

# **Laboratory Data Sharing and Interoperability (LDSI)**

## **Laboratory Electronic Data Interchange IV (LEDI IV)**

VA Shield



### **LDSI/LEDI IV User Manual**

**Version 2.7  
August 2013  
(Revised January 2018)**

**Department of Veterans Affairs (VA)  
Office of Information and Technology (OIT)  
Product Development (PD)**



# Revision History

Date	Revision	Description	Authors
1/2018	2.7	<p>Changes for patch LR*5.2*495. The change affects how the SNOMED CT update for files 61, 61.2, and 62 is sent to the receiving facilities.</p> <ul style="list-style-type: none"> <li>Updated the title page.</li> <li>Modified Section <a href="#">4.1.2</a>.</li> <li>Modified Section 5.3.20, <a href="#">Figure 41. Load SNOMED SCT Mapping [LA7S LOAD MAPPING SCT]</a>.</li> </ul>	<p>Mantech Mission, Solutions and Services</p> <p>NDS Developer: D.G</p> <p>NDS Analyst, N.B.</p> <p>NDS Tester, A.S.</p>
8/15/13	2.6	<p>Sr. VA Leadership decision was made on 8/8/13 to remove the AP Results from the LEDI IV Update Patch, due to regulatory concerns.</p> <p>Added a note to the Introduction section indicating that the AP Results would not be available in the LEDI IV Update Patch.</p>	J. Rogers
7/29/13	2.5	<p>Added input from CLIN 4:</p> <ul style="list-style-type: none"> <li><b><u>Section 1.1.3:</u></b></li> </ul> <p>Clarified the VA to DoD interface overview,</p> <ul style="list-style-type: none"> <li><b><u>Section 2.2.1, Step 5:</u></b></li> </ul> <p>Added two notes on the HL7 interface,</p> <ul style="list-style-type: none"> <li><b><u>Section 2.2.2:</u></b></li> </ul> <p>Modified steps 1-8 under LIM responsibilities,</p> <ul style="list-style-type: none"> <li><b><u>Section 4.1.2, point 1:</u></b></li> </ul> <p>Clarified SNOMED set ups,</p> <ul style="list-style-type: none"> <li><b><u>Section 4.1.2, Note #3:</u></b></li> </ul> <p>Provided more detail on the SNOMED CT process,</p> <ul style="list-style-type: none"> <li><b><u>Section 4.2.1, Reference B., Appendix B.</u></b></li> </ul> <p>Added new reference “How Notifications Work”.</p> <ul style="list-style-type: none"> <li><b><u>Section 4.7.1, Figure 5:</u></b></li> </ul> <p>Replaced “Enter/Edit Update Signature Code with the “Person Class Edit Option” screen,</p> <ul style="list-style-type: none"> <li><b><u>Section 4.7.1, Figure 9:</u></b></li> </ul> <p>Added examples of the use of a bar code UID with an AP Host and Collection facility,</p> <ul style="list-style-type: none"> <li><b><u>Section 4.7.2, Figure 17:</u></b></li> </ul> <p>Added note that the Techs may view an interim report verified using EA,</p>	J. Rogers

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		<ul style="list-style-type: none"> <li>• <b><u>Section 5.2.1, Table 2:</u></b> Parameter Precedence Order: Modified logic for the method of assigning the AP Accession number,</li> <li>• <b><u>Section 5.3.2: Manage MI/AP Test Mappings</u></b> Added example to the screen of when the mapping needs to be performed.</li> <li>• <b><u>Section 5.4.13:</u></b> Designation of Performing Laboratory –added that a site requiring a performing Laboratory other than the default local Institution Name, must have that performing lab listed in File # 4.</li> <li>• <b><u>Section 5.4.21:</u></b> On the Print Log Book, added example of selecting by UID and provided a more clear example of how the users can select by Accession number,</li> <li>• <b><u>Glossary:</u></b> Updated the definitions of SNOMED CT and VDL.</li> </ul>	
5/24/13	2.4	<p>Input from CLIN 4 personnel includes:</p> <p>Replacing the “MD” and “D.O.” abbreviations with updated PERSON CLASS names for e-signatures in Section 4.7.1,</p> <p>Updating Enter/Edit File Entry – Update Signature Code screen</p>	J. Rogers
5/16/13	2.3	<p>Made numerous revisions to make document more 508 compliant as follows:</p> <p>Added “Editor Notes” to allow the visually impaired to see special hints and tips on the screen captures.</p> <p>Added screen tips at the web links identified as warning markers by the 508 Compliance Checker. These screen tips allow the reader to see where the hyperlink will take them.</p> <p>Ensured there were bookmarks at the left top corner of each table.</p> <p>Took minus symbols out of the table of contents.</p>	J. Rogers
4/22/13	2.2	<p>Revisions to the LEDI IV User Manual that now includes the LEDI IV Update patch. This version will be used by the field test sites for the LEDI IV Update patch (LR*5.2*427/LA*5.2*80).</p> <p>The Changes for the Update patch are listed below and are hyperlinked at the section numbers:</p> <p><b><u>Section 1.1:</u></b></p> <p>Added detail on the AP/MICRO Interface that now</p>	J. Rogers

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		<p>allows data interchange between VA, DoD and Commercial Reference Labs.</p> <p><b><u>Section 2.2.1:</u></b></p> <p>Added a step for the IRM to schedule the check of the SNOMED CT Mappings Against the Lexicon every two weeks.</p> <p><b><u>Section 4.1.2:</u></b></p> <p>Added in the <b>LIM</b> instructions for updating the SNOMED CT codes at a lab site. Also, Enable editing of the NAME (.01) fields in files 61, 61.2 and 62.</p> <p>Last, added the message that displays to the Lab site when the SNOMED CT update sent by STS does not match the mappings done by the lab. The description of the code change is included.</p> <p><b><u>Section 4.2.2:</u></b></p> <p>Added method by which the LIMs can add 3 critical fields to a Stub Report on a MICRO organism result sent back by the Performing Site.</p> <p><b><u>Section 4.4.1:</u></b></p> <p>Modified AP reports to display the new acronym for Joint Pathology Center (JPC).</p> <p><b><u>Section 4.4.2:</u></b></p> <p>Listing of features added for the addition of Anatomic Pathology (AP) Orders and Results.</p> <p><b><u>Section 4.7.1 and 4.7.2, Figures 5 - 19:</u></b></p> <p>Enable AP/MICRO interface. Added signature update feature. Re-added functionality for AP/MICRO interface functionality that had been removed from the User Manual. The assumption that "LSRP" will be taking over AP/MICRO communications is no longer valid.</p> <p><b><u>Section 5.2.1 and 5.2.2:</u></b></p> <p>Added new Parameter "Method of Assigning AP Accession Number" to the Parameter lists as well as to Figure # 21.</p> <p><b><u>Section 5.2.3:</u></b></p> <p>Specified a setting of 132 on the Lab Parameters print report. This setting prevents line wrapping from occurring.</p> <p><b><u>Section 5.3.24:</u></b></p>	

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		<p>Added in new option to 'Check SNOMED CT Mappings Against the Lexicon'</p> <p><b><u>Section 5.4.12:</u></b></p> <p>Method of Assigning AP Accession Number parameter. Modified the way AP Accession Numbers are defaulted.</p> <p><b><u>Section 5.5.9:</u></b></p> <p>Move Pathologist signature on AP &amp; MICRO e-reports. See revised AP/MICRO e-report.</p> <p><b><u>Glossary Section:</u></b></p> <p>Corrected the definition of eGFR. The option [LRUCHGDIV] used by LIMs to change divisions (to assist with troubleshooting, data entry, information lookup, etc.) was deactivated with patches LA*5.2*74/LR*5.2*350. It is noted in this User Manual update Table of Contents for the first time.</p>	
09/17/12	2.1	<ul style="list-style-type: none"> <li>Added a reference to the Install Guide for the manual running of File 63 Remediation,</li> <li>Added descriptive text by the screens that have "dialogue bubbles" to ensure 508 compliance.</li> </ul>	J. Rogers
09/14/12	2.0	<ul style="list-style-type: none"> <li>Added the words "Lab System" to the end of the page 1 Introduction sentence that describes the Future of Lab. Clerical fix only.</li> </ul>	J. Rogers
09/10/12	2.0	<ul style="list-style-type: none"> <li>Added a reference to the LEDI IV FAQs</li> </ul>	J. Rogers
09/05/12	1.9	<ul style="list-style-type: none"> <li>Added a hyperlink that takes the reader directly to the LEDI IV Install Guide.</li> </ul>	J. Rogers
09/04/12	1.8	<ul style="list-style-type: none"> <li>Removed certain references to "Lab System" and replaced it with future LEDI patch since the AP/MICRO and LOINC features will be in a future LEDI patch.</li> <li>Removed all references to LSRP and replaced it with "Lab System".</li> <li>Replaced the LSRP on the screen shots with LEDI.</li> <li>Input from CLIN 4.</li> <li>Copied over more detailed steps for the IRM and LIM to follow from the Install Guide (Section 2.2),</li> <li>Reformatted Section 3.3 and reduced the white space in the screen shots, (Non-content changes.)</li> <li>Reformatted the File 63 Remediation section to make the bullets consistent.</li> <li>Modified User Manual to match CLIN 4</li> </ul>	J. Rogers, L. Teitelbaum. T. Conlin, C. Murch

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		<p>comments on the Installation Guide. That is, replaced several “Laboratory System” references with “Future LEDI patch” since there will be another LEDI patch that will include AP/MICRO prior to the implementation of the Laboratory System.</p>	
07/23/12	1.7	<ul style="list-style-type: none"> <li>• Updates from the LEDI IV, Implementation team and CLIN 4 users’ review.</li> <li>• Updated File 63 Remediation section to reflect that when the Lab personnel run the remediation tool manually, the tool will repair the errors that were known at the time the tool was developed.</li> <li>• Specified that File 63 Remediation errors be handled by local site personnel with VistA Programmer access.</li> <li>• Added that the File 63 Analysis and Reporting process can be manually kicked off by the local site personnel. Also, that the File 63 Remediation errors be cleaned up prior to the site converting to the LSRP COTS system.</li> <li>• Input from Dev on section 5.3.1, 5.4.14 and 5.4.16.</li> <li>• Added in CR00008076. New Sort for ‘CH’ File 63 Remediation report. See section 5.5.</li> <li>• Added that the AP lab alerts are sent to the Primary Care Provider for outpatients.</li> <li>• Modified the File 63 Remediation functionality to reflect changes arising from testing. It now runs monthly, not nightly.</li> <li>• Renamed LR MANIFEST DEFLT ACCESSION from LA to LR. Also removed “7S” in the title.</li> <li>• Removed three duplicate entries from the General Lab Parameters table.</li> <li>• Renamed LR MANIFEST EXC PREV TEST from LA to LR. Also removed “7S” in the title.</li> <li>• Added a new Parameter to the LEDI IV Patch Parameters “Prompt CPRS Alert in CH Result Entry”.</li> <li>• Procedures for the Addition of Mycobacterium Antibiotics to File #62.06, per Field Input.</li> <li>• Added functionality to allow users to edit reference ranges. Now users who have the LRDATA key can enter a tilde (~) at the result prompt to edit units/reference ranges for lab tests.</li> <li>• Added that the SNOMED CT Codes must match between two sites.</li> </ul>	J. Rogers

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		<ul style="list-style-type: none"> <li>Added the setting and sending of three lab result alert types to the Chemistry/Hematology section.</li> <li>CCR 7961 CLOSED Shipping Manifest allows a site to add/remove tests from an Open or a Closed manifest. No longer from a "Canceled Manifest".</li> <li>Modified the File 63 Remediation mail group back to where it was before – the LMI group is notified of File 63 Remediation errors whether in test or in production.</li> <li>Removed the references to the error messages for the entering of SNOMED CT IDs since they are listed in the Install Guide. Avoids duplication.</li> </ul>	
04/13/12	1.6	<ul style="list-style-type: none"> <li>Minor changes to section numbering to bring it up to date. No content changes.</li> </ul>	J. Rogers
04/03/12	1.6	<ul style="list-style-type: none"> <li>Updated per Feedback from CLIN 4:</li> <li>Clarified in section 1.14 that the (CH) subscript is available prior to the LSRP COTS being implemented,</li> <li>Clarified in the Scope section that the AP/MICRO interface is not enabled in LEDI IV until the release of the LSRP COTS system.</li> <li>Removed an ambiguous line from section 2 pertaining to the use of LEDI IV.</li> <li>Removed "For Government Use Only" from the footer since this document will be placed on the VDL.</li> <li>Clarified that the LRAP VR option will only be used by those sites that have been part of the prior testing,</li> <li>Clarified that the LA7VPFL option will not be used until a future date. (To support LSRP COTS.)</li> <li>Clarified that the LA7V 62.47 ADD DOD option will not be used until a future date. (To support LSRP COTS.)</li> <li>De-identified certain data elements (accession number, street name and patient name) per VHA standards.</li> <li>Moved and aligned the text clouds with the sentences they pertained to – for 508 compliance.</li> <li>Met with Internal Development team. Went over additional CLIN 4 comments.</li> <li>Incorporated Team Input from 3/30 and 4/2 reviews. Also, clarified several points for CLIN 4.</li> </ul>	J. Rogers



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03/22/12	1.5	<ul style="list-style-type: none"> <li>Minor updates: Added File #64 to two WKLD References.</li> <li>Removed the second (duplicate) screen shot under the LRAPLG Log-In Anatomy Pathology Log in Section.</li> </ul>	J. Rogers
03/20/12	1.5	<p>Tech edit review:</p> <p>Updated the document to follow the current national documentation standards and styles.</p> <p>Updated the document for formatting and styles to conform to the LSRP document template.</p> <p>Added section breaks before each major section/chapter.</p> <p>Modified document for double-sided printing:</p> <ul style="list-style-type: none"> <li>Added Odd and Even pages.</li> <li>Updated Headers and Footers in all sections.</li> <li>Made sure all sections end on an even page.</li> <li>Fixed all page numbering to be continuous.</li> </ul> <p>Added a "Figures and Tables" section.</p> <p>Added an "Orientation" section; copy taken from current LSRP document modified to fit LDSI/LEDI IV.</p> <p>Moved the "Blood Bank" section into the added "Orientation" section.</p> <p>Promoted some bulleted items to Heading 3 style and reformatted other lists throughout the document.</p> <p>Added file names to file number references throughout this document.</p> <p>Added user entries in boldface and yellow highlights to screen capture figures throughout.</p> <p>Added captions to all tables and figures throughout.</p> <p>Corrected/Added organization acronyms and references for first occurrence in each chapter and as needed.</p> <p>Made minor grammar, punctuation, and spelling updates as needed.</p>	T. Blom
03/16/12	1.4	<p>Removed the Lexicon note under Section 4.12 – SNOMED CT. It was deemed irrelevant by the developers and STS.</p> <p>Input from CLIN 4 to the document.</p> <p>Added Dev Team modifications to the Manual post CLIN 4 Review Meeting.</p> <p>Added Parameter list, options and screen captures.</p> <p>Updated how Non-Performed "NP" tests are</p>	J. Rogers

## Revision History

Date	Revision	Description	Authors
		handled in the New LEDI IV Options section.	
02/29/12	1.3	Included the HDI*1.0*7 patch within the LEDI IV build. Added the message that displays when the File 63 Remediation tool finds an error after the install or after completing the nightly data dictionary check. Clarified that the LEDI IV Install Guide covers the Installation and not the configuration, aka Setup of LEDI IV in Section 6.2 below.	J. Rogers
02/02/12	1.2	Removed section on CCR 5519 and placed the setting up of lab names in to the Install manual. Renamed Document as LEDI IV User Manual.	J. Rogers
01/27/12	1.1	Removed all references to "Cerner", "Pathnet" and "Millennium". Replaced said references with "LSRP COTS". This change will prevent any legal issues from arising since LSRP is not yet fully released to Production. Removed the LEDI IV interface set-up instructions for both the VistA Host Facility Communicating with LSRP COTS Collecting Facility & the VistA Collecting facility communicating with the LSRP COTS Host facility. The LSRP team will be documenting these steps.	J. Rogers
01/11/12	1.0	Base line version for ORR, removed Draft.	J. Rogers, S. Bunker
01/09/12	0.16	Added details on eGFR per PM direction, Accepted revision marks from ESE input, Removed General Lab from Section 4 per Development input, Updated the first new option for LEDI IV in section 5 with a screen shot. (Ask Performing Lab.)	J. Rogers
12/22/11	0.15	Include VA to LSRP COTS set ups toward the end of the manual.	L. Teitelbaum, J. Rogers
12/14/11	0.14	Additional input from DEV: both technical as well as form and style.	L. Teitelbaum, J. Rogers
12/13/11	0.13	Combined Impl. Guide with the User Manual due to overlapping instructions. Updated the CCRs with additional info from Development.	J. Rogers,
12/07/11	0.12	Updates from Dev Team Meeting.	L.Harmon J. Rogers
11/16/11	0.11	Incorporated feedback from team members. Added the 5 CCRs arising from the Alpha Test. Removed Glossary Terms that are not used in the software or this manual.	J. Rogers

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11/10/11	0.11	Removed References to LSRP as well as Micro/AP Electronic Ordering and Resulting for Use at the LEDI IV BETA Sites.	J. Rogers
7/27/2011	0.10	Updated section 2.4.	Y. Munipalli
6/1/11	0.9	Updated section 3.1.4.	B. Youngblood
5/18/11	0.8	Section 3.1.2 added step 4 Section 2.3 added 2 <sup>nd</sup> Bullet.	M. Blendell
5/18/11	0.7	Added section 2.6	M. Blendell
05/17/11	0.6	Updated document content.	B. Youngblood
05/06/11	0.5	Applied LSRP standard template to the guide.	S. Bunker
05/05/11	0.4	Cleaned up rough tech edit.	M. Blendell
05/04/11	0.3	Updated document content.	B. Youngblood E. Harrison
04/01/11	0.2	Updates.	C. Anderson C. Beynon
03/01/11	0.1	Initial document:	C. Anderson C. Beynon

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# Orientation

## ***How to Use this Manual***

This manual is intended for use in conjunction with the Laboratory Data Sharing and Interoperability (LDSI) Laboratory Electronic Data Interchange IV (LEDI IV). This manual provides instructions for using LEDI IV.

There are two patches that provide an update to the LEDI IV functionality in this User Manual: LR\*5.2\*427 and LA\*5.2\*80. LR\*5.2\*427 and LA\*5.2\*80 consist of both maintenance fixes as well as an enhancement to allow AP/MICRO orders and results to be sent and received electronically. There is also a new set of manual procedures allowing a LIM to update the SNOMED CT codes at a Lab.

## ***Intended Audience***

The intended audience of this manual includes the following stakeholders:

(Primary) Information Resource Management (IRM), system administrators, or other technical staff who are tasked with installation and implementation of LEDI IV related software in all VistA environments.

Laboratory Automated Data Processing Application Coordinators (ADPACS) and Laboratory Information Managers (LIM).

Product Support (PS).

## ***Legal Requirements***

There are no special legal requirements involved in the use of the LDSI LEDI IV software.

## ***Blood Bank Clearance***

### **VistA Blood Bank Software V5.2 Device Product Labeling Statement**

VistA Laboratory Package patches LA\*5.2\*74/LR\*5.2\*350 contain changes to software controlled by VHA Directive 2004-053, titled VistA Blood Bank Software.

Changes involve two routines: LRU and LRX.

These changes were reviewed by the VistA Blood Bank Developer and found to have no impact on the VistA Blood Bank Software control functions.

LEDI IV Updates for LA\*5.2\*80/LR\*5.2\*427:

VISTA Laboratory Package patches LA\*5.2\*80/LR\*5.2\*427 contain changes to software controlled by VHA DIRECTIVE 2004-058, titled VISTA BLOOD BANK SOFTWARE. The changes involve four

files: LAB CODE MAPPING (#62.47), LA7 MESSAGE PARAMETER (#62.48), COLLECTION SAMPLE (#62) & LAB DATA (#63).

The changes also involve thirteen fields: SEQUENCE (#.001), CONCEPT (#.01), ALTERNATE CONCEPT (#.04), IDENTIFIER (#62.4701,.01), CODING SYSTEM (#62.4701,.02), NATIONAL STANDARD (#62.4701,.05), RELATED ENTRY (#62.4701,2.1), MESSAGE CONFIGURATION (#62.4701,2.2), SEQUENCE (#62.482,.001), VA FILE ENTRY (#62.482,.01), SNOMED CT ID (#62.482,.02) , NAME (#.01) and FUNGUS/YEAST (#63.37,.01).

All of the above changes for LA\*5.2\*80/LR\*5.2\*427 have been reviewed by the VISTA Blood Bank Developer and found to have no impact on the VISTA BLOOD BANK SOFTWARE control functions.

## **Risk Analysis**

Changes made by patches LA\*5.2\*74/LR\*5.2\*350 have no effect on Blood Bank software functionality, therefore Risk is none.

LEDI IV Updates for LA\*5.2\*80/LR\*5.2\*427:

The changes made by patch LA\*5.2\*80/LR\*5.2\*427 have no effect on Blood Bank software functionality, therefore RISK is none.

## **Effect on Blood Bank Functional Requirements**

Patches LA\*5.2\*74/LR\*5.2\*350 do not alter or modify any software design safeguards or safety critical elements functions.

LEDI IV Updates for LA\*5.2\*80/LR\*5.2\*427:

Patches LA\*5.2\*80//LR\*5.2\*427 does not alter or modify any software design safeguards or safety critical elements functions.

## **Potential Impact on Sites**

These patches contain changes to two routines and 0 files identified in Veterans Health Administration (VHA) Directive 2004-053, group B listing. The changes have no effect on Blood Bank functionality or medical device control functions. There is no adverse potential to sites.

LEDI IV Updates for LA\*5.2\*80/LR\*5.2\*427:

These patches contain changes to 0 routines and 2 files identified in Veterans Health Administration (VHA) Directive 2004-058, group B listing. The changes have no effect on Blood Bank functionality or medical device control functions. There is no adverse potential to sites.

## **Validation Requirements by Option**

There are no validation requirements by option for these patches.

Minimal Test Case Scenarios by Option, Inclusive of All Control Functions: There are no test case scenarios for these patches.

LEDI IV Updates for LA\*5.2\*80/LR\*5.2\*427:

There are no validation requirements by option.

## Disclaimers

This manual provides an overall explanation of how to use the LEDI IV software options; however, no attempt is made to explain how the overall VistA programming system is integrated and maintained. Such methods and procedures are documented elsewhere. We suggest you look at the various VA websites on the Internet and VA Intranet for a general orientation to VistA. For example, go to the Office of Information and Technology (OIT) VistA Development VA Intranet website: <http://vista.med.va.gov>





**DISCLAIMER:** The appearance of any external hyperlink references in this manual does not constitute endorsement by the Department of Veterans Affairs (VA) of this website or the information, products, or services contained therein. The VA does not exercise any editorial control over the information you may find at these locations. Such links are provided and are consistent with the stated purpose of the VA.

## Documentation Conventions

This manual uses several methods to highlight different aspects of the material:

Various symbols/terms are used throughout the documentation to alert the reader to special information. The following table gives a description of each of these symbols/terms:

**Table ii. Documentation symbol/term descriptions**

Symbol	Description
	<b>NOTE/REF:</b> Used to inform the reader of general information including references to additional reading material. In most cases, you will need this information, or at least it will make the installation smoother and more understandable. Please read each note <i>before</i> executing the steps that follow it!
	<b>CAUTION, DISCLAIMER, or RECOMMENDATION:</b> Used to inform the reader to take special notice of critical information.

Descriptive text is presented in a proportional font (as represented by this font).

Some of these screen dialogue formats below have been modified from their original version. They have been formatted to fit this document.

"Snapshots" of computer commands and online displays (i.e., screen captures/dialogues) and computer source code, if any, are shown in a *non*-proportional font and may be enclosed within a box.

- User's responses to online prompts will be **bold** yellow typeface.  
(e.g., <**Enter**>).
- Editor's comments are displayed in *italics* preceded by the phrase "*Editor Note*".



**NOTE:** Callout boxes refer to labels or descriptions usually enclosed within a box, which point to specific areas of a displayed image.

Besides established styles and conventions, the following additional text formatting will be used to further highlight or emphasize specific document content:

- **Bold Typeface:**
  - All computer keys when referenced with a command (e.g., "press **Enter**" or "click **OK**").
  - All references to computer dialogue tab or menu names (e.g., "go to the **General** tab" or "choose **Properties** from the **Action** menu").
  - All values entered or selected by the user in computer dialogues (e.g., "Enter '**xyz**' in the Server Name field" or "Choose the **ABCD** folder entry from the list").
  - All user text (e.g., commands) typed or entered in a Command-Line prompt (e.g., "Enter the following command: **CD xyz**").
- **Italicized Typeface:**
  - Emphasis (e.g., do *not* proceed or you *must* do the following steps).
  - All reference to computer dialogue or screen titles (e.g., "in the *Add Entries* dialogue...").
  - All document or publication titles and references (e.g., "see the *ABC Installation Guide*").

**Step-by-Step Instructions**—For documentation purposes, explicit step-by-step instructions for repetitive tasks (e.g., "Open a Command-Line prompt") are generally only provided once. For subsequent steps that refer to that same procedure or task, please refer back to the initial step where those instructions were first described.

## ***Documentation Navigation***

Document Navigation—This document uses Microsoft® Word's built-in navigation for internal hyperlinks. To add **Back** and **Forward** navigation buttons to your toolbar, do the following:

1. Right-click anywhere on the customizable Toolbar in Word (not the Ribbon section).
2. Select **Customize Quick Access Toolbar** from the secondary menu.
3. Press the dropdown arrow in the "Choose commands from:" box.
4. Select **All Commands** from the displayed list.
5. Scroll through the command list in the left column until you see the **Back** command (green circle with arrow pointing left).
6. Click/Highlight the **Back** command and press the **Add** button to add it to your customized toolbar.
7. Scroll through the command list in the left column until you see the Forward command (green circle with arrow pointing right).
8. Click/Highlight the Forward command and press the **Add** button to add it to your customized toolbar.
9. Press **OK**.

You can now use these **Back** and **Forward** command buttons in your Toolbar to navigate back and forth in your Word document when clicking on hyperlinks within the document.



**NOTE:** This is a one-time setup and will automatically be available in any other Word document once you install it on the Toolbar.

## ***Definitions, Acronyms, and Abbreviations***

All LEDI IV definitions are included in the Glossary section at the end of this manual.

## ***Assumptions***

This manual is written with the assumption that the reader is experienced or familiar with the following:

VistA computing environment:

- Laboratory—VistA M Server software.
  - Blood Bank.
  - Anatomic Pathology.
  - Microbiology.
  - Chemistry.
  - Previous versions of the LEDI software.
- Kernel—VistA M Server software.
- VA FileMan data structures and terminology—VistA M Server software.

Microsoft Windows

M programming language.



## Reference Materials

Readers who wish to learn more about LEDI installations should consult the *LEDI IV Installation Guide* available at the following link:

<http://www.va.gov/vdl/application.asp?appid=75>

VistA documentation is made available online in Microsoft Word format and Adobe Acrobat Portable Document Format (PDF). The PDF documents *must* be read using the Adobe Acrobat Reader, which is freely distributed by Adobe Systems Incorporated at the following website: <http://www.adobe.com/>

VistA documentation can be downloaded from the VA Software Documentation Library (VDL) website: <http://www.va.gov/vdl/>

There is a LEDI IV Frequently Asked Questions (FAQ) Guide available on the LEDI Lab Share Point.

Because LEDI IV is a controlled release, access to the software will be provided to sites on a case-by-case basis depending on the implementation schedule. However, the VistA documentation can be downloaded from the Product Support (PS) anonymous directories.

Preferred Method download.vista.med.va.gov



**NOTE:** This method transmits the files from the first available File Transfer Protocol (FTP) server.

Hines OIFO                      ftp.fo-hines.med.va.gov

Salt Lake City OIFO        ftp.fo-slc.med.va.gov

The LEDI IV Update patch will be released to all lab sites simultaneously after the LEDI IV phased national rollout is complete.



# 1 Introduction

Laboratory Electronic Data Interchange (LEDI) IV update software introduces enhancements to the bi-directional interface that allows Department of Veterans Affairs (VA) laboratories to communicate with other VA facilities, Commercial Reference Laboratories and DoD. The LEDI IV update software has the capacity and features necessary for sharing secure, encrypted data between the VA and DoD facilities.



**NOTE:** The LEDI IV Update patch is enabling the micro interface for orders and results, as well as the AP orders interface. However, the sending of AP results from VA Host Labs to other VA Labs, DoD Labs and Commercial Reference Labs will still be disabled. The AP Host Labs will continue to use their existing processes to return the resulted sample to the Collecting Labs.

The purpose of this Manual is two-fold:

Serve as the user manual.

Provide instructions to implement Laboratory Electronic Data Interchange version IV (LEDI IV) after installing the software.

The software has the capacity and features necessary for sharing secure, encrypted laboratory data between:

VA to VA.

VA to Commercial Reference Laboratories.

VA to Department of Defense (DoD).

The LEDI IV and LEDI IV update software are extensions of the LEDI III software. The software includes this new functionality:

SNOMED CT Mapping (collection samples, etiology, topography).

AP Orderable configuration.

Adding and editing antimicrobials & drugs.

File 63 Remediation.

New Parameters.

Recording of the performing laboratory for AP and Micro.

The LEDI IV update software patch allows AP/MICRO electronic ordering and resulting.

## Intended Users

The intended users of LEDI IV include the laboratory personnel of the VA Medical Centers.

## 1.1 Communication Interfaces

### **1.1.1 VA to VA**

LEDI IV Update software enhances the general LEDI IV functionality. LEDI IV Update software enhances the current LEDI IV functionality.

It supports the sending and receiving of Microbiology and Anatomic Pathology (AP) orders and results between the associated Veterans Health Information Systems and Technology Architecture (VistA) Lab database and other VAs.

### ***1.1.2 VA to Commercial Reference Laboratories***

LEDI IV Update software enhances the general LEDI IV functionality. It adds the capability of transferring AP and Micro orders to commercial reference laboratories and the receipt of AP and Micro results from those laboratories

### 1.1.3 VA to Department of Defense (DoD)

LEDI IV Update software enhances LEDI IV functionality. It supports the sending and receiving of Microbiology and Anatomic Pathology (AP) orders and results between the associated Veterans Health Information Systems and Technology Architecture (VistA) Lab database and DoD labs.

## 1.2 File #63 Remediation Tool

The LEDI IV software creates a tool to check the LAB DATA File (#63) for data dictionary issues.

Checks for the following issues:

- Errors that might have occurred when an antibiotic was added by the local site to the ORGANISM sub-field (#63.3) of the LAB DATA file (#63).
- Errors with data names in the LABORATORY TEST file (#60), for tests in the Clinical Chemistry (Chemistry and Hematology) section. It checks the CHEM, HEM, TOX, RIA, SER, etc. sub-file (#63.04) of the LAB DATA file (#63) looking for possible discrepancies in the data dictionary.
- **File Remediation runs on three occasions:**
  - Automatically during install in Analyze and Report mode.
  - Runs automatically once each month as part of the LR NIGHTY task in analyze mode after the successful installation of LEDI IV.
  - Manually under the direction of a LAB SME. See Install Guide for details.
- **For errors in a Production (or test) database, the system generates an email message and sends it to the LMI Mail Group.**
- **For the remaining (unrepaired) File 63 issues, the site should then log a Remedy ticket and not try to fix the error(s) on its own.**

The error message that displays to the users after the LR NIGHTY run, reads as follows:

"Contact the National Service Desk to request assistance from the Clin 4 Product Support team in resolving the following errors identified in the VistA Laboratory package:"

If you see this message, enter a Help Desk ticket or have the National Service Desk enter a ticket for you. CLIN 4 personnel will assist the site in correcting the reported errors.

**NOTE:** It is very important to analyze and fix the critical errors to ensure accurate lab results.

## **2 LEDI IV Requirements**

### ***2.1 Messaging Interface Implementation Requirements***

Implementation of the Laboratory Electronic Data Interchange (LEDI) IV Health Level Seven (HL7) messaging interface between VA to VA and VA to external reference laboratories consists of three parts:

**VA to VA:**

- Veterans Health Information Systems and Technology Architecture (VistA) Laboratory LEDI IV software.
- VistA HL7 application software.

**VA to Commercial Reference Laboratory:**

- VistA Laboratory LEDI IV software.
- VistA HL7 application software.
- Commercial Reference Laboratory non-VA information system capable of sending and receiving Laboratory HL7 order and result messages (i.e., LabCorp, Quest).

**VA to Department of Defense (DoD):**

- VistA Laboratory LEDI IV software.
- VistA HL7 application software.
- Vitria Interface Engine.

### ***2.2 Staffing Requirements for LEDI IV***

### **2.2.1 Information Resource Management (IRM) staff is required for software installation, including:**

1. Installing the LEDI IV bundle (HDI\*1.0\*7, LA\*5.2\*74 and LR\*5.2\*350), as well as the LEDI IV Update patches which include LR\*5.2\*427 and LA\*5.2\*80.
2. Establishing mail groups and menu assignments.
3. Loading the SNOMED CT mapping file, including updates sent by STS.
4. Scheduling the Check SNOMED CT Mappings Against the Lexicon [LA7TASK SCT MAPPINGS CHECK] option to run every two weeks.
5. If setting up VA to non-VA (DoD or commercial reference lab) then complete HL LOGICAL LINK file (#870) setup for LA7V xxx client logical link created by LEDI Setup option.

Note a: If this link has been created/setup for a previous existing interface then no action is required.

Note b: If VA to VA, then no action is required as the interface uses existing VAXxx logical links already established and configured.

6. If an electronic link (HL7 interface) is used for Micro and/or AP, edit the Lab Messaging Link field (#.07) to link the shipping configuration to the HL7 interface.
7. If an electronic link (HL7 interface) is used for Micro and/or AP, link, local Antimicrobial Susceptibility to the result codes used by the reference laboratory to report antibiotic susceptibilities.
8. Map the LEDI Micro and AP tests using option 'Manage MI/AP Test Mappings' [LRCAPFF] which establishes the relationships between the LABORATORY TEST (#60), the WKLD CODE (#64) and the LAB ELECTRONIC CODES (#64.061) files for LEDI MI/AP tests.



### **2.2.2 LIMS staff is needed for any software configurations including:**

1. Setting up the File #62 AP Collection Sample and File #60 Test(s).
2. Adding existing mycobacterium drugs to the Antimicrobial Susceptibility File #62.06.
3. Editing Package level Parameters if needed using the Package Level Parameter Edit [LR70 PAR PKG] option.
4. Setting up the Lab Shipping Files for Micro and AP using the options on the Lab Shipping Management Menu [LA7S MGR MENU].
5. If using the HL7 TCP/IP communication protocol for Micro and/or AP, complete the HL LOGICAL LINK file (#870) setup.
6. If an electronic link (HL7 interface) is used for Micro and/or AP, edit the Lab Messaging Link field (#.07) to link the shipping configuration to the HL7 interface.
7. If an electronic link (HL7 interface) is used for Micro and/or AP, the LIM should use the CFE option by selecting Edit Shipping Configuration [LA7S EDIT 62.9] (CFE) and then LAB MESSAGING LINK.
8. Map the LEDI Micro and AP tests using menu option National Laboratory File [LR70 60-64]. Then select National Laboratory File <NAME OF ACCOUNT> Option. Manage MI/AP Test Mappings' [LRCAPFF]. This establishes the relationships between the LABORATORY TEST (#60), the WKLD CODE (#64) and the LAB ELECTRONIC CODES (#64.061) files for LEDI MI/AP tests.

The LEDI IV installation process *must* be performed in the sequence specified in the Veterans Health Information Systems and Technology Architecture (VistA) *LEDI IV Installation Guide*.

## **2.3 Disk Space Requirements**

A 5-15% increase in disk space can be expected in the ^LR and ^LRO globals due to new fields. This 5-15% increase includes the AP data entered into the LAB ORDER ENTRY file (#69).

## **2.4 Performance/Capacity Impact**

Performance estimates and capacity measures are difficult to obtain, because LEDI IV software has components in several applications. It is estimated that LAB SERVICE and AUTOMATED LAB INSTRUMENTS applications may impact the system by requiring more Central Processing Unit (CPU) cycles.

## **2.5 Memory Constraints**

No memory constraints are associated with the release of the LEDI IV software.

## 3 Implementation

### 3.1 LEDI IV Implementation Instructions

The Laboratory Information Managers (LIMs) should refer to the Laboratory Electronic Data Interchange (LEDI) III implementation and user guides in the VA Software Document Library (VDL) for setting up the following LEDI interface types for CH subscript tests:

VA to VA—Host and Collection as well as Intra Division.

VA to Commercial Reference Labs—Collection.

VA to DOD Labs—Host and Collection.



**REF:** The LIMs should follow the detailed setup instructions in the LEDI III Implementation Guide (patches LA\*5.2\*64/LR\*5.2\*286) at this link:

<http://www.va.gov/vdl/application.asp?appid=75>

Users *must* also follow the LEDI IV configuration steps in the "Use of the LEDI IV Software" section in this manual. The AP/MICRO interface configuration processes are described in the AP/MICRO Configuration document.



**NOTE:** To assist with training end users, review this manual.

### 3.2 Parameter Setup Level Descriptions

The following are the three precedence levels that the user can use to set the parameter (listed in order of precedence):

1. User
2. Division
3. Package

For example, if a site sets the "Ask Performing Lab Micro" parameter to "NO" on the division level, but a specific user sets that parameter to "YES" on the User level, then all users in the division will *not* get prompted for a performing lab, except the user who sets it to "YES".

The Lab **User** parameters only control what an *individual* user sees. Each parameter can have different precedence levels defined.

**Table 1. Precedence of parameters**

Parameter	Level/Precedence	File
USR	User	NEW PERSON (#200)
DIV	Division	INSTITUTION (#4)
PKG	Package	PACKAGE (#9.4)

For example, the "EGFR Patient's Age Cutoff" parameter is only configurable at the Package and Division levels. The Division level takes precedence over the Package level.

See Section 5.2 for more details on the LEDI IV Parameters.

### ***3.3 Add Existing or Create New Mycobacterium Antibiotic Procedures***

LEDI IV changes the way Mycobacterium Antibiotics are handled. Mycobacterium Antibiotics are handled similar to Bacterial Antibiotics, and need to have an entry in the Antimicrobial Susceptibility File (#62.06).

### **3.3.1 Adding Existing Mycobacterium Antibiotics to the Antimicrobial Susceptibility File**

To add existing Mycobacterium Antibiotics (that were created pre-LEDI IV) to the Antimicrobial Susceptibility File (#62.06), use the option 'Edit an Antibiotic' [LRWU7 EDIT]. However, first you will need a listing of your current Mycobacterium Antibiotics. There are two methods to obtain a listing of Mycobacterium Antibiotics that exist in the Lab Data File (#63). The first method requires FileMan Data Dictionary access to the Lab Data File (#63); the other method requires access to the option 'Outline for one or more files' [LRUFILE] under the 'Lab liaison menu' [LRLIAISON]. For both methods, it's easiest if the output is captured in a text file, and then the user can search for '63.39'; the existing Mycobacterium Antibiotics will be displayed a few lines under '63.39'.

Note: To capture or log the session for a text file, the LIM should follow the specific documentation of the Terminal Emulator that they use.

**Method 1:** Using the FileMan 'Data Dictionary Utilities' menu [DI DDU], select the option 'List File Attributes' [DILIST]. Enter '63' for the 'Start with what' and 'Go to what' File, and then enter 'Microbiology' for the 'Sub-File'.

(Note: The output below has been shortened; some text has been replaced with '...')

**Figure 1. List File Attributes for File #63 from Data Dictionary**

```

VA FileMan 22.0

Select OPTION: 8 <ENTER> DATA DICTIONARY UTILITIES
Select DATA DICTIONARY UTILITY OPTION: LIST FILE ATTRIBUTES <ENTER>
  START WITH WHAT FILE: LAB DATA// <ENTER>
    GO TO WHAT FILE: LAB DATA// <ENTER>
      Select SUB-FILE: MICROBIOLOGY <ENTER>
        Select SUB-FILE:
          Select LISTING FORMAT: STANDARD// GLOBAL MAP <ENTER>
        DEVICE: 0;80;999 <ENTER> VIRTUAL TELNET
        GLOBAL MAP DATA DICTIONARY #63.05 -- MICROBIOLOGY SUB-FILE
                                APR 30,2012@09:12:33 PAGE 1
        STORED IN ^LR(D0,"MI", SITE: MHC DEVELOPMENT ACCOUNT UCI: MHCVSS,MHCVSS
        -----
        This is microbiology data associated with this patient.

CROSS
REFERENCED BY: MYCOBACTERIUM(AC), FUNGUS/YEAST(AD), PARASITE(AE), VIRUS(AF)

^LR(D0,"MI",D1,0)= (#.01) DATE/TIME SPECIMEN TAKEN [1D] ^ (#.02) DATE/TIME
==>OBTAINED INEXACT [2S] ^ (#.03) DATE REPORT COMPLETED [3D]
==>^ (#.04) VERIFY PERSON [4P:200] ^ (#.05) SITE/SPECIMEN
==>[5P:61] ^ (#.06) MICROBIOLOGY ACCESSION [6F] ^ (#.07)
==>PHYSICIAN [7P:200] ^ (#.08) WARD [8F] ^ (#.09) AMENDED
==>REPORT [9S] ^ (#.1) DATE/TIME RECEIVED [10D] ^ (#.055)
==>COLLECTION SAMPLE [11P:62] ^ (#.2) RESULTS ENTRY DATE
==>[12D] ^ (#.111) REQUESTING LOC/DIV [13V] ^ (#.112)
==>ACCESSIONING INSTITUTION [14P:4] ^
...
^LR(D0,"MI",D1,12,0)=^63.39PA^^ (#26) MYCOBACTERIUM
^LR(D0,"MI",D1,12,D2,0)= (#.01) MYCOBACTERIUM [1P:61.2] ^ (#1) QUANTITY [2F]
==>^
^LR(D0,"MI",D1,12,D2,.1)= (#.1) ISOLATE ID [1F] ^
^LR(D0,"MI",D1,12,D2,1,0)=^63.4A^^ (#2) COMMENT
^LR(D0,"MI",D1,12,D2,1,D3,0)= (#.01) COMMENT [1F] ^
^LR(D0,"MI",D1,12,D2,2.0001)= (#5) STR [1F] ^
^LR(D0,"MI",D1,12,D2,2.0002)= (#10) PAS [1F] ^
^LR(D0,"MI",D1,12,D2,2.0003)= (#15) INH [1F] ^
^LR(D0,"MI",D1,12,D2,2.0004)= (#20) ETH [1F] ^
^LR(D0,"MI",D1,12,D2,2.0005)= (#25) RIF [1F] ^
^LR(D0,"MI",D1,12,D2,2.0006)= (#30) KANAMYCIN [1F] ^
^LR(D0,"MI",D1,12,D2,2.0007)= (#35) CAPREOMYCIN [1F] ^
^LR(D0,"MI",D1,12,D2,2.0008)= (#40) CYCLOSERINE [1F] ^
^LR(D0,"MI",D1,12,D2,2.0009)= (#45) ETHIONAMIDE [1F] ^
^LR(D0,"MI",D1,12,D2,2.001)= (#50) PYRAZINAMIDE [1F] ^
^LR(D0,"MI",D1,12,D2,2.0011)= (#55) MIOMYCIN [1F] ^
^LR(D0,"MI",D1,12,D2,2.00170001)= (#2.00170001) NEWBIOTIC [1F] ^
^LR(D0,"MI",D1,12,D2,2.00522001)= (#2.00522001) TEST2 [1F] ^
^LR(D0,"MI",D1,12,D2,2.00522002)= (#2.00522002) TEST [1F] ^
^LR(D0,"MI",D1,12,D2,2.00636002)= (#65) STREPTOMYCIN 10.0 [1F] ^
^LR(D0,"MI",D1,13,0)=^63.41A^^ (#27) TB RPT REMARK
^LR(D0,"MI",D1,13,D2,0)= (#.01) TB RPT REMARK [1F] ^
...

```

**Method 2:** Alternatively, the option ‘Outline for one or more files’ [LRUFILE] under the ‘Lab liaison menu’ [LRLIAISON] can be used. When prompted to select a File, enter ‘63’.

(Note: The output below has been shortened; some text has been replaced with ‘...’)

Figure 2. List File Attributes from [LRUFILE]

```
Select Lab liaison menu Option: Outline for one or more files <ENTER>
Select FILE: 63 <ENTER> LAB DATA
Select FILE:

Brief listing: ? YES// <ENTER> (YES)
DEVICE: HOME// 0;80;99999 <ENTER> VIRTUAL TELNET

Apr 30, 2012                LAB DATA (63)                Pg 1
-----
.01  LRDFN
.02  PARENT FILE
.03  NAME
.04  DO NOT TRANSFUSE
.05  ABO GROUP
.06  RH TYPE
...
22   TB RPT DATE APPROVED
22.1 TB RE DATE
23   TB RPT STATUS
24   ACID FAST STAIN
25   QUANTITY
25.5 TB ENTERING PERSON
26   MYCOBACTERIUM (Subfile 63.39)
    .001 ISOLATE NUMBER
    .01  MYCOBACTERIUM
    .1   ISOLATE ID
    1    QUANTITY
    2    COMMENT (Subfile 63.4)
        .01 COMMENT
        2.00170001 NEWBIOTIC
        2.00522001 TEST2
        2.00522002 TEST
        5     STR
        10    PAS
        15    INH
        20    ETH
        25    RIF
        30    KANAMYCIN
        35    CAPREOMYCIN
        40    CYCLOSERINE
        45    ETHIONAMIDE
        50    PYRAZINAMIDE
        55    MIOMYCIN
        65    STREPTOMYCIN 10.0
26.4 TB TEST(S) (Subfile 63.181)
    .01 TB TEST(S)
```

Once you have the list of existing Mycobacterium Antibiotics setup in the Lab Data File (#63), use the option ‘Edit an Antibiotic’ [LRWU7 EDIT] to add the desired Mycobacterium Antibiotics to the Antimicrobial Susceptibility File (#62.06).

**Note:** For Mycobacterium Antibiotics, **do not** enter anything for the ‘ANTIMICROBIAL SUSCEPTIBILITY INTERNAL NAME’ prompt.

For the ‘AFB INTERNAL NAME’ prompt, the name must be entered exactly as seen in the Lab Data File (#63).

**Figure 3. Antibiotic' Using the Edit an Antibiotic [LRWU7 EDIT] Option**

```
Select Lab liaison menu Option: ANTE <ENTER> Edit an Antibiotic

    Select one of the following:

        1          Bacterial Antibiotic
        2          Mycobacterium Antibiotic

Select Antibiotic Type to Edit: 1// 2 <ENTER> Mycobacterium Antibiotic
Select ANTIMICROBIAL SUSCEPTIBILITY NAME: STREPTOMYCIN 10.0 <ENTER>
Are you adding 'STREPTOMYCIN 10.0' as
a new ANTIMICROBIAL SUSCEPTIBILITY? No// Y <ENTER> (Yes)
ANTIMICROBIAL SUSCEPTIBILITY NUMBER: 111// <ENTER>
ANTIMICROBIAL SUSCEPTIBILITY INTERNAL NAME: <ENTER>      Editor Note: For Mycobacterium
Antibiotics, do not enter anything for this prompt.
NAME: STREPTOMYCIN 10.0// <ENTER>
AFB INTERNAL NAME: STREPTOMYCIN 10.0 <ENTER>      Editor Note: This is the Field Name or Number from File
#63 (Subfile #63.39).

NATIONAL VA LAB CODE: STREPTOMYCIN 10 UG/ML AFB SUSC <ENTER> 93690.0000      Editor Note: Map
the entry to an NLT Code.

Select Lab liaison menu Option:
```

**Note 1:** For the ANTIMICROBIAL SUSCEPTIBILITY INTERNAL NAME: prompt do not enter anything for Mycobacterium Antibiotics,

**Note 2:** For AFB INTERNAL NAME: STREPTOMYCIN 10.0 prompt, the Field Name or Number is from File #63 (Subfile #63.39),

**Note 3:** At the NATIONAL VA LAB CODE: prompt, map the entry to the most appropriate and specific NLT Code, including the drug concentration in the procedure name when available.

### 3.3.2 Creating New Mycobacterium Antibiotics

LEDI IV also changes the method used for creating new Mycobacterium Antibiotics; it is now similar to how Bacterial Antibiotics are created. When creating new Mycobacterium Antibiotics (that did not exist pre-LEDI IV), you do not need to go into FileMan any more to add the new Drug Node. Instead, you use the option 'Add a new internal name for an antibiotic' [LRWU7]. This option now allows a user to create a new Mycobacterium Antibiotic; the option will automatically add the new drug to the Lab Data File (#63, Subfile #63.39), as well as create a new entry in the Antimicrobial Susceptibility File (#62.06).

This option should only be used when creating **new** Mycobacterium Drugs that never existed before ((both in the Lab Data File (#63) and the Antimicrobial Susceptibility File (#62.06)). However, for Mycobacterium Drugs whose drug nodes already existed in the Lab Data File (#63), but now need to be added to the Antimicrobial Susceptibility File (#62.06), the option 'Edit an Antibiotic' [LRWU7 EDIT] should be used instead.

**Figure 4. Create New Mycobacterium Drugs for Files**

```
Select Lab liaison menu Option: ANT <ENTER> Add a new internal name for an antibiotic

Select one of the following:

      1      Bacterial Antibiotic
      2      Mycobacterium Antibiotic

Select Antibiotic Type to Add: 1// 2 <ENTER> Mycobacterium Antibiotic
Enter the name of the new antibiotic you wish to create: KANAMYCIN 6.0

Checking if field exists...OK
(DRUG NODE will be 2.00500008)
Are you sure you wish to create KANAMYCIN 6.0? NO// YES <ENTER>

KANAMYCIN 6.0 has now been created.
You must now add a new antibiotic in the ANTIMICROBIAL SUSCEPTIBILITY file
and use KANAMYCIN 6.0 as the entry for the AFB INTERNAL NAME field.

Do you want to setup KANAMYCIN 6.0 as a new Mycobacterium Antibiotic? NO// YES <ENTER>
NAME: KANAMYCIN 6.0// <ENTER>
AFB INTERNAL NAME: 2.00500008// <ENTER> KANAMYCIN 6.0
NATIONAL VA LAB CODE: Kanamycin 6 ug/mL AFB Susc <ENTER>          93697.0000

Select Lab liaison menu Option:
```



## **4 New Features for LEDI IV**

Laboratory Electronic Data Interchange (LEDI) IV brings new features to the legacy Veterans Health Information Systems and Technology Architecture (VistA) Laboratory version 5.2 software.

### ***4.1 SNOMED CT Functionality***

LEDI IV introduces new functionality for the SNOMED CT codes.

### **4.1.1 Data Standardization of SNOMED CT Codes**

The following files will be mapped to SNOMED CT codes:

TOPOGRAPHY FIELD (#61).

ETIOLOGY FIELD (#61.2).

COLLECTION SAMPLE (#62).

In addition, the SNOMED CT codes are standardized for General Lab, Microbiology, and AP data in these files. Standards & Terminology Service (STS) will provide a SNOMED CT Mapping File for each site to load and apply the mappings. See the option Load SNOMED SCT Mapping [LA7S LOAD MAPPING SCT] under section 5 below for more information.

### **4.1.2 Manual Process for LIMs to Update SNOMED CT Files**

The manual processes for updating the SNOMED CT files by a LIM are in this section.

- STS will deploy SNOMED CT updates for files 61, 61.2, and 62 via the Lab's Server side MailMan function to the facilities.
  - When the update file has been read in and saved in the LAB MAPPING TRANSPORT File (#95.4) a MailMan message will be sent to the facilities G.LMI group informing them that data has been saved on their system and is ready for processing.
  - The LIM will process the mapping update during non-peak times. See detailed process below in the LEDI IV User Manual entitled Load SNOMED SCT Mapping [LA7S LOAD MAPPING SCT].
1. The LIM uses a FileMan inquiry to look at the entries in any of the three monitored files.
  2. VA laboratory LIM creates a new entry to a monitored file. (See list of 3 files under i. below.)
    - a. Each new entry will automatically be assigned a unique NUMBER (IEN).
    - b. Each new entry will be given a NAME.
    - c. Each new entry must be given a SNOMED field.
      - i. Monitored Files that include a SNOMED CT field are the following:
        - File 61 – Topography (required field).
        - File 61.2 – Etiology (required field).
        - File 62 – Collection Sample – Note: Does not have a SNOMED field.

Once the new entry has been completed, a message will be sent to STS, which will contain all the necessary information to provide a SNOMED CT mapping, if applicable.

NOTE 1: To prevent any data transfer errors, the SNOMED CT IDs (SCT IDs) for the specimen and the tests need to match between the collecting and the host sites.

NOTE 2: The NAME field (#.01) in the TOPOGRAPHY FIELD file (#61), COLLECTION SAMPLE file (#62), and ETIOLOGY FIELD file (#61.2) are once again editable with the LEDI IV Update patch.

NOTE 3: When a Systemized Nomenclature of Medicine Clinical Terms (SNOMED CT) mapping file is loaded, the system validates each SNOMED CT ID against the Lexicon. If there is an exception found (e.g., the code is inactive) the system sends an alert to Standards & Terminology Services (STS) so that STS can send an updated mapping for this entry.

### **4.1.3 All SNOMED CT Codes are Available in the Lexicon Utility**

The Lexicon Utility provides the following functionality:

Legacy VistA Laboratory software can now access SNOMED CT data stored in the Lexicon database.

Provides Application Program Interfaces (APIs) to the legacy VistA Laboratory software to support SNOMED access by all VistA applications.

- VistA Laboratory uses the Lexicon APIs, \$\$CODE^LEXTRAN API, to retrieve SNOMED CT codes and use the established hierarchy to retrieve SNOMED CT codes for organisms.

Provides a mechanism for updating future SNOMED codes.

Provides new reports for mapped and unmapped SNOMED codes available through the VistA Laboratory application.

When the Lexicon Utility receives an unknown term, VistA Laboratory notifies members of the local LAB MAPPING mail group of exception handling instances and sends an exception handling notification to VA Standards and Terminology Services for resolution via an HDI LABXCPT^HDISVAP1 API.

The Laboratory package uses the API for three exceptions/events:

- Errors encountered while loading STS mapped SCT code into the target database.
  - Loading new/additional terms received from another system via HL7 messaging.
  - New terms entered locally.
  - Unknown terms can originate within VA or a clinical partner. The Laboratory package can receive a patient care term (clinical term) that is from a non-VA information system not known to the VA clinical Lexicon.
  - The term can be a clinical term stored and displayed in a report to the provider who interprets and/or acts on the term in the report.
  - The term can be a valid national term not represented in the Lexicon, due to sequencing or database update lag.
  - The term can be a valid clinical term not yet modeled or issued by the national code set provider.
  - The term can be a local term originating with the clinical data provider partner that may or may not be included in the national code set.
- When a local lab performs a SNOMED CT update and an Exception error occurs, the Vista Lab application will display a message to the Installer that reads: “Due to a recent Lexicon patch that updated the SNOMED CT (SCT) code set at your facility, some of your Lab entries in files XXXXXXXX are mapped to deprecated SCT codes. Standards & Terminology Services (STS) has received notification of these exceptions and will provide you with a new SCT mapping file within several weeks or less. The following SNOMED CT exceptions have been found at XXXXXXXX VAMC.”. Where “X” represents either the File # or the name of the VA Medical Center.

## ***4.2 LEDI IV Microbiology***

LEDI IV introduces new enhancements for Microbiology.

### 4.2.1 New Methods to Enter and Edit Microbiology Options

The Edit an Antibiotic [LRWU7 EDIT], located under the Lab Liaison Menu, allows the LIM to edit an antibiotic rather than going through VA FileMan. This option allows the entry of existing mycobacterial drugs to the ANTIMICROBIAL SUSCEPTIBILITY file (#62.06).

The modification of the option Add a new internal name for an antibiotic [LRWU7] also located under the Lab Liaison Menu, now allows the creation of a new internal name for an antibiotic in LAB DATA file #63 for mycobacterium drugs. This action needs to be done first before the LRWU7 option is run.

In Microbiology data entry options, the fields xxx RPT DATE APPROVED (e.g., BACT RPT DATE APPROVED, MYCOLOGY RPT DATE APPROVED, etc.) must now contain a date and time entry (i.e., "N" to designate "Now"; "T" can no longer be used).

Within Microbiology result entry options, the user can opt to send one of three alert types to the ordering provider and additional recipients and/or mail groups. Depending on how the parameter is set, will determine whether the user is prompted to send an alert. The three alert types are:

- Lab results available.
- Abnormal lab results.
- Critical lab results.



**NOTE:** The type of alert generated either depends on whether the clinician has set the parameter for personal alerts in CPRS, or if the alert is mandatory at the system level.



**REF:** For additional details on these alerts, see the “**APPENDIX B: HOW NOTIFICATIONS WORK - TECHNICAL OVERVIEW**” section in the CPRS Technical Manual in the VDL.

Under the Microbiology Result entry option, the LIM can designate to:

- Set the performing laboratory for the entire report.
- Set the performing laboratory for specific sections of the report. If choosing to enter the performing laboratory for specific report sections, only those sections that have data entered will appear for selection.

## 4.2.2 Addition of Microbiology (MI) Orders and Results

- New codes are added to the LAB ELECTRONIC CODES file (#64.061) to support messaging via HL7 messaging.
- Additional information is added to the LABORATORY PENDING ORDER file (#69.6) for HL7 messaging.
- HL7 messaging is enhanced to process the following sections:
  - Bacteriology.
  - Mycobacteriology.
  - Mycology.
  - Virology.
  - Parasitology.
- The electronic messaging functionality of the LAB DATA file (#63) is enhanced to handle multiple isolates for any given culture.
- The LEDI software application is enhanced by triggering an event to notify and return results to the *collecting* facility laboratory, once an order is identified as LEDI associated and released. A new API was created to generate the new LEDI messages.

### **LEDI IV Update Patch:**

Should the Host site, using the LEDI IV interface, send back a Micro result with an organism that the Collecting Site does not have configured in their file, the system automatically creates a new stub entry for that organism. This patch allows the LIM at the Collecting Site to make manual updates to a stub entry. It then sends an email to the LAB MAPPING mail group letting them know that a new term was added to the file.

Since the new stub entry for that organism is missing some important fields the LIM needs to manually add them. The Collecting Site LIM should fill in the **IDENTIFIER** field (so that the organism will display on the micro trend report), **ETIOLOGY WKLD CODE** (so that the site can get workload credit, and the **SUSCEPTIBILITY EDIT TEMPLATE** (if the site plans on entering susceptibility results locally for that organism). Editing of an entry is a relatively quick process for the LIM.

A sample of the LAB MAPPING mail group message Subject line is below:

SUBJ: TERM ADDED TO FILE ETIOLOGY FIELD (#61.2:4978) [ #178806] 04/10/12@17:24  
14 LINES

FROM: LRLAB, HL IN 'IN' BASKET. PAGE 1 \*NEW\*

-----  
NEW TERM ADDED TO FILE ETIOLOGY FIELD #61.2 (ENTRY #4978)

NEW TERM: ALICYCLOBACILLUS  
-----

## 4.3 LAB CODE MAPPING



**NOTE:** This functionality is reserved for future use with the Labs and Associated VistA databases once converted to Laboratory Systems (timeframe TBD).

Modified the HL7 messaging structure to support SNOMED CT coding.

Added the option Manage MI/AP Test Mappings [LRCAPFF] to establish the relationships between the LABORATORY TEST (#60), the WKLD CODE (#64) and the LAB ELECTRONIC CODES (#64.061) files for LEDI MI/AP tests.



### **4.3.1 LAB CODE MAPPING File (#62.47)**

The LAB CODE MAPPING file (#62.47) is used to map standard code system concepts to the related area of the Laboratory package database, as well as support mapping codes used in the role identifying the result or expressing the answer. The LAB CODE MAPPING file (#62.47) was created to enhance the legacy VistA Laboratory software.

#### **4.3.1.1 Examples of Result Codes**

LOINC and VA NLT Test Result codes, such as LOINC code 11475-1 MICROORGANISM IDENTIFIED: PRID:PT:XXX:NOM:CULTURE, which represent the concept of the organism identified.

#### **4.3.1.2 Examples of Answer Codes**

SNOMED CT code 23506009, which is the term normal flora or SNOMED CT code 30334005 AEROMONAS SALMONICIDA (ORGANISM), which represents the name of the organism identified.

#### **4.3.1.3 Fields**

SEQUENCE field (#62.47,.001): This field is the Internal Entry Number (IEN) (sequence number).

CONCEPT field (#62.47,.01): This field contains the nature of the codes and the area of the laboratory to which the concept relates.

LR SUBSCRIPT field (#62.47,.02): This field is the LAB DATA file (#63) subscript for this entry.

DATABASE CODE field (#62.47,.03): For **result** type codes, this field indicates the related area of the Laboratory package database in which answers to the code are stored. The database code indicates the storage location within the Laboratory package.

ALTERNATE CONCEPT field (#62.47,.04): This field designates an alternate concept when the answer associated with the concept is not in a form that can be stored within the current VistA database. For example:

When VistA expects to store the answer as a pointer to a VistA file and the instance of an answer is free text, this field points to a concept that allows the answer to be stored in a field that can accept the answer.

IDENTIFIER field (#62.47,1): This field contains the codes/code sets associated with the concept.

- IDENTIFIER field (#62.4701,.01): This field is the code or ID associated with an instance of the concept. The identifier in conjunction with Coding System field (#.02) indicates use and source.
- CODING SYSTEM field (#62.4701,.02): This field contains the name of the coding system from which the code is derived.
- PURPOSE field (#62.4701,.03): This field classifies the code as a result or answer code.



**NOTE:** Codes from the HL7 OBX segment field OBX-3 must be classified as result codes. Codes from the HL7 OBX segment field OBX-5 must be classified as answer codes.

- OVERRIDE CONCEPT field (#62.4701,.04): For **answer** type codes, this field indicates the related area of the Laboratory package database in which answers to the code are stored.

Use it when the answer associated with a **result** code cannot be stored in the usual Vista Laboratory LAB DATA file (#63) field. For example:

SNOMED CT code 23506009 is the term normal flora. This term is the answer used within the LAB DATA file (#63). If it is associated as the answer to a microorganism identified code, instead of stored as an entry in the ETIOLOGY FIELD file (#61.2), it is stored as a comment.

- NATIONAL STANDARD field (#62.4701,.05): This field flags an entry as nationally distributed or local.
- RELATED ENTRY field (#62.4701,2.1): This field links the code/code set to an entry in one of the pointed-to files, which allows the system to determine how to translate a code/code set to a file entry.
- MESSAGE CONFIGURATION field (#62.4701,2.2): When the related identifier (code) is from a local coding system, this field indicates the specific interface with which the code is associated. Local codes are interface-specific.

## ***4.4 LEDI IV Anatomic Pathology***

The LEDI IV patch provides several enhancements for Anatomic Pathology.

### 4.4.1 New Options to Enter and Edit for AP Functionality

The functionality in the VistA Laboratory Anatomic Pathology section includes:

Populating the LAB DATA (#63), ACCESSION (#68), and LAB ORDER ENTRY (#69) files with:

- AP accession to be consistent with the rest of laboratory's accession process.
- The creation and storing of the UID, ordering data, and order number.

Creation of the ORDERED TEST sub-file (#63.53) for the SP, EM, and CY sections. This sub-file contains information about the ordered tests for this accession. The ORDERED TEST field (#.01) contains the ordered test NLT code requested by the clinical provider. This sub-file contains fifteen fields.

Enhanced the generation of the CPRS Anatomic Pathology alerts/notifications to the following recipients:

- Outpatient Primary Care Provider if patient is Outpatient – new feature.
- If it is a related surgery case, then the following providers receive the alerts/notifications:
  - The current surgeon if different from surgeon used as ordering provider when specimen was logged in.
  - Attending surgeon.

The list of recipients is displayed to the releasing pathologist/user.

Modified the laboratory user login process for SP, CY, and EM. The process was modified to require an entry from the COLLECTION SAMPLE file (#62), an entry from the TOPOGRAPHY FIELD file (#61), and a selection of multiple orderable test code names from LABORATORY TEST file (#60), during AP login.



**REF:** For a sample of this AP login process, see Chapter 5, "Use of the LEDI IV Software."

Modified Print log book [LRAPBK]:

- If the site has the Document Surgery Package Case Info Parameter set to Yes, then when copying surgical case information from the Surgery package during surgical pathology login a statement will be added to the copied information documenting the source of the copied information.
- The LIM may also set a prompt for printing a single accession. The accession number can be entered by using the <ACCESSION AREA> <DATE> <NUMBER> format or UID in the 10-15 character formats. The Log Book now displays the UID for all entries.

Within Anatomic Pathology result entry options, the user can designate the performing laboratory for the entire report or for specific sections of the report. If choosing to enter the performing laboratory for specific sections, only the sections that have data entered will appear.

Added the option AP LEDI Data Entry [LRAP VR]. This option allows data for Anatomic Pathology (LEDI results) to be reviewed and approved individually by accession or by UID. . Once approved, the data is not available for viewing with this option.

The AP reports have been modified to replace “AFIP” or Armed Forces Institute of Pathology with “JPC” or Joint Pathology Center.



**REF:** For examples of new or modified options and prompts, see Chapter 5, "Use of the LEDI IV Software."

#### **4.4.2 Addition of Anatomic Pathology (AP) Orders and Results**

The VistA Laboratory is enhanced to handle AP data by storing incoming HL7 result (ORU) messages in the intermediate LAH global if the site is a Host VA that is receiving incoming orders for the three AP sections listed below.

- Cytology – CY.
- Electron Microscopy – EM.
- Surgical Pathology – SP.
- The AP verification process is modified to accept incoming results processed by personnel outside the VA from another VA, a commercial reference lab, or the DoD.
  - Incoming results are accepted or rejected by staff via the ‘AP LEDI Data Entry [LRAP VR]’ option.
  - This option moves the data from the LAH global for storage in LAB DATA file (#63).
- **The LEDI IV Update patch provides new features outlined below.**

Upon verification of an AP report at the Host site, an outgoing HL7 result message to the Collection site is triggered via the ‘Verify/release reports, anat path [LRAPRS]’ option.

**Note:** Because the outgoing HL7 result messages are for referral patients, these AP reports are not stored in TIU.

- The patches support the acceptance and processing of AP electronic orders and results via LEDI HL7 messaging.
- Determine the test order number, type of specimen and collection sample code for an outgoing order message.
- Generate HL7 messaging exceptions for incomplete LEDI orders located in LABORATORY PENDING ORDER file (#69.6).
- Generate HL7 messaging exceptions for LEDI results that cannot be processed.
- Process incoming HL7 order (ORM) messages from DoD facilities.
- Process messages and store the orders in the LABORATORY PENDING ORDER file (#69.6).

## 4.5 LEDI IV LOINC Functionality



**NOTE:** This functionality is reserved for future use with a subsequent release of the LEDI software (timeframe TBD).

Several modifications are provided by the LEDI IV Patch for LOINC functionality.

The LAB CODE MAPPING file (#62.47) provides the ability to map the LOINC codes of external systems to corresponding Microbiology and Anatomic Pathology concepts.

This file is used to map standard code system concepts to the related area of the Laboratory package database, as well as to support mapping codes used in the roles of identifying the result or expressing the answer.

The VistA Laboratory LEDI software provides the ability to report Microbiology and AP results with pre-determined and site-configurable mapping of LOINC codes.

The VistA Laboratory LEDI software allows standardized reporting of Microbiology tests results and site-mapped antibiotics to LOINC.

SNOMED CT hierarchy concepts added to the LAB ELECTRONIC CODES file (#64.061) to support routing of SNOMED CT concepts to corresponding sections of the VistA Laboratory database.

LOINC codes received from external systems are accepted and mapped to corresponding VistA Laboratory database concepts via the .01 Concept field of the LAB CODE MAPPING file (#62.47).

## 4.6 LEDI IV Chemistry/Hematology (CH)

The LEDI IV patch provides new enhancements for Chemistry and Hematology.

Within Chemistry and Hematology result entry options, the user can opt to send one of three alert types to the ordering provider and additional recipients and/or mail groups. Depending on how the parameter is set, will determine whether the user is prompted to send an alert. The three alert types are:

- Lab results available.
- Abnormal lab results.
- Critical lab results.



**NOTE:** The type of alert generated either depends on whether the clinician has set the parameter for personal alerts in CPRS, or if the alert is mandatory at the system level.



**REF:** For additional details on these alerts, see the the “**APPENDIX B: HOW NOTIFICATIONS WORK - TECHNICAL OVERVIEW**” section in the CPRS Technical Manual in the VDL.

## ***4.7 LEDI IV AP/MICRO INTERFACE***

#### **4.7.1 Orders and Results for Anatomic Pathology (AP) – Update Patch**

To complete the verification process, a PROVIDER key, a provider class of PHYSICIAN, a person class of Pathology Allopathic or Osteopathic Physicians and a valid electronic signature code are needed. Below, are the instructions on how to add those (if not already entered) via VA FileMan edits. Make these edits for both the collection site and the host facility. The updated VHA PERSON CLASS code list of positions which can release AP reports is below:

Specialization:

Pathology, Anatomic & Clinical

Pathology, Anatomic

Pathology, Anatomic & Laboratory Medicine

Pathology, Chemical

Pathology, Clinical

Dermatopathology

Hematology: Pathology

Neuropathology

Oral and Maxillofacial Pathology

Cytotechnology

Note: Cytotechnologists can release Negative Gynecological results as long as they are a Provider Class of CYTOTECHNOLOGIST, a PERSON CLASS # of 430 Cytotechnology and have a LRVERIFY security key.



**Figure 5. Person Class Edit Option [XU-PERSON CLASS EDIT]**

```
Select User Management <TEST ACCOUNT> Option: PERSON CLASS Edit
Select NEW PERSON NAME: LRPROVIDER
      1  LRPROVIDER,ONE JR      WGA
      2  LRPROVIDER,TWO      CKA
CHOOSE 1-2: 2  LRPROVIDER,TWO      CKA
                        Edit of Person Class
NAME: LRPROVIDER,TWO_____

Person Class                               Effective      Expired
Allopathic and Osteopathic Physicians (M.D. and D.O.)      JUN 27, 2013

Exit      Save      Refresh

Enter a command or '^' followed by a caption to jump to a specific field.

COMMAND: EXIT                               Press <PF1>H for help      Insert

You've got PRIORITY mail!
```

1. On the collection site, log in an AP accession and transmit the order to the host facility:

Figure 6. Log-in Anatomic Pathology Accession [LRAPLG]

```
Select Anatomic pathology <TEST ACCOUNT> Option: 1 Log-in menu, anat path
Select Log-in menu, anat path <TEST ACCOUNT> Option: 11 Log-in, anat path
Select ANATOMIC PATHOLOGY SECTION: SURGICAL PATHOLOGY

Log-In for 2012 ? // <ENTER> (YES)

Select Patient Name: hxx,pxxx,PXXXXXX HXX,PXXXXXX 1-1-60 XXXXXXXXX
NO NSC VETERAN
Enrollment Priority: Category: IN PROCESS End Date:

*** Patient Requires a Means Test ***

Primary Means Test Required from NOV 17,2009

Enter <RETURN> to continue.
HXX,PXXXXXX ID: XXX-XX-XXXX Physician: LRUSER,ONE

AGE: 52 DATE OF BIRTH: JAN 1,1960
PATIENT LOCATION: UNK// 2E 2 EAST
Accession number assigned for Nov 20, 2012 is: NSP 12 22

Checking surgical record for this patient...

No operations on record in the past 7 days for this patient.

Assign SURGICAL PATHOLOGY (NSP) accession #: 23? YES// <ENTER> (YES)
Date/time Specimen taken: NOW// (NOV 20, 2012@17:40)
SURGEON/PHYSICIAN: lrprovider,ONE JR LRPROVIDER,ONE JR WGA
SPECIMEN SUBMITTED BY: lrprovider,one
Select SPECIMEN: skin
SPECIMEN TOPOGRAPHY: skin
1 SKIN 01000
2 SKIN APPENDAGE 01300
3 SKIN BETWEEN FOURTH AND FIFTH TOES 02915
4 SKIN BETWEEN GREAT TOE AND SECOND TOE 02885
5 SKIN BETWEEN THIRD AND FOURTH TOES 02905
Press <RETURN> to see more, '^' to exit this list, OR
CHOOSE 1-5: 1 SKIN 01000
COLLECTION SAMPLE: skin
Select SPECIMEN:
DATE/TIME SPECIMEN RECEIVED: NOW// (NOV 20, 2012@17:41)
PATHOLOGIST: lrprovider,ONE JR LRPROVIDER,ONE JR WGA
Select COMMENT:
Select LABORATORY TEST: // TISSUE EXAM SP

Select Patient Name:

Select Log-in menu, anat path <TEST ACCOUNT> Option:
Select Anatomic pathology <TEST ACCOUNT> Option:
```

**Figure 7. Collection Site Builds AP Shipping Manifest [LA7S MANIFEST BUILD]**

```
Select Laboratory DHCP Menu <TEST ACCOUNT> Option: lsm Lab Shipping Menu

Select Lab Shipping Menu <TEST ACCOUNT> Option: smb Build Shipping Manifest
Select Shipping Configuration: mhc TO VRR
There's no open shipping manifest for MHC TO VRR
Do you want to start one? NO// y YES
Use default accession dates? YES//
Exclude previously removed tests from building? YES//
    Using shipping manifest# 522-20121120-2
    Searching accession area: CHEMISTRY
    Searching accession area: MICROBIOLOGY
    Searching accession area: SURGICAL PATHOLOGY
    Searching accession area: EM
    Searching accession area: CYTOPATHOLOGY
    There were 2 specimens added
Print Shipping Manifest? NO// y YES
DEVICE: HOME// 0;80;9999 VIRTUAL TELNET

    *** DO NOT USE FOR SHIPPING DOCUMENT - WORK COPY ONLY ***
Shipping Manifest: 522-20121120-2          Page: 1
    to Site: REGION 7 ISC, TX (FS)        Printed: Nov 20, 2012@17:42
    from Site: ZZ BONHAM                  E-Order: YES
    Status: OPEN                          Ship via: COURIER
Shipping Condition: ROOM TEMPERATURE      Container: BOX

Item      Patient Name      Patient ID      Accession
          Date of Birth      Patient ICN      Specimen UID
          Requested By      Sex              Collect Date/Time
-----
1-1      HXX,PXXXXXX          XXX-XX-XXXX     NSP 12 23
          Jan 01, 1960              2212000023
          LRPROVIDER,ONE JR          Male           Nov 20, 2012@17:40

          Specimen Container: PLASTIC TUBE
          -----
          SURGICAL PATHOLOGY LOG-IN      SKIN
          VA NLT Code [Name]: 93940.0000 [Surgical Pathology Tissue Exam]
          -----
          TISSUE EXAM                    SKIN
          VA NLT Code [Name]: 93940.0000 [Surgical Pathology Tissue Exam]
          -----

End of Shipping Manifest
```

**Figure 8. Close/Ship an AP Shipping Manifest [LA7S MANIFEST CLOSE/SHIP]**

```
Select Lab Shipping Menu <TEST ACCOUNT> Option: smc Close/Ship a Shipping Manifest
Select Shipping Configuration: mhc TO VRR
Select Shipping Manifest: 522-20121120-2 MHC TO VRR Status: OPEN as of Nov 20,
2012@17:42

Select one of the following:

1          Close manifest
2          Ship manifest

Select action to perform: 1// 2 Ship manifest
Enter Manifest Shipping Date: NOW// (NOV 20, 2012@18:11)
Electronic Transmission of Shipping Manifest queued as task# 1465284
Print Shipping Manifest? NO//<ENTER>

Select Lab Shipping Menu <TEST ACCOUNT> Option:
```

2. On the host facility, accession the order via the 'Referral Patient Multi-purpose Accession' option and enter results. Note: There are two examples of the same screen shown below. The first example shows the Host using their own bar code UID. The second example shows how the screen looks when the lab uses the collection site UID.

**Figure 9. Host Accessions AP Order Using Referral Patient Multi-purpose Accession Option [LRLEDI]**

```
Editor's Note: First example when the lab uses their own bar code UID.

Select Accessioning Menu Option: Referral Patient Multi-purpose Accession

Are you using a barcode reader? YES//
Scan Remote Site Barcode (SM): STX^SITE^500^3130620.1127^500-20130620-7^ETX110

Select ACCESSION TEST GROUP: SEND OUTS

Scan Patient/Accession Barcode (PD): STX^PD^000008888^500^1031710025^M^3130620.0
81517^ETX110

NAME: LABPATIENT,TEST          SEX: MALE
DOB: 07/07/1920                RACE: UNKNOWN
IDENTIFIER: 000008888

LAB Order number: 272603

You have just selected the following tests for LABPATIENT,TEST 000-00-8888
entry no. Test                      Sample
1          CULTURE,SPUTUM          SPUTUM

All satisfactory? Yes// (Yes)

LAB Order number: 272603

Print labels on: LABLABEL// SEND
```

~For Test: CULTURE,SPUTUM SPUTUM  
Enter Comment (DO NOT ORDER TESTS HERE!):

ACCESSION: MICRO 13 99 <7313000099>  
CULTURE,SPUTUM SPUTUM

Scan Patient/Accession Barcode (PD): ^

**Editor's Note: Second example in which the lab uses the Collection site UID.**

Select Accessioning Menu Option: Referral Patient Multi-purpose Accession

Are you using a barcode reader? YES//

Scan Remote Site Barcode (SM): STX^SITE^500^3130620.1127^500-20130620-7^ETX110

Select ACCESSION TEST GROUP: SEND OUTS

Scan Patient/Accession Barcode (PD): STX^PD^000008888^500^1031710025^M^3130620.0  
81517^ETX110

NAME: LABPATIENT,TEST SEX: MALE  
DOB: 07/07/1920 RACE: UNKNOWN  
IDENTIFIER: 000008888

LAB Order number: 272603

You have just selected the following tests for LABPATIENT,TEST 000-00-8888  
entry no. Test Sample  
1 CULTURE,SPUTUM SPUTUM

All satisfactory? Yes// (Yes)

LAB Order number: 272603

Print labels on: LABLABEL// SEND

~For Test: CULTURE,SPUTUM SPUTUM  
Enter Comment (DO NOT ORDER TESTS HERE!):

ACCESSION: MICRO 13 99 <1031710025>  
CULTURE,SPUTUM SPUTUM

Scan Patient/Accession Barcode (PD): ^

**Figure 10. Host Site Enters A/P Results**

```

                                ANATOMIC PATHOLOGY MENU

D      Data entry, anat path ...
E      Edit/modify data, anat path ...
I      Inquiries, anat path ...
L      Log-in menu, anat path ...
P      Print, anat path ...
R      SNOMED field references ...
S      Supervisor, anat path ...
V      Verify/release menu, anat path ...
C      Clinician options, anat path ...
W      Workload, anat path ...

Select Anatomic pathology Option: d Data entry, anat path

AU      Data entry for autopsies ...
BS      Blocks, Stains, Procedures, anat path
CO      Coding, anat path ...
GD      Clinical Hx/Gross Description/FS
GM      FS/Gross/Micro/Dx
GS      FS/Gross/Micro/Dx/SNOMED Coding
GI      FS/Gross/Micro/Dx/ICD9CM Coding
OR      Enter old anat path records
SR      Supplementary Report, Anat Path
SS      Spec Studies-EM;Immuno;Consult;Pic, Anat Path
LEDI    AP LEDI Data Entry

Select Data entry, anat path Option: gm FS/Gross/Micro/Dx
Select ANATOMIC PATHOLOGY SECTION: SURGICAL PATHOLOGY

                                SURGICAL PATHOLOGY (NSP)

Data entry for 2012 ? YES//      (YES)

      Select one of the following:

          1      Accession number
          2      Unique Identifier (UID)
          3      Patient Name

Select one: 1//      Accession number
Enter Accession Number: NSP 12 8

Enter the year 2012 SURGICAL PATHOLOGY accession number to be updated.
Enter Accession Number: [2212000023] for 2012

HXX,PXXXXXX                      XXX-XX-XXXX          DOB: Jan 01, 1960
Collection Date: Nov 20, 2012@17:40
Acc #: NSP 12 8 [2212000023]

Tissue Specimen(s):
      Skin structure (body structure)
      Skin structure (body structure)
Test(s): SURGICAL PATHOLOGY LOG-IN
FROZEN SECTION:
No existing text
Edit? NO//<ENTER>
GROSS DESCRIPTION:No existing text
Edit? NO//<ENTER>
```

```

MICROSCOPIC DESCRIPTION:
  No existing text
  Edit? NO// <ENTER>
SURGICAL PATH DIAGNOSIS:
  No existing text
  Edit? NO// y YES

PATHOLOGIST: lrprovider,o
      1  LRPROVIDER,ONE      MRY      COMPUTER SPECIALIST
      2  LRPROVIDER,ONE MD   OLP      IRM
CHOOSE 1-2: 1  LRPROVIDER,ONE      MRY      COMPUTER SPECIALIST
DATE REPORT COMPLETED: T (NOV 20, 2012)
Current performing lab assignments: None Listed

      Select one of the following:

      1      Entire report
      2      Specific sections of report

Designate performing laboratory for: 1//      Entire report
Select Performing Laboratory: ZZ BONHAM//      TX VAMC 522

Sure you want to add this record? NO// y <ENTER> YES
... assignment created.

Current performing lab assignments:

Surgical Pathology Report Performed By: ZZ BONHAM <ENTER>

      Select one of the following:

      1      Entire report
      2      Specific sections of report
      3      Delete performing laboratory

Designate performing laboratory for: <ENTER>
Enter CPT coding? NO// <ENTER>

      Select one of the following:

      1      Accession number
      2      Unique Identifier (UID)
      3      Patient Name

Select one: 1// ^

AU      Data entry for autopsies ...
BS      Blocks, Stains, Procedures, anat path
CO      Coding, anat path ...
GD      Clinical Hx/Gross Description/FS
GM      FS/Gross/Micro/Dx
GS      FS/Gross/Micro/Dx/SNOMED Coding
GI      FS/Gross/Micro/Dx/ICD9CM Coding
OR      Enter old anat path records
SR      Supplementary Report, Anat Path
SS      Spec Studies-EM;Immuno;Consult;Pic, Anat Path
LEDI    AP LEDI Data Entry

Select Data entry, anat path Option:

```

**3. Next, verify and release the report. A message should appear indicating that results will be sent back to the collection site:**

**Figure 11. Host Site Verifies and Releases Report [LRAPVR]**

```
Select Anatomic pathology Option: v Verify/release menu, anat path

RR    Verify/release reports, anat path
RS    Supplementary report release, anat path
LU    List of unverified pathology reports
CPT   LAB CPT BILLING
SA    Send an AP Alert

Select Verify/release menu, anat path Option [LRAPR]: rr Verify/release reports,
anat path

                                Release/Electronically Sign Pathology Reports

Select one of the following:

      C      CPT Coding
      E      Electronically Sign Reports
      V      View SNOMED Codes

Selection: e Electronically Sign Reports

Select ANATOMIC PATHOLOGY SECTION: SURGICAL PATHOLOGY

                                SURGICAL PATHOLOGY (NSP)

Data entry for 2012 ? YES//<ENTER> (YES)

Select one of the following:

      1      Accession number
      2      Unique Identifier (UID)
      3      Patient Name

Select one: 1// <ENTER> Accession number
Enter Accession Number: 8 for 2012

HXX,PXXXXXX                XXX-XX-XXXX                DOB: Jan 01, 1960
Collection Date: Nov 20, 2012@17:40
Acc #: NSP 12 8 [2212000023]

Tissue Specimen(s):
      Skin structure (body structure)
      Skin structure (body structure)
Test(s): SURGICAL PATHOLOGY LOG-IN

View the report before signing? YES// n <ENTER> NO

Enter your Current Signature Code: SIGNATURE VERIFIED

*** Report is being processed. One moment please. ***
*** NOTE: This REFERRAL PATIENT report will not be stored in TIU and therefore
does not have an electronic signature. A hardcopy signature will be required for
this report.

*** Report released. ***
```



```

Sending report to LEDI collecting site

Select one of the following:

    1      Accession number
    2      Unique Identifier (UID)
    3      Patient Name

Select one: 1// ^

Select one of the following:

    C      CPT Coding
    E      Electronically Sign Reports
    V      View SNOMED Codes

Selection:

RR      Verify/release reports, anat path
RS      Supplementary report release, anat path
LU      List of unverified pathology reports
CPT     LAB CPT BILLING
SA      Send an AP Alert

Select Verify/release menu, anat path Option:

```

**4. On the collection site end, accept the results from the host using the ‘AP LEDI Data Entry’ option:**

**Figure 12. Collection Site approves results using the AP LEDI Data Entry option [LRAPD]**

```

Select Anatomic pathology <TEST ACCOUNT> Option: d Data entry, anat path

Select Data entry, anat path <TEST ACCOUNT> Option: ?

AU      Data entry for autopsies ...
BS      Blocks, Stains, Procedures, anat path
CO      Coding, anat path ...
GD      Clinical Hx/Gross Description/FS
GM      FS/Gross/Micro/Dx
GS      FS/Gross/Micro/Dx/SNOMED Coding
GI      FS/Gross/Micro/Dx/ICD9CM Coding
OR      Enter old anat path records
SR      Supplementary Report, Anat Path
SS      Spec Studies-EM;Immuno;Consult;Pic, Anat Path
LEDI    AP LEDI Data Entry

Enter ?? for more options, ??? for brief descriptions, ?OPTION for help text.

Select Data entry, anat path <TEST ACCOUNT> Option: ledi AP LEDI Data Entry

Select LOAD/WORK LIST NAME: ?? Editor note: See AP/MICRO Config Guide for details

Choose from:
AFB
ANCILLARY TESTING
ANTI-DS DNA AB

```

APO A  
 BLOOD CULTURE  
 BLOOD GAS  
 CHEM 7  
 COAG  
 COBAS  
 CYTOPATHOLOGY  
 DIFF  
 DRUGS  
 EM  
 HEMATOLOGY  
 HEPATITIS  
 KODAK  
 LAB POC  
 LDSI  
 MANUAL BENCH  
 MICROBIOLOGY  
 MYCOLOGY  
 RIA  
 SMAC  
 SURGICAL PATHOLOGY  
 UA  
 VDRL  
 VITEK  
 WK-BB  
 WK-CYTOLOGY  
 WK-LITHIUM

Select LOAD/WORK LIST NAME: **ldsi**

Select PROFILE: **??**

Choose from:

CHEMISTRY	CHEMISTRY
CYTOPATHOLOGY	CYTOPATHOLOGY
EM PATHOLOGY	EM
MICROBIOLOGY	MICROBIOLOGY
SURGICAL PATHOLOGY	SURGICAL PATHOLOGY

Select PROFILE: **SURGICAL PATHOLOGY** SURGICAL PATHOLOGY

Select Performing Laboratory: **REGION 7 ISC,TX (FS)** // TX 170

Work Load Area: LDSI//**<ENTER>**

Select one of the following:

- 1 Accession Number
- 2 Unique Identifier (UID)

Verify by: 1// **2** Unique Identifier (UID)

Unique Identifier: 2212000023

HXX,PXXXXXX XXX-XX-XXXX Age: 52yr

ORDER #: 399 NSP 12 23 [2212000023]

Seq #: 69 Accession: NSP 12 23 Results received: Nov 20, 2012@23:22

UID: 2212000023 Last updated: Nov 20, 2012@23:22

Enter RETURN to continue or '^' to exit:

DEVICE: HOME// 0;80;9999 VIRTUAL TELNET

Accession #: NSP 12 23 UID: 2212000023

Name: HXX,PXXXXXX SSN: XXX-XX-XXXX DOB: Jan 01, 1960 Age: 52yr PAGE: 1

Collection Date: Nov 20, 2012@17:40

-----  
Surgical Pathology Diagnosis

Surgical Pathology diagnosis text for CCR testing.

Do you want to ACCEPT these results? NO// y <ENTER> YES

Current performing lab assignments: None Listed

Select one of the following:

- 1 Entire report
- 2 Specific sections of report

Designate performing laboratory for: 1// <ENTER> Entire report

Select Performing Laboratory: ZZ BONHAM// TX VAMC 522 INACTIVE Jan 01, 1997

Sure you want to add this record? NO// y <ENTER> YES  
... assignment created.

Current performing lab assignments:

Surgical Pathology Report Performed By: ZZ BONHAM [CLIA# 987654321]

Select one of the following:

- 1 Entire report
- 2 Specific sections of report
- 3 Delete performing laboratory

Designate performing laboratory for:

Unique Identifier:

Select Data entry, anat path <TEST ACCOUNT> Option:

## 4.7.2 Orders and Results for Microbiology (MI) –Update Patch

1. On the collection site, accession a microbiology order and transmit the accessioned microbiology order to the host facility:

**Figure 13. Collecting Site Builds MICRO Shipping Manifest [LA7S MANIFEST BUILD]**

```
Select Accessioning menu Option:

1      Phlebotomy menu ...
2      Accessioning menu ...
3      Process data in lab menu ...
4      Quality control menu ...
5      Results menu ...
6      Information-help menu ...
7      Ward lab menu ...
8      Anatomic pathology ...
9      Blood bank ...
10     Microbiology menu ...
11     Supervisor menu ...
LSM    Lab Shipping Menu ...

Select Laboratory DHCP Menu Option: lsm  Lab Shipping Menu
SMB    Build Shipping Manifest
SSM    Start a Shipping Manifest
SMS    Close/Ship a Shipping Manifest
ART    Add/Remove a Shipping Manifest Test
SMR    Edit Required Test Information
SMI    Edit Relevant Clinical Information
SMC    Cancel a Shipping Manifest
PSM    Print Shipping Manifest
STA    Order Status Report
RSM    Retransmit Shipping Manifest
RLR    Retransmit LEDI Lab Results
SMP    Print LEDI Pending Orders

Select Lab Shipping Menu Option: smb  Build Shipping Manifest
Select Shipping Configuration: BONHAM HOST
There's no open shipping manifest for BONHAM HOST
Do you want to start one? NO// y  YES
Use default accession dates? YES//
Exclude previously removed tests from building? YES// <ENTER>
    Using shipping manifest# 170-20121022-1
    Searching accession area: CHEMISTRY
    Searching accession area: MICROBIOLOGY
    Searching accession area: SURGICAL PATHOLOGY
    Searching accession area: CYTOPATHOLOGY
    Searching accession area: TOXICOLOGY
    There were 1 specimens added
Print Shipping Manifest? NO// y  YES
DEVICE: HOME// 0;80;9999  VIRTUAL TELNET

*** DO NOT USE FOR SHIPPING DOCUMENT - WORK COPY ONLY ***
Shipping Manifest: 170-20121022-1          Page: 1
    to Site: ZZ BONHAM                    Printed: Oct 22, 2012@10:12
    from Site: DALLAS OI                  E-Order: YES
    Status: OPEN                          Ship via: COURIER
Shipping Condition: ROOM TEMPERATURE      Container: STYROFOAM BOX

Item      Patient Name      Patient ID      Accession
```

	Date of Birth Requested By	Patient ICN Sex	Specimen UID Collect Date/Time
1-1	XXX,PXXXXXX Jan 01, 1960 LRPROVIDER,ONE Specimen Container: CULTURE Collection sample: URINE	XXX-XX-XXXX 5000000423V938388 Male	MICRO 12 27 1412000027 Oct 22, 2012@10:09
	----- URINE CULTURE VA NLT Code [Name]: 87553.0000 [Urine Culture]	URINE	
-----			
End of Shipping Manifest			

**Figure 14. Close/Ship a MICRO Shipping Manifest [LA7S MANIFEST CLOSE/SHIP]**

```
Select Shipping Configuration: BONHAM HOST
Select Shipping Manifest: 170-20121022-1  BONHAM HOST Status: OPEN as of Oct 22,
2012@10:12

    Select one of the following:

        1          Close manifest
        2          Ship manifest

Select action to perform: 1// 2  Ship manifest
Enter Manifest Shipping Date:  NOW//  (OCT 22, 2012@10:13)
Electronic Transmission of Shipping Manifest queued as task# 3794701
Print Shipping Manifest? NO//

SMB    Build Shipping Manifest
SSM    Start a Shipping Manifest
SMS    Close/Ship a Shipping Manifest
ART    Add/Remove a Shipping Manifest Test
SMR    Edit Required Test Information
SMI    Edit Relevant Clinical Information
SMC    Cancel a Shipping Manifest
PSM    Print Shipping Manifest
STA    Order Status Report
RSM    Retransmit Shipping Manifest
RLR    Retransmit LEDI Lab Results
SMP    Print LEDI Pending Orders
```

2. On the host facility, accession the order via the 'Referral Patient Multi-purpose Accession' option and enter results. A message indicating that results will be sent back to the collection site should appear:

**Figure 15. Host Accessions MICRO Order on Referral Multi-purpose Accession Option [LRLEDI]**

```
Select Accessioning menu <TEST ACCOUNT> Option: referral Patient Multi-purpose
Accession
Are you using a barcode reader? YES// n NO
Select Shipping Configuration: ??

    Choose from:
    CBOC TO MAIN
    DOD-SAIC (COLLECTING SITE)
    MILW
    VRR COLLECTION
Select Shipping Configuration: vrr COLLECTION
SHIPPING MANIFEST: 170-20121022-1
Lookup orders using this manifest? YES//

Select ACCESSION TEST GROUP:
Select one or more tests from which you will be generating your entries.
Select LABORATORY TEST NAME: urine CULTURE          URN CUL
Is URINE the correct sample to collect? Y//
Same specimen/source for the rest of the order? No//    (No)
Select LABORATORY TEST NAME:

Enter UID of specimen: ??
    Choose from: 1412000027          HXX,PXXXXXX
Pat ID: XXXXXXXXXX DOB: Jan 01, 1960 Sex: MALE
Spec ID: 1412000027 Manifest: 170-20121022-1 Site: REGION 7 ISC,TX (FS)
Collected D/T: Oct 22, 2012@11:09 Specimen: URINE Spec. Status: In-Transit

Enter UID of specimen: 1412000027 HXX,PXXXXXX
Pat ID: XXXXXXXXXX DOB: Jan 01, 1960 Sex: MALE
Spec ID: 1412000027 Manifest: 170-20121022-1 Site: REGION 7 ISC,TX (FS)
Collected D/T: Oct 22, 2012@11:09 Specimen: URINE Spec. Status: In-Transit
    ...OK? // <ENTER> (Yes)
LAB Order number: 375
Collecting site order comments:
For test URINE CULTURE
    Specimen source: Urine (substance) [78014005:SCT] ; Urine [UR:HL70070]
    Collection sample: Urine specimen (specimen) [122575003:SCT] ;URINE [15:99VA62]

You have just selected the following tests for HXX,PXXXXXX XXX-XX-XXXX
entry no. Test Sample 1 URINE CULTURE          URINE SPECIMEN URINE
All satisfactory? Yes// <ENTER> (Yes)

LAB Order number: 375
Print labels on: LABLABEL// null Bit Bucket

Do you wish to test the label printer: NO// <ENTER>
ACCESSION: MICRO 12 30 <1412000030>
URINE CULTURE URINE SPECIMEN URINE
COMMENT ON SPECIMEN: Test for CCR_8693 (sending results back).
    (Test for CCR_8693 (sending results back).)
Description OK? Y//
```

**Figure 16. Host Site Enters MICRO Results [LRMIEDZ]**

```
Select Laboratory DHCP Menu <TEST ACCOUNT> Option: 10 <ENTER> Microbiology menu

Select Microbiology menu <TEST ACCOUNT> Option: re <ENTER> Results entry

Select MICROBIOLOGY Accession or UID: MICRO 12 30
MICROBIOLOGY (2012) 30

Work Load Area: MICROBIOLOGY
Select TEST/PROCEDURE: URINE CULTURE URN CUL

      HXX,PXXXXXX SSN: XXX-XX-XXXX
Pat Info:                               Sex: MALE      Age: 52yr as of Oct 22, 2012
Edit this accession? YES// <ENTER>
WARD COMMENTS ON SPECIMEN: For test URINE CULTURE
Specimen source: Urine (substance) [78014005:SCT] ; Urine [UR:HL70070]
Collection sample: Urine specimen (specimen) [122575003:SCT] ; URINE
[15:99VA62]

URINE CULTURE completed: t (OCT 23, 2012)
COLLECTION SAMPLE: URINE SPECIMEN//
SITE/SPECIMEN: URINE//
COMMENT ON SPECIMEN: Test for CCR_8693 (sending results back).
      Replace
Select GRAM STAIN: NR
      (GRAM NEGATIVE RODS)
Select GRAM STAIN: NP
      (NP)
Select GRAM STAIN:
BACT RPT STATUS: f FINAL REPORT
URINE SCREEN:

Select ORGANISM: ESCHERICHIA COLI      1571      112283007      SCT Organism
      ORGANISM ISOLATE NUMBER: 1//
ORGANISM: ESCHERICHIA COLI//
QUANTITY: 2+
      (2+)
Select COMMENT:
COLISTIN:
GENTAMICIN: I (I)
CHLORAMPHENICOL: R (RESIS)
TETRACYCLINE: S (SUS)
AMPICILLIN: 32 (S)
CARBENICILLIN: I (I)
TOBRAMYCIN: R (RES)
TRIMETHAPRIM/SULFAMETHOXAZOLE: S (SUS)
AMIKACIN: >256 (>256)
CEFAMANDOLE: I (I)
CEFOXITIN: R (RESIS)
NITROFURANTOIN: S (SUS)
CEPHALOTHIN: I (I)

1 ESCHERICHIA COLI
Select ORGANISM:
Select BACT RPT REMARK:
BACT RPT DATE APPROVED: n (OCT 23, 2012@17:21)
Current performing lab assignments: None Listed

      Select one of the following:

1          Entire report
2          Specific sections of report
```



```

Designate performing laboratory for: 1// <ENTER> Entire report
Select Performing Laboratory: ZZ BONHAM// TX VAMC 522

Sure you want to add this record? NO// y YES
... assignment created.

Current performing lab assignments:

Bacteriology Report Performed By:
ZZ BONHAM [CLIA# 987654321]

    Select one of the following:

        1      Entire report
        2      Specific sections of report
        3      Delete performing laboratory

Designate performing laboratory for:
URINE CULTURE completed: 10/23/2012 //

Sending report to LEDI collecting site

```

**3. On the collection site, a message will appear indicating that new Micro results were received from the host. Process the results via the ‘Enter/verify data (auto instrument)’ option:**

**Figure 17. Collection Site Processes MICRO Results on ‘Enter/verify data (auto Instrument)’ [LRVR]**

```

Select OPTION NAME: lrmenu      Laboratory DHCP Menu

1      Phlebotomy menu ...
2      Accessioning menu ...
3      Process data in lab menu ...
4      Quality control menu ...
5      Results menu ...
6      Information-help menu ...
7      Ward lab menu ...
8      Anatomic pathology ...
9      Blood bank ...
10     Microbiology menu ...
11     Supervisor menu ...
LSM    Lab Shipping Menu ...

Lab Msg - New Microbiology results received for LA7V HOST 522
Enter  "VA to jump to VIEW ALERTS option

Select Laboratory DHCP Menu Option: 3 Process data in lab menu

EA      Enter/verify data (auto instrument)
EL      Enter/verify data (Load list)
EM      Enter/verify/modify data (manual)
EW      Enter/verify data (Work list)
GA      Group verify (EA, EL, EW)
MP      Misc. Processing Menu ...
        Accession order then immediately enter data
        Batch data entry (chem, hem, tox, etc.)
        Build a load/work list
        Bypass normal data entry
        Fast Bypass Data Entry/Verify

```

Lookup accession  
Order/test status  
Print a load/work list  
Std/QC/Reps Manual Workload count  
Unload Load/Work List

Select Process data in lab menu Option: **ea** Enter/verify data (auto instrument)

Select LOAD/WORK LIST NAME: **??** *Editor note: See AP/MICRO Config Guide for details*

Choose from:

ABBOTT  
ACA IV  
AFB  
ANTI-DS DNA AB  
APO A  
BLOOD CULTURE  
BLOOD GAS  
CHEM 7  
CHEMISTRY  
COAG  
DIFF  
DOD SAIC  
DRUGS  
FRANK TEST  
HEMATOLOGY  
HEPATITIS  
KODAK  
LA7V HOST ACH  
LA7V REMOTE 170  
LAB CORP  
LAH38  
MANUAL BENCH  
MICROBIOLOGY  
MYCOLOGY  
POC  
POC-NEW  
RALSG  
RIA  
SMAC  
UA  
VDRL  
VITEK  
WK-BB  
WK-CYTOLOGY  
WK-LITHIUM

Select LOAD/WORK LIST NAME: LA7V REMOTE 170

Select PROFILE: **??**

Choose from:

VA AP/DALLAS OI-HOST	SURGICAL PATHOLOGY
VA CH/DALLAS OI-HOST	CHEMISTRY
VA MICRO/DALLAS OI-HOST	MICROBIOLOGY

Select PROFILE: va MICRO/DALLAS OI-HOST MICROBIOLOGY

Select Performing Laboratory: DALLAS OI// TX 170

Work Load Area: LA7V REMOTE 170//

Select one of the following:

1 Accession Number

```

2 Unique Identifier (UID)

Verify by: 1// Accession Number
Accession Date: TODAY//10-23-2012 (OCT 23, 2012)

Enter Accession number part: 1// 27
Seq #: 24 Accession: MICRO 12 27 Results received: Oct 23, 2012@17:22
UID: 1412000027 Last updated: Oct 23, 2012@17:22
HXX,PXXXXXX XXX-XX-XXXX Age: 52yr
ORDER #: 682 MICRO 12 27 [1412000027]
Enter RETURN to continue or '^' to exit:

HXX,PXXXXXX XXX-XX-XXXX AGE: 52
Nov 20, 2012@16:21
----MICROBIOLOGY----
page 1
Accession [UID]: MICRO 12 27 [1412000027] Received: Oct 22, 2012@10:09
Collection sample: URINE Collection date: Oct 22, 2012 10:09
Provider: LRPROVIDER,ONE
Comment on specimen: Test for CCR_8693 (sending results back).

Test(s) ordered: URINE CULTURE
* BACTERIOLOGY FINAL REPORT => Nov 20, 2012 16:21 TECH CODE: 123456813

GRAM STAIN: GRAM NEGATIVE RODS
NP
CULTURE RESULTS: ESCHERICHIA COLI - Quantity: 2+
Comment: For AMPICLN: DISPLAY COMMENT
For NITROFURANTOIN REAL LONG NAME: DISPLAY COMMENT

ANTIBIOTIC SUSCEPTIBILITY TEST RESULTS:
ESCHERICHIA COLI
:
SUSC INTP
AMIKACN..... >256 TESTING DISPLAY COMMENT
HXX,PXXXXXX XXX-XX-XXXX ROUTING: MICU

HXX,PXXXXXX XXX-XX-XXXX AGE: 52
Nov 20, 2012@16:21
>> CONTINUATION OF MICRO 12 27 <<
page 2
Collection sample: URINE Collection date: Oct 22, 2012 10:09

ESCHERICHIA COLI
:
SUSC INTP
AMPICLN..... 32 S
CARBCLN..... I I TESTING DISPLAY COMMENT
CEFMAND..... I I TESTING DISPLAY COMMENT
CEFOXITIN..... R R TESTING DISPLAY COMMENT
CHLORAM..... R R TESTING DISPLAY COMMENT
NITROFURANTOIN REAL LONG NAME. S S TESTING DISPLAY COMMENT MAX LENGTH
DISPL
TETRCLN..... S S TESTING DISPLAY COMMENT
TOBRMCN..... R R TESTING DISPLAY COMMENT
TRMSULF..... S S TESTING DISPLAY COMMENT
GENTMCN..... I I TESTING DISPLAY COMMENT
CEPHALOTHIN..... I I TESTING DISPLAY COMMENT

+ + + + + End of Report + + + + + End of Report + + +
HXX,PXXXXXX XXX-XX-XXXX ROUTING: MICU

```

```

                                '^' TO STOP

Do you want to APPROVE these results? NO// y YES

Current performing lab assignments:

Bacteriology Report Performed By: ZZ BONHAM

Select one of the following:

      1      Entire report
      2      Specific sections of report
      3      Delete performing laboratory

Designate performing laboratory for: 1 Entire report
Select Performing Laboratory: ZZ BONHAM// TX VAMC 522 INACTIVE Jan 01, 1997

Sure you want to update this record? NO// y YES
... assignment updated.

Current performing lab assignments:

Bacteriology Report Performed By: ZZ BONHAM

      Select one of the following:

      1      Entire report
      2      Specific sections of report
      3      Delete performing laboratory

Designate performing laboratory for:

Enter Accession number part: 29// ^

EA      Enter/verify data (auto instrument)
EL      Enter/verify data (Load list)
EM      Enter/verify/modify data (manual)
EW      Enter/verify data (Work list)
GA      Group verify (EA, EL, EW)
MP      Misc. Processing Menu ...
        Accession order then immediately enter data
        Batch data entry (chem, hem, tox, etc.)
        Build a load/work list
        Bypass normal data entry
        Fast Bypass Data Entry/Verify
        Lookup accession
        Order/test status
        Print a load/work list
        Std/QC/Reps Manual Workload count
        Unload Load/Work List
Select Process data in lab menu Option:

```

Note: Lab Techs. May view an interim report when the interim report is verified using EA. The results are then viewable via lab interim reports and CPRS.

## 5 Use of the LEDI IV Software

### 5.1 VistA Laboratory New Menus



**NOTE:** For LIMs and IRM personnel, follow the Installation steps in the *LEDI IV Install Guide* prior to using this software: <http://www.va.gov/vdl/application.asp?appid=75>

The following new menus accommodate the new LEDI IV functionality.

### 5.1.1 New Laboratory Menu—Lab Code Mapping File Menu [LA7V 62.47 MENU]

The Lab Code Mapping File menu [LA7V 62.47 MENU] is the main menu that allows access to the LAB CODE MAPPING file (#62.47). This menu is located on the Lab Shipping Management Menu [LA7S MGR MENU]. This menu gets used for preparation for conversion to the Laboratory System.

**Figure 18. Lab Code Mapping File menu [LA7V 62.47 MENU] options Select Lab Shipping Management Menu Option: LAB CODE MAPPING FILE**

AEL	Add/Edit Local Identifier
CMC	Clone a Message Configuration
CSM	Code/Set Mismatches
DOD	Initialize DOD Codes
ECH	Error Code Help
ES	Edit Susceptibility
FI	Find Identifier
MAS	Map All Susceptibilities
PL	Print Local Codes
PMC	Print by Message Configuration
PS	Print Susceptibilities

## 5.2 Parameters and Hierarchies with LEDI IV

This section lists the parameters that are new with LEDI IV. These parameters can be edited using one of these three options:

Package Level Parameter Edit [LR7O PAR PKG] **NOTE:** There is a restriction on which user level at each site is allowed to edit Package Level Parameters.

Domain Level Parameter Edit, The Domain Level Option is used to modify Division Level Parameters [LR7O PAR DOMAIN].

General Lab User Parameters [LR USER PARAM].

## 5.2.1 Parameter Precedence Order

A single parameter may be set for several different types of entities. The Precedence Order lists the order in which entities are searched for a defined value.

For example, if a parameter may be set for a Package, a Division, and a User and the respective precedents are 3, 2, 1, the value of the User parameter would be used. If it did not exist, then the value of the Division parameter would be used. If that did not exist, then the value of the Package parameter would be used.

The table below provides the Parameters that are new and accessible by the users with the LEDI IV patch. The display text, parameter name, description and precedence order are all included.

**Table 2. LEDI IV patch parameters**

Display Text	Name	Description	Precedence Order
Default manual verify method	LR VER EM VERIFY BY UID	Used to designate the default verification method presented to the user when verifying laboratory results in the "CH" subscript via options <b>that do not use a load/work list</b> . Parameter can be set at the package, division or user level. Division level takes precedence over the package level. User level takes precedence over division level. Site can also force verification by UID only.  The available values that can be selected are: Accession number, UID (Unique Identifier) and only UID.	1. User 2. Division 3. Package
Default load/work list verify method	LR VER EA VERIFY BY UID	Used to designate the default verification method presented to the user when verifying laboratory results in the "CH" subscript via options <b>that use a load/work list</b> . Parameter is associated with the accession area linked to the load/worklist profile selected by the user.  Parameter can be set at the package or user level. User level takes precedence over package level.  The available values that can be selected are: Accession number, UID (Unique Identifier) and only UID.	1. User 2. Package
Display Provider in Micro Result Entry	LR MI VERIFY DISPLAY PROVIDER	This parameter allows the site/division/user to indicate if the ordering provider information should be displayed to the user during microbiology result data entry. The information displayed to the user is: <ul style="list-style-type: none"><li>• Provider Name</li></ul>	1. User 2. Division 3. Package

Display Text	Name	Description	Precedence Order
		<ul style="list-style-type: none"> <li>• Voice Pager</li> <li>• Office Phone</li> <li>• Digital Pager</li> </ul>	
Prompt CPRS Alert in Micro Result Entry	LR MI VERIFY CPRS ALERT	<p>Used to allow the user to determine if they want to be prompted to send a CPRS alert after editing a microbiology accession.</p> <p>The user can indicate:</p> <p>They do not want to be asked</p> <p>The user can request that they be asked and have the default prompt to be set to NO, or</p> <p>The user can request to be asked and have the default prompt to be set to Yes.</p> <p>The default Package level setting is 'Don't Ask'.</p>	<ol style="list-style-type: none"> <li>1. User</li> <li>2. Division</li> <li>3. Package</li> </ol>
EGFR Creatinine IDMS-traceable Method	LR EGFR METHOD	Used to designate if the EGFR calculation should calculate the EGFR based on an IDMS-traceable method. This parameter is configurable at both the package and division level.	<ol style="list-style-type: none"> <li>1. Division</li> <li>2. Package</li> </ol>
EGFR Patient's Age Cutoff	LR EGFR AGE CUTOFF	Used to designate if the EGFR calculation should not be performed on creatinine when executing the delta check EGFR when the patient's age is <18 or >70. This parameter is configurable at both the Package and division level and can be set for either or both age cutoffs	<ol style="list-style-type: none"> <li>1. Division</li> <li>2. Package</li> </ol>
EGFR Result Cutoff	LR EGFR RESULT SUPPRESS	Used to designate if the EGFR calculation should be suppressed when the value is >60. If enabled then ">60" is reported in lieu of the actual EGFR calculated value. This parameter is configurable at both the package and division level.	<ol style="list-style-type: none"> <li>1. Division</li> <li>2. Package</li> </ol>
Send an alert after AP release	LRAPRES1 AP ALERT	<p>After Anatomic Pathology report is released, this will be the default answer to the "Send an alert" message.</p> <p>The default Package level setting is 'NO'.</p>	<ol style="list-style-type: none"> <li>1. User</li> <li>2. Division</li> <li>3. Package</li> </ol>
Default AP Report Selection Prompt	LR AP REPORT SELECTION	Allows the package/facility/user to set a default report selection method to present to the user.	<ol style="list-style-type: none"> <li>1. User</li> <li>2. Division</li> <li>3. Package</li> </ol>
Ask Performing Lab AP	LR ASK PERFORMING LAB AP	<p>Enter YES to be prompted for Performing Lab.</p> <p>Enter NO to <i>not</i> be prompted for Performing Lab.</p> <p>If the user chooses not to be prompted for performing laboratory, the system will assign the performing laboratory based on the user's Default Performing Laboratory parameter and if the parameter is not set for the user, it defaults to the user's Institution (DUZ(2)).</p> <p>The default Package level setting is 'YES'.</p>	<ol style="list-style-type: none"> <li>1. User</li> <li>2. Division</li> <li>3. Package</li> </ol>
Ask Performing	LR ASK	Enter YES to be prompted for Performing Lab.	<ol style="list-style-type: none"> <li>1. User</li> </ol>



Display Text	Name	Description	Precedence Order
Lab Micro	PERFORMING LAB MICRO	Enter NO to <i>not</i> be prompted for Performing Lab. If the user chooses not to be prompted for performing laboratory, the system will assign the performing laboratory based on the user's 'Default Performing Laboratory' parameter and if the parameter is not set for the user, it defaults to the user's Institution (DUZ(2)). The default Package level setting is 'YES'.	2. Division 3. Package
Print SNOMED Code System	LR AP SNOMED SYSTEM PRINT	Parameter to allow the site/division to indicate which version of SNOMED to print or display on Anatomic Pathology reports. The default Package level setting is 'SNOMED I'.	1. Division 2. Package
Document Surgery Package Case Info	LR AP SURGERY REFERENCE	Allows site/division to indicate when copying surgical case information from the Surgery package during surgical pathology login if a statement is also added to the copied information documenting the source of the copied information. The default Package level setting is 'NO'.	1. Division 2. Package
Chemistry GUI Report Right Margin	LR CH GUI REPORT RIGHT MARGIN	This is the value to use for the right margin (column) when formatting chemistry/hematology type laboratory reports within a GUI display/client.	1. User 2. Division 3. Package
Microbiology GUI Report Right Margin	LR MI GUI REPORT RIGHT MARGIN	This is the value to use for the right margin (column) when formatting microbiology type laboratory reports within a GUI display/client.	1. User 2. Division 3. Package
AP GUI Report Right Margin	LR AP GUI REPORT RIGHT MARGIN	This is the value to use for the right margin (column) when formatting anatomic pathology type laboratory reports within a GUI display/client.	1. User 2. Division 3. Package
Method of Assigning AP Accession Number	LR AP DEFAULT ACCESSION NUMBER	When an Anatomic Pathology (AP) case is accessioned, this parameter will control how the system should assign a default accession number to the case being logged in. (Note: The user will still be able to override the default, and select a different accession number, if they so choose). The user can select to keep the Accession default as it is. Or, they can set system to search from the beginning (#1). The first available accession number found in that accession area will be used as the default accession number for the new case being logged in.	1. Package
Default Accessioning Specimen	LR ACCESSION DEFAULT SPECIMEN	Allows the package/facility/user to set a default topography presented to the user when accessioning specimens into the Laboratory system.	1. User 2. Division 3. Package

Display Text	Name	Description	Precedence Order
Default Accessioning Collection Sample	LR ACCESSION DEFAULT COL SAMP	Allows the package/facility/user to set a default collection sample presented to the user when accessioning specimens into the Laboratory system.	1. User 2. Division 3. Package
Default Accessioning Lab Test	LR ACCESSION DEFAULT LAB TEST	Allows the package/facility/user to set a default laboratory test presented to the user when accessioning specimens into the Laboratory system.	1. User 2. Division 3. Package
Exclude removed tests from building	LR MANIFEST EXC PREV TEST	Allows package or user to select the default value presented to the user when building a shipping configuration to the prompt "Exclude previously removed tests from building?"	1. User 2. Package
Use default accession dates	LR MANIFEST DEFLT ACCESSION	Allows package or user to select the default value presented to the user when building a shipping configuration to the prompt "Use default accession dates?"	1. User 2. Package
Print Reporting/Printing Facility	LR REPORTS FACILITY PRINT	Determines if the name and address of the: Laboratory that is responsible for the report display on the Laboratory report. Facility where the report is printed display on the Laboratory report. Both names display on the Laboratory report. The default Package level setting is 'None'. <b>NOTE:</b> Setting of the Print Reporting /Printing Facility is not fully functional for Multi-Divisional sites. It also has no impact on the Performing Lab that displays in CPRS.	1. Division 2. Package
Lab STS Default Mapping Files Directory	LR MAPPING DEFAULT DIRECTORY	This parameter holds the name of the default directory, which contains the STS mapping of standard code sets to VistA Laboratory system files. Should be expressed as a full directory specification.	1. User 2. Package 3. System
Lab STS Default Mapping Filespec	LR MAPPING DEFAULT FILESPEC	This parameter holds the file specification used to screen which files in a given directory are presented to the user for loading. These files contain the STS mapping of standard code sets to VistA Laboratory system files. The default Package level setting is '*.TXT'.	1. User 2. Package 3. System
Default lab label printer	LR LABEL PRINTER DEFAULT	Allows selection of default lab label printer presented to the user when selecting the label device to use to print accession and order labels. User can specify default printer by division.	1. User
Default Performing Laboratory	LR VER DEFAULT PERFORMING	Allows the user to designate a default performing lab that is presented to the user when specifying the performing lab. Normally the lab software	1. User

Display Text	Name	Description	Precedence Order
	LAB	defaults to the user's institution. This parameter allows the user to specify a different institution.	
Lab Messaging - Parse HL7 Messages	LA7UTILA PARSE	Allows the User to select the default setting for "Parse HL7 Message" prompt when using [LA7 PRINT LAB UI MESSAGE].  "LAST" means the user wants the system to keep track of their last response to this prompt and use that as their default.	1. User 2. System
Lab Messaging - Display using Browser	LA7UTILA USE BROWSER	Allows the User to select the default setting for the "Use Browser to display HL7 Message" prompt when using [LA7 PRINT LAB UI MESSAGE].  "LAST" means the User wants the system to keep track of their last response to this prompt and use that as their default.	1. User 2. System
Lab Messaging - Show Identifiers	LA7UTILA SHOIDS	Allows the user to select the default setting for the "Display identifiers during message selection?" prompt when using [LA7 PRINT LAB UI MESSAGE].	1. User 2. System
Prompt CPRS Alert in CH Result Entry	LR CH VERIFY CPRS ALERT	Used to allow the user to determine if they want to be prompted to send a CPRS alert after editing a Chem/Heme accession.  The user can indicate: <ul style="list-style-type: none"> <li>○ They do not want to be asked</li> <li>○ The user can request that they be asked and have the default prompt to be set to NO,</li> <li>○ The user can request to be asked and have the default prompt to be set to Yes.</li> </ul>	1. User 2. Division 3. Package

## 5.2.2 Package Level Parameter Edit [LR70 PAR PKG]

Package Level Parameter Setup should be performed by the LIM. The option Package Level Parameter Edit [LR70 PAR PKG] specifies LAB package settings for the new parameters introduced with LEDI IV (see list below). The Lab LIM should configure these as appropriate for their package. The option is located on the Update CPRS Parameters menu [LR70 PARAM MENU].



**NOTE:** During data entry, the LIM can enter two question marks next to a field and VistA provides a short explanation of the parameter.

Default manual verify method.

Default load/work list verify method.

Display Provider in Micro Result Entry.

Prompt CPRS Alert in Micro Result Entry.

Prompt CPRS Alert in CH Result Entry.

EGFR Creatinine IDMS-traceable Method.

EGFR Patient's Age Cutoff.

EGFR Result Cutoff.

Send an alert after AP release.

Default AP Report Selection Prompt.

Ask Performing Lab AP.

Ask Performing Lab Micro.

Print SNOMED Code System.

Document Surgery Package Case Info.

Chemistry GUI Report Right Margin.

Microbiology GUI Report Right Margin.

AP GUI Report Right Margin.

Method of Assigning AP Accession Number.

Default Accessioning Specimen.

Default Accessioning Collection Sample.

Default Accessioning Lab Test.

Exclude removed tests from building.

Use default accession dates.

Print Reporting/Printing Facility.

Lab STS Default Mapping Files Directory.

Lab STS Default Mapping Filespec.

**Figure 19. Package Level Parameter Edit [LR70 PAR PKG]**

```

Select Laboratory DHCP Menu Option: SUPER <ENTER>   visor menu
Select Supervisor menu Option: LAB LIA <ENTER>   ison menu
Select Lab liaison menu Option: OE/RR <ENTER>   interface parameters
Select OE/RR interface parameters Option: CC <ENTER>   Update CPRS Parameters
Select Update CPRS Parameters Option: ?

    PA      Update CPRS with Lab order parameters
    SI      Update CPRS with Single Lab test
    UP      Update CPRS with all Lab test parameters
    DO      Domain Level Parameter Edit
    LO      Location Level Parameter Edit
    PP      Package Level Parameter Edit
    UL      Display Lab User Parameters

Enter ?? for more options, ??? for brief descriptions, ?OPTION for help text.

Select Update CPRS Parameters Option: PP <ENTER>   Package Level Parameter Edit
Lab Package Level Parameters for Package: LAB SERVICE
-----
Collect on Monday                                YES
Collect on Tuesday                              YES
Collect on Wednesday                            YES
Collect on Thursday                             YES
Collect on Friday                               YES
Collect on Saturday                             NO
Collect on Sunday                               NO
Lab Collects on Holidays                         YES
Lab Collect Days Allowed in Future               365
Maximum Days for Continuous Orders              270
Default manual verify method
Default load/work list verify method
Display Provider in Micro Result Entry
Prompt CPRS Alert in Micro Result Entry          Don't Ask
Prompt CPRS Alert in CH Result Entry
EGFR Creatinine IDMS-traceable Method
EGFR Patient's Age Cutoff
EGFR Result Cutoff
Send an alert after AP release
Default AP Report Selection Prompt
Ask Performing Lab AP                            YES
Ask Performing Lab Micro                         YES
Print SNOMED Code System                        SNOMED I
Document Surgery Package Case Info
Chemistry GUI Report Right Margin
Microbiology GUI Report Right Margin
AP GUI Report Right Margin
Method of Assigning AP Accession Number
Default Accessioning Specimen
Default Accessioning Collection Sample
Default Accessioning Lab Test
Exclude removed tests from building
Use default accession dates
Print Reporting/Printing Facility                None
Lab STS Default Mapping Files Directory
Lab STS Default Mapping Filespec                 *.TXT
-----
COLLECT MONDAY: YES// <ENTER>
COLLECT TUESDAY: YES// <ENTER>
COLLECT WEDNESDAY: YES// <ENTER>
COLLECT THURSDAY: YES// <ENTER>
COLLECT FRIDAY: YES// <ENTER>

```

```

COLLECT SATURDAY: NO// <ENTER>
COLLECT SUNDAY: NO// <ENTER>
IGNORE HOLIDAYS: YES// <ENTER>
LAB COLLECT DAYS ALLOWED IN FUTURE: 365// <ENTER>
MAXIMUM DAYS FOR CONTINUOUS ORDERS: 270// <ENTER>
Default manual verify method: <ENTER>
For Default load/work list verify method -
Select Accession Area: <ENTER>
Display Provider in Micro Result Entry: <ENTER>
Send CPRS Alert in Micro Result Entry: Don't Ask// <ENTER>
Send CPRS Alert in CH Result Entry: <ENTER>
Creatinine IDMS-traceable Method: <ENTER>
Suppress EGFR When Patient's Age: <ENTER>
Report EGFR as >60: <ENTER>
Send alert for released AP: <ENTER>
AP Report Selection Default: <ENTER>
Ask Performing Lab AP: YES// ?
Enter yes to be prompted for Performing Lab for Anatomic Pathology tests.
Ask Performing Lab AP: YES// <ENTER>
Ask Performing Lab for MICRO: YES// ?
Enter yes to be prompted for Performing Lab for Microbiology tests.
Ask Performing Lab for MICRO: YES// <ENTER>
Print SNOMED Version: SNOMED I// <ENTER>
Document Surgery Case Info: <ENTER>
Chemistry GUI Report Right Margin: <ENTER>
Microbiology GUI Report Right Margin: <ENTER>
AP GUI Report Right Margin: <ENTER>
For Default Accessioning Specimen -
Select Lab Section: <ENTER>
For Default Accessioning Collection Sample -
Select Lab Section: <ENTER>
For Default Accessioning Lab Test -
Select Lab Section: <ENTER>
For Exclude removed tests from building -
Select Shipping Configuration: <ENTER>
For Use default accession dates -
Select Shipping Configuration: <ENTER>
Print Reporting/Printing Facility: None// <ENTER>
Default Directory: ?
The directory that contains the STS mapping files.
Default Directory: <ENTER>
Default FileSpec: *.TXT// <ENTER>
Select Update CPRS Parameters Option:

```

### 5.2.3 General Lab User Parameters [LR User Param]

General Lab user parameter setup should be performed by the Lab users. The General Lab User Parameters [LR USER PARAM] option specifies user level default settings that a user can set to override corresponding package or domain level parameters for these settings (see list below). This option is located on the Information-help menu [LRHELP].



**NOTE:** During data entry, the LIM can type in two question marks next to a field and Vista provides a short explanation of the parameter.

Default lab label printer.

Display previous comments for test.

Default Performing Laboratory.

Ask Performing Lab AP.

Ask Performing Lab Micro.

Display Provider in Micro Result Entry.

Prompt CPRS Alert in CH Result Entry.

Prompt CPRS Alert in Micro Result Entry.

Default AP Report Selection Prompt.

Send an alert after AP release.

Default Accessioning Specimen.

Default Accessioning Collection Sample.

Default Accessioning Lab Test.

Exclude removed tests from building.

Use default accession dates.

Lab Messaging - Parse HL7 Messages.

Lab Messaging - Display using Browser.

Lab Messaging - Show Identifiers.

Chemistry GUI Report Right Margin.

Microbiology GUI Report Right Margin.

AP GUI Report Right Margin.

Lab STS Default Mapping Files Directory.

Lab STS Default Mapping Filespec.

**Figure 20. General Lab User Parameters [LR USER PARAM]**

```
Select OPTION NAME: LRMENU <ENTER> Laboratory DHCP Menu

Select Laboratory DHCP Menu Option: ?

1      Phlebotomy menu ...
2      Accessioning menu ...
3      Process data in lab menu ...
4      Quality control menu ...
5      Results menu ...
6      Information-help menu ...
7      Ward lab menu ...
8      Anatomic pathology ...
9      Blood bank ...
10     Microbiology menu ...
11     Supervisor menu ...
LSM    Lab Shipping Menu ...

Enter ?? for more options, ??? for brief descriptions, ?OPTION for help text.

Select Laboratory DHCP Menu Option: 6 <ENTER> Information-help menu

Select Information-help menu Option: PP <ENTER> General Lab User Parameters

Lab User Level Parameters for User: LRUSER,TWO
-----
Default lab label printer
Display previous comments for test
Default Performing Laboratory
Ask Performing Lab AP
Ask Performing Lab Micro
Display Provider in Micro Result Entry
Prompt CPRS Alert in CH Result Entry
Prompt CPRS Alert in Micro Result Entry
Default AP Report Selection Prompt
Send an alert after AP release
Default Accessioning Specimen
Default Accessioning Collection Sample
Default Accessioning Lab Test
Exclude removed tests from building
Use default accession dates
Lab Messaging - Parse HL7 Messages
Lab Messaging - Display using Browser
Lab Messaging - Show Identifiers
Chemistry GUI Report Right Margin
Microbiology GUI Report Right Margin
AP GUI Report Right Margin
Lab STS Default Mapping Files Directory      USER$:[LRUSERT]
Lab STS Default Mapping Filespec
-----

For Default lab label printer -
Select Division: ?

There are currently no entries for Division.

Answer with INSTITUTION NAME, or STATUS, or STATION NUMBER, or
OFFICIAL VA NAME, or CURRENT LOCATION, or CODING SYSTEM/ID PAIR, or
NPI, or STATUS, or NAME (CHANGED FROM), or CODING SYSTEM
Do you want the entire INSTITUTION List? Y <ENTER> (Yes)
Choose from: ...      Editor Note: List of Institutions displays.
```



Select Division: **<ENTER>**

For Display previous comments for test -  
Select Laboratory Test: **?**

There are currently no entries for Laboratory Test.

Answer with LABORATORY TEST NAME, or LOCATION (DATA NAME), or  
PRINT NAME

Do you want the entire LABORATORY TEST List? **Y <ENTER>** (Yes)

Choose from:

1,25-DIHYDROXYVIT D3	1,25-DI
1/2HR LTT	1/2HR L
1/2Hr.GTT	1/2Hr.G
1/2Hr.GTT (URINE)	1/2Hr.G
11-DEOXYCORTISOL	11-DEOX
17-HYDROXYCORTICOSTEROIDS	17-HYDR
1HR LTT	1HR LTT
1Hr.GTT	1Hr.GTT
1Hr.GTT (URINE)	1Hr.GTT
25 OH VITAMIN D	25 OH V
2HR LTT	2HR LTT
2Hr.GTT	2Hr.GTT
2Hr.GTT (URINE)	2Hr.GTT
3HR LTT	3HR LTT
3Hr.GTT	3Hr.GTT
3Hr.GTT (URINE)	3Hr.GTT
4Hr.GTT	4Hr.GTT
4Hr.GTT (URINE)	4Hr.GTT
5' NUCLEOTIDASE	5' N
5Hr.GTT	5Hr.GTT

Select Laboratory Test: **<ENTER>**

Default Performing Laboratory: **?**

Answer with INSTITUTION NAME, or STATUS, or STATION NUMBER, or  
OFFICIAL VA NAME, or CURRENT LOCATION, or CODING SYSTEM/ID PAIR, or  
NPI, or STATUS, or NAME (CHANGED FROM), or CODING SYSTEM

Do you want the entire INSTITUTION List? **Y <ENTER>** (Yes)

Choose from:

DOD-SAIC	CA		
LAB RE-ENGINEERING - REGION 1	TX	OTHER	200LR1
LABORATORY CORPORATION	NC		
MILWAUKEE VAMC	WI	VAMC	695
REGION 7 ISC,TX (FS)	TX		170
TRIPLER ARMY MEDICAL CENTER	HI	USAH	459CN
ZZ BONHAM	TX	VAMC	522
			INACTIVE Jan 01, 1997

Default Performing Laboratory: **<ENTER>**

Ask Performing Lab AP: **?**

Enter yes to be prompted for Performing Lab for Anatomic Pathology tests.

Ask Performing Lab AP: **<ENTER>**

Ask Performing Lab for MICRO: **?**

Enter yes to be prompted for Performing Lab for Microbiology tests.

Ask Performing Lab for MICRO: **<ENTER>**

Display Provider in Micro Result Entry: **?**

Enter yes/no to display ordering provider information during micro  
result entry.

Display Provider in Micro Result Entry: **<ENTER>**

Send CPRS Alert in CH Result Entry: **?**

Specify if user should be prompted to send a CPRS Alert.

Select one of the following:

- 0 Don't Ask
- 1 Ask - Default NO
- 2 Ask - Default YES

Send CPRS Alert in CH Result Entry: **<ENTER>**

Send CPRS Alert in Micro Result Entry: **?**

Specify if user should be prompted to send a CPRS Alert.

Select one of the following:

- 0 Don't Ask
- 1 Ask - Default NO
- 2 Ask - Default YES

Send CPRS Alert in Micro Result Entry: **<ENTER>**

AP Report Selection Default: **?**

Specify the default report selection method presented to user.

Select one of the following:

- 1 Accession Number
- 2 Unique Identifier (UID)
- 3 Patient Name

AP Report Selection Default: **<ENTER>**

Send alert for released AP: **?**

Enter either 'Y' or 'N'.

Send alert for released AP: **<ENTER>**

For Default Accessioning Specimen -

Select Lab Section: **?**

There are currently no entries for Lab Section.

Answer with ACCESSION AREA, or UID, or HOST UID

Do you want the entire ACCESSION List? y (Yes)

Choose from:

CYTOPATHOLOGY

CYTOPATHOLOGY-GYN

EM

SURGICAL PATHOLOGY

Select Lab Section: **<ENTER>**

For Default Accessioning Collection Sample -

Select Lab Section: **?**

There are currently no entries for Lab Section.

Answer with ACCESSION AREA, or UID, or HOST UID

Do you want the entire ACCESSION List? **y** (Yes)

Choose from:

CYTOPATHOLOGY

CYTOPATHOLOGY-GYN  
EM  
SURGICAL PATHOLOGY

Select Lab Section: **<ENTER>**

For Default Accessioning Lab Test -

Select Lab Section: **?**

There are currently no entries for Lab Section.

Answer with ACCESSION AREA, or UID, or HOST UID

Do you want the entire ACCESSION List? y (Yes)

Choose from:

CYTOPATHOLOGY

CYTOPATHOLOGY-GYN

EM

SURGICAL PATHOLOGY

Select Lab Section: **<ENTER>**

For Exclude removed tests from building -

Select Shipping Configuration: **?**

There are currently no entries for Shipping Configuration.

Answer with LAB SHIPPING CONFIGURATION NAME, or COLLECTING FACILITY, or

HOST FACILITY'S SYSTEM, or COLLECTING FACILITY'S SYSTEM

Do you want the entire LAB SHIPPING CONFIGURATION List? **y** (Yes)

Choose from:

CERNER #1

DOD HOST

LABCORP

LEDI HOST LAB

MHC TO VRR

TRIPLER AMC

Select Shipping Configuration: **<ENTER>**

For Use default accession dates -

Select Shipping Configuration: **?**

There are currently no entries for Shipping Configuration.

Answer with LAB SHIPPING CONFIGURATION NAME, or COLLECTING FACILITY, or

HOST FACILITY'S SYSTEM, or COLLECTING FACILITY'S SYSTEM

Do you want the entire LAB SHIPPING CONFIGURATION List? **y** (Yes)

Choose from:

CERNER #1

DOD HOST

LABCORP

LEDI HOST LAB

MHC TO VRR

TRIPLER AMC

Select Shipping Configuration: **<ENTER>**

Lab Messaging - Parse HL7 Messages: **?**

Enter a code from the list.

Select one of the following:

Y YES

N NO

L LAST

Lab Messaging - Parse HL7 Messages: **<ENTER>**

```

Lab Messaging - Use Browser to display: ?

Enter a code from the list.

    Select one of the following:

        Y      YES
        N      NO
        L      LAST

Lab Messaging - Use Browser to display: <ENTER>
Lab Messaging - Show Identifiers: ?

Enter a code from the list.

    Select one of the following:

        Y      YES
        N      NO
        L      LAST

Lab Messaging - Show Identifiers: <ENTER>
Chemistry GUI Report Right Margin: ?

Enter the value to be used (132) for the right margin when formatting lab
reports.

Chemistry GUI Report Right Margin: <ENTER>
Microbiology GUI Report Right Margin: ?

Enter the value to be used (132) for the right margin when formatting lab reports.

Microbiology GUI Report Right Margin: <ENTER>
AP GUI Report Right Margin: ?

Enter the value to be used (132) for the right margin when formatting lab reports.

AP GUI Report Right Margin: <ENTER>
Default Directory: USER$:[LRUSER]// ?

The directory that contains the STS mapping files.

Default Directory: USER$:[LRUSER]// <ENTER>
Default FileSpec: ?

The filespec to screen the display of files.

Default FileSpec: <ENTER>

Select Information-help menu Option: Select Laboratory DHCP Menu Option:

```

## 5.2.4 Domain Level Parameter Edit [LR70 PAR DOMAIN]

Use the option Domain Level Parameter Edit [LR70 PAR DOMAIN] to edit the parameters at the Division level. The LIM performs the Domain Level Parameter Edit to configure the parameters appropriately for their system. The Domain Level Parameter Edit [LR70 PAR DOMAIN] specifies Division level settings that can be set to override corresponding Package level settings for the following parameters.



**NOTE:** During data entry, the LIM can type in two question marks next to a field and Vista provides a short explanation of the parameter.

- Lab Collect Days Allowed in Future.
- Default manual verify method.
- Default load/work list verify method.
- EGFR Creatinine IDMS-traceable Method.
- EGFR Patient's Age Cutoff.
- EGFR Result Cutoff.
- Default AP Report Selection Prompt.
- Ask Performing Lab AP.
- Ask Performing Lab Micro.
- Print SNOMED Code System.
- Document Surgery Package Case Info.
- Default Accessioning Specimen.
- Default Accessioning Collection Sample.
- Default Accessioning Lab Test.
- Display Provider in Micro Result Entry.
- Prompt CPRS Alert in Micro Result Entry.
- Prompt CPRS Alert in CH Result Entry.
- Chemistry GUI Report Right Margin.
- Microbiology GUI Report Right Margin.
- AP GUI Report Right Margin.
- Print Reporting/Printing Facility.

**Figure 21. Domain Level Parameter Edit [LR70 PAR DOMAIN]**

```

Select Laboratory DHCP Menu Option: SUPER <ENTER> visor menu
Select Supervisor menu Option: LAB LIA <ENTER> ison menu
Select Lab liaison menu Option: OE/RR <ENTER> interface parameters
Select OE/RR interface parameters Option: CC <ENTER> Update CPRS Parameters
Select Update CPRS Parameters Option: ?

    PA    Update CPRS with Lab order parameters
    SI    Update CPRS with Single Lab test
    UP    Update CPRS with all Lab test parameters
    DO    Domain Level Parameter Edit
    LO    Location Level Parameter Edit
    PP    Package Level Parameter Edit
    UL    Display Lab User Parameters

Enter ?? for more options, ??? for brief descriptions, ?OPTION for help text.

Select Update CPRS Parameters Option: DO <ENTER> Domain Level Parameter Edit

Select INSTITUTION NAME: ZZ BONHAM <ENTER> TX VAMC 522 INACTIVE
Jan 01, 1997

Lab Domain Level Parameters for Division: ZZ BONHAM
-----
Phlebotomy Collection Time      27000          0800
                                54000          1530
                                55200          1530

Lab Collect Days Allowed in Future
Default manual verify method
Default load/work list verify method
EGFR Creatinine IDMS-traceable Method
EGFR Patient's Age Cutoff
EGFR Result Cutoff
Default AP Report Selection Prompt
Ask Performing Lab AP           YES
Ask Performing Lab Micro        YES
Print SNOMED Code System        SNOMED I
Document Surgery Package Case Info
Default Accessioning Specimen
Default Accessioning Collection Sample
Default Accessioning Lab Test
Display Provider in Micro Result Entry
Prompt CPRS Alert in Micro Result Entry
Prompt CPRS Alert in CH Result Entry
Chemistry GUI Report Right Margin
Microbiology GUI Report Right Margin
AP GUI Report Right Margin
Print Reporting/Printing Facility
-----

For Phlebotomy Collection Time -
Select Instance: <ENTER>
LAB COLLECT DAYS ALLOWED IN FUTURE: <ENTER>
Default manual verify method: <ENTER>
For Default load/work list verify method -
Select Accession Area: <ENTER>
Creatinine IDMS-traceable Method: <ENTER>
Suppress EGFR When Patient's Age: <ENTER>
Report EGFR as >60: <ENTER>
AP Report Selection Default: <ENTER>
Ask Performing Lab AP: YES// ?
Enter yes to be prompted for Performing Lab for Anatomic Pathology tests.
Ask Performing Lab AP: YES// <ENTER>

```

```
Ask Performing Lab for MICRO: YES// ?  
Enter yes to be prompted for Performing Lab for Microbiology tests.  
Ask Performing Lab for MICRO: YES// <ENTER>  
Print SNOMED Version: SNOMED I// <ENTER>  
Document Surgery Case Info: <ENTER>  
For Default Accessioning Specimen -  
Select Lab Section: <ENTER>  
For Default Accessioning Collection Sample -  
Select Lab Section: <ENTER>  
For Default Accessioning Lab Test -  
Select Lab Section: <ENTER>  
Display Provider in Micro Result Entry: <ENTER>  
Send CPRS Alert in Micro Result Entry: <ENTER>  
Send CPRS Alert in CH Result Entry: <ENTER>  
Chemistry GUI Report Right Margin: <ENTER>  
Microbiology GUI Report Right Margin: <ENTER>  
AP GUI Report Right Margin: <ENTER>  
Print Reporting/Printing Facility: <ENTER>  
Select Update CPRS Parameters Option:
```

### ***5.3 New LEDI IV Options***

### 5.3.1 Edit an Antibiotic [LRWU7 EDIT]

The Edit an Antibiotic [LRWU7 EDIT] allows the editing of an existing bacterial antibiotic or mycobacterium antibiotic.

**Figure 22. Edit an Antibiotic [LRWU7 EDIT]**

```
Select Lab liaison menu Option: ?

ANT    Add a new internal name for an antibiotic
ANTE   Edit an Antibiotic
BCF     Lab Bar Code Label Formatter
BCZ     Lab Zebra Label Utility
DATA    Add a new data name
HDR     Recover/Transmit Lab HDR Result Messages
LNC     LOINC Main Menu ...
MOD     Modify an existing data name
SMGR    Lab Shipping Management Menu ...
        Add a new WKLD code to file
        AP Microfiche Archive
        Check files for inconsistencies
        Check patient and lab data cross pointers
        Download Format for Intermec Printer
        Edit atomic tests
        Edit cosmic tests
        File list for lab
        LAB ROUTINE INTEGRITY MENU ...
        Lab Tests and CPT Report
        LIM workload menu ...
        Manually compile WKLD and workload counts
        OE/RR interface parameters ...
        Outline for one or more files
        Print AMA CPT Panel Pending List
        Re-index Antimicrobial Suscept File (62.06)
        Restart processing of instrument data
        Turn on site workload statistics
        Turn on workload stats for accession area
        User selected lab test/patient list edits ...

Select Lab liaison menu Option: EDIT AN ANTIBIOTIC

        Select one of the following:

            1          Bacterial Antibiotic
            2          Mycobacterium Antibiotic

Select Antibiotic Type to Edit: 1// <ENTER> Bacterial Antibiotic
Select ANTIMICROBIAL SUSCEPTIBILITY NAME: PENICILLIN <ENTER> PENICILLIN
NAME: PENICILLIN// <ENTER>
INTERNAL NAME: PENICILLIN// <ENTER>
DISPLAY COMMENT: <ENTER>
ABBREVIATION: PEN// <ENTER>
DEFAULT SCREEN: ALWAYS DISPLAY// <ENTER>
PRINT ORDER: 23// <ENTER>
Select SUSCEPTIBILITY RESULT: <ENTER>
NATIONAL VA LAB CODE: Penicillin//
```



### 5.3.2 Manage MI/AP Test Mappings [LRCAPFF]

In preparation for converting to the next LEDI patch, the Manage MI/AP Test Mappings [LRCAPFF] establishes the relationships between the LABORATORY TEST (#60), the WKLD CODE (#64) and the LAB ELECTRONIC CODES (#64.061) files for LEDI MI/AP tests.

**Figure 23. Manage MI/AP Test Mappings [LRCAPFF]**

```
Select LIM workload menu Option: NATIONAL LABORATORY FILE

Select National Laboratory File Option: ?

1      Semi-automatic Linking of file 60 to 64
2      Manual Linking of file 60 to 64
3      Result NLT Auto Linker
4      Link Result NLT Manual
5      Manage MI/AP Test Mappings

Select National Laboratory File Option: 5 <ENTER>  Manage MI/AP Test Mappings

      Select one of the following:

          MI      Microbiology
          SP      Surgical Pathology
          CY      Cytopathology
          EM      Electron Microscopy

Choose Lab Area Subscript: MI <ENTER>  Microbiology

Enter Laboratory Test Name: GRAM STAIN <ENTER>          GRAM ST
Editing LABORATORY TEST file (#60)
NATIONAL VA LAB CODE: Gram Stain// <ENTER>
60 = GRAM STAIN  [362]
64 = Gram Stain (87754.0000)  [2851]
      Link the two entries? No// Y <ENTER> (Yes)

      No Database Code on file for this NLT code

Select an MI Database Code: ?
      Answer with LAB ELECTRONIC CODES SEQUENCE, or NAME, or LOINC ABBR, or
      HL7 ABBR, or LAB ABBR, or TYPE
      Do you want the entire LAB ELECTRONIC CODES List? Y (Yes)
      Choose from:
          9193      MI Bacteria Rpt Date      GENERAL      BACTERIA RPT DATABASE
          9194      MI Gram Stain Rpt Date     GENERAL      GRAM STAIN DATANAME
          9197      MI Parasitology Complete Rpt Date     GENERAL      PARASITOLOGY R
          PT DATE DATANAME
          9201      MI Mycology Rpt Date      GENERAL      MYCOLOGY RPT DATE DATANAME
          9205      MI TB Rpt Date            GENERAL      TB RPT DATE DATANAME
          9209      MI Virology Rpt Date      GENERAL      VIROLOGY RPT DATE DATANAME
Select an MI Database Code: 9194 MI Gram Stain Rpt Date      GENERAL      GRAM ST
AIN DATANAME

Update complete.
```

### 5.3.3 Add/Edit Local Identifier [LA7V 62.47 LOCAL IDENTIFIER]

The option Add/Edit Local Identifier [LA7V 62.47 LOCAL IDENTIFIER] allows the user to add and edit local codes.

**Figure 24. Add/Edit Local Identifier [LA7V 62.47 LOCAL IDENTIFIER]**

```
Select Lab Code Mapping File Option: ADD/EDIT LOCAL IDENTIFIER
Select LAB CODE MAPPING CONCEPT: GRAM STAIN<ENTER> MI Gram Stain Rpt Date
Select IDENTIFIER:0410.3 <ENTER>99LAB
    ...OK? Yes// <ENTER> (Yes)

IDENTIFIER: 0410.3// <ENTER>
CODING SYSTEM: 99LAB// <ENTER>
PURPOSE: RESULT// <ENTER>
OVERRIDE CONCEPT: <ENTER>
RELATED ENTRY: <ENTER>
MESSAGE CONFIGURATION: LA7V HOST 170// <ENTER>

Select IDENTIFIER: <ENTER>
Select LAB CODE MAPPING CONCEPT:
```

### 5.3.4 Clone a Message Configuration [LA7V 62.47 CLONE MSG CONFIG]

The option Clone a Message Configuration [LA7V 62.47 CLONE MSG CONFIG] copies the entries of the source Message Configuration into entries for the destination message configuration. When local identifiers (codes) are added (using the Add/Edit Local Identifier [LA7V 62.47 LOCAL IDENTIFIER]) those local codes are interface specific. This option allows a user to clone the local identifiers added for one Message Configuration to another. This is useful when setting up a new interface that uses similar local codes to an existing interface.

**Figure 25. Clone a Message Configuration [LA7V 62.47 CLONE MSG CONFIG]**

```
Select Lab Code Mapping File Option: CLONE A MESSAGE CONFIGURATION
Source Message Configuration: LA7V HOST 981
Destination Message Configuration: LA7V HOST 0109
Continue with cloning? ? N// YES

Records found: 1
Records added: 1
```

### 5.3.5 Edit Susceptibility [LA7V 62.47 EDIT SUSC]

The option Edit Susceptibility [LA7V 62.47 EDIT SUSC] links Bacteriology and Mycobacteria susceptibilities to existing codes.

**Figure 26. Edit Susceptibility [LA7V 62.47 EDIT SUSC]**

```
Select Lab Code Mapping File Option: EDIT SUSCEPTIBILITY
Select LAB CODE MAPPING CONCEPT: BACTERIOLOGY SUSCEPTIBILITY MI <ENTER>  Bacteria
Susceptibility
Select IDENTIFIER: 29-9 <ENTER> LN
...OK? Yes// <ENTER> (Yes)
  AMPICILLIN:SUSC:PT:ISLT:ORDQN:AGAR DIFFUSION
RELATED ENTRY: AMPICILLIN

  Searching for a Select ANTIBIOTIC
  AMPICILLIN      AMPICILLIN
  ...OK? Yes// <ENTER> (Yes)

Select IDENTIFIER:
```

### 5.3.6 Find Identifier [LA7V 62.47 FIND IDENTIFIER]

The option Find Identifier [LA7V 62.47 FIND IDENTIFIER] searches the entire file for a particular identifier.

**Figure 27. Find Identifier [LA7V 62.47 FIND IDENTIFIER]**

```
Select Lab Code Mapping File Option: FIND IDENTIFIER
Select IDENTIFIER: 0430.3
... OK Yes// <ENTER> YES 0430.3
DEVICE: HOME// <ENTER> UCX/TELNET Right Margin: 80// <ENTER>

LAB CODE MAPPING (0430.3) Sep 19, 2008@11:09:42 Page: 1
  SEQ      ID      SYSTEM  PURPOSE  NATL
=====
CONCEPT:MYCOLOGY SMEAR/PREP (MI)
      2      0430.3  99LAB    RESULT   NO
      Msg Config: LA7V HOST 170

Select Lab Code Mapping File Option:
```

### 5.3.7 Print by Msg Config [LA7V 62.47 PRINT BY MSG CONFIG]

The option Print by Msg Config [LA7V 62.47 PRINT BY MSG CONFIG] displays entries in File #62.47 by CONCEPT, sorted by the MESSAGE CONFIGURATION field.

**Figure 28. Print by Msg Config [LA7V 62.47 PRINT BY MSG CONFIG]**

```
Select Lab Code Mapping File Option: PMC <ENTER> Print by Message Configuration

Print All Message Configurations? ? N// Y <ENTER> YES

DEVICE: HOME// ;;1000 <ENTER> UCX/TELNET Right Margin: 80// <ENTER>

LAB CODE MAPPING (BY MSG CONFIG) Sep 02, 2008@16:14:49 Page: 1
  SEQ      ID  SYSTEM  PURPOSE  NATL
=====
CONCEPT:GRAM STAIN (MI)
    2      0410.3  99LAB   RESULT   NO
    Msg Config: LA7V HOST 170

CONCEPT:BACTERIA (MI)
1000004      4796  99VA61.2  ANSWER   NO
    Related Entry: [#61.2:4796] STREPTOCOCCUS ALPHA HEMOL.(NOT GP.D OR S.PNEU...
    Msg Config: LA7V COLLECTION 9999

1000002      4796  99VA61.2  ANSWER   NO
    Related Entry: [#61.2:4796] STREPTOCOCCUS ALPHA HEMOL.(NOT GP.D OR S.PNEU...
    Msg Config: LA7V HOST 170

1000003      4796  99VA61.2  ANSWER   NO
    Related Entry: [#61.2:4796] STREPTOCOCCUS ALPHA HEMOL.(NOT GP.D OR S.PNEU...
    Msg Config: LA7V HOST 9999

CONCEPT:BACTERIOLOGY REPORT (MI)
1000004      0410.2  99LAB   RESULT   NO
    Msg Config: LA7V COLLECTION 9999

1000001      0410.2  99LAB   RESULT   NO
    Msg Config: LA7V HOST 170

1000003      0410.2  99LAB   RESULT   NO
    Msg Config: LA7V HOST 9999

CONCEPT:PARASITE (MI)
    28      486  99VA61.2  ANSWER   NO
    Related Entry: [#61.2:486] PABESIA, NOS
    Msg Config: LA7V COLLECTION 9999

    26      486  99VA61.2  ANSWER   NO
    Related Entry: [#61.2:486] PABESIA, NOS
    Msg Config: LA7V HOST 170

    27      486  99VA61.2  ANSWER   NO
    Related Entry: [#61.2:486] PABESIA, NOS
    Msg Config: LA7V HOST 9999

CONCEPT:PARASITE REPORT REMARK (MI)
    2      0440.3  99LAB   RESULT   NO
    Msg Config: LA7V HOST 170
```

```

CONCEPT:FUNGAL REPORT REMARK (MI)
  2      0430.2  99LAB      RESULT  NO
Msg Config: LA7V HOST 170

CONCEPT:MYCOBACTERIA REPORT (MI)
  2      0420.2  99LAB      RESULT  NO
Msg Config: LA7V HOST 170

CONCEPT:VIROLOGY REPORT (MI)
  34     0450.1  99LAB      RESULT  NO
Msg Config: LA7V HOST 170

CONCEPT:MYCOLOGY SMEAR/PREP (MI)
  2      0430.3  99LAB      RESULT  NO
Msg Config: LA7V HOST 170

CONCEPT:ACID FAST STAIN (MI)
  3      0420.1  99LAB      RESULT  NO
Override Concept: BACTERIOLOGY REPORT
Msg Config: LA7V HOST 0052

CONCEPT:ACID FAST STAIN QUANTITY (MI)
  2      0420.1  99LAB      RESULT  NO
Msg Config: LA7V HOST 170

```

### 5.3.8 Code/Set Mismatches [LA7V 62.47 PRINT CS MISMATCHES]

The option Code/Set Mismatches [LA7V 62.47 PRINT CS MISMATCHES] displays entries in File #62.47, where the Identifier/Coding System pairs are mismatched. It searches for Identifier (Code)/Coding System pairs and validates that the Code is valid for that Coding System. This option validates the Codes from the three Coding Systems listed below.

LOINC

SNOMED CT

NLT WKLD CODES

**Figure 29. Code/Set Mismatches [LA7V 62.47 PRINT CS MISMATCHES]**

```
Select Lab liaison menu Option: SMGR <ENTER> Lab Shipping Management Menu

Select Lab Shipping Management Menu Option: LCM <ENTER> Lab Code Mapping File

Select Lab Code Mapping File Option: CSM <ENTER> Code/Set Mismatches
DEVICE: HOME// <ENTER> TELNET PORT Right Margin: 80// <ENTER>

...HMMM, LET ME PUT YOU ON 'HOLD' FOR A SECOND...

LAB CODE MAPPING (CODE/SET MISMATCHES) Mar 15, 2012@09:20 Page: 1
  SEQ          ID SYSTEM PURPOSE NATL
=====
CONCEPT:BACTERIA (MI)
  1000042      1111222 LN      RESULT NO
      Msg Config: LA7V HOST 981

Select Lab Code Mapping File Option:
```



### 5.3.9 Print Local Codes [LA7V 62.47 PRINT LOCAL]

The option Print Local Codes [LA7V 62.47 PRINT LOCAL] prints local codes from file (#62.47).

**Figure 30. Print Local Codes [LA7V 62.47 PRINT LOCAL]**

```
Select Lab Code Mapping File Option: PL <ENTER> Print Local Codes
DEVICE: HOME// ;,1000 <ENTER> UCX/TELNET Right Margin: 80// <ENTER>

LAB CODE MAPPING -- LOCAL CODES Sep 02, 2008@16:03:57 Page: 1
  SEQ      ID  SYSTEM  PURPOSE  NATL
=====
CONCEPT:GRAM STAIN (MI)
      2      0410.3  99LAB    RESULT   NO
Msg Config: LA7V HOST 170

CONCEPT:BACTERIA (MI)
      249      2  99LRE    ANSWER   NO
Related Entry: [#61.2:2] STAPHYLOCOCCUS AUREUS

1000002      4796  99VA61.2  ANSWER   NO
Related Entry: [#61.2:4796] STREPTOCOCCUS ALPHA HEMOL.(NOT GP.D OR S.PNEU...
Msg Config: LA7V HOST 170

1000003      4796  99VA61.2  ANSWER   NO
Related Entry: [#61.2:4796] STREPTOCOCCUS ALPHA HEMOL.(NOT GP.D OR S.PNEU...
Msg Config: LA7V HOST 9999

1000004      4796  99VA61.2  ANSWER   NO
Related Entry: [#61.2:4796] STREPTOCOCCUS ALPHA HEMOL.(NOT GP.D OR S.PNEU...
Msg Config: LA7V COLLECTION 9999

CONCEPT:BACTERIOLOGY REPORT (MI)
1000001      0410.2  99LAB    RESULT   NO
Msg Config: LA7V HOST 170

1000003      0410.2  99LAB    RESULT   NO
Msg Config: LA7V HOST 9999

1000004      0410.2  99LAB    RESULT   NO
Msg Config: LA7V COLLECTION 9999

1000002      BOB   99LAB                NO

CONCEPT:BACTERIOLOGY SUSCEPTIBILITY (MI)
1019          46  99LRA    RESULT   NO

CONCEPT:PARASITE (MI)
      26          486  99VA61.2  ANSWER   NO
Related Entry: [#61.2:486] PABESIA, NOS
Msg Config: LA7V HOST 170

      27          486  99VA61.2  ANSWER   NO
Related Entry: [#61.2:486] PABESIA, NOS
Msg Config: LA7V HOST 9999

      28          486  99VA61.2  ANSWER   NO
Related Entry: [#61.2:486] PABESIA, NOS
Msg Config: LA7V COLLECTION 9999
```

```

CONCEPT:PARASITE REPORT REMARK (MI)
  1      0440.3  99LAB      RESULT  NO
  2      0440.3  99LAB      RESULT  NO
Msg Config: LA7V HOST 170

CONCEPT:PARASITE STAGE (MI)
  1      63.749  99LAB      RESULT  NO

CONCEPT:FUNGAL REPORT REMARK (MI)
  2      0430.2  99LAB      RESULT  NO
Msg Config: LA7V HOST 170

CONCEPT:MYCOBACTERIA SUSCEPTIBILITY (MI)
1000001      TEST  L                        NO

CONCEPT:MYCOBACTERIA REPORT (MI)
  2      0420.2  99LAB      RESULT  NO
Msg Config: LA7V HOST 170

CONCEPT:VIROLOGY REPORT (MI)
 34      0450.1  99LAB      RESULT  NO
Msg Config: LA7V HOST 170

CONCEPT:MYCOLOGY SMEAR/PREP (MI)
  2      0430.3  99LAB      RESULT  NO
Msg Config: LA7V HOST 170

CONCEPT:ACID FAST STAIN (MI)
  3      0420.1  99LAB      RESULT  NO
Override Concept: BACTERIOLOGY REPORT
Msg Config: LA7V HOST 0052

CONCEPT:ACID FAST STAIN QUANTITY (MI)
  2      0420.1  99LAB      RESULT  NO
Msg Config: LA7V HOST 170

```

### 5.3.10 Print Susceptibilities [LA7V 62.47 PRINT SUSC]

The option Print Susceptibilities [LA7V 62.47 PRINT SUSC] prints File #62.47 susceptibility codes.

**Figure 31. Print Susceptibilities [LA7V 62.47 PRINT SUSC]**

```
Select Lab Code Mapping File Option: PRINT SUSCEPTIBILITIES

Print (A)ll, (M)apped, (U)nmapped: (A/M/U): A// <ENTER> LL

DEVICE: HOME// ;1000 <ENTER> UCX/TELNET Right Margin: 80// <ENTER>

LAB CODE MAPPING -- SUSCEPTIBILITIES Sep 02, 2008@16:06:19 Page: 1
  SEQ      ID SYSTEM PURPOSE NATL
=====
CONCEPT: BACTERIOLOGY SUSCEPTIBILITY (MI)
  1019      46 99LRA RESULT NO
    1        1-8 LN RESULT YES
LOINC: Acyclovir:Susc:Pt:Isolate:OrdQn

    10      10-9 LN RESULT YES
LOINC: Amdinocillin:Susc:Pt:Isolate+Ser:Ord:SBT

    100      100-8 LN RESULT YES
LOINC: Cefoperazone:Susc:Pt:Isolate:OrdQn:MIC

    101      101-6 LN RESULT YES
LOINC: Cefoperazone:Susc:Pt:Isolate:OrdQn:Agar diffusion

    102      102-4 LN RESULT YES
LOINC: Cefoperazone:Susc:Pt:Isolate+Ser:Ord:SBT

    103      103-2 LN RESULT YES
LOINC: Ceforanide:Susc:Pt:Isolate:Qn:MLC

    104      104-0 LN RESULT YES
LOINC: Ceforanide:Susc:Pt:Isolate:OrdQn:MIC

    105      105-7 LN RESULT YES
LOINC: Ceforanide:Susc:Pt:Isolate:OrdQn:Agar diffusion

    106      106-5 LN RESULT YES
LOINC: Ceforanide:Susc:Pt:Isolate+Ser:Ord:SBT

    636      10653-4 LN RESULT YES
LOINC: Clotrimazole:Susc:Pt:Isolate:OrdQn:MIC

    637      10654-2 LN RESULT YES
LOINC: Clotrimazole:Susc:Pt:Isolate:Qn:MLC

    638      10697-1 LN RESULT YES
LOINC: Nystatin:Susc:Pt:Isolate:OrdQn:MIC

    639      10698-9 LN RESULT YES
LOINC: Nystatin:Susc:Pt:Isolate:Qn:MLC

    107      107-3 LN RESULT YES
LOINC: Cefotaxime:Susc:Pt:Isolate:Qn:MLC
```

### 5.3.11 Error Code Help [LA7V 62.47 ERROR CODE HELP]

The option Error Code Help [LA7V 62.47 ERROR CODE HELP] adds extended help for error codes. Errors can be looked up in the LA7 MESSAGE LOG BULLETINS file (#62.485).

**Figure 32. Error Code Help [LA7V 62.47 ERROR CODE HELP]**

```
Select Lab Code Mapping File Option: ERROR CODE HELP

                                LAB CODE MAPPING ERROR CODES
=====

Error #200
  No File #62.47 mapping found for OBX-3

The code set in OBX-3 was not found in the LAB CODE MAPPING file (#62.47).

-----

Error #201
  No File #63 field mapping found for OBX-3

Storage location unknown in LAB DATA file (#63).  An organism,
parasite, or susceptibility doesn't have a mapping to or
storage location in the LAB DATA file (#63).  This is usually
caused by an incorrect or missing RELATED ENTRY field (#2.1)
for that code in the LAB CODE MAPPING file (#62.47).

-----

Error #202
  No filing method for CONCEPT # n found for OBX-3
Enter RETURN to continue or '^' to exit:

The Lab package does not have a routine to process the Concept.

-----

Error #203
  No Coding System found in OBX-5

OBX-5 does not have a coding system specified.

-----

Error #204
  Unknown entity in OBX-5

The organism, parasite, etc. being reported does not have
an entry in its associated file (i.e. ETIOLOGY FIELD file (#61.2)).

-----

Error #205
  Invalid SubId in OBX-4
Enter RETURN to continue or '^' to exit:

The SubId in OBX-4 is either empty or invalid.  The processing logic expected a
valid SubId here and cannot continue processing. Action must be taken by the sender
```

of the HL7 message to correct the invalid SubId.

-----

Error #206

Could not create new entry in file #X (text)

The system needed to add a new entry "on-the-fly" to the file specified to handle this incoming message but failed to create the new entry. This may be a problem on the sender's or the receiver's side.

Select HELP SYSTEM action or <return>:

### 5.3.12 Map All Susceptibilities [LA7V 62.47 MAP SUSCS]

The option Map All Susceptibilities [LA7V 62.47 MAP SUSCS] displays antibiotics from ANTIMICROBIAL SUSCEPTIBILITY file (#62.06) and suggests which entry from the ANTIMICROBIAL SUSCEPTIBILITY file (#62.06) to map to the LOINC code in the LAB CODE MAPPING file (#62.47).

**Figure 33. Map All Susceptibilities [LA7V 62.47 MAP SUSCS]**

```
Select Lab Code Mapping File Option: MAP ALL SUSCEPTIBILITIES
Report only? YES// <ENTER>
DEVICE: HOME// ;999 <ENTER> TELNET PORT Right Margin: 80// <ENTER>

...EXCUSE ME, THIS MAY TAKE A FEW MOMENTS...

---LOINC 3320-9 in #64:27 not a susceptibility (#62.06:1)
-----AMIKACIN~RANDOM:MCNC:PT:SER/PLAS:QN

#62.06:3 #95.3:194 #62.47:7,193
No RELATED ENTRY for LOINC 194-1
CLINDAMYCIN:SUSC:PT:ISLT:ORDQN:AGAR DIFFUSION
Use CLINDAM (CLINDAMYCIN) for this mapping?

#62.06:19 #95.3:13968 #62.47:7,647
No RELATED ENTRY for LOINC 13968-3
PENICILLIN:SUSC:PT:ISLT:ORDQN:AGAR DIFFUSION
Use TOM' WONDER DRUG (PROVIDENCE #8) for this mapping?

#62.06:20 #95.3:117 #62.47:7,117
No RELATED ENTRY for LOINC 117-2
CEFOXITIN:SUSC:PT:ISLT:ORDQN:AGAR DIFFUSION
Use CEFOXITIN for this mapping?

#62.06:21 #95.3:109 #62.47:7,109
No RELATED ENTRY for LOINC 109-9
CEFOTAXIME:SUSC:PT:ISLT:ORDQN:AGAR DIFFUSION
Use CEFOTAXIME for this mapping?

---No NLT code in #62.06 for COMPUCILLIN (22)

#62.06 records searched: 69 of 69
Total #62.47 records searched: 32
Total NATL codes: 32
Total #62.47 codes without mapping: 30
Total #62.06 LOINC codes not in #62.47: 2
```

### 5.3.13 Interim report for an accession [LRRP1]

Use the option Interim report for an accession [LRRP1] to display an interim report for a selected accession. It will only print verified results. The report prints site codes for tests. The user will be asked if they would like to print an address page. The address page prints on a separate page(s) at the end of the report and lists the performing lab name, address and site code. This option is located on the Results menu [LR OUT], which is located on the Laboratory DHCP Menu [LRMENU].

**Figure 34. Interim report for an accession [LRRP1]**

```
Select Laboratory DHCP Menu Option: 5 <ENTER> Results menu

Select Results menu Option: INTERIM REPORT FOR AN ACCESSION
Print address page? NO// YES
Select Accession or UID: CH 0314 1
CHEMISTRY (MAR 14, 2012) 1
DEVICE: HOME// <ENTER> UCX/TELNET

LRPATIENT,TWO                                Report date: Mar 14, 2012@13:23
Pat ID: 000-00-1234    SEX: F    DOB: Jan 01, 1900    LOC: RC

        Provider: LRUSER,ONE
        Specimen: SERUM
Accession [UID]: CH 0526 1 [0411460001]
Report Released: Jul 14, 2011@13:09

                                Specimen Collection Date: May 26, 2011@14:10
Test name                        Result    units    Ref.    range    Site Code
GLUCOSE                          100     mg/dL    60 - 123    [522]
CALCIUM                          200 H*  mg/dL    9 - 11      [522]
Comment: TEST
=====
KEY: "L"=Abnormal low, "H"=Abnormal high, "*"=Critical value
LRPATIENT,TWO                    000-00-1234  Mar 14, 2012@13:23  PRESS '^' TO STOP

                                page 2
LRPATIENT,TWO                    000-00-1234  Mar 14, 2012@13:23

Performing Lab Sites:

[522]  ZZ BONHAM [CLIA# 987654321]
        BONHAM, TX
Select Accession or UID: <ENTER>

Select Results menu Option:
```

### 5.3.14 Move Cumulative Major/Minor Headers [LRAC MOVE]

Use the option Move Cumulative Major/Minor Headers [LRAC MOVE] to move a cumulative major or minor header to another major header. After moving the header, it deletes the old header. This option is located on the Cumulative menu [LRAC], which is located on the Supervisor menu [LRSUPERVISOR].

**Figure 35. Move Cumulative Major/Minor Headers [LRAC MOVE]**

```
Select Laboratory DHCP Menu Option: 11 <ENTER> Supervisor menu

Select Supervisor menu Option: CUMULATIVE MENU

Select Cumulative menu Option: LACM <ENTER> Move Cumulative Major/Minor Headers

    Select one of the following:

        1      Major Header
        2      Minor Header

Select type of header to move: 1// MAJOR HEADER
Select MAJOR HEADER: RIA
MAJOR HEADER ORDER: 19// <ENTER>
MAJOR HEADER: NEW HEADER// RIA NEW
MAJOR HEADER MEDICAL CENTER: ALBANY ISC// <ENTER>

Copying major header: RIA
to major header: RIA NEW

Re-indexing new major header: RIA NEW

Deleting major header: RIA

Re-indexing the LAB REPORTS file for:
Mumps "A" index of the LAB TEST subfield
    (contains reference ranges, units, etc. from file 60)
Mumps "AC" index of the LAB TEST LOCATION subfield
    (atomic test x-ref.)
Mumps "AR" index of the LAB TEST subfield
    (site/specimen x-ref.)

HEMATOLOGY
    CBC PROFILE.....

DIFFERENTIAL COUNT
    DIFFERENTIAL COUNTS.....
.....

COAG & MISC. HEM
    COAG PROFILE.....
    MISC. HEM.....

CHEMISTRY (SERUM)
    CHEM PROFILE.....

CHEMISTRY-MISC.
    CARDIAC ENZYMES.....
    MISC. CHEM.....
    HGB A1C...
```



```

AMMONIA...

CHEMISTRY-GLUCOSE TOL.
  GLUCOSE TOL-(SERUM).....
  GLUCOSE TOL-(URINE).....

TOXICOLOGY
  TOXICOLOGY.....
.....

RIA-(PLASMA)
  RIA-(PLASMA).....

SEROLOGY
  SEROLOGY.....

FLUIDS
  CELL COUNT (CSF).....
  CELL COUNT (SYNOVIAL).....
  CELL COUNT (PLEURAL).....
  CELL COUNT (PERITONEAL).....
  CELL COUNT (PERICARD/THORACIC).....
  CSF CHEMS.....
  SYNOVIAL CHEMS.....
  PLEURAL CHEMS.....
  PERITONEAL CHEMS.....
  PERICARD/THORACIC CHEMS.....

URINALYSIS
  URINALYSIS.....
.....

URINE CHEMS
  URINE CHEMS.....

LAB LONG TERM TESTS
  LAB LONG TERM TESTS...

RIA NEW
  RIA-(SERUM).....

Run Diagnostic Report for LAB REPORTS File

DEVICE: HOME// <ENTER> TELNET PORT   Right Margin: 80// <ENTER>

      Diagnostic Report for LAB REPORTS FILE (64.5)

HEMATOLOGY
  CBC PROFILE

DIFFERENTIAL COUNT
  DIFFERENTIAL COUNTS

COAG & MISC. HEM
  COAG PROFILE
  MISC. HEM.

CHEMISTRY (SERUM)
  CHEM PROFILE
CHEMISTRY-MISC.
  CARDIAC ENZYMES
  MISC. CHEM

```

```
HGB A1C
AMMONIA

CHEMISTRY-GLUCOSE TOL.
  GLUCOSE TOL-(SERUM)
  GLUCOSE TOL-(URINE)

TOXICOLOGY
  TOXICOLOGY

RIA-(PLASMA)
  RIA-(PLASMA)

SEROLOGY
  SEROLOGY

FLUIDS
  CELL COUNT (CSF)
  CELL COUNT (SYNOVIAL)
  CELL COUNT (PLEURAL)
  CELL COUNT (PERITONEAL)
  CELL COUNT (PERICARD/THORACIC)
  CSF CHEMS
  SYNOVIAL CHEMS
  PLEURAL CHEMS
  PERITONEAL CHEMS
  PERICARD/THORACIC CHEMS

URINALYSIS
  URINALYSIS

URINE CHEMS
  URINE CHEMS

LAB LONG TERM TESTS
  LAB LONG TERM TESTS

RIA NEW
  RIA-(SERUM)

Select Cumulative menu Option:
```

### 5.3.15 AP LEDI Data Entry [LRAP VR]

Use the option AP LEDI Data Entry [LRAP VR] to review and accept AP results from a LEDI Host site. It is located on the Data entry, anat path menu [LRAPD], which is located on the Anatomic pathology menu [LRAP].



**NOTE:.** The AP LEDI Data Entry option will only be used by the LEDI test sites who previously used the software to send and receive AP.

**Figure 36. AP LEDI Data Entry [LRAP VR]**

```
Select Anatomic pathology Option: D <ENTER> Data entry, anat path
Select Data entry, anat path Option: LEDI <ENTER> AP LEDI Data Entry
Select LOAD/WORK LIST NAME: LDSI
Select PROFILE: SURGICAL PATHOLOGY <Enter> SURGICAL PATHOLOGY
Select Performing Laboratory: REGION 7 ISC,TX (FS) // <ENTER> TX 170
Work Load Area: LDSI // <ENTER>

Select one of the following:

1      Accession Number
2      Unique Identifier (UID)

Verify by: 1// 2 <ENTER> Unique Identifier (UID)
Unique Identifier: 2211000011

TEST,PATIENT          000-00-1234 Age: 61yr
ORDER #: 196      NSP 11 11 [2211000011]
Seq #: 61      Accession: NSP 11 11      Results received: Oct 19, 2011@15:55
                UID: 2211000011      Last updated: Oct 19, 2011@15:55
Enter RETURN to continue or '^' to exit: <ENTER>

DEVICE: HOME // <ENTER> UCX/TELNET      Right Margin: 80 // <ENTER>

Accession #: NSP 11 11 UID: 2211000011
Name: TEST,PATIENT SSN: 000-00-1234 DOB: Jan 01, 1950 Age: 61yr      PAGE: 1
Collection Date: Oct 19, 2011@15:31
-----
Surgical Pathology Diagnosis
TESTING

Do you want to ACCEPT these results? NO// Y <ENTER> YES

Current performing lab assignments: None Listed

Select one of the following:

1      Entire report
2      Specific sections of report

Designate performing laboratory for: 1// <ENTER> Entire report
```

Select Performing Laboratory: ZZ BONHAM// <ENTER> TX VAMC 522 INACTIVE Jan  
01, 1997

Sure you want to add this record? NO// Y <ENTER> YES  
... assignment created.

Current performing lab assignments:

Surgical Pathology Report Performed By:  
ZZ BONHAM [CLIA# 987654321]

Select one of the following:

- 1 Entire report
- 2 Specific sections of report
- 3 Delete performing laboratory

Designate performing laboratory for: <ENTER>

Unique Identifier: <ENTER>

Select Data entry, anat path Option:

### 5.3.16 Reprocess Lab HL7 Messages [LA7 REPROCESS HL7 MESSAGES]

The option Reprocess Lab HL7 Messages [LA7 REPROCESS HL7 MESSAGES] allows reprocessing of selected incoming Lab HL7 messages. This option is located on the Lab Universal Interface Menu [LA7 MAIN MENU], which is located on the 'Lab interface menu' [LA INTERFACE].

Messages should be of type (I)ncoming, have a status of (X)purgable, (E)rror, or (Q)ueued for processing and be related to a message configuration type:

LAB UI

LEDI

Messages for other configuration types should not be reprocessed at this time.

**Figure 37. Reprocess Lab HL7 Messages [LA7 REPROCESS HL7 MESSAGES]**

```
Select Laboratory DHCP Menu Option: 11 <ENTER> Supervisor menu
Select Supervisor menu Option: LAB INTER <ENTER> face menu
Select Lab interface menu Option: LAB UNIVERSAL INTERFACE MENU

Select Lab Universal Interface Menu Option: RLH <ENTER> Reprocess Lab HL7 Messages
Display identifiers during message selection? YES// <ENTER>
Select Message: LA7V HOST 981-I-L612790005
Entered D/T: Oct 06, 2011@12:46 Type: INCOMING Status: PURGEABLE
Instrument Name: LA7V HOST 981-I-L612790005
Configuration: LA7V HOST 981
Select another Message: <ENTER>
Reprocess these messages? YES// <ENTER>
Queued processing routine for configuration LA7V HOST 981

Select Lab Universal Interface Menu Option:
```

### 5.3.17 Display SCT Overrides [LA7S 62.48 PRINT SCT OVERRIDE]

The option Display SCT Overrides [LA7S 62.48 PRINT SCT OVERRIDE] displays the SCT Overrides on file for a MESSAGE PARAMETER (#62.48) file entry. It can also display all SCT Overrides on file for all MESSAGE PARAMETER (#62.48) entries. This option is located on the Lab Shipping Management Menu [LA7S MGR MENU], which is located on the Lab liaison menu [LRLIAISON].

**Figure 38. Display SCT Overrides [LA7S 62.48 PRINT SCT OVERRIDE]**

```
Select Lab liaison menu Option: SMGR <ENTER> Lab Shipping Management Menu
Select Lab Shipping Management Menu Option: DSO <ENTER> Display SCT Overrides
Select MESSAGE CONFIGURATION: ALL// LA7V HOST 0052
Select another MESSAGE CONFIGURATION: <ENTER>
DEVICE: HOME// <ENTER> UCX/TELNET Right Margin: 80// <ENTER>

MESSAGE CONFIGURATION SCT OVERRIDES Printed Mar 14, 2012@13:41 Page 1
=====
Message Configuration: LA7V HOST 0052

Specimen [Topography file #61]      VA SCT      Non-VA SCT
SPUTUM [360]                       45710003    416462003
URINE [71]                         78014005    78014005

Sample [Collection Sample file #62] VA SCT      Non-VA SCT
SPUTUM [18]                       119334006   49957000
URINE [15]                       78014005    78014005

SCT Code   SCT Preferred Term
119334006   Sputum specimen
416462003   Wound
45710003    Sputum
49957000    Spermatic cord structure
78014005    Urine

Select Lab Shipping Management Menu Option:
```

### 5.3.18 Display a Shipping Configuration [LA7S 62.9 PRINT]

The option Display a Shipping Configuration [LA7S 62.9 PRINT] displays LAB SHIPPING CONFIGURATION file (#62.9) information for a Shipping Configuration (or a Message Parameter) file entry. This option is located on the Lab Shipping Management Menu [LA7S MGR MENU], which is located on the Lab liaison menu [LRLIAISON].

**Figure 39. Display a Shipping Configuration [LA7S 62.9 PRINT]**

```
Select Lab liaison menu Option: SMGR <ENTER> Lab Shipping Management Menu

Select Lab Shipping Management Menu Option: DSC <ENTER> Display a Shipping
Configuration

Select LA7 MESSAGE PARAMETER CONFIGURATION: LA7V HOST 170
...OK? Yes// <ENTER> (Yes)

Only show SCT overrides? ? N// <ENTER>
DEVICE: HOME// 0,80,999

SHIPPING CONFIGURATION DISPLAY Printed Mar 14, 2012@13:48 Page 1
=====
Shipping Configuration: LEDI HOST LAB
Test: GLUCOSE
Glucose Fasting (81352.0000)
Specimen: SERUM (67922002 Serum)

Test: LYLES
Electrolytes (81357.0000)

Test: CREATININE
Creatinine (82565.0000)

Select Lab Shipping Management Menu Option:
```

### 5.3.19 Code Usage [LA7S CODE USAGE]

The option Code Usage [LA7S CODE USAGE] searches the system for a particular code and code system pair and reports in which files this pair is used. This option is located on the Lab Shipping Management Menu [LA7S MGR MENU], which is located on the Lab liaison menu [LRLIAISON].

**Figure 40. Code Usage [LA7S CODE USAGE]**

```
Select Lab liaison menu Option: SMGR <ENTER> Lab Shipping Management Menu

Select Lab Shipping Management Menu Option: CU <ENTER> Code Usage
Enter IDENTIFIER: 673-4
Enter CODING SYSTEM: LN
DEVICE: HOME// <ENTER> UCX/TELNET Right Margin: 80//

Invalid LOINC code

Checking TOPOGRAPHY file (#61)
    No matches

Checking ETIOLOGY FIELD (#61.2) file
    No matches

Checking COLLECTION SAMPLE (#62) file
    No matches

Checking ANTIMICROBIAL SUSCEPTIBILITY (#62.06) file
    No matches

Checking LAB CODE MAPPING (#62.47) file
    PARASITE (#62.47:8)
    #1: 673-4 (No Message Config)
    $$HL2LAH:8^MI^63.34^.01^9318

Checking LA7 MESSAGE PARAMETER (#62.48) file
    No matches

Checking LAB SHIPPING CONFIGURATION (#62.9) file
    No matches

Select Lab Shipping Management Menu Option:
```



### **5.3.20 Load SNOMED SCT Mapping [LA7S LOAD MAPPING SCT]**

The option Load SNOMED SCT Mapping [LA7S LOAD MAPPING SCT] allows the user to load SNOMED CT (SCT) mappings and term disposition into the target file entry. This mapping is usually provided by STS after they have extracted and mapped the site's local terms to the appropriate SCT code. If no mapping is provided then a disposition is stored with the reason. A SCT mapping can also be provided as part of the mediation process that occurs when a new term is added either by the site or via an HL7 interface with the new term. This option is located on the Lab Shipping Management Menu [LA7S MGR MENU], which is located on the Lab liaison menu [LRLIAISON].

The SCT mapping file is a text file that is sent by STS to the Facilities via Lab Server side MailMan function. This option prompts the user to specify whether to proceed to the processing of the loaded data and then allows the user to apply the mappings to the target entries.

**Figure 41. Load SNOMED SCT Mapping [LA7S LOAD MAPPING SCT]**

```
Select Lab liaison menu Option: SMGR <ENTER> Lab Shipping Management Menu

Select Lab Shipping Management Menu Option: LSCT <ENTER> Load SNOMED SCT Mapping
Select one of the following:

    0          Quit - no action
    2          Process previous loaded file

ENTER RESPONSE: 2// 2 PROCESS PREVIOUS LOADED FILE

Select one of the following:

    0          Quit - no action
    1          Process SNOMED CT mappings directly
    2          Task processing SNOMED CT mappings

Processing Action: 0// 1 <Enter> Process SNOMED CT mappings directly
Loading files with National SNOMED CT Codes

*****
Loading file #61 [TOPOGRAPHY FIELD]
*****.....
Lexicon SCT lookup error STS alert sent..
Lexicon SCT lookup error STS alert sent....
No such entry: File #61 IEN:8830 STS alert sent...
*****
Loading file #61.2 [ ETIOLOGY FIELD ]
*****
Lexicon SCT lookup error STS alert sent.
Names do not match: [CLOSTRIDIUM DIFFICILE TOXIN A/B POSITIVE < - > CLOSTRIDIUM
DIFFICILE TOXIN B DNA DETECTED] STS alert sent.
Lexicon SCT lookup error STS alert sent.
*****
Loading file #62 [ COLLECTION SAMPLE ]
*****
Lexicon SCT lookup error STS alert sent.
Lexicon SCT lookup error STS alert sent.
```

### 5.3.21 Map Non-VA SNOMED CT codes [LA7S MAP NON-VA SNOMED CODES]

Use the option Map Non-VA SNOMED CT codes [LA7S MAP NON-VA SNOMED CODES] to map, for a specific HL7 interface, SNOMED CT (SCT) codes required by an external system to legacy VistA Laboratory files. This is used in cases where a site is communicating with a non-VA system, and the external system maps the same term using a SCT code that is different than the code assigned by the VA to the term, then the site can override the SCT code for that specific interface. Currently, this option is used to map the following legacy VistA Laboratory files:

TOPOGRAPHY (#61).

COLLECTION SAMPLE (#62).

This option is located on the Lab Shipping Management Menu [LA7S MGR MENU], which is located on the Lab liaison menu [LRLIAISON].

**Figure 42. Map Non-VA SNOMED CT codes [LA7S MAP NON-VA SNOMED CODES]**

```
Select Lab liaison menu Option: SMGR <ENTER> Lab Shipping Management Menu

Select Lab Shipping Management Menu Option: MSCT <ENTER> Map Non-VA SNOMED CT codes

Select MESSAGE CONFIGURATION: LA7V HOST 981
Select VA FILE ENTRY: ?
    You may enter a new NON-VA ORDER SNOMED CODES, if you wish
    Select specimen or collection sample
    Enter one of the following:
        SP.EntryName to select a Specimen from TOPOGRAPHY file
        CS.EntryName to select a Sample from COLLECTION SAMPLE

    To see the entries in any particular file type <Prefix.??>

Select VA FILE ENTRY: SP.SPUTUM

    Searching for a Specimen from TOPOGRAPHY file, (pointed-to by VA FILE ENTRY)

    Searching for a Specimen from TOPOGRAPHY file
    SPUTUM
    ...OK? Yes// <ENTER> (Yes)
    Are you adding 'SPUTUM [SP #61:360]' as
    a new NON-VA ORDER SNOMED CODES (the 1ST for this LA7 MESSAGE PARAMETER)? No//
Y <ENTER> (Yes)
    NON-VA ORDER SNOMED CODES SEQUENCE: 1// <ENTER>
    SNOMED CT ID: 416462003 <ENTER> Wound (disorder)
Select VA FILE ENTRY: <ENTER>

Select MESSAGE CONFIGURATION: <ENTER>

Select Lab Shipping Management Menu Option:
```

### 5.3.22 Print MI/AP Test Mappings [LA7VPFL]

The option Print MI/AP Test Mappings [LA7VPFL] checks Lab Tests by subscript (MI, SP, or CY) for their mapped NLT and Electronic Codes. These codes are required for LEDI transmission of orders and reports. Provides Lists for correctly mapped tests or tests that are not mapped correctly. This option is located on the Lab Shipping Management Menu [LA7S MGR MENU], which is located on the Lab liaison menu [LRLIAISON].



**NOTE:** The option Print MI/AP Test Mappings [LA7VPFL] is released with LEDI IV but will not be used until a future date.

**Figure 43. Print MI/AP Test Mappings [LA7VPFL]**

```
Select Lab liaison menu Option: SMGR <ENTER> Lab Shipping Management Menu
Select Lab Shipping Management Menu Option: PTM <ENTER> Print MI/AP Test Mappings

  Select one of the following:

      MI      Microbiology
      SP      Surgical Pathology
      CY      Cytopathology

Enter Lab Area Subscript: SP <ENTER> Surgical Pathology

  Select one of the following:

      C      Correctly Mapped Tests
      E      Tests with Errors

Enter response: E <ENTER> Tests with Errors
DEVICE: HOME// <ENTER> UCX/TELNET Right Margin: 80// <ENTER>

Laboratory Tests for SP with mapping errors Mar 14, 2012@14:51:47
                                           Page: 1
=====
[5059] AUTOPSY H & E
       is mapped to: Autopsy Exam NOS [88608.0000]
                               Not Linked to File #64.061
[5060] AUTOPSY UNSTAINED SLIDE      Not Mapped to File #64
       < < < End of report > > >

  Select one of the following:

      MI      Microbiology
      SP      Surgical Pathology
      CY      Cytopathology

Enter Lab Area Subscript: <ENTER>
Select Lab Shipping Management Menu Option:
```

### 5.3.23 Initialize DOD Codes [LA7V 62.47 ADD DOD]

The option Initialize DOD Codes [LA7V 62.47 ADD DOD] populates the Lab Code Mapping file with the standard DOD local codes for the message configuration selected by the user. This option is located on the Lab Code Mapping File menu [LA7V 62.47 MENU], which is located on the Lab Shipping Management Menu [LA7S MGR MENU].



**NOTE:** The LA7V 62.47 ADD DOD option is released with LEDI IV but will not be used until a future date.

**Figure 44. Initialize DOD Codes [LA7V 62.47 ADD DOD]**

```
Select Lab liaison menu Option: SMGR <ENTER> Lab Shipping Management Menu
Select Lab Shipping Management Menu Option: LCM <ENTER> Lab Code Mapping File
Select Lab Code Mapping File Option: DOD <ENTER> Initialize DOD Codes
Select MESSAGE CONFIGURATION: LA7V HOST 0109
    ...OK? Yes// <ENTER> (Yes)

Adding 0410.2 99LAB (okay)
Adding 0410.3 99LAB (okay)
Adding 0420.1 99LAB (okay)
Adding 0420.2 99LAB (okay)
Adding 0430.2 99LAB (okay)
Adding 0430.3 99LAB (okay)
Adding 0440.3 99LAB (okay)
Adding 0450.1 99LAB (okay)

Select Lab Code Mapping File Option:
```

### **5.3.24 Check SNOMED CT Mappings Against the Lexicon [LA7TASK SCT MAPPINGS CHECK]**

This option checks and validates each SNOMED CT ID mapping against the Lexicon when a SNOMED CT - (SCT Mapping) file is loaded. Schedule this option to run on a recurring basis. If an exception is found (e.g., the code is inactive) the system sends an alert to Standards & Terminology Services (STS) so that STS can send an updated mapping for this entry. Note: It is possible for a code to be active at the time of the load, but be deprecated when a Lexicon patch is installed that updates the SNOMED CT code set.

If this option finds any exceptions:

- a. The SCT CODE STATUS field (#21) of files #61, #61.2 and #62 for the entry will be updated to 'Error',
- b. An HDI exception alert will be sent to STS,
- c. A MailMan message will be sent to the G.LMI and G.LAB MESSAGING Mail Groups with a list of the exceptions found.

STS will review the exception alerts they receive, and if needed, will send an updated SCT mapping file to the site to load. The site does not need to do anything until STS notify the site that there is an updated mapping file to load.

## ***5.4 Modified LEDI Options***

### 5.4.1 Display Lab Universal Interface Message [LA7 PRINT LAB UI MESSAGE]

The option Display Lab Universal Interface Message [LA7 PRINT LAB UI MESSAGE] allows large HL7 component fields to display correctly and print errors and events logged using the Lab Universal Interface system.

**Figure 45. Display Lab Universal Interface Message [LA7 PRINT LAB UI MESSAGE]**

```
Select Lab Universal Interface Menu Option: ?

1      Print Source of Specimen Table
2      Print Lab Universal Interface Log
      Display Lab Universal Interface Message
      Download to Universal Interface
      Start/Stop Auto Download Background Job
UIS    Lab Universal Interface Setup
PCS    Lab Point of Care Setup
FIC    Lab Messaging File Integrity Checker
PIC    Print Lab Messaging Integrity Check Report
RLH    Reprocess Lab HL7 Messages

Select Lab Universal Interface Menu Option: DISPLAY LAB UNIVERSAL INTERFACE MESSAGE

Display identifiers during message selection? YES// <ENTER>
Select Message: 20
Entered D/T: Mar 01, 2011@14:37  Type: INCOMING  Status: PURGEABLE
Instrument Name: LA7V HOST 981-I-1311000001
Configuration: LA7V HOST 981
Select another Message: <ENTER>
Parse message fields based on HL7 segments? YES// <ENTER>
Suppress blank segments? YES// <ENTER>
DEVICE: HOME// <ENTER>  TELNET PORT

Use Browser to display message(s)? YES// <ENTER>

[*****Message Statistics*****]

CONFIGURATION: LA7V COLLECTION 200LR1      DATE/TIME ENTERED: MAY 06, 2011@13:15:
DATE/TIME OF MESSAGE: MAY 06, 2011@13:15:25
INSTRUMENT NAME: LA7V REMOTE 200LR1-I-581-20110506-2
MESSAGE CONTROL ID: Q2791607T2918296_3017639
MESSAGE NUMBER: 15287455                    MESSAGE TYPE: ORM
PRIORITY: 3                                PROCESSING ID: TRAINING
RECEIVING APPLICATION: LA7V HOST 596        RECEIVING FACILITY: 596
SENDING APPLICATION: LA7V REMOTE 200LR1      SENDING FACILITY: 200LR1
STATUS: ERROR                               TYPE: INCOMING
VERSION ID: 2.3
Error Message *****]

Date: May 06, 2011@13:15:38
Text: Msg #15287455 - Cannot identify an active entry in file SHIPPING CONFIGURA

Text of Message
MSH^~|\&^LA7V REMOTE 200LR1^200LR1^LA7V HOST 596^596^20110506131525-0400^^ORM~00

MSH-1 = ^
MSH-2 = ~|\&
MSH-3 = LA7V REMOTE 200LR1
```



```

MSH-4 = 200LR1
MSH-5 = LA7V HOST 596
MSH-6 = 596
MSH-7 = 20110506131525-0400
MSH-9 = ORM~001
MSH-9-1 = ORM
MSH-9-2 = 001
MSH-10 = Q2791607T2918296_3017639
MSH-11 = T
MSH-12 = 2.3
MSH-15 = AL
MSH-16 = AL

PID^1^^7220469~~~USVHA&&0363~PI~VA FACILITY ID&581&L|101102237~~~USSSA&&0363~SS~
00)000-0000^M^0^581:7220469:05052011^101102237^^^2186-5^^^0

PID-1 = 1
PID-3 = 7220469~~~USVHA&&0363~PI~VA FACILITY ID&581&L|111111111~~~USSSA&&0363~SS
PID-3.1-1 = 7220469
PID-3.1-4-1 = USVHA
PID-3.1-4-3 = 0363
PID-3.1-5 = PI
PID-3.1-6-1 = VA FACILITY ID
PID-3.1-6-2 = 581
PID-3.1-6-3 = L
PID-3.2-1 = 111111111
PID-3.2-4-1 = USSSA
PID-3.2-4-3 = 0363
PID-3.2-5 = SS
PID-3.2-6-1 = VA FACILITY ID
PID-3.2-6-2 = 581
PID-3.2-6-3 = L
PID-5 = LEDITEST,TEST
PID-5-1 = FLAB
PID-5-2 = BLUA
PID-5-3 = C
PID-6 = LEDITEST^LEDITEST^C^^^M
PID-7 = 19490422
PID-8 = M
PID-10 = 2106-3
PID-11 = ~~ZULU~HI~~~N|2645 ANYWHERE STREET~~FARM HILL~DE~12345~USA~P~~001
PID-11.1-3 = ZULU
PID-11.1-4 = HI
PID-11.1-7 = N
PID-11.2-1 = 2645 ANYWHERE STREET
PID-11.2-3 = FARM HILL
PID-11.2-4 = DE
PID-11.2-5 = 12345
PID-11.2-6 = USA
PID-11.2-7 = P
PID-11.2-9 = 001
PID-13 = (000)000-0000
PID-14 = (000)000-0000
PID-16 = M
PID-17 = 0
PID-18 = 581:7220469:05052011
PID-19 = 101102237
PID-22 = 2186-5
PID-25 = 0

PV1^1^O^1208^^^^^^^^^^^^^^^^O^^^^^^^^^^^^^^^^^^^^CD:638671^^^^^^^^^20110505000000-04

PV1-1 = 1

```

```

PV1-2 = O
PV1-3 = 1208
PV1-18 = O
PV1-36 = CD:638671
PV1-44 = 20110505000000-0400
PV1-45 = 20110505235959-0400

ORC^NW^5811112600001^^581-20110506-2^SC^^^^20110506081400-0400^99761-VA581~USER

ORC-1 = NW
ORC-2 = 5811112600001
ORC-4 = 581-20110506-2
ORC-5 = SC
ORC-9 = 20110506081400-0400
ORC-10 = 99761-VA581~USER~USER
ORC-10-1 = 99761-VA581
ORC-10-2 = USER
ORC-10-3 = USER
ORC-12 = REF:581~~~E
ORC-12-1 = REF:581
ORC-12-4 = E
ORC-13 = 1208
ORC-15 = 20110506081602-0400
ORC-17 = 581
ORC-18 = I~ESI Default
ORC-18-1 = I
ORC-18-2 = ESI Default
ORC-19 = 99761-VA581~USER~USER
ORC-19-1 = 99761-VA581
ORC-19-2 = USER
ORC-19-3 = USER

OBR^1^5811112600001^^89111.0000~Mumps Ab IgG~99VA64^^^20110506081400-0400^^~YOU
2011_005812011126000001-3017639^3017639^005812011126000001^20110506081602-0400^^

OBR-1 = 1
OBR-2 = 5811112600001
OBR-4 = 89111.0000~Mumps Ab IgG~99VA64
OBR-4-1 = 89111.0000
OBR-4-2 = Mumps Ab IgG
OBR-4-3 = 99VA64
OBR-7 = 20110506081400-0400
OBR-10 = ~USER~USER
OBR-10-2 = USER
OBR-10-3 = USER
OBR-11 = O
OBR-14 = 20110506081400-0400
OBR-15-1 = 67922002
OBR-15-2 = Serum (substance)
OBR-15-3 = SCT
OBR-15-4 = 72
OBR-15-5 = Serum (substance)
OBR-15 = 67922002&Serum (substance)&SCT&72&Serum (substance)&99VA61~~~119297000&
OBR-15-6 = 99VA61
    LA7 UI Message Display Msg #15287455 - LA7V REMOTE 200LR1-I-581-20110506-2
OBR-15-4-1 = 119297000
OBR-15-4-2 = Blood
OBR-15-4-3 = SCT
OBR-15-4-4 = 20
OBR-15-4-5 = Blood
OBR-15-4-6 = 99VA62
OBR-16 = REF:581~~~E
OBR-16-1 = REF:581

```

```
OBR-16-4 = E
OBR-19 = 581:7220469:05052011_005812011126000001-3017639
OBR-20 = 3017639
OBR-21 = 005812011126000001
OBR-22 = 20110506081602-0400
OBR-24 = CH
OBR-27 = 1~~0~20110506081400-0400~~R|~~~~~R
OBR-27.1-1 = 1
OBR-27.1-3 = 0
OBR-27.1-4 = 20110506081400-0400
OBR-27.1-6 = R
OBR-27.2-6 = R
OBR-36 = 20110506081400-0400
```

## 5.4.2 Edit Shipping Configuration [LA7S EDIT 62.9]

The option Edit Shipping Configuration [LA7S EDIT 62.9] adds fields to individual shipping configuration entries.

**Figure 46. Edit Shipping Configuration [LA7S EDIT 62.9]**

```
Select Lab Shipping Management Menu Option: EDIT SHIPPING CONFIGURATION
Select SHIPPING CONFIGURATION: MHC TO VRR

    Select one of the following:
        1      Collecting facility
        2      Host facility

Are you editing this entry as the: 1 <ENTER> Collecting facility
NAME: MHC TO VRR// <ENTER>
COLLECTING FACILITY: ZZ BONHAM// <ENTER>
COLLECTING FACILITY'S SYSTEM: ZZ BONHAM// <ENTER>
HOST FACILITY: REGION 7 ISC,TX (FS)// <ENTER>
HOST FACILITY'S SYSTEM: REGION 7 ISC,TX (FS)// <ENTER>
STATUS: ACTIVE// <ENTER>
SHIPPING METHOD: COURIER// <ENTER>
BARCODE MANIFEST: NO// <ENTER>
MANIFEST RECEIPT: YES// INCLUDE UNCOLLECTED SPECIMENS: NO// <ENTER>
Select ORDERING LOCATION: <ENTER>
Select TEST/PROFILE: HEPATITIS B Ag// <ENTER>
    TEST/PROFILE: HEPATITIS B Ag// <ENTER>
    ACCESSION AREA: SEROLOGY// <ENTER>
    DIVISION: <ENTER>
    Select FEEDER SHIPPING CONFIGURATION: <ENTER>
    SPECIMEN: SERUM// <ENTER>
    URGENCY: <ENTER>
    SPECIMEN CONTAINER: RED TOP// <ENTER>
    SHIPPING CONDITION: REFRIGERATED// <ENTER>
    PACKAGING CONTAINER: <ENTER>
    REQUIRE PATIENT HEIGHT: YES// <ENTER>
    PATIENT HEIGHT UNITS: <ENTER>
    PATIENT HEIGHT CODE: <ENTER>
    REQUIRE PATIENT WEIGHT: YES// <ENTER>
    PATIENT WEIGHT UNITS: <ENTER>
    PATIENT WEIGHT CODE: <ENTER>
    REQUIRE COLLECTION VOLUME: YES      Editor Note: If you answer YES here, the system displays the next two
prompts.
    COLLECTION VOLUME UNITS: <ENTER>
    COLLECTION VOLUME CODE: <ENTER>
    REQUIRE COLLECTION WEIGHT: <ENTER>
    REQUIRE COLLECTION END D/T: <ENTER>
Select TEST/PROFILE: <ENTER>
Select Lab Shipping Management Menu Option:
```

**Note:** If the user answers YES to REQUIRE COLLECTION VOLUME, the following two prompts display: COLLECTION VOLUME UNITS, COLLECTION VOLUME CODE.

### 5.4.3 Print Shipping Manifest [LA7S MANIFEST PRINT]

The option Print Shipping Manifest [LA7S MANIFEST PRINT] prints additional information on the manifests:

Requesting provider's office phone, voice/digital pager numbers, and specimen container are printed on working copies of the shipping manifest.

Relevant clinical information is printed on manifests used for shipping documents.

Refer to the option Edit Relevant Clinical Information [LA7S MANIFEST CLINICAL INFO].

**Figure 47. Print Shipping Manifest [LA7S MANIFEST PRINT]**

```
Select Lab Shipping Menu Option: ?

SMB    Build Shipping Manifest
SSM    Start a Shipping Manifest
SMS    Close/Ship a Shipping Manifest
ART    Add/Remove a Shipping Manifest Test
SMR    Edit Required Test Information
SMI    Edit Relevant Clinical Information
SMC    Cancel a Shipping Manifest
PSM    Print Shipping Manifest
STA    Order Status Report
RSM    Retransmit Shipping Manifest
RLR    Retransmit LEDI Lab Results
SMP    Print LEDI Pending Orders

Select Lab Shipping Menu Option: PRINT SHIPPING MANIFEST

Print Shipping Manifest
Select Shipping Configuration: LEDIB HOST
Select Shipping Manifest: 980-20110218-1

Print barcodes on manifest? YES// <ENTER>
DEVICE: HOME// <ENTER> TELNET PORT    Right Margin: 80// <ENTER>

Shipping Manifest: 980-20110218-1          Page: 1
      to Site: LEDIB                      Printed: Apr 07, 2011@16:59
      from Site: LEDIA                    E-Order: YES
      Date Shipped: Feb 18, 2011@16:30    Ship via: FEDEX
Shipping Condition: ROOM TEMPERATURE      Container: STYROFOAM BOX

Item      Patient Name      Patient ID      Accession
          Date of Birth      Patient ICN      Specimen UID
          Requested By        Sex              Collect Date/Time
-----
1-1      BCMA,ONE-PATIENT      000-00-0001      SOIM* 11 1
          Apr 07, 1935                      8811000001
          PROVIDER,ONE          Male              Feb 18, 2011@16:13
          -----
          VIRAL LOAD          BLOOD
          VA NLT Code [Name]: 89498.0000 [HIV Viral Load]
          -----
End of Shipping Manifest
```

## 5.4.4 Print LEDI Pending Orders [LA7S PENDING PRINT LEDI]

The option Print LEDI Pending Orders [LA7S PENDING PRINT LEDI] prints ordering provider and current test status.

**Figure 48. Print LEDI Pending Orders [LA7S PENDING PRINT LEDI]**

```
Select Lab Shipping Menu Option: ?

SMB   Build Shipping Manifest
SSM   Start a Shipping Manifest
SMS   Close/Ship a Shipping Manifest
ART   Add/Remove a Shipping Manifest Test
SMR   Edit Required Test Information
SMI   Edit Relevant Clinical Information
SMC   Cancel a Shipping Manifest
PSM   Print Shipping Manifest
STA   Order Status Report
RSM   Retransmit Shipping Manifest
RLR   Retransmit LEDI Lab Results
SMP   Print LEDI Pending Orders

Select Lab Shipping Menu Option: PRINT LEDI PENDING ORDERS
Select Shipping Manifest: 7 <ENTER> GOMERTOSE,HE BE
Pat ID: 000000000 DOB: Mar 02, 1955 Sex: MALE
Spec ID: 1409000002 Manifest: 522-20090721-1 Site: ZZ BONHAM
Collected D/T: Feb 27, 2009@15:13 Specimen: SERUM Spec. Status: In-Transit
...OK? Yes// <ENTER> (Yes)

DEVICE: HOME// <ENTER> TELNET PORT Right Margin: 80// <ENTER>

*** DO NOT USE FOR SHIPPING DOCUMENT - WORK COPY ONLY ***
Shipping Manifest: 522-20090721-1 Page: 1
    to Site: DALLAS OI Printed: Apr 07, 2011@17:06
    from Site: ZZ BONHAM E-Order: YES
    Status: Electronic Manifest Ship via: Electronic manifest
Shipping Condition: None Specified Container: None Specified

Item      Patient Name      Patient ID      Accession
          Date of Birth    Patient ICN     Specimen UID
          Requested By      Sex             Collect Date/Time
-----
1-1      LEDITEST,TEST      000000000      SER 09 2
          Mar 02, 1955                               1409000002
          LRUSER,TWO      Male           Feb 27, 2009@15:13

COMMENTS: HEPATITIS B Ag
Specimen source: Serum (substance) [67922002:SCT] ; Serum
[SER:HL70070]
Collection sample: Blood specimen (specimen) [119297000:SCT] ;
BLOOD [20:99VA62]

Host test status: In-Transit
-----
HEPATITIS B Ag SERUM
```

### 5.4.5 Enter/verify/modify data (manual) [LRENTER]

The option Enter/verify/modify data (manual) [LRENTER] supports the editing of microbiology results by using either the Unique Identifier (UID) or the Accession Number.

**Figure 49. Enter/verify/modify data (manual) [LRENTER]**

```
Enter/verify/modify data (manual)

Do you want to review the data before and after you edit? YES// <ENTER>
Do you wish to see all previously verified results? NO// <ENTER>

    Select one of the following:

        1      Accession Number
        2      Unique Identifier (UID)

Verify by: 1// 2 <ENTER> Unique Identifier (UID)

Unique Identifier: 1411000010 <ENTER> (MICRO 11 10)
```

## 5.4.6 Referral Patient Multi-purpose Accession [LRLEDI]

The option Referral Patient Multi-purpose Accession [LRLEDI] includes three modifications to allow receipt of inter-divisional LEDI manifests from a facility within an existing VistA system.

**Figure 50. Referral Patient Multi-purpose Accession [LRLEDI]**

```
Select OPTION NAME: REFERRAL PATIENT MULTI-PURPOSE <ENTER> LRLEDI Referral
Patient Multi-purpose Accession

Are you using a barcode reader? YES// NO
Select Shipping Configuration: CBOC TO MAIN
Select Shipping Manifest: 170-20080206-4 <ENTER> CBOC TO MAIN Status: RECEIVED as
of Feb 06, 2008@18:10

    Select one of the following:

        0      Abort Manifest Acceptance
        1      Accept Manifest
        2      Accept Manifest with Exceptions
        3      Accept Selected Accessions
        4      Reject Manifest

Manifest Acceptance Action: 1 <ENTER> Accept Manifest
Manifest 170-20080206-4 status set to 'Manifest received by host facility'.
Test(s) on manifest 170-20080206-4 set to 'Test received' status.
```



### 5.4.7 Fast Bypass Data Entry/Verify [LRFASTS]

The option Fast Bypass Data Entry/Verify [LRFASTS] allows the selection of a performing laboratory for specific sections or the entire report.

**Figure 51. Fast Bypass Data Entry/Verify [LRFASTS]**

```
Select OPTION NAME: FAST BYPASS DATA ENTRY/VERIFY <ENTER> LRFASTS      Fast Bypass
Data Entry/Verify

Do you want to review the data before and after you edit? YES// <ENTER>
Select Performing Laboratory: ZZ BONHAM// <ENTER> TX VAMC 522 INACTIVE Jan 01,1997

WANT TO ENTER COLLECTION TIMES? Y// <ENTER>
Select ACCESSION TEST GROUP: MICROBIOLOGY

Select Patient Name: HXX,PXXXXXX <ENTER>      HXX,PXXXXXX      1-1-60
XXXXXXXXXX      NO      NSC VETERAN
Enrollment Priority:      Category: IN PROCESS      End Date:

      *** Patient Requires a Means Test ***

      Primary Means Test Required from NOV 17,2009

Enter <RETURN> to continue. <ENTER>

      Select one of the following:

          LC      LAB COLLECT(INPATIENTS-MORN. DRAW)
          SP      SEND PATIENT
          WC      WARD COLLECT
          I      Immed COLLECT

Specimen collected how ? : SP// IMMED <ENTER> COLLECT
PATIENT LOCATION: 2E// <ENTER> 2 EAST
PROVIDER: LRUSER,ONE// <ENTER>
LAB Order number: 145
Is there one sample for this patient's order? Yes// <ENTER> (Yes)
Select COLLECTION SAMPLE NAME: URINE <ENTER> URINE
Enter Order Comment:
Choose one (or more, separated by commas) ('*' AFTER NUMBER TO CHANGE URGENCY)
1  CULTURE & SENSITIVITY      6  AFB SMEAR
2  ANAEROBIC CULTURE      7  MYCOLOGY CULTURE
3  GRAM STAIN      8  PARASITE EXAM
4  BLOOD CULTURE      9  FECAL LEUKOCYTES
5  AFB CULTURE & SMEAR      10 STERILITY TEST
TEST number(s): 1
For CULTURE & SENSITIVITY
Other tests? N// <ENTER>
Nature of Order/Change: WRITTEN <ENTER> W

You have just selected the following tests for HXX,PXXXXXX XXX-XX-XXXX
entry no. Test      Sample
1  CULTURE & SUSCEPTIBILITY URINE

All satisfactory? Yes// <ENTER> (Yes)

LAB Order number: 145
Collection Date@Time: NOW// <ENTER> (APR 14, 2011@15:16:57)
```

```

Print labels on: LABLABEL// NULL <ENTER> Bit Bucket

Do you wish to test the label printer: NO// <ENTER>
~For Test: CULTURE & SUSCEPTIBILITY URINE
Enter Order Comment: <ENTER>

ACCESSION: MICRO 11 11 <1411000011>
CULTURE & SUSCEPTIBILITY URINE
COMMENT ON SPECIMEN:

Work Load Area: MICROBIOLOGY

HXX,PXXXXXX SSN: XXX-XX-XXXX LOC: 2E

Pat Info: Sex: MALE Age: 51yr as of Apr 14, 2011
Edit this accession? YES// <ENTER>

1 CULTURE & SUSCEPTIBILITY

CULTURE & SUSCEPTIBILITY completed: T <ENTER> (APR 14, 2011)
COLLECTION SAMPLE: URINE// <ENTER>
SITE/SPECIMEN: URINE// <ENTER>
COMMENT ON SPECIMEN: <ENTER>
Select GRAM STAIN: A
(NO)
Select GRAM STAIN: <ENTER>
BACT RPT STATUS: F <ENTER> FINAL REPORT
URINE SCREEN: N NEGATIVE

Select ORGANISM: ESCHERICHIA COLI <ENTER> 1571 112283007 SCT Organism
ORGANISM ISOLATE NUMBER: 1// <ENTER>
ORGANISM: ESCHERICHIA COLI// <ENTER>
QUANTITY: <10000
(<10000)
Select COMMENT: <ENTER>
COLISTIN: <ENTER>
GENTAMICIN: R <ENTER> (R)
CHLORAMPHENICOL: I <ENTER> (I)
TETRACYCLINE: S <ENTER> (SUS)
AMPICILLIN: R <ENTER> (RESIS)
CARBENICILLIN: I <ENTER> (I)
TOBRAMYCIN: S <ENTER> (SUS)
TRIMETHAPRIM/SULFAMETHOXAZOLE: R <ENTER> (RESIS)
AMIKACIN: I <ENTER> (I)
CEFAMANDOLE: S <ENTER> (SUS)
CEFOXITIN: R <ENTER> (RESIS)
NITROFURANTOIN: I <ENTER> (I)
CEPHALOTHIN: S <ENTER> (SUS)

1 ESCHERICHIA COLI
Select ORGANISM: <ENTER>
Select BACT RPT REMARK: <ENTER>
BACT RPT DATE APPROVED: NOW <ENTER> (APR 14, 2011@15:21)
Current performing lab assignments: None Listed

Select one of the following:

1 Entire report
2 Specific sections of report

Designate performing laboratory for: 1// <ENTER> Entire report
Select Performing Laboratory: ZZ BONHAM// <ENTER> TX VAMC 522 INACTIVE Jan
01, 1997

```

Sure you want to add this record? NO// **YES**  
... assignment created.

Current performing lab assignments:

Bacteriology Report Performed By:  
ZZ BONHAM [CLIA# 987654321]

Select one of the following:

- 1           Entire report
- 2           Specific sections of report
- 3           Delete performing laboratory

Designate performing laboratory for:  
CULTURE & SUSCEPTIBILITY completed: 04/14/2011 // **<ENTER>**

(D)isplay (A)dd Work Load D

CULTURE & SUSCEPTIBILITY

WKLD CODE: Micro Mycobacterium Culture TEST MULTIPLY FACTOR: 1  
COMPLETION TIME: APR 14, 2011@15:16:57  
USER: POSTMASTER                   INSTITUTION: ZZ BONHAM  
MAJOR SECTION: MICROBIOLOGY       LAB SUBSECTION: MICROBIOLOGY

(D)isplay (A)dd Work Load

Accession #:

Select Patient Name:

### 5.4.8 Bypass normal data entry [LRFAST]

The option Bypass normal data entry [LRFAST] allows the selection of a performing laboratory for specific sections or the entire report.

**Figure 52. Bypass normal data entry [LRFAST]**

```
Select OPTION NAME: BYPASS NORMAL DATA ENTRY <ENTER> LRFAST      Bypass normal data
entry

Select Performing Laboratory: ZZ BONHAM// <ENTER>      TX      VAMC      522      INACTIVE Jan 01,
1997
Do you want to enter draw times? No// <ENTER>      (No)
Select Patient Name: HXX,PXXXXXX <ENTER>      1-1-60      XXXXXXXXX      NO      NSC
VETERAN

Enrollment Priority:      Category: IN PROCESS      End Date:

      *** Patient Requires a Means Test ***

      Primary Means Test Required from NOV 17,2009

Enter <RETURN> to continue. <ENTER>
PATIENT LOCATION: 2E// <ENTER>      2 EAST

      Select one of the following:

              LC      LAB COLLECT(INPATIENTS-MORN. DRAW)
              SP      SEND PATIENT
              WC      WARD COLLECT
              I      Immed COLLECT

Specimen collected how ? : SP// IMMED <ENTER> COLLECT
PROVIDER: LRUSER,ONE// <ENTER>
Select URGENCY: ROUTINE// <ENTER>
Select LABORATORY TEST NAME: CULTURE & SUSCEPTIBILITY <ENTER>      C & S
For CULTURE & SUSCEPTIBILITY
Select COLLECTION SAMPLE NAME: URINE <ENTER>      URINE
~For Test: CULTURE & SUSCEPTIBILITY      URINE
Enter Order Comment: <ENTER>
Nature of Order/Change: WRITTEN <ENTER>      W
LAB Order number: 144

ACCESSION: MICRO 11 10 <1411000010>
CULTURE & SUSCEPTIBILITY      URINE
COMMENT ON SPECIMEN: <ENTER>
Description OK? Y// <ENTER>

Work Load Area: MICROBIOLOGY

      HXX,PXXXXXX      SSN: XXX-XX-XXXX      LOC: 2E

Pat Info:      Sex: MALE      Age: 51yr as of Apr 14, 2011
Edit this accession? YES// <ENTER>

      1      CULTURE & SUSCEPTIBILITY

CULTURE & SUSCEPTIBILITY completed: T <ENTER>      (APR 14, 2011)
COLLECTION SAMPLE: URINE// <ENTER>
```

```

SITE/SPECIMEN: URINE// <ENTER>
COMMENT ON SPECIMEN: <ENTER>
Select GRAM STAIN: MODE
(MODE)
Select GRAM STAIN: <ENTER>
BACT RPT STATUS: F <ENTER> FINAL REPORT
URINE SCREEN: N <ENTER> NEGATIVE

Select ORGANISM: ESCHERICHIA COLI <ENTER>      1571      112283007      SCT Organism
  ORGANISM ISOLATE NUMBER: 1// <ENTER>
ORGANISM: ESCHERICHIA COLI// <ENTER>
QUANTITY: <10000
(<10000)
Select COMMENT: <ENTER>

CHOOSE FROM:
COLISTIN:
GENTAMICIN: R (R)
CHLORAMPHENICOL: I (I)
TETRACYCLINE: S (SUS)
AMPICILLIN: R (RESIS)
CARBENICILLIN: I (I)
TOBRAMYCIN: S (SUS)
TRIMETHAPRIM/SULFAMETHOXAZOLE: R (RESIS)
AMIKACIN: I (I)
CEFAMANDOLE: S (SUS)
CEFOXITIN: R (RESIS)
NITROFURANTOIN: I (I)
CEPHALOTHIN: S (SUS)

1 ESCHERICHIA COLI
Select ORGANISM: <ENTER>
Select BACT RPT REMARK: <ENTER>
BACT RPT DATE APPROVED: NOW <ENTER> (APR 14, 2011@14:37)
Current performing lab assignments: None Listed

  Select one of the following:

      1      Entire report
      2      Specific sections of report

Designate performing laboratory for: 1// <ENTER> Entire report
Select Performing Laboratory: ZZ BONHAM// TX <ENTER> VAMC 522 INACTIVE Jan 01,
1997

Sure you want to add this record? NO// YES
...assignment created.

Current performing lab assignments:

Bacteriology Report Performed By: ZZ BONHAM [CLIA# 987654321]

  Select one of the following:

      1      Entire report
      2      Specific sections of report
      3      Delete performing laboratory

Designate performing laboratory for: <ENTER>
CULTURE & SUSCEPTIBILITY completed: 04/14/2011 //

```

### 5.4.9 Results entry (batch) [LRMISTUF]

The option Results entry (batch) [LRMISTUF] allows the selection of a performing lab for entire report or specific sections.

Figure 53. Results entry (batch) [LRMISTUF]

```
Select OPTION NAME: LRMISTUF <ENTER>           Results entry (batch)
Results entry (batch)

Select ACCESSION AREA: MICRO <ENTER> MICROBIOLOGY CDD

Work Load Area: M
  1  MICROBIOLOGY
  2  MISC HEMATOLOGY TESTS
  3  MISC URINALYSIS TESTS
  4  MYCOLOGY
CHOOSE 1-4: 1 <ENTER> MICROBIOLOGY
Micro Accession Year: (11)// <ENTER>
Select MICROBIOLOGY TEST: CULT
  1  CULTURE & SUSCEPTIBILITY
  2  CULTURE - AFB NON-RESPIRATORY  AFB NON-RESPIRATORY CULT & SMEAR
  3  CULTURE - AFB RESPIRATORY  AFB RESPIRATORY CULT & SMEAR
  4  CULTURE - BLOOD  BLOOD CULTURE
  5  CULTURE - FUNGUS  MYCOLOGY CULTURE
Press <RETURN> to see more, '^' to exit this list, OR
CHOOSE 1-5: 1 <ENTER> CULTURE & SUSCEPTIBILITY
Preliminary or Final: F
Enter the field to edit: ?
Answer with MICROBIOLOGY SUB-FIELD NUMBER, or LABEL
Do you want the entire MICROBIOLOGY SUB-FIELD List? Y <ENTER> (Yes)
Choose from:
11.57          URINE SCREEN
11.58          SPUTUM SCREEN
11.6           GRAM STAIN
13            BACT RPT REMARK

Enter the field to edit: 13 <ENTER> BACT RPT REMARK
1  Automatically enter your entry.
2  Prompt with your entry.
3  Just Prompt.
Choice: 1
What do you want entered?: NO GROWTH 2 DAYS <ENTER> (NO GROWTH 2 DAYS)
I will automatically stuff BACT RPT REMARK
with NO GROWTH 2 DAYS
...OK? Yes// <ENTER> (Yes)
Verify all work automatically? Yes// <ENTER> YES
Designate the individual test as complete? No// YES
Select Performing Laboratory: LEXINGTON-CDD VAMC// <ENTER> KY VAMC 596A4

Select one of the following:

  1          Entire report
  2          BACT RPT REMARK section of report

Designate performing laboratory for:
```

## 5.4.10 Microbiology Results Entry [LRMIEDZ]

The option Microbiology Results Entry [LRMIEDZ] can display the ISOLATE ID as determined by the Execute code setup in the EDIT CODE field in LABORATORY TEST file (#60).

**Figure 54. Microbiology Results Entry [LRMIEDZ]**

```
Select Laboratory DHCP Menu <TEST ACCOUNT> Option: MICROBIOLOGY MENU

Select Microbiology menu <TEST ACCOUNT> Option: RE <ENTER> Results entry

Select MICROBIOLOGY Accession or UID: MYCOLOGY
  Accession Date: TODAY// <ENTER> (JUN 01, 2011)
  Number part of Accession: (1-999999): 2
Work Load Area: MYCOLOGY
Select TEST/PROCEDURE:
None Preselected
Accession # 2
  XXXXXXXXXX SSN: XXX-XX-XXXXLOC: CBOC
  Pat Info:                               Sex: MALE      Age: 75yr as of Jun 01, 2011
Edit this accession? YES// <ENTER>
  1      MYCOLOGY CULTURE

MYCOLOGY CULTURE completed: <ENTER>
SITE/SPECIMEN: SPUTUM// <ENTER>
COMMENT ON SPECIMEN: <ENTER>
MYCOLOGY RPT STATUS: P <ENTER> PRELIMINARY REPORT
Select FUNGUS/YEAST: CANDIDA GLABRATA
  FUNGUS/YEAST ISOLATE NUMBER: 1// <ENTER>
  ISOLATE ID: 99VA4:581:9-1// <ENTER> (No Editing)
  QUANTITY: <ENTER>
  Select COMMENT: <ENTER>
Select FUNGUS/YEAST: <ENTER>
Select MYCOLOGY RPT REMARK: <ENTER>
MYCOLOGY RPT DATE APPROVED: <ENTER>
Current performing lab assignments: None Listed
  Select one of the following:

      1      Entire report
      2      Specific sections of report

Designate performing laboratory for: 1// <ENTER> Entire report
Select Performing Laboratory: HUNTINGTON VAMC// <ENTER> WV VAMC 581

Sure you want to add this record? NO// YES
...assignment created.

Current performing lab assignments:

Mycology Report Performed By: HUNTINGTON VAMC [CLIA# 51D0987909]
  Select one of the following:
      1      Entire report
      2      Specific sections of report
      3      Delete performing laboratory
Designate performing laboratory for:
MYCOLOGY CULTURE completed:
```

### 5.4.11 Enter/verify data (auto instrument) [LRVR]

The option Enter/verify data (auto instrument) [LRVR] prompts the user to view results associated to each sequence display when verifying by accession number, where there are multiple results available for the accession number.

**Figure 55. Enter/verify data (auto instrument) [LRVR]**

```
Select Process data in lab menu <TEST ACCOUNT> Option: EA <ENTER> Enter/verify
data (auto instrument)
Select LOAD/WORK LIST NAME: VITROS
Select Performing Laboratory: HUNTINGTON VAMC// <ENTER> WV VAMC 581
Work Load Area: VITROS// <ENTER>
Would you like to see the test list? No// <ENTER> NO
Do you wish to modify the test list? NO// <ENTER>
You have selected 128 tests to work with.
Do you want to review the data before and after you edit? YES// <ENTER>

      Select one of the following:
      1      Accession Number
      2      Unique Identifier (UID)

Verify by: 1// <ENTER> Accession Number
      Accession Date: TODAY// <ENTER> (MAY 19, 2011)
      Accession NUMBER: 488// 487
ORDER #: 100278
Seq #: 78740 Accession: CH 0517 487
Seq #: 78740 Accession: CH 0517 487      Results received: May 14, 2011@11:27
      UID: UNKNOWN                      Last updated: May 14, 2011@11:27

Seq #: 78743 Accession: CH 0517 487      Results received: May 14, 2011@11:35
      UID: UNKNOWN                      Last updated: May 14, 2011@11:35

Seq #: 80124 Accession: CH 0517 487      Results received: May 17, 2011@20:20
      UID: 4111370487                  Last updated: May 17, 2011@20:20
Select one of the following:
      0      Skip Display
      78740      Seq # 78740
      78743      Seq # 78743
      80124      Seq # 80124
Display results associated with sequence #: Skip Display//
```



## 5.4.12 Log-in, anat path [LRAPLG]

The option Log-in, anat path [LRAPLG] requires the input for three new prompts:

Specimen Topography.

Collection Sample.

Laboratory Test.

### **LEDI IV Update:**

The option 'Log-in, anat path' [LRAPLG] was modified to change the way the system assigns a default accession number when an AP case is accessioned. Previously, the system defaulted to the next available number that followed the last accession number that was used. This option was modified so that every time an AP accession is logged in, the system starts searching from the beginning (#1). The first available accession number that is found in that accession area will be used as the default accession number for the new case being logged in (note: the user will still be able to override the default, and select a different accession number, if they so choose).

For sites that wish to keep the original method of assigning a default AP accession number, a new Parameter is being introduced that will let the site configure which method the system should use. This new parameter, 'Method of Assigning AP Accession Number', can be edited via the option 'Package Level Parameter Edit' [LR70 PAR PKG] on the 'Update CPRS Parameters' [LR70 PARAM MENU] menu. See Table 2 LEDI IV Patch Parameters for the values of the settings.

**Figure 56. Log-in, anat path [LRAPLG]**

```
Select Anatomic pathology Option: L <ENTER> Log-in menu, anat path
Select Log-in menu, anat path Option: ?

LI      Log-in, anat path
DA      Delete accession #, anat path
PB      Print log book
HW      Histopathology Worksheet

Enter ?? for more options, ??? for brief descriptions, ?OPTION for help text.

Select Log-in menu, anat path Option: LI <ENTER> Log-in, anat path
Select ANATOMIC PATHOLOGY SECTION: SUR <ENTER> GICAL PATHOLOGY

Log-In for 2008 ? YES// <ENTER> (YES)

Select Patient Name: LDSI
1  LDSIAP,ONE      X-X-55      XXXXXXXXXX      NO      EMPLOYEE
2  LDSIAP,PATIENT  X-X-7XXXXXXX      YES     MILITARY RETIREE

3  LDSIAP,SALLY    X-X-54      XXXXXXXX7      NO      EMPLOYEE
CHOOSE 1-3: 1 <ENTER> LDSIAP,ONE      X-X-55 XXXXXXXXXX      NO      EMPLOYEE
LDSIAP,ONE ID: XXXXXXXX
AGE: 53  DATE OF BIRTH: MAY 5,1955
PATIENT LOCATION: 3E// <ENTER> 3 EAST

Checking surgical record for this patient...
No operations on record in the past 7 days for this patient.
Assign SURGICAL PATHOLOGY (NSP) accession #: 13? YES// <ENTER> (YES)
Date/time Specimen taken: NOW// <ENTER> (SEP 15, 2008@15:17)
```

```

SURGEON/PHYSICIAN: LRPROVIDER,ONE JR <ENTER> LRPROVIDER,ONE JR WGA
SPECIMEN SUBMITTED BY: LRPROVIDER,ONE
Select SPECIMEN: TISSUE
SPECIMEN TOPOGRAPHY: TISSUE
1 TISSUE 00001A
2 TISSUE EOSINOPHIL 05145
3 TISSUE NEUTROPHIL 05147
4 TISSUE, SUBCUTANEOUS SUBCUTANEOUS TISSUE 03000
CHOOSE 1-4: 1 <ENTER> TISSUE 00001A
COLLECTION SAMPLE: TISSUE <ENTER> TISSUE
Select SPECIMEN: <ENTER>
DATE/TIME SPECIMEN RECEIVED: NOW// <ENTER> (SEP 15, 2008@15:18)
PATHOLOGIST: LRPROVIDER,ONE <ENTER> JR LRPROVIDER,ONE JR WGA
Select COMMENT: <ENTER>
FROZEN SECTION: <ENTER>
1>
Select LABORATORY TEST: TISSUE EXAM <ENTER> SP

Select Patient Name: <ENTER>
Select Log-in menu, anat path Option: <ENTER>
Select Anatomic pathology Option: <ENTER>
Select Laboratory DHCP Menu

```

**Figure 57. Sample of the AP Log Book where the display of related surgical information is enabled**

```

Select OPTION NAME: LRAPBK <ENTER> Print log book
Print log book

Select ANATOMIC PATHOLOGY SECTION: SURGICAL PATHOLOGY

SURGICAL PATHOLOGY LOG BOOK

Select one of the following:

0 No
1 Yes
2 Only Topography and Morphology Codes

Print SNOMED codes: No// <ENTER>
Print Single Accession? NO// Y <ENTER> YES
Select SURGICAL PATHOLOGY Accession or UID: NSP 08 20
SURGICAL PATHOLOGY (2008) 20
DEVICE: HOME// ;9999 <ENTER> UCX/TELNET

Mar 14, 2012 18:00 ZZ BONHAM Pg: 1
LOG BOOK entry for accession NSP 08 20
# =Demographic data in file other than PATIENT file
Date Num Patient ID LOC PHYSICIAN PATHOLOGIST
-----
Oct/07 20 LRPATIENT,ONE JR 1111 1T LRUSER,ONE LRUSER,ONE
Patient ID: 000-00-1111
InPatient Accession [UID]: NSP 08 20 [0000000000]
Date specimen taken: Oct 07, 2008@09:43 Entered by: LRUSER,ONE
FIFTH BIG TOE
OTHER BIG TOE
Related Surgery Case #35
BRIEF CLINICAL HISTORY: Information automatically documented from SURGERY package
case #35 Field (#60) BRIEF CLIN HISTORY
PREOPERATIVE DIAGNOSIS: Information automatically documented from SURGERY package
case #35 Field (#32) PRINCIPAL PRE-OP DIAGNOSIS,
(#.72) OTHER PREOP DIAGNOSIS

```

Select SURGICAL PATHOLOGY Accession or UID:

### 5.4.13 Anatomic Pathology Performing Laboratory

Within the Anatomic Pathology data entry options, the user can designate the performing laboratory for the entire report or for specific sections of the report. If choosing to enter the performing laboratory for specific sections, only the sections that have data entered will appear. If the site requires a Performing Laboratory other than the default local Institution Name, then the Institution must be in File 4 as either a National or Local entry and the LIM must set up a Lab Shipping Configuration for the performing laboratory. See section 5.4.2 Edit Shipping Configuration [LA7S EDIT 62.9].

**Figure 58. Sample AP Designation of Performing Laboratory for Report**

```
Designate performing laboratory for: 1// <ENTER> Entire report
Select Performing Laboratory:           Editor Note: Enter the performing Institution Name here.
Sure you want to add this record? NO// YES
...assignment created.
Current performing lab assignments:
Surgical Pathology Report Performed By:
(#1 Institution Name)

    Select one of the following:
1 Entire report
2 Specific sections of report

Designate performing laboratory for: 1// 2 <ENTER> Specific sections of report
    1 - Brief Clinical History
    2 - Preoperative Diagnosis
    3 - Post-Operative Diagnosis
    4 - Gross Description
    5 - Frozen Section
Select the section to designate (1-5): 1
Select Performing Laboratory:           Editor Note: Enter the designate Institution Name here.
Sure you want to add this record? NO// YES
... assignment created.
Current performing lab assignments:
Brief Clinical History Performed By:
(#2 Institution Name)

    Select one of the following:
    1 Entire report
    2 Specific sections of report
    3 Delete performing laboratory

Designate performing laboratory for: 2 <ENTER> Specific sections of report
```

**Note 1:** Next to Select Performing Laboratory on line 2 of the view, Enter the performing Institution Name,

**Note 2:** Next to Select Performing Laboratory on line 20 of the view, Enter the designate Institution Name.

### 5.4.14 Add tests to a given accession [LRADD TO ACC]

The option Add tests to a given accession [LRADD TO ACC] was modified to allow the selection of the type of test order added.

**Figure 59. Add tests to a given accession [LRADD TO ACC]**

```
Select Accessioning menu <TEST ACCOUNT> Option: ADD TESTS TO A GIVEN ACCESSION
Select Accession or UID: CHEMISTRY
CHEMISTRY
  Accession Date: TODAY// <ENTER> (MAY 17, 2011)
  Number part of Accession: (1-999999): 1
LEDITEST,PATIENTONE          000-00-1111
Nature of Order/Change: POLICY// <ENTER> I
TESTS ALREADY ON THE ACCESSION:
  CREATININE
  UREA NITROGEN
  GLUCOSE
  SODIUM
  POTASSIUM
  CHLORIDE
  CO2
  CALCIUM
  ANION GAP
  ELECTROLYTE 7

Select Original Ordered Test: ELECTROLYTE 7

Add LABORATORY TEST: TSH <ENTER>      TSH (LAB)
...OK? Yes// <ENTER> (Yes)

  Select one of the following:

      1      Add On
      2      Reflex

Type of test order being added: 1 <ENTER> Add On

TSH (LAB) ADDED
```

### 5.4.15 Add a New Internal Name for an Antibiotic [LRWU7]

This existing option was expanded to allow editing of mycobacterium antibiotics.

**Figure 60. Add a new internal name for an antibiotic [LRWU7]**

```
Select Lab liaison menu Option: ?

ANT      Add a new internal name for an antibiotic
ANTE     Edit an Antibiotic
BCF      Lab Bar Code Label Formatter
BCZ      Lab Zebra Label Utility
DATA     Add a new data name
HDR      Recover/Transmit Lab HDR Result Messages
LNC      LOINC Main Menu ...
MOD      Modify an existing data name
SMGR     Lab Shipping Management Menu ...
          Add a new WKLD code to file
          AP Microfiche Archive
          Archiving Menu ...
          Check files for inconsistencies
          Check patient and lab data cross pointers
          Download Format for Intermec Printer
          Edit atomic tests
          Edit cosmic tests
          Edit Inactive Date - COLLECTION SAMPLE
          Edit Inactive Date - TOPOGRAPHY FIELD
          File list for lab
          LAB ROUTINE INTEGRITY MENU ...
          Lab Tests and CPT Report
          LIM workload menu ...
          Manually compile WKLD and workload counts
          OE/RR interface parameters ...
          Outline for one or more files
          Print AMA CPT Panel Pending List
          Re-index Antimicrobial Suscept File (62.06)
          Restart processing of instrument data
          Turn on site workload statistics
          Turn on workload stats for accession area
          User selected lab test/patient list edits

Select Lab liaison menu Option: ADD A NEW INTERNAL NAME FOR AN ANTIBIOTIC

Select one of the following:
    1      Bacterial Antibiotic
    2      Mycobacterium Antibiotic
Select Antibiotic Type to Add: 1// <ENTER> Bacterial Antibiotic
Enter the name of the new antibiotic you wish to create: NEW ANTIOBIOTIC

Checking if field exists...OK
(DRUG NODE will be 2.00581067)
Are you sure you wish to create NEW ANTIOBIOTIC? NO// YES

TEST ANTIOBIOTIC has now been created.
You must now add a new antibiotic in the ANTIMICROBIAL SUSCEPTIBILITY file
and use TEST ANTIOBIOTIC as the entry for the INTERNAL NAME field.
Do you want to setup NEW ANTIOBIOTIC as a new Bacterial Antibiotic? NO// YES
NAME: NEW ANTIOBIOTIC//
INTERNAL NAME: 2.00581067// NEW ANTIOBIOTIC
DISPLAY COMMENT:
```

ABBREVIATION:  
DEFAULT SCREEN: ALWAYS DISPLAY  
PRINT ORDER: 25  
Select SUSCEPTIBILITY RESULT:  
NATIONAL VA LAB CODE: NEW ANTIBIOTIC

### 5.4.16 Delete entire order or individual tests [LRCENDEL]

The option Delete entire order or individual tests [LRCENDEL] was modified to prevent a user from "Not Performing" (NP) any tests that have results. This applies even if the results have not yet been verified. Note: Shortened the actual length of the screen to remove excess space and cut down on paper.

**Figure 61. Delete entire order or individual tests [LRCENDEL]**

```
Select Accessioning menu Option: DELETE ENTIRE order or individual tests

ENTER ORDER NUMBER: : (1-9999999999): 361

Order  Test          Urgency  Status          Accession
-Lab Order # 361          Provider: LRUSER,TWO
BLOOD
CBC          ROUTINE  Collected      07/17/2012@12:08 HE 0717 1
LRPATIENT,TWO          000-00-9934

      Test result(s) already entered for this order; cannot change order.
      You must select individual test using the 'Delete test from accession' option.

              Can't change status of test(s) on this order.

ENTER ORDER NUMBER: : (1-9999999999):
```



## 5.4.17 Microbiology Performing Laboratory

LEDI IV adds the capability to designate the performing laboratory for the entire AP or Micro report or for specific sections of the report. For sites that do all their AP or Micro tests in house (and do not send them out), it can be cumbersome to assign a performing lab each time they enter an AP or Micro result.

Two new parameters were created that allow the site to skip the prompt for performing laboratory: 'Ask Performing Lab AP' and 'Ask Performing Lab Micro'. They can set the value to either 'Yes' or 'No'. If they set the parameter to 'No', the system will not prompt the user to designate a performing lab, and the system will automatically assign a performing lab (based on the algorithm explained below). Sites that send AP and Micro tests to another lab (some or all of the report; all the time, or only in certain scenarios) should maintain the ability to designate the performing lab when they verify the report, and should not choose to set the parameter to not ask for a performing lab.

If the user sets the parameter to not ask for a performing lab, the system automatically assigns a performing lab to the entire report based off these conditions:

If the user entering results has their 'Default Performing Laboratory' parameter set to a default Institution, that Institution will be used as the performing lab.

If that parameter is not set for the user, the system will use the DUZ(2) (the user's Institution) as the performing lab.

Within Microbiology result entry options, the user can designate the performing laboratory for the entire report or for specific sections of the report. If choosing to enter the performing laboratory for specific sections, only the sections that have data entered will appear for selection.

**Figure 62. Microbiology Assigning Performing Laboratory for Entire Report**

```
CULTURE & SUSCEPTIBILITY completed: N <ENTER> (JUL 17, 2012@12:54)
COLLECTION SAMPLE: BLOOD// <ENTER>
SITE/SPECIMEN: SERUM// <ENTER>
COMMENT ON SPECIMEN: <ENTER>
Select GRAM STAIN: NEGATIVE <ENTER>
(NEGATIVE)
Select GRAM STAIN: <ENTER>
BACT RPT STATUS: F <ENTER> FINAL REPORT

Select ORGANISM: <ENTER>
Select BACT RPT REMARK: <ENTER>
BACT RPT DATE APPROVED: N <ENTER> (JUL 17, 2012@12:54)
Current performing lab assignments: None Listed

    Select one of the following:

        1      Entire report
        2      Specific sections of report

Designate performing laboratory for: 1// <ENTER> Entire report
Select Performing Laboratory: ZZ BONHAM// <ENTER> TX VAMC 522 INACTIVE Jan
01, 1997

Sure you want to add this record? NO// YES <ENTER>
...assignment created.
```

Current performing lab assignments:

Bacteriology Report Performed By: ZZ BONHAM [CLIA# 987654321]

Select one of the following:

- 1           Entire report
- 2           Specific sections of report
- 3           Delete performing laboratory

Designate performing laboratory for: <ENTER>

CULTURE & SUSCEPTIBILITY completed: 07/17/2012 12:54 // <ENTER>

Send a CPRS Alert/Notification? YES// NO <ENTER>

(D)isplay (A)dd Work Load <ENTER>

Accession #: <ENTER>

**Figure 63. Microbiology Assigning Performing Laboratory for Specific Sections of Report**

```

CULTURE & SUSCEPTIBILITY completed: N <ENTER> (JUL 17, 2012@12:21)
COLLECTION SAMPLE: BLOOD// <ENTER>
SITE/SPECIMEN: SERUM// <ENTER>
COMMENT ON SPECIMEN: <ENTER>
Select GRAM STAIN: NEGATIVE <ENTER>
(NEGATIVE)
Select GRAM STAIN: <ENTER>
BACT RPT STATUS: F <ENTER> FINAL REPORT

Select ORGANISM: STAPHYLOCOCCUS AUREUS <ENTER>      2441  3092008 SCT Organism
ORGANISM ISOLATE NUMBER: 1// <ENTER>
This entry is mapped in File #62.47
ORGANISM: STAPHYLOCOCCUS AUREUS// <ENTER>
QUANTITY: <ENTER>
Select COMMENT: <ENTER>
PENICILLIN: <ENTER>
CLINDAMYCIN: S <ENTER> (SUS)
VANCOMYCIN: S <ENTER> (6)
GENTAMICIN: S <ENTER> (S)
CHLORAMPHENICOL: <ENTER>
TETRACYCLINE: <ENTER>
AMPICILLIN: <ENTER>
NITROFURANTOIN: <ENTER>
ERYTHROMYCIN: <ENTER>
OXACILLIN: R <ENTER> (RESIS)
CEPHALOTHIN: <ENTER>

1 STAPHYLOCOCCUS AUREUS
Select ORGANISM: <ENTER>
Select BACT RPT REMARK: <ENTER>
BACT RPT DATE APPROVED: N <ENTER> (JUL 17, 2012@12:23)
Current performing lab assignments: None Listed

Select one of the following:

1      Entire report
2      Specific sections of report

Designate performing laboratory for: 1// 2 <ENTER> Specific sections of report

1 - Bacteriology Report
2 - Gram Stain
3 - Organism Identification
4 - Comment On Specimen
Select the section to designate (1-4): 3 <ENTER>

1 - STAPHYLOCOCCUS AUREUS including All Susceptibilities
1.1 - STAPHYLOCOCCUS AUREUS Specific Susceptibilities
2 - ALL items
Select the item to designate (1-2): 1.1 <ENTER>

1 - Clindam
2 - Vancmcn
3 - Gentmcn
4 - Oxacillin
Select the item to designate (1-4): 4 <ENTER>
Select Performing Laboratory: ZZ BONHAM// REGION 7 ISC,TX (FS) <ENTER> TX 170

Sure you want to add this record? NO// Y <ENTER> YES
...assignment created.

```

Current performing lab assignments:

Staphylococcus Aureus Oxacillin Susceptibility Performed By:

Dallas Office of Information Field Office - Lab Development [CLIA# 123445689]

Select one of the following:

- 1           Entire report
- 2           Specific sections of report
- 3           Delete performing laboratory

Designate performing laboratory for: <ENTER>

CULTURE & SUSCEPTIBILITY completed: 07/17/2012 12:21 // <ENTER>

Send a CPRS Alert/Notification? YES// NO <ENTER>

(D)isplay (A)dd Work Load

Accession #: <ENTER>

## 5.4.18 Microbiology Sending an Alert

Within Microbiology result entry options, the user can opt to send one of three alert types to the ordering provider and additional recipients and/or mail groups. Depending on how the 'Prompt CPRS Alert in Micro Result Entry' parameter is set, will determine whether the user is prompted to send an alert. The three alert types are:

- Lab results available.
- Abnormal lab results.
- Critical lab results.

**NOTE:** The type of alert generated either depends on whether the clinician has set the parameter for personal alerts in CPRS, or if the alert is mandatory at the system level.

**Reference:** For additional details on these alerts, see the “APPENDIX B: HOW NOTIFICATIONS WORK - TECHNICAL OVERVIEW” section in the CPRS Technical Manual on the VDL.

**Figure 64. Sending an Alert - Microbiology**

```
CULTURE & SUSCEPTIBILITY completed: N <ENTER> (MAY 05, 2011@17:45)
COLLECTION SAMPLE: URINE// <ENTER>
SITE/SPECIMEN: URINE// <ENTER>
COMMENT ON SPECIMEN: <ENTER>
Select GRAM STAIN: NEGATIVE
BACT RPT STATUS: F <ENTER> FINAL REPORT
URINE SCREEN: NEGATIVE <ENTER> NEGATIVE
Select ORGANISM: <ENTER>
Select BACT RPT REMARK: <ENTER>
BACT RPT DATE APPROVED: N <ENTER> (MAY 05, 2011@17:45)
Current performing lab assignments: None Listed

    Select one of the following:

        1      Entire report
        2      Specific sections of report

Designate performing laboratory for: 1// <ENTER> Entire report
Select Performing Laboratory: LEXINGTON-LD VAMC// <ENTER> KY VAMC 596

Sure you want to add this record? NO// YES
...assignment created.

Current performing lab assignments:

Bacteriology Report Performed By: LEXINGTON VA MEDICAL CENTER [CLIA# 18D1086610]

    Select one of the following:

        1      Entire report
        2      Specific sections of report
        3      Delete performing laboratory

Designate performing laboratory for: <ENTER>
```

```
CULTURE & SUSCEPTIBILITY completed: 05/05/2011 17:45 //  
Send a CPRS Alert/Notification? NO// YES <ENTER>  
Select TEST: CULTURE & SUSCEPTIBILITY <ENTER>
```

Select one of the following:

- 1            Lab results available
- 2            Abnormal lab results
- 3            Critical lab results

Enter response: 1 <ENTER>    Lab results available

The current recipients will be:

LEDIIVPROVIDER.ONE    [Outpatient Primary Care Provider]

LEDIIVPROVIDEER.TWO    [Ordering Provider]

Send the alert to additional recipients and/or mail groups? NO// <ENTER>

The current recipients will be:

LEDIIVPROVIDER.ONE    [Outpatient Primary Care Provider]

LEDIIVPROVIDEER.TWO    [Ordering Provider]

Send Alert? YES// <ENTER>    ...Alert Sent

(D)isplay (A)dd Work Load

Accession #:

#### **5.4.19 The Add/Remove a Shipping Manifest Test' [LA7S MANIFEST TEST ADD/REMOVE]**

This option was modified to restrict adding/removing tests from a cancelled shipping manifest. The option will only allow a test to be added or removed from an “Open” or “Closed” shipping manifest.

### 5.4.20 Enter/verify/modify data (manual) [LRENTER]

The option Enter/verify/modify data (manual) [LRENTER] was modified to allow holders of the LRDATA Security Key to change the Units and Reference Ranges for a result by entering a tilde (~) at the lab result prompt.

See below for an example of this new feature.

**Figure 65. Enter/verify/modify data (manual) [LRENTER]**

```
Select Process data in lab menu Option: EM <ENTER> Enter/verify/modify data
(manual)

Do you want to review the data before and after you edit? YES// <ENTER>
Do you wish to see all previously verified results? NO// <ENTER>

Select one of the following:

1      Accession Number
2      Unique Identifier (UID)

Verify by: 1// 2 <ENTER> Unique Identifier (UID)

Unique Identifier: L621350001 <ENTER> (CH 0514 1)
Select Performing Laboratory: LEDIA// <ENTER> 980
BCMA,SEVEN-PATIENT 111-11-1111 LOC:BCMA

Sample: BLOOD
These results have been approved by LRUSER,ONE on May 14, 2012@09:22:40
Specimen: SERUM
1 GLUCOSE verified

BCMA,SEVEN-PATIENT SSN: 111-11-1111 LOC: BCMA
Pat Info: Sex: MALE Age: 77yr as of May 14, 2012
Provider: LRUSER,ONE Voice pager:
Phone: 6655544 Digital pager:

ACCESSION: CH 0321 2 CH 0514 1 [L621350001]
3/21 14:01d 5/14 09:22d
GLUCOSE 90 120 H mg/dL
COMMENTS: TEST EDITTING RANGES

If you need to change something, enter your initials: LU <ENTER>

SELECT ('E' to Edit, 'C' for Comments, 'W' Workload): Edit <ENTER>
GLUCOSE 120//~

Current Laboratory Test File Values
Current Ref Range: 60-110 Units: mg/dL
Critical Low: 50 Critical High: 300
Use these values? NO// <ENTER>

For test GLUCOSE
UNITS: mg/dL// <ENTER>mg/dL
REFERENCE LOW: 60// 70 <ENTER>
REFERENCE HIGH: 110// 120 <ENTER>
CRITICAL LOW: 50// <ENTER> 50
CRITICAL HIGH: 300// <ENTER> 300
Result's Abnormality: Abnormal High// ? <ENTER>
```



Select the abnormality if it cannot be calculated from reference values.

Select one of the following:

- 0 Calculate from entered values
- 1 Abnormal Low
- 2 Critical Low
- 3 Abnormal High
- 4 Critical High

Result's Abnormality: Abnormal High// 0 <ENTER> Calculate from entered values

GLUCOSE 120// <ENTER>

Select COMMENT: EDITTING REF RANGES // <ENTER>

COMMENT: EDITTING REF RANGES Replace <ENTER>

Select COMMENT: <ENTER>

BCMA,SEVEN-PATIENT SSN: 111-11-1111 LOC: BCMA

Pat Info: Sex: MALE Age: 77yr as of May 14, 2012

Provider: LRUSER,ONE Voice pager:

Phone: 6655544 Digital pager:

ACCESSION: CH 0321 2 CH 0514 1 [L621350001]

3/21 14:01d 5/14 09:22d

GLUCOSE 90 120 mg/dL

COMMENTS: EDITTING REF RANGES

If you need to change something, enter your initials: <ENTER>

Approve update of data by entering your initials: LU <ENTER>

GLUCOSE flagged incorrectly as H by [18-VA980].

Changed to normal on May 14, 2012@09:25 by [18-VA980].

GLUCOSE reference low reported incorrectly as 60 by [18-VA980].

Changed to 70 on May 14, 2012@09:25 by [18-VA980].

GLUCOSE reference high reported incorrectly as 110 by [18-VA980].

Changed to 120 on May 14, 2012@09:25 by [18-VA980].

Unique Identifier: <ENTER>

### 5.4.21 Print log book [LRAPBK]

The accession number can be entered by using the <ACCESSION AREA> <DATE> <NUMBER> format or UID in the 10-15 character formats. The AP Log Book now displays the UID for all entries. Two samples of the same view are presented below. The first has the user selecting by Accession number. The second has the user selecting by UID.

**Figure 66. Print log book [LRAPBK] Select by Accession**

```
Data entry for 2008 ? YES// <ENTER> (YES)

  Select one of the following:

      1      Accession number
      2      Unique Identifier (UID)
      3      Patient Name

Select one: 1// 1 Accession number
Enter Accession Number:  1

Enter the year 2008 SURGICAL PATHOLOGY accession number to be updated.

Enter Accession Number:  1  for 2008
```

#### **Second Sample of Print Log Book- Select by UID**

```
Data entry for 2008 ? YES// <ENTER> (YES)

Enter the year 2008 SURGICAL PATHOLOGY accession number to be updated.

Enter Accession Number:  1  for 2008
  Select one of the following:

      1      Accession number
      2      Unique Identifier (UID)
      3      Patient Name

Select one: 1// 2 Unique Identifier (UID)

Unique Identifier: 1513000002  (SP-LX 13 1)  for 2008
```

### 5.4.22 Change How Not-Performed ("NP") Tests Work in LEDI IV

LEDI IV is made "NP aware" so that it will send a message back to the LEDI collecting site when the Host site NP's a test. When the Host site NP's a test, an HL7 message will be sent back to the Collecting site. At the Collecting site, a LA7 ORDER STATUS CHANGED bulletin and an alert will be sent out to the mail group specified in the Message Configuration to receive "New Results" alerts.

If the Host site NP'd the entire ordered test (from a non-exploded panel), the HL7 message being sent back will not contain a result (in the OBX), but will just contain the Test result comments. The Collecting site will need to:

1. Delete test from an accession [LRTSTOUT], or Delete Entire Order of Individual Test [LRCENDEL] if there are no results already verified on the order.
2. Enter/verify/modify data (manual) [LRENTER].

However, if the Host site NP'd individual tests from an exploded panel, then a result of "canc" will be sent back to the Collecting site for the individual tests from the panel that were Not Performed.

**Figure 67. Sample LA7 ORDER STATUS CHANGED**

```
Subj: LAB ORDER STATUS CHANGED  [#62133] 10/03/11@12:44  24 lines
From: LAB PACKAGE In 'IN' basket.  Page 1
-----
An order status change has been received for a patient via a HL7 interface
that indicates the order has been changed. Please use the appropriate
laboratory option to update this order on this system.

Action: No results available; Order canceled.
  Interface: LA7V HOST 123
  File #62.49: 142
  Patient Name: LRPATIENT,ONE
  Patient ID: 000001234
  Specimen ID: L612760003
Collection D/T: Oct 03, 2011@12:42
  Test/analyte: Lipid Panel [81132.0000]
  Producer's ID: LRPRODUCER1
  Manifest: 123-20111003-3
Comments:
*LIPID PROFILE Not Performed: Oct 03, 2011@12:43 by 123456
*NP Reason: CONTAMINATED SAMPLE
Enter message action (in IN basket): Ignore//
```

### 5.4.23 Cumulative Report Modifications

The Cumulative Report was modified so that when the 'Date/Time Obtained Inexact' field is set to 'Yes' for an Accession, the Cumulative Report will just display the Collection Date (without the time) for that accession.

**Figure 68. Cumulative Report**

----- CHEM II Profile -----		
PLASMA	FBS	
Ref range low	60	
Ref range high	123	
	mg/dL	
-----		
[a]	Jul 09, 2012	120
[c]	Jun 26, 2012 10:20	145 H
[d]	Jun 26, 2012 10:13	110
[g]	May 31, 2012 16:06	130 H
[i]	Feb 08, 2012 09:48	110

## 5.5 Modified Report Options

The following report options are modified to display the facilities at which the laboratories are performed and reported, and the name/address of the facility at which the report is printed to comply with Federal CLIA regulations.

Figure 69. Interim report [LRRP2]

```
Select Results menu Option: INTERIM
1   Interim report
2   Interim report by provider
3   Interim report for an accession
4   Interim report for chosen tests
5   Interim report for selected tests as ordered
6   Interim reports by location (manual queue)
7   Interim reports for 1 location (manual queue)
8   Interim reports for 1 provider (manual queue)
CHOOSE 1-8: 1 <ENTER> Interim report

Select Patient Name: LEDIPATIENT,ONE JR <ENTER> LRPATIENT,ONE JR X-XX-20
000001111 NO NSC VETERAN
Date to START with: TODAY// <ENTER> (SEP 05, 2008)
Date to END with: T-7// <ENTER> (AUG 29, 2008)
Print address page? NO// Y <ENTER> YES
DEVICE: HOME// ;,1000 <ENTER> UCX/TELNET
Printed at:
Dallas Office of Information Field Office [CLIA# 987654321]
1234 Anyplace Avenue Building 456 VistA City, TX 99999
page 1

LEDIPATIENT,ONE JR Report date: Sep 05, 2008@11:23
Pat ID: 000-00-1111 SEX: M DOB: Feb 12, 1920 LOC: 1T

Reporting Lab:
Dallas Office of Information Field Office [CLIA# 987654321]
1234 Anyplace Avenue VistA City, TX 99999
Provider: LRPROVIDER,ONE JR
Specimen: SERUM
Accession [UID]: CH 0905 12 [0482490012]
Report Released: Sep 05, 2008@11:19
Specimen Collection Date: Sep 05, 2008@11:18

Test name Result units Ref. range Site Code
GLUCOSE 120 mg/dL 60 to 123 [522]
Eval: 70-99 mg/dL NORMAL
Eval: 100-125 mg/dL Impaired Fasting Glucose
Eval: >= 126 mg/dL Provisional Diagnosis of Diabetes
Eval:
Eval: **5/17/04 Reference Range Changed, OLD RANGE 70-110**
=====
KEY: "L"=Abnormal low, "H"=Abnormal high, "*"=Critical value

LEDIPATIENT,ONE JR 000-00-1111 Sep 05, 2008@11:23 PRESS '^' TO STOP
page 2
LEDIPATIENT,ONE JR 000-00-1111 Sep 05, 2008@11:24

Performing Lab Sites:
[522] Dallas Office of Information Field Office [CLIA# 987654321]
1234 Anyplace Avenue VistA City, TX 99999
Select Patient Name:
```

## 5.5.1 Interim report by provider [LRRD]

Figure 70. Interim report by provider [LRRD]

```
Select Results menu Option: INTERIM REPORT BY PROVIDER

Date to START with: TODAY// <ENTER> (SEP 05, 2008)
Date to END with: AUG 6,2008// <ENTER> (AUG 06, 2008)
Print address page? NO// Y <ENTER> YES
Do you want (A)ll providers, a (R)ange of providers,
or (S)electd providers? S// <ENTER>
Select PROVIDER NAME: LRPROVIDER,ONE JR <ENTER> WGA
Select PROVIDER NAME: <ENTER>
DEVICE: HOME// ;;1000 <ENTER> UCX/TELNET Right Margin: 80// <ENTER>

Printed at: page 1
Dallas Office of Information Field Office [CLIA# 987654321]
1234 Anyplace Avenue Building 456 VistA City, TX 99999

LEDIPATIENT,ONE JR Report date: Sep 05, 2008@11:29
Pat ID: 000-00-1111 SEX: M DOB: Feb 12, 1920 LOC: 1T

Reporting Lab:
Dallas Office of Information Field Office [CLIA# 987654321]
1234 Anyplace Avenue VistA City, TX 99999

Provider: LRPROVIDER,ONE JR
Specimen: SERUM
Accession [UID]: CH 0905 12 [0482490012]
Report Released: Sep 05, 2008@11:19

Specimen Collection Date: Sep 05, 2008@11:18
Test name Result units Ref. range Site Code
GLUCOSE 120 mg/dL 60 to 123 [522]
Eval: 70-99 mg/dL NORMAL
Eval: 100-125 mg/dL Impaired Fasting Glucose
Eval: >= 126 mg/dL Provisional Diagnosis of Diabetes
Eval:
Eval: **5/17/04 Reference Range Changed, OLD RANGE 70-110**
=====
KEY: "L"=Abnormal low, "H"=Abnormal high, "*" =Critical value

LEDIPATIENT,ONE JR 000-00-1111 Sep 05, 2008@11:29 PRESS '^' TO STOP

LEDIPATIENT,ONE JR 000-00-1111 AGE: 88 LOC: 1 TEST (NORTH)Sep 05,
2008@11:30
-----MICROBIOLOGY----- page 1

Printed at:
Dallas Office of Information Field Office [CLIA# 987654321]
1234 Anyplace Avenue Building 456 VistA City, TX 99999

Reporting Lab:
Dallas Office of Information Field Office [CLIA# 987654321]
1234 Anyplace Avenue VistA City, TX 99999

Accession [UID]: MICRO 08 11 [1408000011]
Collection sample: THROAT SWAB Collection date: Aug 21, 2008 11:58
Provider: LRPROVIDER,ONE JR
=====

* BACTERIOLOGY PRELIMINARY REPORT => Aug 21, 2008 13:21 TECH CODE: 235
```

```

GRAM STAIN: TESTING STUFFING PL DURING LRMISTF
Bacteriology Remark(s):
  TESTING PL ENTRY
=====
Performing Laboratory:
Gram Stain Performed By:
TRIPLER ARMY MEDICAL CENTER
1 JARRETT WHITE ROAD HONOLULU, HI 96859-5000

Bact Report Remark Performed By:
Dallas Office of Information Field Office [CLIA# 987654321]
1234 Anyplace Avenue Building 456 Vista City, TX 99999

+ + + End of Report + + + End of Report + + + End of Report + + +

LEDIPATIENT,ONE JR          000-00-1111  ROUTING: 1T          '^' TO STOP

LEDIPATIENT,ONE JR          000-00-1111 AGE: 88  LOC: 1 TEST (NORTH)Sep 05,
2008@11:30
          ----MICROBIOLOGY----                      page 1

Printed at:
Dallas Office of Information Field Office [CLIA# 987654321]
1234 Anyplace Avenue Building 456 Vista City, TX 99999

Reporting Lab:
Dallas Office of Information Field Office [CLIA# 987654321]
1234 Anyplace Avenue Vista City, TX 99999

Accession [UID]: MICRO 08 10 [1408000010]
Collection sample: THROAT SWAB          Collection date: Aug 20, 2008 17:25
Provider: LRPROVIDER,ONE JR

          Test(s) ordered: GRAM STAIN          completed: Aug 20, 2008 17:26

* BACTERIOLOGY PRELIMINARY REPORT => Aug 20, 2008 17:26  TECH CODE: 235

GRAM STAIN: TESTING GRAM STAIN BATCH ENTRY AND PL SAVING

Performing Laboratory:

Gram Stain Performed By:
TRIPLER ARMY MEDICAL CENTER
1 JARRETT WHITE ROAD HONOLULU, HI 96859-5000
+ + + End of Report + + + End of Report + + + End of Report + + +

LEDIPATIENT,ONE JR          000-00-1111  ROUTING: 1T          '^' TO STOP
LEDIPATIENT,ONE JR          000-00-1111 Sep 05, 2008@11:30  PRESS '^' TO STOP
                                          page 2

LRPATIENT,ONE JR          000-00-1111          Sep 05, 2008@11:30
Performing Lab Sites:
[522] Dallas Office of Information Field Office [CLIA# 987654321]
      1234 Anyplace Avenue Vista City, TX 99999
                                          page 3

LEDIPATIENT,ONE JR          000-00-1111          Sep 05, 2008@11:30

Performing Lab Sites:
[522] Dallas Office of Information Field Office [CLIA# 987654321]
      1234 Anyplace Avenue Vista City, TX 99999
Select Results menu Option:

```

## 5.5.2 Interim report for chosen tests [LRRP3]

Figure 71. Interim report for chosen tests [LRRP3]

```
Select Results menu Option: INT
  1   Interim report
  2   Interim report by provider
  3   Interim report for an accession
  4   Interim report for chosen tests
  5   Interim report for selected tests as ordered
  6   Interim reports by location (manual queue)
  7   Interim reports for 1 location (manual queue)
  8   Interim reports for 1 provider (manual queue)
CHOOSE 1-8: 4 <ENTER> Interim report for chosen tests

                        GENERAL LAB DATA DISPLAY
Select Patient Name:   LEDIPATIENT,ONE JR           2-12-20   000001111   NO
NSC VETERAN
Select LABORATORY TEST NAME: GLUCOSE <ENTER>         FBS
Select LABORATORY TEST NAME: <ENTER>
Date to START with: TODAY// <ENTER> (SEP 05, 2008)
Date to END with: T-7// <ENTER> (AUG 29, 2008)
Print address page? NO// Y <ENTER> YES
DEVICE: HOME// ;;1000 <ENTER> UCX/TELNET

Printed at:                                           page 1
Dallas Office of Information Field Office [CLIA# 987654321]
1234 Anyplace Avenue Building 456 VistA City, TX 99999

LEDIPATIENT,ONE JR                               Report date: Sep 05, 2008@11:41
Pat ID: 000-00-1111   SEX: M   DOB: Feb 12, 1920   LOC: 1T
Reporting Lab:
Dallas Office of Information Field Office [CLIA# 987654321]
1234 Anyplace Avenue VistA City, TX 99999

Provider: LRPROVIDER,ONE JR
Specimen: SERUM
Accession [UID]: CH 0905 12 [00000000000]
Report Released: Sep 05, 2008@11:19

                        Specimen Collection Date: Sep 05, 2008@11:18
Test name                Result   units   Ref.   range   Site Code
GLUCOSE                  120    mg/dL    60 to 123   [522]
Eval:                    70-99 mg/dL NORMAL
Eval:                    100-125 mg/dL Impaired Fasting Glucose
Eval:                    >/= 126 mg/dL Provisional Diagnosis of Diabetes
Eval:
Eval:    **5/17/04 Reference Range Changed, OLD RANGE    70-110**

KEY: "L"=Abnormal low, "H"=Abnormal high, "*"=Critical value

LEDIPATIENT,ONE JR           000-00-1111   Sep 05, 2008@11:41   PRESS '^' TO STOP
                                           page 2
LEDIPATIENT,ONE JR           000-00-1111           Sep 05, 2008@11:41

Performing Lab Sites:

[522] Dallas Office of Information Field Office [CLIA# 987654321]
1234 Anyplace Avenue VistA City, TX 99999
```



### 5.5.3 Interim report for selected tests as ordered [LRRSP]

Figure 72. Interim report for selected tests as ordered [LRRSP]

```
Select Results menu Option: INTERIM REPORT FOR SELECTED TESTS AS ORDERED
Select Patient Name: LEDIPATIENT,ONE JR <Enter>      2-12-20      000001111
NO NSC VETERAN
WARNING : You may have selected a test patient.
Select ORDERED TEST: ANY// GLUCOSE <Enter>          FBS
Date to START with: TODAY// <Enter> (SEP 12, 2008)
Date to END with: T-7// <Enter> (SEP 05, 2008)
Print address page? NO// Y <Enter> YES
DEVICE: HOME// ;;1000 <Enter> UCX/TELNET      Right Margin: 80// <Enter>

Printed at:                                           page 1
Dallas Office of Information Field Office [CLIA# 987654321]
1234 Anyplace Avenue Building 456 VistA City, TX 99999

LEDIPATIENT,ONE JR                                Report date: Sep 12, 2008@11:48
Pat ID: 000-00-1111      SEX: M      DOB: Feb 12, 1920      LOC: 1T

Reporting Lab:
Dallas Office of Information Field Office [CLIA# 987654321]
1234 Anyplace Avenue VistA City, TX 99999

Provider: LRPROVIDER,ONE JR
Specimen: SERUM
Accession [UID]: CH 0905 12 [00000000000]
Report Released: Sep 05, 2008@11:19

Specimen Collection Date: Sep 05, 2008@11:18
Test name      Result      units      Ref.      range      Site Code
GLUCOSE        120      mg/dL      60 to 123      [522]
Eval:          70-99 mg/dL NORMAL
Eval:          100-125 mg/dL Impaired Fasting Glucose
Eval:          >= 126 mg/dL Provisional Diagnosis of Diabetes
Eval:
Eval:          **5/17/04 Reference Range Changed, OLD RANGE      70-110**
=====
KEY: "L"=Abnormal low, "H"=Abnormal high, "*"=Critical value

LEDIPATIENT,ONE JR      000-00-1111      Sep 12, 2008@11:48      PRESS '^' TO STOP
                                           page 2
LEDIPATIENT,ONE JR      000-00-1111      Sep 12, 2008@11:48

Performing Lab Sites:

[522] Dallas Office of Information Field Office [CLIA# 987654321]
1234 Anyplace Avenue VistA City, TX 99999

Select Patient Name: <Enter>

Select Results menu Option:
```

## 5.5.4 Interim reports by location (manual queue) [LRRS]

Figure 73. Interim reports by location (manual queue) [LRRS]

```
Select Results menu Option: INTERIM REPORTS BY LOCATION (MANUAL QUEUE)
Print address page? NO// Y <Enter> YES
Date to START with: TODAY// <Enter> (SEP 18, 2008)
Date to END with: T-7// T-18 <Enter> (AUG 31, 2008)

Select one of the following:

      S      Selected Locations
      R      A Range of locations
      A      All locations

Please select one of the following: A <Enter> All locations
DEVICE: HOME// ;;1000 <Enter> UCX/TELNET Right Margin: 80// <Enter>

Printed at:                                     page 1
Dallas Office of Information Field Office [CLIA# 987654321]
1234 Anyplace Avenue Building 456 VistA City, TX 99999

LEDIPATIENT,ONE JR                               Report date: Sep 18, 2008@12:16
Pat ID: 000-00-1111    SEX: M    DOB: Feb 12, 1920    LOC: 1T

Reporting Lab:
Dallas Office of Information Field Office [CLIA# 987654321]
1234 Anyplace Avenue VistA City, TX 99999

Provider: LRPROVIDER,ONE JR
Specimen: SERUM
Accession [UID]: CH 0905 12 [00000000000]
Report Released: Sep 05, 2008@11:19

Specimen Collection Date: Sep 05, 2008@11:18
Test name      Result      units      Ref. range      Site Code
GLUCOSE        120          mg/dL      60 to 123      [522]
Eval:          70-99 mg/dL NORMAL
Eval:          100-125 mg/dL Impaired Fasting Glucose
Eval:          >/= 126 mg/dL Provisional Diagnosis of Diabetes
Eval:
Eval:          **5/17/04 Reference Range Changed, OLD RANGE      70-110**
=====
KEY: "L"=Abnormal low, "H"=Abnormal high, "*"=Critical value

LEDIPATIENT,ONE JR      000-00-1111 Sep 18, 2008@12:16 PRESS '^' TO STOP

                                     page 2
LRPATIENT,ONE JR      000-00-1111 Sep 18, 2008@12:16

Performing Lab Sites:

[522] Dallas Office of Information Field Office [CLIA# 987654321]
1234 Anyplace Avenue VistA City, TX 99999

Select Results menu Option:
```

### 5.5.5 Interim reports for 1 location (manual queue) [LRRS BY LOC]

Figure 74. Interim reports for 1 location (manual queue) [LRRS BY LOC]

```
Select Results menu Option: INTER
  1   Interim report
  2   Interim report by provider
  3   Interim report for an accession
  4   Interim report for chosen tests
  5   Interim report for selected tests as ordered
  6   Interim reports by location (manual queue)
  7   Interim reports for 1 location (manual queue)
  8   Interim reports for 1 provider (manual queue)
CHOOSE 1-8: 7 <ENTER> Interim reports for 1 location (manual queue)
DAILY REPORT FOR DAY: TODAY// 9/5/08 <ENTER> (SEP 05, 2008)
Print address page? NO// Y <ENTER> YES

Select Report Location: 2 <ENTER> 1 TEST (NORTH)
...OK? Yes// <ENTER> (Yes)

Select Report Location:
DEVICE: HOME// ;,100 <ENTER> UCX/TELNET Right Margin: 80// <ENTER>

Printed at: page 1
Dallas Office of Information Field Office [CLIA# 987654321]
1234 Anyplace Avenue Building 456 VistA City, TX 99999

LEDIPATIENT,ONE JR Report date: Sep 18, 2008@12:10
Pat ID: 000-00-1111 SEX: M DOB: Feb 12, 1920 LOC: 1T

Reporting Lab:
Dallas Office of Information Field Office [CLIA# 987654321]
1234 Anyplace Avenue VistA City, TX 99999
Provider: LRPROVIDER,ONE JR
Specimen: SERUM
Accession [UID]: CH 0905 12 [00000000000]
Report Released: Sep 05, 2008@11:19

Specimen Collection Date: Sep 05, 2008@11:18
Test name Result units Ref. range Site Code
GLUCOSE 120 mg/dL 60 to 123 [522]
Eval: 70-99 mg/dL NORMAL
Eval: 100-125 mg/dL Impaired Fasting Glucose
Eval: >= 126 mg/dL Provisional Diagnosis of Diabetes
Eval:
Eval: **5/17/04 Reference Range Changed, OLD RANGE 70-110**
=====
KEY: "L"=Abnormal low, "H"=Abnormal high, "*" =Critical value

LEDIPATIENT,ONE JR 000-00-1111 Sep 18, 2008@12:10 PRESS '^' TO STOP
page 2
LEDIPATIENT,ONE JR 000-00-1111 Sep 18, 2008@12:10

Performing Lab Sites:
[522] Dallas Office of Information Field Office [CLIA# 987654321]
1234 Anyplace Avenue VistA City, TX 99999
Select Results menu Option:
```

## 5.5.6 Interim reports for 1 provider (manual queue) [LRRD BY MD]

Figure 75. Interim reports for 1 provider (manual queue) [LRRD BY MD]

```
Select Results menu Option: INTERIM
  1   Interim report
  2   Interim report by provider
  3   Interim report for an accession
  4   Interim report for chosen tests
  5   Interim report for selected tests as ordered
  6   Interim reports by location (manual queue)
  7   Interim reports for 1 location (manual queue)
  8   Interim reports for 1 provider (manual queue)
CHOOSE 1-8: 8   Interim reports for 1 provider (manual queue)

Date to START with: TODAY// <ENTER> (SEP 18, 2008)
Date to END with: AUG 19,2008// <ENTER> (AUG 19, 2008)
Print address page? NO// Y <ENTER> YES
Select PROVIDER NAME: LRPROVIDER,ONE JR <ENTER> WGA
DEVICE: HOME// ;;1000 <ENTER> UCX/TELNET Right Margin: 80// <ENTER>

Printed at: page 1
Dallas Office of Information Field Office [CLIA# 987654321]
1234 Anyplace Avenue Building 456 Vista City, TX 99999

LEDIPATIENT,ONE JR Report date: Sep 18, 2008@12:25
Pat ID: 000-00-1111 SEX: M DOB: Feb 12, 1920 LOC: 1T

Reporting Lab:
Dallas Office of Information Field Office [CLIA# 987654321]
1234 Anyplace Avenue Vista City, TX 99999

Provider: LEDIPROVIDER,ONE JR
Specimen: SERUM
Accession [UID]: CH 0905 12 [00000000000]
Report Released: Sep 05, 2008@11:19

Specimen Collection Date: Sep 05, 2008@11:18
Test name Result units Ref. range Site Code
GLUCOSE 120 mg/dL 60 to 123 [522]
Eval: 70-99 mg/dL NORMAL
Eval: 100-125 mg/dL Impaired Fasting Glucose
Eval: >= 126 mg/dL Provisional Diagnosis of Diabetes
Eval:
Eval: **5/17/04 Reference Range Changed, OLD RANGE 70-110**
=====
KEY: "L"=Abnormal low, "H"=Abnormal high, "*"=Critical value

LEDIPATIENT,ONE JR 000-00-1111 Sep 18, 2008@12:25 PRESS '^' TO STOP

LEDIPATIENT,ONE JR 000-00-1111 AGE: 88 LOC: 1 TEST (NORTH)Sep 18, 2008@
12:25
-----MICROBIOLOGY----- page 1

Printed at:
Dallas Office of Information Field Office [CLIA# 987654321]
1234 Anyplace Avenue Building 456 Vista City, TX 99999

Reporting Lab:
Dallas Office of Information Field Office [CLIA# 987654321]
1234 Anyplace Avenue Vista City, TX 99999
```

```

Accession [UID]: MICRO 08 11 [00000000000]
Collection sample: THROAT SWAB           Collection date: Aug 21, 2008 11:58
Provider: LRPROVIDER,ONE JR
-----

* BACTERIOLOGY PRELIMINARY REPORT => Aug 21, 2008 13:21   TECH CODE: 235

GRAM STAIN:   TESTING STUFFING PL DURING LRMISTF
Bacteriology Remark(s):
    TESTING PL ENTRY
-----

Performing Laboratory:

Gram Stain Performed By:
TRIPLER ARMY MEDICAL CENTER
1 JARRETT WHITE ROAD HONOLULU, HI 96859-5000

Bact Report Remark Performed By:
Dallas Office of Information Field Office [CLIA# 987654321]
1234 Anyplace Avenue Building 456 Vista City, TX 99999

+ + +   End of Report   + + +   End of Report   + + +   End of Report   + + +

LEDIPATIENT,ONE JR           000-00-1111   ROUTING: 1T           '^' TO STOP

LEDIPATIENT,ONE             000-00-1111 AGE: 88   LOC: 1 TEST (NORTH)Sep 18, 2008@
12:25

-----MICROBIOLOGY-----                                page 1

Printed at:
Dallas Office of Information Field Office [CLIA# 987654321]
1234 Anyplace Avenue Building 456 Vista City, TX 99999

Reporting Lab:
Dallas Office of Information Field Office [CLIA# 987654321]
1234 Anyplace Avenue Vista City, TX 99999

Accession [UID]: MICRO 08 10 [00000000000]
Collection sample: THROAT SWAB           Collection date: Aug 20, 2008 17:25
Provider: LRPROVIDER,ONE JR

Test(s) ordered:   GRAM STAIN           completed: Aug 20, 2008 17:26

* BACTERIOLOGY PRELIMINARY REPORT => Aug 20, 2008 17:26   TECH CODE: 235

GRAM STAIN:   TESTING GRAM STAIN BATCH ENTRY AND PL SAVING

Performing Laboratory:

Gram Stain Performed By:
TRIPLER ARMY MEDICAL CENTER
1 JARRETT WHITE ROAD HONOLULU, HI 96859-5000

+ + +   End of Report   + + +   End of Report   + + +   End of Report   + + +

LEDIPATIENT,ONE JR           000-00-1111   ROUTING: 1T           '^' TO STOP
LEDIPATIENT,ONE JR           000-00-1111   Sep 18, 2008@12:25   PRESS '^' TO STOP

                                                                page 2
LEDIPATIENT,ONE JR           000-00-1111           Sep 18, 2008@12:25

Performing Lab Sites:

```

[522] Dallas Office of Information Field Office [CLIA# 987654321]  
1234 Anyplace Avenue VistA City, TX 99999

page 3

LEDIPATIENT,ONE JR

000-00-1111

Sep 18, 2008@12:25

Performing Lab Sites:

[522] Dallas Office of Information Field Office [CLIA# 987654321]  
1234 Anyplace Avenue VistA City, TX 99999

Select Results menu Option:

## 5.5.7 File 63 Remediation Results MailMan Message for 'CH'

Figure 76. File 63 'CH' Remediation Results MailMan

```
Subj: DATA DICTIONARY ^DD(63.04 CHECK REPORT Jun 18, 2012@09:57:14  [#179854]
06/18/12@09:57  124 lines
From: LRPROVIDER,TWO  In 'IN' basket.  Page 1
-----
ZZ BONHAM (MHCVSS.FO-ALBANY.MED.VA.GOV)      Jun 18, 2012

Contact the National Service Desk to request assistance from the Clin 4
Product Support team in resolving the following errors identified in the
VistA Laboratory package:

*WARNING* THE DATA NAME 'POTASSIUM' (#6) IS LINKED TO MORE THAN ONE LAB TEST:
  1. POTASSIUM (#177)
  2. POTASSIUM,STAT (#1245)

*WARNING* THE DATA NAME 'MYELIN BASIC PROTEIN' (#61) IS LINKED TO MORE THAN ONE
LAB TEST:
  1. MYELIN BASIC (#947)
  2. MYELIN BASIC PROTEIN (#1124)

*WARNING* THE DATA NAME 'CATECHOLAMINES' (#88) IS LINKED TO MORE THAN ONE LAB TEST:
  1. CATECHOLAMINES (#253)
  2. CATECHOLAMINES, TOTAL (#494)

*WARNING* THE DATA NAME 'FRUCTOSE' (#254) IS LINKED TO MORE THAN ONE LAB TEST:
  1. FRUCTOSE (#827)
  2. YEAST (#1096)

*WARNING* THE DATA NAME '%METHB' (#448) IS LINKED TO MORE THAN ONE LAB TEST:
  1. METHB% (#50)
  2. METHEMOGLOBIN (#929)

*WARNING* THE DATA NAME 'NEUTROPHIL' (#468) IS LINKED TO MORE THAN ONE LAB TEST:
  1. PMN (#285)
  2. NEUTROPHIL % (#359)

*WARNING* THE DATA NAME 'UR BLOOD' (#687) IS LINKED TO MORE THAN ONE LAB TEST:
  1. OCCULT BLOOD (#145)
  2. URINE BLOOD (#1158)

*WARNING* THE DATA NAME 'PORPHOBILINOGEN' (#709) IS LINKED TO MORE THAN ONE LAB
TEST:
  1. URINE PORPHOBILINOGEN (#164)
  2. PORPHOBILINOGEN (#273)

*WARNING* THE DATA NAME 'CYCLIC AMP' (#759) IS LINKED TO MORE THAN ONE LAB TEST:
  1. ANTI MITOCHONDRIAL (#232)
  2. CYCLIC AMP (#338)

Results in Data Name NEUTROPHIL MATURITY, MEAN^NXJ3, without a test in file 60 at:
  ^LR(4,"CH",6939886.847758,478)
  ^LR(4,"CH",6948776.855053,478)
  ^LR(4,"CH",6948776.855341,478)
  ^LR(4,"CH",6948776.867499,478)
  ^LR(4,"CH",6948776.874264,478)
  ^LR(4,"CH",6948776.898199,478)
  ^LR(4,"CH",6948776.898963,478)
```

```

^LR(4,"CH",6948777.828758,478)
^LR(4,"CH",6948777.837167,478)
^LR(4,"CH",6948777.879579,478)
^LR(4,"CH",6948778.826191,478)
^LR(4,"CH",6948783.824546,478)
^LR(4,"CH",6948785.855445,478)
^LR(4,"CH",6948797.82579,478)
^LR(4,"CH",6948797.834446,478)
^LR(4,"CH",6948797.834552,478)
^LR(4,"CH",6948869.867963,478)
^LR(4,"CH",6948883.81608,478)
^LR(4,"CH",6948883.897299,478)
^LR(36,"CH",6939887.845793,478)
^LR(36,"CH",6939889.858144,478)
^LR(36,"CH",6939889.85915,478)
^LR(36,"CH",6939889.868949,478)
^LR(36,"CH",6939893.857267,478)
^LR(36,"CH",6939893.864653,478)
^LR(36,"CH",6939894.836083,478)
^LR(36,"CH",6939896.807283,478)
^LR(36,"CH",6939896.824992,478)
^LR(36,"CH",6939896.826294,478)
^LR(36,"CH",6948776.836472,478)
^LR(36,"CH",6948776.896077,478)
^LR(36,"CH",6948778.826089,478)
^LR(36,"CH",6948783.81525,478)
^LR(36,"CH",6948783.825054,478)
^LR(36,"CH",6948783.859268,478)
^LR(36,"CH",6948785.855585,478)
^LR(36,"CH",6948796.849575,478)
^LR(36,"CH",6948796.84985,478)
^LR(36,"CH",6948797.834646,478)
^LR(36,"CH",6948797.83479,478)
^LR(36,"CH",6948869.867448,478)
^LR(36,"CH",6948869.867875,478)
^LR(36,"CH",6948869.868061,478)
^LR(36,"CH",6948869.86839,478)
^LR(36,"CH",6948883.816168,478)
^LR(36,"CH",6948883.897492,478)
^LR(36,"CH",6948884.875662,478)
^LR(36,"CH",6948970.88607,478)
^LR(36,"CH",6948970.8962,478)
^LR(49,"CH",6939878.905758,478)
^LR(69,"CH",6948779.864789,478)
^LR(69,"CH",6948783.809956,478)
^LR(77,"CH",6948783.814046,478)
^LR(77,"CH",6948967.857279,478)
^LR(77,"CH",6948967.886849,478)
^LR(180,"CH",6939886.845649,478)
^LR(180,"CH",6939886.845786,478)
^LR(180,"CH",6939887.897374,478)
^LR(180,"CH",6939888.825054,478)
^LR(180,"CH",6939888.84596,478)
^LR(180,"CH",6939888.847075,478)
^LR(180,"CH",6939889.878051,478)
^LR(180,"CH",6939894.844685,478)
^LR(180,"CH",6939894.849984,478)
^LR(180,"CH",6939894.86407,478)
^LR(180,"CH",6939894.869481,478)
^LR(180,"CH",6939894.869951,478)
^LR(180,"CH",6939896.824143,478)
^LR(180,"CH",6939896.82845,478)
^LR(180,"CH",6948775.894965,478)

```



```
^LR(180,"CH",6948776.838141,478)
^LR(180,"CH",6948783.80986,478)
^LR(180,"CH",6948783.824451,478)
^LR(180,"CH",6948783.894368,478)
^LR(180,"CH",6948785.855486,478)
^LR(180,"CH",6948796.849486,478)
^LR(180,"CH",6948797.8257,478)
^LR(191,"CH",6948776.844296,478)
^LR(191,"CH",6948779.86469,478)
^LR(191,"CH",6948967.856876,478)
^LR(359,"CH",6939879.858091,478)
```

Enter message action (in IN basket): Ignore//

## 5.5.8 File 63 Remediation Results MailMan Message for 'Micro'

Figure 77. File 63 'Micro' Remediation Results MailMan

```
Subj: LAB DATA file (#63) Microbiology Antibiotic Fields Cleanup  [#179978]
07/01/12  85 lines
From: LRPROVIDER,TWO  In 'IN' basket.   Page 1
-----
Contact the National Service Desk to request assistance from the Clin 4
Product Support team in resolving the following errors identified in the
VistA Laboratory package:

The LAB DATA file (#63) cleanup process has completed.

Tool run in ANALYZE MODE for: ZZ BONHAM (MHCVSS.FO-ALBANY.MED.VA.GOV).

This process checked the Organism Sub-field (#63.3) of the LAB DATA file (#63)
to locate potential Data Dictionary discrepancies related to the definition and
setup of fields for reporting antibiotic sensitivities.

The following report lists any discrepancies found:
-----

ANALYZE - INCORRECT INPUT TRANSFORMS (IT)
-----


| ANTIBIOTIC NAME<br>(FIELD NUMBER) | CURRENT INPUT<br>TRANSFORM | PROPOSED INPUT<br>TRANSFORM |
|-----------------------------------|----------------------------|-----------------------------|
| AMPICILLIN B<br>(2.00522799)      | D ^XYZDEF                  | D ^LRMISR                   |


-----
TOTAL: 1

ANALYZE - INCORRECT HELP TEXT
-----


| ANTIBIOTIC NAME<br>(FIELD NUMBER) | CURRENT<br>HELP | PROPOSED<br>HELP |
|-----------------------------------|-----------------|------------------|
| AMPICILLIN B<br>(2.00522799)      | D ZEN^ZLRMISR   | D EN^LRMISR      |


-----
TOTAL: 1

ANALYZE - INCORRECT SET OF CODES
-----


| ANTIBIOTIC NAME<br>(FIELD NUMBER) | CURRENT<br>SET OF CODES | PROPOSED<br>SET OF CODES                                   |
|-----------------------------------|-------------------------|------------------------------------------------------------|
| AMPICILLIN X SCREEN<br>(2.00602)  | M:MAYBE;N:NEVER;        | A:ALWAYS DISPLAY;N:NEVER<br>DISPLAY;R:RESTRICT<br>DISPLAY; |


-----
TOTAL: 1

ANALYZE - MISSING INTERP and/or SCREEN
-----


| ANTIBIOTIC NAME | INTERP FIELD | SCREEN FIELD |
|-----------------|--------------|--------------|
|-----------------|--------------|--------------|


```

(FIELD NUMBER)	NEEDED	NEEDED		
-----	-----	-----		
AMPICILLIN C (2.00522599)	2.005225991	2.005225992		
-----				
TOTAL: 1				
ANALYZE - BAD FIELD NUMBER and DEFINITION, LAB DATA NOT UPDATED				
-----				
ANTIBIOTIC NAME (FIELD NUMBER)	NEW FIELD #	NEW INTERP	NEW SCREEN	OCCURRENCES FOUND
-----	-----	-----	-----	-----
CEFPODOXIME (2.0046)	TBD	TBD	TBD	0
TRIMETH/SULF2 (199)	TBD	TBD	TBD	1
-----				
TOTAL: 2				
*****				
*** END OF REPORT ***				
Enter message action (in IN basket): Ignore//				

### 5.5.9 Modify AP& MICRO Report for Pathologist's Signature

Performing Laboratory information should display after the e-signature but not before, so that the Pathologist's signature is more visible.

**Figure 78. Move Pathologist Signature on AP e-Report**

```
ONE, LABUSER,MD

CPT:88305(x2)

/es/ ONE, LABUSER,MD
PATHOLOGIST
Signed Jan 04, 2012@13:36

=====
Performing Laboratory:
Surgical Pathology Report Performed By:
VA BOSTON HEALTHCARE SYSTEM - WEST ROXBURY DIVISION [CLIA# 22D0989792]
1400 VFW PARKWAY WEST ROXBURY, MA 02132-4927
```

# Glossary

Term	Definition
AP	Anatomic Pathology.
API	Application Program Interface.
CAP	College of American Pathologists.
Collecting Facility	The Collecting facility is the laboratory that collects the patient's specimen. To use LEDI after the specimen is collected, the Collecting facility must: Create an electronic Shipping Manifest, specifying the lab tests to be performed by the Host facility laboratory). Transmit the Shipping Manifest List to the Host facility laboratory. Transport the specimen by carrier to the Host facility laboratory.
Creatinine	Blood and urine tests, used to determine kidney function and for monitoring treatment for kidney disease.
CY	Cytology
Data Fields	The information base associated with a segment.
Data Type (DT)	Restrictions on the contents of the data field as defined by the HL7 Standard.
DoD	Department of Defense.
eGFR	(eGFR) is Estimated Glomerular Filtration Rate test. A test for kidney function. Specifically, it estimates how much blood passes through the tiny filters in the kidneys, called glomeruli, each minute.
Electronic Catalog	The electronic catalog contains laboratory tests available for the Collecting facility to order.
Element Name	Globally unique descriptive name for the field.
EM	Electron Microscopy.
Feeder Configuration	A shipping configuration that allows the site to indicate certain tests are eligible for a manifest related to the shipping configuration, when the specimen/test is received via the designated feeder shipping configuration used to receive the specimen.
HDI	Health Data Informatics.
HDR	Health Data Repository.
HL7	Health Level Seven. Standard for electronic data exchange/messaging protocol.
Host facility	The Host facility is the laboratory that receives the patient's specimen and performs the requested testing and analysis on the specimen.
IEN	Internal Entry Number.
IP	Internet Protocol.
IRM	Information Resource Management.
KIDS	Kernel Installation and Distribution System.

Term	Definition
LDSI	Laboratory Data Sharing and Interoperability.
LEDI	Laboratory Electronic Data Interchange.
LEN (length)	Length is the maximum number of characters that one occurrence of the data field may occupy.
LIM	Laboratory Information Manager.
MI	Microbiology.
NLT	National Laboratory Test.
NLTS	VA National Laboratory Test File.
OIFO	Office of Information Field Office.
P&LMS	Pathology and Laboratory Medicine Service.
PID	Patient Identifier.
R/O/C (optional)	R/O/C indicates whether the data field is required, optional, or conditional in a segment: R—required O (null) —optional C—conditional on the trigger event
RP/# (repetition)	Repetition indicates the number of times you can repeat a field: N (null)—No repetition allowed. Y—Field may repeat an indefinite or site-determined number of times. (Integer)—You can repeat the field the number of times specified by the integer.
Segment	A logical grouping of data fields.
SEQ (sequence number)	Sequence Number is the ordinal position of a data field within a segment. This number refers to the data field in the comments text that follows the segment definition table.
Shipping Configuration	Shipping configuration is an entry in the LAB SHIPPING CONFIGURATION file (#62.9) that defines and describes a relationship between two facilities—a Collecting facility and a Host facility. It is for the collecting, processing, receipting, and reporting of the laboratory testing of clinical specimens. It controls the building of shipping manifests, which are used as shipping documents for the transport of clinical specimens between the facilities and make up the configuration. It controls how the specimens are processed at both facilities, as well as, the means and methods used to communicate test orders and results for the two entities.
Shipping Manifest	The shipping manifest is a document that lists the lab specimens sent outside the facility to a reference lab for processing.
SNOMED CT	Systemized Nomenclature of Medicine Clinical Terms.
SP	Surgical Pathology.

<b>Term</b>	<b>Definition</b>
SSN	Social Security Number.
TBL# (table)	Table attribute of the data field defined by the HL7 standard (for a set of coded values) or negotiated between the VistA Laboratory application and the vendor system. Local tables used by the VA begin with the prefix 99VA.
UI	Universal Interface.
UID	Unique identifier assigned to each laboratory accession.
VA	Veterans Affairs.
VAMC	Veterans Affairs Medical Center.
VDL	VA Software Document Library.
VHA	Veterans Health Administration.
VIE	Vitria Interface Engine.
VISN	Veterans Integrated Service Network.
VistA	Veterans Information System and Technology Architecture.