE** Search

Hide Words Propose Term Clear Inputs Reset Limits Standard Search No Common Limits

Use	Local Words	# Hits	Use	Local Words	# Hits
<input checked="" type="checkbox"/> 1	diastolic	183	<input type="checkbox"/> 5		
<input checked="" type="checkbox"/> 2	blood	9376	<input type="checkbox"/> 6		
<input checked="" type="checkbox"/> 3	pressure	848			
<input type="checkbox"/> 4					

Grid Tree

R	Score	LOINC	Component	Proc	Pres	Pt	Aorta.t...	Qn	m...	m...
9	17.2...	8377-4	Intrachamber diastolic	Pre						
10	20.7...	60982-6	Intravascular diastolic	Pre						
15	20.8...	8367-5	Intravascular diastolic	Pres	Pt	Aorta.t...	Qn	m...	m...	
32	21.8...	8462-4	Intravascular diastolic	Pres	Pt	Arterial...	Qn	m...	m...	
13	20.8...	8368-3	Intravascular diastolic	Pres	Pt	Arterial...	Qn	m...	m...	

Truncated Text

Entry #: 13 of 35 Units: specimen Methodless: Common Limit: Battery

83 records found: 0.13s

**Mapping Comments**

Please enter mapping comment(s) if desired:

OK Cancel

**Select Comment**

View Details Print Grid Map Same Comment Export Configure Ex Configure Gri

# Assigning a LOINC Map

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

**Local Term File**

Next  
Previous  
First  
Last

Mapped to: 2075-0 Name: Chloride [Moles/volume] in Serum or Plasma Local Term Details

OBR-4 Code: 665670 OBX-3 Code: 755366 Units: mmo/L Sample Values: Limit to Default Specimen:

Click to add tag...

View: All

#: 184 of 190

Accept or enter LOINC name and/or OBX name

CHLORIDE SERPL QN Search

Show Word Propose Term Clear Inputs Reset Limits Standard Search No Common Limits

Row	LOINC	Component	Priority	Timing	System	Scale	Method	Rank	Class	LongName	ShortName	Type	
1	13006-2	1,4-Dichlorobenzene		Pt	Ser/Plas	Qn			DRUG/T...	1,4-...	1,4DCB...	1	View Details
2	2075-0	Chloride		Pt	Ser/Plas	Qn		8	CHEM	Chlorid...	Chloride...	1	Print Grid
3	54369-4	Chloride^post dialysis		Pt	Ser/Plas	Qn			CHEM	Chlorid...	Chloride p...	1	Map
4	9505-9	Chlorobenzene		Pt	Ser/Plas	Qn			DRUG/T...	Chloro...	Chlorobenz...	1	Same
5	54937-8	Chlorofom		Pt	Ser/Plas	Qn			DRUG/T...	Chlorof...	Chlorofom...	1	Export
6	39357-9	Cholinesterase,chlorig...	CF		Ser/Plas	Qn			CHEM	Cholin...	Chloride...	1	Configure Export
7	72570-5	Cholinesterase,chlorig...	CF		Ser/Plas	Qn			CHEM	Cholin...	Chloride...	1	Configure Grid
8	12999-9	Epichlorohydrin	MCn		Ser/Plas	Qn			DRUG/T...	Epichlo...	Epichlorohy...	1	
9	17661-0	Succinylcholine	MCn		Ser/Plas	Qn			DRUG/T...	Succin...	Succinylcho...	1	

Truncated Text Print Preview

Entry #: 184 of 190 Units Specimen Methodless No Common Limits Battery 9 records found: 0.03s

**LOINC Term Assigned**

# View Panel Children

The screenshot shows the Regenstrief LOINC Mapping Assistant (RELMA) interface. The search term 'vitals panel' is entered in the search box. The results table shows four rows of data. A context menu is open over the second row, with 'View Panel Children' selected. A blue callout box points to this menu item with the text 'Select View Panel Children from context menu'.

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for MayoTrain

Welcome smatney log out

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

vitals panel Units Search ?

Use Standard Search No Common Limits

Row	Score	LOINC	Component	Property	Timing	System	Scale	Method	ExUCU...	ExUnits	Rank	S
1	11.6174	34566-0	Vital signs with method details panel	-	Pt	^Patient	-					
2	10.8333	34565-2	Vital signs, weight & height panel	-	Pt	^Patient	-					
3	15.9089	67795-5	Vital signs, weight,height, head circumference &...	-	Pt	^Patient	-					
4	15.9089	74728-7	Vital signs, weight,height, head circumference,...	-	Pt	^Patient	-					

Export  
Configure Export  
Sort Grid  
Configure Grid  
View Details - Simple  
View Details - Comprehensive  
View Details - Custom  
View Panel Children  
Truncate Text  
Wrap Text  
Print  
Map  
Repeat Mapping  
Propose a new LOINC  
Propose a LOINC based on selected term  
Find Panels with all these LOINC's  
Find Panels with any of these LOINC's

4 records found: 0s

Select View Panel Children from context menu

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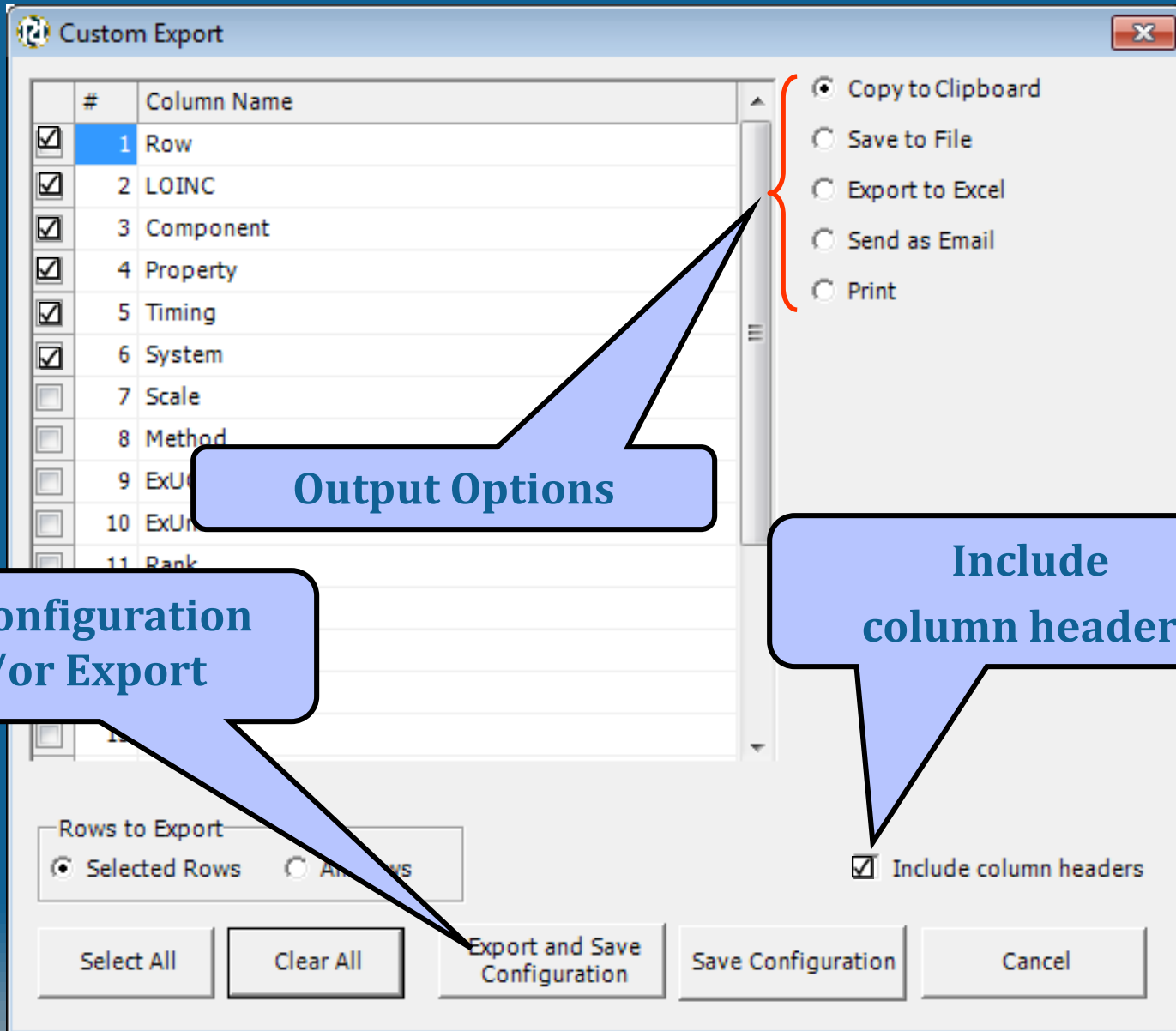
# Panel Children

Regenstrief LOINC Mapping Assistant (RELMA) - Children of Panel

Row	LOINC	Component	Property	Timing	System	Scale	Method	ExUCUMu...	ExUnits	Rank	SIRank	DocS
1	34565-2	Vital signs, weight & height panel	-	Pt	^Patient	-						
2	34566-0	Vital signs with method details panel	-	Pt	^Patient	-						
3	8867-4	Heart rate	NRat	Pt	XXX	Qn		{beats}/min	beats/...			
4	9279-1	Breaths	NRat	Pt	Respir...	Qn		{breaths}/...	breath...			
5	35094-2	Blood pressure panel	-	Pt	^Patient	-						
6	8480-6	Intravascular systolic	Pres	Pt	Arterial...	Qn		mm[Hg]	mm Hg			
7	8462-4	Intravascular diastolic	Pres	Pt	Arterial...	Qn		mm[Hg]	mm Hg			
8	8478-0	Intravascular mean	Pres	Pt	Arterial...	Qn		mm[Hg]	mm Hg			
9	8357-6	Blood pressure method	Type	Pt	^Patient	Nom	*					
10	8358-4	Cuff size	Len	Pt	Blood...	OrdQn		cm	cm			
11	8359-2	Measurement site	Anat	Pt	Periph...	Nom						
12	9856-6	Institution inventory number	ID	Pt	Blood...	Nom						
13	9857-4	Vendor model number	Prid	Pt	Blood...	Nom						
14	9858-2	Vendor serial number	ID	Pt	Blood...	Nom						
15	35095-9	Body temperature panel	-	Pt	^Patient	-						
16	8310-5	Body temperature	Temp	Pt	^Patient	Qn		Cel	deg C	138	138	
17	8326-1	Class	Type	Pt	Body...	Nom	*					
18	8327-9	Body temperature measurement site	Anat	Pt	*^Pati...	Nom						
19	9849-1	Institution inventory number	ID	Pt	Body...	Nom						
20	9850-9	Vendor model number	Prid	Pt	Body...	Nom						
21	9851-7	Vendor serial number	ID	Pt	Body...	Nom						
22	8302-2	Body height	Len	Pt	^Patient	Qn		[in_i]	inches;...			
23	3141-9	Body weight	Mass	Pt	^Patient	Qn	Measured	[lb_av]	gm;lb-oz	1170	1170	
24	8361-8	Body position with respect to gravity	Type	Pt	^Patient	Nom	*					
25	8352-7	Clothing worn during measure	Type	Pt	^Patient	Nom						

Close

# Configure Export Options



# Linked answer lists

- Adds answer list IDs to the answer tab of a panel export
- Allows linkage using the AnswerlistID with the LOINC codes and the answer to see which answer go with a specific LOINC

# Search for panels

The screenshot shows the Regenstrief LOINC Mapping Assistant (RELMA) interface. The title bar reads "Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for MayoTrain". The menu bar includes "File", "Tools", "HIPAA", "Lab Auto Mapper", "View", and "Help". A red banner at the top right says "Welcome smatney log out". The search bar contains "8480-6" and "Units", with a "Search" button and a help icon. Below the search bar are two dropdown menus: "Use Standard Search" and "No Common Limits". The main area displays a table with columns: Row, Score, LOINC, Component, Property, Timing, System, Scale, Method, ExUCJ..., ExUnits, Rank, SIRank, and ComMaps. The first row is highlighted in blue and contains: 1, 8.3171, 8480-6, Intravascular system, Pres, Pt, Arterial system, Qn, mm[Hg], mm Hg, and 5. A context menu is open over the first row, listing various actions. The option "Find Panels with any of these LOINCs" is highlighted in blue. Two callout boxes point to the search bar and the highlighted menu option.

Search for panel or LOINC code

Find the panels associated

Row	Score	LOINC	Component	Property	Timing	System	Scale	Method	ExUCJ...	ExUnits	Rank	SIRank	ComMaps
1	8.3171	8480-6	Intravascular system	Pres	Pt	Arterial system	Qn		mm[Hg]	mm Hg			5

Units Specimen Methodless No Common Limits Battery 1 records found: 0.04s

# Get panel details and export

Regenstrief LOINC Mapping Assistant (RELMA) - Panels With These LOINCS

LOINC	Shortname	Component	Property	Timing	System	Scale	Method	#LOINCS	LOINCS in this...
62263-9	Domain - Nutrition DS	PhenX...	-	Pt	^Patient	-	PhenX	1	62263-9

**Export the full panel structure**

- Export
- Configure Export
- Export full panel structure to Excel
- Sort Grid
- Configure Grid
- View Details - Simple
- View Details - Comprehensive
- View Details - Custom
- View Panel Children
- Truncate Text
- Wrap Text
- Print
- Propose a new LOINC
- Propose a LOINC based on selected term

Truncated Text | Print Preview

OK

# Exported Wound "Forms" Tab

	A	B	C	D	E	F	G	I
1	ParentId	ParentLoinc	ParentName	Id	Sequence	Loinc	LoincName	ObservationRequired
2	13485	39135-9	Wound Assessment Pnl	13485	186	39135-9	Wound Assessment Pnl	
3	13485	39135-9	Wound Assessment Pnl	64535	6	72299-1	Wnd Tunnel+Under pnl	C
4	13485	39135-9	Wound Assessment Pnl	64597	1	72300-7	Skin alter Wnd	R
5	13485	39135-9	Wound Assessment Pnl	64598	3	72301-5	Periwnd desc	C
6	13485	39135-9	Wound Assessment Pnl	64599	7	72292-6	Wnd Exudate pnl	C
7	13485	39135-9	Wound Assessment Pnl	64605	8	72287-6	Wnd size pnl	C
8	13485	39135-9	Wound Assessment Pnl	64609	9	72286-8	Wnd dress pnl	C
9	13485	39135-9	Wound Assessment Pnl	64613	2	72369-2	Wound site Pnl	R
10	13485	39135-9	Wound Assessment Pnl	64621	5	72372-6	Wound bed+edge pnl	C
11	13485	39135-9	Wound Assessment Pnl	64730	4	72527-5	Pressure ulcer stage NPUAP	
12	64535	72299-1	Wnd Tunnel+Under pnl	64536	1	72298-7	Wound healing Wnd	R
13	64535	72299-1	Wnd Tunnel+Under pnl			72297-4	Wound healing clck Wnd	C
14	64535	72299-1	Wnd Tunnel+Under pnl			72299-2	Wound healing Wnd	C
15	64535	72299-1	Wnd Tunnel+Under pnl			72299-3	Wound healing Wnd	C
16	64535	72299-1	Wnd Tunnel+Under pnl	64540	6	72299-4	Wound healing Wnd	C
17	64535	72299-1	Wnd Tunnel+Under pnl	64541	5	72299-5	Wound healing Wnd	C
18	64599	72299-1	Wound Assessment Pnl	64600	1	39135-9	Wound healing Wnd Len	C
19	64599	72299-1	Wound Assessment Pnl	64601	3	72299-6	Wound healing Wnd	O
20	64599	72299-1	Wound Assessment Pnl	64602	4	72299-7	Wound healing Wnd	R
21	64599	72292-6	Wnd Exudate pnl	64603	5	72292-6	Wound healing Wnd	R
22	64599	72292-6	Wnd Exudate pnl	64604	2	72291-8	Drain amt device Wnd.exdte	O

**Parent LOINC code**

**Panel Name**

**Conditionality**

**Panel Children**

# Exported Wound Panel LOINC Tab

	A	B	C	D	E	F	G	H	I
1	LOINC_NUM	COMPONENT	PROPERTY	TIME_ASPCT	SYSTEM	SCALE_TYP	METHOD_TYP	CLASS	SOURCE
2	72298-3	Tunneling	Find	Pt	Wound	Ord		H&P.PX	SM
3	39135-0	Wound assessment panel	-	Pt	^Patient	-		PANEL.H&P	SM
4	72371-1	Appearance	Aper	Pt	Wound.base	Nom		H&P.PX	SM
5	72527-3	Pressure ulcer stage	Find	Pt	^Patient	Nom	NPUAP	H&P.PX	NPUAP
6	72290-0	Appearance	Aper	Pt	Wound.exudate	Nom		H&P.PX	SM
7	72293-4	Undermining	Len	Pt	Wound	Qn		H&P.PX	SM
8	39112-8	Body location qualifier	Find	Pt	^Patient	Nom		H&P.HX	SM
9	39121-9	Assessing	Type	Pt	Wound	Nom		H&P.PX	SM
10	72294-2	Undermining clock position	Type	Pt	Wound	Nom		H&P.PX	SM
11	72294-2	Undermining clock position	-	Pt	Wound	-		PANEL.H&P	SM
12	72294-2	Undermining clock position	-	Pt	Wound	-		PANEL.H&P	SM
13	72294-2	Undermining clock position	Find	Pt	Wound	Nom		H&P.PX	SM
14	72304-9	Edge of wound description	Type	Pt	Wound.edge	Nom		H&P.PX	SM

**LOINC code**

**Class**

# Detailed answer data

	A	B	C	D	E	F	I	J	K	
1	Loinc	LoincName	AnswerListId	AnswerListName	AnswerListOID	ExternallyDefin	AnswerStringID	AnswerCod	SequenceNo	DisplayText
2	39116-9	Drainage Amt Wnd	LL2222-9	Amount - scant,mod,large,copious		N	LA19075-3		4	Copious
3	39116-9	Drainage Amt Wnd	LL2222-9	Amount - scant,mod,large,copious		N	LA19074-6		1	Scant
4	39116-9	Drainage Amt Wnd	LL2222-9	Amount - scant,mod,large,copious		N	LA8981-8			Large
5	39116-9	Drainage Amt Wnd	LL2222-9	Amount - scant,mod,large,copious		N	LA6751-7			Moderate
26	39132-6	Color Wnd base	LL2338-3	Color of Wound Base		N	LA19058-9			Brown
27	39132-6	Color Wnd base	LL2338-3	Color of Wound Base		N				Red/Healthy
28	39132-6	Color Wnd base	LL2338-3	Color of Wound Base		N				Pink/Pale
29	39132-6	Color Wnd base	LL2338-3	Color of Wound Base		N				Red/Hyperemic
30	39132-6	Color Wnd base	LL2338-3	Color of Wound Base		N	LA19452-4		7	Gray
31	39132-6	Color Wnd base	LL2338-3	Color of Wound Base		N	LA4267-6		5	Black
32	39132-6	Color Wnd base	LL2338-3	Color of Wound Base		N	LA17195-1		4	Yellow
33	39133-4	Color Wnd edge	LL2338-3	Color of Wound Base		N	LA19058-9		6	Brown
34	39133-4	Color Wnd edge	LL2338-3	Color of Wound Base		N	LA19449-0		1	Red/Healthy

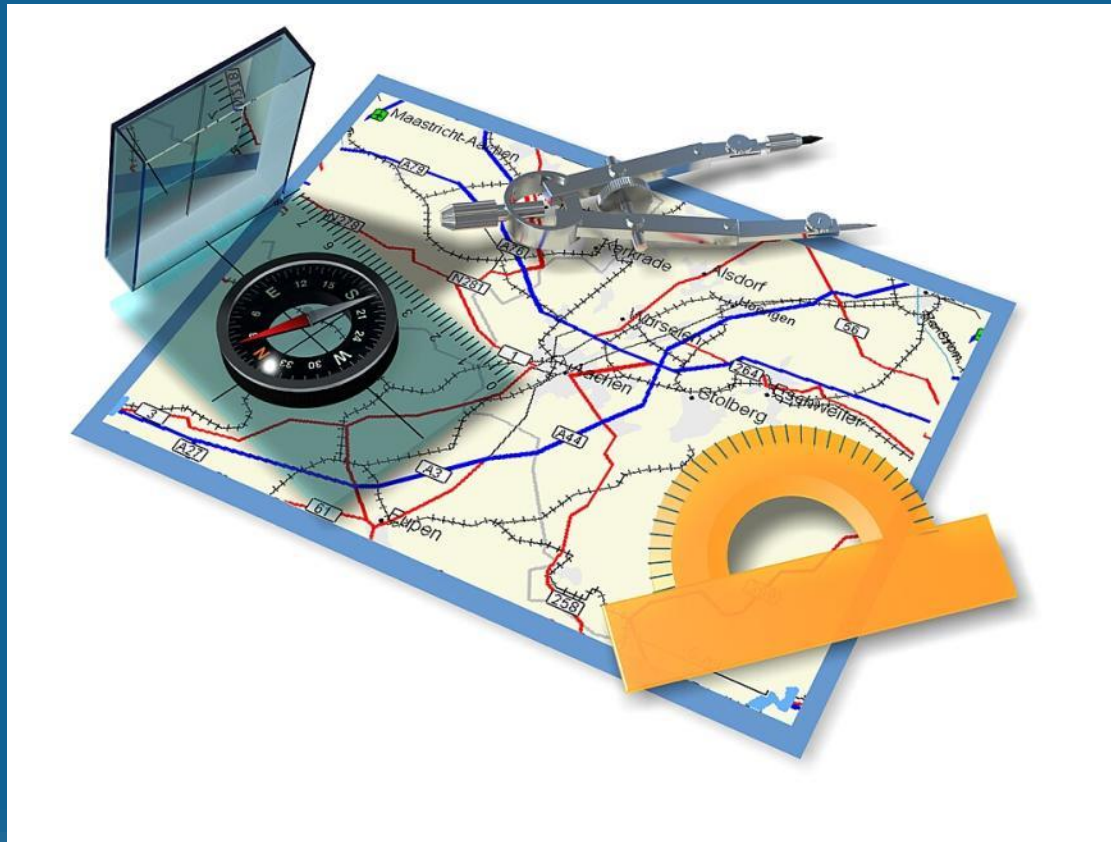
**LOINC code**

**AnswerListID**

**Answer String**

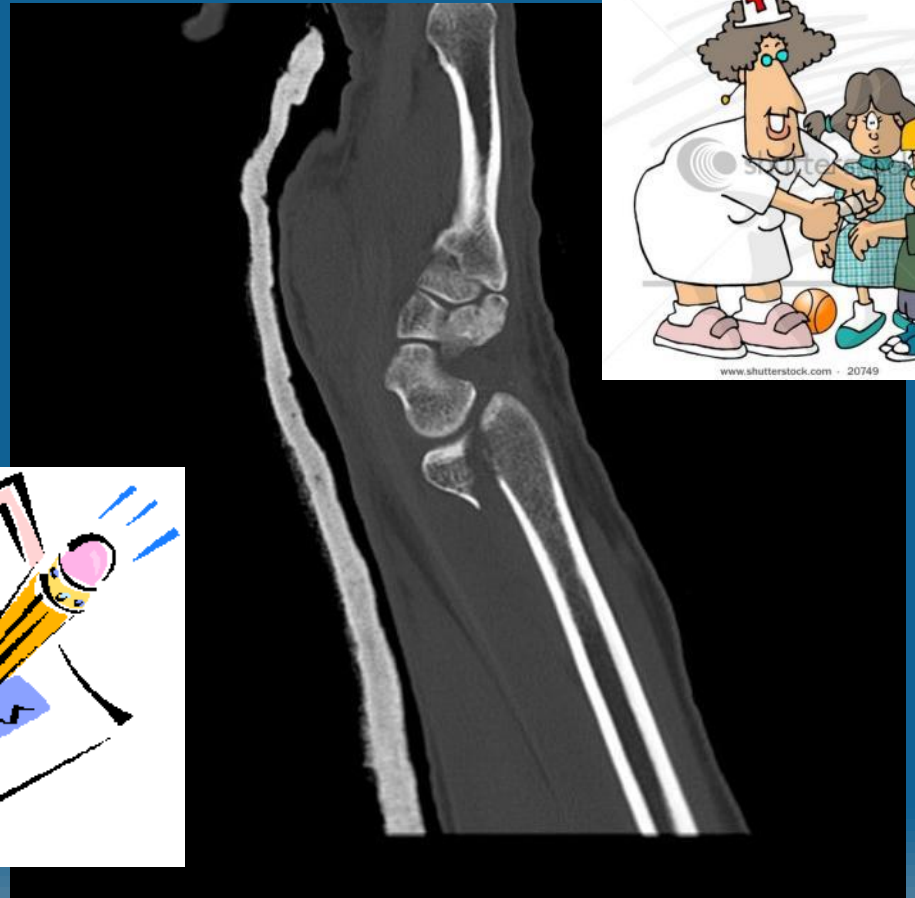


# Navigating through the Mapping Process



# Special Situations

- Nursing Assessments
- Radiology content
- Document Ontology
- Validated Instruments



# Radiology

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for RelmaTest

Welcome smatney log out

method:US system:abdomen Units Search

Use Standard Search No Common Limits

Ro	LOINC	Component	Property	Timing	System	Scale	Method
1	8281-8	Circumference at umbilicus	Len	Pt	Abdomen mid	Qn	US
2	11777-0	Cross section	Area	Pt	Abdomen fetus	Qn	US derived
3	33150-4	Diameter duct	Len	Pt	Abdomen fetus	Qn	US estimated from Shinozuka...
4	11818-2	Diameter anterior-posterior	Len	Pt	Abdomen fetus	Qn	US measured
5	11862-0	Diameter transverse	Len	Pt	Abdomen fetus	Qn	US measured
6	37913-1	Guidance biopsy	Find	Pt	Abdomen	Doc	
7	44162-6	Guidance biopsy	Find	Pt	Abdomen top...	Doc	
8	24559-7	Guidance biopsy	Find	Pt	Abdomen	Doc	
9	41809-5	Guidance biopsy	Find	Pt	Abdomen top...	Doc	
10	24558-9	Multisection limited	Find	Pt	Abdomen	Doc	
11	24531-6	Multisection limited	Find	Pt	Abdomen top...	Doc	
12	24532-4	Multisection limited	Find	Pt	Abdomen	Doc	
13	30704-1	Multisection limited	Find	Pt	Abdomen	Doc	US
14	38047-7	Multisection limited	Find	Pt	Abdomen	Doc	US
15	11978-4	Perimeter	Len	Pt	Abdomen fetus	Qn	US derived
16	33546-3	Perimeter	Len	Pt	Abdomen fetus	Qn	US derived from Chitty 1994

Units Specimen Methodless No Common Limits Battery

27 records found: 0.01s

**“Everything Else”**

**Anatomic Region**

**Modality**

# Document Ontology

- Be aware of the Document Ontology model

history and physical Units Search ?

Use Standard Search No Common Limits

Ro	LOINC	Component	Property	Timing	System	Scale	Method	E
6	66299-9	Other physical or medical...	Hx	Pt	^Patient	Nom	PhenX	
39	68791-3	History and physical note	Find	Pt	{Setting}	Doc	Pediatric rheumatology	
38	68781-4	History and physical note	Find	Pt	{Setting}	Doc	Pediatric pulmonology	
37	68775-6	History and physical note	Find	Pt	{Setting}	Doc	Pediatric otology	
42	68807-7	History and physical note	Find	Pt	{Setting}	Doc	Pediatric urology	
41	68858-0	History and physical note	Find	Pt	{Setting}	Doc	Pediatric transplant hepatology	
40	68797-0	History and physical note	Find	Pt	{Setting}	Doc	Pediatric surgery	
36	68770-7	History and physical note	Find	Pt	{Setting}	Doc	Pediatric neurology	
32	68735-0	History and physical note	Find	Pt	{Setting}	Doc	Pediatric endocrinology	
31	687...	History and physical note	Find	Pt	{Setting}	Doc	Pediatric dermatology	
30	687...	History and physical note	Find	Pt	{Setting}	Doc	Pediatric cardiology	
35	68760-8	History and physical note	Find	Pt	{Setting}	Doc	Pediatric gastroenterology	
34	68751-7	History and physical note	Find	Pt	{Setting}	Doc	Pediatric oncology	
33	68740-0	History and physical note	Find	Pt	{Setting}	Doc	Pediatric infectious disease	
43	68817-6	History and physical note	Find	Pt	{Setting}	Doc	Pediatric nephrology	
53	68825-9	History and physical note	Find	Pt	Hospital	Doc	Pediatrics	

Kind of Document

Setting

Subject Matter domain

# Status LOINC® and Nursing Content

- Many areas incomplete
- Current work happening to determine gaps
  - Physiologic Assessments
  - Basic Physiologic Assessment
  - Future – PIV/CIV
- New Nursing Judgment (Impression) LOINC codes

# LOINC Mapping Tactics

- Limit effort to one clinical section at a time and focus expertise
- Vitals, skin, wound assessments will be easiest
- Map radiology by modality (constrain to that modality)
- Sample results give clue to property and scale
- Consider prioritizing by frequency of use

# A Rationale for Parsimonious Laboratory Term Mapping by Frequency

Daniel J. Vreeman, PT, DPT, MSc, John T. Finnell, MD, MSc,

J. Marc Overhage, MD, PhD

Regenstrief Institute, Inc. and Indiana University, Indianapolis, IN

## ABSTRACT

*Mapping local observation codes to a standard vocabulary provides a bridge across the many islands of data that reside in isolated systems, but mapping is resource intensive. To help prioritize the mapping effort, we analyzed laboratory results reported over a thirteen month period from five institutions in the Indiana Network for Patient Care. Overall, more than 4,000 laboratory observation codes accounted for almost 49 million results. Of the observations reported in the thirteen months, 80 codes (2%) accounted for 80% of the total volume from all institutions and 784 codes (19%) accounted for 99% of the volume from all institutions. The 244 to 517 observation codes that represented 99% of the volume at each institution also captured all results for more than 99% of the patients at that institution. Our findings suggest that focusing the mapping effort on this modest set of high-yield codes can reduce the barriers to interoperability.*

## INTRODUCTION

Indiana Medicaid, and RxHub. The federated INPC repository now stores more than a billion discreet clinical observations.

The INPC has coalesced many of the various sources that produce and store data in our community, with emerging clinical<sup>3,4</sup> and financial<sup>5</sup> benefits. In the INPC collaborative, Regenstrief Institute serves as a neutral third party convener. Regenstrief receives all of the clinical messages streams from participating systems and accomplishes the task of integrating data these sources by mapping the idiosyncratic local terms to a common master dictionary based on LOINC® (Logical Observation Identifiers Names and Codes), a universal code system for identifying laboratory and other clinical observations.<sup>6</sup> Presently, over one hundred source systems send HL7 clinical result messages to Regenstrief within the INPC.

Mapping the local observation codes from all of these data sources requires substantial effort and domain expertise. Laboratory data is particularly challenging to map because of the large number (2,000-5,000) of

Vreeman DJ, Finnell JT, Overhage JM. A Rationale for Parsimonious Laboratory Term Mapping by Frequency. *AMIA Annu Symp Proc.* 2007;;771-775.



# More LOINC Mapping Tactics

- Try using method-less terms first
  - Specific methods can be transmitted in:
    - OBX-17 (v2.x), Observation.methodCode (v3.0)
- Examine local units or real results to verify correct property and scale
  - Properties are rarely distinguishable in test names
- You don't have to do it all at one sitting
  - Use the "Unmapped" function to return where you left off
- With every release - Update previous mappings to identify deprecated terms



# Common Mapping Issues

- Locally Defined Test Name Ambiguity
  - Reuse of local test code
- Incongruent Value sets (Scale ambiguity)
- Result vs. Interpretation
- Available LOINC Terms too Specific/General
- LOINC not yet defined

# Using your Mapped Terms

- Print results of LOINC Mapping
- Export to File

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for MayoTrain

Welcome smatney log out

File Tools HIPAA Lab Auto Mapper View Help

Search LOINC database  
Map local terms to LOINC  
**View/Add/Edit Local Terms**  
Change Local Term File  
Report Local Terms and Their LOINC Mappings  
Export Local Terms and Their LOINC Mappings to Delimited File  
View Local Term File Summary  
Review Panels, Forms & Surveys  
Review HIPAA Attachments  
Import Local Terms from Delimited File or Excel Spreadsheet  
Import Local Terms from HL7 File  
Propose a new LOINC  
Propose a LOINC based on selected term  
Review and Submit Proposed LOINCs  
Print Search Results  
Set User Preferences  
Set Preferred Language  
Backup/Restore Local Terms Database  
Return to Main Menu  
Exit

Units Search ?

No Common Limits

Method ExUCUMu... ExUnits Rank SIRank DocSedi... ComMaps ComInst Class

**Open Local Term File**

# Configure Export Format

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

Edit Term in Local Term File Add New Term to Local Term File Delete Term from Local Term File Export Local Term File

Enter words to find:

Row	Battery Code	Battery Description	Battery Codesystem	Test Code	Test Description	Test Codesystem	Units	LOINC
				309651	Nafcillin			
				754689	Anion Gap		mmol/L	
				708007	Moxifloxacin			
				755363	Creatinine SerPl QN		mg/dL	
				755177	Factor VIII-C Assay		%	
				755179	Factor X Assay		%	
				755181	Factor XI Assay		%	
6	667685	Factor X(10) Assay						
7	667688	Factor XI(11) Assay						
8	684308	ABO and Rh						
9	684308	ABO and Rh		810893				
10	685703	Cooximetry Panel Bld QN		755435			%	
11	685703	Cooximetry Panel Bld QN		755474			%	
12	685703	Cooximetry Panel Bld QN		755475			%	
13	685733	CRP SerPl QN		755479			mg/dL	
14	685796	Drug Scn SerPl QL		755372				
15	685796	Drug Scn SerPl QL		755496				
16	685796	Drug Scn SerPl QL		755497			mg/dL	
17	685796	Drug Scn SerPl QL		755498	Ethanol Pl QN		mg/dL	
18	685849	Hgb A1C HPLC Bld QN		755572	Hemoglobin A1C HPLC...		%	
19	685853	Hgb A1C POC		755573	Hemoglobin A1C, POC		%	
20	686283	PTH Intact Ser QN		755757	PTH Intact Ser QN		pg/mL	
21	693154	B Cell Subsets		755895	B Cells- IgG		%	
22	693154	B Cell Subsets		755896	B Cells- IgM		%	
23	693154	B Cell Subsets		755897	B Cells- IgD		%	
24	693154	B Cell Subsets		755898	B Cells- IgA		%	

Context Sensitive Export Configuration

- Export
- Configure Export
- Sort Grid
- Configure Grid
- Truncate Text
- Wrap Text
- Print

Truncated Text Print Preview

Entry #: 1 of 190 5 records found: 0.02s

# LMOF Export Configuration

The screenshot shows the 'Custom Export' dialog box with the following elements:

- Table:** A table with columns '#', 'Column Name', and a checkbox. The first four rows are selected.
- Export Options:** A list of radio buttons for 'Copy to Clipboard', 'Save to File', 'Export to Excel', 'Send as Email', and 'Print'. 'Copy to Clipboard' is selected.
- Rows to Export:** Radio buttons for 'Selected Rows' (selected) and 'All Rows'.
- Include column headers:** A checkbox that is currently unchecked.
- Buttons:** 'Select All', 'Clear All', 'Export and Save Configuration', 'Save Configuration', and 'Cancel'.

Callouts point to the following features:

- Select Export Format:** Points to the 'Copy to Clipboard' radio button.
- Select Fields to Export:** Points to the first four rows of the table.
- Save Configuration and Export:** Points to the 'Export and Save Configuration' button.

Select Export Format

Select Fields to Export

Save Configuration and Export

# Print Mapped Terms from View/Add/Edit Menu

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop OBR

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer List Search

Edit Term in Local Term File Add New Term to Local Term File Delete Term from Local Term File Export Local Term File

Enter words to find:

Row	Battery Code	Battery Description	Battery Codesystem	Test Code	Test Description	Test Codesystem	Units	LOINC
1	312370	MIC		309651	Nafcillin			
2	665670	Basic Metabolic Panel		754689	Anion Gap		mmol/L	
3	312370	MIC		708007	Moxifloxacin			
4	665670	Basic Metabolic Panel		755363	Creatinine SerPl QN		mg/dL	
5	667682	Factor VIII(8)-Assay		755177	Factor VIII-C Assay		%	
6	667685	Factor X(10) Assay		755179	Factor X Assay		%	
7	667688	Factor XI(11) Assay		755181	Factor XI Assay		%	
8	684308	ABO and Rh		810892	Anti-A			
9	684308	ABO and Rh		810893	Anti-B			
10	685703	Cooximetry Panel Bld QN		755435	Carboxyhemoglobin Bld...		%	
11	685703	Cooximetry Panel Bld		755474	Methemoglobin Bld QN		%	
12	685703	Cooximetry Panel		755475	Oxyhemoglobin Bld QN		%	
13	685733	CRP SerPl QN						
19	685853	Hgb A1C POC		755572	Hemoglobin A1C HPLC...		%	
20	686283	PTH Intact Ser QN		755573	Hemoglobin A1C, POC		%	
21	693154	B Cell Subsets		755757	PTH Intact Ser QN		pg/mL	
22	693154	B Cell Subsets		755895	B Cells- IgG		%	
23	693154	B Cell Subsets		755896	B Cells- IgM		%	
24	693154	B Cell Subsets		755897	B Cells- IgD		%	
				755898	B Cells- IgA		%	

Truncated Text

Print Preview

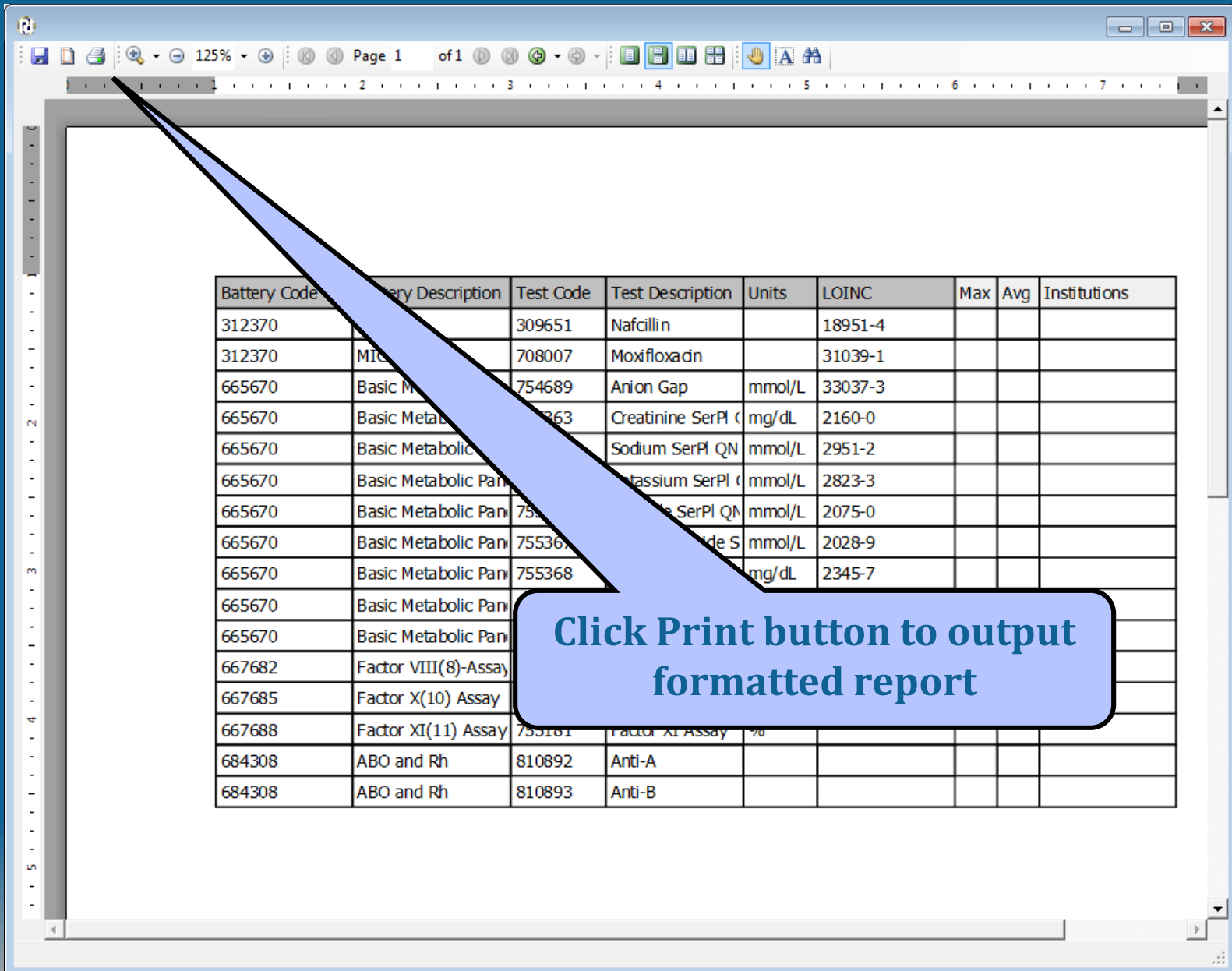
Entry #: 1 of 190

5 records found: 0.02s

May highlight terms to be printed

Click Print button to Preview output

# Formatted Report Output



The screenshot shows a software window with a toolbar at the top. The toolbar includes a 'Print' button (represented by a printer icon) and other navigation and editing tools. A blue callout box with a black border points from the 'Print' button to the text 'Click Print button to output formatted report'. Below the toolbar is a table with the following data:

Battery Code	Battery Description	Test Code	Test Description	Units	LOINC	Max	Avg	Institutions
312370		309651	Nafcillin		18951-4			
312370	MIC	708007	Moxifloxacin		31039-1			
665670	Basic Met	754689	Anion Gap	mmol/L	33037-3			
665670	Basic Metabolic	75363	Creatinine SerPl	mg/dL	2160-0			
665670	Basic Metabolic		Sodium SerPl QN	mmol/L	2951-2			
665670	Basic Metabolic Pan		potassium SerPl	mmol/L	2823-3			
665670	Basic Metabolic Pan	75363	Calcium SerPl QN	mmol/L	2075-0			
665670	Basic Metabolic Pan	755367	Urea Nitrogen S	mmol/L	2028-9			
665670	Basic Metabolic Pan	755368	BUN	mg/dL	2345-7			
665670	Basic Metabolic Pan							
665670	Basic Metabolic Pan							
667682	Factor VIII(8)-Assay							
667685	Factor X(10) Assay							
667688	Factor XI(11) Assay	755181	Factor XI Assay	%				
684308	ABO and Rh	810892	Anti-A					
684308	ABO and Rh	810893	Anti-B					

# Excel™ Export

The screenshot shows the Microsoft Excel interface with a spreadsheet containing the following data:

	A	B	C	D	E	F	G	H
1	<b>Battery Code</b>	<b>Battery Description</b>	<b>Test Code</b>	<b>Test Description</b>	<b>Units</b>	<b>LOINC</b>		
2	312370	MIC	309651	Nafcillin		347-5		
3	312370	MIC	708007	Moxifloxacin		31037-5		
4	665670	Basic Metabolic Panel	754689	Anion Gap	mmol/L	33037-3		
5	665670	Basic Metabolic Panel	755363	Creatinine SerPI QN	mg/dL	2160-0		
6	665670	Basic Metabolic Panel	755364	Sodium SerPI QN	mmol/L	2951-2		
7	665670	Basic Metabolic Panel	755365	Potassium SerPI QN	mmol/L	2823-3		
8	665670	Basic Metabolic Panel	755366	Chloride SerPI QN	mmol/L	2075-0		
9	665670	Basic Metabolic Panel	755367	Carbon Dioxide SerPI QN	mmol/L	2028-9		
10	665670	Basic Metabolic Panel	755368	Glucose SerPI QN	mg/dL	2345-7		
11	665670	Basic Metabolic Panel	755369	BUN SerPI QN	mg/dL	3094-0		
12								
13								
14								
15								

# Exporting Mapped Terms

Regenstrief LOINC Mapping Assistant

File Tools HIPAA Lab Auto Mapper Help

Welcome log in Register

- Search LOINC database
- Map local terms to LOINC
- View/Add/Edit Local Terms
- Change Local Term File
- Report Local Terms and Their LOINC Mappings
- Export Local Terms and Their LOINC Mappings to Delimited File
- View Local Term File Summary
- Review Panels, Forms & Surveys
- Review HIPAA Attachments
- Import Local Terms from Delimited File or Excel Spreadsheet
- Import Local Terms from HL7 File
- Propose a new LOINC
- Review and Submit Proposed LOINCs
- Set User Preferences
- Set Preferred Language
- Backup/Restore Local Terms Database
- Exit

Assistant

Export Terms to Delimited File

s, Forms, & Surveys

t Local Terms

t Local Terms

it Program



# Export Terms Dialog

Regenstrief LOINC Mapping Assistant (RELMA) - Export Local Term File

Term File to Export: LOINC Workshop OBR

Format:  Microsoft Excel  Delimited Text File

Comma  Tab  Semicolon  Vertical Bar

Surround fields with double quotes

Fields to Write to Output File

- LOINC Version
- LOINC Number
- LOINC Long Common Name
- LOINC Short Name
- LOINC Component
- LOINC Property
- LOINC Time Aspect
- LOINC System
- LOINC Scale
- LOINC Method

File Name: C:\Users\Public\Documents\RELMA\Samples\LOINC Workshop OBR\_exp Browse...

Open When Finished

Export Exit

LOINC Workshop OBR

Select Term Set

Direct export to Excel

Check Fields you wish to export

Select Delimiter

Select file location

# Other RELMA® Features

# Panels, Forms and Survey Review

**Review Panels, Forms and Surveys**

**Review Panels, Forms and Surveys**

Regenstrief LOINC Mapping Assistant

File Tools HIPAA Lab Auto Mapper Help

- Search LOINC database
- Map local terms to LOINC
- View/Add/Edit Local Terms
- Change Local Term File
- Report Local Terms and Their LOINC Map
- Export Local Terms and Their LOINC Mappings to Delimited File
- View Local Term File Summary
- Review Panels, Forms & Surveys
- Import Local Terms from HL7 File
- Propose a new LOINC
- Review and Submit Proposed LOINCs
- Set User Preferences
- Set Preferred Language
- Backup/Restore Local Terms Database
- Exit

Assistant

Propose New LOINC Term

Review Panels, Forms, & Surveys

Import Local Terms

Set Local Terms

Set Local Terms

Exit Program

# Laboratory Panels

Regenstrief LOINC Mapping Assistant (RELMA) - Panels, Forms & Surveys

LabPanels | GovernmentPanels | ClinicalPanels | OtherPanels | HEDISpanels

To review the content of a specific panel, DOUBLE CLICK on the panel name

Row	Panel Name	LOINC
470	HL7 genetics panels	
485	HLA Panels	
490	HNA panels	
494	HPA Panels	
496	<b>Microbiology Panels</b>	
497	Acute hepatitis 2000 panel - Serum Qualitative	24363-4
498	Adenovirus IgG and IgM panel - Serum	
499	Anaplasma phagocytophilum IgG and IgM panel - Serum Qualitative	
500	Arbovirus IgG and IgM panel - Serum by Immunofluorescence	
501	Arbovirus IgG and IgM panel - Cerebral spinal fluid by Immunofluorescence	
502	Arbovirus IgG panel - Serum by Immunofluorescence	
503	Babesia identification panel - Unspecified specimen	67866-4
504	Babesia microti IgG and IgM panel - Serum	34940-7
505	Bacterial Ag panel - Cerebral spinal fluid	43131-2
506	Bacterial Ag panel - Serum	43434-0
507	Bacterial Ag panel - Urine	43443-1
508	Bacterial vaginosis and vaginitis DNA panel - Vaginal fluid by Probe and signal amplification method	54145-8
509	Bacterial vaginosis and vaginitis DNA panel - Vaginal fluid by DNA probe	45000-0

Expanded Category Callout: Expand category to see panels

Double-click Callout: Double-click panel test to see components

Buttons: Wrapped Text | Expand | Expand Branch | Collapse | Collapse Branch | Print Preview

Find panels with these LOINC:  Close

# Expanded Panel Detail

Simple Display for LOINC record # 34940-7

## 34940-7 Babesia microti IgG and IgM panel - Serum

### PANEL HIERARCHY

LOINC#	LOINC Name	R/O/C	Cardinality	Data Type	Ex. UCUM	Unit
34940-7	Babesia microti IgG and IgM panel - Serum					
31244-7	Babesia microti IgG Ab [Units/volume] in Serum	R				
31245-4	Babesia microti IgM Ab [Units/volume] in Serum	R				

### NAME

Fully-Specified Name:	Component	Property	Time	Aspe	System	Scale	Method
	Babesia microti Ab.IgG & IgM panel	-	Pt		Ser	Qn	

### BASIC ATTRIBUTES

Class/Type:	PANEL.MICRO/Lab
Last Updated:	2003/11/20
Order vs. Obs.:	Order
Status:	Active

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Generated from LOINC version 2.42.

Simple Display

Text Size - Medium

Separated pages

Previous

34940-7

Next

Print

Close

Type Ctrl-F to search the text of the details.

34940-7

1 of 1

# Government Panels

Regenstrief LOINC Mapping Assistant (RELMA) - Panels, Forms & Surveys

LabPanels | **GovernmentPanels** | ClinicalPanels | OtherPanels | HEDISpanels

To review the content of a specific panel, DOUBLE CLICK on the panel name

Row	Panel Name	LOINC
1	<b>Centers for Disease Control Panels</b>	
2	U.S. standard certificate of live birth -2003 revision	68998-4
3	U.S. standard report of fetal death -2003 revision	69045-3
4	U.S. standard certificate of death -2003 revision	69409-1
5	<b>Continuity Assessment Record and Evaluation (CARE) panels</b>	
46	<b>End Stage Renal Disease (ESRD) panels</b>	
72	<b>Minimum Data Set (MDS) for Nursing Home Resident Assessment and Care Planning Panels</b>	
85	<b>Outcome and Assessment Information Set (OASIS) set</b>	
109	<b>Residual Functional Capacity Assessment</b>	
112	<b>Substance Abuse and Mental Health Services Administration (SAMHSA) Panels</b>	

**Panel Codes**

**Form Category**

Wrapped Text | Expand | Expand Branch | Collapse | Collapse Branch | Print Preview

Find panels with these LOINC:  Close

# Government Panel Children

Regenstrief LOINC Mapping Assistant (RELMA) - Children of Panel

Row	LOINC	Component	Property	Timing	System	Scale	Method	ExUCUMu...	ExUnits	Rank	ComMaps	ComInst	Class	Long
1	68998-4	U.S. standard...	-	Pt	^Patie...	-							PANEL.SUR...	U.S.
2	73766-8	Place where birth...	Type	Pt	^Facility	Nom	US standard...						SURVEY.CDC	Place
3	73765-0	Planned to deliverat...	Find	Pt	^Facility	Ord	US standard...						SURVEY.CDC	Plann
4	73764-3	Birth attendanttitle	Type	Pt	^Patie...	Nom	US standard...						SURVEY.CDC	Birth
5	73763-5	Mother was...	Find	Pt	^Patie...	Ord	US standard...						SURVEY.CDC	Moth
6	73777-5	Name of facility...	Find	Pt	^Facility	Nom							SURVEY.CDC	Nam
7	69044-6	Date first prenatal visit	TmStp	Pt	^Patie...	Qn							SURVEY.CDC	Date
8	73776-7	No prenatal care	Find	Pt	^Patie...	Ord	US standard...						SURVEY.CDC	No p
9	68492-8	Date last prenatal visit	TmStp	Pt	^Patie...	Qn							SURVEY.CDC	Date
10	68493-6	Prenatal visits forthis...	Num	Pt	^Patie...	Qn							SURVEY.CDC	Pre
11	56077-1	Body weight^pre...	Mass	Pt	^Patie...	Qn		[lb_av]	gm;lb-oz				PHENX	Body
12	69461-2	Body weight^at...	Mass	Pt	^Moth...	Qn							BDYWGT.M...	Body
13	11638-4	Births.still living	Num	Pt	^Patie...	Qn	Reported						OB.US	[#]E
14	68496-9	Live births.now dead	Num	Pt	^Patie...	Qn							SURVEY.CDC	Prev
15	68499-3	Date lastlive birth	TmStp	Pt	^Patie...	Qn							SURVEY.CDC	Date
16	69043-8	Other pregnancy...	Num	Pt	^Patie...	Qn							SURVEY.CDC	Othe
17	68500-8	Date last other...	TmStp	Pt	^Patie...	Qn							SURVEY.CDC	Date
18	73775-9	Risk factors inthis...	Find	Pt	^Patie...	Nom	US standard...						SURVEY.CDC	Risk
19	68497-7	Previous cesarean...	Num	Pt	^Patie...	Qn							SURVEY.CDC	Prev
20	72519-2	Infections present...	Prid	Pt	^Patie...	Nom	US standard...						SURVEY.CDC	Infec
21	73814-6	Obstetric procedures...	Find	Pt	^Patie...	Nom	US standard...						SURVEY.CDC	Obst
22	73774-2	Onset of labor	Find	Pt	^Patie...	Nom	US standard...						SURVEY.CDC	Onse
23	73813-8	Characteristics of...	Find	Pt	^Patie...	Nom	US standard...						SURVEY.CDC	Char
24	73761-9	Fetal presentation at...	Type	Pt	^Patie...	Nom	US standard...						SURVEY.CDC	Feta
25	73762-7	Final route and...	Type	Pt	^Patie...	Nom	US standard...						SURVEY.CDC	Final
26	73760-1	If cesarean, a trial of...	Find	Pt	^Patie...	Ord	US standard...						SURVEY.CDC	If ce
27	73781-7	Maternal morbidity	Find	Pt	^Patie...	Nom	US standard...						SURVEY.CDC	Mate
28	8339-4	Body weight^at birth	Mass	Pt	^Patie...	Qn	Measured	g	g				BDYWGT.M...	Birth
29	57722-1	Birth plurality	Num	Pt	Pregn...	Ord							H&P.PX	Birth

Close

# Expanded Clinical Panel

Simple Display for LOINC record # 35089-2

## 35089-2 History and physical panel

### PANEL HIERARCHY

LOINC#	LOINC Name	R/O/C	Cardinality	Data Type	Ex. UCUM Unit
35089-2	History and physical panel				
35090-0	Patient history	R			
11331-6	History of alcohol use				
8658-7	History of allergies			CE	
8662-9	History of childhood diseases				
11333-2	History of cognitive function				
8671-0	History of functional status				
11335-7	History of growth+Development				
11336-5	History of hospitalizations Narrative			TX	
8676-9	History of industrial exposure				
11339-9	History of major illnesses and injuries				
8677-7	History of medication use				
11341-5	History of occupation				
8683-5	History of occupational exposure				
11343-1	History of other nonmedical drug use				
11345-6	History of other social factors				
11347-2	History of outpatient visits				
8684-3	History of present illness				
11351-4	History of sexual behavior				
8689-2	History of social function				
8690-0	History of surgical procedures				
29547-7	History of disorders				
11367-0	History of tobacco use				

Simple Display

Text Size - Medium

Separated pages

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35089-2

Next

Print

Close

Type Ctrl-F to search the text of the details.

35089-2

1 of 1



# Clinical Panels

Regenstrief LOINC Mapping Assistant (RELMA) - Panels, Forms & Surveys

LabPanels | GovernmentPanels | **ClinicalPanels** | OtherPanels | HEDISpanels

To review the content of a specific panel, DOUBLE CLICK on the panel name

Row	Panel Name	LOINC
1	+ Antiretroviral therapy Panels	
3	+ Temperature Panel	
5	+ Blood pressure Panels	
8	+ Cardiac Panels	
11	+ CV Panels	
14	+ Panel.devices	
27	+ Document panel	
43	+ Clinical report p	
46	+ Emergency Dep	
58	+ Ophthalmic panels	
60	+ Function panel	
62	+ HandP panels	
86	+ IO Panels	
89	+ National Emergency Medical Services Information Sys	
111	+ Neonatal Apgar Panels	
115	+ Ob Ultrasound Panel	
118	+ Patient Safety panel	
120	+ Consensus measure for Phenotypes	

Find panels with these LOINCs

Find panels with these LOINC...

35089-2, 35090-0

Find Panels With:

Any Of These LOINCs  All Of These LOINCs

OK

Find where a term has been used

Close

Buttons: Wrapped Text, Expand, Expand Branch, Collapse, Collapse Branch, Print Preview

# LOINC Term Panel Usage

Regenstrief LOINC Mapping Assistant (RELMA) - Panels With These LOINCS

LOINC	Shortname	Component	Property	Timing	System	Scale	Method	#LOINCS	LOINCS in this...
35089-2	History & physical Pnl	History &...	-	Pt	^Patient	-		2	35089-2, 35090-0
35090-0	Patient Hx	Patient...	-	Pt	^Patient	-		1	35090-0

Truncated Text

Print Preview

OK

# Other Survey Instruments

Regenstrief LOINC Mapping Assistant (RELMA) - Panels, Forms & Surveys

LabPanels | GovernmentPanels | ClinicalPanels | **OtherPanels** | HEDISpanels

To review the content of a specific panel, DOUBLE CLICK on the panel name

Row	Panel Name	LOINC
1	<b>Brief Interview for Mental Status (BIMS) panels</b>	
5	<b>Centers for Disease Control Panels</b>	
6	U.S. standard certificate of live birth - 2003 revision	68998-4
7	U.S. standard report of fetal death - 2003 revision	69045-3
8	U.S. standard certificate of death - 2003 revision	69409-1
9	<b>Centers for Medicaid and Medicare (CMS)Pnl</b>	
48	<b>Confusion Assessment Method (CAM) panels</b>	
50	<b>Edinburgh Postnatal Depression Scale (EPDS) Pnl</b>	
52	<b>End Stage Renal Disease (ESRD) panels</b>	
53	ESRD Renal Disease Medical Information System Facility Survey - OMB CMS form 2744	64323-9
54	ESRD medical evidence report medicare entitlement - OMB CMS form 2728	67868-0
55	Patient information - end stage renal disease form 2728	67870-6
56	Patient demographics - end stage renal disease form 2728	67871-4
57	End stage renal disease patients in dialysis treatment - end stage renal disease form 2728	67877-1
58	Transplant information - end stage renal disease form 2728	67883-9
59	End stage renal disease (ESRD) death notification panel - OMB CMS form 2746	68359-9
60	Self-dialysis training program - end stage renal disease form 2728	68451-4
61	Physician information - end stage renal disease form 2728 Provider	68452-1

Wrapped Text | Expand | Expand Branch | Collapse | Collapse Branch | Print Preview

Find panels with these LOINCs | Close

# HIPAA Attachments

Regenstrief LOINC Mapping Assistant

File Tools **HIPAA** Lab Auto Mapper Help

Welcome log in Register

Review HIPAA Attachments

welcome to  
**RELMA®**  
the Regenstrief LOINC Mapping Assistant

**View Various HIPAA Attachments**

Search LOINC

Map Local Terms to LOINC

View/Add/Edit Local Terms

Export Local Terms

Panels, Forms, & Surveys

Import Local Terms

Report Local Terms

User Preferences

Exit Program

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# HIPAA Attachment Tree

Regenstrief LOINC Mapping Assistant (RELMA) - HIPAA Attachments

Structured Attachments | Unstructured Attachments | Request Modifier Codes

Document (Attachment) Type Codes

Row	Attachment Name	LOINC
1	<b>Continuity of Care Document</b>	
3	<b>Consultation Notes</b>	
59	<b>Discharge Summaries</b>	
67	<b>Diagnostic Imaging Reports</b>	
5224	<b>History and Physical Notes</b>	
5231	<b>Surgical Operation Notes</b>	
5242	<b>Progress Notes</b>	
5268	<b>Procedure Notes</b>	

CDA Recommended Sections and Entries

Row	R/O	Section Name	LOINC
1	R	Allergies and adverse reactions Document	48765-2
2	R	History of medication use Narrative	10160-0
3	R	Problem list - Reported	11450-4
4	R	History of Procedures Document	47519-4
5	R	Relevant diagnostic tests/laboratory data Narrative	30954-2
6	O	Advanced directives (narrative)	42348-3
7	O	History of hospitalizations+History of outpatient vi	46240-8
8	O	History of family member diseases Narrative	10157-6
9	O	Functional status assessment note	47420-5
10	O	History of immunization Narrative	11369-6
11	O	History of medical device use	46264-8
12	O	Payment sources Document	48768-6
13	O	Plan of treatment (narrative)	18776-5
14	O	Social history Narrative	29762-2
15	O	Vital signs	8716-3

Wrapped Text | Expand | Collapse | Print Preview

Wrapped Text | Print Preview

Close

# Expanded Attachment Data

Simple Display for LOINC record # 18682-5

## 18682-5 Ambulance claims attachment

### PANEL HIERARCHY

LOINC#	LOINC Name	R/O/C	Cardinality	Data Type	Ex. UCUM Unit
18682-5	Ambulance claims attachment		0..n		
18584-3	Body weight at ambulance transport Set		0..1		
3141-9	Body weight Measured		1..1	NM	[lb_av]
3142-7	Body weight Stated		1..1	NM	g
8335-2	Body weight Estimated		1..1	NM	
52024-7	Ambulance transport, Rationale for choice of destination		1..n		
51995-9	Ambulance transport, Rationale for type of transport (narrative)		0..1		
51996-7	Ambulance transport, Distance and time transported information Set		1..n		
51997-5	Ambulance transport, Distance transported - loaded indicator		1..1		
15510-1	Ambulance transport, Distance transported Length		1..1	NM	
51998-3	Ambulance transport, Rationale for excess or additional mileage		0..n		
51999-1	Ambulance transport, Time ambulance arrived at scene Date and time		0..1		
15511-9	Ambulance transport, Origination site information Set		1..1		
52023-9	Ambulance transport, Origination site name and address		0..n		
18580-1	Ambulance transport, Origination site		0..1	ST	
18581-9	Ambulance transport, Origination site Address		1..1	XAD	
52000-7	Ambulance transport, Origination site latitude		0..1		
52001-5	Ambulance transport, Origination site longitude		0..1		
15512-7	Ambulance transport, Destination site information Set		1..1		
52026-2	Ambulance transport, Destination site name and address		0..n		
18582-7	Ambulance transport, Destination site Name		0..1	ST	
18583-5	Ambulance transport, Destination site Address		1..1	XAD	

Simple Display

Text Size - Medium

Separated pages

Previous

18682-5

Next

Print

Close

Type Ctrl-F to search the text of the details.

18682-5

1 of 1

Can't find the  
term you  
want?



# Search Hints and Tips

- Keywords with zero frequency are ignored
  - May need to rephrase – use synonym
- Some causes for no returned terms
  - Too many keywords in search – uncheck some
  - Limits applied that don't make sense
    - E.g. Method-less tests plus Method tree set to EIA
  - Did not find and revise words not in RELMA
    - Local units not in RELMA
- Units are GREAT discriminators
- You may have tests that need to be added to LOINC



# Proposing New LOINC Terms



# Proposing New Terms

- Make sure the term is really needed
  - Think of other names for the same concept
  - Avoid detailed methods or localizations
  - Is the distinction really important?
- Supply sufficient annotation to justify the new term
  - Package inserts, sample reports (email to Regenstrief)
  - The more the better!
- Construct new terms within RELMA
  - **File>Propose a new LOINC**
  - Linked to the “trees” to allow browsing
- Can review and submit them to LOINC from within RELMA

# Propose new LOINC terms

Regenstrief LOINC Mapping Assistant

File Tools HIPAA Lab Auto Mapper Help

Welcome log in Register

- Search LOINC database
- Map local terms to LOINC
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- Propose a new LOINC**
- Review and Submit Proposed LOINCs
- Set User Preferences
- Set Preferred Language
- Backup/Restore Local Terms Database
- Exit

**Select Propose a new LOINC**

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Regenstrief LOINC Mapping Assistant (RELMA) - Propose a New LOINC

Local Code: Local Name: Local Term File:

Test (OBX-3): Battery (OBR-4): Reference #: Similar LOINC: Status: Assigned LOINC: Send Out Lab Test Code: Send Out Lab Name: Locally done

Overall Test Description:

Analyte Description:

Used To Diagnose: Formula: Units: Normal Range:

Example Answers (Results)  Structured Answer Listw/ Codes Comments

Ref: URL: Test In: Vendor: Test Reagent Kit:

**Proposed LOINC**

LOINC Part
Analyte:
Property:
Time Aspect:
Specimen:
Scale:
Method:

Comments:

1 of 1

New Save Clone Exit

Required fields in red

Navigate through proposed terms

Create new term, save current term or Exit form

# Preview Proposed Terms

Regenstrief LOINC Mapping Assistant

File Tools HIPAA Lab Auto Mapper Help

Welcome log in Register

- Search LOINC database
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- Import Local Terms from HL7 File
- Propose a new LOINC
- Review and Submit Proposed LOINCs
- Set User Preferences
- Set Preferred Language
- Backup/Restore Local Terms Database
- Exit

Assistant

se New LOINC Term

s, Forme

t Local Terms

t Local Terms

it Program

**Review your new terms**

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# Review Proposed Terms

**Review Proposed LOINCs**

Please review all of the proposed LOINCs you have created for submission to the Regenstrief Institute.

Submitter Name:  Phone#:

Submitter's Org.:  Fax#:

Source Care Org.:  Email:

Project Description:

Row	Send	Test Code	Test Code Description	Status	Assigned LOINC	Component
1	<input checked="" type="checkbox"/>	AMS	AMPICILLIN/SULBACTAM			Ampicillin+Sulbactam
2	<input checked="" type="checkbox"/>	UDST				Trichloroacetate
3	<input checked="" type="checkbox"/>	RELMAf0ea				

Truncated Text

View  
 All  
 Unsent  
 Sent

Select All Unsent  
Deselect All  
Count: 3

New Edit Delete Submit Exit

**Choose whether to send or postpone**

**All proposed terms fully editable**

**Direct submission via web**

# Submit Proposed Terms

Add additional information, if necessary

request is for 1 new LOINC(s).

Please add any additional instructions or information in the box below.

Path
------

Add File(s)

Remove Selected

Submit Cancel

Add attachments

# Submitting New Terms

- Must supply name, organization, phone and email of submitter
- Must select at least one proposed term to send
- “Configure export” does not affect submission output
- Email resulting file to Regenstrief



# Use Existing Terms as Template

Regenstrief LOINC Mapping Assistant (RELMA) - Map Local Terms for LOINC Workshop

File Tools HIPAA Lab Auto Mapper View Help

Welcome log in Register

Search Mapping View All Working Set Terms Hierarchy & Search Limits Part Search Answer

**Local Term File**

Mapped to: Name:

OBR-4 Code: 312370 OBR-3 Code: 309651 Units: Sample Values: Limit to Default Specimen:

Click to add tag...

Accept or enter OBR name and/or OBX name

**NAFCILLIN**

Show Words Propose Term Clear Inputs Reset Limits

Grid Tree

Row	LOINC	Component	Property	Timing	System	Scale	Method	Units	Rank	Class	LongN...	ShortNai	
1	18951-4	Nafcillin	Susc	Pt	Isolate	OrdQn				ABXBACT	Nafcilli...	Nafcillin..	<a href="#">View Details</a>
2	348-3	Nafcillin	Susc	Pt	Isolate	OrdQn	Agar diff			ABXBACT	Nafcilli...	Nafcillin	<a href="#">Print Grid</a>
3	41704-8	Nafcillin	Susc	Pt	Isolate	OrdQn	Gradient strip			ABXBACT	Nafcilli...	Nafcillin	<a href="#">Map</a>
4	347-5	Nafcillin	Susc	Pt	Isolate	OrdQn	MC			ABXBACT	Nafcilli...	Nafcillin	<a href="#">Same</a>
5	346-7	Nafcillin	Susc	Pt	Isolate	Qn	MLC			ABXBACT	Nafcilli...	Nafcillin	<a href="#">Export</a>
6	349-1	Nafcillin	Titr	Pt	Isolate+Ser	Qn	SBT	titer		ABXBACT	Nafcilli...	Nafcillin..	<a href="#">Configure Export</a>
7	10993-4	Nafcillin	MCnc	Pt	Ser/Plas	Qn		ug/mL		DRUG/T...	Nafcilli...	Nafcillin..	<a href="#">Configure Grid</a>
8	25232-0	Nafcillin	MCnc	Pt	XXX	Qn		ug/mL		DRUG/T...	Nafcilli...	Nafcillin..	
9	73251-1	Nafcillin induced...	Pr	Pt	Ser/Plas	Ord	Flow cytometry			SERO	Nafcilli...	Nafcillin..	
10	73250-3	Nafcillin induced...	Pr	Pt	Ser/Plas	Ord	Flow cytometry			SERO	Nafcilli...	Nafcillin..	

Truncated Text Print Preview

Entry #: 1 of 190 Units Specimen Methodless No Common Limits Battery 10 records found: 0.01s

**Click the Propose Term button**

**Select your closest match**

# Use Existing Terms as Template

Regenstrief LOINC Mapping Assistant (RELMA) - Propose a New LOINC

Local Term File: LOINC Workshop OBR

Test (OBX-3): 309851 Nafcillin

Battery (OBR-4): 312370 MIC

Reference #: Similar LOINC: 346-7 Nafcillin Islt MLC

Status: Assigned LOINC:

Send Out Lab Test Code: Send Out Lab Name: Locally done

Overall Test Description:

Analyte Description:

Used To Diagnose: Formula:

Units: Normal Range:

Example Answers (Results)  Structured Answer List w/ Codes

Answers:

Example Report:

Reference Info/URL:

Test Inst. Vendor: Test Model: Test Reagent Kit:

**Proposed LOINC:**

LOINC Part

Analyte: Nafcillin

Property: Susc

Time Aspect: Pt

Specimen: Isolate

Scale: Qn

Method: MLC

1 of 1

New Save Clone Exit

All required  
components filled in

# Q and A Session



# Exercise

## Map your own data

