

At this stage the following HL7 import setup steps should have already been completed:

- External Lab files have been saved in a folder polled by CAREWare.
- HL7 Messages have successfully been parsed by CAREWare and validated against the set of constraints required for importing.
- Data from HL7 messages have been processed, and an administrator has already completed the Map Provider and Map Client steps.

The Lab Test Mapping Tool includes options for mapping incoming tests and results to CAREWare definitions and values. Clicking *Map Test Definitions and Qualitative Results* displays the list of imported tests. If tests or results are left unmapped, they are left in the queue until they are mapped, skipped, or purged.

Administrative Options > Data Import and Export Features > Lab Test Mapping Tool

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Lab Test Mapping Tool

Map Providers	3 / 17 providers mapped
Map Test Definitions And Qualitative Results	4/31 tests mapped, 0/4 qualitative results mapped
Queue Report Utility	Start Date : 01/01/2013, End Date : 11/15/2019, Use last updated date, Client Not Found, Display as Print
Administrative Alarms	5 / 5 HL7 Alarms acknowledged
HL7 Mapping Changes	Outlines changes in mappings in HL7 Lab Import
Printable List Format Options	Customize the report format

To map a test definition, follow these instructions:

1. Click the *Lab Name*.

Administrative Options > Data Import and Export Features > Lab Test Mapping Tool > HL7 Test Mappings

Manage Delete Help Back Print or Export

HL7 Test Mappings

Search: 1100

MSH3 (Application)	OBX4.0 (Lab ID)	OBX4.1 (Lab Name)	RW CAREWare Test Definition ID	Un-Mapped Qlt Re	Mapped Qlt Resu	Skip	Keyword Search
1100	001719	Hepatitis C	Screening Lab/Hepatitis C antibody	1	1		Yes
1100	001206	Chloride, Serum	Screening Lab/Chloride	0	2		
1100	001065	Cholesterol, Total	Lab/Total Cholesterol (mg/dL)	0	0		
1100	001016	Calcium, Serum		0	0		
1100	001032	Glucose, Serum		0	0		
1100	001040	BUN		0	0		
1100	001073	Protein, Total, Serum		0	0		
1100	001081	Albumin, Serum		0	0		
1100	001099	Bilirubin, Total		0	0		
1100	001107	Alkaline Phosphatase, Serum		0	0		
1100	001123	AST (SGOT)		0	0		
1100	001172	Triglycerides		0	0		
1100	001180	Potassium, Serum		0	0		
1100	001198	Sodium, Serum		0	0		
1100	001370	Creatinine, Serum		0	0		
1100	001545	ALT (SGPT)		0	0		
1100	001578	Carbon Dioxide, Total		0	0		
1100	001720	PPD		0	0		
1100	005025	White Blood Cell(WBC)Count		0	0		
1100	005033	Red Blood Cell (RBC) Count		0	0		

2. Click 'Manage' which brings the user to the screen below

Administrative Options > Data Import and Export Features > Lab Test Mapping Tool > HL7 Test Mappings > Absolute CD 4 Helper

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Absolute CD 4 Helper

[View Test Mapping](#) 1100, Absolute CD 4 Helper

[Last HL7](#) Last received result information for the test

[Purge By Test](#) Purge holding tank data for the test code

[Clinical Setup](#) Manage Available Clinical Definitions for Providers

3. Click *View Test Mapping*.
4. Click *Edit*.
5. Type in the expected *RW CAREWare Test Definition* or click the search icon to find the test.
6. Click the test to select it.
7. Click *Save*.

Administrative Options > Data Import and Export Features > Lab Test Mapping Tool > HL7 Test Mappings > Absolute CD 4 Helper > View Test Mapping > Edit


Save Cancel

Edit

MSH3 (Application ID):

OBX4.0 (Lab ID):

OBX4.1 (Lab Name):

RW CAREWare Test Definition: 

Skip:

Keyword Search:

Here is what the controls on this screen represent:

MSH3 (Application ID) – ID of sending lab

OBX4.0 (Lab ID) – Test identifier

OBX4.1 (Lab Name) – Test label from sending lab

RW CAREWare Test Definition – CAREWare Test name

Skip – If checked, the incoming test is not imported. It is recommended to skip test codes that are not desired in CAREWare.

Keyword Search – If checked, keywords can be activated for this lab in search results. This feature enables users to search for keywords in comments and use those keywords to map results in CAREWare.

NOTE: Admin users with medical knowledge are advised to complete the test and result mapping steps. Once results are completely imported and displayed as patient records, any mapping changes would not affect the already imported results. Those mappings are effective when importing any data sent to CAREWare after the mappings are changed. In addition, when importing from a single data source, any test and result mappings affect the import across multiple providers.

The next menu item is **Last HL7**. It provides details including the result, order details, and reference range for the last imported record for the test code/mapping. It is intended to assist admin users deciding on CAREWare test definitions by providing more information.

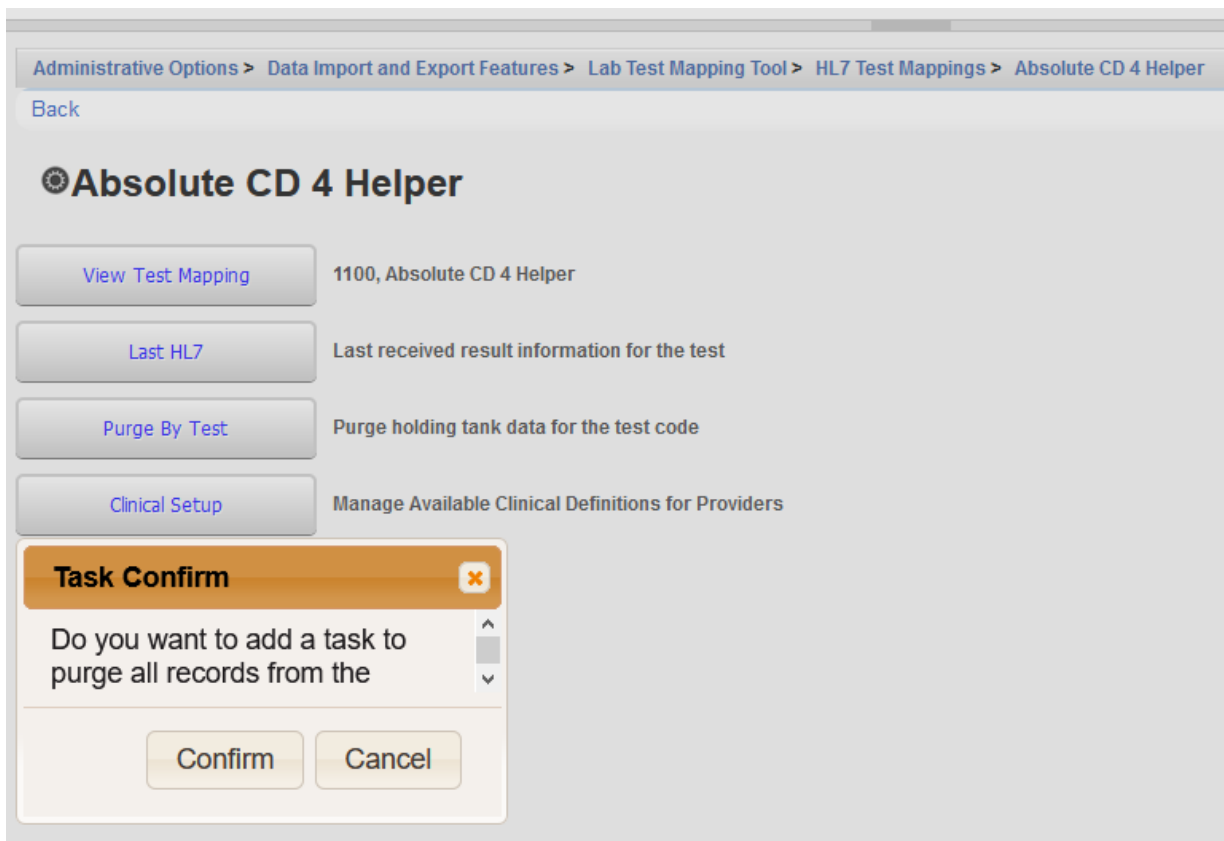
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Last HL7

Segment Values

Control Number (OBR 2):	<input type="text" value="36246925030"/>
Ascension Number (OBR 3):	<input type="text" value="36246925030"/>
Order ID (OBR 4a):	<input type="text" value="505271"/>
Order Name (OBR 4b):	<input type="text" value="CD4/CD8 Ratio Profile"/>
Order Coding System (OBR 4c):	<input type="text" value="L"/>
Order Action Code (OBR 11):	<input type="text"/>
Order Date Reported (OBR 22):	<input type="text" value="201601091439"/>
Order Result Status (OBR 25):	<input type="text" value="F"/>
Comments/Notes (NTE):	<input type="text"/>
Test Value Type (OBX 2):	<input type="text" value="NM"/>
Test ID (OBX 3a):	<input type="text" value="505582"/>
Test Name (OBX 3b):	<input type="text" value="Absolute CD 4 Helper"/>
Test Coding System (OBX 3c):	<input type="text"/>
Test Result (OBX 5):	<input type="text" value="435"/>
Unit of Measure (OBX 6):	<input type="text" value="/uL"/>
Reference Range (OBX 7):	<input type="text" value="359-1519"/>

The next item on the menu is **Purge By Test**.



Confirming this action deletes records for that lab from the import queue. This should be used with great caution and with the knowledge that purging is enforced on all import data received for the test and could also affect data for multiple providers. Purging only affects results in the holding tank; it does not impact any results already imported into client records.

The final menu item is for **Clinical Setup**. Clicking Clinical Setup and selecting a provider opens the menu for adding and editing CAREWare tests.

Qualitative labs have more options than the Quantitative labs because of the additional result mapping required for import.

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Hepatitis C

View Test Mapping	1100, Hepatitis C, Screening Lab/Hepatitis C antibody
Map Qualitative Results	0 / 1 mapped qualitative results
Keyword Search	Keywords found in comment segments form the basis for results for import
Range Mapping Setup	No format
Last HL7	Last received result information for the test
Purge By Test	Purge holding tank data for the test code
Clinical Setup	Manage Available Clinical Definitions for Providers

Map Qualitative Results

If a qualitative result needs to be mapped, that test remains in the unprocessed queue until the mapping is completed by an admin user.

Administrative Options > Data Import and Export Features > Lab Test Mapping Tool > HL7 Test Mappings > Hepatitis C > HL7 Result Mappings

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HL7 Result Mappings

Search:

MSH3 (Application)	OBX6 (Reported Result)	RW CAREWare Qualitative Result	Skip
1100	Positive		

To complete the mapping for the qualitative result, follow these instructions:

1. Click *Map Qualitative Results*.
2. Click the *Reported Result*.
3. Click *View*.
4. Click *Edit*.
5. Search for the result in *RW CAREWare Qualitative Result* by typing the expected result or using the search icon.
6. Click the result to select it.
7. Click *Save*.


Administrative Options > Data Import and Export Features > Lab Test Mapping Tool > HL7 Test Mappings > Hepatitis C > HL7 Result Mappings > View > Edit

Save Cancel

Edit

MSH3 (Application ID):

OBX6 (Reported Result):

RW CAREWare Qualitative Result: 

Skip:

If a result should be excluded from imports, select *Skip* and that lab result will no longer be imported.

Purge Holding Tank: Confirming this action cleans up records in the queue that are not to be imported. This should be used with great caution and with the knowledge that purging is enforced on all import data received for the result.

Keyword Search: If keyword search is chosen for a qualitative lab, admin users can set up keywords to search within comments (the NTE segment immediately following the OBX result segment). Keywords are ranked by priority and the matched keyword with the highest priority will be assigned as a result value for the incoming test. If none of the keywords set up for the test mapping are identified within comments, the import process assigns a "NULL" result and moves on to the next step.

Range Mapping Setup

In some cases, numeric values are reported for qualitative tests. Range Mapping setup is intended to prevent users from having to match each result within a range. These numeric results can be mapped to a qualitative result by setting a range of values and mapping each range to a qualitative result. Details are listed below.

Administrative Options > Data Import and Export Features > Lab Test Mapping Tool > HL7 Test Mappings > Chloride, Serum

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⚙️ Chloride, Serum

View Test Mapping	1100, Chloride, Serum, Screening Lab/Chloride
Map Qualitative Results	1 / 2 mapped qualitative results
Keyword Search	Test Mapping should be updated to include keyword search feature
Range Mapping Setup	No format
Last HL7	Last received result information for the test
Purge By Test	Purge holding tank data for the test code
Clinical Setup	Manage Available Clinical Definitions for Providers

To add a range mapping to a test, follow these instructions:

1. Click *Range Mapping Setup*.
2. Click *Add*.

Administrative Options > Data Import and Export Features > Lab Test Mapping Tool > HL7 Test Mappings > Chloride, Serum > Range Mapping Setup

[Use Selected Mapping](#) [Remove Mapping](#) [Manage](#) [Add](#) [Delete](#) [Back](#) [Print or Export](#)

Existing Templates

Search:

Template	Mapped	Total Items
Serum Results		3

3. Enter a *Group Description*.

Current Test only - Checking this limits scope of usage to this qualitative test only. Leaving it unchecked leaves the option to apply these mappings to other test codes with the similar results.

4. Click *Save*.
5. Click *Range Mapping Items*.

Administrative Options > Data Import and Export Features > Lab Test Mapping Tool > HL7 Test Mappings > Chloride, Serum > Back

Chloride Results

View Template Chloride Results

Range Mapping Items 3 total number items setup

6. Click *Add*

Administrative Options > Data Import and Export Features > Lab Test Mapping Tool > HL7 Test Mappings > Chloride, Serum > View Add Delete Back Print or Export

Number Group Format Items

Search:

Min. Value	Max. Value	Qualitative Result
	50	0/Negative
50	200	1/Positive
200		6/NMI

- Enter the *Max. Value*.
- Search for the *RW CAREWare Qualitative Result* to which the range of values is mapped.
- After completing the range map setup, choose the *Use Selected Mapping* menu item to apply the range mapping to the current test code.

Administrative Options > Data Import and Export Features > Lab Test Mapping Tool > HL7 Test Mappings > Chloride, Serum > Use Selected Mapping Remove Mapping Manage Add Delete Back Print or Export

Existing Templates

Search:

Template	Mapped	Total Items
Serum Results		3
Chloride Results	Yes	3