



**LABORATORY  
EMERGING PATHOGENS INITIATIVE (EPI)  
ROLL UP MODIFICATIONS  
TECHNICAL AND USER MANUAL**

**PATCH LR\*5.2\*281**

**Version 5.2**

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Department of Veterans Affairs  
VistA Health System Design and Development



# Preface

The Veterans Health Information Systems and Architecture (VistA) Laboratory Emerging Pathogens Initiative (EPI) Rollup Modifications Patch LR\*5.2\*281 Technical and User Manual provides assistance for installing, implementing, and maintaining the EPI software application enhancements.

## Intended Audience

The intended audience for this manual includes the following users and functionalities:

- Veterans Health Administration (VHA) facility Information Resource Management (IRM) staff (will be important for installation and implementation of this package)
- Laboratory Information Manager (LIM) (will be important for installation and implementation of this package)
- Representative from the Microbiology section in support of the Emerging Pathogens Initiative (EPI) Rollup enhancements (i.e., director, supervisor, or technologist) (will be important for installation and implementation of this package especially with parameter and etiology determinations; may also have benefit from local functionality)
- Total Quality Improvement/Quality Improvement/Quality Assurance (TQI/QI/QA) staff or persons at the VHA facility with similar function (will be important for implementation of this package given broad-ranging impact on medical centers and cross-cutting responsibilities that extend beyond traditional service lines; may also have benefit from local functionality)
- Infection Control Practitioner (likely to have benefit from local functionality)

**NOTE:** It is highly recommend that the Office of the Director (00) at each VHA facility designate a person or persons who will be responsible for the routine implementation of this patch (both at the time of this installation and afterwards) and to take the lead in trouble-shooting issues that arise with the routine functioning of the process. This decision is left at the discretion of the director since the functions that persons perform locally may have different titles and meanings. The definitions of installation and implementation are provided below to help the Office of the Director in assigning the responsibility.

The term installation refers to the process of actually integrating the software into the currently existent VistA system locally. This is usually a process that occurs over a short period of time and does not recur. By default, this process is usually accomplished by personnel in IRM.

The term implementation refers to the process of executing the software after installation, adjusting parameters and maintaining the day-to-day functioning of the data cycle that the Laboratory EPI Rollup Modifications entail. There are two main functionalities that will need to be addressed by implementation (national functionality and local functionality). The national functionality will have limited local resource requirements, but will require periodic, on-going attention. Initial parameter set-up will take about 1-2 hours of time with personnel representing the LIM function, microbiology function and IRM function working in concert to set the parameters appropriately. Thereafter, a once-yearly review of the parameter set-up for all national EPI-specified pathogens is the minimum expected. Day-to-day functioning does not refer to the maintenance of the actual software patch, but, instead, refers to the EPI data cycle to assure that the national pathogen information has been appropriately sent to and received by the central data repository—by this definition, it is not necessarily the IRM function to oversee this. Because this will involve review of information sent, confirmation of information receipt, and, most importantly, troubleshooting of errors received from the processing into the central data repository, a local site function that has experience with numerous areas at the local facility from where the data are extracted (medical administrative services, social work, patient demographic information, laboratory information) and that cuts across multiple lines of authority should be considered by the Office of the Director (00) for this task. The local functionality resource requirements will be dependent upon the use at the local site.

# Orientation

This section of the EPI Roll Up Modifications Technical and User Manual addresses package or audience-specific notations or directions pertaining to symbols used to indicate terminal dialogues and user responses, information for accessing the EPI Technical and User Manual via the Office of Information Field Offices (OIFOs) Anonymous Software directories, VistA website, VistA Documentation Library (VDL), EPI software phased installation and implementation procedures, instructions for seeding EPI historical data, and Austin Automation Center (AAC) transmission schedule for seeding the EPI historical data.

## **EPI Roll Up Modifications Technical and User Manual**

The EPI Roll Up Modifications Technical and User Manual contains the following sections:

*Introduction* - conveys the major functions, purposes, and how the software accomplishes the objectives.

*Security Information* - addresses any legal requirements pertaining to the EPI Patch LR\*5.2\*281, software product and identifies any security measures necessary to protect the integrity of the product and database.

*Pre-Installation Information* - contains information that should be acknowledged prior to the installation of Patch LR\*5.2\*281.

*Installation Instructions* - provides information regarding the installation process for Patch LR\*5.2\*281.

*Post Installation Instruction* - provides all the necessary information required for the IRM and LIM personnel to implement the Laboratory EPI Rollup Modifications software application.

*EPI Rollup Modifications User Manual* - provides the necessary information for implementing and maintaining the EPI criteria.

*Appendix A* - provides instructions for editing/printing files, using input screens, linking data, and a Workload and Suffixes Codes Request Form.

*Appendix B* - suggest helpful hints and examples regarding for EPI preferred methods, transmissions, and data validation suggestions.

*Appendix C* - provides VistA Health Level Seven (HL7) Protocol tables used to transmit EPI Roll Up Modifications data to the Austin Automation Center (AAC)

*Appendix D* - provides a copy of the IMPLEMENTATION OF LOGICAL OBSERVATION IDENTIFIERS NAMES AND CODES (LOINC®) FOR LABORATORY DATA (VHA Directive 2001-039)

## Screen Dialogue

*Screen Captures* - The computer dialogue appears in courier font, no larger than 10 points. **Example:**  
**Courier font 10 points**

*User Response* - User entry response appears in boldface type Courier font, no larger than 10 points.  
**Example: Boldface type**

*Return Symbol* - User response to computer dialogue is followed by the **<Enter>** symbol that appears in Courier font, no larger than 10 points, and bolded. **Example: <Enter>**

*Tab Symbol* - User response to computer dialogue is followed by the symbol that appears in Courier font, no larger than 10 points, and bolded. **Example: <Tab>**

## References

Please review the following guide and manual prior to installing and implementing the VistA Laboratory EPI Rollup Modifications Patch LR\*5.2\*281:

- Kernel Systems Manual V. 8.0
- VA FileMan V. 21.0
- VA Mailman V. 7.1

## EPI Roll Up Modifications Software Phased Installation and Implementation Instructions

Due to extensive historical data transmission requirements and mandated setups required for such, a phased installation and implementation of this patch (LR\*5.2\*281) is utilized for releasing this patch. The software download information is made available to sites attending one of the following national audio conference training calls:

Tuesday, June 8 at 1:00 - 3:00 PM EST for VISNs 1-2-3-4-5-6

Thursday, June 10 at 3:00 - 5:00 PM EST for VISNs 7-8-9-10-11

Tuesday, June 15 at 4:00 - 6:00 PM EST for VISNs 12-15-16-16-23

Wednesday, June 16 at 2:00 - 4:00 PM EST for VISNs 18-19-20-21-22

Thursday, June 17 at 2:00 - 4:00 PM EST for those unable to attend the other calls.

The VANTS telephone number is 1 800 767-1750 and the access code for all calls is 13143.

This patch will involve reseeding of the EPI databases for each site to allow the new data created by this patch to be captured. It is imperative that each site attend an audio conference prior to installation and implementation of the EPI patch LR\*5.2\*281.

## Instructions for Seeding EPI Historical Data:

EPI historical data **must** be gathered from October 1, 2000 through June 14, 2004. Use the Lab EPI Manual Run (Enhanced) [LREPI ENHANCE MANUAL RUN] option to extract and transmit 6 manual runs (consecutive runs) at a time.

**WARNING: SITES - DO NOT** transmit the EPI historical data reports on June 16 or July 4, 2004 to avoid Austin Automation Center (AAC) capacity limitations.

Batch #1: October 1, 2000 -March 31, 2001  
 Batch #2: April 1, 2001 - September 30, 2001  
 Batch #3: October 1, 2001 - March 31, 2002  
 Batch #4: April 1, 2002 - September 30, 2002  
 Batch #5: October 1, 2002 - March 31, 2003  
 Batch #6: April 1, 2003 - September 30, 2003  
 Batch #7: October 1, 2003 - March 31, 2004  
 Batch #8: April 1, 2004 - June 14, 2004

Sites will run 8 batches of EPI historical data reports. Each batch should contain 6 separate monthly extracts which are tasked separately by month, (i.e., OCT 2000, NOV 2000, DEC 2000, JAN 2001, FEB 2001, MAR 2001 = 1 batch) and will generate six separate processing reports back to the station and transmit them over a five week period June 10, 2004 – July 12, 2004. You do not have to wait for one monthly extract to run before starting the next in a batch. You do not have to wait for one batch to complete running before queuing the next batch. If you receive any fatal errors and the monthly extract is rejected, you will need to fix the error and retransmit that month.

## Austin Automation Center (AAC) Schedule for Transmitting EPI Historical Data:

**WARNING: SITES - DO NOT** transmit the EPI historical data reports on June 16 or July 4, 2004 to avoid Austin Automation Center (AAC) capacity limitations.

Sites may transmit EPI historical data reports to AAC on evenings and weekends following this schedule:

1. VISNs with odd numbers are asked to transmit batches on Tuesday & Thursday during the PM hours and Saturdays.
2. VISNs with even numbers are asked to transmit on Monday & Friday during the PM hours and Sundays.

## EPI Roll Up Modifications Manual Retrieval

The VistA Laboratory EPI Rollup Modifications Technical and User Manual (i.e., LR\_52\_281\_EPI\_TUM.PDF) file is available for retrieval via the File Transfer Protocol (FTP). All VA medical centers are encouraged to use the Transmission Control Protocol/Internet Protocol (TCP/IP) FTP functionality to obtain the documentation file at the following Office of Information Field Offices (OIFOs) ANONYMOUS SOFTWARE directories:

<b>OIFOs</b>	<b>FTP ADDRESS</b>	<b>DIRECTORY</b>
Albany	<a href="ftp.fo-albany.med.va.gov">ftp.fo-albany.med.va.gov</a>	[ANONYMOUS.SOFTWARE]
Hines	<a href="ftp.fo-hines.med.va.gov">ftp.fo-hines.med.va.gov</a>	[ANONYMOUS.SOFTWARE]
Salt Lake City	<a href="ftp.fo-slc.med.va.gov">ftp.fo-slc.med.va.gov</a>	[ANONYMOUS.SOFTWARE]
VistA Download Site	download.vista.med.va.gov	

## EPI Roll Up Modifications Manual Formats

VistA Laboratory EPI Rollup Modifications Technical and User Manual is exported as part of Patch LR\*52\*281 in the following file name and retrieval format:

<b>FILE NAME</b>	<b>RETRIEVAL FORMATS</b>
LR_52_281_EPI_TUM.PDF	LR EPI Technical and User Manual

## Website Locations:

The VistA Laboratory EPI Rollup Modifications Patch LR\*5.2\*281 Technical and User Manual is available in MS Word (i.e., LR\_52\_281\_EPI\_TUM.DOC) format and Portable Document Format (PDF) (i.e., LR\_52\_281\_EPI\_TUM.PDF) at the following website locations:

Laboratory Version 5.2 Home Page

<http://vista.med.va.gov/ClinicalSpecialties/lab/>

VistA Documentation Library (VDL)

<http://www.va.gov/vdl/>

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# Introduction

## Overview

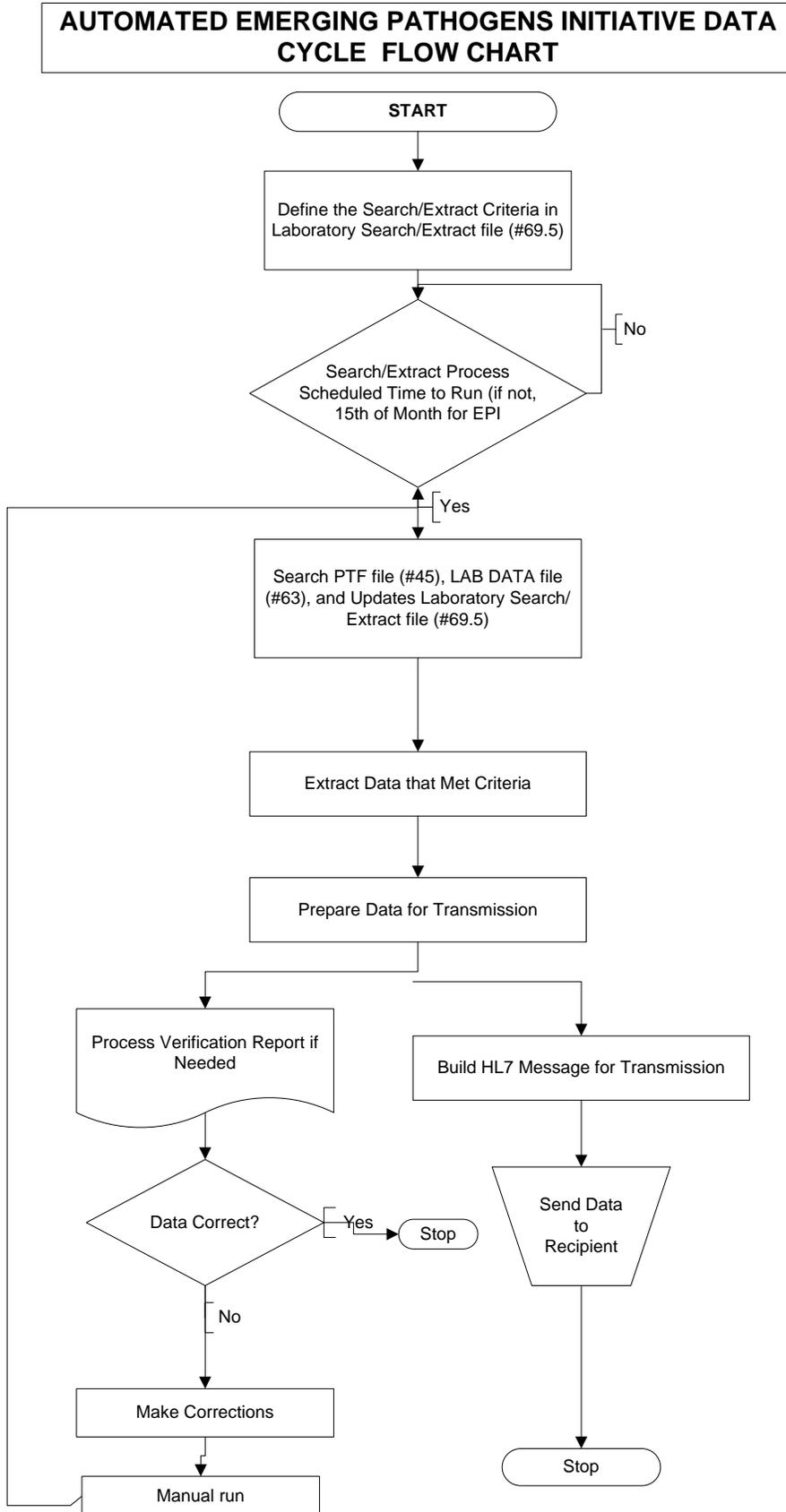
The Infectious Diseases Program Office was tasked by the Under Secretary for Health to retrieve tracking and trending information about emerging and re-emerging infectious diseases (including antibiotic resistance) that are important to VHA. Data would be used for tracking and trending of specified infectious diseases entities, policy decision-making, and resource allocation at the national level. To accomplish this, the VistA Laboratory Emerging Pathogens Initiatives (EPI) software was initially installed at all VAMC facilities in February 1997 via VistA EPI Patch LR\*5.2\*132, with modifications occurring by means of the VistA Laboratory Search/Extract Patch LR\*5.2\*175 in March 1998. This software was originally developed by the CIOFO-Dallas in conjunction with the Infectious Diseases Program Office. As this proved to be a successful and beneficial endeavor, the Under Secretary for Health further tasked the Infectious Diseases program Office to retrieve Hepatitis C antibody testing data for a one-day survey nationwide, Hepatitis C Surveillance Day (March 17, 1999). The EPI software application was selected to accomplish this task because data were already stored in the standard VistA data set and linked to patient identifiers. Information retrieved from both the routine running of the EPI, as well as Hepatitis C Surveillance Day was an extremely important component that resulted in the VHA obtaining additional Congressional funding for hepatitis C disease care. Information obtained from the EPI assisted in determining the importance of the emerging pathogen, hepatitis C, as a significant issue for VHA. Data from EPI have been used by the Allocation Resource Center (ARC) in determinations for Veterans Equitable Resource Allocation (VERA) hepatitis C resource allocation to local facilities; EPI data are still provided to ARC for this purpose.

For Hepatitis C Surveillance Day, temporary modifications were necessary to achieve prompt data acquisition. More lasting modifications/enhancements were to occur with the release of the combined process from VistA Laboratory EPI Hepatitis Extract Patch LR\*5.2\*260, Patch PXR\*1.5\*1, PSJ\*5\*48, and Patch PSO\*7\*45 in August 2000. However, due to significant pressures and time constraints applied to this project to produce the National Hepatitis C Risk Assessment portion of the requests, the Infectious Diseases Program Office agreed to delay the below-listed components of that approved request until this time; one of the key functionalities that was delayed was the ability of local facilities to use the software to extract locally-relevant data.

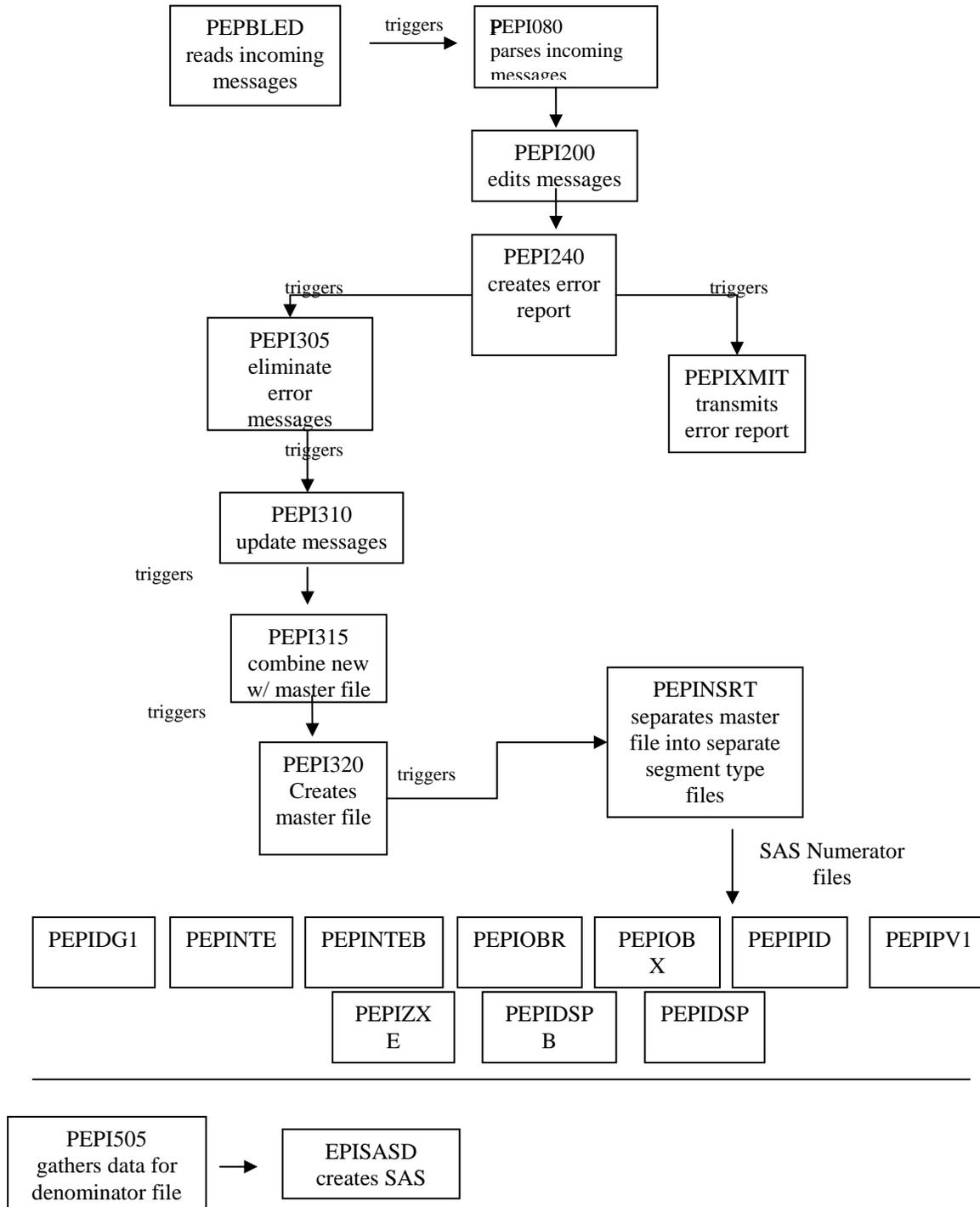
The following delayed enhancement components were requested and have been addressed with the release of VistA Laboratory Emerging Pathogens Rollup Modifications Patch LR\*5.2\*281 (note that due to systems constraints and set-ups, not all requested components are deliverable with this patch):

- New EPI Summary Verification Report of EPI-extracted data from site in plain text (human-readable) format for nationally rolled-up pathogen information
- New EPI Detailed Verification Report of EPI-extracted data from site in plain text (human-readable) format for nationally rolled-up pathogen information
- New EPI Processing Report (error report) concerning data processed at the central data repository for the EPI delivered to site in plain text (human-readable) format containing only patients with error/warning codes or indicating that the data were processed into the central data repository without any errors
- New Local Pathogen Menu [LREPI LOCAL PATHOGEN MENU]
- New EPI option to add locally-relevant pathogens using the EPI search/extract backbone, without altering nationally rolled-up pathogen information
- Improvement of the extraction tool to capture and report tuberculosis (due to constraints of long incubation periods in the results reporting, embedded within an accessioning acquisition framework of the EPI extracts)
- Ability to capture and report International Classification of Diseases, ICD-9-CM, codes in association with outpatients who have a reported EPI pathogen (system constraints will not allow this requested component to be completed for this release)
- Ability to capture and report Logical Observations, Identifiers, Names and Codes (LOINC) information along with laboratory-based testing information acquired by EPI (system constraints will not allow this requested component to be fully realized for this release; partial realization will occur for CH-subscribed laboratory tests)
- Ability to capture and report Master Patient Index codes for patients identified as meeting an EPI pathogen parameter
- Ability to capture and report antibiotic susceptibility MIC values

- Ability to use antibiotic susceptibility MIC values as an identification parameter for either national or locally-relevant pathogens (system constraints will not allow this requested component to be completed for this release)
- Ability to capture and report actual site/location (institution and division designations) in which the patient actually received care associated with the EPI pathogen trigger for data acquisition (not just the reporting site) in order to accurately assess where the pathogens are occurring (system constraints will not allow this requested component to be completed for this release)
- Ability to capture and report county and state information from patient's identified by the EPI process
- Ability to capture and report the newly implemented race and ethnicity coding, along with the prior race/ethnicity coding
- Ability to capture and report the actual station location (unit) of care for a patient at the time of EPI pathogen data acquisition (this currently only applies to inpatient information and only for information that is CH-subscribed)
- Six new national EPI Emerging Pathogens to be added for national roll-up
- New documentation of the prior Legionella pathogen to provided guidance for use of recently FDA-approved Legionella Urinary Antigen test that can be used for diagnosis



### AUSTIN AUTOMATION CENTER EMERGINING PATHOGENS INITIATIVE PROCESS FLOWCHART



## VistA Blood Bank Software Version 5.2

EFFECT ON BLOOD BANK FUNCTIONAL REQUIREMENTS: Patch LR\*5.2\*281 does not contain any changes to the VISTA BLOOD BANK Software as defined by VHA DIRECTIVE 99-053 titled VISTA BLOOD BANK SOFTWARE VERSION 5.2.

EFFECT ON BLOOD BANK FUNCTIONAL REQUIREMENTS: Patch LR\*5.2\*281 does not alter or modify any software design safeguards or safety critical elements functions.

RISK ANALYSIS: Changes made by patch LR\*5.2\*281 have no effect on Blood Bank software functionality, therefore RISK is none.

VALIDATION REQUIREMENTS BY OPTION: Because of the nature of the changes made, no specific validation requirements exist as a result of installation of this patch.

**NOTE:** As with previous Lab EPI patches, it is highly recommended that the **Office of the Director** (00) at each facility designate a person or persons to be responsible for the routine implementation of this patch (both at the time of this installation and afterwards) and to take the lead in trouble-shooting issues that arise with the routine functioning of the process

## Enhancements and Modifications

Vista Laboratory EPI Rollup Modification patch LR\*5.2\*281 contain the following software enhancements and modifications:

### **Enhancements:**

#### Renamed EPI Menu/Options

##### **Lab Search Extract Primary [LREPI SEARCH EXTRACT MENU] menu RENAMED to Lab EPI Primary [LREPI SEARCH EXTRACT MENU] menu:**

For consistency of this software release, the Lab Search Extract Primary [LREPI SEARCH EXTRACT MENU] menu is **RENAMED** Lab EPI Primary [LREPI SEARCH EXTRACT MENU] menu. This is the main EPI menu containing four existing options, two **new** options, and one **new** submenu containing 4 **new** options. This **new** submenu may be assigned to users without the Lab EPI Primary [LREPI SEARCH EXTRACT MENU] menu.

##### **Lab Search/Extract Manual Run (Enhanced) [LREPI SEARCH/EXTRACT ENHANCED MANUAL RUN] option RENAMED Lab EPI Manual Run (Enhanced) [LREPI ENHANCE MANUAL RUN] option:**

For consistency of this software release, the Lab Search/Extract Manual Run (Enhanced) [LREPI SEARCH/EXTRACT ENHANCED MANUAL RUN] is **RENAMED** Lab EPI Manual Run (Enhanced) [LREPI ENHANCE MANUAL RUN] option. This option is used **ONLY** to manually extract National EPI data, transmit the manually extracted data to the Austin Automation Center (AAC), and to generate the **new** EPI Summary Verification Report. This **new** EPI Summary Verification Report is automatically sent to the EPI-Report mail group after being generated. This option has been **enhanced** to generate the **new** Detailed Verification Report which can be printed using the **new** Print Detailed Verification Report [LREPI VERIFICATION REPORT] option.

**NOTE:** ONLY national emerging pathogens extract data are transmitted to the AAC, local emerging pathogens extract data will NOT be transmitted.

## Modified Lab EPI Primary [LREPI SEARCH EXTRACT MENU] menu options:

### **Lab EPI Parameter Setup [LREPI (EPI) PARAMETER SETUP] option:**

The Lab EPI Parameter Setup [LREPI PARAMETER SETUP] option is used to define the search criteria associated with the National Emerging Pathogen Initiative extract data. This option only allows editing of the EPI Parameter Setup input screens. Local pathogens CANNOT be added using this option. This option has been **enhanced** by adding the **new** PREVIOUS CYCLE field which is automatically defined as '1' for TB ONLY and CANNOT be edit. For all other emerging pathogens the **new** PREVIOUS CYCLE field is blank and CANNOT be EDITED. The existing PROTOCOL field can no longer be EDITED. The ACTIVE: 'YES' has been changed to display INACTIVE: 'NO', and Lag Days for the six new EPIs have been defined as 15 with the release of the new EPI enhancement software.

## New Lab EPI Primary [LREPI SEARCH EXTRACT MENU] menu options

### **Print Detailed Verification Report [LREPI VERIFICATION REPORT] option:**

This **new** option is use to print the **new** Detailed Verification Report mailman message.

### **Pathogen Inquiry [LREPI PATHOGEN INQUIRY] option:**

This **new** option is used to inquire into the LAB SEARCH/EXTRACT file (#69.5) parameter description fields (i.e., INACTIVE: NO, LAG DAYS: 15, RUN DATE: OCT 07, 2003, CYCLE: MONTHLY, PROTOCOL: LREPI, FOLLOW PTF: YES, REFERENCE NUMBER: 23, and ETIOLOGIES) for defined emerging pathogen.

## New Local Pathogen Submenu and Options:

### **Local Pathogen [LREPI LOCAL PATHOGEN MENU] Submenu:**

This **new** submenu contains four **new** options use to enter/edit local pathogens, generate and print local EPI reports and spreadsheets, and delete local pathogens.

### **Example: New Local Pathogen [LREPI LOCAL PATHOGEN MENU] Menu**

Local Pathogen Menu

ENT	Enter/Edit Local Pathogens
GEN	Lab EPI Generate Local Report/Spreadsheet
PRT	Lab EPI Print Local Report/Spreadsheet
DEL	Delete Local Pathogen
DRS	Delete Local Report or Spreadsheet

Enter/Edit Local Pathogens [LREPI ENTER/EDIT LOCAL PATH] option:

This **new** option is use to enter or edit local pathogens into LAB SEARCH/EXTRACT file (#69.5).

Lab EPI Generate Report/Spreadsheet [LREPI GENERATE REPORT/SP] option:

This **new** option is used to generate Lab EPI reports or spreadsheets for national and local emerging pathogens extract data. After selecting national or local emerging pathogens, time period, segments and fields, report or spreadsheet, the job is automatically tasked. The tasked job will take approximately 2-3 hours to generate. An alert is automatically sent to the requester/user after the tasked job has finished generating. The Lab EPI report or spreadsheet can then be viewed on the screen or printed using the **new** Lab EPI Print Local Report/Spreadsheet [LREPI PRINT] option. **NOTE:** NO data will be transmitted to AAC when using this option.

Lab EPI Print Local Report/Spreadsheet [LREPI PRINT REPORT/SPSHT] option:

This **new** option is used to print a report or spreadsheet that was generated with the Lab EPI Generate Local Report/Spreadsheet [LREPI GENERATE REPORT/SP] option.

Delete Local Pathogen [LREPI DELETE LOCAL PATHOGEN] option

This **new** option is use to delete local pathogens entries ONLY.

<p><b>NOTE:</b> National emerging pathogens entries CANNOT be deleted.</p>
--

Delete Local Report or Spreadsheet [LREPI DELETE LOCAL REPORT] option

This **new** option is use to delete local reports or local spreadsheets.

## **New EPI Reports**

### New EPI Summary Verification Report of EPI Extracted Data from Site for Nationally Rolled-Up Emerging Pathogens:

The **new** Summary Verification Report of EPI Extracted Data from Site contains the following **new** functionality:

- Automatically sent to EPI-REPORT mail group after EPI extract data transmissions to AAC on the 15<sup>th</sup> each month
- Displays in a human readable format used for quick reviewing
- Displays reporting site name and station number
- Displays emerging pathogens total number of occurrences during the monthly processing cycle
- Displays emerging pathogens total number of persons with occurrences during the monthly processing cycle
- Displays number of persons with the nationally rolled-up resolutions for the National Hepatitis C Risk Assessment Clinical Reminder that occurred during the monthly processing cycle
- Displays report in several pages
- ENHANCE MANUAL RUN] option (**Note** that each manual run generates HL7 message transmission to the central data repository [AAC])
- Automatically sent to EPI-REPORT mail group after manual generation

### New Detailed Verification Report of EPI Extracted Data from Site for Nationally Rolled-Up Emerging Pathogens:

The **new** Detailed Verification Report of EPI Extracted Data from Site' contains the following **new** functionality:

- Displays reporting site station number with Notes and Comment Segments (NTE) findings in a human readable format
- Displays the site reporting NTE findings of 1, 2, 3...23, starting with a new page for each NTE findings.
- Displays listing by emerging pathogens
- Recreation of the report on demand using the Lab EPI Manual Run (Enhanced) [LREPI ENHANCE MANUAL RUN] option
- Recreation of the manually generated EPI extract data is automatically sent to Austin Automation Center.
- Displays Clinical Reminder data transmitted to EPI data stream regarding nationally rolled-up data about Hepatitis C Risk Assessment and associated hepatitis laboratory data.

### New EPI Processing/Error Report Mailman Message sent from Austin

The **new** EPI Processing (Error) Report mailman message itemizes all transmissions received by AAC and document the records status as either being accepted or rejected (with the reason and reject code identified). This report will be sent to EPI mail group. (*Examples of the **new** EPI Processing/Error Report mailman message and “Tables of Rejects and Errors and/or Warning Codes” are located in the Appendix - B section of this manual.*)

### **New EPI Data Extracted:**

#### Logical Observation, Identifiers, Name, and Codes (LOINC)

EPI Roll up Modifications software provides the ability to automatically extract LOINC data, transmit the data to the AAC, and display the data on the **new** Verification Detailed Report of EPI Extracted Data from Site.

#### Master Patient Index (MPI)

EPI Roll Up Modifications software provides the ability to automatically extract MPI values and transmit the data to AAC.

#### Susceptibility Results MIC Values

EPI Roll Up Modifications software provides the ability to automatically extract Susceptibility Results MIC values from the ANTIMICROBIAL SUSCEPTIBILITY file (#62.06), Susceptibility Result field (#.01), Susceptibility Result subfile (#2), and transmit the data to AAC. These MIC values can be displayed via the **new** Verification Detailed Report of EPI Extracted Data from Site.

#### Site Institution/Division Number

EPI Rollup Modifications software release provides the ability to automatically capture the patient’s site division number during an encounter.

#### Patient Demographics

EPI Roll Up Modifications software release provides the ability to extract patient’s demographics county and state data, transmit data to the AAC, and display the demographic data on the **new** Verification Detailed Report of EPI Extracted Data From Site.

#### Race and Ethnicity

EPI Roll Up modifications software release provide the ability to capture patient’s race and ethnicity data using the new race/ethnicity protocols, transmit data to AAC, and display the data on the **new** Verification Detailed Report of EPI Extracted Data from Site.

## Six New Emerging Pathogens

EPI Roll-Up Modifications software provides the ability to automatically extract data for the following **six new** emerging pathogens without the necessity of any manual data entry once the parameter descriptions are set up using the Lab EPI Parameter Setup [LREPI PARAMETER SETUP] option:

- All *Staphylococcus aureus* (Reference #18)
- Methicillin-Resistant *Staphylococcus aureus* (MRSA) (Reference #19)
- Vancomycin-Resistant *Staphylococcus aureus* (VRSA) (Reference #20)
- Vancomycin-Resistant Coagulase Negative *Staphylococci/Staph epi* (VRSE) (Reference #21)
- All *Streptococcus pneumoniae* (Reference #22)
- All Enterococci (Reference #23)

## New Legionella Urinary Antigen Test

The Legionella Urinary Antigen test is FDA-approved and available clinical use. Suggestions will be provided for updating parameter setups to capture the results of this testing in the already existent Legionella (Reference #7) EPI national pathogen and allow for national roll-up. This newer test **must** be added for LEGIONELLA using the Lab EPI Parameter Setup [LREPI PARAMETER SETUP] option. The preferred Lab EPI parameter setup for etiology for the **newer** Legionella Urinary Antigen test is *POSITIVE FOR LEGIONELLA PNEUMOPHILA*.

## New EPI Informational Alert

This alert is created when the new Lab EPI Generate Local Report/Spreadsheet [LREPI GENERATE REPORT/SP] option is accessed. This alert is sent to the user who generated the report or spreadsheet when the report or spreadsheet is finished generating.

## Modifications

VistA Laboratory EPI Roll-Up Modification Patch LR\*5.2\*281 software contains the following modifications:

### EPI Single Day Transmissions:

Date handling for start and stop date was **modified** because it created a problem with EPI single day transmissions. It showed the beginning date and time to be 10:00 a.m. yesterday. The end time is (in effect) midnight tonight. This was corrected by creating a beginning time of one tenth of a second after midnight and the end time is the following midnight.

### LAB EPI Search Criteria

Currently, some TB cultures are not being captured because it can require up to six weeks for TB cultures to grow and obtain the results. This delay causes the result to be overlooked in the subsequent EPI reporting. A new search criterion has been added to the Lab EPI engine. The LAB SEARCH/EXTRACT file (#69.5), contains the **new** PREVIOUS CYCLE field (# 19), which is a numeric value of 1, automatically set by the EPI software. This **new** field instructs the LAB SEARCH EXTRACT engine to also look for TB pathogen(s) in previous cycles. **Note:** The **new** PREVIOUS CYCLE field (# 19), is used for the automated run (i.e., 15<sup>th</sup> day of the month) ONLY. This field CANNOT be EDITED.

### National Center for Health (NCH) Data Screening No Longer Required:

NCH data screening is no longer required and NCH transmissions to AAC have been terminated. NCH Cholesterol and NCH Pap smear entries has been removed from the Lab EPI Parameter Setup entries.

### Deletion of National Center for Health (NCH) Protocol

The LRNCH AAC and LRNCH SEND CLIENT protocols have been deleted since the NCH data screening is no longer required.

### Lab EPI Nightly Task [LREPI NIGHTLY TASK] option

The Lab Search/Extract Nightly Task [LREPI SEARCH/EXTRACT NIGHTLY TASK] option is **renamed** to Lab EPI Nightly Task [LREPI NIGHTLY TASK]. This option builds a HL7 message and sends it to the defined location specified in the EPI Protocols. The EPI Nightly Task [LREPI NIGHTLY TASK] option **must** be scheduled to run each night by TaskMan.



# Austin Automation Center Database Processing

The Austin Automation Center (AAC) serves as the central data repository for the national EPI pathogen data that is rolled-up from sites. AAC creates two file structures, both in Statistical Analysis System (SAS) file format. These two file structures are used as a source of data for the VHA Headquarters Infectious Disease Program Office. The data are available to the VA Central Office Infectious Diseases Program Office to be used for analysis and reporting. The two file structures are referred to as the “Numerator Files” and “Denominator File” because of their planned utilization.

## **Numerator Files:**

The Numerator files contain accumulated data sent by all VHA facilities. The Numerator file information is specific to unique patients with a VA Central Office Infectious Diseases Program Office designated national emerging pathogen. Emerging pathogen data entries are flagged through the *VistA* Laboratory EPI software process. Numerator files data are collected and transmitted to AAC monthly by VHA facilities.

## **Denominator File:**

The Denominator file provides the VHA Headquarters Infectious Diseases Program Office total and unique counts of patients each VHA facility. The individual files that these data elements are extracted from are the National Patient Care (NPC), Inpatient Treatment File (PTF), VHA Work Measurement (VWM), and Cost Distribution Report (CDR) systems.

The data elements are:

- \* Unique SSN served (inpatient and outpatient together)
- \* Total # of discharges
- \* Total unique SSN discharges
- \* Inpatient hospital days
- \* Inpatient ICU days
- \* Unique SSN encounters for both inpatient and outpatient

Unique and total counts are available for the individual months, current month, and previous eleven months for a year's set of totals, current month, and previous three month periods for a quarter's set of totals.

## **AAC EPI Data Transmission**

National emerging Pathogens, as defined by VA Central Office, act as triggers for data acquisition for Patch LR\*5.2\*281. The software then retrieves relevant, predetermined, and patient-specific data for transmission to the EPI central data repository at the AAC. Once at that location, the data are uploaded into Statistical Analysis System (SAS)-based statistical software accessible files. VA Central Office reports may then be generated for appropriate use and distribution at the national level.

With the installation of patch LR\*5.2\*281, automated data transmissions will occur. Receipt of this transmission at the AAC queue will trigger a confirmation message back to the originating site to “confirm” that data has been sent. Then at the next processing cycle (~25<sup>th</sup> of the month), a processing/error report will also be generated and sent back to the originating site. This processing/error report will serve as the definitive “confirmation” that data has been accepted. If there is a fatal error in any segment of the message, the entire message will be rejected and must be resent manually. Warning codes/errors are accepted into the data set, but serve to remind the originating site that a correction of the process generating the error may be needed.

## **AAC Transmission Reports**

### EPI Confirmation Mailman Message sent from AAC

An EPI Confirmation mailman message is sent from the AAC upon receipt of the VHA facilities EPI monthly transmission via the EPI mail group. The EPI mail group members are notified that the original EPI HL7 format mailman message data transmission has been received by AAC for processing.

**NOTE:** This EPI Confirmation mailman message ONLY means that the sending VHA facility data transmission has been received by the AAC for processing.

### New EPI Processing (Error) Report Mailman Message from Austin

The **new** EPI Processing Error Report mailman message itemizes all transmissions received by AAC and document the records status as either being accepted or rejected (with the reason and reject code identified). This report will be sent to the EPI mail group. (*Examples of the “Table of Rejects and Errors and/or Warning Codes” are located in the Appendix - B section of this manual.*)

# Security Information

This section addresses any legal requirements pertaining to the EPI Patch LR\*5.2\*281, software product and identifies any security measures necessary to protect the integrity of the product and database.

## **Security Management:**

According to VA Directive 6214, the existing Laboratory EPI software meets the requirements for VA IT Security Certification and Accreditation Program. The Lab EPI Enhancement software (LR\*5.2\*281) does not constitute a major change that requires new risk assessment and re-accreditation of the Laboratory system. Lab EPI security is maintained through menu assignment and VA FileMan protection.

## **Security Features:**

### **EPI Mail Groups**

#### EPI mail group:

This mail group is used by the VHA facilities to transmit EPI HL7 format mailman messages to AAC and for AAC to transmit EPI Confirmation mailman messages back to the sending VHA facilities once the EPI HL7 format mailman messages data transmission has been received by AAC.

#### EPI-Report mail group:

This mail group is used to receive the Emerging Pathogens Verification Report and the EPI Processing Report mailman messages sent from AAC. The members of this mail group will assist in the EPI data validation and corrections process.

### **New EPI Informational Alert**

An alert is created by the Lab EPI Generate Local Report/Spreadsheet [LREPI GENERATE REPORT/SP] option. This alert is sent to the user who generated the report or spreadsheet when the report or spreadsheet is finished generating.

#### **Example:** Alert Display

```
The local report/spreadsheet finished generating at JAN 23, 2004@18:45:00
Enter "VA to jump to VIEW ALERTS option
```

## Remote Systems

The EPI software retrieves relevant, predetermined patient-specific data for transmission to the Austin Automation Center database repository.

## Archiving/Purging

Archiving and Purging utilities are not provided with this software release.

## Contingency Planning

Each facility using the **VISTA** Laboratory EPI software application **must** develop a local contingency plan to be used in the event of application problems in a live environment. The facility contingency plan **must** identify procedures used for maintaining the functionality provided by the software in the event of a system outage.

## Interfacing

No specialized (not VA-produced) products (hardware and/or software) are embedded within or required by the EPI software product.

## Electronic Signatures

There is no electronic signature utilized in the VistA EPI software application.

## Menus

The Lab EPI Primary [LREPI SEARCH EXTRACT MENU] menu contains six options. IRM staff assigns the menu to have access to all options and the **new** submenu [Local Pathogen Menu...] that has 4 options. The new [Local Pathogen Menu...] submenu may be assigned independent from the Lab EPI Primary [LREPI SEARCH EXTRACT MENU] menu; this will allow only access to the submenu options.

## Security Keys

There are no locks or security keys associated with the EPI Lab EPI Primary [LREPI SEARCH EXTRACT MENU] menu or options.

## File Security

EPI changes and enhancements **do not** modify any existing file security schemes. New files exported by the patch installation have no file security applied. However, VA FileMan security access L1 code is recommended if file security is deemed necessary by the facilities.

## References

Please review the following guide and manual prior to installing and implementing the Laboratory EPI Rollup Modifications Patch LR\*5.2\*281:

- Kernel Systems Manual V. 8.0
- VA FileMan V. 21.0
- VA Mailman V. 7.1

## Official Policies

EPI software release reference no official policy unique to the product regarding the modification of software and distribution of the product.

# Pre-Installation Information

The following information contain recommendations and requirements that should be acknowledged **prior** to installing the VistA Laboratory EPI Rollup Modifications patch LR\*5.2\*281.

## EPI Phased Installation and Implementation

**NOTE:** Due to extensive historical data transmission requirements and mandated setups required for such, a phased installation and implementation of this patch will be utilized for release of this patch. The software download information will be made available to sites attending one of the following national audio conference training calls:

Tuesday, June 8 at 1:00 - 3:00 PM EST for VISNs 1-2-3-4-5-6

Thursday, June 10 at 3:00 - 5:00 PM EST for VISNs 7-8-9-10-11

Tuesday, June 15 at 4:00 - 6:00 PM EST for VISNs 12-15-16-16-23

Wednesday, June 16 at 2:00 - 4:00 PM EST for VISNs 18-19-20-21-22

Thursday, June 17 at 2:00 - 4:00 PM EST for those unable to attend the other calls.

The VANTS telephone number is 1 800 767-1750 and the access code for all calls is 13143.

This patch will involve reseeding of the EPI databases for each site to allow the new data created by this patch to be captured. It is imperative each site attend an audio conference prior to installation and implementation of LR\*5.2\*281.

## Intended Audience

### IRM Staff:

IRM staff is required for the installation, post installation, assignment of mail groups, and menu options for the EPI Rollup Modifications patch LR\*5.2\*281.

### Laboratory Staff:

It is **highly recommended** that the following person(s) jointly participate in reviewing the national EPI pathogen parameter descriptions and set-ups:

- Laboratory Information Manager (LIM)
- Representative from the Microbiology section for the Emerging Pathogens Initiative (i.e., director, supervisor, or technologist)

### Quality Management Staff:

It is **highly recommended** that the following person(s) jointly participate in reviewing the national EPI pathogen parameter descriptions and set-ups:

- Total Quality Improvement/Quality Improvement/Quality Assurance (TQI/QI/QA) staff (or person at the facility with similar function)

### Other Staff:

It may also be beneficial to have Infection Control Personnel involved in national EPI pathogen parameter set-ups.

### **Test Sites:**

The VistA Laboratory EPI Rollup Modifications patch LR\*5.2\*281, has been tested at the following VAMCs:

EPI Test Sites	Operating System
Boston, MA HCS (Beta Test)	ALPHA/Digital Standard Mumps (DSM) Oct 2003 DSM VMS - May 15, 2004
Cincinnati, OH VAMC (Alpha/Beta Test)	OS V7.2-1 – DSM V7.2.1, June 2003
Detroit, MI VAMC (Beta Test)	OS V7.3 – DSM V7.2.1, June 2003
Durham, NC VAMC (Beta Test)	OS V7.2-1 – DSM V7.2.1, March 2003:
Manchester, NH VAMC (Beta Test)	Windows NT 3.2, June 2003
Togus, ME VAMC (Beta Test)	CACHE V7.3 - DSM V7.2.1, October 2003

### **Hardware and Operating System Requirements:**

VistA software operates on two hardware platforms. The hardware platforms are listed in the mini-computer category, which provides multi-tasking and multi-user capabilities. The hardware platforms systems used are:

### **Digital Equipment Corporation (DEC) Alpha Series:**

Digital Equipment Corporation (DEC) Alpha series is using the DEC Open Virtual Memory System (VMS), Version 6.1 or greater, operating system. This platform uses the DEC System Mumps (DSM), Version 6.3 or greater, of American National Standards Institutes (ANSI) of Massachusetts General Hospital Utility Multi-Programming System (MUMPS) also known as 'M' language. MUMPS is a Federal Information Processing Standard (FIPS) language.

### **System Performance Capacity:**

There are no significant changes in the performance capacity of the VistA operating system once the Lab EPI Roll Up Modification Enhancement patch LR\*5.2\*281 is installed. The software application should not create any appreciable global growth or network transmission problems. There are no memory constraints.

### **Memory Constraints:**

Sufficient memory is required by sites to maintain the growth of the EPI globals.

### **Installation Time:**

Installation time for the VistA Laboratory EPI Rollup Modifications patch LR\*5.2\*281 is less than 2 minutes during off peak hours and less than 5 minutes during peak hours.

### **Disabling EPI Menus Not Required:**

The Lab EPI Primary (LREPI SEARCH EXTRACT MENU) menu and options are NOT required to be disabled during the EPI installation process.

### **Users on the System:**

Users may remain on system during the installation of patch LR\*5.2\*281 and all options may remain in service.

### **Backup Routines:**

It is highly recommended that a backup of the transport global be performed before installing patch LR\*5.2\*281.

### **Namespace:**

The VistA Laboratory EPI Rollup Modifications Patch LR\*5.2\*281, uses the Laboratory's LR namespace.

## Software Requirements:

The following software applications are **must** be installed prior to the installation of Laboratory EPI Rollup Modifications patch LR\*5.2\*281:

Software Applications	Versions (or Greater)
VA FileMan	v. 21 (with patches installed)
Kernel	v. 8.0 (with patches installed)
Laboratory	v.5.2 (with patches installed)
PIMS	v. 5.3 (with patches installed)
HL7	v.1.6 (with patches installed)
Social Work	v.3.0 (with patches installed)
Mailman	v.7.1 (with patches installed)
Clinical Reminder	v.1.5 (with patches installed)

## Required Patches:

Prior to the installation of Laboratory EPI Rollup Modifications patch LR\*5.2\*281, the following patches **MUST** be installed:

Software Applications	Patches
Laboratory V. 5.2	LR*5.2*175 LR*5.2*242 LR*5.2*260
Clinical Reminder V. 1.5	PXRM*1.5*1

## Health Level Seven (HL7):

Laboratory EPI Rollup Modifications patch LR\*5.2\*281 uses the VistA HL7 V. 1.6 software application to transmit EPI data to the AAC.

## Protocols:

**LREPI:** This event driver protocol defines the associated parameters required for building HL7 messages that are used to transmit EPI data to the AAC.

**LREPI CLIENT:** This subscriber protocol defines the parameter required by the HL7 application that determines where to send the HL7 formatted message containing the emerging pathogens data.

## Domain

The Q-EPI-MED.GOV domain is used for transmitting EPI data to AAC.

## Database Integration Agreements (DBIAs)

The following DBIAs were approved for VistA Laboratory EPI Rollup Modifications patch LR\*5.2\*281:

### 1. DBIA #418

Laboratory EPI software has been approved to look at the discharge date x-ref in the PTF file (#45). The EPI software gathers lab data to send to Austin.

```

                FILE: 45                      ROOT: DGPT(
DESCRIPTION:          TYPE: File #45 PTF file

```

```

^DGPT("ADS",    cross-reference:
  The routine LREPI5 searches a date range for discharge dates in that range
to gather Lab EPI data to send to Austin.

```

### 2. DBIA #3018

Laboratory EPI software approved to call the \$\$IN^VAFHLPV1 to create a PV1 segment to send to the Austin Automation Center.

### 3. DBIA #3094:

AUPNVPOV (PCE PATIENT CARE ENCOUNTER DESCRIPTION: TYPE: File V POV diagnoses are used as a finding in Clinical Reminders. Therefore, Clinical Reminders needs to read the following fields:

```

GLOBAL REFERENCE:
^AUPNVPOV('AA',
GLOBAL REFERENCE:
^AUPNVPOV(D0,0)
.01      POV                0;1      Direct Global Read
.03      VISIT              0;3      Direct Global Read
.04      PROVIDER NARRATIVE 0;4      Direct Global Read
.12      PRIMARY/SECONDARY  0;12     Direct Global Read
KEYWORDS: CLINICAL REMINDERS V POV

```

#### 4. DBIA #3530

Laboratory EPI software approved to reference ^AUPNVSIT.

3530 NAME: DBIA3530  
CUSTODIAL PACKAGE: PCE PATIENT CARE ENCOUNTER Albany  
SUBSCRIBING PACKAGE: INTEGRATED BILLING Albany  
USAGE: Private ENTERED: FEB 27, 2002  
STATUS: Active EXPIRES:  
DURATION: Till Otherwise Agr VERSION:  
FILE: 9000010 ROOT: AUPNVSIT(  
DESCRIPTION: TYPE: File  
Integrated Billing receives encounters from PCE but screens out many based on certain criteria. One of these criteria is the Data Source of the encounter. The following reference is needed to identify the Data Source of an encounter to determine if the encounter should pass to Integrated Billing.

GLOBAL REFERENCE:

^AUPNVSIT(D0  
81203 DATA SOURCE 812;3 Direct Global Read  
Visit's Data Source, pointer to file 839.7  
KEYWORDS:

#### 5. DBIA 4280

LAB EPI software approved to do a direct read of the global \$P(^DIC(21,D0,0),U,3) and a direct global read of the "D" cross reference ^DIC(21,"D").

NAME: DIC(21  
CUSTODIAL PACKAGE: REGISTRATION Albany  
SUBSCRIBING PACKAGE: LAB SERVICE Dallas  
USAGE: Private ENTERED: MAY 27,2004  
STATUS: EXPIRES:  
DURATION: Till Otherwise Agr VERSION:  
FILE: 21 ROOT: DIC(21  
DESCRIPTION: TYPE: File  
LAB EPI software does a direct read of the global \$P(^DIC(21,D0,0),U,3) and a direct global read of the "D" cross reference ^DIC(21,"D" The software gathers EPI data for transmission to Austin.  
GLOBAL REFERENCE:  
^DIC(21

## Data Dictionary Changes

The following data dictionary changes are required for the EPI Roll-Up Modifications Patch LR\*5.2\*281 software release:

### LAB SEARCH/EXTRACT file (#69.5)

This file contains search criteria used by the Laboratory EPI software. This file should ONLY be edited using the EPI Parameter Setup [LREPI PARAMETER SETUP] option provided with this software. This file contains the following changes:

#### Modified Fields:

##### NAME field (#69.5,.01)

The Search/Extract parameter name is converted to upper case and stored in the "D" x-ref for easier lookup (i.e., enter a Name (3 to 30 characters) for the Search/Extract parameter you are defining).

```
69.5, .01      NAME                                0;1 FREE TEXT (Required)

INPUT TRANSFORM:  K:$L(X)>30!($L(X)<3)!'(X'?1P.E)!(X'? .ANP) X
LAST EDITED:     MAR 16, 2004
HELP-PROMPT:     Enter a Name (3 to 30 characters) for the
                  Search/Extract parameter you are defining.
DESCRIPTION:     This is the name of the Search/Extract
                  parameter you are defining.

NOTES:           XXXX--CAN'T BE ALTERED EXCEPT BY PROGRAMMER

CROSS-REFERENCE: 69.5^B
                  1)= S ^LAB(69.5,"B", $E(X,1,30),DA)=""
                  2)= K ^LAB(69.5,"B", $E(X,1,30),DA)

CROSS-REFERENCE: 69.5^D^MUMPS
                  1)= D UP^LRXREF S ^LAB(69.5,"D",X,DA)=""
                  2)= D UP^LRXREF K ^LAB(69.5,"D",X,DA)
                  The name is converted to upper case and stored
                  in the "D" x-ref for easier lookup.
                  ^LAB(69.5,"D",UPPERCASE NAME, IEN)
```

This field has also been **modified** to add the following 6 **new** emerging pathogens entries:

- All *Staphylococcus aureus* (Reference #18)
- Methicillin-Resistant *Staphylococcus aureus* (MRSA) (Reference #19)
- Vancomycin-Resistant *Staphylococcus aureus* (VRSA) (Reference #20)
- Vancomycin-Resistant Coagulase Negative *Staphylococci/Staph epi* (VRSE) (Reference #21)
- All *Streptococcus pneumoniae* (Reference #22)
- All Enterococci (Reference #23)



**NEW Fields:****PREVIOUS CYCLE field (69.5,19)**

This **new** field is defined as a numeric field, (type a number between 1 and 99). By entering a number here the Lab search engine knows to look at a previous cycle for updates to data. How far back it looks is based on the cycle and number entered. For example if the cycle is monthly and the previous cycle is 1, then the search engine will also search 1 month back for data. This **new** field is UNEDITABLE.

**Example:** 69.5,19                      PREVIOUS CYCLE                      0;13 NUMBER

```
INPUT TRANSFORM:  K:+X'=X!(X>99)!(X<1)!(X?.E1"."1.N) X
LAST EDITED:      SEP 09, 2003
HELP-PROMPT:      Type a number between 1 and 99.
DESCRIPTION:      By entering a number here the Lab search
                  engine knows to look at a previous cycle for
                  updates to data. How far back it looks is
                  based on the cycle and number entered.
                  For example if the cycle is monthly and the
                  previous cycle is 1 then the search engine
                  will also search 1 month back for data.
```

UNEDITABLE

**INDICATOR field (#69.55,1):**

**NOTE:** The **new** INDICATOR field (#69.55,1) located under ANTIMICROBIL SUSCEPTIBILITY sub-field (#69.55) is NOT being used in this release of the EPI software.

This **new** INDICATOR field (#69.55,1) is defined as a SET of CODES. Select the code that will determine how to match lab results. This indicates if the search for the lab test is conditional.

**Example:**

```
69.55,1                      INDICATOR                      0;2 SET

                  '1' FOR Use Reference Ranges;
                  '2' FOR Contains;
                  '3' FOR Greater Than;
                  '4' FOR Less Than;
                  '5' FOR Equal To;
LAST EDITED:      MAR 24, 2004
HELP-PROMPT:      Select the code that will determine how to
                  match lab results.
DESCRIPTION:      This indicates if the search for the lab test
                  is conditional.
```

INDICATED VALUE field (#69.55,2):

**NOTE:** The **new** INDICATED VALUE field (#69.55,2) located under ANTIMICROBIL SUSCEPTIBILITY sub-field (#69.55) is NOT being used in this release of the EPI software.

The **new** INDICATED VALUE field (#69.55,2) is defined as FREE TEXT. When the search indicator is used then use this field to define the criteria. Answer must be 1-30 characters in length.

**Example:**

```
69.55,2          INDICATED VALUE          0;3 FREE TEXT

INPUT TRANSFORM: K:$L(X)>30!($L(X)<1) X
LAST EDITED:    MAR 24, 2004
HELP-PROMPT:    Enter the data to be compared using the
INDICATOR field.
DESCRIPTION:    If the search is conditional this defines the
criteria.
```

PROTOCOL file (#101)

**Modified Field**

Processing Routine field (#771):

Entry in the Processing Routine field (#771) for the Protocol LREPI CLIENT was changed from PROCESS^LREPIRP to a NULL entry.

**NOTE:** In the LAB SEARCH/EXTRACT file (#69.5), the PROTOCOL field (#101) and PREVIOUS CYCLE field (69.5, 19) has been changed to be UNEDITABLE.

## Routine Summary

### Example: Checksum

The following routines are included in this patch. The second line of each of these routines now looks like:

```
<tab> ;;5.2;LAB SERVICE;<patchlist>;Sep 27, 1994
```

	Checksum	Checksum	
Routine Name	Before Patch	After Patch	Patch List
-----	-----	-----	-----
LR281	N/A	4418686	281 (Deleted by KIDS)
LREPI	14217525	14182167	132,175,260,281
LREPI1	10654552	11822436	132,157,175,260,281
LREPI2	7199135	8491199	132,157,175,242,260,281
LREPI2A	NEW	7574864	281
LREPI3	5462995	9184652	132,175,260,281
LREPI5	NEW	2408593	281
LREPIPH	5818757	6144410	260,281
LREPIPI	NEW	5220624	281
LREPIRM	5260075	7566388	175,281
LREPIRP	5973015	20442264	132,157,175,260,281
LREPIRP1	NEW	15133552	281
LREPIRP2	NEW	3729823	281
LREPIRP3	NEW	29061422	281
LREPIRP4	NEW	1812384	281
LREPIRP5	NEW	11788836	281
LREPIRP6	NEW	25502070	281
LREPIRP7	NEW	17171829	281
LREPIRP8	NEW	8376752	281
LREPIRP9	NEW	4718	281
LREPIRS	NEW	8576522	281
LREPIRS1	NEW	16664999	281
LREPIRS2	NEW	22133542	281
LREPIRS3	NEW	16290972	281
LREPISRV	12552990	15211664	260,281
LREPISV1	NEW	4805594	281



# Installation Instructions

VistA Laboratory EPI Rollup Modifications patch LR\*5.2\*281 uses the Kernel Installation and Distribution System (KIDS). For further instructions on using KIDS, please refer to the Kernel V. 8.0 Systems Manual.

The install time for this patch is less than 2 minutes. This patch can be installed when Laboratory users are on the system.

**NOTE:** Kernel patches **must** be current on the target system to avoid problems loading and/or installing this patch.

1. If any of the above routines are mapped, disable mapping for them.
2. Use the 'Load a Distribution' option to load the Host file onto your system.
3. The patch has now been loaded into a Transport global on your system. You now need to use KIDS to install the transport global.
4. On the 'Kernel Installation & Distribution System' Menu (KIDS), select the 'Installation' menu.
5. Use the 'Verify Checksum in Transport Global' option and verify that all routines have the correct checksums.
6. On the KIDS menu, under the 'Installation' menu, use the following options:
  - Print Transport Global
  - Compare Transport Global to Current System
  - Backup a Transport Global

If you wish to preserve a copy of the routines exported in this patch prior to installation, you should use the 'Backup a Transport Global' option at this time. You may also compare the routines in your production account to the routines in the patch by using the 'Compare a Transport Global to Current System' option.

## Installation Instructions

7. Use the 'Install Package(s)' option under the 'Installation' menu and select the package 'LR\*5.2\*281'.

If prompted ' Want KIDS to Rebuild Menu Trees Upon Completion of Install? YES/' choose 'NO'.

If prompted ' Want KIDS to INHIBIT LOGONs during the install? YES// ' choose 'NO'.

If prompted 'Want to DISABLE Scheduled Options, Menu Options, and Protocols? YES//', choose 'NO'.

8. On a mapped system, rebuild your map set.

9. Routine LR281 will be deleted after successful patch installation.

**Installation Example:**

```

Select Kernel Installation & Distribution System Option: INSTallation<Enter>

Select Installation Option: 6 Install Package(s)<Enter>
Select INSTALL NAME: LR*5.2*281 <Enter>          Loaded from Distribution
5/24/04@14:18:24      => LR*5.2*281

This Distribution was loaded on May 24, 2004@14:18:24 with header of
  LR*5.2*281
  It consisted of the following Install(s):
    LR*5.2*281
Checking Install for Package LR*5.2*281
Will first run the Environment Check Routine, LR281

          --- Environment Check is Ok ---

Install Questions for LR*5.2*281

Incoming Files:

    69.5      LAB SEARCH/EXTRACT (including data)
Note: You already have the 'LAB SEARCH/EXTRACT' File.
I will MERGE your data with mine.

Want KIDS to Rebuild Menu Trees Upon Completion of Install? YES// NO<Enter>

Want KIDS to INHIBIT LOGONs during the install? YES// NO<Enter>
Want to DISABLE Scheduled Options, Menu Options, and Protocols? YES//
NO<Enter>

Enter the Device you want to print the Install messages.
You can queue the install by enter a 'Q' at the device prompt.
Enter a '^' to abort the install.

DEVICE: HOME//<Enter>    UCX/TELNET

Install Started for LR*5.2*281 :
      May 24, 2004@14:19:41

Build Distribution Date: May 20, 2004

Installing Routines:
      May 24, 2004@14:19:41

Running Pre-Install Routine: PRE^LR281

      Deleting NCH entries from LAB/SEARCH EXTRACT file (#69.5)

          *** Preinstall completed ***

```

## Installation Instructions

Installing Data Dictionaries:  
May 24, 2004@14:19:42

Installing Data:  
May 24, 2004@14:19:43

Installing PACKAGE COMPONENTS:

Installing FORM  
LR\*5.2\*281

---

Installing PROTOCOL

Installing OPTION  
May 24, 2004@14:19:46

Running Post-Install Routine: POST^LR281

Updating Routine file...

Updating KIDS files...

LR\*5.2\*281 Installed.  
May 24, 2004@14:19:47

Install Message sent #10960

---

100%  
Complete



Install Completed

# Post Installation and Implementation Instructions

The following post installation and implementation instructions **must** be completed to ensure a successful performance of the EPI Roll up Modification software enhancements:

## IRM Post Installation Instructions:

### IRM - Step 1: Verify Lower Level Protocol of the HL7 V. 1.6 background job for EPI – LAB

**Example:** How to verify that the Lower Level Protocol of the HL7 V. 1.6 background job EPI – LAB is running.

```
Select HL7 Main Menu Option: ?<Enter>
```

```
Event monitoring menu ...
Systems Link Monitor
Filer and Link Management Options ...
Message Management Options ...
Interface Developer Options ...
Site Parameter Edit
```

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

```
Select HL7 Main Menu Option: FILER and Link Management Options<Enter>
```

```
Select Filer and Link Management Options Option: ?<Enter>
```

```
SM      Systems Link Monitor
FM      Monitor, Start, Stop Filers
LM      TCP Link Manager Start/Stop
SA      Stop All Messaging Background Processes
RA      Restart/Start All Links and Filers
DF      Default Filers Startup
SL      Start/Stop Links
PI      Ping (TCP Only)
ED      Link Edit
ER      Link Errors ...
```

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

## Post Installation and Implementation Instructions

Select HL7 Main Menu Option: **FILER and Link Management Options<Enter>**

Select Filer and Link Management Options Option: **START/Stop Links<Enter>**

This option is used to launch the lower level protocol for the appropriate device. Please select the node with which you want to communicate

Select HL LOGICAL LINK NODE: **EPI-LAB<Enter>**

The LLP was last shutdown on JUL 14, 2000 08:52:58.

Select one of the following:

F	FOREGROUND
B	BACKGROUND
Q	QUIT

Method for running the receiver: **B//** ACKGROUND

Job was queued as 130212.

## IRM - Step 2: Verify Lab EPI Nightly Task [LREPI NIGHTLY TASK] Option Nightly Run

The Lab EPI Nightly Task [LREPI NIGHTLY TASK] option **must** be scheduled to run nightly. This option will build HL7 messages and send them to the defined locations specified by the LREPI protocol.

### **Example: How to schedule the Lab EPI Nightly Task [LREPI NIGHTLY TASK] option to run nightly.**

```
Select Systems Manager Menu

Core Applications ...
Device Management ...
FM VA FileMan ...
Manage Mailman ...
Menu Management ...
Programmer Options ...
Operations Management ...
Spool Management ...
Information Security Officer Menu ...
Taskman Management ...
User Management ...
Application Utilities ...
Capacity Management ...
HL7 Main Menu ...

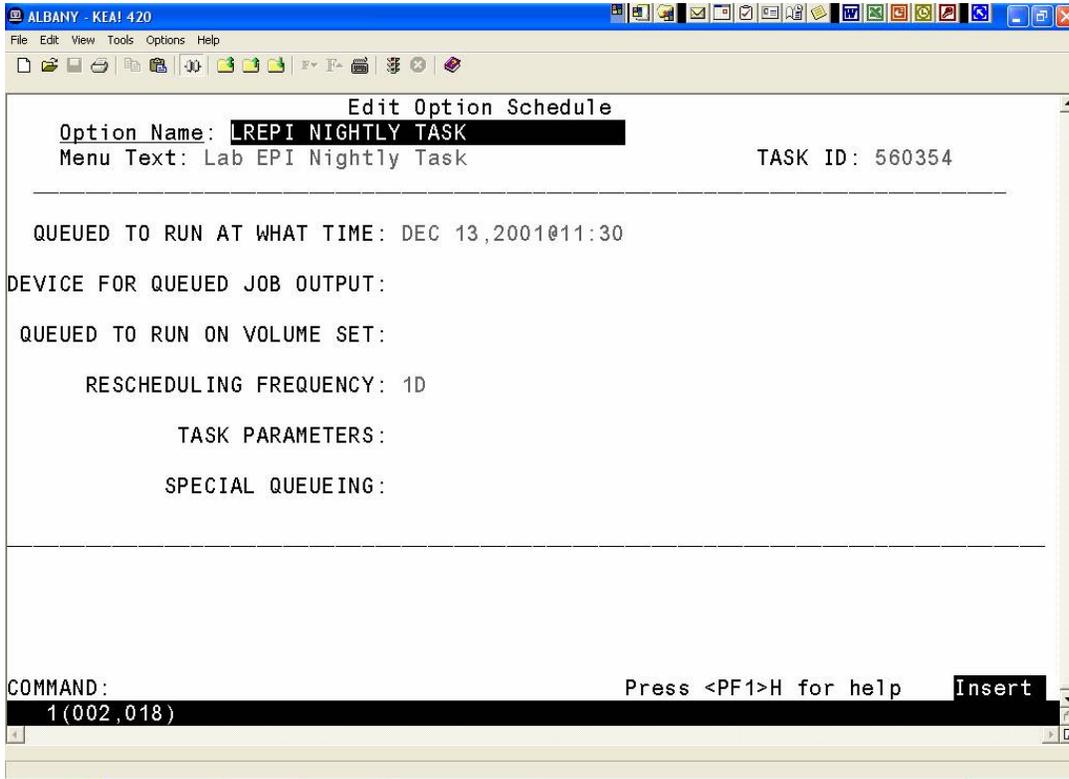
You have 89 new messages. (Last arrival: 03/17/04@15:30)
Select Systems Manager Menu Option: TASKman Management<Enter>

Schedule/Unschedule Options
One-time Option Queue
Taskman Management Utilities ...
List Tasks
Dequeue Tasks
Requeue Tasks
Delete Tasks
Print Options that are Scheduled to run
Cleanup Task List
Print Options Recommended for Queueing

Select Taskman Management Option: SCHEDULE/UnscheduleOptions<Enter>

Select OPTION to schedule or reschedule: LREPI NIGHTLY TASK<Enter>
```

**Example:** How to schedule the Lab EPI Nightly Task [LREPI NIGHTLY TASK] option to run nightly *continued.*



### IRM - Step 3: Verify EPI mail group setup entries

This mail group is used by VHA facilities to transmit EPI HL7 format mailman messages to Austin Automation Center (AAC) and for AAC to transmit EPI Confirmation mailman messages back to the sending VHA facilities once the EPI HL7 format mailman messages data transmission has been received by AAC. The **Office of Director** (00)-designated staff for EPI process implementation should be assigned to this mail group and kept current as personnel assume this responsibility. This/these staff member(s) is/are responsible for that the monthly EPI process has run and generated the appropriately formatted HL7 messages that are transmitted to the AAC. Receipt of the HL7 message series by this mail group is a means of ascertaining that this process has occurred. Installation of this patch provides opportunity to review this EPI mail group and update as needed.

**NOTE:** It is highly recommended that the **Office of the Director (00)** at each facility initially designate the member(s) responsible for overseeing the EPI mail group data.

### **Example: How to verify existing EPI mail group setup entries**

```

OUTPUT FROM WHAT FILE: LAB EPI// MAIL GROUP<Enter>
                                     (1441 entries)
Select MAIL GROUP NAME: EPI<Enter>
ANOTHER ONE:<Enter>
STANDARD CAPTIONED OUTPUT? Yes//<Enter> (Yes)
Include COMPUTED fields: (N/Y/R/B): NO//<Enter> - No record number (IEN), no
Computed Fields

NAME: EPI                                TYPE: public
  ALLOW SELF ENROLLMENT?: NO              REFERENCE COUNT: 8499
  LAST REFERENCED: AUG 15, 2000          RESTRICTIONS: UNRESTRICTED
MEMBER: EPI, USER

```

**DESCRIPTION:** This mail group is used to deliver a formatted report taken from the HL7 message that is created to assist in the verification of data.

## IRM Step 4: Verify EPI-REPORT mail group setup entries

This mail group **receives** the **new** EPI Summary Verification Report that is automatically generated on the 15<sup>th</sup> day of each month at each VHA facility. The **Office of Director (00)**-designated staff for EPI process implementation should be assigned to this mail group and kept current as personnel assume this responsibility. Other members of this mail group should be personnel who can assist the Office of Director-designated staff validate that the data contained in the **new** EPI Summary Verification Report accurately reflect what has occurred at the facility during the prior month. If the data do not accurately reflect facility activity regarding the national EPI Pathogens, corrections should be undertaken and coordinated by the Office of Director-designated staff; once the corrections are made, it is the responsibility of this designated staff to re-transmit the EPI data to the AAC using the Lab EPI Manual Run (Enhanced) option. Other personnel at the site may have interest in this summary overview of occurrences at the local site and should be permitted to join this mail group—these personnel may include the Infection Control Practitioners, Infectious Diseases physicians, hospital epidemiologists and Quality Managers. Installation of this patch provides opportunity to review this EPI-REPORT mail group and update as needed.

### **Example: How to verify EPI-REPORT mail group setup entries**

```

OUTPUT FROM WHAT FILE: LAB EPI// MAIL GROUP<Enter>
                                     (1441 entries)
Select MAIL GROUP NAME: EPI-REPORT<Enter>
ANOTHER ONE:<Enter>
STANDARD CAPTIONED OUTPUT? Yes//<Enter>   (Yes)
Include COMPUTED fields: (N/Y/R/B): NO//<Enter> - No record number (IEN), no
Computed Fields

NAME: EPI-REPORT                      TYPE: public
  ALLOW SELF ENROLLMENT?: NO          REFERENCE COUNT: 8499
  LAST REFERENCED: AUG 15, 2000      RESTRICTIONS: UNRESTRICTED
MEMBER: EPI, USER
DESCRIPTION: This mail group is used to deliver a formatted report taken from the HL7 message that is
created to assist in the verification of data.
    
```

## IRM Step 5: Verify XXX@Q-EPI.MED.VA.GOV Remote Member Entries

Verify designated remote members entries in the MAIL GROUP file (#3.8), MEMBERS - REMOTE field (#12), for the EPI mail group.

**Example:** How to verify EPI mail groups remote member [XXX@Q-EPI.MED.VA.GOV](mailto:XXX@Q-EPI.MED.VA.GOV) entries:

```
Select VA FileMan 22.0

Select OPTION: 1<Enter>ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: MAIL GROUP//<Enter>
EDIT WHICH FIELD: ALL// MEMBERS - REMOTE      (multiple)
  EDIT WHICH MEMBERS - REMOTE SUB-FIELD: ALL//<Enter>
THEN EDIT FIELD:<Enter>

Select MAIL GROUP NAME: EPI<Enter>
  1  EPI
  2  EPI-REPORT
CHOOSE 1-2: 1 EPI<Enter>
Select REMOTE MEMBER: S.HL V16 SERVER@DEV// XXX@Q-EPI.MED.VA.GOV<Enter>
  Are you adding 'XXX@Q-EPI.MED.VA.GOV' as a new REMOTE MEMBER (the2ND
for this MAIL GROUP)? No// Y<Enter>(Yes)
```

## IRM Step 6: Verify Lab EPI Primary [LREPI SEARCH EXTRACT MENU] menu assignment to all designated users

**NOTE:** The **Office of Director (00)**-designated staff for EPI process implementation should be assigned to the EPI mail group and kept current as personnel assume this responsibility. It is highly recommended that the Laboratory Information Manager (LIM), a representative from the Microbiology section (director, supervisor, or technologist) and a Total Quality Improvement/Quality Improvement/Quality Assurance (TQI/QI/QA) staff (or person at the facility with similar function) also be assigned the Lab EPI Primary Menu [LREPI SEARCH EXTRACT MENU]. These will be the individual(s) responsible for initially setting the national Lab EPI parameters descriptions and doing periodic reviews of the parameters descriptions to assure they are current.

### **Example: Lab EPI Primary [LREPI SEARCH EXTRACT MENU] menu**

Lab EPI Primary Menu

```
ENH   Lab EPI Manual Run (Enhanced)
VR    Print Detailed Verification Report
LO    Local Pathogen Menu ...
PI    Pathogen Inquiry
UP    Lab EPI Parameter Setup
      Lab EPI Protocol Edit
LK    Antimicrobial Link Update
```

### **Example: Local Pathogen [LREPI LOCAL PATHOGEN MENU] Menu**

```
ENT...Enter/Edit Local Pathogens
GEN   Lab EPI Generate Local Report/Spreadsheet
PRT   Lab EPI Print Local Report/Spreadsheet
DEL   Delete Local Pathogen
DRS   Delete Local Report or Spreadsheet
```

**NOTE:** Assignment of the Local Pathogen [LREPI Local Pathogen Menu] submenu is automatic with assignment of the Lab EPI Primary Menu. However, this submenu may be assigned independent of the primary menu; this independent assignment allows only access to the local pathogen menu functions. This provides one way of limiting access to functionality to only those personnel truly needing access and preventing personnel from inadvertently changing national EPI pathogen parameters.

## LIM Implementation Instructions

The following implementation instructions **must** be completed to achieve a successful performance of the EPI Roll up Modification software enhancements:

**NOTE:** It is highly recommended that the Laboratory Information Manager (LIM), a representative from the Microbiology section (director, supervisor, or technologist) and a Total Quality Improvement/Quality Improvement/Quality Assurance (TQI/QI/QA) staff (or person at the facility with similar function) be assigned the Lab EPI Primary Menu [LREPI SEARCH EXTRACT MENU]. These will be the individual(s) responsible for initially setting the national Lab EPI parameters descriptions and doing periodic reviews of the parameters descriptions to assure they are current.

### LIM - Step 1: Review new EPI Descriptions and Input Screens Examples

Review the following 6 **new** emerging pathogens descriptions and input screens examples **prior** to setting up the Lab EPI parameters. Also review the exiting Legionella (Reference #7) pathogen regarding descriptions and input screen examples to capture the Legionella Urinary Antigen) (*i.e., Descriptions and input screens examples are located in the EPI Roll-Up Modifications User Manual 'Use of the Software' section of this manual*):

- All *Staphylococcus aureus* (Reference #18)
- Methicillin-Resistant *Staphylococcus aureus* (MRSA) (Reference #19)
- Vancomycin-Resistant *Staphylococcus aureus* (VRSA) (Reference #20)
- Vancomycin-Resistant Coagulase Negative *Staphylococci/Staph epi* (VRSE) (Reference #21)
- All *Streptococcus pneumoniae* (Reference #22)
- All Enterococci (Reference #23)

## LIM - Step 2: Setup new EPI Parameter Descriptions

Use the Lab EPI Parameter Setup [LREPI PARAMETER SETUP] option to setup the 6 **new** emerging pathogens parameter descriptions (i.e., as specified by the VAHQ Infectious Disease Program Office). *(See the EPI Roll Up Modifications User Manual section of this manual for examples on setting up the six new EPI parameters).*

**NOTE:** Take this opportunity to perform the expected annual review of the already existing EPI parameter set-ups for the other 17 pathogens to assure that they are up-to-date and correct. Should there be corrections that need to be made, they should be made at this time with the following exception: the 4 hepatitis pathogens (Hepatitis C Antibody Positive, Hepatitis C Antibody Negative, Hepatitis A Antibody Positive and Hepatitis B Positive) are tightly integrated with the Clinical Reminder data stream that the EPI national roll-up accomplishes (see combined products VistA Laboratory EPI Hepatitis Extract Patch LR\*5.2\*260, PXR\*1.5\*1, PSJ\*5\*48 and Patch PSO\*7\*45) and changes in the EPI parameters may need to have concomitant changes in the Clinical Reminder data being passed over to the EPI national roll-up—concurrent review (and changes, if necessary), should be undertaken in conjunction with the local Clinical Applications Coordinator for the Clinical Reminder package to assure that appropriate mapping of Health factors to the national pathogens has occurred.

**NOTE:** LAG DAYS **must** be set at **15** for all EPI-defined pathogens, including the 6 **new** EPI.

## LIM - Step 3: Link the Logical Observations, Identifiers, Names, and Codes (LOINC)

For instructions on linking LOINC please refer to the following web site to obtain a copy of the VistA NLT Mapping to LOINC Technical, Installation, and User Guide.

<http://www.va.gov/vdl/Clinical.asp?appID=119>

## Office of Director (00) Designated Staff Implementation Instructions:

The following implementation instructions **must** be completed to achieve a successful performance of the EPI Roll up Modification software enhancements:

**NOTE:** It is highly recommended that the Laboratory Information Manager (LIM), a representative from the Microbiology section (director, supervisor, or technologist), and a Total Quality Improvement/Quality Improvement/Quality Assurance (TQI/QI/QA) staff (or person at the facility with similar function) be assigned the Lab EPI Primary Menu [LREPI SEARCH EXTRACT MENU]. These will be the individual(s) responsible for initially setting the national Lab EPI parameters descriptions and doing periodic reviews of the parameters descriptions to assure they are current.

### (00) Designated Staff - Step 1: Review new EPI Descriptions and Input Screens Examples

Review the following 6 **new** emerging pathogens descriptions and input screens examples **prior** to setting up the Lab EPI parameters. Also review the exiting Legionella (Reference #7) pathogen regarding descriptions and input screen examples to capture the Legionella Urinary Antigen (*i.e., Descriptions and input screens examples are located in the EPI Roll Up Modifications User Manual 'Use of the Software' section of this manual*):

- All *Staphylococcus aureus* (Reference #18)
- Methicillin-Resistant *Staphylococcus aureus* (MRSA) (Reference #19)
- Vancomycin-Resistant *Staphylococcus aureus* (VRSA) (Reference #20)
- Vancomycin-Resistant Coagulase Negative *Staphylococci/Staph epi* (VRSE) (Reference #21)
- All *Streptococcus pneumoniae* (Reference #22)
- All Enterococci (Reference #23)

## (00) Designated Staff - Step 2: Setup new EPI Parameter Descriptions

Use the Lab EPI Parameter Setup [LREPI PARAMETER SETUP] option to setup the 6 **new** emerging pathogens parameter descriptions (i.e., as specified by the VAHQ Infectious Disease Program Office). *(See the EPI Roll Up Modifications User Manual section of this manual for examples on setting up the 6 new EPI parameters).*

**NOTE:** Take this opportunity to perform the expected annual review of the already existing EPI parameter set-ups for the other 17 pathogens to assure that they are up-to-date and correct. Should there be corrections that need to be made, they should be made at this time with the following exception: the 4 hepatitis pathogens (Hepatitis C Antibody Positive, Hepatitis C Antibody Negative, Hepatitis A Antibody Positive and Hepatitis B Positive) are tightly integrated with the Clinical Reminder data stream that the EPI national roll-up accomplishes (see combined products VistA Laboratory EPI Hepatitis Extract Patch LR\*5.2\*260, PXR\*1.5\*1, PSJ\*5\*48 and Patch PSO\*7\*45) and changes in the EPI parameters may need to have concomitant changes in the Clinical Reminder data being passed over to the EPI national roll-up—concurrent review (and changes, if necessary), should be undertaken in conjunction with the local Clinical Applications Coordinator for the Clinical Reminder package to assure that appropriate mapping of Health factors to the national pathogens has occurred.

**NOTE:** LAG DAYS **must** be set at **15** for all EPI-defined pathogens, including the 6 **new** EPI.

## Instructions for Seeding EPI Historical Data:

EPI historical data **must** be gathered from October 1, 2000 through June 14, 2004. Use the Lab EPI Manual Run (Enhanced) [LREPI ENHANCE MANUAL RUN] option to extract and transmit 6 manual runs (consecutive runs) at a time.

**WARNING: SITES - DO NOT** transmit the EPI historical data reports on June 16 or July 4, 2004 to avoid Austin Automation Center (AAC) capacity limitations.

Batch #1: October 1, 2000 -March 31, 2001  
Batch #2: April 1, 2001 - September 30, 2001  
Batch #3: October 1, 2001 - March 31, 2002  
Batch #4: April 1, 2002 - September 30, 2002  
Batch #5: October 1, 2002 - March 31, 2003  
Batch #6: April 1, 2003 - September 30, 2003  
Batch #7: October 1, 2003 - March 31, 2004  
Batch #8: April 1, 2004 - June 14, 2004

Sites will run 8 batches of EPI historical data reports. Each batch should contain 6 separate monthly extracts which are tasked separately by month, (i.e., OCT 2000, NOV 2000, DEC 2000, JAN 2001, FEB 2001, MAR 2001 = 1 batch) and will generate six separate processing reports back to the station and transmit them over a five week period June 10, 2004 – July 12, 2004. You do not have to wait for one monthly extract to run before starting the next in a batch. You do not have to wait for one batch to complete running before queuing the next batch. If you receive any fatal errors and the monthly extract is rejected, you will need to fix the error and retransmit that month.

## Austin Automation Center (AAC) Schedule for Transmitting EPI Historical Data:

**WARNING: SITES - DO NOT** transmit the EPI historical data reports on June 16 or July 4, 2004 to avoid Austin Automation Center (AAC) capacity limitations.

Sites may transmit EPI historical data reports to AAC on evenings and weekends following this schedule:

1. VISNs with odd numbers are asked to transmit batches on Tuesday & Thursday during the PM hours and Saturdays.
2. VISNs with even numbers are asked to transmit on Monday & Friday during the PM hours and Sundays.



# **VistA LABORATORY EPI ROLLUP MODIFICATIONS USER MANUAL**



# Use of the Software

VistA Laboratory Emerging Pathogens Initiative (EPI) Rollup Modifications User Manual (Patch LR\*5.2\*281) section provides all the necessary information, instructions, illustrations, and examples required for the EPI coordinators, Laboratory personnel, and other users to implement and maintain the 23 emerging pathogens parameter descriptions:

**NOTE:** It is **highly recommended** that the following person(s) jointly participate in the review and parameter descriptions setup process for the 23 EPI descriptions at the time of this installation and at least once annually thereafter:

- Laboratory Information Manager (LIM)
- Total Quality Improvement/Quality Improvement/Quality Assurance (TQI/QI/QA) staff (e.g., or person at the facility with similar function)
- Representative from the Microbiology (i.e., director, supervisor, or technologist)

## EPI Review Requirements:

The 23 emerging pathogens will require an ongoing review process (i.e., as specified by the VA Central Office Infectious Disease Program Office). The expected minimum for review is once annually. The person(s) participating in the ongoing review process is(are) responsible for ensuring the following requirements are kept current.

- Periodic reviews of the ICDM-9 codes.
- Periodic reviews of the Lab EPI Parameter Setup [LREPI PARAMETER SETUP] option for the defined EPI parameter description setups.

**NOTE:** Remember that if the parameter set up needs to be changed for any of the four hepatitis entities, that a concomitant change needs to be made in the corresponding Reminder logic.

- Annual review of the national EPI pathogen descriptions (i.e., as specified by the VA Central Office Infectious Disease Program Office).

**NOTE:** To request additional LOINC, Workload, and Suffixes codes access the VistA Laboratory website, National Lab Tests (NLT) Documentation Set and LOINC Request Forms link:

<http://vista.med.va.gov/ClinicalSpecialties/lab/>

## **Six New Emerging Pathogens:**

The EPI Roll-Up Modifications software release exports the following 6 **new** Emerging Pathogens Initiative and parameter descriptions:

1. All *Staphylococcus aureus* (Reference #18)
2. Methicillin - resistant *Staphylococcus aureus* (MRSA) (Reference #19)
3. Vancomycin-Resistant *Staphylococcus aureus* (VRSA) (Reference #20)
4. Vancomycin-Resistant Coagulase Negative *Staphylococci/Staph epi* (VRSE) (Reference #21)
5. All *Streptococcus pneumoniae* (Reference #22)
6. All Enterococci (Reference #23)

## **New Legionella Urinary Antigen Test:**

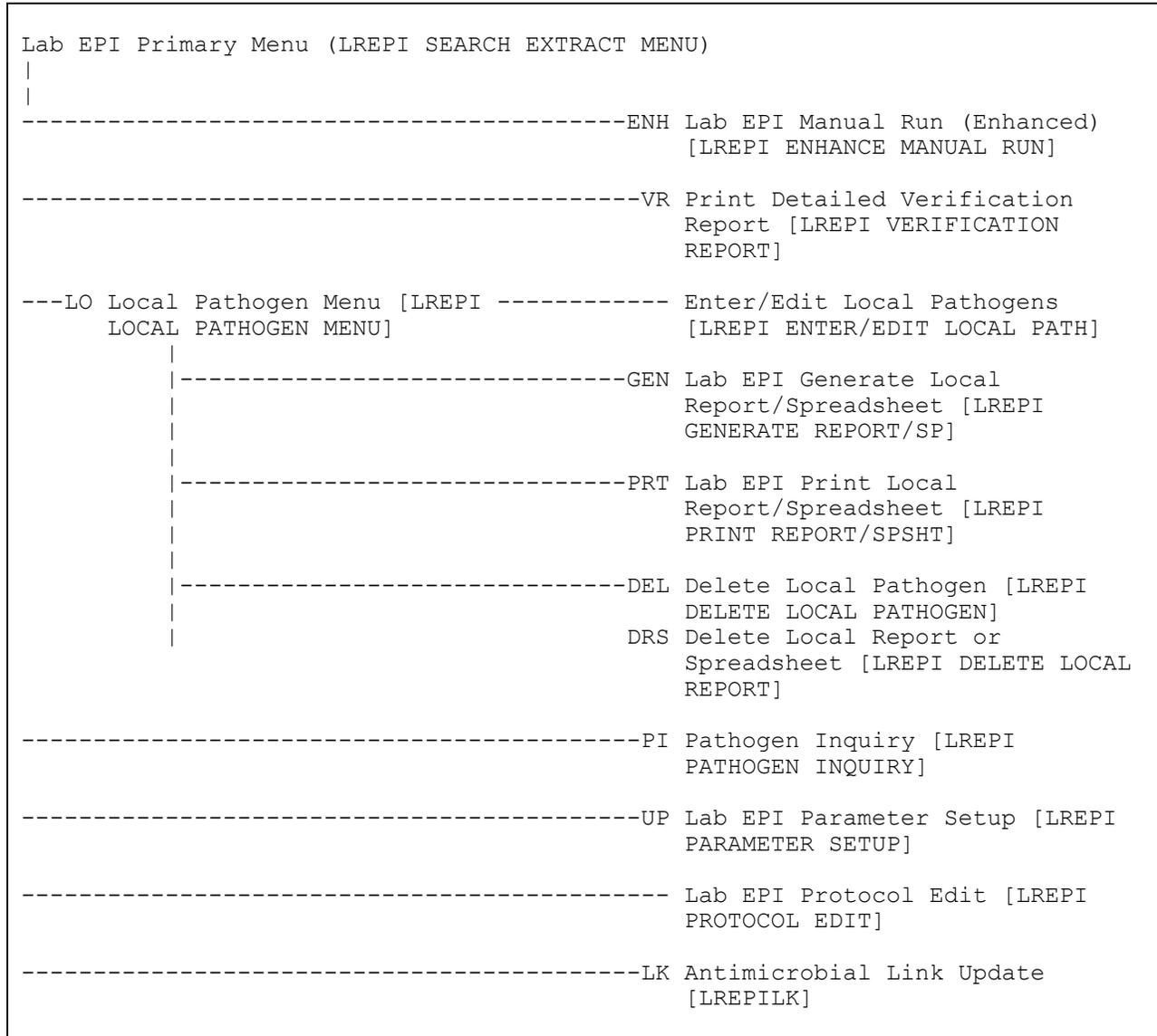
The **new** Food and Drug Administration (FDA)-approved Legionella Urinary Antigen test may be added to the existing Legionella pathogen criteria.

## **New Local Pathogen [LREPI LOCAL PATHOGEN MENU] Menu**

The **new** submenu contains four **new** options use to enter/edit local pathogens, generate and print local EPI reports and spreadsheets, and delete local pathogens

## Lab EPI Primary (LREPI SEARCH EXTRACT MENU) Menu Diagram

**Example:** Lab EPI Primary [LREPI SEARCH EXTRACT MENU] menu diagram



## Lab EPI Primary [LREPI SEARCH EXTRACT MENU] Menu

For consistency of this software release, the Lab Search Extract Primary [LREPI SEARCH EXTRACT MENU] menu is **RENAMED** Lab EPI Primary [LREPI SEARCH EXTRACT MENU] menu. This is the main EPI menu containing four existing options, two **new** options, and one **new** submenu containing four **new** options.

**Example:** Lab Search Extract Primary [LREPI SEARCH EXTRACT MENU] menu screen

```
                                Lab EPI Primary Menu

ENH  Lab EPI Manual Run (Enhanced)
VR   Print Detailed Verification Report
LO   Local Pathogen Menu ...
PI   Pathogen Inquiry
UP   Lab EPI Parameter Setup
     Lab EPI Protocol Edit
LK   Antimicrobial Link Update
```

### **Lab EPI Manual Run (Enhanced) [LREPI ENHANCE MANUAL RUN] option:**

This option is used **ONLY** to manually extract National EPI data, transmit manually extracted data to the Austin Automation Center (AAC), and to generate the **new** EPI Summary Verification Report. The **new** EPI Summary Verification Report is automatically sent to the EPI-Report mail group after being generated. This option has been **enhanced** to generate the **new** Detailed Verification Report which can be printed using the **new** Print Detailed Verification Report [LREPI VERIFICATION REPORT] option.

#### **NOTES:**

**ONLY** national emerging pathogens extract data are transmitted to the AAC, local pathogens extract data will **NOT** be transmitted.

Lab EPI Transmissions to AAC after 6:00 p.m. are processed the next day.

**DO NOT** use the Lab EPI Manual Run (Enhanced) [LREPI ENHANCED MANUAL RUN] option to transmit EPI data on Wednesdays of PAY ROLL weeks. These transmissions may cause a delay in processing PAY ROLL data.

**Example:** How to use the Lab EPI Manual Run (Enhanced) [LREPI ENHANCE MANUAL RUN] option.

**NOTES:**

In the following Laboratory Search rerun option example 'Override Any Inactive indicators: ? NO//' prompt requires a YES or NO answer. However, ALL National Emerging Pathogens are automatically set by the EPI software as ACTIVE, so either answer is correct.  
THIS PROMPT WILL BE REMOVED IN A FUTURE PATCH.

At the 'Select Search Date' prompt choose the month/date/year that you wish to manually re-submit and press ENTER. At this point you should get a message regarding queuing of the task that will run at the queued time.

Laboratory Search rerun option

```
Select Protocol: LREPI <Enter>   EMERGING PATHOGEN   Emerging Pathogens
Initiative (EPI)
Override Any Inactive indicators: ? NO//<Enter>
Include All Search Parameters? YES// <Enter>
Select Search Date: 1/15/04 <Enter>
Requested Start Time: NOW// <Enter> (JAN 27, 2004@12:08:10)
```

```
The Task has been queued
Task # 54381
```

**Print Detailed Verification Report [LREPI VERIFICATION REPORT] option:**

This **new** option is use to print the **new** Detailed Verification Report.

**Example:** How to use the Print Detailed Verification Report [LREPI VERIFICATION REPORT] option

```

                                Lab EPI Primary Menu

ENH   Lab EPI Manual Run (Enhanced)
VR    Print Detailed Verification Report
LO    Local Pathogen Menu ...
PI    Pathogen Inquiry
UP    Lab EPI Parameter Setup
      Lab EPI Protocol Edit
LK    Antimicrobial Link Update

<TEST ACCOUNT> Select Lab EPI Primary Menu Option: VR Print Detailed
Verification Report <ENTER>
      Print Detailed Verification Report Option

1 JAN 15,2004@16:07:41
2 JAN 16,2004@01:23:25
3 JAN 17,2004@17:19:28
4 JAN 18,2004@19:36:33
5 JAN 22,2004@22:42:01
6 JAN 23,2004@13:01:50
7 JAN 23,2004@16:15:31
8 JAN 23,2004@20:27:36
9 JAN 24,2004@17:56:01
10 JAN 30,2004@21:27:40
11 FEB 4,2004@01:49:41
12 FEB 4,2004@11:07:52
13 FEB 4,2004@11:59:16
14 FEB 4,2004@15:27
15 FEB 4,2004@18:16:41
16 FEB 8,2004@21:32:11
Choose the number for the report you wish to print: (1-16): 16<Enter>

This report will contain Confidential Information.
Do you wish to continue/proceed? NO// y YES<Enter>
Include All Pathogens? NO// y YES<Enter>
DEVICE: HOME// <Enter>WAN

                                PAGE 1
      DETAILED VERIFICATION REPORT OF EPI EXTRACTED DATA
      FROM STATION (your site station number and name
will be displayed)
      PROCESSING PERIOD: 01-01-2003 through 01-31-2003

NTE~1-Report of Vancomycin-resistant Enterococcus
These data note persons at your facility during the month that had a positive
result for Vancomycin-resistant Enterococcus. Identifying information, along
with specimen and culture results has been provided.
```

```

PATIENT NAME          LAST 4  DOB          SEX    PERIOD OF SERVICE
LABPATIENT~ONE        0001  02-05-1949   M      VIETNAM ERA
Outpatient Accession Date: 01-09-2003@1600
01-09-2003@1600  BACT 03 275  MICRO CULTURE  URINE
      1                               01-12-2003  ENTEROCOCCUS FAECIUM

ORG # 1 01-09-2003@1600  ANTIBIOTIC MIC  URINE
      PENICILLIN                R                R
      VANCOMYCIN                R                R
      NITROFURANTOIN           S                S
      CIPROFLOXACIN            R                R
      LEVOFLOXACIN             R                R
      GENTAMICIN HP            SYN-R           SYN-R
      STREPTOMYCIN HP         SYN-R           SYN-R

```

PAGE 2

## DETAILED VERIFICATION REPORT OF EPI EXTRACTED DATA

FROM STATION (your site station number and name

will be displayed)

PROCESSING PERIOD: 01-01-2003 through 01-31-2003

NTE~2 Report of Hepatitis C antibody positive

This represents a line listing of persons reported during the month who had a positive test for hepatitis C antibody (based on accession date and not results reported date). Definitions for data to be extracted are provided in Technical and User Manual documentation for Laboratory EPI LR\*5.2\*281.

Name	LAST 4	Accession Date	Test Name	Test Result
LABPATIENT~TWO	0002	01-16-2003@0700	HEP C ANTIBODY	STRONG POSITIVE
LABPATIENT~THREE	0003	01-14-2003@0909	HEP C ANTIBODY	STRONG POSITIVE
LABPATIENT~FOUR	0004	01-22-2003@1833	HEP C ANTIBODY	STRONG POSITIVE
LABPATIENT~FIVE	0005	01-30-2003@1137	HEP C ANTIBODY	STRONG POSITIVE
LABPATIENT~SIX	0006	01-13-2003@1653	HEP C ANTIBODY	STRONG POSITIVE
LABPATIENT~SEVEN	0007	01-17-2003@0941	HEP C ANTIBODY	STRONG POSITIVE
LABPATIENT~EIGHT	0008	01-30-2003@1246	HEP C ANTIBODY	STRONG POSITIVE
LABPATIENT~NINE	0009	01-13-2003@1516	HEP C ANTIBODY	STRONG POSITIVE
LABPATIENT~TEN	0010	01-23-2003@1153	HEP C ANTIBODY	STRONG POSITIVE
LABPATIENT1~ONE	0011	01-16-2003@1147	HEP C ANTIBODY	STRONG POSITIVE
LAPPATIENT1~TWO	0012	01-16-2003@1317	HEP C ANTIBODY	STRONG POSITIVE
LABPATIENT1~THREE	0013	01-29-2003@0700	HEP C ANTIBODY	STRONG POSITIVE
LABPATIENT1~THREE	0013	01-15-2003@0700	HEP C ANTIBODY	STRONG POSITIVE
LABPATIENT1~FOUR	0014	01-06-2003@0725	HEP C ANTIBODY	STRONG POSITIVE
LABPATIENT1~FIVE	0015	01-24-2003@1433	HEP C ANTIBODY	STRONG POSITIVE
LABPATIENT1~SIX	0016	01-01-2003@0700	HEP C ANTIBODY	STRONG POSITIVE
LABPATIENT1~SEVEN	0017	01-08-2003@1334	HEP C ANTIBODY	STRONG POSITIVE
LABPATIENT1~EIGHT	0018	01-08-2003@0901	HEP C ANTIBODY	STRONG POSITIVE
LABPATIENT1~NINE	0019	01-21-2003@1708	HEP C ANTIBODY	STRONG POSITIVE
LABPATIENT1~TEN	0110	01-28-2003@1618	HEP C ANTIBODY	STRONG POSITIVE
LABPATIENT2~ONE	0021	01-13-2003@0700	HEP C ANTIBODY	STRONG POSITIVE
LABPATIENT2~TWO	0022	01-30-2003@1108	HEP C ANTIBODY	STRONG POSITIVE
LABPATIENT2~THREE	0023	01-15-2003@1653	HEP C ANTIBODY	STRONG POSITIVE

**NOTE:** This Detailed Verification Report will include a subsequent page for each national pathogen as well as one for each National Hepatitis C Risk Assessment Clinical Reminder Data element that is integrated into the EPI data stream.

## Local Pathogen [LREPI LOCAL PATHOGEN MENU] Menu:

This new submenu contains 5 new options used to enter/edit local pathogens, generate and print local reports and spreadsheets, and delete local pathogens.

### **Example: New Local Pathogen [LREPI LOCAL PATHOGEN MENU] Menu**

Local Pathogen Menu

```
ENT    Enter/Edit Local Pathogens
GEN    Lab EPI Generate Local Report/Spreadsheet
PRT    Lab EPI Print Local Report/Spreadsheet
DEL    Delete Local Pathogen
DRS    Delete Local Report or Spreadsheet
```

### **Enter/Edit Local Pathogens [LREPI ENTER/EDIT LOCAL PATH] option:**

This **new** option is use to enter or edit local pathogens into LAB SEARCH/EXTRACT file (#69.5).

**Example:** How to use the Enter/Edit Local Pathogens [LREPI ENTER/EDIT LOCAL PATH] option to **ENTER** local pathogens.

**NOTE:** The following LABORATORY EPI PARAMETERS INPUT SCREEN under the Topography Selection screen, Include, Exclude, and Sex prompts are FOR FUTURE USE ONLY.

Select Lab EPI Primary Menu

```
ENH    Lab EPI Manual Run (Enhanced)
VR     Print Detailed Verification Report
LO     Local Pathogen Menu ...
PI     Pathogen Inquiry
UP     Lab EPI Parameter Setup
       Lab EPI Protocol Edit
LK     Antimicrobial Link Update
```

Select Lab EPI Primary Menu Option: **lo** Local Pathogen Menu<ENTER>

```
ENT    Enter/Edit Local Pathogens
GEN    Lab EPI Generate Local Report/Spreadsheet
PRT    Lab EPI Print Local Report/Spreadsheet
DEL    Delete Local Pathogen
DRS    Delete Local Report or Spreadsheet
```

Select Local Pathogen Menu Option: **Enter/Edit Local Pathogens**<

**Example:** How to use the Enter/Edit Local Pathogens [LREPI ENTER/EDIT LOCAL PATH] option to ENTER local pathogens continued.

```

                                LABORATORY EPI PARAMETERS INPUT SCREEN                                Page 1 of 5
NAME: Herpes virus539                                INACTIVE: NO
-----
Laboratory Test(s)                                Indicator                                Value
< >

  ICDM-9                                ICDM-9 Description
  < >

Exit      Save      Next Page      Refresh
Enter a command or '^' followed by a caption to jump to a specific field.

COMMAND: n                                Press <PF1>H for help      Insert

```

```

                                LABORATORY EPI PARAMETERS INPUT SCREEN                                Page 2 of 5
NAME: Herpes virus539                                INACTIVE: NO
-----
Selected Etiology                                Selected Snomed Codes
HERPES SIMPLEX VIRUS 1
HERPES SIMPLEX VIRUS 2
< >

Antimicrobial Susceptibility      NLT Code      NLT Description
< >

Exit      Save      Next Page      Refresh
Enter a command or '^' followed by a caption to jump to a specific field.

COMMAND: n                                Press <PF1>H for help      Insert

```

**Example:** How to use the Enter/Edit Local Pathogens [LREPI ENTER/EDIT LOCAL PATH] option to ENTER local pathogens continued.

**NOTE:** The following LABORATORY EPI PARAMETERS INPUT SCREEN under the Topography Selection screen, Include, Exclude, and Sex prompts are FOR FUTURE USE ONLY.

```
LABORATORY EPI PARAMETERS INPUT SCREEN                               Page 3 of 5
NAME: Herpes virus539                                               INACTIVE: NO
-----
                                Topography Selection
Include                               Exclude
< >                                  < >
-----
Exit      Save      Next Page      Refresh
Enter a command or '^' followed by a caption to jump to a specific field.
COMMAND: n                                     Press <PF1>H for help      Insert
```

```
LABORATORY EPI PARAMETERS INPUT SCREEN                               Page 4 of 5
NAME: Herpes virus539                                               INACTIVE: NO
-----
FIRST ENCOUNTER: < >                                           FOLLOW PTF: < >
BEFORE DATE OF BIRTH: < >                                       AFTER DATE OF BIRTH: < >
Select SEX: < >
-----
Exit      Save      Next Page      Refresh
Enter a command or '^' followed by a caption to jump to a specific field.
COMMAND: n                                     Press <PF1>H for help      Insert
```

**Example:** How to use the Enter/Edit Local Pathogens [LREPI ENTER/EDIT LOCAL PATH] option to **ENTER** local pathogens continued.

```
LABORATORY EPI PARAMETERS INPUT SCREEN                               Page 5 of 5
NAME: Herpes virus539                                               INACTIVE: NO
-----
Run Date: < >                                                       Protocol: LREPI < >
Run Cycle: < >                                                       Lag Days: < >
Previous Cycle: < >
General Description: < >
-----
Exit      Save      Next Page      Refresh
Enter a command or '^' followed by a caption to jump to a specific field.
COMMAND: n                                                       Press <PF1>H for help      Insert
```

How to use the Enter/Edit Local Pathogens [LREPI ENTER/EDIT LOCAL PATH] option

**Example:** How to use the Enter/Edit Local Pathogens [LREPI ENTER/EDIT LOCAL PATH] option to **EDIT LOCAL** pathogens.

**NOTE:** The following LABORATORY EPI PARAMETERS INPUT SCREEN under the Topography Selection screen, Include, Exclude, and Sex prompt will NOT be used in this release.

Select Lab EPI Primary Menu

ENH	Lab EPI Manual Run (Enhanced)
VR	Print Detailed Verification Report
LO	Local Pathogen Menu ...
PI	Pathogen Inquiry
UP	Lab EPI Parameter Setup
	Lab EPI Protocol Edit
LK	Antimicrobial Link Update

Select Lab EPI Primary Menu Option: **lo** Local Pathogen Menu<**ENTER**>

ENT	Enter/Edit Local Pathogens
GEN	Lab EPI Generate Local Report/Spreadsheet
PRT	Lab EPI Print Local Report/Spreadsheet
DEL	Delete Local Pathogen
DRS	Delete Local Report or Spreadsheet

Select Local Pathogen Menu Option: **Enter/Edit Local Pathogens**<

**Example:** How to use the Enter/Edit Local Pathogens [LREPI ENTER/EDIT LOCAL PATH] option to **EDIT** local pathogens continued.

```

LABORATORY EPI PARAMETERS INPUT SCREEN                               Page 1 of 5
NAME: Herpes virus539                                             INACTIVE: NO
-----
Laboratory Test(s)                Indicator                Value
< >
  ICDM-9                          ICDM-9 Description
< >
-----
Exit      Save      Next Page      Refresh
Enter a command or '^' followed by a caption to jump to a specific field.
COMMAND: n                                Press <PF1>H for help      Insert

```

```

LABORATORY EPI PARAMETERS INPUT SCREEN                               Page 2 of 5
NAME: Herpes virus539                                             INACTIVE: NO
-----
Selected Etiology                Selected Snomed Codes
HERPES SIMPLEX VIRUS 1
HERPES SIMPLEX VIRUS 2
< >
Antimicrobial Susceptibility    NLT Code            NLT Description
< >
-----
Exit      Save      Next Page      Refresh
Enter a command or '^' followed by a caption to jump to a specific field.
COMMAND: n                                Press <PF1>H for help      Insert

```

**Example:** How to use the Enter/Edit Local Pathogens [LREPI ENTER/EDIT LOCAL PATH] option to **EDIT** local pathogens continued.

**NOTE:** The following LABORATORY EPI PARAMETERS INPUT SCREEN under the Topography Selection screen, Include, Exclude, and Sex prompts are for FUTURE USE.

```
LABORATORY EPI PARAMETERS INPUT SCREEN                               Page 3 of 5
NAME: Herpes virus539                                               INACTIVE: NO
-----
                                Topography Selection
Include                               Exclude
SKIN < >
SKIN APPENDAGE < >
URETHRA
< >
-----
Exit      Save      Next Page      Refresh
Enter a command or '^' followed by a caption to jump to a specific field.
COMMAND: n                               Press <PF1>H for help      Insert
```

```
LABORATORY EPI PARAMETERS INPUT SCREEN                               Page 4 of 5
NAME: Herpes virus539                                               INACTIVE: NO
-----
FIRST ENCOUNTER: < >                               FOLLOW PTF: < >
BEFORE DATE OF BIRTH: < >                           AFTER DATE OF BIRTH: < >
Select SEX: < >
-----
Exit      Save      Next Page      Refresh
Enter a command or '^' followed by a caption to jump to a specific field.
COMMAND: n                               Press <PF1>H for help      Insert
```

**Example:** How to use the Enter/Edit Local Pathogens [LREPI ENTER/EDIT LOCAL PATH] option to **EDIT** local pathogens continued.

```
LABORATORY EPI PARAMETERS INPUT SCREEN                Page 5 of 5
NAME: Herpes virus539                                INACTIVE: NO
-----
Run Date: < >                                         Protocol: LREPI < >
Run Cycle: < >                                       Lag Days: < >
Previous Cycle: < >
General Description: < >
-----
Exit      Save      Next Page      Refresh
Enter a command or '^' followed by a caption to jump to a specific field.
```

**Lab EPI Generate Local Report/Spreadsheet [LREPI GENERATE REPORT/SP] option:**

This **new** option is used to generate Lab EPI reports or spreadsheets for national and local emerging pathogens extract data. After selecting national or local emerging pathogens, time period, segments and fields, report or spreadsheet, the job is automatically tasked. The tasked job will take approximately 2-3 hours to generate. An alert is automatically sent to the requester/user after the tasked job has finished generating. The Lab EPI report or spreadsheet can then be viewed on the screen or printed using the **new** Lab EPI Print Local Report/Spreadsheet [LREPI PRINT] option.

**NOTE:** NO data will be transmitted to AAC when using this option. (See the EPI Roll Up Modifications User Manual Appendix-A section of this manual for the local Report/Spreadsheet field definitions).

**Example:** How to use the **new** Lab EPI Generate Local Report/Spreadsheet [LREPI GENERATE REORT/SP] option to **GENERATE** a local **REPORT**.

**NOTE:** In the following Lab EPI Generate Local Report/Spreadsheet [LREPI GENERATE REORT/SP] option, the prompt 'Include All Pathogens?' when answered "YES" will generate ALL NATIONAL and LOCAL Pathogens.

```
Select Lab EPI Primary Menu Option: lo Local Pathogen Menu<ENTER>

ENT   Enter/Edit Local Pathogens
GEN   Lab EPI Generate Local Report/Spreadsheet
PRT   Lab EPI Print Local Report/Spreadsheet
DEL   Delete Local Pathogen
DRS   Delete Local Report or Spreadsheet

Select Local Pathogen Menu Option: gen Lab EPI Generate Local<ENTER>
Report/Spreadsheet

                Laboratory Generate Local Report/Spreadsheet option

Include All Pathogens? NO//<ENTER>
Include All Local Pathogens? NO//<ENTER>
```

```

Select Pathogens: ?
Answer with LAB SEARCH/EXTRACT NAME, or REFERENCE NUMBER
Do you want the entire LAB SEARCH/EXTRACT List? y (Yes) <ENTER>
Choose from:
ALL ENTEROCOCCI
ALL STAPH AUREUS
ALL STREP PNEUMO
CANDIDA
CLOSTRIDIUM DIFFICILE
CREUTZFELDT-JAKOB DISEASE
CRYPTOSPORIDIUM
CRYPTOSPORIDIUM
DENGUE
E. COLI 0157:H7
Gonorrhea539
HCV Genotype539
HEPATITIS A ANTIBODY POS
HEPATITIS B POS
HEPATITIS C ANTIBODY NEG
HEPATITIS C ANTIBODY POS
Hepatitis C RNA tests539
Herpes virus539
Influenza A isolates539
LEGIONELLA
LEISHMANIASIS
MALARIA
METH-RES STAPH AUREUS
MRSA Bloodstream isolates539
Mycobacterium avium
Mycobacterium fortuitum
PEN-RES PNEUMOCOCCUS
STREPTOCOCCUS GROUP A
Salmonella539
TUBERCULOSIS
VANC-RES COAG NEG STAPH
VANC-RES ENTEROCOCCUS
VANC-RES STAPH AUREUS

Select Pathogens: sal<ENTER>
Answer with LAB SEARCH/EXTRACT NAME, or REFERENCE NUMBER
Do you want the entire LAB SEARCH/EXTRACT List? n (No) <ENTER>

Select Pathogens: salm<ENTER>
Answer with LAB SEARCH/EXTRACT NAME, or REFERENCE NUMBER
Do you want the entire LAB SEARCH/EXTRACT List? n (No) <ENTER>

Select Pathogens: s
1 STREPTOCOCCUS GROUP A
2 Salmonella539
CHOOSE 1-2: 2 Salmonella539<ENTER>
Select Pathogens: <ENTER>
Select Start Date: 1/1/1995<ENTER>
Select End Date: 12/31/2003<ENTER>

```

Select one of the following:

- 1 REPORT
- 2 SPREADSHEET

Enter response: **1** REPORT<ENTER>

Choose the segments to capture for report.

- 1-PID
- 2-PV1
- 3-DG1
- 4-NTE
- 5-OBR
- 6-OBX

Enter a list or range of numbers (1-7): **1,2,6,7**<ENTER>

Choose the fields from the PID segment to capture for report.

- 1-Set Id
- 2-SSN
- 3-MPI
- 4-Patient Name
- 5-Date of Birth
- 6-Sex
- 7-Race
- 8-Homeless
- 9-State
- 10-Zip Code
- 11-County
- 12-Ethnicity
- 13-Period of Service

Enter a list or range of numbers (1-13): **1,2,4**<ENTER>

Choose the fields from the PV1 segment to capture for report.

- 1-Set Id
- 2-Patient Class
- 3-Hospital Location
- 4-Discharge Disposition
- 5-Facility
- 6-Admit Date/Time
- 7-Discharge Date/Time

```
Enter a list or range of numbers (1-7): 1,2,3,5<ENTER>
Choose the fields from the OBR segment to capture for report.
1-Set Id
2-Test Name
3-Accession Date
4-Specimen
5-Accession Number

Enter a list or range of numbers (1-5): 1,2,3,4<ENTER>
Choose the fields from the OBX segment to capture for report.
1-Set Id
2-Value Type
3-Test Name
4-LOINC Code
5-LOINC Name
6-Test Result
7-Units
8-Abnormal Flags
9-Verified Date/Time
Enter a list or range of numbers (1-9): 1,3,6,9<ENTER>
DOCUMENT TITLE: Sam+Ella 1995 thru 2003<ENTER>
Requested Start Time: NOW//<ENTER> (MAR 08, 2004@10:39:54)

The Task has been queued
Task # 75028
```

**Example:** How to use the **new** Lab EPI Generate Report/Spreadsheet [LREPI GENERATE REORT/SP] option to **GENERATE** a local **SPREADSHEET**.

**NOTE:** In the following Lab EPI Generate Local Report/Spreadsheet [LREPI GENERATE REORT/SP] option, a 'YES' response at the 'Include All Pathogens? NO//' prompt will include ALL NATIONAL and LOCAL Pathogens.

```
ENT    Enter/Edit Local Pathogens
GEN    Lab EPI Generate Local Report/Spreadsheet
PRT    Lab EPI Print Local Report/Spreadsheet
DEL    Delete Local Pathogen
DRS    Delete Local Report or Spreadsheet
```

```
Select Local Pathogen Menu Option: gen Lab EPI Generate Local
Report/Spreadsheet<ENTER>
```

```
Laboratory Generate Local Report/Spreadsheet option
Include All Pathogens? NO//<ENTER>
Include All Local Pathogens? NO//<ENTER>
```

```
Select Pathogens: S<ENTER>
  1  STREPTOCOCCUS GROUP A
  2  Salmonella539
CHOOSE 1-2: 2 Salmonella539<ENTER>
Select Pathogens: <ENTER>
Select Start Date: 1/1/1995<ENTER>
Select End Date: 12/31/2003<ENTER>
```

```
Select one of the following:<ENTER>
```

```
  1          REPORT
  2          SPREADSHEET
```

```
Enter response: 2 SPREADSHEET<ENTER>
```

```
Choose the segments to capture for spreadsheet.
```

```
1-PID
2-PV1
3-DG1
4-DSP
5-NTE
6-OBR
7-OBX
```

```
Enter a list or range of numbers (1-7): 1,2,6,7<ENTER>
```

Choose the fields from the PID segment to capture for spreadsheet.

- 1-Set Id
- 2-SSN
- 3-MPI
- 4-Patient Name
- 5-Date of Birth
- 6-Sex
- 7-Race
- 8-Homeless
- 9-State
- 10-Zip Code
- 11-County
- 12-Ethnicity
- 13-Period of Service

Enter a list or range of numbers (1-13): **1,2,4<ENTER>**

Choose the fields from the PV1 segment to capture for spreadsheet.

- 1-Set Id
- 2-Patient Class
- 3-Hospital Location
- 4-Discharge Disposition
- 5-Facility
- 6-Admit Date/Time
- 7-Discharge Date/Time

Enter a list or range of numbers (1-7): **1,2,3,5<ENTER>**

Choose the fields from the OBR segment to capture for spreadsheet.

- 1-Set Id
- 2-Test Name
- 3-Accession Date
- 4-Specimen
- 5-Accession Number

Enter a list or range of numbers (1-5): **1,2,3,4<ENTER>**

Choose the fields from the OBX segment to capture for spreadsheet.

- 1-Set Id
- 2-Value Type
- 3-Test Name
- 4-LOINC Code
- 5-LOINC Name
- 6-Test Result
- 7-Units
- 8-Abnormal Flags
- 9-Verified Date/Time

Enter a list or range of numbers (1-9): **1,3,6,9<ENTER>**

DOCUMENT TITLE: **Sam+Ella 1995 thru 2003<ENTER>**

Requested Start Time: NOW//**<ENTER>** (MAR 08, 2004@10:41:29)

The Task has been queued  
Task # 75030

**Lab EPI Print Local Report/Spreadsheet [LREPI PRINT] option:**

This **new** option is used to PRINT a report or spreadsheet which has been generated using the **new** Lab EPI Generate Local Report/Spreadsheet [LREPI GENERATE REPORT/SP] option.

**Example:** How to use the **new** Lab EPI Print Local Report/Spreadsheet [LREPI PRINT] option to **PRINT** a local **REPORT**.

```
Select Lab EPI Primary Menu Option: lo Local Pathogen Menu<ENTER>

ENT   Enter/Edit Local Pathogens
GEN   Lab EPI Generate Local Report/Spreadsheet
PRT   Lab EPI Print Local Report/Spreadsheet
DEL   Delete Local Pathogen
DRS   Delete Local Report or Spreadsheet

Select Local Pathogen Menu Option: prt Lab EPI Print Local
Report/Spreadsheet<ENTER>
Print Local Report/Spreadsheet Option

Select one of the following:

      1          REPORT
      2          SPREADSHEET

Which one do you wish to print: 1 REPORT<ENTER>
1 JAN 14,2004@14:50:29 Loc1 EPI 1-09 thru 12-02
2 JAN 14,2004@15:02:02 Cipro Res 1995 thru 2002
3 JAN 14,2004@20:38:46 Histoplasma Jan 90 - Dec 99
4 JAN 14,2004@20:40:58 CiprResPseud 1-99 - 12-02
5 JAN 14,2004@20:43:25 Mfortuitum 01-85 - 12-02
6 JAN 24,2004@15:08:06 TEST REPORT
7 FEB 4,2004@20:56:48 Gonorrhea report
8 FEB 9,2004@11:15:52 Influenza A 1995 thru 2003
9 FEB 11,2004@13:51:27 Flu A 1995 thru 2003
10 FEB 15,2004@14:33:30 HCV Genotyping
11 FEB 26,2004@23:52:09 HCV RNA Jan 96 thru Dec 02
12 MAR 8,2004@10:37:31 Sam+Ella 1995 thru 2003
Choose the number for the report you wish to print: (1-12): 12<ENTER>

This report will contain Confidential Information.
Do you wish to continue/proceed? NO// y YES<ENTER>
DEVICE: HOME//<ENTER> WAN
***THIS REPORT CONTAINS CONFIDENTIAL INFORMATION***
EMERGING PATHOGENS LOCAL REPORT MAR 8,2004 PAGE 1
FROM STATION (Your station number is displayed)
PROCESSING PERIOD FROM 01-01-1995 THROUGH 12-31-2003
Reported Local Pathogens: Salmonella539<ENTER>
```

```

Set Id SSN      Patient Name
Set Id Patient Class Hospital Location Facility
Set ID Test Name      Accession Date Specimen
Set Id Test Name      Test Result Verified Date/Time
*****
1      000000024 LABPATIENT2, FOUR
1      Outpatient
1      MICRO CULTURE      04-25-2002@0041 BLOOD
1      SALMONELLA SP 05-08-2002
2      ANTIBIOTIC MIC      04-25-2002@0041 BLOOD
1      AMPICILLIN R
2      TRIMETHOPRIM+SULFAMETHOXAZOLE S
3      CEFOTAXIME S
Enter RETURN to continue or '^' to exit:

***THIS REPORT CONTAINS CONFIDENTIAL INFORMATION***
EMERGING PATHOGENS LOCAL REPORT      MAR 8,2004 PAGE 2
FROM STATION (Your station number is displayed here)
PROCESSING PERIOD FROM 01-01-1995 THROUGH 12-31-2003
Reported Local Pathogens:Salmonella539

Set Id SSN      Patient Name
Set Id Patient Class Hospital Location Facility
Set ID Test Name      Accession Date Specimen
Set Id Test Name      Test Result Verified Date/Time
4      LEVOFLOXACIN S
2      Inpatient      6 NORTH~A612~1      539
1      MICRO CULTURE      05-01-2002@0000 FECES
1      SALMONELLA SP 05-08-2002
*****
2      000000025 LABPATIENT2, FIVE
1      Outpatient
1      MICRO CULTURE      12-30-2002@0000 BLOOD
1      SALMONELLA SP 01-13-2003

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EMERGING PATHOGENS LOCAL REPORT      MAR 8,2004 PAGE 3
FROM STATION (Your station number is displayed)
PROCESSING PERIOD FROM 01-01-1995 THROUGH 12-31-2003
Reported Local Pathogens: Salmonella539

Set Id SSN      Patient Name
Set Id Patient Class Hospital Location Facility
Set ID Test Name      Accession Date Specimen
Set Id Test Name      Test Result Verified Date/Time
2      ANTIBIOTIC MIC      12-30-2002@0000 BLOOD
1      AMPICILLIN S
2      TRIMETHOPRIM+SULFAMETHOXAZOLE S
3      CEFOTAXIME S
4      LEVOFLOXACIN S
2      Inpatient      6 SOUTH~A667~1      539
1      MICRO CULTURE      12-31-2002@0000 FECES
1      SALMONELLA SP 01-03-2003
*****

```

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 EMERGING PATHOGENS LOCAL REPORT MAR 8,2004 PAGE 4  
 FROM STATION (Your station number is displayed here)  
 PROCESSING PERIOD FROM 01-01-1995 THROUGH 12-31-2003  
 Reported Local Pathogens:Salmonella539

Set Id	SSN	Patient Name			
Set Id	Patient Class	Hospital Location	Facility		
Set ID	Test Name	Accession Date	Specimen		
Set Id	Test Name	Test Result	Verified Date/Time		
3	000000026	LABPATIENT2, SIX			
1	Inpatient	MICU/CCU~B608~8	539		
1	MICRO CULTURE	05-06-2002@0220	BLOOD		
1	SALMONELLA SP	05-24-2002			
2	ANTIBIOTIC MIC	05-06-2002@0220	BLOOD		
1	AMPICILLIN	S			
2	TRIMETHOPRIM+SULFAMETHOXAZOLE	S			
3	CEFOTAXIME	S			
4	LEVOFLOXACIN	S			

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 EMERGING PATHOGENS LOCAL REPORT MAR 8,2004 PAGE 5  
 FROM STATION (Your station number is displayed here)  
 PROCESSING PERIOD FROM 01-01-1995 THROUGH 12-31-2003  
 Reported Local Pathogens:Salmonella539

Set Id	SSN	Patient Name			
Set Id	Patient Class	Hospital Location	Facility		
Set ID	Test Name	Accession Date	Specimen		
Set Id	Test Name	Test Result	Verified Date/Time		
4	000000027	LABPATIENT2, SEVEN			
1	Outpatient				
1	MICRO CULTURE	11-03-2000@0000	FECES		
1	SALMONELLA SP	11-22-2000			
2	ANTIBIOTIC MIC	11-03-2000@0000	FECES		
1	AMPICILLIN	S			
2	TRIMETHOPRIM+SULFAMETHOXAZOLE	S			
3	LEVOFLOXACIN	S			

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 EMERGING PATHOGENS LOCAL REPORT MAR 8,2004 PAGE 6  
 FROM STATION (Your station number is displayed here)  
 PROCESSING PERIOD FROM 01-01-1995 THROUGH 12-31-2003  
 Reported Local Pathogens:Salmonella539

Set Id	SSN	Patient Name			
Set Id	Patient Class	Hospital Location	Facility		
Set ID	Test Name	Accession Date	Specimen		
Set Id	Test Name	Test Result	Verified Date/Time		
2		Outpatient			
1		MICRO CULTURE	12-29-2000@1400	FECES	
1		SALMONELLA SP	01-03-2001		
2		ANTIBIOTIC MIC	12-29-2000@1400	FECES	
1		GENTAMICIN			
2		CEFAZOLIN			
3		AMPICILLIN S			
4		POLYMXIN B			
5		TRIMETHOPRIM+SULFAMETHOXAZOLE		S	

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 EMERGING PATHOGENS LOCAL REPORT MAR 8,2004 PAGE 7  
 FROM STATION (Your station number is displayed here)  
 PROCESSING PERIOD FROM 01-01-1995 THROUGH 12-31-2003  
 Reported Local Pathogens:Salmonella539

Set Id	SSN	Patient Name			
Set Id	Patient Class	Hospital Location	Facility		
Set ID	Test Name	Accession Date	Specimen		
Set Id	Test Name	Test Result	Verified Date/Time		
6		PIPERACILLIN			
7		CEFOTAXIME			
8		CIPROFLOXACIN			
9		IMIPENUM			
10		CEFTAZIDIME			
11		TIMENTIN			
12		AMPICILLIN+SULBACTAM			
13		CEFOTETAN			
14		CEFTRIAZONE			

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 EMERGING PATHOGENS LOCAL REPORT MAR 8,2004 PAGE 8  
 FROM STATION (Your station number is displayed here)  
 PROCESSING PERIOD FROM 01-01-1995 THROUGH 12-31-2003  
 Reported Local Pathogens:Salmonella539

Set Id	SSN	Patient Name			
Set Id	Patient Class	Hospital Location	Facility		
Set ID	Test Name	Accession Date	Specimen		
Set Id	Test Name	Test Result	Verified Date/Time		
15		CEFUROXIME-SODIUM			
16		CEFUROXIME-AXETIL			
17		LEVOFLOXACIN		S	

Use of the Software

```

*****
5      000000028 LABPATIENT2, EIGHT
1      Outpatient
1      MICRO CULTURE      06-18-1997      FECES
1      SALMONELLA SP      06-23-1997
2      ANTIBIOTIC MIC      06-18-1997      FECES
***THIS REPORT CONTAINS CONFIDENTIAL INFORMATION.***
      EMERGING PATHOGENS LOCAL REPORT      MAR 8,2004      PAGE 9
      FROM STATION (Your station number is displayed here)
      PROCESSING PERIOD FROM 01-01-1995 THROUGH 12-31-2003
Reported Local Pathogens:Salmonella539

Set Id SSN      Patient Name
Set Id Patient Class Hospital Location Facility
Set ID Test Name      Accession Date Specimen
Set Id Test Name      Test Result Verified Date/Time
1      GENTAMICIN
2      CEFAZOLIN
3      AMPICILLIN S
4      POLYMXIN B
5      TRIMETHOPRIM+SULFAMETHOXAZOLE S
6      AMIKACIN
7      CEFOXITIN
8      PIPERACILLIN
9      CEFOTAXIME
***THIS REPORT CONTAINS CONFIDENTIAL INFORMATION.***
      EMERGING PATHOGENS LOCAL REPORT      MAR 8,2004      PAGE 10
      FROM STATION (Your station number is displayed here)
      PROCESSING PERIOD FROM 01-01-1995 THROUGH 12-31-2003
Reported Local Pathogens:Salmonella539

Set Id SSN      Patient Name
Set Id Patient Class Hospital Location Facility
Set ID Test Name      Accession Date Specimen
Set Id Test Name      Test Result Verified Date/Time
10     NITROFURANTOIN
11     CEFOPERAZONE
12     MEZLOCILLIN
13     CEPHALOTHIN
14     CEFUROXIME
15     TICARCILLIN
16     CIPROFLOXACIN S
17     AZTREONAM
18     IMIPENUM

```

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 EMERGING PATHOGENS LOCAL REPORT MAR 8,2004 PAGE 11  
 FROM STATION (Your station number is displayed here)  
 PROCESSING PERIOD FROM 01-01-1995 THROUGH 12-31-2003

Reported Local Pathogens:Salmonella539

Set Id	SSN	Patient Name	Set Id	Patient Class	Hospital Location	Facility	Set ID	Test Name	Accession Date	Specimen	Set Id	Test Name	Test Result	Verified Date/Time
19		CEFTAZIDIME												
20		TIMENTIN												
21		AMPICILLIN+SULBACTAM												
22		NORFLOXACIN												
*****														
6	000000029	LABPATIENT2, NINE												
1		Inpatient	6		NORTH~A624~1	539								
1		MICRO CULTURE					01-23-2003@0000			FECES				
1		SALMONELLA SP					02-07-2003							

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 EMERGING PATHOGENS LOCAL REPORT MAR 8,2004 PAGE 12  
 FROM STATION (Your station number is displayed here)  
 PROCESSING PERIOD FROM 01-01-1995 THROUGH 12-31-2003

Reported Local Pathogens:Salmonella539

Set Id	SSN	Patient Name	Set Id	Patient Class	Hospital Location	Facility	Set ID	Test Name	Accession Date	Specimen	Set Id	Test Name	Test Result	Verified Date/Time
2		ANTIBIOTIC MIC					01-23-2003@0000			FECES				
1		AMPICILLIN S												
2		TRIMETHOPRIM+SULFAMETHOXAZOLE S												
3		LEVOFLOXACIN S												
*****														
7	000000210	LABPATIENT2, TEN												
1		Outpatient												
1		MICRO CULTURE					04-03-1996@0000			FECES				
1		SALMONELLA SP					04-07-1996							

```

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      EMERGING PATHOGENS LOCAL REPORT           MAR 8, 2004   PAGE 13
      FROM STATION (Your station number is displayed here)
      PROCESSING PERIOD FROM 01-01-1995 THROUGH 12-31-2003
Reported Local Pathogens:Salmonella539

Set Id SSN      Patient Name
Set Id Patient Class Hospital Location  Facility
Set ID Test Name      Accession Date  Specimen
Set Id  Test Name      Test Result  Verified Date/Time
2      ANTIBIOTIC MIC      04-03-1996@0000  FECES
1      AMPICILLIN  S
2      TRIMETHOPRIM+SULFAMETHOXAZOLE  S
3      CIPROFLOXACIN  S
*****
8      000000031 LABPATIENT3, ONE
1      Outpatient
1      MICRO CULTURE      06-27-2002@0000  FECES
1      SALMONELLA SP  07-24-2002

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      EMERGING PATHOGENS LOCAL REPORT           MAR 8, 2004   PAGE 14
      FROM STATION (Your station number is displayed here)
      PROCESSING PERIOD FROM 01-01-1995 THROUGH 12-31-2003
Reported Local Pathogens:Salmonella539

Set Id SSN      Patient Name
Set Id Patient Class Hospital Location  Facility
Set ID Test Name      Accession Date  Specimen
Set Id  Test Name      Test Result  Verified Date/Time
2      ANTIBIOTIC MIC      06-27-2002@0000  FECES
1      AMPICILLIN  S
2      TRIMETHOPRIM+SULFAMETHOXAZOLE  S
3      LEVOFLOXACIN  S

ENT  Enter/Edit Local Pathogens
GEN  Lab EPI Generate Local Report/Spreadsheet
PRT  Lab EPI Print Local Report/Spreadsheet
DEL  Delete Local Pathogen
DRS  Delete Local Report or Spreadsheet
    
```

**Example:** How to use the **new** Lab EPI Print Local Report/Spreadsheet [LREPI PRINT] option to **PRINT** a local **SPREADSHEET**.

```

ENT    Enter/Edit Local Pathogens
GEN    Lab EPI Generate Local Report/Spreadsheet
PRT    Lab EPI Print Local Report/Spreadsheet
DEL    Delete Local Pathogen
DRS    Delete Local Report or Spreadsheet

```

Select Local Pathogen Menu Option: **prt** Lab EPI Print Local Report/Spreadsheet<Enter>

Print Local Report/Spreadsheet Option

Select one of the following:

```

1      REPORT
2      SPREADSHEET

```

Which one do you wish to print: **2** SPREADSHEET<Enter>

1 JAN 16,2004@16:31:40 Mfortuitum 1-97 thru 12-02

2 JAN 24,2004@15:09:13 TEST SPSHT

3 FEB 4,2004@20:59:04 Myfortuitum report

4 FEB 26,2004@23:49:13 MRSA BSI Jan 00 thru Dec 02

5 FEB 29,2004@14:29:54 Sam+Ella 4 subfield results

6 MAR 8,2004@10:40:05 Sam+Ella 1995 thru 2003

Choose the number for the spreadsheet you wish to print: (1-6): **6**<Enter>

This option will print the selected fields.

You will need to capture this printout in a text document.

Using a text editor, remove any extraneous lines from the beginning and the end of the file so that only the data to be imported remains.

Save the edited file. Use this file in the import function of your spreadsheet program.

This report will contain Confidential Information.

Do you wish to continue/proceed? NO// **y** YES<ENTER>

Ready to Capture? **y** YES<ENTER>

Set Id|SSN|Patient Name|

Set Id|Patient Class|Hospital Location|Facility|

Set ID|Test Name|Accession Date/Time|Specimen|

Set Id|Test Name|Test Result|Verified Date/Time|

```

*****
1|000000024|LABPATIENT2, FOUR|
1|Outpatient|||
1|MICRO CULTURE|04-25-2002@0041|BLOOD|
1||SALMONELLA SP|05-08-2002|
2|ANTIBIOTIC MIC|04-25-2002@0041|BLOOD|
1|AMPICILLIN|R||
2|TRIMETHOPRIM+SULFAMETHOXAZOLE|S||
3|CEFOTAXIME|S||
4|LEVOFLOXACIN|S||
2|Inpatient|6 NORTH~A612~1|539|
1|MICRO CULTURE|05-01-2002@0000|FECES|
1||SALMONELLA SP|05-08-2002|
*****
2|000000025|LABPATIENT2, FIVE|
1|Outpatient|||
1|MICRO CULTURE|12-30-2002@0000|BLOOD|
1||SALMONELLA SP|01-13-2003|
2|ANTIBIOTIC MIC|12-30-2002@0000|BLOOD|
1|AMPICILLIN|S||
2|TRIMETHOPRIM+SULFAMETHOXAZOLE|S||
3|CEFOTAXIME|S||
4|LEVOFLOXACIN|S||
2|Inpatient|6 SOUTH~A667~1|539|
1|MICRO CULTURE|12-31-2002@0000|FECES|
1||SALMONELLA SP|01-03-2003|
*****
3|000000026|LABPATIENT2, SIX|
1|Inpatient|MICU/CCU~B608~8|539|
1|MICRO CULTURE|05-06-2002@0220|BLOOD|
1||SALMONELLA SP|05-24-2002|
2|ANTIBIOTIC MIC|05-06-2002@0220|BLOOD|
1|AMPICILLIN|S||
2|TRIMETHOPRIM+SULFAMETHOXAZOLE|S||
3|CEFOTAXIME|S||
4|LEVOFLOXACIN|S||
*****
4|000000027|LABPATIENT2, SEVEN|
1|Outpatient|||
1|MICRO CULTURE|11-03-2000@0000|FECES|
1||SALMONELLA SP|11-22-2000|
2|ANTIBIOTIC MIC|11-03-2000@0000|FECES|
1|AMPICILLIN|S||
2|TRIMETHOPRIM+SULFAMETHOXAZOLE|S||
3|LEVOFLOXACIN|S||
2|Outpatient|||
1|MICRO CULTURE|12-29-2000@1400|FECES|
1||SALMONELLA SP|01-03-2001|
2|ANTIBIOTIC MIC|12-29-2000@1400|FECES|
1|GENTAMICIN|||
2|CEFAZOLIN|||

```

```

3|AMPICILLIN|S||
4|POLYMXIN B|||
5|TRIMETHOPRIM+SULFAMETHOXAZOLE|S||
6|PIPERACILLIN|||
7|CEFOTAXIME|||
8|CIPROFLOXACIN|||
9|IMIPENUM|||
10|CEFTAZIDIME|||
11|TIMENTIN|||
12|AMPICILLIN+SULBACTAM|||
13|CEFOTETAN|||
14|CEFTRIAZONE|||
15|CEFUROXIME-SODIUM|||
16|CEFUROXIME-AXETIL|||
17|LEVOFLOXACIN|S||
*****
5|000000028|LABPATIENT2, EIGHT|
1|Outpatient|||
1|MICRO CULTURE|06-18-1997|FECES|
1||SALMONELLA SP|06-23-1997|
2|ANTIBIOTIC MIC|06-18-1997|FECES|
1|GENTAMICIN|||
2|CEFAZOLIN|||
3|AMPICILLIN|S||
4|POLYMXIN B|||
5|TRIMETHOPRIM+SULFAMETHOXAZOLE|S||
6|AMIKACIN|||
7|CEFOXITIN|||
8|PIPERACILLIN|||
9|CEFOTAXIME|||
10|NITROFURANTOIN|||
11|CEFOPERAZONE|||
12|MEZLOCILLIN|||
13|CEPHALOTHIN|||
14|CEFUROXIME|||
15|TICARCILLIN|||
16|CIPROFLOXACIN|S||
17|AZTREONAM|||
18|IMIPENUM|||
19|CEFTAZIDIME|||
20|TIMENTIN|||
21|AMPICILLIN+SULBACTAM|||
22|NORFLOXACIN|||

```

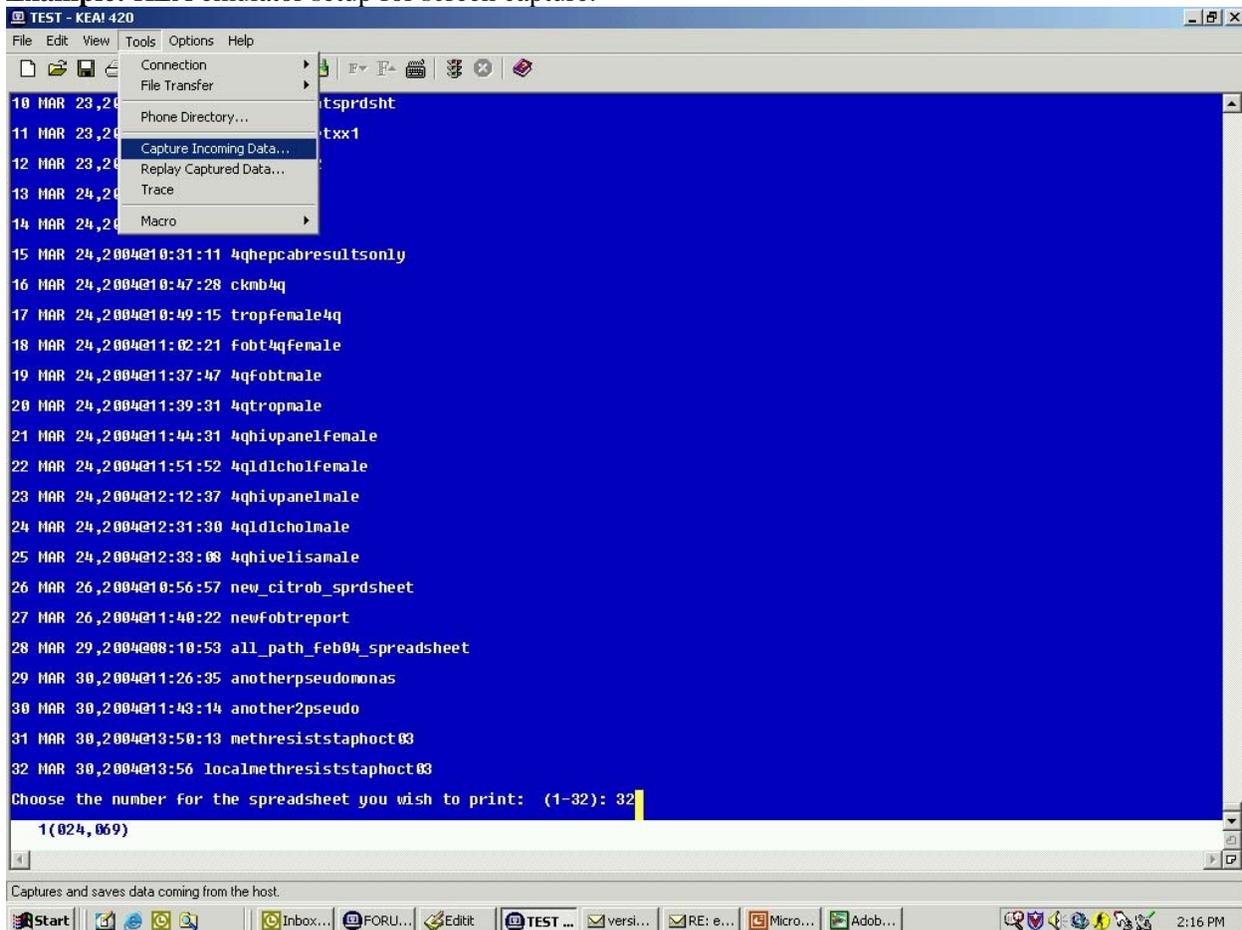
```
*****
6|000000029|LABPATIENT2, NINE|
1|Inpatient|6 NORTH~A624~1|539|
1|MICRO CULTURE|01-23-2003@0000|FECES|
1||SALMONELLA SP|02-07-2003|
2|ANTIBIOTIC MIC|01-23-2003@0000|FECES|
1|AMPICILLIN|S||
2|TRIMETHOPRIM+SULFAMETHOXAZOLE|S||
3|LEVOFLOXACIN|S||
*****
7|000000210|LABPATIENT2, TEN|
1|Outpatient|||
1|MICRO CULTURE|04-03-1996@0000|FECES|
1||SALMONELLA SP|04-07-1996|
2|ANTIBIOTIC MIC|04-03-1996@0000|FECES|
1|AMPICILLIN|S||
2|TRIMETHOPRIM+SULFAMETHOXAZOLE|S||
3|CIPROFLOXACIN|S||
*****
8|000000031|LABPATIENT3, ONE|
1|Outpatient|||
1|MICRO CULTURE|06-27-2002@0000|FECES|
1||SALMONELLA SP|07-24-2002|
2|ANTIBIOTIC MIC|06-27-2002@0000|FECES|
1|AMPICILLIN|S||
2|TRIMETHOPRIM+SULFAMETHOXAZOLE|S||
3|LEVOFLOXACIN|S||
```

## How to ENTER local SPREADSHEET captures to a TEXT FILE or EXCEL spreadsheet software:

1. Start the KEA Emulator. From the menu bar, click on the “Tools” menu, and select the “Capture Incoming Data” command.

**NOTE:** Other emulators will have similar menu options that will provide the same functionality.

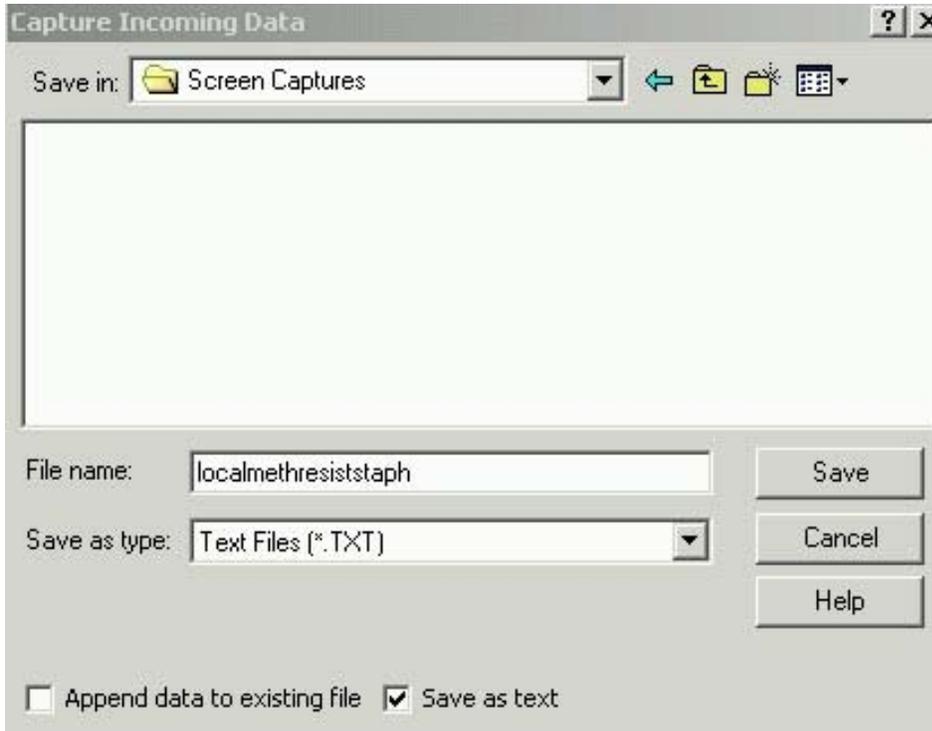
### Example: KEA emulator setup for screen capture.



How to **ENTER** local SPREADSHEET captures to a TEXT FILE or EXCEL spreadsheet software continued.

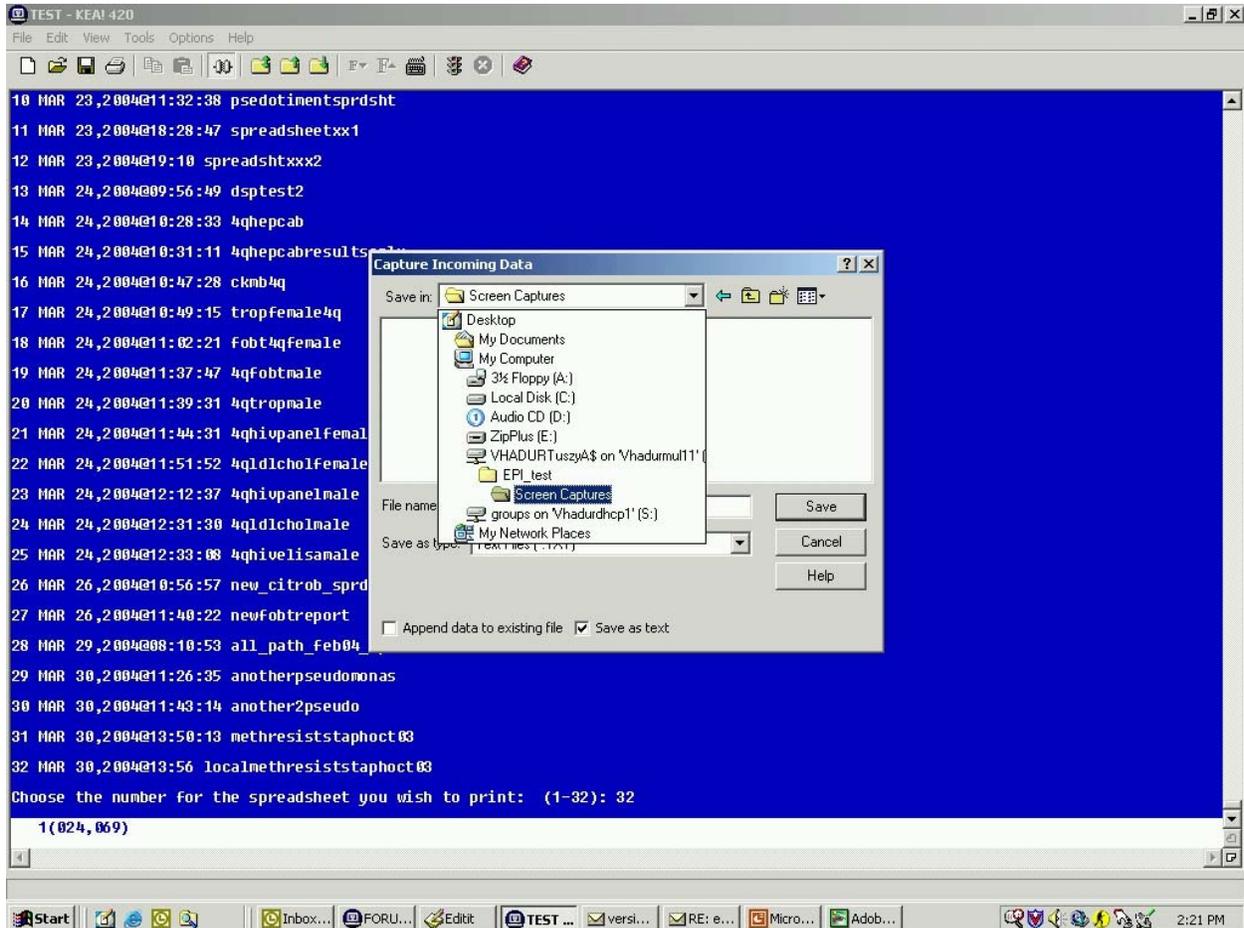
2. After indicating the preferred capture, you **must** define the location you want the capture file to be stored in (important... remember where you indicated). **Note:** It may be a good idea to create a special folder for this purpose and always route the captured data to this particular folder. Name the capture file something that will be meaningful to you later on). From the “Save as type:” command to be a Text Files (\*.TXT) AND “checkmark” the “Save as text” box at the bottom, uncheck the “Append data to existing file” if it is checked.

**Example:** Saving local SPREADSHEET captures as a Text Files (\*.TXT).



How to **ENTER** local SPREADSHEET captures to a TEXT FILE or EXCEL spreadsheet software continued:

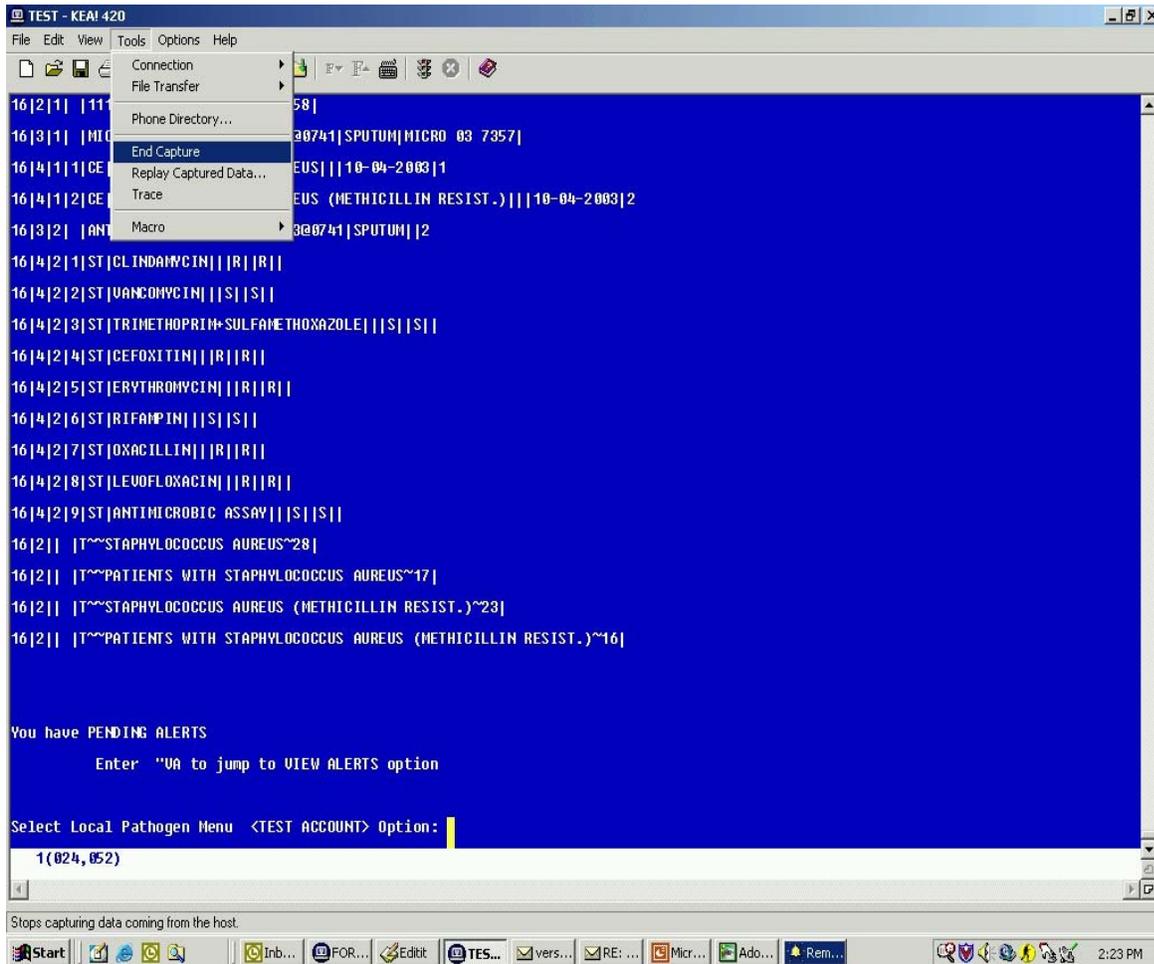
**Example:** Captured data folder location. **Note:** It may be helpful to see the full folder location path in order to find it again.



How to **ENTER** local SPREADSHEET captures to a TEXT FILE or EXCEL spreadsheet software continued:

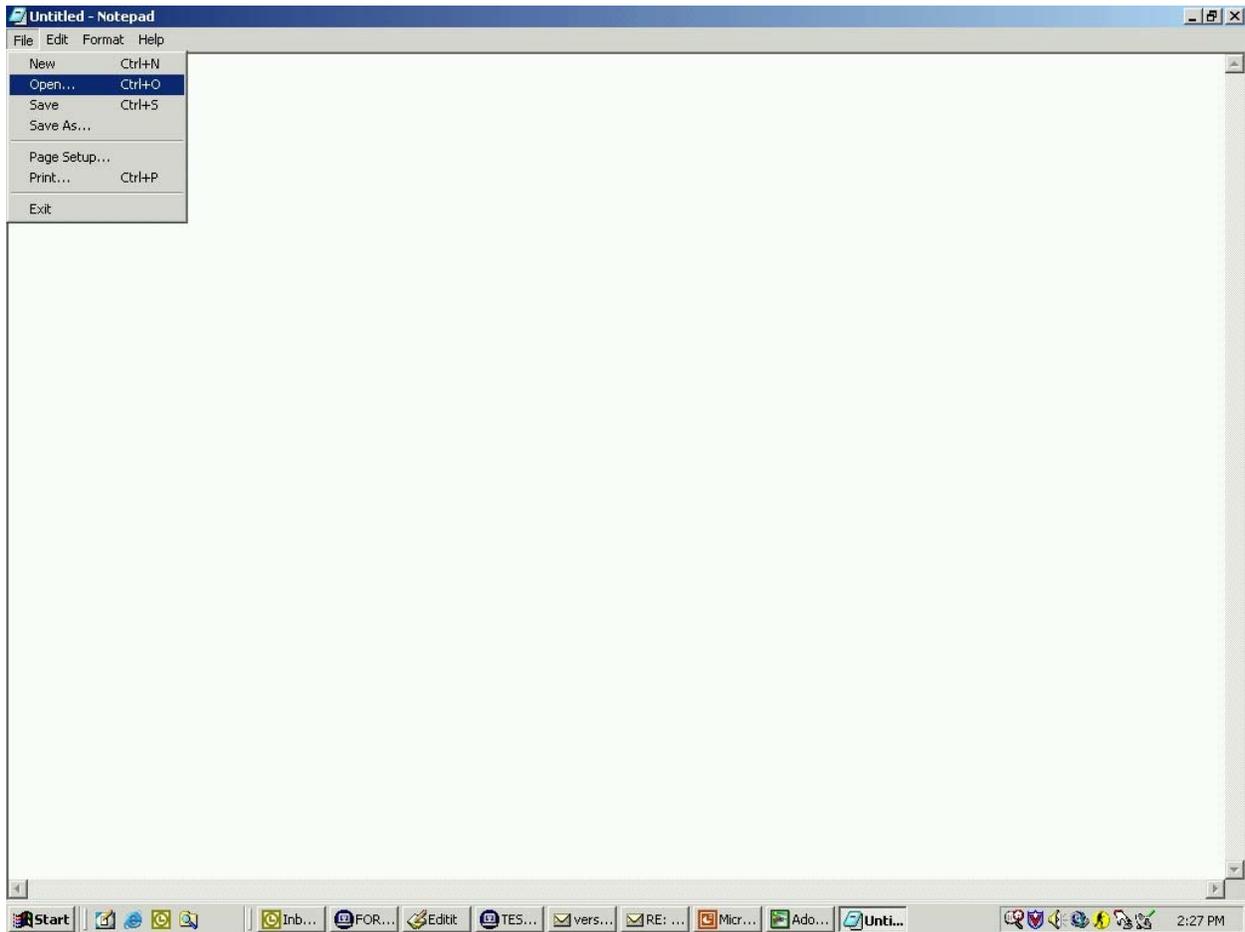
3. After the data capture has finished scrolling to the screen, from the KEA emulator menu bar, click on the “Tools” menu, and select the “End Capture” command to decrease the amount of unwanted text that will appear in the saved file.

**NOTE:** The data capture will need to be edited prior to opening the TEXT file in your spreadsheet program. Use the wizard to finish importing the data into a spreadsheet format.



How to **ENTER** local SPREADSHEET captures to a TEXT FILE or EXCEL spreadsheet software continued.

4. Select the basic Notepad program to open the saved text file folder (remember the location of the saved text file folder). Navigate to the folder via the Notepad program and then open saved text file. Do any required editing and resave the edited text file under the same file name.

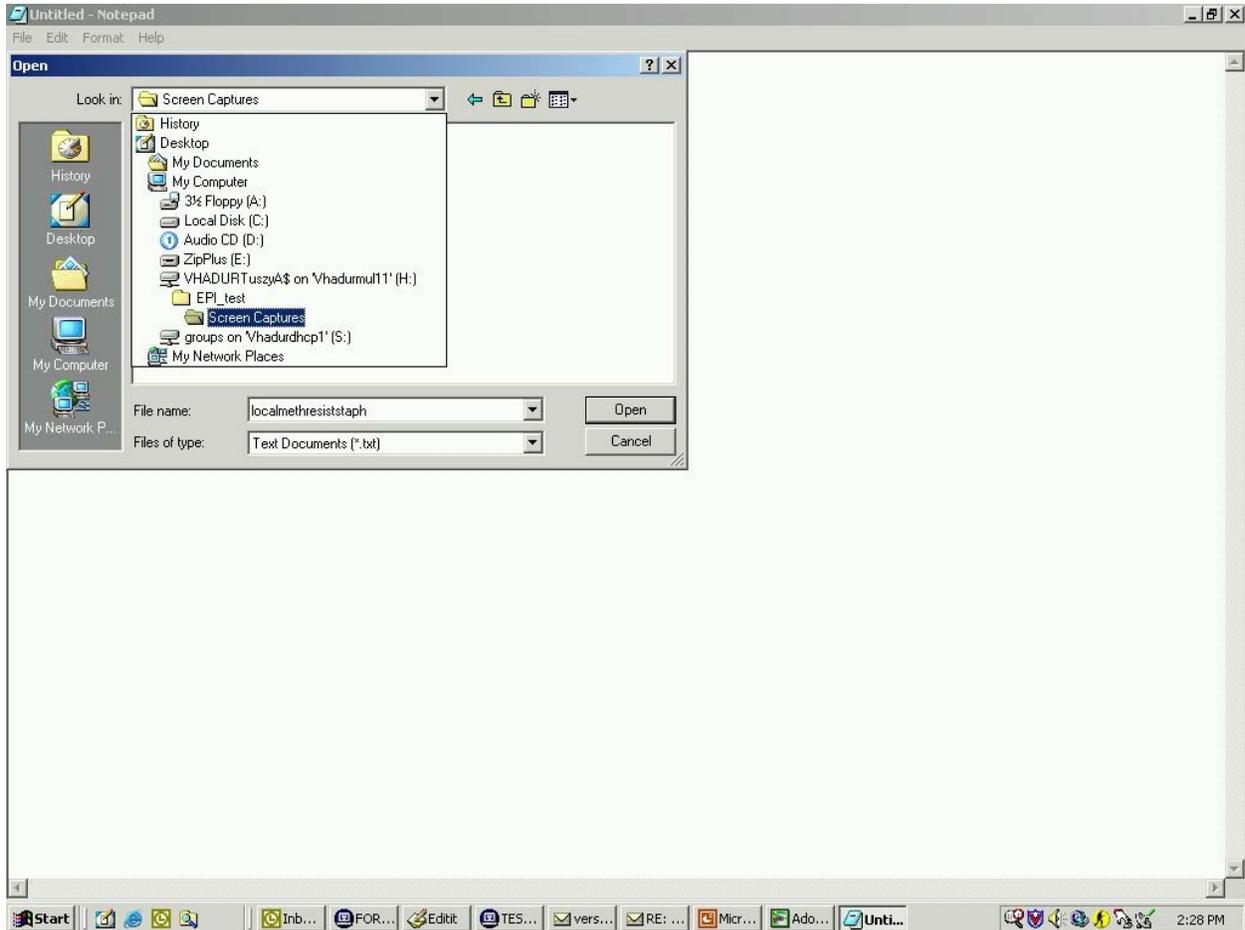


## Use of the Software

How to **ENTER** local SPREADSHEET captures to a TEXT FILE or EXCEL spreadsheet software continued.

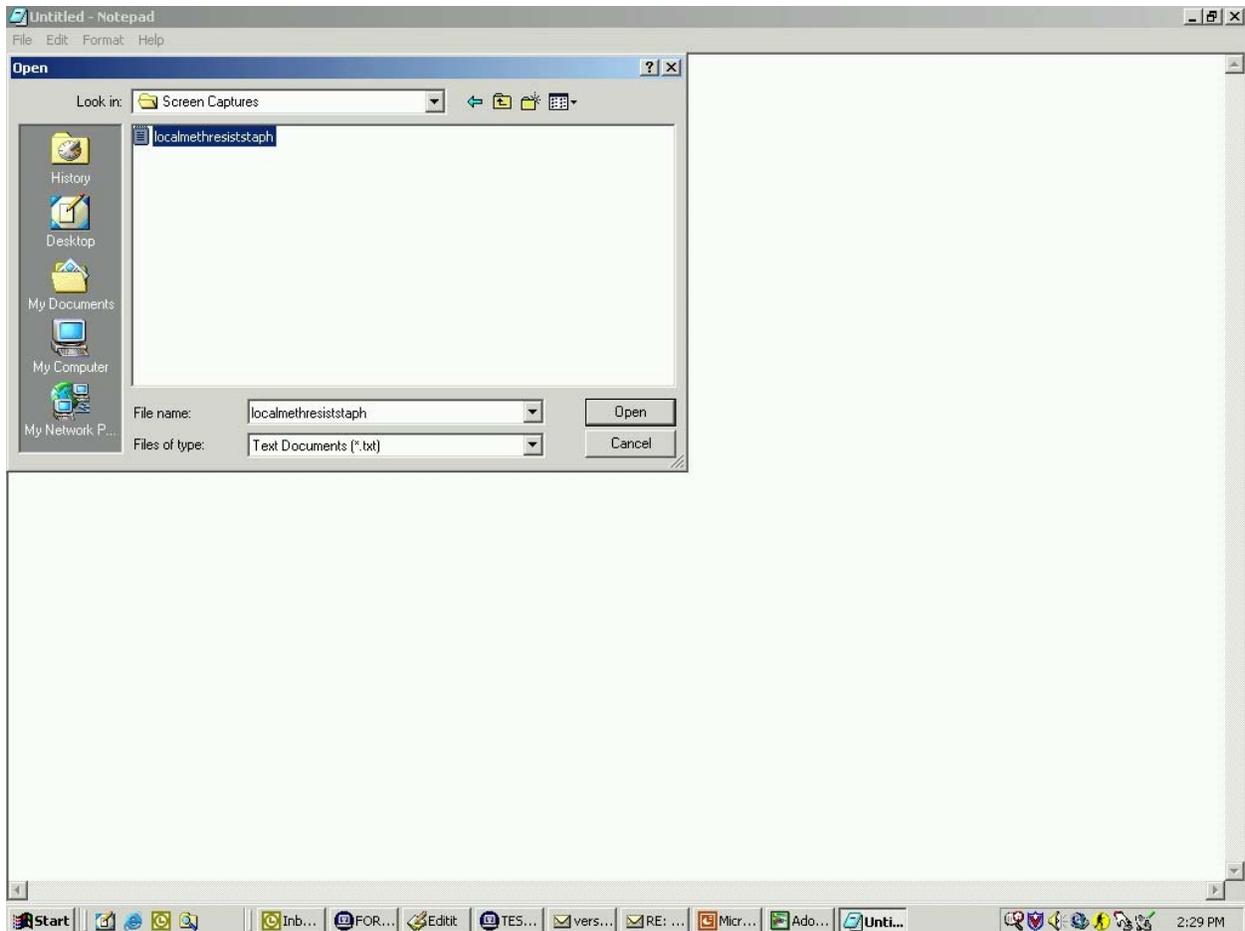
**Example:** This is an example of the saved text file folder location where the particular screen captures were stored in this example.

**NOTE:** This will be different on your system; therefore, it is a good idea to establish a known, standard downloading folder where you can easily find your downloaded text files.



How to **ENTER** local SPREADSHEET captures to a TEXT FILE or EXCEL spreadsheet software continued.

**Example:** A unique file name in a specific download folder



How to **ENTER** local SPREADSHEET captures to a TEXT FILE or EXCEL spreadsheet software continued.

5. The saved text file may look similar to the following example. Edit the beginning and end of the captured text so that only text with the “bar” delimiters are left.

**NOTE:** If the text download “wrapped” (lines at 80 columns), edit the lines to “unwrap” the text. Usually this can be done via Notepad by putting the curser at the end of the first line that is wrapped and press “delete” once or twice to get the next line down that is wrapped. The text **must** appear as one continuous line for the spreadsheet import to work correctly.

**Example:** Saved Text File Download

```

localmethresiststaph - Notepad
File Edit Format Help
Choose the number for the spreadsheet you wish to print: (1-32): 32

This option will print the selected fields.
You will need to capture this printout in a text document.
Using a text editor, remove any extraneous lines from the beginning
and the end of the file so that only the data to be imported remains.
Save the edited file. Use this file in the import function of
your spreadsheet program.

This report will contain confidential information.
Do you wish to continue/proceed? No// y YES
Ready to Capture? y YES
[0] |set Id|SSN|MPI|Patient Name|Date of Birth|Sex|
[1] |set Id|Patient Class|Hospital Location|Discharge Disposition|Facility|Admit
Date/Time|Discharge Date/Time|
[2] |set Id|Comment|
[3] |set Id|Test Name|Accession Date/Time|Specimen|Accession Number|OBR SUBID
[4] |set Id|Value Type|Test Name|LOINC Code|LOINC Name|Test Result|Units|Abnorma
l Flags|verified date/Time|OBX SUBID
[2] |R-REPORTING DATE FROM 20031001 TO 20031031~v3|

1|0| |00000032|""| LABPATIENT3.TWO |01-04-1923|M|
1|1| |Outpatient|||10-03-2003||
1|2|1|111-LOCALMETHREISTSTAPH558|
1|3|1|MICRO CULTURE|10-03-2003|URINE|MICRO 03 7431|
1|4|1|1|CE|||STAPHYLOCOCCUS AUREUS||10-05-2003|1|
1|4|1|2|CE|||STAPHYLOCOCCUS AUREUS (METHICILLIN RESIST.)||10-05-2003|2|
1|3|2|ANTIBIOTIC MIC|10-03-2003|URINE||2|
1|4|2|1|ST CLINDAMYCIN||R|R||
1|4|2|2|ST VANCOMYCIN||S|S||
1|4|2|3|ST TRIMETHOPRIM+SULFAMETHOXAZOLE||S|S||
1|4|2|4|ST CEFOXITIN||R|R||
1|4|2|5|ST ERYTHROMYCIN||R|R||
1|4|2|6|ST RIFAMPIN||S|S||
1|4|2|7|ST OXACILLIN||R|R||
1|4|2|8|ST AMPICILLIN||R|R||
1|4|2|9|ST LEVOFLOXACIN||R|R||
1|4|2|10|ST ANTIMICROBIC ASSAY||S|S||

2|0| |00000033|""| LABPATIENT3.THREE |04-29-1946|M|
2|1|1|Inpatient|MICU-A5054-1|REGULAR|558|10-06-2003#1733|10-14-2003#1957|
2|2|1|111-LOCALMETHREISTSTAPH558|
2|3|1|MICRO CULTURE|10-12-2003#0001|VEIN|MICRO 03 7686|
2|4|1|1|CE|||STAPHYLOCOCCUS AUREUS||10-15-2003|1|
2|4|1|2|CE|||STAPHYLOCOCCUS SP||10-15-2003|2|
2|4|1|3|CE|||STAPHYLOCOCCUS (COAGULASE NEGATIVE)||10-15-2003|3|
2|4|1|4|CE|||STAPHYLOCOCCUS AUREUS (METHICILLIN RESIST.)||10-15-2003|4|
2|3|2|ANTIBIOTIC MIC|10-12-2003#0001|VEIN||3|
2|4|2|1|ST CLINDAMYCIN||R|R||
2|4|2|2|ST VANCOMYCIN||S|S||
    
```

How to **ENTER** local SPREADSHEET captures to a TEXT FILE or EXCEL spreadsheet software continued.

**Example:** This is screen capture example of how the text file should appear after being edited. This will make the text file ready to import into a spreadsheet file via the import wizard.

```

localmethresiststaph2 - Notepad
File Edit Format Help
10 | Set Id|SSN|MPI|Patient Name|Date of Birth|Sex|
1 | Set Id|Patient Class|Hospital Location|Discharge disposition|Facility|Admit date/Time|Discharge date/Time|
2 | Set Id|Comment|
3 | Set Id|Test Name|Accession date/Time|Specimen|Accession Number|OBR SUBID
4 | Set Id|Value Type|Test Name|LOINC Code|LOINC Name|Test Result|units|Abnormal Flags|verified date/Time|OBR SUBID
10 | 000000032|""|LABPATIENT3, TWO|01-04-1923|M|
11 | 1 | Outpatient|||10-03-2003||
12 | 1 | 111-LOCALMETHREISTSTAPH558|
13 | 1 | MICRO CULTURE|10-03-2003|URINE|MICRO 03 7431|
14 | 1 | 1 | CE|||STAPHYLOCOCCUS AUREUS|||10-05-2003|1|
14 | 1 | 2 | CE|||STAPHYLOCOCCUS AUREUS (METHICILLIN RESIST.)|||10-05-2003|2|
13 | 2 | ANTIBIOTIC MIC|10-03-2003|URINE||2|
14 | 2 | 1 | ST|CLINDAMYCIN|||R||R||
14 | 2 | 2 | ST|VANCOMYCIN|||S||S||
14 | 2 | 3 | ST|TRIMETHOPRIM+SULFAMETHOXAZOLE|||S||S||
14 | 2 | 4 | ST|CEFOXITIN|||R||R||
14 | 2 | 5 | ST|ERYTHROMYCIN|||R||R||
14 | 2 | 6 | ST|RIFAMPIN|||S||S||
14 | 2 | 7 | ST|OXACILLIN|||R||R||
14 | 2 | 8 | ST|AMPICILLIN|||R||R||
14 | 2 | 9 | ST|LEVOFLOXACIN|||R||R||
14 | 2 | 10|ST|ANTIMICROBIC ASSAY|||S||S||
20 | 000000033|""|LABPATIENT3, THREE|04-29-1946|M|
21 | 1 | Inpatient|MICU-A5054-1|REGULAR|558|10-06-2003@1733|10-14-2003@1957|
22 | 1 | 111-LOCALMETHREISTSTAPH558|
23 | 1 | MICRO CULTURE|10-12-2003@001|VEIN|MICRO 03 7686|
24 | 1 | 1 | CE|||STAPHYLOCOCCUS AUREUS|||10-15-2003|1|
24 | 1 | 2 | CE|||STAPHYLOCOCCUS SP|||10-15-2003|2|
24 | 1 | 3 | CE|||STAPHYLOCOCCUS (COAGULASE NEGATIVE)|||10-15-2003|3|
24 | 1 | 4 | CE|||STAPHYLOCOCCUS AUREUS (METHICILLIN RESIST.)|||10-15-2003|4|
23 | 2 | ANTIBIOTIC MIC|10-12-2003@001|VEIN||3|
24 | 2 | 1 | ST|CLINDAMYCIN|||R||R||
24 | 2 | 2 | ST|VANCOMYCIN|||S||S||
24 | 2 | 3 | ST|TRIMETHOPRIM+SULFAMETHOXAZOLE|||R||R||
24 | 2 | 4 | ST|CEFOXITIN|||R||R||
24 | 2 | 5 | ST|ERYTHROMYCIN|||R||R||
24 | 2 | 6 | ST|RIFAMPIN|||R||R||
24 | 2 | 7 | ST|OXACILLIN|||R||R||
24 | 2 | 8 | ST|LEVOFLOXACIN|||R||R||
24 | 2 | 9 | ST|ANTIMICROBIC ASSAY|||S||S||
23 | 3 | ANTIBIOTIC MIC|10-12-2003@001|VEIN||4|
24 | 3 | 1 | ST|CLINDAMYCIN|||R||R||
24 | 3 | 2 | ST|VANCOMYCIN|||S||S||
24 | 3 | 3 | ST|TRIMETHOPRIM+SULFAMETHOXAZOLE|||R||R||
24 | 3 | 4 | ST|CEFOXITIN|||R||R||
24 | 3 | 5 | ST|ERYTHROMYCIN|||R||R||
24 | 3 | 6 | ST|RIFAMPIN|||S||S||
24 | 3 | 7 | ST|OXACILLIN|||R||R||
24 | 3 | 8 | ST|LEVOFLOXACIN|||R||R||
24 | 3 | 9 | ST|ANTIMICROBIC ASSAY|||S||S||
30 | 000-00-0034|""|LABPATIENT3, FOUR|02-18-1943|M|
31 | 1 | Inpatient|7A -A7004-3|REGULAR|558|10-06-2003@2120|10-23-2003@1111|

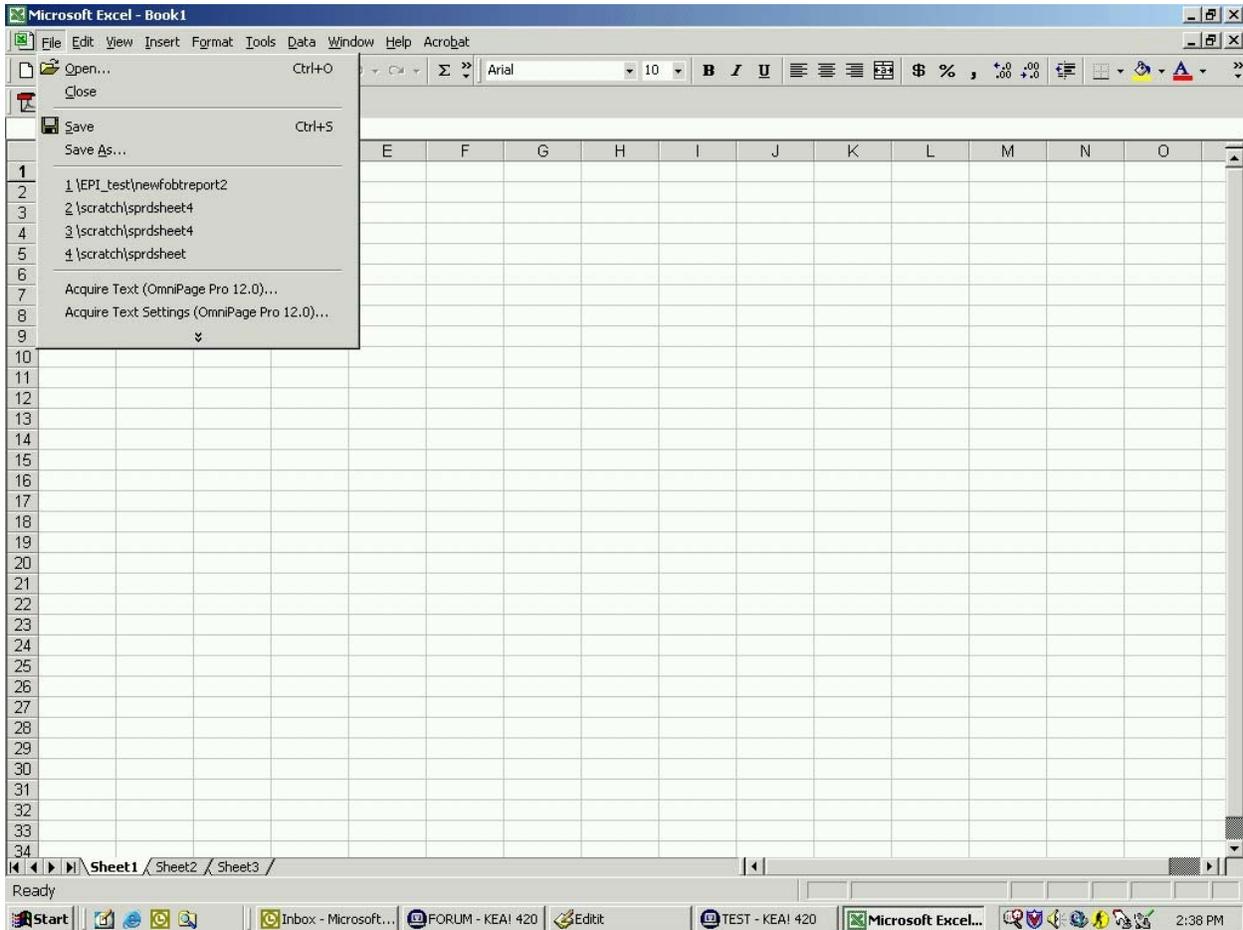
```

## Use of the Software

How to **ENTER** local SPREADSHEET captures to a TEXT FILE or EXCEL spreadsheet software continued.

6. After editing the ASCII text, click on “File”, then select the “Save” command and close the text file. Then start up the spreadsheet program.

**Example:** Saving the ASCII text file data.



## Delete Local Pathogen [LREPI DELETE LOCAL PATHOGEN] option

This **new** option allows deletion of local pathogens entries **ONLY**.

**NOTE:** National emerging pathogens entries **CANNOT** be deleted using the **new** Delete Local Pathogen [LREPI DELETE LOCAL PATHOGEN] option.

**Example:** How to use the **new** Delete Local Pathogen [LREPI DELETE LOCAL PATHOGEN] option to **DELETE** a local pathogen.

```

ENT   Enter/Edit Local Pathogens
GEN   Lab EPI Generate Local Report/Spreadsheet
PRT   Lab EPI Print Local Report/Spreadsheet
DEL   Delete Local Pathogen
DRS   Delete Local Report or Spreadsheet

```

Select Local Pathogen Menu Option: **DELETE Local Pathogen <ENTER>**

LOCAL PATHOGEN NAME: **HISTOPLASMA428<ENTER>**

Do you really want to delete this pathogen? **YES<ENTER>**

Entry HISTOPLASMA428 deleted.

## Delete Local Report or Spreadsheet [LREPI DELETE LOCAL REPORT] option

This option is used to delete local reports or local spreadsheets.

**Example:** How to use the **new** Delete Local Report or Spreadsheet [LREPI DELETE LOCAL REPORT] option to **DELETE** a local report.

```
Select Lab EPI Primary Menu Option: LO Local Pathogen Menu<ENTER>
```

```
ENT   Enter/Edit Local Pathogens
GEN   Lab EPI Generate Local Report/Spreadsheet
PRT   Lab EPI Print Local Report/Spreadsheet
DEL   Delete Local Pathogen
DRS   Delete Local Report or Spredsheets
```

```
Select Local Pathogen Menu Option: DRS Delete Local Report or
Spreadsheet<Enter>
```

```
Delete a Local Report/Spreadsheet Option
```

```
Select one of the following: <Enter>
```

```
1      REPORT
2      SPREADSHEET
```

```
Which one do you wish to delete: 1 REPORT<Enter>
```

```
1 APR 14,2004@11:02:11 REPORT 1
```

```
Choose the number for the report you wish to delete: (1-1): 1<Enter>
Report deleted.
```

```
Select one of the following:
```

```
1      REPORT
2      SPREADSHEET
```

```
Which one do you wish to delete: 2 SPREADSHEET<Enter>
```

```
1 APR 14,2004@11:02:11 SPSHT 1
```

```
Choose the number for the spreadsheet you wish to delete: (1-1): 1<Enter>
Spreadsheet deleted.
```

**Pathogen Inquiry [LREPI PATHOGEN INQUIRY] option:**

This **new** option is used to inquire into the LAB SEARCH/EXTRACT file (#69.5) parameter description fields (i.e., INACTIVE: NO, LAG DAYS: 15, RUN DATE: OCT 07, 2003, CYCLE: MONTHLY, PROTOCOL: LREPI, FOLLOW PTF: YES, REFERENCE NUMBER: 23, and ETIOLOGIES) for defined emerging pathogen.

**Example:** How to use the **new** Pathogen Inquiry [LREPI PATHOGEN INQUIRY] option

```
Select Lab EPI Primary Menu Option: PI <Enter> Pathogen Inquiry
Select Pathogen: ALL ENTEROCOCCI <Enter>
NAME: ALL ENTEROCOCCI                INACTIVE: NO
LAG DAYS: 15                          RUN DATE: OCT 07, 2003
CYCLE: MONTHLY                       PROTOCOL: LREPI
FOLLOW PTF: YES                      REFERENCE NUMBER: 23
ETIOLOGY: ENTEROCOCCUS
ETIOLOGY: STREP D ENTEROCOCCUS
ETIOLOGY: ENTEROCOCCUS (STREPT. FAECALIS-GROUP D)
ETIOLOGY: STREPTOCOCCUS FAECALIS
ETIOLOGY: STREPTOCOCCUS FAECIUM
```

Description: The enterococci are a group of bacteria that can cause serious disease in humans, including blood stream infections, urinary tract infections, wound infections, endocarditis and even death. As with many other organisms that cause disease in humans, resistance to antibiotics is emerging in the enterococci. The presence of antibiotic resistance creates a challenge in treatment of infections with this organism. In order to determine the prevalence of antibiotic resistance, a baseline of occurrence of ALL enterococci needs to be obtained. This particular EPI pathogen setting has been created to identify ALL culture positive isolates of enterococci from any specimen site in any patient/client receiving care within the VHA. **Note:** Even specimens that have been obtained from patients (not the environment) as part of an epidemiologic prevalence study or survey should be included if they are present in the VistA laboratory package results from your site. The results from this EPI pathogen setting will be coupled with the results from Reference #1 (Vancomycin-Resistant Enterococci [VRE]) to help determine the percentage of all isolates of enterococci that have vancomycin.

**Lab EPI Parameter Setup [LREPI (EPI) PARAMETER SETUP] option:**

The Lab EPI Parameter Setup [LREPI PARAMETER SETUP] option is used to define the search criteria associated with the National Emerging Pathogens Initiative (EPI) extract data. This option allows editing of the National EPI ONLY. **Note:** Local pathogens CANNOT be added using this option. This option has been **enhanced** by adding the **new** PREVIOUS CYCLE field. This **new** field is automatically defined as '1' for TB ONLY and CANNOT be edited (as highlighted in the example below). For all other emerging pathogens the **new** PREVIOUS CYCLE field is blank and CANNOT be EDITED. The existing PROTOCOL field has been modified and can NO longer be EDITED. The field displaying ACTIVE "YES" has been modified to display INACTIVE "NO". The following input screen example new functionality changes are highlighted.

**Example:** Laboratory EPI Parameters Input Screen Page 5 of 5 field changes

```

LABORATORY EPI PARAMETERS INPUT SCREEN          Page 5 of 5
NAME: TUBERCULOSIS                               INACTIVE: NO
-----
Run Date: <Enter>                                Protocol: LREPI<Enter>
Run Cycle: MONTHLY<Enter>                        Lag Days: 15 <Enter>
Previous Cycle: 1<TAB>
General Description: <TAB>
-----
Exit      Save      Refresh
COMMAND: E<Enter>                                Press <PF1>H for help   Insert
Save changes before leaving form (Y/N)? Y <Enter>
    
```

### Lab EPI Protocol Edit [LREPI PROTOCOL EDIT] option

This option is use to edit the LAB SEARCH/EXTRACT PROTOCOL file. The option is located on the Lab EPI Primary Menu [LREPI SEARCH EXTRACT MENU].

**Example:** How to use the Lab EPI Protocol Edit [LREPI PROTOCOL EDIT] option

```

Protocol Parameters Setup Definition

PROTOCOL: LREPI<Enter>

Title: Emerging Pathogens Initiative (EPI)           Message Size: 32000

Report Mail Group: EPI-REPORT

Send Alert: YES

Send Alert To

DOE, Jane

```

### Antimicrobial Link Update [LREPILK] option:

This option is use to link the ANTIMICROBIAL SUSCEPIBILTY file (#62.06) with the WKLD CODE file (#64). (*See the EPI Roll Up Modifications User Manual, Appendix-A section of this manual for an example on how to use this option*).

## Emerging Pathogens Names and Reference Numbers

This chart lists the 23 emerging pathogens names and reference numbers:

EMERGING PATHOGENS	EMERGING PATHOGENS
All Enterococci (Reference #23) ( <b>NEW</b> )	Hepatitis C Antibody Positive (Reference #2)
All <i>Staphylococcus aureus</i> (Reference #18) ( <b>NEW</b> )	Legionella (Reference #7) <b>Note:</b> The <b>new</b> Legionella Urinary Antigen test has been added to the existing Legionella test criteria.
All <i>Streptococcus pneumoniae</i> (Reference #22) ( <b>NEW</b> )	Leishmaniasis (Reference #14)
Candida (Reference #8)	Malaria (Reference #11)
Clostridium difficile (Reference #4)	Methicillin - resistant <i>Staphylococcus aureus</i> (MRSA) (Reference #19) ( <b>NEW</b> )
Creutzfeldt-Jakob Disease (CJD) (Reference #13)	Penicillin - Resistant Pneumococcus (Reference #3)
Cryptosporidium (Reference #9)	Streptococcus-Group A (Reference #6)
Dengue (Reference #12)	Tuberculosis (Reference #5)
E. coli O157:H7 (Reference #10)	Vancomycin-Resistant Coagulase Negative <i>Staphylococci/Staph epi</i> (VRSE) (Reference #21) ( <b>NEW</b> )
Hepatitis A Antibody Positive (Reference #16)	Vancomycin-Resistant Enterococcus (VRE) (Reference #1)
Hepatitis B Positive (Reference #17)	Vancomycin-Resistant <i>Staphylococcus aureus</i> (VRSA) (Reference #20) ( <b>NEW</b> )
Not Positive for Hepatitis C Antibody OR Hepatitis C Antibody NEG (Reference #15)	

## Lab EPI Parameter Setup [LREPI PARAMETER SETUP] option Input Screen Definitions

LABORATORY EPI PARAMETERS INPUT SCREEN PROMPTS:	LABORATORY EPI PARAMETERS INPUT SCREEN PROMPTS DEFINITIONS:
Name:	<p>The LAB SEARCH/EXTRACT file (#69.5), Name field (#69.5.01) is <b>modified</b> to include the following 6 <b>new</b> emerging pathogens entries.</p> <ul style="list-style-type: none"> <li>• All <i>Staphylococcus aureus</i> (Reference #18)</li> <li>• Methicillin-Resistant <i>Staphylococcus aureus</i> (MRSA) (Reference #19)</li> <li>• Vancomycin-Resistant <i>Staphylococcus aureus</i> (VRSA) (Reference #20)</li> <li>• Vancomycin-Resistant Coagulase Negative <i>Staphylococci/Staph</i> EPI (VRSE) (Reference #21)</li> <li>• All <i>Streptococcus pneumoniae</i> (Reference #22)</li> <li>• All Enterococci (Reference #23)</li> </ul> <p>Answer with the EPI name or reference number</p>
Inactive:	<p>This prompt is <b>renamed</b> from ACTIVE to INACTIVE. This prompt is used to define if this entry is active or not. '1' or 'YES' indicates that this is an inactive entry. '0' or 'NO' indicates that this is an active entry.</p>
Laboratory Test (s):	<p>Consider these synonymous with, chemistry, serology, hematology, and “blood/serum” tests. Results anticipated to be found here would have had a test done under the chemistry/hematology accession areas, even if physically performed in microbiology and other areas. Select tests from the LABORATORY TEST file (#60).</p>
Indicator:	<p>Select the code that will determine how to match lab results.</p> <p>‘1’ FOR Use Reference Ranges  ‘2’ FOR Contains  ‘3’ FOR Greater Than  ‘4’ FOR Less Than  ‘5’ FOR Equal To</p> <p><b>Note:</b> This <b>new</b> INDICATOR field (#69.55,1), located under ANTIMICROBIL SUSCEPTIBILITY sub-field (#69.55) is FOR FUTURE USE ONLY.</p>
Value:	<p>Positive, etc. Answer must be 1-15 characters in length. This is a Free Text field.</p>
ICDM-9:	<p>ICDM-9 standardized code used nationwide in federal and non-federal/private health care facilities. Select from the ICDM-9 DIAGNOSIS file (#80).</p>
ICDM-9 Description:	<p>Title of ICDM-9 diagnosis</p>

## Lab EPI Parameter Setup [LREPI PARAMETER SETUP] option Input Screen Definitions (continued)

LABORATORY EPI PARAMETERS INPUT SCREEN PROMPTS:	LABORATORY EPI PARAMETERS INPUT SCREEN PROMPTS DEFINITIONS:
Selected Etiology:	Consider synonymous with organism, final microbial diagnosis/isolate. Select from the ETIOLOGY FIELD file (#61.2).
Selected SNOMED codes:	Answer with SNOMED CODES You may enter a new SNOMED CODE, if you wish. Answer must be 1-15 characters in length.
Antimicrobial Susceptibility:	Enter the Antimicrobial that will be used in screening out sensitive Etiologies (e.g., "Vancomycin" for Vancomycin Resistant Enterococcus). Select from the ANTIMICROBIAL SUSCEPTIBILITY file (#62.6).
NLT Code:	Displays the associated NLT code if linked. If no NLT Code is displayed use the Antimicrobial Link Update option.
NLT Description:	Displays the Description of the linked NLT code.
Topography Selection:	Enter a date to screen out patients born before the date entered. Examples of Valid Dates: JAN 20 1957 or 20 JAN 57 or 1/20/57 or 012057 T (for TODAY), T+1 (for TOMORROW), T+2, T+7, etc. T-1 (for YESTERDAY), T-3W (for 3 WEEKS AGO), etc.
Include:	Selection of Topography screens all others out except the ones selected. For "ALL" leave blank. Not to be used in conjunction with the exclude Topography selection. Select from the TOPOGRAPHY file (#61).
Exclude:	Select the Topography to screen out. Not to be used in conjunction with the Include Topography selection. Select from the TOPOGRAPHY file (#61).
First Encounter:	Limits the output to the first encounter for the patient. Otherwise list all encounters. Choose: '1' FOR YES '0' FOR NO
Follow PTF:	Indicates if the PTF record will be followed until a discharge has been entered. Choose: '1' FOR YES '0' FOR NO
Before Date Of Birth:	Enter a date to screen out patients born before the date entered. Examples of Valid Dates: JAN 20 1957 or 20 JAN 57 or 1/20/57 or 012057 T (for TODAY), T+1 (for TOMORROW), T+2, T+7, etc. T-1 (for YESTERDAY), T-3W (for 3 WEEKS AGO), etc.

## Lab EPI Parameter Setup [LREPI PARAMETER SETUP] option Input Screen Definitions (continued)

LABORATORY EPI PARAMETERS INPUT SCREEN PROMPTS:	LABORATORY EPI PARAMETERS INPUT SCREEN PROMPTS DEFINITIONS:
After Date Of Birth:	A birthrate to screen patients (i.e., patients DOB after 1/1/1950).
Select SEX:	FOR FUTURE USE ONLY.
Run Date:	Date that the last Auto EPI processed.
Protocol:	This defines the protocol associated with the parameters. This prompt has been <b>modified</b> to be UNEDITABLE.
Run Cycle:	Enter the date that the last Auto EPI processed.
Previous Cycle:	This <b>new</b> field is displayed on input screen page 5 of 5. By entering a number here the Lab search engine knows to look at a previous cycle for updates to data. How far back it looks is based on the cycle and number entered. For example if the cycle is monthly and the previous cycle is 1, then the search engine will also search 1 month back for data. This <b>new</b> field is UNEDITABLE.
Lag Days:	Defines the Lag Days parameter as 15 for all 23 emerging pathogens. Lag Days for the six <b>new</b> EPIs has been defined as 15 with the release of the new EPI software.
General Description:	To review or edit the General Description prompt use the <Tab> key.

## Lab EPI Parameter Setup [LREPI PARAMETER SETUP] option

The following information **must** be adhered to as recommended to ensure a successful implementation and utilization of the software:

**NOTE:** There may be more etiologies that fit the description/definition than just the ones that load automatically as part of the EPI Roll Up Modification software.

**NOTE:** It is highly recommended that the Laboratory Information Manager (LIM), a representative from the Microbiology section (director, supervisor, or technologist) and a Total Quality Improvement/Quality Improvement/Quality Assurance (TQI/QI/QA) staff (or person at the facility with similar function) be assigned the Lab EPI Primary Menu [LREPI SEARCH EXTRACT MENU]. These will be the individual(s) responsible for initially setting the Lab EPI parameters descriptions and doing periodic reviews of the parameters descriptions to assure they are current.

The Lab EPI Parameter Setup [LREPI PARAMETER SETUP] option is used to setup local parameters for the national emerging pathogens. Each emerging pathogen descriptions **must** be reviewed **prior** to setting up the Lab EPI parameters.

### NOTES:

There are a number of different ways that sites have chosen to enter results into the VistA database. As long as the results are in a retrievable format (straight from the VistA database without additional manual input needed), how it is entered is **not** of significance to the Emerging Pathogen Initiative. However, two preferred methods make it easy to capture the data. Please reference the Helpful Hints section of this guide for the two preferred methods.

Site-specific spelling or alternate spelling for data entries **must** be consistent to guarantee accurate data capture.

The Lab EPI Parameter Setup [LREPI PARAMETER SETUP] option, Lag Day parameter **MUST** be pre-defined as **15** for ALL national emerging pathogens.

**NOTE:** If a lab test needs to be entered more than once in the parameter set up for a particular lab EPI pathogen name (e.g., because there is more than one test result that may meet the definition), the second and subsequent tests must be placed in quotes (“ ”). Even though the “ ” marks are used to enter the data, they don’t appear in the final product. This process can be done unlimited times for one set-up.

The Lab EPI Parameter Setup [LREPI PARAMETER SETUP] option input screen examples display how to setup EPI parameters (i.e., including the 6 **new** emerging pathogens. Several of the Lab EPI Parameter Setup [LREPI PARAMETER SETUP] option input screen examples display partially pre-populated entries. The ETIOLOGY FIELD file (#61.2) site-specific data entries are used to partially pre-populate the fields in the LAB SEARCH/EXTRACT file (#69.5). However, further data entries are required for site-specific data. Additional data entries can be added or deleted to meet your site-specific needs.

### New Legionella Urinary Antigen Test

The **newer** Legionella Urinary Antigen test is available with this release of EPI. The LAB EPI parameter setup for the newer test is POSITIVE FOR LEGIONELLA PNEUMOPHILA. (see helpful hints for *Clostridium difficile* in Appendix B.)

## LAB SEARCH/EXTRACT file (#69.5) Entries and Parameter Setup Examples

The following table (first column) contains the **6 new** emerging pathogens added to LAB SEARCH/EXTRACT file (#69.5). The (second column) contains the Lab EPI parameter setup example entries for the emerging pathogens: **Note:** The LAB EPI parameter setup entries are **ONLY** examples, as sites may have different names for tests. The table (second column) examples **DOES NOT** use the indicator mechanism of whether the result **CONTAINS** the POS or is **EQUAL TO** the POS, etc.

LAB SEARCH/EXTRACT file (#69.5) Emerging Pathogen 6 New Entries:	LAB EPI Parameter Setup Example Entries:
All Enterococci (Reference #23)	ENTEROCOCCUS STREP D ENTEROCOCCUS ENTEROCOCCUS (STREPT. FAECALIS-GROUP) ENTEROCOCCUS FAECALIS ENTEROCOCCUS DURANS ENTEROCOCCUS FAECIUM ENTEROCOCCUS AVIUM <b>Note:</b> These are just samples. There are many other named species of coagulase negative staphylococci.
All <i>Staphylococcus aureus</i> (Reference #18):	STAPHYLOCOCCUS AUREUS STAPHYLOCOCCUS AUREUS (MRSA) STAPHYLOCOCCUS AUREUS (VRSA)
All <i>Streptococcus pneumoniae</i> (Reference #22):	STREPTOCOCCUS PNEUMONIAE DIPLOCOCCUS PNEUMOCOCCUS
Methicillin - Resistant <i>Staphylococcus aureus</i> (MRSA) (Reference #19):	STAPHYLOCOCCUS AUREUS STAPHYLOC+ OCCUS AUREUS (MRSA)
Vancomycin-Resistant Coagulase Negative <i>Staphylococci/Staph epi</i> (VRSE) (Reference #21):	STAPHYLOCOCCUS (COAGULASE NEGATIVE) STAPHYLOCOCCUS (COAGULASE NEGATIVE) STAPHYLOCOCCUS EPIDERMIDIS STAPHYLOCOCCUS HAEMOLYTICUS STAPHYLOCOCCUS SAPROPHYTICUS STAPHYLOCOCCUS SALIVARIUS STAPHYLOCOCCUS SIMULANS STAPHYLOCOCCUS SP <b>Note:</b> These are just samples. There are many other named species of coagulase negative staphylococci.
Vancomycin-Resistant <i>Staphylococcus aureus</i> (VRSA) (Reference #20)	STAPHYLOCOCCUS AUREUS STAPHYLOCOCCUS AUREUS (VRSA)

### All Enterococci (Reference #23)

The *enterococci* are a group of bacteria that can cause serious disease in humans, including blood stream infections, urinary tract infections, wound infections, endocarditis and even death. As with many other organisms that cause disease in humans, resistance to antibiotics is emerging in the enterococci. The presence of antibiotic resistance creates a challenge in treatment of infections with this organism. In order to determine the prevalence of antibiotic resistance, a baseline of occurrence of ALL enterococci needs to be obtained. This particular EPI pathogen setting has been created to identify ALL culture positive isolates of enterococci from any specimen site in any patient/client receiving care within the Veterans Health Administration (VHA).

**NOTE:** Even specimens that have been obtained from patients (not the environment) as part of an epidemiologic prevalence study or survey should be included if they are present in the VistA laboratory package results from your site.

The results from this EPI pathogen setting will be coupled with the results from Reference #1 (Vancomycin-Resistant Enterococci [VRE]) to help determine the percentage of all isolates of enterococci that have vancomycin resistance.

### Example: Lab EPI Parameter Setup for All Enterococci

```
Lab EPI Primary Menu

ENH      Lab EPI Manual Run (Enhanced)
VR       Print Detailed Verification Report
LO       Local Pathogen Menu ...
PI       Pathogen Inquiry
UP       Lab EPI Parameter Setup
         Lab EPI Protocol Edit
LK       Antimicrobial Link Update

Select Lab EPI Primary menu Option: UP<Enter> Lab EPI Parameter Setup

Select LAB EPI NAME: ?<Enter>
Answer with LAB EPI NAME, or REFERENCE NUMBER
Do you want the entire 23-Entry LAB EPI List? Y (Yes) <Enter>
Choose from:

ALL ENTEROCOCCI
ALL STAPHYLOCOCCUS AUREUS
ALL STREPTOCOCCUS PNEUMONIAE
CANDIDA
CLOSTRIDIUM DIFFICILE
CREUTZFELDT-JAKOB DISEASE
CRYPTOSPORIDIUM
DENGUE
E. COLI 0157:H7
HEPATITIS A ANTIBODY POS
HEPATITIS B POS
HEPATITIS C ANTIBODY NEG
HEPATITIS C ANTIBODY POS
LEGIONELLA
LEISHMANIASIS
MALARIA
METH-RES STAPH AUREUS
PEN-RES PNEUMOCOCCUS
STREPTOCOCCUS GROUP A
TUBERCULOSIS
VANC-RES COAG NEG STAPH
VANC-RES ENTEROCOCCUS
VANC-RES STAPH AUREUS (VRSA)

Select LAB EPI NAME: ALL ENTEROCOCCI <Enter>
```

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 1 of 5
NAME: ALL ENTEROCOCCI	INACTIVE: NO	
<hr/>		
Laboratory Test(s)	Indicator	Value
<b>&lt;Enter&gt;</b>		
ICDM-9	ICDM-9 Description	
<b>&lt;Enter&gt;</b>		
<hr/>		
Exit	Save	Next Page Refresh
Enter a command or '^' followed by a caption to jump to a specific field.		
COMMAND: <b>N&lt;Enter&gt;</b>	Press <PF1>H for help	
Insert		

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 2 of 5
NAME: ALL ENTEROCOCCI	INACTIVE: NO	
<hr/>		
Selected Etiology	Selected Snomed Codes	
ENTEROCOCCUS		
STREP D ENTEROCOCCUS		
ENTEROCOCCUS (STREPT. FAECALIS-GROUP)		
ENTEROCOCCUS FAECALIS		
ENTEROCOCCUS DURANS		
ENTEROCOCCUS FAECIUM		
ENTEROCOCCUS AVIUM		
<b>Note:</b> These are just samples; there are many other named species eneterococci. You should review these and add/delete as appropriate based on the description definition provided in the EPI Technical and User Guide. To enter additional etiologies please see (Appendix-A, How to add an entry using the Lab EPI Parameter Setup [LREPI PARAMTER SETUP] option).		
Antimicrobial Susceptibility	NLT Code	NLT Description
<b>&lt;Enter&gt;</b>		
<hr/>		
Exit	Save	Next Page Refresh
Enter a command or '^' followed by a caption to jump to a specific field.		
COMMAND: <b>N&lt;Enter&gt;</b>	Press <PF1>H for help	Insert

**Example:** How to add additional etiology/etiologies

**NOTE:** The following LABORATORY EPI PARAMETERS INPUT SCREEN (i. e., Page 2 of 5) is an example on how to add additional etiology/etiologies (organisms) entries for this emerging pathogen. This functionality causes the added etiology (organism) to appear and the next line will be a blinking cursor. At this point if you have additional etiologies (organisms) to add, just type them in and repeat the process. **OR**, if you have finished adding etiology/etiologies (organisms) entries, just press the <Enter>key to proceed with the process.

```

LABORATORY EPI PARAMETERS INPUT SCREEN                Page 2 of 5
NAME: ALL ENTEROCOCCI                                ACTIVE: NO
-----
Selected Etiology                                Selected Snomed Codes

Note: To add additional etiology/etiologies for this emerging pathogen type in
the following etiology and select from the following entries.

Example: Enteroc<RET

Antimicrobial Susceptibility      NLT Code      NLT Description

1      ENTEROCOCCUS      49990P
2      ENTEROCOCCUS (STREPT. FAECALIS-GROUP D)      6789
3      ENTEROCOCCUS AVIUM      L1E603
4      ENTEROCOCCUS CASSELI FLAVUS      L1E604
5      ENTEROCOCCUS DURANS      L1E605
6      ENTEROCOCCUS FAECALIS      L1E601
7      ENTEROCOCCUS FAECIUM      L1E602
8      ENTEROCOCCUS GALLINARUM      L1E606

Choose 1-8 or '^' to quit: 8 <Enter>
-----
ENTEROCOCCUS GALLINARUM      L1E606
Are you adding 'ENTEROCOCCUS GALLINARUM' as a new ETIOLOGY? No//Y <Enter>
    
```

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 3 of 5
NAME: ALL ENTEROCOCCI	INACTIVE: NO	
Topography Selection		
Include <b>&lt;Enter&gt;</b>	Exclude	
Exit	Save	Next Page Refresh
Enter a command or '^' followed by a caption to jump to a specific field.		
COMMAND: <b>N&lt;Enter&gt;</b>	Press <PF1>H for help	Insert

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 4 of 5
NAME: ALL ENTEROCOCCI	INACTIVE: NO	
FIRST ENCOUNTER: <b>&lt;Enter&gt;</b>	FOLLOW PTF: <b>YES&lt;Enter&gt;</b>	
BEFORE DATE OF BIRTH: <b>&lt;Enter&gt;</b>	AFTER DATE OF BIRTH: <b>&lt;Enter&gt;</b>	
Select SEX: <b>&lt;Enter&gt;</b>		
Exit	Save	Next Page Refresh
Enter a command or '^' followed by a caption to jump to a specific field.		
COMMAND: <b>N&lt;Enter&gt;</b>	Press <PF1>H for help	Insert

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 5 of 5
NAME: ALL ENTEROCOCCI	INACTIVE: NO	
Run Date: <b>&lt;Enter&gt;</b>	Protocol: <b>LREPI&lt;Enter&gt;</b>	
Run Cycle: <b>MONTHLY&lt;Enter&gt;</b>	Lag Days: <b>15&lt;Enter&gt;</b>	
Previous Cycle: <b>&lt;Enter&gt;</b>		
General Description: <b>&lt;Enter&gt;</b>		
Exit	Save	Next Page Refresh
Enter a command or '^' followed by a caption to jump to a specific field.		
COMMAND: <b>E&lt;Enter&gt;</b>	Press <PF1>H for help	Insert

## All *Staphylococcus aureus* (Reference #18)

*Staphylococcus aureus* is a bacterium that causes much disease in humans, including furunculosis, boils, acne, cellulites, pneumonia, toxic shock syndrome, and even death. It has always been a significant pathogen in the community setting, as well as in the healthcare setting where transmission can occur through contact and from the hands of healthcare personnel. The presence of antibiotic resistance creates a challenge in treatment of infections with this organism. In order to determine the prevalence of antibiotic resistance, a baseline of occurrence of ALL *Staphylococcus aureus* needs to be obtained. This particular EPI pathogen setting has been created to identify ALL culture positive isolates of *Staphylococcus aureus* from any specimen site in any patient/client receiving care within the VHA.

**NOTE:** Even specimens that have been obtained from patients (not the environment) as part of an epidemiologic prevalence study or survey should be included if they are present in the VistA laboratory package results from your site.

The results from this EPI pathogen setting will be coupled with the results from Reference #19 (MRSA) and Reference #20 (VRSA) to help determine the percentage of all isolates of *Staphylococcus aureus* that have methicillin (oxacillin) resistance and vancomycin resistance.

**Lab EPI Parameter setup for All Staphylococcus aureus (Reference #18)**

```

                                Lab EPI Primary Menu

ENH      Lab EPI Manual Run (Enhanced)
VR       Print Detailed Verification Report
LO       Local Pathogen Menu ...
PI       Pathogen Inquiry
UP       Lab EPI Parameter Setup
         Lab EPI Protocol Edit
LK       Antimicrobial Link Update

Select Lab EPI Primary menu Option: UP<Enter> Lab EPI Parameter Setup

Select LAB EPI NAME: ?<Enter>
Answer with LAB EPI NAME, or REFERENCE NUMBER
Do you want the entire 23-Entry LAB EPI List? Y (Yes) <Enter>
Choose from:

ALL ENTEROCOCCI
ALL STAPHYLOCOCCUS AUREUS
ALL STREPTOCOCCUS PNEUMONIAE
CANDIDA
CLOSTRIDIUM DIFFICILE
CREUTZFELDT-JAKOB DISEASE
CRYPTOSPORIDIUM
DENGUE
E. COLI 0157:H7
HEPATITIS A ANTIBODY POS
HEPATITIS B POS
HEPATITIS C ANTIBODY NEG
HEPATITIS C ANTIBODY POS
LEGIONELLA
LEISHMANIASIS
MALARIA
METH-RES STAPH AUREUS
PEN-RES PNEUMOCOCCUS
STREPTOCOCCUS GROUP A
TUBERCULOSIS
VANC-RES COAG NEG STAPH
VANC-RES ENTEROCOCCUS
VANC-RES STAPH AUREUS (VRSA)

Select LAB EPI NAME: ALL STAPHYLOCOCCUS AUREUS <Enter>

```

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 1 of 5
NAME: <b>ALL</b> STAPHYLOCOCCUS AUREUS		INACTIVE: NO
<hr/>		
Laboratory Test(s)	Indicator	Value
<b>&lt;Enter&gt;</b>		
ICDM-9	ICDM-9 Description	
<b>&lt;Enter&gt;</b>		
<hr/>		
Exit	Save	Next Page
		Refresh
Enter a command or '^' followed by a caption to jump to a specific field.		
COMMAND: <b>N&lt;Enter&gt;</b>	Press <PF1>H for help	Insert

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 2 of 5
NAME: ALL STAPH AUREUS		INACTIVE: NO
<hr/>		
Selected Etiology	Selected Snomed Codes	
STAPHYLOCOCCUS AUREUS		
STAPHYLOCOCCUS AUREUS (MRSA)		
STAPHYLOCOCCUS AUREUS (VRSA) <b>&lt;Enter&gt;</b>		
<b>Note:</b> You may enter a new etiology, if you wish.		
If your facility uses a separate "selected etiology" designation to report <i>Staphylococcus aureus</i> with resistance to an antibiotic (e.g. <i>Staphylococcus aureus</i> (MRSA)), be sure to include this etiology in your list of names here so that the EPI process will acquire all <i>Staphylococcus aureus</i> isolates.		
Antimicrobial Susceptibility	NLT Code	NLT Description
<b>&lt;Enter&gt;</b>		
<hr/>		
Exit	Save	Next Page
		Refresh
Enter a command or '^' followed by a caption to jump to a specific field.		
COMMAND: <b>N&lt;Enter&gt;</b>	Press <PF1>H for help	Insert

LABORATORY EPI PARAMETERS INPUT SCREEN	Page 3 of 5
NAME: ALL STAPH AUREUS	INACTIVE: NO
Topography Selection	
Include <b>&lt;Enter&gt;</b>	Exclude <b>&lt;Enter&gt;</b>
Exit	Save
Next Page	Refresh
Enter a command or '^' followed by a caption to jump to a specific field.	
COMMAND: <b>N&lt;Enter&gt;</b>	Press <PF1>H for help
	Insert

LABORATORY EPI PARAMETERS INPUT SCREEN	Page 4 of 5
NAME: ALL STAPH AUREUS	INACTIVE: NO
FIRST ENCOUNTER: <b>&lt;Enter&gt;</b>	FOLLOW PTF: <b>YES &lt;Enter&gt;</b>
BEFORE DATE OF BIRTH: <b>&lt;Enter&gt;</b>	AFTER DATE OF BIRTH: <b>&lt;Enter&gt;</b>
Select SEX: <b>&lt;Enter&gt;</b>	
Exit	Save
Next Page	Refresh
Enter a command or '^' followed by a caption to jump to a specific field.	
COMMAND: <b>N&lt;Enter&gt;</b>	Press <PF1>H for help
	Insert

LABORATORY EPI PARAMETERS INPUT SCREEN	Page 5 of 5
NAME: ALL STAPH AUREUS	INACTIVE: NO
Run Date: <b>&lt;Enter&gt;</b>	Protocol: <b>LREPI&lt;Enter&gt;</b>
Run Cycle: <b>MONTHLY&lt;Enter&gt;</b>	Lag Days: <b>15&lt;Enter&gt;</b>
Previous Cycle: <b>&lt;TAB&gt;</b>	
General Description: <b>&lt;TAB&gt;</b>	
Exit	Save
Next Page	Refresh
Enter a command or '^' followed by a caption to jump to a specific field.	
COMMAND: <b>S&lt;Enter&gt;</b>	Press <PF1>H for help
	Insert

## All Streptococcus pneumoniae (Reference #22)

*Streptococcus pneumoniae* is a bacterium that causes serious disease in humans, including pneumonia, bacteremia, meningitis and even death. It is an important pathogen to monitor in that many of the more serious sequelae of infection may be ameliorated with preventive vaccination. As with many other organisms that cause disease in humans, resistance to antibiotics is emerging in this *S. pneumoniae*. The presence of antibiotic resistance creates a challenge in treatment of infections with this organism. In order to determine the prevalence of antibiotic resistance, a baseline of occurrence of ALL *Streptococcus pneumoniae* needs to be obtained. This particular EPI pathogen setting has been created to identify ALL culture positive isolates of *Streptococcus pneumoniae* from any specimen site in any patient/client receiving care within the VHA.

**NOTE:** Even specimens that have been obtained from patients (not the environment) as part of an epidemiologic prevalence study or survey should be included if they are present in the VistA Laboratory Package results from your site.

The results from this EPI pathogen setting will be coupled with the results from Penicillin-Resistant Pneumococcus (Reference #3) to help determine the percentage of all isolates of *Streptococcus pneumoniae* that have penicillin resistance.

**Lab EPI Parameter setup for All Streptococcus pneumoniae (Reference #22)**

```

                                Lab EPI Primary Menu

ENH      Lab EPI Manual Run (Enhanced)
VR       Print Detailed Verification Report
LO       Local Pathogen Menu ...
PI       Pathogen Inquiry
UP       Lab EPI Parameter Setup
         Lab EPI Protocol Edit
LK       Antimicrobial Link Update

Select Lab EPI Primary menu Option: UP<Enter> Lab EPI Parameter Setup

Select LAB EPI NAME: ?<Enter>
Answer with LAB EPI NAME, or REFERENCE NUMBER
Do you want the entire 23-Entry LAB EPI List? Y (Yes) <Enter>
Choose from:

ALL ENTEROCOCCI
ALL STAPHYLOCOCCUS AUREUS
ALL STREPTOCOCCUS PNEUMONIAE
CANDIDA
CLOSTRIDIUM DIFFICILE
CREUTZFELDT-JAKOB DISEASE
CRYPTOSPORIDIUM
DENGUE
E. COLI 0157:H7
HEPATITIS A ANTIBODY POS
HEPATITIS B POS
HEPATITIS C ANTIBODY NEG
HEPATITIS C ANTIBODY POS
LEGIONELLA
LEISHMANIASIS
MALARIA
METH-RES STAPH AUREUS
PEN-RES PNEUMOCOCCUS
STREPTOCOCCUS GROUP A
TUBERCULOSIS
VANC-RES COAG NEG STAPH
VANC-RES ENTEROCOCCUS
VANC-RES STAPH AUREUS (VRSA)

Select LAB EPI NAME: ALL STREPTOCOCCUS PNEUMONIAE <Enter>

```

```

LABORATORY EPI PARAMETERS INPUT SCREEN                               Page 1 of 5
NAME: ALL STREP PNEUMO                                           INACTIVE: NO
-----
Laboratory Test(s)                Indicator                Value
<Enter>
  ICDM-9                          ICDM-9 Description
<Enter>
-----
Exit      Save      Next Page      Refresh

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

COMMAND: N<Enter>                                Press <PF1>H for help      Insert
    
```

```

LABORATORY EPI PARAMETERS INPUT SCREEN                               Page 2 of 5
NAME: ALL STREP PNEUMO                                           INACTIVE: NO
-----
Selected Etiology                Selected Snomed Codes

STREPTOCOCCUS PNEUMONIAE
DIPLOCOCCUS
PNEUMOCOCCUS
<Enter>

Note: You may enter a new etiology, if you wish.
Are you adding a new ETIOLOGY? No//<Enter>

Antimicrobial Susceptibility    NLT Code            NLT Description
<Enter>
-----
Exit      Save      Next Page      Refresh

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

COMMAND: N<Enter>                                Press <PF1>H for help      Insert
    
```

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 3 of 5
NAME: ALL STREP PNEUMO	INACTIVE: NO	
<hr/>		
Topography Selection		
Include <b>&lt;Enter&gt;</b>	Exclude <b>&lt;Enter&gt;</b>	
<hr/>		
Exit	Save	Next Page Refresh
Enter a command or '^' followed by a caption to jump to a specific field.		
COMMAND: <b>N&lt;Enter&gt;</b>	Press <PF1>H for help	Insert

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 4 of 5
NAME: ALL STREP PNEUMO	INACTIVE: NO	
<hr/>		
FIRST ENCOUNTER: <b>&lt;Enter&gt;</b>	FOLLOW PTF: <b>YES&lt;Enter&gt;</b>	
BEFORE DATE OF BIRTH: <b>&lt;Enter&gt;</b>	AFTER DATE OF BIRTH: <b>&lt;Enter&gt;</b>	
Select SEX: <b>&lt;Enter&gt;</b>		
<hr/>		
Exit	Save	Next Page Refresh
Enter a command or '^' followed by a caption to jump to a specific field.		
COMMAND: <b>N&lt;Enter&gt;</b>	Press <PF1>H for help	Insert

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 5 of 5
NAME: ALL STREP PNEUMO	INACTIVE: NO	
<hr/>		
Run Date: <b>&lt;Enter&gt;</b>	Protocol: <b>LREPI&lt;Enter&gt;</b>	
Run Cycle: <b>MONTHLY&lt;Enter&gt;</b>	Lag Days: <b>15&lt;Enter&gt;</b>	
Previous Cycle: <b>&lt;TAB&gt;</b>		
General Description: <b>&lt;TAB&gt;</b>		
<hr/>		
Exit	Save	Next Page Refresh
Enter a command or '^' followed by a caption to jump to a specific field.		
COMMAND: <b>S&lt;Enter&gt;</b>	Press <PF1>H for help	Insert

## Candida (Reference #8)

Fungal infections are rising in significance especially in severely ill patients. The same is true for bloodstream infections acquired in the hospital, especially those associated with intravenous lines. Fungal bloodstream infections are increasing in prevalence.

As a marker of bloodstream infections, the fungus *Candida* (and *Torulopsis*) has been chosen as an initial indicator organism. This organism may **not** be a prevalent or significant entity at your site; however, its presence is more likely to be indicative of serious or true infection than other organisms. The fungus *Candida* (and *Torulopsis*) may commonly be isolated from the blood in association with IV lines. Additionally, this yeast is more likely to be associated with nosocomial acquisition than other organisms (i.e., *Staphylococcus aureus* and coagulase negative *Staphylococcus*), which can cause a number of community acquired syndromes **not** at all related to IV lines.

All episodes of *Candida* (*Torulopsis*, yeast) isolation from blood or a blood source (central line, IV catheter tip, etc.) are being tracked. The VistA Laboratory EPI software has provided a partial pre-populated list of (etiologies/organisms) that fit the description for *Candida* (*Torulopsis*, yeast) to choose. These (etiologies/organisms) should be used, in addition to any site specific (etiologies/organisms) that may also fit the description.

**Lab EPI Parameter Setup for CANDIDA**

```

                                Lab EPI Primary Menu

ENH      Lab EPI Manual Run (Enhanced)
VR       Print Detailed Verification Report
LO       Local Pathogen Menu ...
PI       Pathogen Inquiry
UP       Lab EPI Parameter Setup
         Lab EPI Protocol Edit
LK       Antimicrobial Link Update

Select Lab EPI Primary menu Option: UP<Enter> Lab EPI Parameter Setup

Select LAB EPI NAME: ?<Enter>
Answer with LAB EPI NAME, or REFERENCE NUMBER
Do you want the entire 23-Entry LAB EPI List? Y (Yes) <Enter>
Choose from:

ALL ENTEROCOCCI
ALL STAPHYLOCOCCUS AUREUS
ALL STREPTOCOCCUS PNEUMONIAE
CANDIDA
CLOSTRIDIUM DIFFICILE
CREUTZFELDT-JAKOB DISEASE
CRYPTOSPORIDIUM
DENGUE
E. COLI 0157:H7
HEPATITIS A ANTIBODY POS
HEPATITIS B POS
HEPATITIS C ANTIBODY NEG
HEPATITIS C ANTIBODY POS
LEGIONELLA
LEISHMANIASIS
MALARIA
METH-RES STAPH AUREUS
PEN-RES PNEUMOCOCCUS
STREPTOCOCCUS GROUP A
TUBERCULOSIS
VANC-RES COAG NEG STAPH
VANC-RES ENTEROCOCCUS
VANC-RES STAPH AUREUS (VRSA)

Select LAB EPI NAME: CANDIDA<Enter>

```

```

LABORATORY EPI PARAMETERS INPUT SCREEN                               Page 1 of 5
NAME: Candida                                                       INACTIVE: NO
-----
Laboratory Test(s)          Indicator          Value
<Enter>

ICDM-9                      ICDM-9 Description
<Enter>
-----
Exit      Save      Next Page      Refresh

COMMAND: N<Enter>                Press <PF1>H for help                Insert
    
```

```

LABORATORY EPI PARAMETERS INPUT SCREEN                               Page 2 of 5
NAME: CANDIDA                                                       INACTIVE: NO
-----
Selected Etiology          Selected Snomed Codes
Examples: CANDIDA
      CANDIDA GUILLIERMONDII
      CANDIDA KRUSEI
      CANDIDA PARAPSILOSIS
      CANDIDA PSEUDOTROPICALIS
      CANDIDA STELLATOIDEA
      CANDIDA TROPICALIS
      CANDIDA, NOS
<Enter>
Note: During the post Init, the ETIOLOGY FIELD file (#61.2) was searched to
pre-populate the Etiology field (#3) in the EMERGING PATHOGENS file (#69.5).
Listed above are examples of etiology entries which may have been populated
from your site's file. Additional etiologies may be added or deleted at the
Selected Etiology prompt to meet your site specific needs.

Note: If spelling differences occur within your ETIOLOGY FIELD file (#61.2),
be consistent with your local file and spell the results here, as it is
spelled in your file (even if it is spelled differently in the example). We
are concerned more importantly with data recovery.

Antimicrobial Susceptibility      NLT Code      NLT Description
<Enter>
-----
Exit      Save      Next Page      Refresh

COMMAND: N<Enter>                Press <PF1>H for help                Insert
    
```

LABORATORY EPI PARAMETERS INPUT SCREEN	Page 3 of 5
NAME: Candida	INACTIVE: NO
Topography Selection	
Include	Exclude
<b>Blood</b> <Enter>	<b>&lt;Enter&gt;</b>
Bloodstream<Enter>	
Catheter Tip<Enter>	
<b>Note:</b> These are only suggestions from specimen source code table 007 (see table 007 in Appendix C). Please add accordingly to your site definition.	
Exit	Save    Next Page    Refresh
COMMAND: <b>N</b> <Enter>	Press <PF1>H for help    Insert

LABORATORY EPI PARAMETERS INPUT SCREEN	Page 4 of 5
NAME: Candida	INACTIVE: NO
FIRST ENCOUNTER:<Enter>	
	Follow PTF:YES<Enter>
BEFORE DATE OF BIRTH:<Enter>	
	AFTER DATE OF BIRTH:<Enter>
Select SEX:<Enter>	
Exit	Save    Refresh
COMMAND: <b>E</b> <Enter>	Press <PF1>H for help    Insert
Save changes before leaving form (Y/N)? <b>Y</b> <Enter>	

LABORATORY EPI PARAMETERS INPUT SCREEN	Page 5 of 5
NAME: Candida	INACTIVE: NO
Run Date:<Enter>	
	Protocol: LREPI<Enter>
Run Cycle: <b>MONTHLY</b> <Enter>	
	Lag Days: 15<Enter>
Previous Cycle:	
General Description: <TAB>	
Exit	Save    Refresh
COMMAND: <b>E</b> <Enter>	Press <PF1>H for help    Insert
Save changes before leaving form (Y/N)?<Enter>	

### Clostridium difficile (Reference #4)

Disease associated with the presence of *Clostridium difficile* enterotoxin A can cause significant morbidity, as well as mortality. It is of importance, as its predominant acquisition seems to occur nosocomially. Presence of Clostridial toxin (either enterotoxin A or cytotoxin L) by assay (whether it be EIA, latex agglutination, cytotoxicity of cell culture  $\pm$  neutralization, or culture of organism with subsequent colony testing) is the best indicator that an inflammatory diarrheal disease is due to presence of *Clostridium difficile*.

Laboratory Services are quite varied as to how they identify the presence of *Clostridium difficile*. Some labs are set up to identify *C. difficile* as the final microbiological (bacterial) etiology of a culture, even if a culture method was not used. Other labs use a final etiology of “see comment” and then enter the results in a free text format. Still others enter the text under a hematology or chemistry format where a reference range and “positive” and “negative” result values can be entered. Wherever the facility lab places the results which are used to demonstrate the presence of toxin-producing *C. difficile*, we need to be able to track them (that means it **must** occur as a retrievable “positive” or “negative” result, or as a “bacterial etiology”). Results in a “Comments” or “Free-text” section are **not** acceptable.

There are a number of different ways that sites have chosen to enter *Clostridium difficile* toxin assay results into the **VISTA** database. As long as the toxin assay results are in a retrievable format (straight from the **VISTA** database without additional manual input needed), how it is entered is **not** of significance to the Emerging Pathogen Initiative. However, there are two preferred methods that make it easy to capture the data. Please reference the Appendix-B section of this guide for the two methods.

**Lab EPI Parameter Setup for CLOSTRIDIUM DIFFICILE**

```

                                Lab EPI Primary Menu

ENH      Lab EPI Manual Run (Enhanced)
VR       Print Detailed Verification Report
LO       Local Pathogen Menu ...
PI       Pathogen Inquiry
UP       Lab EPI Parameter Setup
         Lab EPI Protocol Edit
LK       Antimicrobial Link Update

Select Lab EPI Primary menu Option: UP<Enter> Lab EPI Parameter Setup

Select LAB EPI NAME: ?<Enter>
Answer with LAB EPI NAME, or REFERENCE NUMBER
Do you want the entire 23-Entry LAB EPI List? Y (Yes) <Enter>
Choose from:

ALL ENTEROCOCCI
ALL STAPHYLOCOCCUS AUREUS
ALL STREPTOCOCCUS PNEUMONIAE
CANDIDA
CLOSTRIDIUM DIFFICILE
CREUTZFELDT-JAKOB DISEASE
CRYPTOSPORIDIUM
DENGUE
E. COLI 0157:H7
HEPATITIS A ANTIBODY POS
HEPATITIS B POS
HEPATITIS C ANTIBODY NEG
HEPATITIS C ANTIBODY POS
LEGIONELLA
LEISHMANIASIS
MALARIA
METH-RES STAPH AUREUS
PEN-RES PNEUMOCOCCUS
STREPTOCOCCUS GROUP A
TUBERCULOSIS
VANC-RES COAG NEG STAPH
VANC-RES ENTEROCOCCUS
VANC-RES STAPH AUREUS (VRSA)

Select LAB EPI NAME: CLOSTRIDIUM DIFFICILE<Enter>

```

```
LABORATORY EPI PARAMETERS INPUT SCREEN                               Page 1 of 5
NAME: CLOSTRIDIUM DIFFICILE                                         INACTIVE: NO
-----
Laboratory Test(s)          Indicator          Value
Clostridium<Enter> difficile toxin    Contains<Enter>
Pos<Enter>

Note: This example is only a suggestion. Please add accordingly to your site
definition.

ICDM-9                      ICDM-9 Description
<Enter>

Exit      Save      Next Page      Refresh
COMMAND: N<Enter>                               Press <PF1>H for help      Insert
```

```
LABORATORY EPI PARAMETERS INPUT SCREEN                               Page 2 of 5
NAME: CLOSTRIDIUM DIFFICILE                                         INACTIVE: NO
-----
Selected Etiology          Selected Snomed Codes
Clostridium difficile toxin positive<Enter>

Note: This is only a suggestion. Please add accordingly to your site
definition.

Antimicrobial Susceptibility    NLT Code    NLT Description
<Enter>

Exit      Save      Next Page      Refres
COMMAND: N<Enter>                               Press <PF1>H for help      Insert
```

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 3 of 5
NAME: CLOSTRIDIUM DIFFICILE		INACTIVE: NO
Topography Selection		
Include <Enter>		Exclude <Enter>
Exit	Save	Next Page Refresh
COMMAND: N<Enter>		Press <PF1>H for help Insert

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 4 of 5
NAME: CLOSTRIDIUM DIFFICILE		INACTIVE: NO
First Encounter:<Enter>		Follow PTF: YES<Enter>
BEFORE DATE OF BIRTH:<Enter>		AFTER DATE OF BIRTH:<Enter>
Selected SEX:<Enter>		
Exit	Save	Refresh
COMMAND: E<Enter>		Press <PF1>H for help

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 5 of 5
NAME: CLOSTRIDIUM DIFFICILE		INACTIVE: NO
Run Date: <Enter>		Protocol: LREPI<Enter>
Run Cycle: MONTHLY<Enter>		Lag Days: 15<Enter>
Previous Cycle: <TAB>		
General Description: <TAB>		
Exit	Save	Refresh
COMMAND: E<Enter>		Press <PF1>H for help Insert
Save changes before leaving form (Y/N)?Y<Enter>		

## Creutzfeldt-Jakob Disease (CJD) (Reference #13)

*Creutzfeldt-Jakob Disease* (CJD) disease is a rare illness associated with prions. The DVA has chosen to follow this entity because of historic problems with certain blood products used in the private and public health care sectors. The data will be one of a number of ways used to identify changes in trends of incidence of this illness. This task is remarkably complex because of the long incubation period of CJD. There are no specific tests for diagnosis other than central nervous system histology combined with clinical presentation. As such, this entity is followed through ICDM-9 coding.

### **Example: Lab EPI Parameter Setup for CREUTZFELDT-JAKOB DISEASE**

```

                                Lab EPI Primary Menu

ENH      Lab EPI Manual Run (Enhanced)
VR       Print Detailed Verification Report
LO       Local Pathogen Menu ...
PI       Pathogen Inquiry
UP       Lab EPI Parameter Setup
         Lab EPI Protocol Edit
LK       Antimicrobial Link Update

Select Lab EPI Primary menu Option: UP<Enter> Lab EPI Parameter Setup

Select LAB EPI NAME: ?<Enter>
  Answer with LAB EPI NAME, or REFERENCE NUMBER
  Do you want the entire 23-Entry LAB EPI List? Y (Yes) <Enter>
Choose from:

  ALL ENTEROCOCCI
  ALL STAPHYLOCOCCUS AUREUS
  ALL STREPTOCOCCUS PNEUMONIAE
  CANDIDA
  CLOSTRIDIUM DIFFICILE
  CREUTZFELDT-JAKOB DISEASE
  CRYPTOSPORIDIUM
  DENGUE
  E. COLI 0157:H7
  HEPATITIS A ANTIBODY POS
  HEPATITIS B POS
  HEPATITIS C ANTIBODY NEG
  HEPATITIS C ANTIBODY POS
  LEGIONELLA
  LEISHMANIASIS
  MALARIA
  METH-RES STAPH AUREUS
  PEN-RES PNEUMOCOCCUS
  STREPTOCOCCUS GROUP A
  TUBERCULOSIS
  VANC-RES COAG NEG STAPH
  VANC-RES ENTEROCOCCUS
  VANC-RES STAPH AUREUS (VRSA)

Select LAB EPI NAME: CREUTZFELDT-JAKOB DISEASE<Enter>

```

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 1 of 5
NAME: CREUTZFELDT-JAKOB DISEASE		INACTIVE: NO
<hr/>		
Laboratory Test(s)	Indicator	Value
<Enter>		
ICDM-9	ICDM-9 Description	
046.1	JAKOB-CREUTZFELDT DIS	
<Enter>		
<hr/>		
Exit	Save	Next Page Refresh
COMMAND: N<Enter>		Press <PF1>H for help Insert
Press <PF1>H for help		Insert

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 2 of 5
NAME: CREUTZFELDT-JAKOB DISEASE		INACTIVE: NO
<hr/>		
Selected Etiology	Selected Snomed Codes<Enter>	
Antimicrobial Susceptibility	NLT Code	NLT Description
<Enter>		
<hr/>		
Exit	Save	Next Page Refresh
COMMAND: N<Enter>		Press <PF1>H for help Insert

```
LABORATORY EPI PARAMETERS INPUT SCREEN          Page 3 of 5
NAME: CREUTZFELDT-JAKOB DISEASE                INACTIVE: NO
-----
                          Topography Selection
Include                               Exclude
<Enter>                               <Enter>
-----
Exit      Save      Next Page      Refresh
COMMAND: N<Enter>                               Press <PF1>H for help      Insert
```

```
LABORATORY EPI PARAMETERS INPUT SCREEN          Page 4 of 5
NAME: CREUTZFELDT-JAKOB DISEASE                INACTIVE: NO
-----
First Encounter: <Enter>                      Follow PTF: YES<Enter>
BEFORE DATE OF BIRTH: <Enter>                AFTER DATE OF BIRTH: <Enter>
Select SEX: <Enter>
-----
Exit      Save      Refresh
COMMAND: E<Enter>                               Press <PF1>H for help      Insert
```

```
LABORATORY EPI PARAMETERS INPUT SCREEN          Page 5 of 5
NAME: CREUTZFELDT-JAKOB DISEASE                INACTIVE: NO
-----
Run Date:<Enter>                               Protocol: LREPI<Enter>
Run Cycle: MONTHLY<Enter>                     Lag Days:15<Enter>
Previous Cycle: <TAB>
General Description: <TAB>
-----
Exit      Save      Refresh
COMMAND: E<Enter>                               Press <PF1>H for help      Insert
Save changes before leaving form (Y/N)?Y<Enter>
```

## Cryptosporidium (Reference #9)

The parasite *Cryptosporidium parvum* is a cause of water-borne diarrheal disease. It has gained recent prominence after evaluation of the outbreak in the greater Milwaukee area in 1993 which is estimated to have affected <400,000 persons. In addition to affecting HIV-infected persons and young children, information exists which demonstrates that the chronically ill, elderly are also a higher risk group than the general population. Microbiology laboratory data (parasitology for most laboratories) as well as ICDM-9 coding is used to track this disease, both are narrowly defined parameters.

**NOTE:** Microsporidiosis is a similar disease; however, the EPI does **not** currently wish to follow this disease process. Microsporidian etiologies should **not** be entered.

**NOTE:** If a lab test needs to be entered in the parameter set up for a particular lab EPI pathogen name (e.g. because there is more than one test result that may meet the definition), the second and subsequent tests must be placed in quotes (“ ”). Even though the “ ” marks are used to enter the data, they don't appear in the final product. This process can be done unlimited times for one set-up.

A **new** antigen test for *Cryptosporidium* is FDA approved. If your laboratory uses this test, but does not report the result as an etiology of just the organism name, please refer to Appendix B Helpful Hints for *Clostridium difficile* to review ways by which these data may be captured.

### Example: Lab EPI Parameter Setup for CRYPTOSPORIDIUM

```
                                Lab EPI Primary Menu

ENH      Lab EPI Manual Run (Enhanced)
VR       Print Detailed Verification Report
LO       Local Pathogen Menu ...
PI       Pathogen Inquiry
UP       Lab EPI Parameter Setup
         Lab EPI Protocol Edit
LK       Antimicrobial Link Update

Select Lab EPI Primary menu Option: UP<Enter> Lab EPI Parameter Setup

Select LAB EPI NAME: ?<Enter>
Answer with LAB EPI NAME, or REFERENCE NUMBER
Do you want the entire 23-Entry LAB EPI List? Y (Yes) <Enter>
Choose from:

ALL ENTEROCOCCI
ALL STAPHYLOCOCCUS AUREUS
ALL STREPTOCOCCUS PNEUMONIAE
CANDIDA
CLOSTRIDIUM DIFFICILE
CREUTZFELDT-JAKOB DISEASE
CRYPTOSPORIDIUM
DENGUE
E. COLI 0157:H7
HEPATITIS A ANTIBODY POS
HEPATITIS B POS
HEPATITIS C ANTIBODY NEG
HEPATITIS C ANTIBODY POS
LEGIONELLA
LEISHMANIASIS
MALARIA
METH-RES STAPH AUREUS
PEN-RES PNEUMOCOCCUS
STREPTOCOCCUS GROUP A
TUBERCULOSIS
VANC-RES COAG NEG STAPH
VANC-RES ENTEROCOCCUS
VANC-RES STAPH AUREUS (VRSA)

Select LAB EPI NAME: CRYPTOSPORIDIUM<Enter>
```

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 1 of 5
NAME: CRYPTOSPORIDIUM	INACTIVE: NO	
<hr/>		
Laboratory Test(s)	Indicator	Value
<Enter>		
ICDM-9	ICDM-9 Description	
007.8	PROTOZOAL INTEST DIS N	
<Enter>		
<hr/>		
Exit	Save	Next Page Refresh
COMMAND: N<Enter>	Press <PF1>H for help	Insert

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 2 of 5
NAME: CRYPTOSPORIDIUM	INACTIVE: NO	
<hr/>		
Selected Etiology	Selected Snomed Codes	
Cryptosporidium<Enter>		
<b>Note:</b> If Cryptosporidium is reported under parasitology, add Cryptosporidium species at the Etiology prompt.		
Antimicrobial Susceptibility	NLT Code	NLT Description
<Enter>		
<hr/>		
Exit	Save	Next Page Refresh
COMMAND: N<Enter>	Press <PF1>H for help	Insert

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 3 of 5
NAME: CRYPTOSPORIDIUM	INACTIVE: NO	
<hr/>		
Topography Selection		
Include	Exclude	
<Enter>	<Enter>	
<hr/>		
Exit	Save	Next Page Refresh
COMMAND: N<Enter>	Press <PF1>H for help	Insert

```
LABORATORY EPI PARAMETERS INPUT SCREEN          Page 4 of 5
NAME: CRYPTOSPORIDIUM                          INACTIVE: NO
-----
First Encounter:<Enter>                          Follow PTF: YES<Enter>
BEFORE DATE OF BIRTH:<Enter>                    AFTER DATE OF BIRTH:<Enter>
Select SEX:<Enter>
-----
Exit      Save      Refresh
COMMAND: E<Enter>                               Press <PF1>H for help
```

```
LABORATORY EPI PARAMETERS INPUT SCREEN          Page 5 of 5
NAME: CRYPTOSPORIDIUM                          INACTIVE: NO
-----
Run Date:                                       Protocol: LREPI<Enter>
Run Cycle: MONTHLY<Enter>                      Lag Days: 15<Enter>
Previous Cycle: <TAB>
General Description: <TAB>
-----
Exit      Save      Refresh
COMMAND: E<Enter>                               Press <PF1>H for help   Insert
Save changes before leaving form (Y/N)? Y<Enter>
```

## Dengue (Reference #12)

The mosquito-borne disease of Dengue Hemorrhagic Fever is a rare but re-emerging infection, especially in the Caribbean. The VA has seen cases of Dengue Hemorrhagic Fever over the last several years. Most of these cases have been in Dengue endemic areas served by the VA. However, as our society becomes more mobile, and the area of Dengue endemncity expands, more cases are likely to occur. Because microbiologic culture is not routinely done and serology can be difficult to track, initially ICDM-9 coded diagnoses are used to track this entity.

### **Example: Lab EPI Parameter Setup for DENGUE**

```

                                Lab EPI Primary Menu

ENH      Lab EPI Manual Run (Enhanced)
VR       Print Detailed Verification Report
LO       Local Pathogen Menu ...
PI       Pathogen Inquiry
UP       Lab EPI Parameter Setup
         Lab EPI Protocol Edit
LK       Antimicrobial Link Update

Select Lab EPI Primary menu Option: UP<Enter> Lab EPI Parameter Setup

Select LAB EPI NAME: ?<Enter>
  Answer with LAB EPI NAME, or REFERENCE NUMBER
  Do you want the entire 23-Entry LAB EPI List? Y (Yes) <Enter>
Choose from:

  ALL ENTEROCOCCI
  ALL STAPHYLOCOCCUS AUREUS
  ALL STREPTOCOCCUS PNEUMONIAE
  CANDIDA
  CLOSTRIDIUM DIFFICILE
  CREUTZFELDT-JAKOB DISEASE
  CRYPTOSPORIDIUM
  DENGUE
  E. COLI 0157:H7
  HEPATITIS A ANTIBODY POS
  HEPATITIS B POS
  HEPATITIS C ANTIBODY NEG
  HEPATITIS C ANTIBODY POS
  LEGIONELLA
  LEISHMANIASIS
  MALARIA
  METH-RES STAPH AUREUS
  PEN-RES PNEUMOCOCCUS
  STREPTOCOCCUS GROUP A
  TUBERCULOSIS
  VANC-RES COAG NEG STAPH
  VANC-RES ENTEROCOCCUS
  VANC-RES STAPH AUREUS (VRSA)

Select LAB EPI NAME: DENGUE<Enter>

```

```

LABORATORY EPI PARAMETERS INPUT SCREEN          Page 1 of 5
NAME: DENGUE                                     INACTIVE: NO
-----
Laboratory Test(s)                Indicator                Value
<Enter>
ICDM-9                            ICDM-9 Description
061.                               DENGUE
065.4                             MOSQUITO-BORNE HEM FEVER
<Enter>
-----
Exit      Save      Next Page      Refresh
COMMAND: N<Enter>                                Press <PF1>H for help      Insert
    
```

```

LABORATORY EPI PARAMETERS INPUT SCREEN          Page 2 of 5
NAME: DENGUE                                     INACTIVE: NO
-----
Etiology                            Selected Snomed Codes
<Enter>
Antimicrobial Susceptibility        NLT Code          NLT Description
<Enter>
-----
Exit      Save      Next Page      Refresh
COMMAND: N<Enter>                                Press <PF1>H for help      Insert
    
```

```

LABORATORY EPI PARAMETERS INPUT SCREEN          Page 3 of 5
NAME: DENGUE                                     INACTIVE: NO
-----
Topography Selection
Include                               Exclude
<Enter>                               <Enter>
-----
Exit      Save      Next Page      Refresh
COMMAND: N<Enter>                                Press <PF1>H for help      Insert
    
```

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 4 of 5
NAME: DENGUE	INACTIVE: NO	
<hr/>		
First Encounter: <Enter>	Follow PTF: YES <Enter>	
BEFORE DATE OF BIRTH:<Enter>	AFTER DATE OF BIRTH:<Enter>	
Select SEX:<Enter>		
<hr/>		
Exit	Save	Refresh
COMMAND: <b>E</b> <Enter>	Press <PF1>H for help	

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 5 of 5
NAME: DENGUE	INACTIVE: NO	
<hr/>		
Run Date:<Enter>	Protocol: LREPI<Enter>	
Run Cycle: <b>MONTHLY</b> <Enter>	Lag Days: <b>15</b> <Enter>	
Previous Cycle: <TAB>		
General Description: <TAB>		
<hr/>		
Exit	Save	Refresh
COMMAND: <b>E</b> <Enter>	Press <PF1>H for help	Insert
Save changes before leaving form (Y/N)? <b>Y</b> <Enter>		

## E. coli O157:H7 (Reference #10)

*Escherichia coli* serotype O157 (*E. coli* O157) has gained prominence as a food-borne illness with potentially life threatening complications coming from the associated Hemolytic Uremic Syndrome. Not all sites routinely culture for the presence of *E. coli* O157 in stool specimens submitted for culture. In addition, *E. coli* O157 is not a microbiologic (bacterial) etiology pre-existing in the most recent - national microbiology lab package. In order to nationally track cultures positive for this organism, each site will need to make an etiology specific for *E-coli* O157 (e.g. *Escherichia coli* O157, *E. coli* O157, *E. coli* serotype O157, etc.). Some sites have already done this and will **not** need to generate a new entry.

**NOTE:** Entering *Escherichia coli* or *E. coli* from the bacterial etiology and then entering “serotype O157” or “O157”, under the “Comments” or “Free Text” section is **not** acceptable, as it will **not** allow the data to be retrieved nationally.

All subsequent positive cultures for this organism **must** then be entered under the new etiology.

Other serotypes of *E. coli* will also cause disease, but we will not currently track these as O157 causes by far, the majority of cases of interest for the national database.

The EPI criterion is dependent on your site. If your site already has an etiology that will select positive cultures for *E. coli* O157, then enter that etiology. However, if your site had to enter a new etiology to accommodate the EPI criteria, be sure to enter this new etiology here.

**NOTE:** If a lab test needs to be entered in the parameter set up for a particular lab EPI pathogen name (e.g. because there is more than one test result that may meet the definition), the second and subsequent tests must be placed in quotes (“”). Even though the “” marks are used to enter the data, they don't appear in the final product. This process can be done unlimited times for one set-up.

**Example: Lab EPI Parameter Setup for E. COLI 0157:H7**

```

                                Lab EPI Primary Menu

ENH      Lab EPI Manual Run (Enhanced)
VR       Print Detailed Verification Report
LO       Local Pathogen Menu ...
PI       Pathogen Inquiry
UP       Lab EPI Parameter Setup
         Lab EPI Protocol Edit
LK       Antimicrobial Link Update

Select Lab EPI Primary menu Option: UP<Enter> Lab EPI Parameter Setup

Select LAB EPI NAME: ?<Enter>
Answer with LAB EPI NAME, or REFERENCE NUMBER
Do you want the entire 23-Entry LAB EPI List? Y (Yes) <Enter>
Choose from:

ALL ENTEROCOCCI
ALL STAPHYLOCOCCUS AUREUS
ALL STREPTOCOCCUS PNEUMONIAE
CANDIDA
CLOSTRIDIUM DIFFICILE
CREUTZFELDT-JAKOB DISEASE
CRYPTOSPORIDIUM
DENGUE
E. COLI 0157:H7
HEPATITIS A ANTIBODY POS
HEPATITIS B POS
HEPATITIS C ANTIBODY NEG
HEPATITIS C ANTIBODY POS
LEGIONELLA
LEISHMANIASIS
MALARIA
METH-RES STAPH AUREUS
PEN-RES PNEUMOCOCCUS
STREPTOCOCCUS GROUP A
TUBERCULOSIS
VANC-RES COAG NEG STAPH
VANC-RES ENTEROCOCCUS
VANC-RES STAPH AUREUS (VRSA)

Select LAB EPI NAME: E. COLI 0157:H7<Enter>

```

```

LABORATORY EPI PARAMETERS INPUT SCREEN          Page 1 of 5
NAME: E. COLI 0157:H7                          INACTIVE: NO
-----
Laboratory Test(s)                               Indicator           Value
<Enter>
ICDM-9                                           ICDM-9 Description
<Enter>
-----
Exit      Save      Next Page      Refresh
COMMAND: N<Enter>                               Press <PF1>H for help
    
```

```

LABORATORY EPI PARAMETERS INPUT SCREEN          Page 2 of 5
NAME: E. COLI 0157:H7                          INACTIVE: NO
-----
Selected Etiology
Example: Escherichia coli 0157<Enter>

Note: Entering Escherichia coli or E. coli from the bacterial etiology and
then entering "serotype 0157" or "0157", under the Comments section or in
free text is not acceptable as it will not allow the data to be retrieved
nationally).

Antimicrobial Susceptibility                    NLT Code           NLT Description
<Enter>
-----
Exit      Save      Next Page      Refresh
COMMAND: N<Enter>                               Press <PF1>H for help
    
```

```

LABORATORY EPI PARAMETERS INPUT SCREEN          Page 3 of 5
NAME: E. COLI 0157:H7                          INACTIVE: NO
-----
Topography Selection

Include                                           Exclude
<Enter>                                           <Enter>
-----
Exit      Save      Next Page      Refresh
COMMAND: N<Enter>                               Press <PF1>H for help      Insert
    
```

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 4 of 5
NAME: E. COLI 0157:H7	INACTIVE: NO	
<hr/>		
First Encounter: <Enter>	Follow PTF: YES<Enter>	
BEFORE DATE OF BIRTH: <Enter>	AFTER DATE OF BIRTH: <Enter>	
Select SEX: <Enter>		
<hr/>		
Exit	Save	Refresh
COMMAND: E<Enter>	Press <PF1>H for help	

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 5 of 5
NAME: E. COLI 0157:H7	INACTIVE: NO	
<hr/>		
Run Date: <Enter>	Protocol: LREPI<Enter>	
Run Cycle: MONTHLY<Enter>	Lag Days: 15<Enter>	
Previous Cycle: <TAB>		
General Description: <TAB>		
<hr/>		
Exit	Save	Refresh
COMMAND: E<Enter>	Press <PF1>H for help	Insert
Save changes before leaving form (Y/N)? Y<Enter>		

## Hepatitis A Antibody Positive (Reference #16)

One of the goals of the Healthy People 2000 and 2010 initiatives of the Department of Health and Human Services is to decrease certain infectious diseases, especially those that are vaccine preventable. Acute infection with Hepatitis A is one such disease that has specific objectives present in the Healthy People objectives.

The purpose of surveillance for this disease is to record all cases as diagnosed by the laboratory. A positive laboratory test for the presence of Hepatitis A virus is needed. Usually this criterion is met by presence of antibodies to the Hepatitis A virus. In particular, the IgM antibody against hepatitis A is the test most commonly used for determining acute hepatitis A infection. There are other antibody tests available for Hepatitis A. These tests usually indicate past infection with hepatitis A (or in some circumstances may indicate evidence of previous vaccination); usually the IgG antibody against Hepatitis A, OR the Total antibody against Hepatitis A (a test that does not discriminate between IgM or IgG, but can show evidence of exposure) are the tests done for this purpose.

What we are looking for is evidence of presence of ANY antibody to Hepatitis A, whether it is recorded as “weakly positive,” “strongly positive,” “positive,” or “present.” If other phrases are used to describe a test result, one should be able to differentiate responses upon entry into the program. As an example, the words “present” and “not present” might be used to designate “positive” vs. “negative”, however, they would not allow retrieval of only the positive cases as both phrases contain the word, “present.” Also, numerical values of results (e.g. at titer value) are not readily useable. Therefore, parameters for this are to be laboratory based and should include all tests for antibodies against hepatitis A (see examples above).

Also, some institutions will use ICD-9 coding and problem lists as a means to abstract data on this disease. DO NOT use these methods for this particular program. We are only abstracting laboratory confirmed cases of antibodies against Hepatitis A.

**NOTE:** If a lab test needs to be entered in the parameter set up for a particular lab EPI pathogen name (e.g. because there is more than one test result that may meet the definition), the second and subsequent tests must be placed in quotes (“ ”). Even though the “ ” marks are used to enter the data, they don't appear in the final product. This process can be done unlimited times for one set-up.

**Example: Lab EPI Parameter Setup for HEPATITIS A ANTIBODY POS**

```

                                Lab EPI Primary Menu

ENH      Lab EPI Manual Run (Enhanced)
VR       Print Detailed Verification Report
LO       Local Pathogen Menu...
PI       Pathogen Inquiry
UP       Lab EPI Parameter Setup
         Lab EPI Protocol Edit
LK       Antimicrobial Link Update

Select Lab EPI Primary menu Option: UP<Enter> Lab EPI Parameter Setup

Select LAB EPI NAME: ?<Enter>
Answer with LAB EPI NAME, or REFERENCE NUMBER
Do you want the entire 23-Entry LAB EPI List? Y (Yes) <Enter>
Choose from:

ALL ENTEROCOCCI
ALL STAPHYLOCOCCUS AUREUS
ALL STREPTOCOCCUS PNEUMONIAE
CANDIDA
CLOSTRIDIUM DIFFICILE
CREUTZFELDT-JAKOB DISEASE
CRYPTOSPORIDIUM
DENGUE
E. COLI 0157:H7
HEPATITIS A ANTIBODY POS
HEPATITIS B POS
HEPATITIS C ANTIBODY NEG
HEPATITIS C ANTIBODY POS
LEGIONELLA
LEISHMANIASIS
MALARIA
METH-RES STAPH AUREUS
PEN-RES PNEUMOCOCCUS
STREPTOCOCCUS GROUP A
TUBERCULOSIS
VANC-RES COAG NEG STAPH
VANC-RES ENTEROCOCCUS
VANC-RES STAPH AUREUS (VRSA)

Select LAB EPI NAME: HEPATITIS A ANTIBODY POS<Enter>

Note: The four hepatitis pathogens (Hepatitis C Antibody Positive, Hepatitis C
Antibody Negative, Hepatitis A Antibody Positive and Hepatitis B Positive) are
tightly integrated with the Clinical Reminder data stream that the EPI
national roll-up accomplishes (see combined products VistA Laboratory EPI
Hepatitis Extract Patch LR*5.2*260, PXR*1.5*1, PSJ*5*48 and Patch PSO*7*45)
and changes in the EPI parameters may need to have concomitant changes in the
Clinical Reminder data being passed over to the EPI national roll-up-
concurrent review (and changes, if necessary), should be undertaken in
conjunction with the local Clinical Applications Coordinator for the Clinical
Reminder package to assure that appropriate mapping of Health factors to the
national pathogens has occurred.

```

```

LABORATORY EPI PARAMETERS INPUT SCREEN                               Page 1 of 5
NAME: HEPATITIS A ANTIBODY POS                                     INACTIVE: NO

```

---

Laboratory Test(s)	Indicator	Value
HEP A ANTIBODY-TOTAL<Enter> REACTIVE<Enter>	Equal To<Enter>	
HEP A ANTIBODY (IgM) <Enter>	Contains<Enter>	POS<Enter>
HEPATITIS A AB (IGG) D/C (2/99) <Enter>	Contains<Enter>	POS<Enter>
"HEPATITIS A AB (IGG) D/C (2/99)" <Enter>	Contains<Enter>	Pos<Enter>
"HEPATITIS A AB (IGG) D/C (2/99)" <Enter>	Contains<Enter>	P<Enter>
"HEPATITIS A AB (IGG) D/C (2/99)" <Enter>	Contains<Enter>	p<Enter>
"HEP A ANTIBODY-TOTAL" <Enter>	Equal To<Enter>	R<Enter>

**Note:** Enter the appropriate test for your site, and how the results are reported.

ICDM-9 <Enter>	ICDM-9 Description		
Exit	Save	Next Page	Refresh

---

COMMAND: N<Enter> Press <PF1>H for help    Insert

```

LABORATORY EPI PARAMETERS INPUT SCREEN                               Page 2 of 5
NAME: HEPATITIS A ANTIBODY POS                                     INACTIVE: NO

```

---

Selected Etiology <Enter>	Selected Snomed Codes
Antimicrobial Susceptibility <Enter>	NLT Code      NLT Description

---

Exit	Save	Next Page	Refresh
------	------	-----------	---------

---

COMMAND: N<Enter> Press <PF1>H for help    Insert

```

LABORATORY EPI PARAMETERS INPUT SCREEN                               Page 3 of 5
NAME: HEPATITIS A ANTIBODY POS                                     INACTIVE: NO

```

---

Topography Selection

Include <Enter>	Exclude <Enter>		
Exit	Save	Next Page	Refresh

---

COMMAND: N<Enter> Press <PF1>H for help    Insert

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 4 of 5
NAME: HEPATITIS A ANTIBODY POS	INACTIVE: NO	
<hr/>		
First Encounter: <Enter>	Follow PTF: YES<Enter>	
BEFORE DATE OF BIRTH: <Enter>	AFTER DATE OF BIRTH: <Enter>	
Select SEX: <Enter>		
<hr/>		
Exit	Save	Refresh
COMMAND: E<Enter>	Press <PF1>H for help	

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 5 of 5
NAME: HEPATITIS A ANTIBODY POS	INACTIVE: NO	
<hr/>		
Run Date: <Enter>	Protocol: LREPI<Enter>	
Run Cycle: MONTHLY<Enter>	Lag Days: 15<Enter>	
Previous Cycle: <TAB>		
General Description: <TAB>		
<hr/>		
Exit	Save	Refresh
COMMAND: E<Enter>	Press <PF1>H for help	
Save changes before leaving form (Y/N)? Y <Enter>		

## Hepatitis B Positive (Reference #17)

One of the goals of the Healthy People 2000 and 2010 initiatives of the Department of Health and Human Services is to decrease certain infectious diseases, especially those that are vaccine preventable. Acute and chronic infection with Hepatitis B is one such disease that has specific objectives present in the Healthy People objectives.

Both acute and chronic diseases have significant morbidity and can contribute to mortality. Further, infection with hepatitis B can complicate the medical course of persons with other liver ailments. As such, surveillance for both acute and chronic disease is important. In order for the VHA to do surveillance for these diseases, we are looking for laboratory evidence of infection with hepatitis B. This laboratory evidence of infection includes the following standard serological markers:

- Presence of the Hepatitis B surface antigen
- Presence of antibodies against the Hepatitis B core antigen (in particular, the IgM antibody)
- Presence of antibodies against the Hepatitis B surface antigen
- Presence of the hepatitis B e antigen.

These are not all of the tests that can be done for hepatitis B, but they are the ones likely to pick up acute cases (new) or those chronic cases that are likely to be infectious to other persons. Please list only those tests at your facility that is in keeping with what we are looking for— acute cases or those cases likely to be infectious to others.

**NOTE:** There are advanced PCR based tests that can measure amount of virus in the bloodstream; these are not done at all sites and have not yet been FDA approved. As such, these PCR tests should not be used for case determination.

**NOTE:** If a lab test needs to be entered in the parameter set up for a particular lab EPI pathogen name (e.g. because there is more than one test result that may meet the definition), the second and subsequent tests must be placed in quotes (“ ”). Even though the “ ” marks are used to enter the data, they don't appear in the final product. This process can be done unlimited times for one set-up.

**Example: Lab EPI Parameter Setup for HEPATITIS B POS**

```

                                Lab EPI Primary Menu

ENH      Lab EPI Manual Run (Enhanced)
VR       Print Detailed Verification Report
LO       Local Pathogen Menu ...
PI       Pathogen Inquiry
UP       Lab EPI Parameter Setup
         Lab EPI Protocol Edit
LK       Antimicrobial Link Update

Select Lab EPI Primary menu Option: UP<Enter> Lab EPI Parameter Setup

Select LAB EPI NAME: ?<Enter>
Answer with LAB EPI NAME, or REFERENCE NUMBER
Do you want the entire 23-Entry LAB EPI List? Y (Yes) <Enter>
Choose from:

ALL ENTEROCOCCI
ALL STAPHYLOCOCCUS AUREUS
ALL STREPTOCOCCUS PNEUMONIAE
CANDIDA
CLOSTRIDIUM DIFFICILE
CREUTZFELDT-JAKOB DISEASE
CRYPTOSPORIDIUM
DENGUE
E. COLI 0157:H7
HEPATITIS A ANTIBODY POS
HEPATITIS B POS
HEPATITIS C ANTIBODY NEG
HEPATITIS C ANTIBODY POS
LEGIONELLA
LEISHMANIASIS
MALARIA
METH-RES STAPH AUREUS
PEN-RES PNEUMOCOCCUS
STREPTOCOCCUS GROUP A
TUBERCULOSIS
VANC-RES COAG NEG STAPH
VANC-RES ENTEROCOCCUS
VANC-RES STAPH AUREUS (VRSA)

Select LAB EPI NAME: HEPATITIS B POS<Enter>

Note: The four hepatitis pathogens (Hepatitis C Antibody Positive, Hepatitis C
Antibody Negative, Hepatitis A Antibody Positive and Hepatitis B Positive) are
tightly integrated with the Clinical Reminder data stream that the EPI
national roll-up accomplishes (see combined products VistA Laboratory EPI
Hepatitis Extract Patch LR*5.2*260, PXR*1.5*1, PSJ*5*48 and Patch PSO*7*45)
and changes in the EPI parameters may need to have concomitant changes in the
Clinical Reminder data being passed over to the EPI national roll-up-
concurrent review (and changes, if necessary), should be undertaken in
conjunction with the local Clinical Applications Coordinator for the Clinical
Reminder package to assure that appropriate mapping of Health factors to the
national pathogens has occurred.

```

```

LABORATORY EPI PARAMETERS INPUT SCREEN      Page 1 of 5
NAME: HEPATITIS B POS                        INACTIVE: NO
-----
Laboratory Test(s)          Indicator          Value
HEP B SURFACE Ag<Enter>    Contains<Enter>
POS<Enter>
HEP B SURFACE AB<Enter>    Contains<Enter>
POS<Enter>
HEP B CORE AB (IgM) <Enter> Contains<Enter>
POS<Enter>
HEP Be ANTIGEN<Enter>     Contains<Enter>
POS<Enter>
"HEP Be ANTIGEN"<Enter>   Contains<Enter>
Pos<Enter>
"HEP Be ANTIGEN"<Enter>   Contains<Enter>          p<Enter>
"HEP Be ANTIGEN"<Enter>   Contains<Enter>          P<Enter>

Note: Enter the appropriate test for your site, and how the results are
reported.

ICDM-9                                ICDM-9 Description
<Enter>

Exit      Save      Next Page      Refresh
-----
COMMAND: N<Enter>                                Press <PF1>H for help      Insert
    
```

```

LABORATORY EPI PARAMETERS INPUT SCREEN      Page 2 of 5
NAME: HEPATITIS B POS                        INACTIVE: NO
-----
Selected Etiology                Selected Snomed Codes
<Enter>
Antimicrobial Susceptibility     NLT Code          NLT Description
<Enter>

Exit      Save      Next Page      Refresh
-----
COMMAND: N<Enter>                                Press <PF1>H for help      Insert
    
```

```

LABORATORY EPI PARAMETERS INPUT SCREEN      Page 3 of 5
NAME: HEPATITIS B POS                        INACTIVE: NO
-----
Topography Selection

Include          Exclude
<Enter>         <Enter>
    
```

Exit	Save	Next Page	Refresh
COMMAND: <b>N&lt;Enter&gt;</b>			Press <PF1>H for help    Insert

```
LABORATORY EPI PARAMETERS INPUT SCREEN          Page 4 of 5
NAME: HEPATITIS B POS                          INACTIVE: NO
-----
First Encounter:<Enter>                          Follow PTF: YES<Enter>
BEFORE DATE OF BIRTH:<Enter>                    AFTER DATE OF BIRTH:<Enter>
Select SEX:<Enter>
-----
Exit      Save      Refresh
COMMAND: E<Enter>                               Press <PF1>H for help
```

```
LABORATORY EPI PARAMETERS INPUT SCREEN          Page 5 of 5
NAME: HEPATITIS B POS                          INACTIVE: NO
-----
Run Date: <Enter>                               Protocol: LREPI<Enter>
Run Cycle: MONTHLY<Enter>                       Lag Days: 15<Enter>
Previous Cycle: <TAB>
General Description: <TAB>
-----
Exit      Save      Refresh
COMMAND: E<Enter>                               Press <PF1>H for help
Save changes before leaving form (Y/N)? Y<Enter>
```

## Not Positive for Hepatitis C Antibody OR Hepatitis C Antibody Neg (Reference #15)

The first version of the EPI gathered data on persons who were positive for antibody against Hepatitis C. This version will continue to gather such data. However, there are many cases, and it is important to try to find out what differences there are in those persons who are positive for Hepatitis C antibody as opposed to those who do not have Hepatitis C antibody present. Therefore, please review those results that you have designated to be placed into the Hepatitis C Antibody Positive portion of the EPI. Be sure that they truly meet the definition, as noted in Lab EPI Patch LR\*5.2\*175 Technical and User Guide (distributed August 1998).

All the results of Hepatitis C antibody testing that are not considered “positive” should be reported in this area. Therefore, all of the hepatitis C results that your facility reports should be mapped to either the hepatitis C Antibody Positive file or the Not Positive for Hepatitis C Antibody File. Not positive terms may include “negative,” “indeterminant,” “indeterminate,” “undetectable.” As with the Hepatitis C Antibody Positive component, be sure that phrases that truly differentiate results are used (e.g. the results of “present” and “not present” are not truly differentiated by computer retrieval as both contain the word “present”).

**NOTE:** There are PCR based tests utilized for Hepatitis C. These tests are not used at all facilities and are not yet FDA approved for identification of hepatitis C disease. As such, they should not be used for reporting purposes with this iteration of EPI.

**NOTE:** If a lab test needs to be entered in the parameter set up for a particular lab EPI pathogen name (e.g. because there is more than one test result that may meet the definition), the second and subsequent tests must be placed in quotes (“ ”). Even though the “ ” marks are used to enter the data, they don't appear in the final product. This process can be done unlimited times for one set-up.

### Example: Lab EPI Parameter Setup for HEPATITIS C ANTIBODY NEG

```

                                Lab EPI Primary Menu

ENH      Lab EPI Manual Run (Enhanced)
VR       Print Detailed Verification Report
LO       Local Pathogen Menu ...
PI       Pathogen Inquiry
UP       Lab EPI Parameter Setup
         Lab EPI Protocol Edit
LK       Antimicrobial Link Update

Select Lab EPI Primary menu Option: UP<Enter> Lab EPI Parameter Setup

Select LAB EPI NAME: ?<Enter>
Answer with LAB EPI NAME, or REFERENCE NUMBER
Do you want the entire 23-Entry LAB EPI List? Y (Yes) <Enter>
Choose from:

ALL ENTEROCOCCI
ALL STAPHYLOCOCCUS AUREUS
ALL STREPTOCOCCUS PNEUMONIAE
CANDIDA
CLOSTRIDIUM DIFFICILE
CREUTZFELDT-JAKOB DISEASE
CRYPTOSPORIDIUM
DENGUE
E. COLI 0157:H7
HEPATITIS A ANTIBODY POS
HEPATITIS B POS
HEPATITIS C ANTIBODY NEG
HEPATITIS C ANTIBODY POS
LEGIONELLA
LEISHMANIASIS
MALARIA
METH-RES STAPH AUREUS
PEN-RES PNEUMOCOCCUS
STREPTOCOCCUS GROUP A
TUBERCULOSIS
VANC-RES COAG NEG STAPH
VANC-RES ENTEROCOCCUS
VANC-RES STAPH AUREUS (VRSA)

Select LAB EPI NAME: HEPATITIS C ANTIBODY NEG<Enter>

Note: The four hepatitis pathogens (Hepatitis C Antibody Positive, Hepatitis C
Antibody Negative, Hepatitis A Antibody Positive and Hepatitis B Positive) are
tightly integrated with the Clinical Reminder data stream that the EPI
national roll-up accomplishes (see combined products Vista Laboratory EPI
Hepatitis Extract Patch LR*5.2*260, PXR*1.5*1, PSJ*5*48 and Patch PSO*7*45)
and changes in the EPI parameters may need to have concomitant changes in the
Clinical Reminder data being passed over to the EPI national roll-up-
concurrent review (and changes, if necessary), should be undertaken in
conjunction with the local Clinical Applications Coordinator for the Clinical
Reminder package to assure that appropriate mapping of Health factors to the
national pathogens has occurred.
```

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 1 of 5
NAME: HEPATITIS C ANTIBODY NEG	INACTIVE: NO	
Laboratory Test(s)	Indicator	Value
HEP C ANTIBODY<Enter>	Contains<Enter>	NEG<Enter>
"HEP C ANTIBODY"<Enter>	Contains<Enter>	SEE
COMMENTS<Enter>		
"HEP C ANTIBODY"<Enter>	Contains<Enter>	*<Enter>
"HEP C ANTIBODY"<Enter>	Contains<Enter>	#<Enter>
<b>Note:</b> Enter the appropriate test for your site, and how the results are reported.		
ICDM-9	ICDM-9 Description	
<Enter>		
Exit	Save	Next Page Refresh
COMMAND: N<Enter>		Press <PF1>H for help Insert

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 2 of 5
NAME: HEPATITIS C ANTIBODY NEG	INACTIVE: NO	
Selected Etiology	Selected Snomed Codes	
<Enter>		
Antimicrobial Susceptibility	NLT Code	NLT Description
<Enter>		
Exit	Save	Next Page Refresh
COMMAND: N<Enter>		Press <PF1>H for help Insert

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 3 of 5
NAME: HEPATITIS C ANTIBODY Neg	INACTIVE: NO	
Topography Selection		
Include	Exclude	
<Enter>	<Enter>	
Exit	Save	Next Page Refresh
COMMAND: N<Enter>		Press <PF1>H for help Insert

```
LABORATORY EPI PARAMETERS INPUT SCREEN          Page 4 of 5
NAME: HEPATITIS C ANTIBODY NEG                 INACTIVE: NO
-----
First Encounter:<Enter>                          Follow PTF: YES<Enter>
BEFORE DATE OF BIRTH:<Enter>                   AFTER DATE OF BIRTH:<Enter>
Select SEX:<Enter>
-----
Exit      Save      Refresh
COMMAND: E<Enter>                               Press <PF1>H for help
```

```
LABORATORY EPI PARAMETERS INPUT SCREEN          Page 5 of 5
NAME: HEPATITIS C ANTIBODY NEG                 INACTIVE: NO
-----
Run Date:<Enter>                                Protocol: LREPI<Enter>
Run Cycle: MONTHLY<Enter>                      Lag Days: 15<Enter>
Previous Cycle: <TAB>
General Description: <TAB>
-----
Exit      Save      Refresh
COMMAND: E<Enter>                               Press <PF1>H for help
Save changes before leaving form (Y/N)? Y<Enter>
```

## Hepatitis C Antibody Positive (Reference #2)

Hepatitis C is much more prevalent than originally thought at least in certain key patient sub-populations. As new and more sensitive assays come into use, we seem to find more evidence of this pathogen. We are looking for evidence of exposure to Hepatitis C in patients as demonstrated by Hepatitis C antibody positivity. The need for confirmatory testing or demonstration of active disease is not currently necessary in gathering data for this program. Different facilities may use different assays for this test. What we are looking for is evidence of presence of antibody to Hepatitis C, whether it be recorded as “weakly positive”, “strongly positive”, “positive”, or “present”. If other phrases are used to describe a test result, one should be able to differentiate the results upon entry into the program. As an example, the words, “present” and “not present” would not allow retrieval of only positive cases as both phrases contain the word, “present”.

**NOTE:** There are PCR based tests utilized for Hepatitis C. These tests are not used at all facilities and are not yet FDA approved for identification of hepatitis C disease. As such, they should not be used for reporting purposes with this iteration of EPI.

## Example: Lab EPI Parameter Setup for Hepatitis C Antibody POS

```

                                Lab EPI Primary Menu

ENH      Lab EPI Manual Run (Enhanced)
VR       Print Detailed Verification Report
LO       Local Pathogen Menu ...
PI       Pathogen Inquiry
UP       Lab EPI Parameter Setup
         Lab EPI Protocol Edit
LK       Antimicrobial Link Update

Select Lab EPI Primary menu Option: UP<Enter> Lab EPI Parameter Setup

Select LAB EPI NAME: ?<Enter>
Answer with LAB EPI NAME, or REFERENCE NUMBER
Do you want the entire 23-Entry LAB EPI List? Y (Yes)<Enter>
Choose from:
  ALL ENTEROCOCCI
  ALL STAPHYLOCOCCUS AUREUS
  ALL STREPTOCOCCUS PNEUMONIAE
  CANDIDA
  CLOSTRIDIUM DIFFICILE
  CREUTZFELDT-JAKOB DISEASE
  CRYPTOSPORIDIUM
  DENGUE
  E. COLI 0157:H7
  HEPATITIS A ANTIBODY POS
  HEPATITIS B POS
  HEPATITIS C ANTIBODY NEG
  HEPATITIS C ANTIBODY POS
  LEGIONELLA
  LEISHMANIASIS
  MALARIA
  METH-RES STAPH AUREUS
  PEN-RES PNEUMOCOCCUS
  STREPTOCOCCUS GROUP A
  TUBERCULOSIS
  VANC-RES COAG NEG STAPH
  VANC-RES ENTEROCOCCUS
  VANC-RES STAPH AUREUS (VRSA)

Select LAB EPI NAME: HEPATITIS C ANTIBODY POS<Enter>

Note: The four hepatitis pathogens (Hepatitis C Antibody Positive, Hepatitis C Antibody Negative, Hepatitis A Antibody Positive and Hepatitis B Positive) are tightly integrated with the Clinical Reminder data stream that the EPI national roll-up accomplishes (see combined products VistA Laboratory EPI Hepatitis Extract Patch LR*5.2*260, PXR*1.5*1, PSJ*5*48 and Patch PSO*7*45) and changes in the EPI parameters may need to have concomitant changes in the Clinical Reminder data being passed over to the EPI national roll-up—concurrent review (and changes, if necessary), should be undertaken in conjunction with the local Clinical Applications Coordinator for the Clinical Reminder package to assure that appropriate mapping of Health factors to the national pathogens has occurred.
```

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 1 of 5
NAME: HEPATITIS C ANTIBODY POS		INACTIVE: NO
<hr/>		
Laboratory Test(s)	Indicator	Value
HEPATITIS C ANTIBODY<Enter>	Contains<Enter>	
POS<Enter>		
<b>Note:</b> Enter the appropriate test for your site, and how the results are reported.		
ICDM-9	ICDM-9 Description	
<Enter>		
<hr/>		
Exit	Save	Next Page
		Refresh
COMMAND: N<Enter>		Press <PF1>H for help    Insert

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 2 of 5
NAME: HEPATITIS C ANTIBODY POS		INACTIVE: NO
<hr/>		
Selected Etiology	Selected Snomed Codes	
<Enter>		
Antimicrobial Susceptibility	NLT Code	NLT Description
<Enter>		
<hr/>		
Exit	Save	Next Page
		Refresh
COMMAND: N<Enter>		Press <PF1>H for help    Insert

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 3 of 5
NAME: HEPATITIS C ANTIBODY POS		INACTIVE: NO
<hr/>		
Topography Selection		
Include	Exclude	
<Enter>	<Enter>	
<hr/>		
Exit	Save	Next Page
		Refresh
COMMAND: N<Enter>		Press <PF1>H for help    Insert

```
LABORATORY EPI PARAMETERS INPUT SCREEN          Page 4 of 5
NAME: HEPATITIS C ANTIBODY POS                  INACTIVE: NO
-----
First Encounter:<Enter>                          Follow PTF: YES<Enter>
BEFORE DATE OF BIRTH:<Enter>                    AFTER DATE OF BIRTH:<Enter>
Select SEX:<Enter>
-----
Exit      Save      Refresh
COMMAND: E<Enter>                               Press <PF1>H for help
```

```
LABORATORY EPI PARAMETERS INPUT SCREEN          Page 5 of 5
NAME: HEPATITIS C ANTIBODY POS                  INACTIVE: NO
-----
Run Date:<Enter>                                Protocol: LREPI<Enter>
Run Cycle: MONTHLY<Enter>                      Lag Days: 15<Enter>
Previous Cycle: <TAB>
General Description: <TAB>
-----
Exit      Save      Refresh
COMMAND: E<Enter>                               Press <PF1>H for help
Save changes before leaving form (Y/N)? Y<Enter>
```

## Legionella (Reference #7)

Since the American Legion Convention in Philadelphia in the 1970's, Legionnaires' disease has been an illness of keen interest to the DVA. Because diagnosis is complex, we have chosen to review for presence of *Legionella* in culture and in ICDM-9 DIAGNOSIS file (#80). We will not look at *Legionella* direct fluorescent antibody positivity because of the potential high false positivity of this test. Likewise, serology is not easy to interpret or easily extracted from the VistA database for our purposes and will **not** be included as a marker in this first iteration of the EPI program. Because it is not yet approved, the newer test of *Legionella* urinary antigen will not be used either. The Selected Etiology screen display has been partially pre-populated.

**NOTE:** The **new** FDA-Approved Legionella Urinary Antigen test is available; as such the ability to capture the result with this release of EPI is addressed. This newer test **must** be added for LEGIONELLA via the Lab EPI Parameter Setup [LREPI PARAMETER SETUP] option. The preferred method to capture this is to have the Etiology (result) of the accessioned microbiology be POSITIVE FOR LEGIONELLA PNEUMOPHILA (or something similar). This issue is similar to one encountered in with the Clostridium difficile pathogen and samples of how to address this are provided in Appendix B Helpful Hints.

### Example: Lab EPI Parameter Setup for LEGIONELLA

```

                                Lab EPI Primary Menu

ENH      Lab EPI Manual Run (Enhanced)
VR       Print Detailed Verification Report
LO       Local Pathogen Menu ...
PI       Pathogen Inquiry
UP       Lab EPI Parameter Setup
         Lab EPI Protocol Edit
LK       Antimicrobial Link Update

Select Lab EPI Primary menu Option: UP<Enter> Lab EPI Parameter Setup

Select LAB EPI NAME: ?<Enter>
Answer with LAB EPI NAME, or REFERENCE NUMBER
Do you want the entire 23-Entry LAB EPI List? Y (Yes) <Enter>
Choose from:

ALL ENTEROCOCCI
ALL STAPHYLOCOCCUS AUREUS
ALL STREPTOCOCCUS PNEUMONIAE
CANDIDA
CLOSTRIDIUM DIFFICILE
CREUTZFELDT-JAKOB DISEASE
CRYPTOSPORIDIUM
DENGUE
E. COLI 0157:H7
HEPATITIS A ANTIBODY POS
HEPATITIS B POS
HEPATITIS C ANTIBODY NEG
HEPATITIS C ANTIBODY POS
LEGIONELLA
LEISHMANIASIS
MALARIA
METH-RES STAPH AUREUS
PEN-RES PNEUMOCOCCUS
STREPTOCOCCUS GROUP A
TUBERCULOSIS
VANC-RES COAG NEG STAPH
VANC-RES ENTEROCOCCUS
VANC-RES STAPH AUREUS (VRSA)

Select LAB EPI NAME: LEGIONELLA <Enter>
```

```

LABORATORY EPI PARAMETERS INPUT SCREEN          Page 1 of 5
NAME: LEGIONELLA                                INACTIVE: NO
-----
Laboratory Test(s)          Indicator          Value
<Enter>
ICDM-9                      ICDM-9 Description
482.80                      LEGIONNARIE'S DISEASE
482.84                      LEGIONNARIE'S DISEASE
<Enter>
-----
Exit      Save      Next Page      Refresh
COMMAND: N<Enter>                                Press <PF1>H for help      Insert
    
```

```

LABORATORY EPI PARAMETERS INPUT SCREEN          Page 2 of 5
NAME: LEGIONELLA                                INACTIVE: NO
-----
Selected Etiology
Examples: LEGIONELLA BOZEMANII
              LEGIONELLA DUMOFFII
              LEGIONELLA GORMANII
              LEGIONELLA JORDANIS
              LEGIONELLA LONGBEACHAE
              LEGIONELLA MICDADEI
              LEGIONELLA OAKRIDGENSIS
              LEGIONELLA PNEUMOPHILIA
              LEGIONELLA SP
              LEGIONELLA WADSWORTHII
              POSITIVE FOR LEGIONELLA PNEUMOPHILA
<Enter>
Note: During the post Init, the ETIOLOGY FIELD file (#61.2) was searched to
pre-populate the Etiology field (#3) in the EMERGING PATHOGENS file (#69.5).
Listed above are examples of etiology entries which may have been populated
from your site's file. Additional etiologies may be added or deleted at the
Selected Etiology prompt to meet your site-specific needs.

Note: If spelling differences occur within your ETIOLOGY FIELD file (#61.2) be
consistent with your local file and spell the results here, as it is spelled
in your file (even if it is spelled differently in the example). We are
concerned more importantly with data recovery.

Antimicrobial Susceptibility          NLT Code          NLT Description
<Enter>
-----
Exit      Save      Next Page      Refresh
COMMAND: N<Enter>                                Press <PF1>H for help      Insert
    
```

```
LABORATORY EPI PARAMETERS INPUT SCREEN          Page 3 of 5
NAME: LEGIONELLA                                INACTIVE: NO
-----
                                Topography Selection
Include                                     Exclude
<Enter>                                     <Enter>
-----
Exit      Save      Next Page      Refresh
COMMAND: N<Enter>                                Press <PF1>H for help      Insert
```

```
LABORATORY EPI PARAMETERS INPUT SCREEN          Page 4 of 5
NAME: LEGIONELLA                                INACTIVE: NO
-----
First Encounter: <Enter>                        Follow PTF: YES<Enter>
BEFORE DATE OF BIRTH: <Enter>                  AFTER DATE OF BIRTH: <Enter>
Select SEX: <Enter>
-----
Exit      Save      Refresh
COMMAND: E<Enter>                                Press <PF1>H for help
```

```
LABORATORY EPI PARAMETERS INPUT SCREEN          Page 5 of 5
NAME: E. LEGIONELLA                                INACTIVE: NO
-----
Run Date: <Enter>                                Protocol: LREPI<Enter>
Run Cycle: MONTHLY<Enter>                       Lag Days: 15<Enter>
Previous Cycle: <TAB>
General Description: <TAB>
-----
Exit      Save      Refresh
COMMAND: E<Enter>                                Press <PF1>H for help      Insert
Save changes before leaving form (Y/N)? Y <Enter>
```

## Leishmaniasis (Reference #14)

*Leishmaniasis* is a significant tropical disease that can cause serious complications. It is of interest to the Department of Veterans Affairs as *Leishmania* has caused illness among military personnel for many years. In addition, the Persian Gulf War occurred in an area of the world where the parasite is endemic. Because no simple, straightforward serology exists and no standard culture techniques exist, we have chosen to follow this entity through ICDM-9 diagnosis codes.

### **Example: Lab EPI Parameter Setup for Leishmaniasis**

```

                                Lab EPI Primary Menu

ENH      Lab EPI Manual Run (Enhanced)
VR       Print Detailed Verification Report
LO       Local Pathogen Menu ...
PI       Pathogen Inquiry
UP       Lab EPI Parameter Setup
         Lab EPI Protocol Edit
LK       Antimicrobial Link Update

Select Lab EPI Primary menu Option: UP<Enter> Lab EPI Parameter Setup

Select LAB EPI NAME: ?<Enter>
Answer with LAB EPI NAME, or REFERENCE NUMBER
Do you want the entire 23-Entry LAB EPI List? Y (Yes) <Enter>
Choose from:

ALL ENTEROCOCCI
ALL STAPHYLOCOCCUS AUREUS
ALL STREPTOCOCCUS PNEUMONIAE
CANDIDA
CLOSTRIDIUM DIFFICILE
CREUTZFELDT-JAKOB DISEASE
CRYPTOSPORIDIUM
DENGUE
E. COLI 0157:H7
HEPATITIS A ANTIBODY POS
HEPATITIS B POS
HEPATITIS C ANTIBODY NEG
HEPATITIS C ANTIBODY POS
LEGIONELLA
LEISHMANIASIS
MALARIA
METH-RES STAPH AUREUS
PEN-RES PNEUMOCOCCUS
STREPTOCOCCUS GROUP A
TUBERCULOSIS
VANC-RES COAG NEG STAPH
VANC-RES ENTEROCOCCUS
VANC-RES STAPH AUREUS (VRSA)

Select LAB EPI NAME: LEISHMANIASIS <Enter>

```

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 1 of 5
NAME: LEISHMANIASIS		INACTIVE: NO
<hr/>		
Laboratory Test(s)	Indicator	Value
<b>&lt;Enter&gt;</b>		
ICD9	ICD9 Description	
085.0	VISCERAL LEISHMANIASIS	
085.1	CUTAN LEISHMANIAS URBAN	
085.2	CUTAN LEISHMANIAS ASIAN	
085.3	CUTAN LEISHMANIAS ETHIOP	
085.4	CUTAN LEISHMANIAS AMER	
085.5	MUCOCUTAN LEISHMANIASIS	
085.9	LEISHMANIASIS NOS	
<b>&lt;Enter&gt;</b>		
<hr/>		
Exit	Save	Next Page
		Refresh
COMMAND: N <b>&lt;Enter&gt;</b>		Press <PF1>H for help    Insert

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 2 of 5
NAME: LEISHMANIASIS		INACTIVE: NO
<hr/>		
Selected Etiology	Selected Snomed Codes	
<b>&lt;Enter&gt;</b>		
Antimicrobial Susceptibility	NLT Code	NLT Description
<b>&lt;Enter&gt;</b>		
<hr/>		
Exit	Save	Next Page
		Refresh
COMMAND: N <b>&lt;Enter&gt;</b>		Press <PF1>H for help    Insert

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 3 of 5
NAME: LEISHMANIASIS		INACTIVE: NO
<hr/>		
Topography Selection		
Include	Exclude	
<b>&lt;Enter&gt;</b>	<b>&lt;Enter&gt;</b>	
<hr/>		
Exit	Save	Next Page
		Refresh
COMMAND: N <b>&lt;Enter&gt;</b>		Press <PF1>H for help    Insert

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 4 of 5
NAME: LEISHMANIASIS	INACTIVE: NO	
<hr/>		
First Encounter: <Enter>	FOLLOW PTF: YES<Enter>	
BEFORE DATE OF BIRTH: <Enter>	AFTER DATE OF BIRTH: <Enter>	
Select SEX: RET>		
<hr/>		
Exit	Save	Refresh
COMMAND: E<Enter>	Press <PF1>H for help	

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 5 of 5
NAME: E. LEISHMANIASIS	INACTIVE: NO	
<hr/>		
Run Date: <Enter>	Protocol: LREPI<Enter>	
Run Cycle: MONTHLY<Enter>	Lag Days: 15<Enter>	
Previous Cycle: <TAB>		
General Description: <TAB>		
<hr/>		
Exit	Save	Refresh
COMMAND: E<Enter>	Press <PF1>H for help	Insert
Save changes before leaving form (Y/N)? Y<Enter>		

## Malaria (Reference #11)

The plasmodial parasite is responsible for the blood-borne disease of *malaria*. *Malaria* can cause acute as well as chronic, relapsing disease. Occasionally, U.S. troops are deployed in malaria endemic areas. This placement could potentially put troops at risk for acquiring this disease. For the Emerging Pathogens Initiative program, we are interested in tracking patients with malaria, acute or chronic, relapsing, and in either inpatient or outpatient status. No standardized serologic test allows for easy identification. Since not all sites consistently code and record malarial parasites seen histologically or on blood smears (not all of these interpretations are done through the Pathology and Laboratory Service), we have currently decided to track malaria based on ICDM-9 coding.

### **Example: Lab EPI Parameter Setup for Malaria**

```

                                Lab EPI Primary Menu

ENH      Lab EPI Manual Run (Enhanced)
VR       Print Detailed Verification Report
LO       Local Pathogen Menu ...
PI       Pathogen Inquiry
UP       Lab EPI Parameter Setup
         Lab EPI Protocol Edit
LK       Antimicrobial Link Update

Select Lab EPI Primary menu Option: UP<Enter> Lab EPI Parameter Setup

Select LAB EPI NAME: ?<Enter>
  Answer with LAB EPI NAME, or REFERENCE NUMBER
  Do you want the entire 23-Entry LAB EPI List? Y (Yes) <Enter>
Choose from:

  ALL ENTEROCOCCI
  ALL STAPHYLOCOCCUS AUREUS
  ALL STREPTOCOCCUS PNEUMONIAE
  CANDIDA
  CLOSTRIDIUM DIFFICILE
  CREUTZFELDT-JAKOB DISEASE
  CRYPTOSPORIDIUM
  DENGUE
  E. COLI 0157:H7
  HEPATITIS A ANTIBODY POS
  HEPATITIS B POS
  HEPATITIS C ANTIBODY NEG
  HEPATITIS C ANTIBODY POS
  LEGIONELLA
  LEISHMANIASIS
  MALARIA
  METH-RES STAPH AUREUS
  PEN-RES PNEUMOCOCCUS
  STREPTOCOCCUS GROUP A
  TUBERCULOSIS
  VANC-RES COAG NEG STAPH
  VANC-RES ENTEROCOCCUS
  VANC-RES STAPH AUREUS (VRSA)

Select LAB EPI NAME: MALARIA <Enter>

```

LABORATORY EPI PARAMETERS INPUT SCREEN	Page 1 of 5	
NAME: MALARIA	INACTIVE: NO	
<hr/>		
Laboratory Test(s)	Indicator	Value
<b>&lt;Enter&gt;</b>		
ICDM-9	ICDM-9 Description	
084.0	FALCIPARUM MALARIA	
084.1	VIVAX MALARIA	
084.2	QUARTAN MALARIA	
084.3	OVALE MALARIA	
084.4	MALARIA NEC	
084.5	MIXED MALARIA	
084.6	MALARIA NOS	
084.7	INDUCED MALARIA	
084.8	BLACKWATER FEVER	
084.9	MALARIA COMPLICATED NEC	
<b>&lt;Enter&gt;</b>		
<hr/>		
Exit	Save	Next Page
		Refresh
COMMAND: <b>N&lt;Enter&gt;</b>		Press <PF1>H for help    Insert

LABORATORY EPI PARAMETERS INPUT SCREEN	Page 2 of 5	
NAME: MALARIA	INACTIVE: NO	
<hr/>		
Selected Etiology	Selected Snomed Codes	
<b>&lt;Enter&gt;</b>		
Antimicrobial Susceptibility	NLT Code	NLT Description
<b>&lt;Enter&gt;</b>		
<hr/>		
Exit	Save	Next Page
		Refresh
COMMAND: <b>N&lt;Enter&gt;</b>		Press <PF1>H for help    Insert

LABORATORY EPI PARAMETERS INPUT SCREEN	Page 3 of 5	
NAME: MALARIA	INACTIVE: NO	
<hr/>		
Topography Selection		
Include	Exclude	
<b>&lt;Enter&gt;</b>	<b>&lt;Enter&gt;</b>	
<hr/>		
Exit	Save	Next Page
		Refresh
COMMAND: <b>N&lt;Enter&gt;</b>		Press <PF1>H for help    Insert

```
LABORATORY EPI PARAMETERS INPUT SCREEN                Page 4 of 5
NAME: MALARIA                                         INACTIVE: NO
-----
First Encounter: <Enter>                               FOLLOW PTF: YES<Enter>
BEFORE DATE OF BIRTH: <Enter>                         AFTER DATE OF BIRTH: <Enter>
Selected SEX: <Enter>
Exit      Save      Refresh
COMMAND: E<Enter>                                     Press <PF1>H for help
```

```
LABORATORY EPI PARAMETERS INPUT SCREEN                Page 5 of 5
NAME: MALARIA                                         INACTIVE: NO
-----
Run Date: <Enter>                                     Protocol: LREPI<Enter>
Run Cycle: MONTHLY<Enter>                             Lag Days: 15<Enter>
Previous Cycle: <TAB>
General Description: <TAB>
-----
Exit      Save      Refresh
COMMAND: E<Enter>                                     Press <PF1>H for help
Save changes before leaving form (Y/N)? Y<Enter>
```

## Methicillin-Resistant *Staphylococcus aureus* (MRSA) (Reference #19)

Methicillin (or oxacillin)-resistant *Staphylococcus aureus* (MRSA) is a pathogen of continuing importance for healthcare facilities. It is also an emerging pathogen from community-acquired sources. It is an organism that can be transmitted easily within facilities and in the community. It can produce a spectrum of illness from asymptomatic colonization to severe, life-threatening disease in those patients who acquire it. Whether this organism is causing disease or not, it can contribute to spread within a healthcare facility. The purpose of this pathogen on the EPI list is to capture all cultures that have MRSA present (whether the patient has disease or is just colonized). This should capture all methicillin non-Susceptible isolates of *Staphylococcus aureus*.

**NOTE:** This includes all positive cultures for MRSA, both clinical cultures and those done as part of epidemiologic prevalence studies or surveys (such as nasal and rectal swabs) at your facility.

Any *Staphylococcus aureus* isolate that is resistant to methicillin (or oxacillin) should be captured for this. Laboratories may use different methods to capture these data. An appropriate National Committee on Clinical Laboratory Standards (NCCLS) testing schema used and captured in VistA should be adequate.

### Example: Lab EPI Parameter Setup for METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS (MRSA)

```
Lab EPI Primary Menu

ENH      Lab EPI Manual Run (Enhanced)
VR       Print Detailed Verification Report
LO       Local Pathogen Menu ...
PI       Pathogen Inquiry
UP       Lab EPI Parameter Setup
         Lab EPI Protocol Edit
LK       Antimicrobial Link Update

Select Lab EPI Primary menu Option: UP<Enter> Lab EPI Parameter Setup

Select LAB EPI NAME: ?<Enter>
Answer with LAB EPI NAME, or REFERENCE NUMBER
Do you want the entire 23-Entry LAB EPI List? Y (Yes) <Enter>
Choose from:

ALL ENTEROCOCCI
ALL STAPHYLOCOCCUS AUREUS
ALL STREPTOCOCCUS PNEUMONIAE
CANDIDA
CLOSTRIDIUM DIFFICILE
CREUTZFELDT-JAKOB DISEASE
CRYPTOSPORIDIUM
DENGUE
E. COLI 0157:H7
HEPATITIS A ANTIBODY POS
HEPATITIS B POS
HEPATITIS C ANTIBODY NEG
HEPATITIS C ANTIBODY POS
LEGIONELLA
LEISHMANIASIS
MALARIA
METH-RES STAPH AUREUS
PEN-RES PNEUMOCOCCUS
STREPTOCOCCUS GROUP A
TUBERCULOSIS
VANC-RES COAG NEG STAPH
VANC-RES ENTEROCOCCUS
VANC-RES STAPH AUREUS (VRSA)

Select LAB EPI NAME: METH-RES STAPH AUREUS <Enter>
```

```

LABORATORY EPI PARAMETERS INPUT SCREEN                               Page 1 of 5
NAME: METH-RES STAPH AUREUS                                         INACTIVE: NO

```

---

```

Laboratory Test(s)           Indicator           Value
<Enter>
ICDM-9                       ICDM-9 Description
<Enter>

```

---

```

Exit      Save      Next Page      Refresh

```

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

```

COMMAND: N<Enter>                               Press <PF1>H for help      Insert

```

```

LABORATORY EPI PARAMETERS INPUT SCREEN                               Page 2 of 5
NAME: METH-RES STAPH AUREUS                                         INACTIVE: NO

```

---

```

Selected Etiology           Selected Snomed Codes
STAPHYLOCOCCUS AUREUS
STAPHYLOC+
OCCUS AUREUS (MRSA STAPHYLOCOCCUS AUREUS
NOTE: In addition to Staphylococcus aureus as an etiology, some laboratories
may specifically indicate MRSA as a separate etiology. If that is the case
with your laboratory, please be sure to include that naming convention in the
EPI parameter for "Selected Etiology" also.

Note: You may enter a new etiology, if you wish
STAPHYLOCOCCUS AUREUS (MRSA) <Enter>

Are you adding a new ETIOLOGY? No// Y<Enter>

```

---

```

Antimicrobial Susceptibility      NLT Code      NLT Description
OXACILLIN<Enter> NOTE: For this, place the antibiotic (oxacillin, methicillin,
or nafcillin) that your lab utilizes to determine methicillin-resistance.
Are you adding a new ANTIMICROBIAL SUSCEPTIBILITY? No// Y<Enter>

```

---

```

OXACILLIN           81844.0000      Oxacillin
NAFCILLIN          81808.0000      Nafcillin

```

---

```

Exit      Save      Next Page      Refresh

```

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

```

COMMAND: N<Enter>                               Press <PF1>H for help      Insert

```

```
LABORATORY EPI PARAMETERS INPUT SCREEN                               Page 3 of 5
NAME: METH-RES STAPH AUREUS                                         INACTIVE: NO
-----
                                Topography Selection
Include                                                                    Exclude
<Enter>                                                                    <Enter>
-----
Exit      Save      Next Page      Refresh
Enter a command or '^' followed by a caption to jump to a specific field.
COMMAND: N<Enter>                                Press <PF1>H for help      Insert
```

```
LABORATORY EPI PARAMETERS INPUT SCREEN                               Page 4 of 5
NAME: METH-RES STAPH AUREUS                                         INACTIVE: NO
-----
FIRST ENCOUNTER: <Enter>                                             FOLLOW PTF: YES <Enter>
BEFORE DATE OF BIRTH: <Enter>                                       AFTER DATE OF BIRTH: <Enter>
Select SEX: <Enter>
-----
Exit      Save      Next Page      Refresh
Enter a command or '^' followed by a caption to jump to a specific field.
COMMAND: N<Enter>                                Press <PF1>H for help      Insert
```

```
LABORATORY EPI PARAMETERS INPUT SCREEN                               Page 5 of 5
NAME: METH-RES STAPH AUREUS                                         INACTIVE: NO
-----
Run Date: <Enter>                                                    Protocol: LREPI<Enter>
Run Cycle: MONTHLY<Enter>                                           Lag Days: 15<Enter>
Previous Cycle: <TAB>
General Description: <TAB>
-----
Exit      Save      Next Page      Refresh
Enter a command or '^' followed by a caption to jump to a specific field.
COMMAND: S<Enter>                                Press <PF1>H for help      Insert
```

### Penicillin - Resistant Pneumococcus (Reference #3)

The emergence of antibiotic resistance in microbial agents is of great interest and concern for health care. Penicillin (PCN) was once the mainstay of therapy for *Streptococcus pneumoniae* infections but resistance to this agent is becoming more prominent. Different therapeutic strategies need to be developed once the prevalence of PCN-resistant *S. pneumoniae* reaches a critical threshold in a community. In order to monitor this, we are looking for the presence of any resistance in the pneumococci (either “moderate/intermediate” or “frank/high” level resistance). As such, any *S. pneumoniae*, which is not fully susceptible to PCN on PCN susceptibility testing, should be recorded.

#### **Example: Lab EPI Parameter Setup for Penicillin - Resistant Pneumococcus**

```

                                Lab EPI Primary Menu

ENH      Lab EPI Manual Run (Enhanced)
VR       Print Detailed Verification Report
LO       Local Pathogen Menu ...
PI       Pathogen Inquiry
UP       Lab EPI Parameter Setup
         Lab EPI Protocol Edit
LK       Antimicrobial Link Update

Select Lab EPI Primary menu Option: UP<Enter> Lab EPI Parameter Setup

Select LAB EPI NAME: ?<Enter>
  Answer with LAB EPI NAME, or REFERENCE NUMBER
  Do you want the entire 23-Entry LAB EPI List? Y (Yes) <Enter>
Choose from:

  ALL ENTEROCOCCI
  ALL STAPHYLOCOCCUS AUREUS
  ALL STREPTOCOCCUS PNEUMONIAE
  CANDIDA
  CLOSTRIDIUM DIFFICILE
  CREUTZFELDT-JAKOB DISEASE
  CRYPTOSPORIDIUM
  DENGUE
  E. COLI 0157:H7
  HEPATITIS A ANTIBODY POS
  HEPATITIS B POS
  HEPATITIS C ANTIBODY NEG
  HEPATITIS C ANTIBODY POS
  LEGIONELLA
  LEISHMANIASIS
  MALARIA
  METH-RES STAPH AUREUS
  PEN-RES PNEUMOCOCCUS
  STREPTOCOCCUS GROUP A
  TUBERCULOSIS
  VANC-RES COAG NEG STAPH
  VANC-RES ENTEROCOCCUS
  VANC-RES STAPH AUREUS (VRSA)

Select LAB EPI NAME: PEN-RES PNEUMOCOCCUS<Enter>

```

```

LABORATORY EPI PARAMETERS INPUT SCREEN          Page 1 of 5
NAME: PEN-RES PNEUMOCOCCUS                      INACTIVE: NO
-----
Laboratory Test(s)                               Indicator           Value
<Enter>
ICDM-9                                           ICDM-9 Description
<Enter>
-----
Exit      Save      Next Page      Refresh
COMMAND: <Enter>                               Press <PF1>H for help   Insert
    
```

```

LABORATORY EPI PARAMETERS INPUT SCREEN          Page 2 of 5
NAME: PEN-RES PNEUMOCOCCUS                      INACTIVE: NO
-----
Selected Etiology                               Selected Snomed Codes
NOTE: You may enter a new ETIOLOGY, if you wish.
STREPTOCOCCUS PNEUMONIAE          12
Are you adding 'STREPTOCOCCUS PNEUMONIAE' as
a new ETIOLOGY (the 1ST for this EMERGING PATHOGENS)?Y<Enter>
Antimicrobial Susceptibility      NLT Code           NLT Description
Penicillin<Enter>
Are you adding ' Penicillin ' as a new Antimicrobial Susceptibility (the 1ST
for this EMERGING PATHOGENS)?Y <Enter>
-----
Exit      Save      Next Page      Refresh
COMMAND: <Enter>                               Press <PF1>H for help   Insert
    
```

```

LABORATORY EPI PARAMETERS INPUT SCREEN          Page 3 of 5
NAME: PEN-RES PNEUMOCOCCUS                      INACTIVE: NO
-----
Topography Selection
Include                                     Exclude
<Enter>                                     <Enter>
-----
Exit      Save      Next Page      Refresh
COMMAND: N<Enter>                               Press <PF1>H for help   Insert
    
```

```

LABORATORY EPI PARAMETERS INPUT SCREEN      Page 4 of 5
NAME: PEN-RES PNEUMOCOCCUS                  INACTIVE: NO
-----
First Encounter:<Enter>                      FOLLOW PTF: YES<Enter>
BEFORE DATE OF BIRTH:<Enter>                AFTER DATE OF BIRTH:<Enter>
Selected SEX:<Enter>
Exit      Save      Refresh
COMMAND: E<Enter>                          Press <PF1>H for help

```

```

LABORATORY EPI PARAMETERS INPUT SCREEN      Page 5 of 5
NAME: PEN-RES PNEUMOCOCCUS                  INACTIVE: NO
-----
Run Date: <Enter>                          Protocol: LREPI<Enter>
Run Cycle: MONTHLY<Enter>                  Lag Days: 15<Enter>
Previous Cycle: <TAB>
General Description: <TAB>
-----E
Exit      Save      Refresh
COMMAND: E<Enter>                          Press <PF1>H for help      Insert
Save changes before leaving form (Y/N)? Y <Enter>

```

## Streptococcus-Group A (Reference #6)

*Streptococcus*-Group A can be associated with or cause significant disease such as severe fasciitis and streptococcal toxic shock syndrome. We are especially interested to find out how much severe/deep seated disease the VA is experiencing, but other disease entities are of interest also. To this end, we are looking for all episodes of culture positivity for *Streptococcus*-Group A, regardless of site and regardless of inpatient or outpatient status of the person from whom the specimen is obtained. We are aware that some sites may use rapid screenings for *Streptococcus*-Group A, especially from pharyngeal sources. These rapid screens may be difficult to capture, so we are not asking for them on this first iteration of the EPI program. However, if you do capture them in a retrievable format they should be included (see Helpful Hints for *Clostridium difficile* in Appendix B for suggestions on how capture may be possible).

### **Example: Lab EPI Parameter Setup for Streptococcus-Group A**

```

                                Lab EPI Primary Menu

ENH      Lab EPI Manual Run (Enhanced)
VR       Print Detailed Verification Report
LO       Local Pathogen Menu ...
PI       Pathogen Inquiry
UP       Lab EPI Parameter Setup
         Lab EPI Protocol Edit
LK       Antimicrobial Link Update

Select Lab EPI Primary menu Option: UP<Enter> Lab EPI Parameter Setup

Select LAB EPI NAME: ?<Enter>
  Answer with LAB EPI NAME, or REFERENCE NUMBER
  Do you want the entire 23-Entry LAB EPI List? Y (Yes) <Enter>
Choose from:

  ALL ENTEROCOCCI
  ALL STAPHYLOCOCCUS AUREUS
  ALL STREPTOCOCCUS PNEUMONIAE
  CANDIDA
  CLOSTRIDIUM DIFFICILE
  CREUTZFELDT-JAKOB DISEASE
  CRYPTOSPORIDIUM
  DENGUE
  E. COLI 0157:H7
  HEPATITIS A ANTIBODY POS
  HEPATITIS B POS
  HEPATITIS C ANTIBODY NEG
  HEPATITIS C ANTIBODY POS
  LEGIONELLA
  LEISHMANIASIS
  MALARIA
  METH-RES STAPH AUREUS
  PEN-RES PNEUMOCOCCUS
  STREPTOCOCCUS GROUP A
  TUBERCULOSIS
  VANC-RES COAG NEG STAPH
  VANC-RES ENTEROCOCCUS
  VANC-RES STAPH AUREUS (VRSA)

Select LAB EPI NAME: STREPTOCOCCUS-GROUP A <Enter>

```

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 1 of 5
NAME: STREPTOCOCCUS-GROUP A		INACTIVE: NO
<hr/>		
Laboratory Test(s)	Indicator	Value
<b>&lt;Enter&gt;</b>		
ICDM-9	ICDM-9 Description	
<b>&lt;Enter&gt;</b>		
<hr/>		
Exit	Save	Next Page Refresh
COMMAND: <b>N&lt;Enter&gt;</b>		Press <PF1>H for help Insert

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 2 of 5
NAME: STREPTOCOCCUS-GROUP A		INACTIVE: NO
<hr/>		
Selected Etiology	Selected Snomed Codes	
STREPTOCOCCUS-GROUP A	<b>&lt;Enter&gt;</b>	
Antimicrobial Susceptibility	NLT Code	NLT Description
<b>&lt;Enter&gt;</b>		
<hr/>		
Exit	Save	Next Page Refresh
COMMAND: <b>N&lt;Enter&gt;</b>		Press <PF1>H for help Insert

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 3 of 5
NAME: STREPTOCOCCUS-GROUP A		INACTIVE: NO
<hr/>		
Topography Selection		
Include	Exclude	
<b>&lt;Enter&gt;</b>	<b>&lt;Enter&gt;</b>	
<hr/>		
Exit	Save	Next Page Refresh
COMMAND: <b>N&lt;Enter&gt;</b>		Press <PF1>H for help Insert

```
LABORATORY EPI PARAMETERS INPUT SCREEN          Page 4 of 5
NAME: STREPTOCOCCUS-GROUP A                      INACTIVE: NO
-----
First Encounter: <Enter>                          FOLLOW PTF: YES<Enter>
BEFORE DATE OF BIRTH: <Enter>                    AFTER DATE OF BIRTH: <Enter>
Select SEX: <Enter>
-----
Exit      Save      Refresh
COMMAND: E<Enter>                                Press <PF1>H for help
```

```
LABORATORY EPI PARAMETERS INPUT SCREEN          Page 5 of 5
NAME: STREPTOCOCCUS-GROUP A                      INACTIVE: NO
-----
Run Date:<Enter>                                  Protocol: LREPI<Enter>
Run Cycle: MONTHLY<Enter>                          Lag Days: 15<Enter>
Previous Cycle: <TAB>
General Description: <TAB>
-----
Exit      Save      Refresh
COMMAND: E<Enter>                                Press <PF1>H for help      Insert
Save changes before leaving form (Y/N)? Y <Enter>
```

## Tuberculosis (TB) (Reference #5)

*Mycobacterium tuberculosis* infection is an important public health concern. Recent increases in incidence of disease, and occurrence of multiply-drug resistant strains in outbreak situations along with the increased susceptibility of HIV-infected persons for this disease has generated renewed interest in this entity. Since the national data show that 80-85% of all reported active tuberculosis cases are culture positive (with acid fast bacilli smear-only positive cases increasing the reporting by 2-5% more) we have decided to use culture positivity for *Mycobacterium tuberculosis* to track tuberculosis infections in the current iteration of the EPI software application. Information regarding susceptibility will be tracked as well.

For the national EPI program, there will be no need to enter specific antimycobacterial agents to be tracked; it will be done automatically. ICDM-9 coding is complex and confusing for many cases of tuberculosis and therefore will **not** be used.

**NOTE:** The **new** PREVIOUS CYCLE field displayed on screen Page 1 of 5 is automatically defined as '1' for TB ONLY and CAN NOT be EDIT.

### Example: Lab EPI Parameter Setup for Tuberculosis (TB)

```

                                Lab EPI Primary Menu

ENH      Lab EPI Manual Run (Enhanced)
VR       Print Detailed Verification Report
LO       Local Pathogen Menu ...
PI       Pathogen Inquiry
UP       Lab EPI Parameter Setup
         Lab EPI Protocol Edit
LK       Antimicrobial Link Update

Select Lab EPI Primary menu Option: UP<Enter> Lab EPI Parameter Setup

Select LAB EPI NAME: ?<Enter>
  Answer with LAB EPI NAME, or REFERENCE NUMBER
  Do you want the entire 23-Entry LAB EPI List? Y (Yes)<Enter>
Choose from:

  ALL ENTEROCOCCI
  ALL STAPHYLOCOCCUS AUREUS
  ALL STREPTOCOCCUS PNEUMONIAE
  CANDIDA
  CLOSTRIDIUM DIFFICILE
  CREUTZFELDT-JAKOB DISEASE
  CRYPTOSPORIDIUM
  DENGUE
  E. COLI 0157:H7
  HEPATITIS A ANTIBODY POS
  HEPATITIS B POS
  HEPATITIS C ANTIBODY NEG
  HEPATITIS C ANTIBODY POS
  LEGIONELLA
  LEISHMANIASIS
  MALARIA
  METH-RES STAPH AUREUS
  PEN-RES PNEUMOCOCCUS
  STREPTOCOCCUS GROUP A
  TUBERCULOSIS
  VANC-RES COAG NEG STAPH
  VANC-RES ENTEROCOCCUS
  VANC-RES STAPH AUREUS (VRSA)

Select LAB EPI NAME: TUBERCULOSIS <Enter>
```

```

LABORATORY EPI PARAMETERS INPUT SCREEN                               Page 1 of 5
NAME: TUBERCULOSIS                                                INACTIVE: NO
-----
Laboratory Test(s)                Indicator                Value
<Enter>
ICDM-9                            ICDM-9 Description
<Enter>
-----
Exit      Save      Next Page      Refresh
COMMAND: N<Enter>                                Press <PF1>H for help      Insert
    
```

```

LABORATORY EPI PARAMETERS INPUT SCREEN                               Page 2 of 5
NAME: TUBERCULOSIS                                                INACTIVE: NO
-----
Selected Etiology                Selected Snomed Codes
Mycobacterium tuberculosis<Enter>
-----
Antimicrobial Susceptibility     NLT Code           NLT Description
<Enter>
-----
Exit      Save      Next Page      Refresh
COMMAND: N<Enter>                                Press <PF1>H for help      Insert
    
```

```

LABORATORY EPI PARAMETERS INPUT SCREEN                               Page 3 of 5
NAME: TUBERCULOSIS                                                INACTIVE: NO
-----
Topography Selection
-----
Include                Exclude
<Enter>                <Enter>
-----
Exit      Save      Next Page      Refresh
COMMAND: N<Enter>                                Press <PF1>H for help      Insert
    
```

```
LABORATORY EPI PARAMETERS INPUT SCREEN          Page 4 of 5
NAME: TUBERCULOSIS                               INACTIVE: NO
-----
First Encounter:<Enter>                          FOLLOW PTF:YES<Enter>
BEFORE DATE OF BIRTH:<Enter>                    AFTER DATE OF BIRTH:<Enter>
Select SEX:<Enter>
-----
Exit      Save      Refresh
COMMAND: E<Enter>                               Press <PF1>H for help
```

```
LABORATORY EPI PARAMETERS INPUT SCREEN          Page 5 of 5
NAME: TUBERCULOSIS                               INACTIVE: NO
-----
Run Date: <Enter>                                Protocol: LREPI<Enter>
Run Cycle: MONTHLY<Enter>                      Lag Days: 15 <Enter>
Previous Cycle: 1<TAB>
General Description: <TAB>
-----
Exit      Save      Refresh
COMMAND: E<Enter>                               Press <PF1>H for help   Insert
Save changes before leaving form (Y/N)? Y <Enter>
```

## Vancomycin-Resistant Coagulase Negative Staphylococci/Staph epi (VRSE) (Reference #21)

Staphylococci are significant contributors to disease in humans. *Staphylococcus aureus* is the most virulent of the staphylococci, but the non-*aureus* staphylococci can also cause disease. As a general group, these non-*aureus* staphylococci are referred to as coagulase negative staphylococci; some refer to this group of organisms as *Staphylococcus epidermidis* because the staphylococcal species *S. epidermidis* is one of the more common members of this group to cause disease. However, to be accurate, the group of organisms called coagulase negative staphylococci includes many different species, even if the generic terminology of *Staphylococcus epidermidis* (a.k.a. *Staph epi*) has been applied.

The coagulase negative staphylococci are important emerging pathogens in that they contribute to many infections acquired while in a healthcare facility. As a general rule, the coagulase negative staphylococci have lesser virulence than *Staphylococcus aureus*, but they can still cause serious, life-threatening disease in certain settings. As with other organisms, antibiotic resistance is occurring among the coagulase negative staphylococci. There is concern in particular for resistance to vancomycin among this group of organisms, as it is currently the only antibiotic that has consistently shown activity against infections caused by this group of organisms; however, decreased susceptibility and even resistance to vancomycin has been identified in rare cases.

The purpose of this EPI pathogen entry is to capture all isolates from all specimens that contain a coagulase negative staphylococcus that is not Susceptible to vancomycin (whether your facility calls it coagulase negative staphylococcus, *Staphylococcus epidermidis*, *Staphylococcus saprophyticus* or the myriad of other staphylococcal species that comprise this group).

**Example: Lab EPI Parameter Setup for Vancomycin-Resistant Coagulase Negative Staphylococci/Staph epi (VRSE) (Reference #21)**

```

                                Lab EPI Primary Menu

ENH      Lab EPI Manual Run (Enhanced)
VR       Print Detailed Verification Report
LO       Local Pathogen Menu ...
PI       Pathogen Inquiry
UP       Lab EPI Parameter Setup
         Lab EPI Protocol Edit
LK       Antimicrobial Link Update

Select Lab EPI Primary menu Option: UP<Enter> Lab EPI Parameter Setup

Select LAB EPI NAME: ?<Enter>
Answer with LAB EPI NAME, or REFERENCE NUMBER
Do you want the entire 23-Entry LAB EPI List? Y (Yes) <Enter>
Choose from:

ALL ENTEROCOCCI
ALL STAPHYLOCOCCUS AUREUS
ALL STREPTOCOCCUS PNEUMONIAE
CANDIDA
CLOSTRIDIUM DIFFICILE
CREUTZFELDT-JAKOB DISEASE
CRYPTOSPORIDIUM
DENGUE
E. COLI 0157:H7
HEPATITIS A ANTIBODY POS
HEPATITIS B POS
HEPATITIS C ANTIBODY NEG
HEPATITIS C ANTIBODY POS
LEGIONELLA
LEISHMANIASIS
MALARIA
METH-RES STAPH AUREUS
PEN-RES PNEUMOCOCCUS
STREPTOCOCCUS GROUP A
TUBERCULOSIS
VANC-RES COAG NEG STAPH
VANC-RES ENTEROCOCCUS
VANC-RES STAPH AUREUS (VRSA)

Select LAB EPI NAME: VANC-RES COAG NEG STAPH <Enter>
```

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 1 of 5
NAME: VANC-RES COAG NEG STAPH		INACTIVE: NO
<hr/>		
Laboratory Test(s)	Indicator	Value
<b>&lt;Enter&gt;</b>		
ICDM-9	ICDM-9 Description	
<b>&lt;Enter&gt;</b>		
<hr/>		
Exit	Save	Next Page Refresh
Enter a command or '^' followed by a caption to jump to a specific field.		
COMMAND: <b>N&lt;Enter&gt;</b>	Press <PF1>H for help	Insert

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 2 of 5
NAME: VANC-RES COAG NEG STAPH		INACTIVE: NO
<hr/>		
Selected Etiology	Selected Snomed Codes	
STAPHYLOCOCCUS (COAGULASE NEGATIVE)		
STAPHYLOCOCCUS (COAGULASE NEGATIVE)		
STAPHYLOCOCCUS EPIDERMIDIS		
STAPHYLOCOCCUS HAEMOLYTICUS		
STAPHYLOCOCCUS SAPROPHYTICUS		
STAPHYLOCOCCUS SALIVARIUS		
STAPHYLOCOCCUS SIMULANS		
STAPHYLOCOCCUS SP		
<b>Note:</b> These are just samples. There are many other named species of coagulase negative staphylococci. Do not include the Staphylococcus aureus, etc.)		
Note: You may enter a new etiology, is you wish		
STAPHYLOCOCCUS SP <b>&lt;Enter&gt;</b>		
Are you adding a new ETIOLOGY? No// <b>Y&lt;Enter&gt;</b>		
Antimicrobial Susceptibility	NLT Code	NLT Description
VANCOMYCIN <b>&lt;Enter&gt;</b>		
Are you adding a new ANTIMICROBIAL SUSCEPTIBILITY? No// <b>Y&lt;Enter&gt;</b>		
VANCMCN	81485.0000	Vancomycin
<hr/>		
Exit	Save	Next Page Refresh
Enter a command or '^' followed by a caption to jump to a specific field.		
COMMAND: <b>N&lt;Enter&gt;</b>	Press <PF1>H for help	Insert

```
LABORATORY EPI PARAMETERS INPUT SCREEN      Page 3 of 5
NAME: VANC-RES COAG NEG STAPH                INACTIVE: NO
-----
                                Topography Selection
Include                                     Exclude
<Enter>                                     <Enter>
-----
Exit      Save      Next Page      Refresh
Enter a command or '^' followed by a caption to jump to a specific field.
COMMAND: N<Enter>                          Press <PF1>H for help      Insert
```

```
LABORATORY EPI PARAMETERS INPUT SCREEN      Page 4 of 5
NAME: VANC-RES COAG NEG STAPH                INACTIVE: NO
-----
FIRST ENCOUNTER: <Enter>                    FOLLOW PTF: YES <Enter>
BEFORE DATE OF BIRTH: <Enter>              AFTER DATE OF BIRTH: <Enter>
Select SEX: <Enter>
-----
Exit      Save      Next Page      Refresh
Enter a command or '^' followed by a caption to jump to a specific field.
COMMAND: N<Enter>                          Press <PF1>H for help      Insert
```

```
LABORATORY EPI PARAMETERS INPUT SCREEN      Page 5 of 5
NAME: VANC-RES COAG NEG STAPH                INACTIVE: NO
-----
Run Date: <Enter>                            Protocol: LREPI<Enter>
Run Cycle: MONTHLY<Enter>                   Lag Days: 15<Enter>
Previous Cycle: <TAB>
General Description: <TAB>
-----
Exit      Save      Next Page      Refresh
Enter a command or '^' followed by a caption to jump to a specific field.
```

## Vancomycin-Resistant Enterococcus (VRE) (Reference #1)

*Vancomycin-Resistant Enterococcus* (VRE) is a pathogen of increasing importance. Not only can it cause significant disease, but also it can be spread within facilities. It is important to capture all positive cultures for VRE (not just disease). As such, all positive cultures for VRE will be reported.

In addition to *Enterococcus sp.* as an etiology, some laboratories may specifically indicate VRE as a separate etiology. If that is the case with your laboratory, please be sure to include that naming convention in your EPI parameter for “Selected Etiology” also.

**NOTE:** This includes cultures positive for prevalence and surveillance review, including specimens of stool and rectal swabs.

Vancomycin-resistant *Enterococcus faecalis* and *E. faecium* are most common, but we wish to look at all vancomycin resistant enterococci whether speciated or not. Therefore, it is important to be sure to list all the places in the Micro Lab package where *Enterococcus* are found, either as *Enterococcus*, *E. (sp.)*, Group D-*Streptococcus*, *E. faecalis*, *E. faecium*, *E. durans*, *E. gallinarum*, *E. casseliflavus*, etc.

**NOTE:** Only a partial pre-populated Etiology list is shown in the screen display example at the Selected Etiology prompt. Please be sure to review the entire Etiology list. If you have other etiology results at your site, they can be added to this Etiology list. Again, if alternate spellings are present in your site’s ETIOLOGY FIELD file (#61.2), be certain those spellings assure capture of all data points possible.

**Example: Lab EPI Parameter Setup for Vancomycin-Resistant Enterococcus (VRE)  
(Reference #1)**

```

                                Lab EPI Primary Menu

ENH      Lab EPI Manual Run (Enhanced)
VR       Print Detailed Verification Report
LO       Local Pathogen Menu ...
PI       Pathogen Inquiry
UP       Lab EPI Parameter Setup
         Lab EPI Protocol Edit
LK       Antimicrobial Link Update

Select Lab EPI Primary menu Option: UP<Enter> Lab EPI Parameter Setup

Select LAB EPI NAME: ?<Enter>
Answer with LAB EPI NAME, or REFERENCE NUMBER
Do you want the entire 23-Entry LAB EPI List? Y (Yes) <Enter>
Choose from:

ALL ENTEROCOCCI
ALL STAPHYLOCOCCUS AUREUS
ALL STREPTOCOCCUS PNEUMONIAE
CANDIDA
CLOSTRIDIUM DIFFICILE
CREUTZFELDT-JAKOB DISEASE
CRYPTOSPORIDIUM
DENGUE
E. COLI 0157:H7
HEPATITIS A ANTIBODY POS
HEPATITIS B POS
HEPATITIS C ANTIBODY NEG
HEPATITIS C ANTIBODY POS
LEGIONELLA
LEISHMANIASIS
MALARIA
METH-RES STAPH AUREUS
PEN-RES PNEUMOCOCCUS
STREPTOCOCCUS GROUP A
TUBERCULOSIS
VANC-RES COAG NEG STAPH
VANC-RES ENTEROCOCCUS
VANC-RES STAPH AUREUS (VRSA)

Select LAB EPI NAME: VANC-RES ENTEROCOCCUS <Enter>
```

```

LABORATORY EPI PARAMETERS INPUT SCREEN                               Page 1 of 5
NAME: VANC-RES ENTEROCOCCUS                                         INACTIVE: NO
-----
Laboratory Test(s)          Indicator          Value
<Enter>
ICDM-9                      ICDM-9 Description
<Enter>
-----
Exit      Save      Next Page      Refresh
COMMAND: N<Enter>                                     Press <PF1>H for help      Insert
    
```

```

LABORATORY EPI PARAMETERS INPUT SCREEN                               Page 2 of 5
NAME: VANC-RES ENTEROCOCCUS                                         INACTIVE: NO
-----
Selected Etiology          Selected Snomed Codes
Examples:Enterococcus
    Enterococcus (Strept. faecalis-Group D)
    Streptococcus faecalis      Enterococcus durans
    Streptococcus faecium      Streptococcus sp. Group D
    Enterococcus avium
    Enterococcus avium - (Group D)
    Enterococcus casseliflavus
    Enterococcus faecalis
    Enterococcus gallinarum
    Enterococcus malodoratus    Enterococcus
    Enterococcus hirae          solitarius
    Enterococcus mundtii        Enterococcus
    Enterococcus raffinosus     pseudoavium
    Enterococcus sp.            Enterococcus faecium
    Enterococcus species        Enterococcus durans
    Enterococcus (VRE)
<Enter>
Note: During the post Init, the ETIOLOGY FIELD file (#61.2) was searched to
pre-populate the Etiology field (#3) in the EMERGING PATHOGENS file (#69.5).
Listed above are examples of etiology entries which may have been populated
from your site's file. Additional etiologies may be added or deleted at the
Selected Etiology prompt to meet your site specific needs.

Note: If spelling differences occur within your ETIOLOGY FIELD file (#61.2) be
consistent with your local file and spell the results here, as it is spelled
in your file (even if it is spelled differently in the example). We are
concerned more importantly with data recovery.

Antimicrobial Susceptibility    NLT Code    NLT Description
VANCOMYCIN<Enter>
-----
Exit      Save      Next Page      Refresh
COMMAND: N<Enter>                                     Press <PF1>H for help      Insert
    
```

```
LABORATORY EPI PARAMETERS INPUT SCREEN          Page 3 of 5
NAME: VANC-RES ENTEROCOCCUS                     INACTIVE: NO
-----
                                Topography Selection
Include                                     Exclude
<Enter>                                     <Enter>
-----
Exit      Save      Next Page      Refresh
COMMAND: N<Enter>                               Press <PF1>H for help      Insert
```

```
LABORATORY EPI PARAMETERS INPUT SCREEN          Page 4 of 5
NAME: VANC-RES ENTEROCOCCUS                     INACTIVE: NO
-----
First Encounter:<Enter>                         FOLLOW PTF:YES<Enter>
BEFORE DATE OF BIRTH:<Enter>                   AFTER DATE OF BIRTH:<Enter>
Select SEX:<Enter>
-----
Exit      Save      Refresh
COMMAND: E<Enter>                               Press <PF1>H for help      Insert
Save changes before leaving form (Y/N)?Y<Enter>
```

```
LABORATORY EPI PARAMETERS INPUT SCREEN          Page 5 of 5
NAME: VANC-RES ENTEROCOCCUS                     INACTIVE: NO
-----
Run Date: <Enter>                               Protocol: LREPI<Enter>
Run Cycle: MONTHLY<Enter>                       Lag Days: 15<Enter>
Previous Cycle: <TAB>
General Description: <TAB>
-----
Exit      Save      Refresh
COMMAND: E<Enter>                               Press <PF1>H for help      Insert
Save changes before leaving form (Y/N)?Y<Enter>
```

## Vancomycin-Resistant Staphylococcus Aureus (VRSA) (Reference #20)

Vancomycin-resistant *Staphylococcus aureus* (VRSA) is a rare but emerging pathogen for healthcare facilities. It is of concern because the resistance to this antibiotic can be combined with resistance to other antibiotics; it is this multiple resistance that will make infection with this organism difficult to treat. Staphylococci can be transmitted easily within facilities; the easy transmission is of concern for this organism should it occur in a patient. The staphylococci can produce a spectrum of illness from asymptomatic colonization to severe, life-threatening disease in those patients who acquire them. Whether this organism is causing disease or not, it can contribute to spread within a healthcare facility. The purpose of this pathogen on the EPI list is to capture all cultures that have VRSA present (whether the patient has disease or is just colonized). This should capture all vancomycin non-Susceptible strains of *Staphylococcus aureus*, whether the susceptibility interpretation is Intermediate or Resistant.

**NOTE:** This includes all positive cultures for VRSA, both clinical cultures and those done as part of epidemiologic prevalence studies or surveys (such as nasal and rectal swabs) at your facility.

Any *Staphylococcus aureus* isolate that is resistant to vancomycin should be captured for this. Laboratories may use different methods to capture these data. An appropriate National Committee on Clinical Laboratory Standards (NCCLS) testing schema used and captured in VistA should be adequate.

**Example: Lab EPI Parameter Setup for Vancomycin-Resistant Staphylococcus aureus (VRSA) (Reference #20)**

```
Lab EPI Primary Menu

ENH      Lab EPI Manual Run (Enhanced)
VR       Print Detailed Verification Report
LO       Local Pathogen Menu ...
PI       Pathogen Inquiry
UP       Lab EPI Parameter Setup
         Lab EPI Protocol Edit
LK       Antimicrobial Link Update

Select Lab EPI Primary menu Option: UP<Enter> Lab EPI Parameter Setup

Select LAB EPI NAME: ?<Enter>
Answer with LAB EPI NAME, or REFERENCE NUMBER
Do you want the entire 23-Entry LAB EPI List? Y (Yes) <Enter>
Choose from:

ALL ENTEROCOCCI
ALL STAPHYLOCOCCUS AUREUS
ALL STREPTOCOCCUS PNEUMONIAE
CANDIDA
CLOSTRIDIUM DIFFICILE
CREUTZFELDT-JAKOB DISEASE
CRYPTOSPORIDIUM
DENGUE
E. COLI 0157:H7
HEPATITIS A ANTIBODY POS
HEPATITIS B POS
HEPATITIS C ANTIBODY NEG
HEPATITIS C ANTIBODY POS
LEGIONELLA
LEISHMANIASIS
MALARIA
METH-RES STAPH AUREUS
PEN-RES PNEUMOCOCCUS
STREPTOCOCCUS GROUP A
TUBERCULOSIS
VANC-RES COAG NEG STAPH
VANC-RES ENTEROCOCCUS
VANC-RES STAPH AUREUS (VRSA)

Select LAB EPI NAME: VANC-RES STAPH AUREUS (VRSA) <Enter>
```

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 1 of 5
NAME: VANC-RES STAPH AUREUS (VRSA)		INACTIVE: NO
Laboratory Test(s)	Indicator	Value
<b>&lt;Enter&gt;</b>		
ICDM-9	ICDM-9 Description	
<b>&lt;Enter&gt;</b>		
Exit	Save	Next Page Refresh
Enter a command or '^' followed by a caption to jump to a specific field.		
COMMAND: <b>N&lt;Enter&gt;</b>		Press <PF1>H for help Insert

LABORATORY EPI PARAMETERS INPUT SCREEN		Page 2 of 5
NAME: VANC-RES STAPH AUREUS (VRSA)		INACTIVE: NO
Selected Etiology	Selected Snomed Codes	
STAPHYLOCOCCUS AUREUS		
STAPHYLOCOCCUS AUREUS (MRSA)		
STAPHYLOCOCCUS AUREUS (VRSA)		
<b>NOTE:</b> In addition to Staphylococcus aureus as an etiology, some laboratories may specifically indicate VRSA as a separate etiology. If that is the case with your laboratory, please be sure to include that naming convention in your EPI parameter for "Selected Etiology" also.		
<b>Note:</b> You may enter a new etiology, is you wish		
STAPHYLOCOCCUS AUREUS (VRSA) <b>&lt;Enter&gt;</b>		
Are you adding a new ETIOLOGY? No// <b>Y&lt;Enter&gt;</b>		
Antimicrobial Susceptibility	NLT Code	NLT Description
VANCOMYCIN <b>&lt;Enter&gt;</b>		
Are you adding a new ANTIMICROBIAL SUSCEPTIBILITY? No// <b>Y&lt;Enter&gt;</b>		
VANCMCN	81485.0000	Vancomycin
Exit	Save	Next Page Refresh
Enter a command or '^' followed by a caption to jump to a specific field.		
COMMAND: <b>N&lt;Enter&gt;</b>		Press <PF1>H for help Insert

```
LABORATORY EPI PARAMETERS INPUT SCREEN                               Page 3 of 5
NAME: VANC-RES STAPH AUREUS                                         INACTIVE: NO
-----
                                Topography Selection
Include                                                                    Exclude
<Enter>                                                                    <Enter>
-----
Exit      Save      Next Page      Refresh
Enter a command or '^' followed by a caption to jump to a specific field.
COMMAND: N<Enter>                                                    Press <PF1>H for help   Insert
```

```
LABORATORY EPI PARAMETERS INPUT SCREEN                               Page 4 of 5
NAME: VANC-RES STAPH AUREUS                                         INACTIVE: NO
-----
FIRST ENCOUNTER:  <Enter>                                           FOLLOW PTF: YES <Enter>
BEFORE DATE OF BIRTH: <Enter>                                       AFTER DATE OF BIRTH: <Enter>
Select SEX: <Enter>
-----
Exit      Save      Next Page      Refresh
Enter a command or '^' followed by a caption to jump to a specific field.
COMMAND: N<Enter>                                                    Press <PF1>H for help   Insert
```

```
LABORATORY EPI PARAMETERS INPUT SCREEN                               Page 5 of 5
NAME: VANC-RES STAPH AUREUS                                         INACTIVE: NO
-----
Run Date: <Enter>                                                    Protocol: LREPI<Enter>
Run Cycle: MONTHLY<Enter>                                           Lag Days: 15<Enter>
Previous Cycle: <TAB>
General Description: <TAB>
-----
Exit      Save      Next Page      Refresh
Enter a command or '^' followed by a caption to jump to a specific field.
COMMAND: S<Enter>                                                    Press <PF1>H for help   Insert
```

## Conclusion

Once you have finished entering the information as directed by the National Infectious Diseases Program Office, these fields should **not** be changed again except for the following conditions:

1. As requested nationally via the Veterans Affairs Central Office (VACO) Infectious Disease Program Office to update, modify, add, or delete data from the existing files used by the Laboratory EPI software or an addition of a new entity to be tracked.
2. The yearly review must ensure that the entry is acceptable and to update the EPI files with any changes in etiology, lab tests or results parameters that may have occurred locally at the site during the previous year.
3. If your laboratory alters its accessioning or results procedures for one or more other parameters for one of the national EPI pathogens. An update should occur to the EPI to reflect these changes as appropriate.

Annually the EPI national program materials should be reviewed by the VAMCs and updated. It is suggested that this review occur in February of each year. If no changes have occurred in lab practices, etiologies, sites, or results parameters leave the information as is until the next review period. If changes did occur, then enter them as appropriate in order to capture the data requested for each EPI national entity (disease/organism) to be tracked.

As entities (diseases/organisms) are no longer to be tracked nationally (“dropped from the list”), or a new entity is to be tracked (“added to the list”), revision will be forwarded to the sites to assist in updating your site files.

**NOTE:** Remember that if the parameter setup needs to be changed for any of the four hepatitis entities, that a concomitant change needs to be made in the corresponding Clinical Reminder logic.

# **APPENDIX - A**

## **EDITING/PRINTING FILES, LINKING DATA, and EDITING INPUT SCREENS**



## Appendix – A

# Editing/Printing Files, Linking Data, and Editing Input Screens

This section contains instructions and examples for editing/adding entries the TOPOGRAPHY file (#61), printing LAB SEARCH/EXTRACT file (#69.5) site definitions, linking the ANTIMICROBIAL SUSCEPTIBILITY file (#62.06) data entries to the WKLD CODE file (#64) data entries, and deleting entries from the Laboratory EPI Parameters Input Screen.

**NOTE:** To request additional LOINC, Workload, and Suffixes codes access the VistA Laboratory website, National Lab Tests (NLT) Documentation Set and LOINC Request Forms link:

<http://vista.med.va.gov/ClinicalSpecialties/lab/>

## Editing/Printing Files, Screens, Linking Data, Request Form

### Editing TOPOGRAPHY file (#61):

Specific HL7 codes **must** be added to the TOPOGRAPHY file (#61). The HL7 Code field (#08) in this file is used to add the entries. Specific HL7 codes that **must** be added to TOPOGRAPHY file (#61) is located in the HL7 section of this guide, Table 0070 (Specimen Source Codes). The following is an example of how to add the specific HL7 codes to the TOPOGRAPHY file (#61) using VA FileMan Version 21 - Enter or Edit File Entries option.

**Example:** How to ADD specific HL7 codes to TOPOGRAPHY file (#61)

```

Select OPTION:      ENTER OR EDIT FILE ENTRIES<Enter>

INPUT TO WHAT FILE: TOPOGRAPHY FIELD// <Enter>
EDIT WHICH FIELD: ALL// .08 HL7 CODE <Enter>
THEN EDIT FIELD: <Enter>

Select TOPOGRAPHY FIELD NAME: ? <Enter>
  Answer with TOPOGRAPHY FIELD NAME, or SNOMED CODE, or ABBREVIATION, or
  SYNONYM
  Do you want the entire 8575-Entry TOPOGRAPHY FIELD List? NO<Enter>
  You may enter a new TOPOGRAPHY FIELD, if you wish
  ANSWER MUST BE 2-80 CHARACTERS IN LENGTH
Select TOPOGRAPHY FIELD NAME:      AMNIOTIC FLUID           8Y300
HL7 CODE: ? <Enter>
  Answer must be 2-4 characters in length.

Enter the two to four character codes from the left column:

ABS      ABCs
AMN      Amniotic fluid
ASP      Aspirate
BPH      Basophils
ABLD     Blood arterial
BBL      Blood bag
BON      Bone
BRTH     Breath
BRO      Bronchial
BRN      Burn

```

## Printing LAB SEARCH/EXTRACT file (#69.5) Definitions:

Use the following VA FileMan print option to print your local sites definitions from the LAB SEARCH/EXTRACT file (#69.5).

**Examples:** How to PRINT LAB SEARCH/EXTRACT file (#69.5) local sites definitions:

```
Select VA FileMan 22.0

Select OPTION: 2 PRINT FILE ENTRIES<Enter>

OUTPUT FROM WHAT FILE: REMINDER TERM// LAB SEARCH<Enter>
  1 LAB SEARCH/EXTRACT (19 entries)
  2 LAB SEARCH/EXTRACT PROTOCOL (2 entries)
CHOOSE 1-2: 1 <Enter> LAB SEARCH/EXTRACT (19 entries)
SORT BY: NAME//<Enter>
START WITH NAME: FIRST// HEPATITIS<Enter>
GO TO NAME: LAST// HEPATITIS Z<Enter>
  WITHIN NAME, SORT BY:
FIRST PRINT FIELD: ? <Enter>
  Answer with FIELD NUMBER, or LABEL
  Do you want the entire 21-Entry FIELD List? Y<Enter> (Yes)
Choose from:
  .01 NAME
  .05 REFERENCE NUMBER
  1 ACTIVE
  2 LAB TEST (multiple)
  3 ETIOLOGY (multiple)
  4 ICD9 (multiple)
  5 ANTIMICROBIAL SUSCEPTIBILITY (multiple)
  6 INCLUDED SITES (multiple)
  7 EXCLUDED SITES (multiple)
  8 SNOMED CODES (multiple)
  9 RUN DATE
  10 CYCLE
  10.5 LAG DAYS
  11 FIRST ENCOUNTER
  12 PROTOCOL
  13 FOLLOW PTF
  14 PTF (multiple)
  15 Description (word-processing)
  16 SEX
  17 BEFORE DATE OF BIRTH
  18 AFTER DATE OF BIRTH
  ^
  TYPE '&' IN FRONT OF FIELD NAME TO GET TOTAL FOR THAT FIELD,
  '!' TO GET COUNT, '+' TO GET TOTAL & COUNT, '#' TO GET MAX & MIN, ']'
TO FORCE SAVING PRINT TEMPLATE
  TYPE '[TEMPLATE NAME]' IN BRACKETS TO USE AN EXISTING PRINT TEMPLATE
  YOU CAN FOLLOW FIELD NAME WITH ';' AND FORMAT SPECIFICATION(S)
FIRST PRINT FIELD: .01;C1;L30 NAME<Enter>
THEN PRINT FIELD: ACTIVE;C35;L5<Enter>
THEN PRINT FIELD: LAG DAYS;C45;L5<Enter>
THEN PRINT FIELD: LAB TEST (multiple)<Enter>
```

```

THEN PRINT LAB TEST SUB-FIELD: .01;C5;L30 LAB TEST<Enter>
THEN PRINT LAB TEST SUB-FIELD: INDICATOR;C38;L15<Enter>
THEN PRINT LAB TEST SUB-FIELD: INDICATED VALUE;C55;L23<Enter>
THEN PRINT LAB TEST SUB-FIELD: <Enter>
THEN PRINT FIELD: <Enter>
Heading (S/C): LAB SEARCH/EXTRACT LIST  Replace L With site name_L
  Replace site name LAB SEARCH/EXTRACT LIST
STORE PRINT LOGIC IN TEMPLATE:
START AT PAGE: 1//
DEVICE: ;;999999 WAN      Right Margin: 80//<Enter>

site name LAB SEARCH/EXTRACT LIST          AUG 18,2000  12:21    PAGE 1
                                LAG
NAME          ACTIVE    DAYS
  LAB TEST          INDICATOR    INDICATED VALUE
-----
HEPATITIS A ANTIBODY POS          NO          15
  HEP A ANTIBODY-TOTAL          Equal To    Reactive
  HEP A ANTIBODY(IgM)
  HEP A ANTIBODY(IgM)          Contains    POS
  HEPATITIS A AB(IGG)D/C(2/99)    Contains    POS
  HEPATITIS A AB(IGG)D/C(2/99)    Contains    Pos
  HEPATITIS A AB(IGG)D/C(2/99)    Contains    p
  HEPATITIS A AB(IGG)D/C(2/99)    Equal To    Reactive
  HEPATITIS A AB(IGG)D/C(2/99)    Contains    p
  HEPATITIS A AB(IGG)D/C(2/99)    Equal To    Pos
HEPATITIS B POS          NO          15
  HEP B SURFACE Ag          Contains    POS
  HEP B SURFACE AB          Contains    POS
  HEP B CORE AB(IgM)          Contains    POS
  HEP Be ANTIGEN          Contains    POS
  HEP Be ANTIGEN          Contains    Pos
  HEP Be ANTIGEN          Contains    p
  HEP Be ANTIGEN          Contains    P
HEPATITIS C ANTIBODY NEG          NO          15
  HEP C ANTIBODY          Contains    NEG
  HEP C ANTIBODY          Contains    SEE COMMENT
HEPATITIS C ANTIBODY POS          NO          15
  HEP C ANTIBODY          Contains    POS

```

## How to Link Antimicrobial Entries to Workload Codes Entries:

The Laboratory EPI software automatically links as many of the ANTIMICROBIAL SUSCEPTIBILITY file (#62.06) data entries to the WKLD CODE file (#64) data entries that are identified in your site files. However, the ANTIMICROBIAL SUSCEPTIBILITY file (#62.06) data entries that were **not** linked (i.e. no match found) to the WKLD CODE file (#64) will require linking. The Antimicrobial Link Update [LREPILK] option contains three functionalities that can be used to identify and link data entries that were **not** linked by the EPI software installation post-INIT process.

### **Examples:** Antimicrobial Link Update [LREPILK] options

```
Select Lab EPI Primary Menu<Enter>

  ENH   Lab EPI Manual Run (Enhanced)
  LK    Antimicrobial Link Update
  UP    Lab EPI Parameter Setup
        Lab EPI Protocol Edit

Select Lab EPI Primary Menu Option: LK<Enter>Antimicrobial Link Update

This option will allow you to link file '62.06 ANTIMICROBIAL
SUSCEPTIBILITY' file with file '64 WKLD CODE.

  Select one of the following:

      A          AUTO
      M          MANUAL
      S          SEMI-AUTO
```

### **AUTO function**

The AUTO function identifies and attempts to link data entries that are **not** currently linked. This option also displays linked and non-linked data entries.

### **Example:** AUTO function

```
Enter response: A<Enter>UTO
AMIKACN          <----Linked---->    Amikacin
AMPICLN          <----Linked---->    Ampicillin
CLINDAM          <----Linked---->    Clindamycin
POLYMYXIN B     <----Not Linked---->No Match Found
RIFAMPIN        <----Linked---->    Rifampin
```

## MANUAL function

The MANUAL function is use to add or delete linked entries. **Note:** Examples are from entries in the ANTIMICROBIAL SUSCEPTIBILITY file (#62.06).

### Example: Deleting an Entry

```

Enter response: MANUAL<Enter>
Select ANTIMICROBIAL SUSCEPTIBILITY NAME: PENICLIN<Enter>      PENICILLIN
NATIONAL VA LAB CODE: Substance P// PEN<Enter>
  1  PENFIELD AND CONE STAIN          88010.0000
  2  PENICILLIN Penicillin            81852.0000
  3  PENTAZOCINE Pentazocine         81854.0000
  4  PENTOBARBITAL Pentobarbital     81856.0000
CHOOSE 1-4: 2 Penicillin<Enter>
Select ANTIMICROBIAL SUSCEPTIBILITY NAME: VANCMCN<Enter>      VANCOMYCIN
NATIONAL VA LAB CODE: Shell Vial Technique// VANCOMYCIN<Enter> Vancomycin
81485.0000<Enter>
Select ANTIMICROBIAL SUSCEPTIBILITY NAME: Ampicillin/sulbactam<Enter>
Ampicillin/subalctam
NATIONAL VA LAB CODE: Ampicillin// @<Enter>
  SURE YOU WANT TO DELETE? Y (Yes)<Enter>
Select ANTIMICROBIAL SUSCEPTIBILITY NAME: <Enter>

```

## SEMI-AUTO function

The SEMI-AUTO function looks for entries that are not currently linked and prompts the user to select the corresponding entry in the WKLD CODE file (#64).

### Example: SEMI-AUTO function

```

Enter response: SEMI-AUTO<Enter>

AMIKACN          AMIKACIN
NATIONAL VA LAB CODE: AMIK<Enter>ACIN Amikacin          81098.0000
Continue YES/<Enter>

AMPICLN          AMPICILLIN
NATIONAL VA LAB CODE: AMP<Enter>
  1  AMP CYCLIC          81029.0000
  2  AMPHETAMINE Amphetamine          81528.0000
  3  AMPHOTERICIN B Amphotericin B    81530.0000
  4  AMPICILLIN Ampicillin          81532.0000
CHOOSE 1-4: 4 Ampicillin
Continue YES// <Enter>

CLINDAM          CLINDAMYCIN
NATIONAL VA LAB CODE: CLINDAMYCIN Clindamycin          81676.0000
Continue YES// <Enter>

CARBCLN          CARBENICILLIN
NATIONAL VA LAB CODE:
Continue YES// NO<Enter>

```

## Delete Entry from Laboratory EPI Parameters Input Screen

Use the tab key to move the cursor. Highlight the entry that is to be deleted, select the "@" symbol, then press enter/return. You will then receive a deletion warning asking if you are sure.

**Example:** Deleting an entry from the Laboratory EPI Parameters Input Screen.

```

LABORATORY EPI PARAMETERS INPUT SCREEN      Page 2 of 5
NAME: CANDIDA                                ACTIVE:   YES
-----
Selected Etiology
CANDIDA PARAPSILOSIS <Tab>
CANDIDA PSEUDOTROPICALIS <Tab>
CANDIDA SKIN TEST ANTIGEN      @ <Enter>
CANDIDA STELLATOIDEA

Antimicrobial Susceptibility      NLT Code      NLT Description
<Tab>

-----
Exit      Save      Next Page      Refresh

COMMAND:                                Press <PF1>H for help
WARNING: DELETIONS ARE DONE IMMEDIATELY!
        (EXITING WITHOUT SAVING WILL NOT RESTORE DELETED RECORDS.)
Are you sure you want to delete this entire Subrecord (Y/N)? y <Ret>

```

## How to add an entry to the Laboratory EPI Parameters Input Screen

Use the tab key to move the cursor. Highlight a blank line where the entry is to be added.

**Example:** Adding entries via the Laboratory EPI Parameters Input Screen

```

LABORATORY EPI PARAMETERS INPUT SCREEN      Page 2 of 5
NAME: CANDIDA                                ACTIVE:   YES
-----
Selected Etiology
CANDIDA
CANDIDA GUILLIERMONDII
CAN <Ret>

Antimicrobial Susceptibility      NLT Code      NLT Description
<Tab>
-----
1      CAN  CANDIDA ALBICANS          4081
2      CANARYPOX VIRUS                3604
3      CANDICIDIN                     7328
4      CANDIDA, NOS                    4080
5      CANDIDA GUILLIERMONDII         4082
Choose 1-5 or '^' to quit: 1 <Ret>

```

```

LABORATORY EPI PARAMETERS INPUT SCREEN      Page 2 of 5
NAME: CANDIDA                                ACTIVE:   YES
-----
Selected Etiology
CANDIDA GUILLIERMONDII
CANDIDA KRUSEI
CANDIDA ALBICANS      <- The entry will appear after answering yes
                       to the adding a new ETIOLOGY prompt.
Antimicrobial Susceptibility      NLT Code      NLT Description
<Tab>
-----
CAN CANDIDA ALBICANS
Are you adding 'CANDIDA ALBICANS' as a new ETIOLOGY? Y <Ret>

```

**Lab EPI Generate Local Report/Spreadsheet [LREPI GENERATE REPORT/SP] option  
Field Definitions:**

SEGMENT	NUMBER	FIELD ELEMENT NAME	FIELD DESCRIPTION
PID	1	Set ID	Patient ID Sequence Number The Set ID field is used to identify the number of repetitions of the PID segment by HL7. The first PID segment would have a Set ID value of 1, the next would have a value of 2, etc.
	2	Social Security Number	Patient's Social Security Number NNN-NN-NNNN
	3	VA Master Patient Index (MPI)	Patient's MPI
	4	Patient Name	Patient's Name Last, First M
	5	Date of Birth	Patient's Date of Birth
	6	Sex	Patient's Sex Refer to Table 0001.
	7	RACE	Patient's Race Refer to Table 0005.
	8	Homeless	If patient is homeless, then "Homeless" prints.
	9	State	Patient's State
	10	Zip Code	Patient's Zip Code
	11	County	Patient's County
	12	Ethnicity	Patient's Ethnicity Refer to table 0189.
	13	Period of Service	Military Status assigned to a veteran. Refer to Table VA011.
PV1	1	Set ID - Patient VisitA	PV1 Sequence Number The Set ID field is used to identify the number of repetitions of the PV1 segment by HL7. The first PV1 segment would have a Set ID value of 1, the next would have a value of 2, etc.
	2	Patient Class	Inpatient or Outpatient
	3	Hospital Location	Assigned Patient Location-Treatment Location For inpatients only. WARD~ROOM~BED
	4	Discharge Disposition	Type of Disposition For Inpatients Only Source VA File PTF (#45)

Lab EPI Generate Local Report/Spreadsheet [LREPI GENERATE REPORT/SP] option Field Definitions  
continued.

SEGMENT	NUMBER	FIELD ELEMENT NAME	FIELD DESCRIPTION
	5	Facility	Servicing Facility-Primary Facility
	6	Admit Date/Time	Inpatient-Admission Date/Time Outpatient- Accession Date
	7	Discharge Date/Time	Discharge Date/Time For Inpatients Only
DG1	1	Set ID-Diagnosis (Sequence #)	DG1 Sequence Number The Set ID field is used to identify the number of repetitions of the DG1 segment by HL7. The first DG1 segment would have a Set ID value of 1, the next would have a value of 2, etc.
	2	Diagnosis Code	Diagnosis Code
	3	Diagnosis	Diagnosis
	4	Admission Date	Inpatient- Admission Date Outpatient- Accession Date
	2	DATE	Date
	3	RESOLVED TERM	Resolved Term
	4	TEXT	Text
	5	RESULT	Test result
		SOURCE ID	Source ID
NTE	1	Set ID	Sequence Number The Set ID field is used to identify the number of repetitions of the NTE segment by HL7. The first NTE segment would have a Set ID value of 1, the next would have a value of 2, etc.
	3	Comment	Five formats exist for this segment:  a. NTE  manual/automatic indicator (Null for automatic, R for Manual)~REPORTING DATE FROM from date TO to date~message number~~software version number (blank for original system/V2 for new system(epi)~Negative Input Indicator (null if input is present, N if negative)  b. NTE sequence number reference number from field .05 (reference number) in file 69.5 (LAB SEARCH/EXTRACT)

Lab EPI Generate Local Report/Spreadsheet [LREPI GENERATE REPORT/SP] option Field Definitions  
continued.

SEGMENT	NUMBER	FIELD ELEMENT NAME	FIELD DESCRIPTION
			<p>c. NTE  Totals indicator (T if NTE describes totals for run)~National Lab Test Code~Test Name from files 60 (Lab Test) or file 61.2 (Etiology Field)~Total number of tests performed.</p> <p>d. NTE  Totals indicator (T if NTE describes totals for run)~National Lab Test Code~"PATIENTS WITH "_Test Name from files 60 (Lab Test) or file 61.2 (Etiology Field)~Number of unique patients receiving this test</p> <p>e. NTE  Totals indicator (T if NTE describes totals for run)~Hepatitis Assessment~Total number of Hepatitis C Assessments</p>
OBR	1	Set ID-Observation Request (Seq #)	<p>OBR Sequence Number The Set ID field is used to identify the number of repetitions of the OBR segment by HL7. The first OBR segment would have a Set ID value of 1, the next would have a value of 2, etc.</p>
	2	Test Name	The name of the lab test performed.
	3	Accession Date	Accession Date
	4	Specimen	Specimen
	5	Accession Number	Accession Number
OBX	1	Set Id-Observational	<p>OBX Sequence Number The Set ID field is used to identify the number of repetitions of the OBX segment by HL7. The first OBX segment would have a Set ID value of 1, the next would have a value of 2, etc.</p>
	2	Value Type	CE or ST
	3	Test Name	The name of the lab test performed.
	4	LOINC Code	LOINC Code
	5	LOINC Name	LOINC Name
	6	Test Result	Result of the test performed or the MIC value.
	7	Units	Units
	8	Abnormal Flags	Abnormal Flags
	9	Verified Date/Time	The date/time that the test was verified.



# APPENDIX-B HELPFUL HINTS



## Appendix – B Helpful Hints

This section provides helpful hints, methods, and examples for maintaining and validating EPI data.

### Preferred Methods for *Clostridium difficile* Data Capture

There are two preferred methods that will make it easy to capture data for *Clostridium difficile* criteria (i.e., as well as several other methods which sites may already employ).

**NOTE:** As long as the designated parameter results being tracked are in a retrievable field (i.e., **not** a “Free Text” or “Comment” field) the method the site chooses is an individual decision.

#### Preferred Method #1:

The first preferred method is to have the site define an etiology of “**Clostridium difficile toxin positive**”. This allows a topography specimen of accession area “**feces/stool**” to be accessioned through the Microbiology accession area. Then, if the stool specimen were indeed positive for *Clostridium difficile* toxin, by any of the known methods of testing, the etiology would be “**Clostridium difficile toxin positive.**” To accomplish this method would require sites to enter three new local etiologies:

- Clostridium difficile toxin positive
- Clostridium difficile toxin negative
- Clostridium difficile toxin in determinant

These would be different from a culture isolate being positive for *Clostridium difficile*, in that they actually are etiologies/results based on toxin testing. This leaves the etiology of *Clostridium difficile* for actual culture positive specimens for the organism *Clostridium difficile*. The Lab EPI Parameter Setup [LREPI PARAMETER SETUP] option, the site parameter by which the software will capture a patient diagnosed with proven *Clostridium difficile*-associated colitis, will be by placing “**Clostridium difficile toxin positive**” etiology into the selected etiology entry screen. This has the advantage of being more consistent with other data entry practices in the Microbiology sections of most laboratories.

## Preferred Method #2:

The second preferred method is having the data in retrievable form would be to enter/accession the specimen for *Clostridium difficile* toxin assay under the chemistry/serology format (regardless of where the test is physically done) with the results being a choice of “positive”, “negative”, or “indeterminate”. This would allow one to enter “*Clostridium difficile* toxin” assay as the test for the EPI software to search in the chemistry/serology format. The result would be retrievable for EPI under a chemistry/serology lab test of “*Clostridium difficile* toxin” with the indicator “contains” and the value of “pos”, as noted in the sample page. If your site does not routinely do *Clostridium difficile* toxin assay testing this way, a different method of accessioning the specimen to get it in chemistry/serology format would be needed.

However, the Chemistry/Serology format would give additional flexibility in placing interpretational guidelines for the test results in the “Comments” field. For the EPI, “positive” or “negative” results **cannot** be located in a “Free Text” or “Comments” field as these are **not** retrievable.

Some VAMCs accession the stool specimen for the *Clostridium difficile* toxin assay under the Microbiology format. An etiology is not given under the final culture result, but written into free text or comments section stating the *Clostridium difficile* toxin assay test result. This is not in a retrievable format and therefore not acceptable for the EPI criteria.

Some VAMCs still use cytotoxin assays of cell culture, which are again entered in a “Free Text” or “Comment” field. This again is not acceptable unless it is accessioned and recorded under the chemistry/serology format as a straightforward lab test result of “positive” or “negative” or “indeterminate”.

Some VAMCs choose to report *Clostridium difficile* toxin assay positivity under the Microbiology application. As an etiology/culture result of *Clostridium difficile* (even though culture, was not actually done) this is not a true measure of what is actually being tested (as most sites do not culture the organism but just run the toxin assay test). However, if your site uses this means to represent *Clostridium difficile* toxin assay positivity and there are no exceptions (such as the site reporting an actual positive culture of (*Clostridium difficile* which is toxin assay negative), then this would be acceptable though less desirable for EPI purposes.

## **Validating EPI Data Captures**

The purpose of validating EPI data captures is **not** to require extra paperwork for QI monitors and long-term document files. The validation should be done at the initial implementation of the Laboratory EPI software to ensure accurate data capture. Thereafter, a review should be done once every 4-6 months to ensure that Lab EPI Parameter Setup [LREPI (EPI) PARAMETER UPDATE] option entries for the EPI criteria remain accurate. Parameter updates may be required when a new lab test/result is to be implemented for one of the Emerging Pathogens Initiative.

Once the predetermined emerging pathogens parameter descriptions are defined using the Lab EPI Parameter Setup [LREPI PARAMETER SETUP] option EPI data captures and monthly EPI HL7 format mailman messages transmissions can take place. EPI data captures are “automatically generated” monthly and sent to AAC on the 15<sup>th</sup> day of each month. Upon receipt of the EPI HL7 Format mailman messages transmission, AAC sends individual “EPI Confirmation Mailman Message” to the sending VHA sites EPI mail group members notifying them that the EPI mailman messages transmission has ONLY been received and NO EPI data has been processed.

The **new** ‘EPI Summary Verification Report of EPI Extracted Data from Site’ mailman messages **replaced** the original Emerging Pathogens Verification Report mailman messages. The **new** EPI Summary Verification Report mailman messages are “automatically generated” at each site on the 15<sup>th</sup> day of the month and sent to the EPI-REPORT mail group members (i.e., in a human readable format). The **new** report includes the VHA site’s station number and all predetermined emerging pathogens extracted data occurrences totals for the monthly processing reporting cycle. This **new** report may be used for quick previewing of the EPI data captures entries and totals.

The **new** Detailed Verification Report of EPI Extracted Data from Site’ **replaces** the original Emerging Pathogens Verification Report. The **new** report contains the VHA reporting site’s station number with Notes and Comment Segments (NTE) findings in human readable pages. VHA sites reporting NTE findings (i.e., 1, 2, 3 . . . 23) starts with a new page for each NTE findings.

The Microbiology Laboratory personnel, Laboratory Manager, TQI/QI/QA, or other personnel (i.e., as determined by the sites) may already have data of isolated “organisms of interest”. Several of the nationally defined emerging pathogens may well corresponds. Therefore, a quick comparison can be done using the **new** Verification Detail Report of EPI Extracted Data from Site mailman messages. This comparison also ensures that the Laboratory EPI software is appropriately capturing all EPI cases and numbers.

For tests such as Hepatitis A Antibody NEG, Hepatitis B Antibody NEG, Hepatitis C Antibody POS, and Hepatitis C Antibody NEG most LIMs should be able to generate reports (with patient names) that include “positive” tests results to use for comparison. Additionally, the Health Information Management Section at each site should be able to generate a report of ICDM-9 Diagnoses by date. This ICDM-9 Diagnoses by-date-report helps determine if the VACO Infectious Disease Program Office EPI and emerging pathogens data captures concurs with the defined EPI criterion (i.e., Cryptosporidium-007.8, Legionnaire’s disease--482.80, malaria--084, 084.0, 084.1, 084.2, 084.3, 084.4, 084.5, 084.6, 085.7, 084.8, 084.9, dengue-061, 065.4, Creutzfeldt-Jakob--046.1, and Leishmaniasis--085, 085.0, 085.1, 085.2, 085.3, 085.4, 085.5, 085.9).

Be aware that a number of these pathogens DO NOT occur at a high frequency. VHA sites with previously known cases of emerging pathogens, such as TB, should run the Lab EPI Manual Run [LREPI (EPI) MANUAL RUN] option for the entire month to verify that the TB culture was isolated and to see if it is captured. Additionally, “test patients” known to have these lab results can also be run.

## Required EPI Mail Groups and Descriptions

The EPI Roll up Modification software release requires the following mail groups:

- EPI mail group
- EPI-REPORT mail group

### NOTES:

It is highly recommended that the **Office of the Director** (00) at each VHA facility initially designate the member(s) responsible for overseeing the EPI mail group, and the EPI-REPORT mail group.. The Office of Director (00)-designated staff for EPI process implementation should be assigned to this mail group and kept current as personnel assume this responsibility. This/these staff member(s) is/are responsible for reviewing processing (error) reports and coordinating EPI data corrections (as necessary) due to the numerous files from which the data is obtained (e.g., PTF, PIMS, Health Information Management, Laboratory, etc.). Once the corrections are made, it is the responsibility of this designated staff to re-transmit the EPI data to the AAC using the Lab EPI Manual Run (Enhanced) option. Other personnel at the site who may be of assistance trouble-shooting errors may also elect to be member of this mail group.

It is highly recommended that a TQI/QI/QA staff, Laboratory Information Manager (LIM), Microbiology director or supervisor, Infection Control Practitioners, or Hospital Epidemiologist), or individual(s) with similar functions be a member(s) of one or more of these mail groups as previously noted.

### EPI Mail Group Description

The EPI mail group is used by VHA facilities to transmit EPI HL7 format mailman messages **TO** the Austin Automation Center (AAC). This mail group is also used by AAC to transmit EPI Confirmation mailman messages **BACK** to the sending VHA facilities once the EPI HL7 format mailman messages data transmission has been received by AAC.

### EPI-REPORT Mail Group Description

The EPI-Report mail group is use to receive the automatically generated **new** Verification Summary Report on the 15<sup>th</sup> day of each month. This mail group is also use to receive the **new** Verification Summary Report when manually generated using the Lab EPI Manual Run (Enhanced) [LREPI ENHANCE MANUAL RUN] option.

**NOTE:** Members of the EPI-Report mail group will assist with the EPI data validation and data correction process.

## EPI Data Processing Cycles

Currently, twenty three predetermined emerging pathogens act as triggers for EPI data extraction (i.e., as defined by VACO) within the EPI software application. The software then retrieves relevant, predetermined, and patient-specific data.

EPI software builds a HL7 format mailman message transmission on the 15<sup>th</sup> day of each month containing specific EPI data extractions. **Note:** A local global build is used to automatically generate the **new** "Verification Summary Report and Verification Detailed Report of EPI Extracted Data From Site" in a HL7 format mailman message.

EPI HL7 format mailman messages containing the EPI data extractions are transmitted to the Austin Automation Center via the Q-EPI.MED.VA.GOV domain on the 15<sup>th</sup> day of each month.

Austin Automation Center returns an EPI Confirmation mailman message upon receiving the sending facility EPI HL7 format mailman message. **Note:** The EPI Confirmation mailman message **ONLY** confirms that the EPI HL7 Format mailman messages have reached the Austin Automation Center queue, **NOT** necessarily accepted for processing.

On about the 25<sup>th</sup> day of the month Austin Automation Center processes the EPI data set and sends an EPI Processing (Error)Report mailman messages back to each sending facility via the EPI mail group. **Note:** The EPI Processing Report notifies the sending facility that the EPI data set has been processed by the Austin Automation Center, either with **NO** fatal errors indicating EPI data set acceptance **OR** that Fatal Error codes occurred constituting rejection of the entire EPI data set.

Once the EPI data set is accepted, the Austin Automation Center analyzes the EPI data set using the Statistical Analysis System (SAS) based statistical software. VACO Reports may then be generated for appropriate use and distribution at the national level.

## EPI HL7 Format Mailman Message

The VistA Laboratory EPI software automatically searches, extracts, processes, and transmits EPI data using an HL7 format mailman message on the 15<sup>th</sup> of each month via the Q-EPI.MED.VA.GOV domain to the AAC for processing. The EPI software is **enhanced** to include LOINC, MIC values, MPI values, race, ethnic Groups, county codes, and assigned patient class for inpatient/outpatient data.

### Example: New EPI HL7 Format Mailman Message

```
MailMan message for LABPROGRAMMER, ONE
Printed at TEST.CINCINNATI.MED.VA.GOV 01/15/04@11:31
Subj: HL7 Msg JAN 14,2004@23:03:31 from CINCINNATI [#53959] 01/14/04@23:03
588 lines
From: POSTMASTER (POSTMASTER In 'IN' basket. Page 1 *New*)
-----
MSH|^~^&|EPI-LAB|539|EPI-LAB|539|20040114230323-
0400||ORU~R01|53923600917|T|2.2
||NE|NE|USA

NTE||R~REPORTING DATE FROM 20030101 TO 20030131~1~~V3

PID|1|000-00-0035~~|122~2~M10~1004151421V503772~VAMPI||LABPATIENT3,
FIVE||193403
14|M|||~~~39^OHIO~45227~~~~89^HAMILTON|||||||000000035|||||||0

PV1|1|O||||||||||||||||||||||||||||||539|||||20030116084420-0400

DG1|1||401.9~HYPERTENSION NOS~I9

DSP|1||20030116084420-0400~HEP C VIRUS ANTIBODY NEGATIVE~6~NEGATIVE~||0

NTE|1|15~HEPATITIS C ANTIBODY NEG

OBR|1|||81121.0000~CHEMISTRY TEST~VANLT|||20030116084420-
0400|||||||SER~~SERUM
||RIA 03 637

OBX|1|ST|89070.0000~HEPATITIS C AB~VANLT~1486~HEP C
ANTIBODY~VA60~13955~HEPATIT
IS C VIRUS AB:ACNC:PT:S~LOINC||NEGATIVE||-|||||||20030122144539-0400

PID|2|000-00-0036~~|140~4~M10~1004666645V068241~VAMPI||LABPATIENT3,
SIX||1947020
3|M|||~~~39^OHIO~45229~~~~89^HAMILTON|||||||000000036|||||||7

PID|3|000-00-0037~~|310~3~M10~1008185084V033776~VAMPI||LABPATIENT3,
SEVEN||19551019
|M|||~~~12^FLORIDA~33931~~~~39^LEE|||||||000000037|||||||8
PV1|1|O||||||||||||||||||||||||||||||539|||||200301080813-0400
OBR|1|||81121.0000~CHEMISTRY TEST~VANLT|||200301080813-
0400|||||||SER~~SERUM||
|RIA 03 244
```

**Example: New EPI HL7 Format Mailman Message** *continued*

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OBX|1|ST|89070.0000~HEPATITIS C AB~VANLT~1486~HEP C
ANTIBODY~VA60~13955~HEPATIT
IS C VIRUS AB:ACNC:PT:S~LOINC||NEGATIVE||-|||||||20030114135036-0400

PID|4|000-00-0038~~|480~4~M10~1004671166V025205~VAMPI||LABPATIENT3, EIGHT|
|19230612|M|||~~~39^OHIO~45212~~~~89^HAMILTON|||||||282534399|||||||2

PV1|1|I|6 NORTH~A611~2||||||||||||||||||||||||||||||||||7~DEATH WITHOUT
AUTOPSY~
VA45|||539|||||20021227043712-0400|20030126155036-0400

DG1|1|||112.2~CANDIDIAS UROGENITAL NEC~I9|20021227043712-0400||

DG1|2|||287.1~THROMBOCYTOPATHY~I9|20021227043712-0400||

NTE|1|4~CLOSTRIDIUM DIFFICILE

OBR|1|||87999.0000~MICRO CULTURE~VANLT|||200301061200-
0400|||||||STL~~FECES|||
MICRO 03 34

OBX|1|CE|87993.0000~BACTERIOLOGY CULTURE~VANLT|1|~YEAST|||||||20030127

OBX|3|CE|87993.0000~BACTERIOLOGY CULTURE~VANLT|3|~STAPHYLOCOCCUS (COAGULASE

PID|5|000-00-0039~~|563~7~M10~1004677502V513322~VAMPI||LABPATIENT3,
NINE||19300
425|M||2076-8-SLF~NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER~0005~2076-8~NATIVE
HAWAIIAN OR OTHER PACIFIC
ISLANDER~CDC|~~~39^OHIO~45230~~~~89^HAMILTON|||||||000000039|||2186-5-SLF~NOT
HISPANIC OR LATINO~0189~2186-5|||||0

PV1|1|I|6
SOUTH~A649~2||||||||||||||||||||||||||||||||||1~REGULAR~VA45|||539||||
|20030109175930-0400|20030121104552-0400

DG1|9|||575.11~CHRONIC CHOLECYSTITIS~I9|20030109175930-0400||

DSP|1|||20030110021103-0400~HEP C VIRUS ANTIBODY NEGATIVE~6~NEGATIVE~||0

OBX|1|ST|89070.0000~HEPATITIS C AB~VANLT~1486~HEP C
ANTIBODY~VA60~13955~HEPATIT
IS C VIRUS AB:ACNC:PT:S~LOINC||NEGATIVE||-|||||||20030116134325-0400
NTE|2|16~HEPATITIS A ANTIBODY POS

OBR|1|||81121.0000~CHEMISTRY TEST~VANLT|||20030110021103-
0400|||||||SER~~SERUM
|||RIA 03 355

OBX|1|ST|89083.0000~HEPATITIS A IGM AB~VANLT~505~HEP A
ANTIBODY (IGM)~VA60~13950
    
```

## EPI Confirmation Mailman Message

Upon AAC receipt of the VHA facilities EPI HL7 format mailman message monthly transmission (i.e., 15<sup>th</sup> of each month via the Q-EPI.MED.VA.GOV domain) individual EPI Confirmation mailman messages are sent by AAC to the originating VHA facilities via the EPI mail group. Members of this mail group are being notified that EPI HL7 format mailman message data transmission has been received by AAC for processing.

**Examples:** EPI Confirmation mailman message sent by AAC

```
Subj: DOY7352 EPI Confirmation [#11057401] 15 Feb 01 23:11 CST 2 lines
From: POSTMASTER@FOC-AUSTIN.VA.GOV In 'EPI' basket. Page 1
-----
Ref: Your EPI message #11057352 with Austin ID #130120489, is assigned
confirmation number 010462303783006.

Enter message action (in EPI basket): Ignore//
```

## **New EPI Summary Verification Report of EPI Extracted Data from Site' HL7 Mailman Message**

The **new** EPI Verification Summary Report of EPI Extracted Data from Site HL7 format mailman message **replaced** the original Emerging Pathogens Verification Report HL7 format mailman message. This **new** EPI Summary Verification Report HL7 format mailman message is automatically generated at the VHA site on the 15<sup>th</sup> the month and sent to the EPI-REPORT mail group members via a HL7 format mailman messages (i.e., in a human readable format). The **new** EPI Verification Summary Report mailman messages contains the VHA site's station number and all predetermined emerging pathogens extracted data occurrences totals for the monthly processing reporting cycle. This **new** report may be used for quick previewing of the EPI data captures entries and totals.

### **NOTES:**

The **new** EPI Summary Verification Report of EPI Extracted Data from Site can also be generated **manually** as often as necessary using the Lab EPI Manual Run (Enhanced) [LREPI ENHANCE MANUAL RUN] option. This option can be **manually** generated as often as necessary. After the report is generated data is automatically sent to EPI-REPORT mail group which may be use for EPI data validation.

Lab EPI extract data transmissions to AAC occur after 6:00 pm and are processed the next day.

DO NOT run the Lab EPI Manual Run (Enhanced) [LREPI ENHANCED MANUAL RUN] option to transmit EPI extract data on Wednesdays of PAY ROLL weeks. These transmissions may cause a delay in processing the PAY ROLL data.

**Example:** New EPI Summary Verification Report of EPI Extracted Data from Site' mailman message.

**NOTE:** The **new** EPI Summary Verification Report of EPI Extracted Data from Sites can be manually generated using the Lab EPI Manual Run (Enhanced) [LREPI ENHANCE MANUAL RUN] option. After the report is generated it is automatically sent to EPI-REPORT mail group which can be use for EPI data validation.

Subj: EPI Summary Verification Report [#19669319] 05/19/04@23:35  
128 lines  
From: POSTMASTER In 'IN' basket. Page 1 \*New\*

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SUMMARY VERIFICATION REPORT OF EPI EXTRACTED DATA  
FROM STATION 539 CINCINNATI

Processing Month PROCESSING PERIOD: 04-01-2004 through 04-30-2004

with Emerging Pathogen	Number of Occurrences	Number of Persons Occurrence
NTE~1-Vancomycin-resistant Enterococcus	4	4
NTE~2-Hepatitis C antibody Positive	24	22
NTE~3-Penicillin-Resistant Streptococcus pneumoniae	0	0
NTE~4-Clostridium difficile	4	4
NTE~5-Tuberculosis	0	0
NTE~6-Streptococcus, Group A	4	4
NTE~7-Legionella/Legionaire's Disease	0	0
NTE~8-Candida bloodstream infections	1	1

Subj: EPI Summary Verification Report [#19669319] Page 2

NTE~9-Cryptosporidium	0	0
NTE~10-Escherichia coli O157	0	0
NTE~11-Malaria	0	0
NTE~12-Dengue	0	0
NTE~13-Creutzfeldt-Jakob Disease	0	0
NTE~14-Leishmaniasis	0	0
NTE~15-Hepatitis C antibody negative	208	205
NTE~16-Hepatitis A antibody positive	24	22
NTE~17-Hepatitis B positive	65	42
NTE~18-All Staphylococcus Aureus	32	29
NTE~19-Methicillin-Resistant Staphylococcus Aureus (Mrsa)	22	20
NTE~20-Vancomycin-Resistant Staphylococcus Aureus (Vrsa)	0	0
NTE~21-Vancomycin-Resistant Coagulase Negative Staphylococci/Staph EPI (Vrse)	0	0
NTE~22-All Streptococcus Pneumoniae	5	4
NTE~23-All Enterococci	24	21

**Example: New EPI Summary Verification Report of EPI Extracted Data from Site' mailman message continued.**

For definitions of case ascertainment for each category, please refer to documentation in Laboratory EPI Patch LR\*5.2\*281 Technical and User Guide in conjunction with your local parameter set-up of this process.

Subj: EPI Summary Verification Report [#19669319] Page 3

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 If you feel that these numbers are in error, please verify with the local facility personnel responsible for setting the EPI Laboratory Search/Extract parameters. However, do not change these parameters if they are incorrect without fully reading the documentation; this will be crucial in order to avoid any misalignment with the concomitant Hepatitis C Extract patches (PXR\*1.5\*1, VA-National EPI DB Update, LR\*5.2\*260, PSJ\*5\*48, Hepatitis C Initiative, and PSO\*7\*45, Hepatitis C Initiative). In particular, the hepatitis C antibody positive, hepatitis C antibody negative, hepatitis A antibody positive and hepatitis B positive will be especially sensitive to changes, and concomitant changes of all of the patches may need to occur.

Nationally rolled-up resolution term	Number of Persons with the Term and Transmitted For National Roll-up
Resolved term-1-Declined Assessment for Hepatitis C	6
Resolved term-2-No Risk Factors for Hepatitis C	142
Resolved term-3-Previously Assessed for Hepatitis C	0
Resolved term-4-Risk Factors for Hepatitis C	88

Enter RETURN to continue or '^' to exit:

Subj: EPI Summary Verification Report [#19669319] Page 4

Resolved term-5-Positive Test for Hepatitis C antibody	22
Resolved term-6-Negative Test for Hepatitis C antibody	205
Resolved term-7-Hepatitis C diagnosis (ICD-9 based)	173

Total Hepatitis C Risk Assessment Resolution 636

This table represents only those who had a once-lifetime resolution of the National Clinical Reminder for Risk Assessment for Hepatitis C. This resolution will only occur once during the care of a patient (unless actively changed by a point-of-care practitioner at a later date).

Processing Month: PROCESSING PERIOD: 04-01-2004 through 04-30-2004 for site # 539 CINCINNATI  
 Site totals

**Example: New EPI Summary Verification Report of EPI Extracted Data from Site' mailman message**  
*continued.*

STAPHYLOCOCCUS AUREUS	12
PATIENTS WITH STAPHYLOCOCCUS AUREUS	9
CANDIDA ALBICANS	36
PATIENTS WITH CANDIDA ALBICANS	20
ENTEROCOCCUS	20
PATIENTS WITH ENTEROCOCCUS	15

Subj: EPI Summary Verification Report [#19669319] Page 5

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STREPTOCOCCUS BETA HEMOLYTIC, GROUP A	4
PATIENTS WITH STREPTOCOCCUS BETA HEMOLYTIC, GROUP A	4
CANDIDA TROPICALIS	1
PATIENTS WITH CANDIDA TROPICALIS	1
CANDIDA (TORULOPSIS) GLABRATA	4
PATIENTS WITH CANDIDA (TORULOPSIS) GLABRATA	4
YEAST NOT CANDIDA ALBICANS	8
PATIENTS WITH YEAST NOT CANDIDA ALBICANS	5
STAPHYLOCOCCUS (COAGULASE NEGATIVE)	38
PATIENTS WITH STAPHYLOCOCCUS (COAGULASE NEGATIVE)	29
STREPTOCOCCUS PNEUMONIAE	7
PATIENTS WITH STREPTOCOCCUS PNEUMONIAE	4
STAPHYLOCOCCUS AUREUS (MRSA)	28
PATIENTS WITH STAPHYLOCOCCUS AUREUS (MRSA)	20
ENTEROCOCCUS FAECALIS	6
PATIENTS WITH ENTEROCOCCUS FAECALIS	3
ENTEROCOCCUS FAECIUM	3
PATIENTS WITH ENTEROCOCCUS FAECIUM	3
POSITIVE FOR CLOSTRIDIUM DIFFICILE TOXIN	4
PATIENTS WITH POSITIVE FOR CLOSTRIDIUM DIFFICILE TOXIN	4

Subj: EPI Summary Verification Report [#19669319] Page 6

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ENTEROCOCCUS GALLINARUM	1
PATIENTS WITH ENTEROCOCCUS GALLINARUM	1
HEP B SURFACE AG	141
PATIENTS WITH HEP B SURFACE AG	136
HEP A ANTIBODY (IGM)	12
PATIENTS WITH HEP A ANTIBODY (IGM)	12
HEP B SURFACE AB	130
PATIENTS WITH HEP B SURFACE AB	127
HEP B CORE AB (IGM)	16
PATIENTS WITH HEP B CORE AB (IGM)	16
HEP C ANTIBODY	232
PATIENTS WITH HEP C ANTIBODY	227
HEP A ANTIBODY-TOTAL	42
PATIENTS WITH HEP A ANTIBODY-TOTAL	41

**Example: New EPI Summary Verification Report of EPI Extracted Data from Site' mailman message continued.**

1. For Microbiology Lab Package Organism results/isolates (e.g. Enterococcus, or Streptococcus pneumoniae), the number corresponding to the name represents the total number reported from your local microbiology package during the processing month. The number corresponding to the line 'Patients with...<Microbiology Lab Result/isolates> (e.g. Patients with Enterococcus or Patients with Streptococcus pneumoniae) represents the number of individual patients from whom the results were isolated.

Subj: EPI Summary Verification Report [#19669319] Page 7

2. For non-microbiology results (e.g. chemistry/serology results such as Hepatitis C antibody), the number corresponding to the name represents the TOTAL number of <named> tests done at your facility during the processing month. The number corresponding to the line <Patients with...<non-Microbiology test> (e.g. Hepatitis C antibody) represents the number of individuals on whom the test(s) was/were performed. This does not represent the number of persons who had a positive test result.

3. These results have been obtained based on specimen accession date and not results reported dating.

Enter message action (in IN basket): Ignore//

1. For Microbiology Lab Package Organism results/isolates (e.g. Enterococcus, or Streptococcus pneumoniae), the number corresponding to the name represents the total number reported from your local microbiology package during the processing month. The number corresponding to the line 'Patients with...<Microbiology Lab Result/isolates> (e.g. Patients with Enterococcus or Patients with Streptococcus pneumoniae) represents the number of individual patients from whom the results were isolated.

2. For non-microbiology results (e.g. chemistry/serology results such as Hepatitis C antibody), the number corresponding to the name represents the TOTAL number of <named> tests done at your facility during the processing month. The number corresponding to the line <Patients with...<non-Microbiology test> (e.g. Hepatitis C antibody) represents the number of individuals on whom the test(s) was/were performed. This does not represent the number of persons who had a positive test result.

3. These results have been obtained based on specimen accession date and not results reported dating.

## New EPI Summary Verification Report for prior month - TB only

**NOTE:** This **new** EPI Summary Verification Report for prior month – TB only represents a second pass at acquiring data for the EPI from the prior month on Mycobacterium tuberculosis due to the extended period of time that may be expected with accessioning, growth, and finally reporting of results. Since this is designed to acquire only the remaining Mycobacterium tuberculosis data from the prior month, most of the numbers present for this report will be zero. The accompanying Summary Verification Report for the current month should contain more complete number counts on the other EPI pathogens and data items for this current month.

### Example: New EPI Summary Verification Report for prior month - TB only

Subj: EPI Summary Verification Report for prior month -TB only  
 [#19669069] 05/19/04@22:18 97 lines  
 From: POSTMASTER In 'IN' basket. Page 1 \*New\*

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 This report represents a second pass at acquiring data for the EPI from the prior month on Mycobacterium tuberculosis due to the extended period of time that may be expected with accessioning, growth, and finally reporting of results. Since this is designed to acquire only the remaining Mycobacterium tuberculosis data from the prior month, most of the numbers present for this report will be zero. The accompanying Summary Verification Report for the current month should contain more complete number counts on the other EPI pathogens and data items for this current month.

SUMMARY VERIFICATION REPORT OF EPI EXTRACTED DATA  
 FROM STATION 539 CINCINNATI

Processing Month PROCESSING PERIOD: 03-01-2004 through 03-31-2004

	Number of Occurrences	Number of Persons Occurrence
with Emerging Pathogen		

Subj: EPI Summary Verification Report for prior month -TB only  
 [#19669069] Page 2

NTE~1-Vancomycin-resistant Enterococcus	0	0
NTE~2-Hepatitis C antibody Positive	0	0
NTE~3-Penicillin-Resistant Streptococcus pneumoniae	0	0

**Example: New EPI Summary Verification Report for prior month - TB only *continued.***

NTE~4-Clostridium difficile	0	0
NTE~5-Tuberculosis	0	0
NTE~6-Streptococcus, Group A	0	0
NTE~7-Legionella/Legionaire's Disease	0	0
NTE~8-Candida bloodstream infections	0	0
NTE~9-Cryptosporidium	0	0
NTE~10-Escherichia coli O157	0	0
NTE~11-Malaria	0	0
NTE~12-Dengue	0	0
NTE~13-Creutzfeldt-Jakob Disease	0	0
NTE~14-Leishmaniasis	0	0
NTE~15-Hepatitis C antibody negative	0	0
NTE~16-Hepatitis A antibody positive	0	0
NTE~17-Hepatitis B positive	0	0
NTE~18-All Staphylococcus Aureus	0	0
Subj: EPI Summary Verification Report for prior month -TB only [#19669069] Page 3		
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NTE~19-Methicillin-Resistant Staphylococcus Aureus (Mrsa)	0	0
NTE~20-Vancomycin-Resistant Staphylococcus Aureus (Vrsa)	0	0
NTE~21-Vancomycin-Resistant Coagulase Negative Staphylococci/Staph EPI (Vrse)	0	0
NTE~22-All Streptococcus Pneumoniae	0	0
NTE~23-All Enterococci	0	0
<p>For definitions of case ascertainment for each category, please refer to documentation in Laboratory EPI Patch LR*5.2*281 Technical and User Guide in conjunction with your local parameter set-up of this process.</p> <p>If you feel that these numbers are in error, please verify with the local facility personnel responsible for setting the EPI Laboratory Search/Extract parameters. However, do not change these parameters if they are incorrect without fully reading the documentation; this will be crucial in order to avoid any misalignment with the concomitant Hepatitis C Extract patches (PXR*1.5*1, VA-National EPI DB Update, LR*5.2*260, PSJ*5*48, Hepatitis C Initiative, and PSO*7*45, Hepatitis C Initiative). In particular, the hepatitis C antibody positive, hepatitis C antibody negative, hepatitis A antibody positive and hepatitis B positive will be especially sensitive to changes, and concomitant changes of all of the patches may need to occur.</p>		
Subj: EPI Summary Verification Report for prior month -TB only [#19669069] Page 4		
-----		
Nationally rolled-up resolution term	Number of Persons with the Term and Transmitted For National Roll-up	

**Example: New EPI Summary Verification Report for prior month - TB only *continued.***

Resolved term-1-Declined Assessment for Hepatitis C	0
Resolved term-2-No Risk Factors for Hepatitis C	0
Resolved term-3-Previously Assessed for Hepatitis C	0
Resolved term-4-Risk Factors for Hepatitis C	0
Resolved term-5-Positive Test for Hepatitis C antibody	0
Resolved term-6-Negative Test for Hepatitis C antibody	0
Resolved term-7-Hepatitis C diagnosis (ICD-9 based)	0

Total Hepatitis C Risk Assessment Resolution 0

This table represents only those who had a once-lifetime resolution of the National Clinical Reminder for Risk Assessment for Hepatitis C. This resolution will only occur once during the care of a patient (unless actively changed by a point-of-care practitioner at a later date).

Enter RETURN to continue or '^' to exit:

Subj: EPI Summary Verification Report for prior month -TB only  
[#19669069] Page 5

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Processing Month: PROCESSING PERIOD: 03-01-2004 through 03-31-2004 for site #  
539 CINCINNATI  
Site totals

1. For Microbiology Lab Package Organism results/isolates (e.g. Enterococcus, or Streptococcus pneumoniae), the number corresponding to the name represents the total number reported from your local microbiology package during the processing month. The number corresponding to the line 'Patients with...<Microbiology Lab Result/isolates> (e.g. Patients with Enterococcus or Patients with Streptococcus pneumoniae) represents the number of individual patients from whom the results were isolated.

2. For non-microbiology results (e.g. chemistry/serology results such as Hepatitis C antibody), the number corresponding to the name represents the TOTAL number of <named> tests done at your facility during the processing month. The number corresponding to the line <Patients with...<non-Microbiology test> (e.g. Hepatitis C antibody) represents the number of individuals on whom the test(s) was/were performed. This does not represent the number of persons who had a positive test result.

Subj: EPI Summary Verification Report for prior month -TB only  
[#19669069] Page 6

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3. These results have been obtained based on specimen accession date and not results reported dating.

Enter message action (in IN basket): Ignore//<Enter>

IN Basket Message: 7842//<Enter>

## New Detailed Verification Report of EPI Extracted Data from Site Mailman Message

The **new** Verification Detailed Report of EPI Extracted Data from Site' **replaces** the original Emerging Pathogens Verification Report. The **new** report contains the VHA reporting site's station number with Notes and Comment Segments (NTE) findings in a human readable format. VHA sites reporting NTE findings (i.e., 1, 2, 3 . . . 23) starts with a new page for each NTE findings. The report is automatically generated on the 15<sup>th</sup> of the month and can also be generated **manually** as often as necessary using the Lab EPI Manual Run (Enhanced) [LREPI ENHANCE MANUAL RUN] option. After the report is generated the data is automatically sent to EPI-REPORT mail group which may be use for EPI data validation. Use the **new** Print Detailed Verification Report [LREPI VERIFICATION REPORT] option to print the **new** Verification Detailed Report.

**Example:** New Detailed Verification Report of EPI Extracted Data from Site mailman messages.

```

PAGE 1
                DETAILED VERIFICATION REPORT OF EPI EXTRACTED DATA
                FROM STATION (Your station number and name is displayed here.)
                PROCESSING PERIOD: 03-01-2003 through 03-31-2003

NTE~1-Report of Vancomycin-resistant Enterococcus
These data note persons at your facility during the month that had a
positive result for Vancomycin-resistant Enterococcus. Identifying
information, along with specimen and culture results has been provided.

PATIENT NAME                LAST 4 DOB                SEX    PERIOD OF SERVICE
LABPATIENT3, TEN           0310    03-11-1925 M        WORLD WAR II
Inpatient Admission Date:  03-08-2003@1717
Discharge Date:  --"" Discharge Disposition:

03-18-2003@0700 BACT 03 2038 MICRO CULTURE URINE
                2                                03-20-2003    ENTEROCOCCUS FAECIUM

ORG # 2 03-18-2003@0700 ANTIBIOTIC MIC  URINE
PENICILLIN                R                                R
VANCOMYCIN                R                                R
NITROFURANTOIN           S                                S
CIPROFLOXACIN            R                                R
LEVOFLOXACIN             R                                R
GENTAMICIN HP            SYN-S                            SYN-S
STREPTOMYCIN HP         SYN-R                            SYN-R

```

**Example: New Detailed Verification Report of EPI Extracted Data from Site mailman messages**  
*continued.*

PAGE 2

DETAILED VERIFICATION REPORT OF EPI EXTRACTED DATA  
 FROM STATION (Your station number and name is displayed here.)  
 PROCESSING PERIOD: 03-01-2003 through 03-31-2003

NTE~2 Report of Hepatitis C antibody positive

This represents a line listing of persons reported during the month that had a positive test for hepatitis C antibody (based on accession date and not results reported date). Definitions for data to be extracted are provided in the Technical and User Guide documentation for Laboratory EPI LR\*5.2\*281.

Name	LAST 4	Accession Date	Test Name	Test Result
LABPATIENT4~ONE POSITIVE	0041	03-26-2003@1240	HEP C ANTIBODY	STRONG
LABPATIENT4~TWO POSITIVE	0042	03-27-2003@1614	HEP C ANTIBODY	STRONG
LABPATIENT4~THREE POSITIVE	0043	03-13-2003@0700	HEP C ANTIBODY	STRONG
LABPATIENT4~FOUR POSITIVE	0044	03-19-2003	HEP C ANTIBODY	STRONG
LABPATIENT4~FIVE POSITIVE	0045	03-08-2003@0700	HEP C ANTIBODY	STRONG
LABPATIENT4~SIX POSITIVE	0046	03-05-2003@0823	HEP C ANTIBODY	STRONG
LABPATIENT4~SEVEN POSITIVE	0047	03-08-2003@0700	HEP C ANTIBODY	STRONG
LABPATIENT4~EIGHT POSITIVE	0048	03-08-2003@0700	HEP C ANTIBODY	STRONG
LABPATIENT4~NINE POSITIVE	0049	03-05-2003@1726	HEP C ANTIBODY	STRONG
LABPATIENT4~TEN POSITIVE	0410	03-14-2003@1004	HEP C ANTIBODY	STRONG
LABPATIENT5~ONE POSITIVE	0051	03-07-2003@1015	HEP C ANTIBODY	STRONG
LABPATIENT5~TWO POSITIVE	0052	03-21-2003@0700	HEP C ANTIBODY	STRONG
LABPATIENT5~THREE POSITIVE	0053	03-10-2003@0807	HEP C ANTIBODY	STRONG
LABPATIENT5~FOUR POSITIVE	0054	03-18-2003	HEP C ANTIBODY	STRONG

**Example: New Detailed Verification Report of EPI Extracted Data from Site mailman messages**  
*continued.*

LABPATIENT5~FIVE POSITIVE	0055	03-11-2003@0916	HEP C ANTIBODY STRONG
LABPATIENT5~SIX POSITIVE	0056	03-27-2003@0700	HEP C ANTIBODY STRONG
LABPATIENT5~SEVEN POSITIVE	0057	03-06-2003@0700	HEP C ANTIBODY STRONG
LABPATIENT5~EIGHT POSITIVE	0058	03-21-2003@0700	HEP C ANTIBODY STRONG
LABPATIENT5~NINE POSITIVE	0059	03-12-2003@0911	HEP C ANTIBODY STRONG
LABPATIENT5~TEN POSITIVE	0510	03-25-2003@1443	HEP C ANTIBODY STRONG
LABPATIENT6~ONE POSITIVE	0061	03-04-2003@1019	HEP C ANTIBODY STRONG
LABPATIENT6~TWO POSITIVE	0062	03-13-2003@0700	HEP C ANTIBODY STRONG
LABPATIENT6~THREE POSITIVE	0063	03-13-2003@0700	HEP C ANTIBODY STRONG
LABPATIENT6~FOUR POSITIVE	0064	03-04-2003@1648	HEP C ANTIBODY STRONG
LABPATIENT6~FIVE POSITIVE	0065	03-08-2003@0700	HEP C ANTIBODY STRONG
LABPATIENT6~SIX POSITIVE	0066	03-27-2003@1141	HEP C ANTIBODY STRONG
LABPATIENT6~SEVEN POSITIVE	0067	03-03-2003@1503	HEP C ANTIBODY STRONG
LABPATIENT6~EIGHT POSITIVE	0068	03-27-2003@0700	HEP C ANTIBODY STRONG
LABPATIENT6~NINE POSITIVE	0069	03-13-2003@0700	HEP C ANTIBODY STRONG
LABPATIENT6~TEN POSITIVE	0610	03-28-2003@1356	HEP C ANTIBODY STRONG
PAGE 3			
<p style="text-align: center;">DETAILED VERIFICATION REPORT OF EPI EXTRACTED DATA            FROM STATION (Your station number and name is displayed here.)            PROCESSING PERIOD: 03-01-2003 through 03-31-2003</p>			
<p>NTE~3-Report of Pencillin-resistant Streptococcus pneumoniae            These data note persons at your facility during the month that had a            positive result for Penicillin-resistant Streptococcus pneumoniae.            Identifying information, along with specimen and culture results has been            provided.</p>			
NO PATIENTS REPORTED FOR THE REPORT PERIOD.			

**Example: New Detailed Verification Report of EPI Extracted Data from Site mailman messages**  
*continued.*

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DETAILED VERIFICATION REPORT OF EPI EXTRACTED DATA  
 FROM STATION (Your station number and name is displayed here.)  
 PROCESSING PERIOD: 03-01-2003 through 03-31-2003

NTE~4-Report of Clostridium difficile

These data note persons at your facility during the month that had a positive result for Clostridium difficile. Identifying information, along with specimen and culture results has been provided.

PATIENT NAME	LAST 4	DOB	SEX	PERIOD OF SERVICE
--------------	--------	-----	-----	-------------------

LABPATIENT7, ONE	0071	01-00-1925	M	WORLD WAR II
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Inpatient Admission Date: 02-21-2003@2147

Discharge Date: 03-10-2003@2354 Discharge Disposition: DEATH WITH AUTOPSY

03-04-2003 MICRO 03 286 MICRO CULTURE FECES

1	03-05-2003	POSITIVE FOR CLOSTRIDIUM DIFFICILE TOXIN
---	------------	---

PATIENT NAME	LAST 4	DOB	SEX	PERIOD OF SERVICE
--------------	--------	-----	-----	-------------------

LABPATIENT7, TWO	0072	09-11-1934	M	VIETNAM ERA
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Outpatient Accession Date: 03-04-2003

03-04-2003 MICRO 03 279 MICRO CULTURE FECES

1	03-05-2003	POSITIVE FOR CLOSTRIDIUM DIFFICILE TOXIN
---	------------	---

PATIENT NAME	LAST 4	DOB	SEX	PERIOD OF SERVICE
--------------	--------	-----	-----	-------------------

LABPATIENT7, THREE	0073	10-20-1946	M	VIETNAM ERA
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Inpatient Admission Date: 03-14-2003@1202

Discharge Date: 03-20-2003@0341 Discharge Disposition: DEATH WITHOUT  
AUTOPSY

03-17-2003 MICRO 03 383 MICRO CULTURE FECES

1	03-19-2003	POSITIVE FOR CLOSTRIDIUM DIFFICILE TOXIN
---	------------	---

**Example: New Detailed Verification Report of EPI Extracted Data from Site mailman messages**  
*continued.*

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PAGE 5
      DETAILED VERIFICATION REPORT OF EPI EXTRACTED DATA
      FROM STATION (Your station number will be displayed here.)
      PROCESSING PERIOD: 03-01-2003 through 03-31-2003

NTE~5-Report of Tuberculosis
These data note persons at your facility during the month that had a
positive result for Mycobacterium tuberculosis. Identifying information,
along with specimen and culture results has been provided.

PATIENT NAME                LAST 4 DOB          SEX   PERIOD OF SERVICE
LABPATIENT7, FOUR          0074   06-07-1930 F     VIETNAM ERA
Outpatient Accession Date: 03-12-2003

03-12-2003 TB 03 212 MICRO CULTURE SPUTUM
      3                                05-21-2003   MYCOBACTERIUM
TUBERCULOSIS COMPLEX
Outpatient Accession Date: 03-22-2003

03-22-2003 TB 03 213 MICRO CULTURE SPUTUM
      2                                --0   MYCOBACTERIUM TUBERCULOSIS
COMPLEX
```

**Example: New Detailed Verification Report of EPI Extracted Data from Site mailman messages**  
*continued.*

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DETAILED VERIFICATION REPORT OF EPI EXTRACTED DATA  
 FROM STATION (Your station number and name is displayed here.)  
 PROCESSING PERIOD: 03-01-2003 through 03-31-2003

NTE~6-Report of Group A Streptococcus

These data note persons at your facility during the month that had a positive result for Group A Streptococcus. Identifying information, along with specimen and culture results has been provided.

PATIENT NAME	LAST 4	DOB	SEX	PERIOD OF SERVICE
LABPATIENT7, FIVE	0075	08-14-1941	M	VIETNAM ERA
Inpatient Admission Date: 03-13-2003@1229				
Discharge Date: 03-14-2003@1333 Discharge Disposition: REGULAR				

03-14-2003 BACT 03 1941 MICRO CULTURE RECTUM				
1		03-17-2003		STREPTOCOCCUS BETA
HEMOLYTIC, GROUP A				
2		03-17-2003		ESCHERICHIA COLI

ORG # 2 03-14-2003 ANTIBIOTIC MIC RECTUM

GENTAMICIN	S	S
CEFAZOLIN	S	S
AMPICILLIN	S	S
POLYMIKIN B	S	S
TRIMETHOPRIM+SULFAMETHOXAZOLE	R	R
AMIKACIN	S	S
PIPERACILLIN	S	S
CEFOTAXIME	S	S
CIPROFLOXACIN	S	S
IMIPENEM	S	S
CEFTAZIDIME	S	S
AMPICILLIN+SULBACTAM	S	S
CEFOTETAN	S	S
LEVOFLOXACIN	S	S
CEFEPIME	S	S
PIPERACILLIN+TAZOBACTAM	S	S

PATIENT NAME	LAST 4	DOB	SEX	PERIOD OF SERVICE
LABPATIENT7, SIX	0076	02-13-1973	M	OTHER OR NONE
Outpatient Accession Date: 03-04-2003				

03-04-2003 BACT 03 1655 MICRO CULTURE PHARYNX				
1		03-05-2003		STREPTOCOCCUS BETA
HEMOLYTIC, GROUP A				

**Example: New Detailed Verification Report of EPI Extracted Data from Site mailman messages**  
*continued.*

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DETAILED VERIFICATION REPORT OF EPI EXTRACTED DATA  
 FROM STATION (Your station number and name is displayed here.)  
 PROCESSING PERIOD: 03-01-2003 through 03-31-2003

NTE~7- Report of Legionella/Legionaire's  
 These data note persons at your facility during the month who had an EITHER  
 an ICD-9 coded diagnosis for Legionella/Legionaire's disease OR a positive  
 culture result. Identifying information, along with specimen and culture  
 results has been provided.

NO PATIENTS REPORTED FOR THE REPORT PERIOD.

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DETAILED VERIFICATION REPORT OF EPI EXTRACTED DATA  
 FROM STATION (Your station number and name is displayed here.)  
 PROCESSING PERIOD: 03-01-2003 through 03-31-2003

NTE~8-Report of Candida bloodstream infections  
 These data note persons at your facility during the month that had a  
 positive result for Candida (or other yeast) bloodstream infections.  
 Identifying information, along with specimen and culture results has been  
 provided.

PATIENT NAME	LAST 4	DOB	SEX	PERIOD OF SERVICE
LABPATIENT7, SEVEN	0077	05-25-1943	M	VIETNAM ERA
Update Admission Date: 12-19-2002@1605				
03-18-2003@2235 BLD 03 856 MICRO CULTURE BLOOD				
1		03-25-2003		YEAST
1		03-25-2003		CANDIDA (TORULOPSIS)
GLABRATA				
03-16-2003@1600 BLD 03 837 MICRO CULTURE BLOOD				
1		03-22-2003		YEAST
1		03-23-2003		CANDIDA (TORULOPSIS)
GLABRATA				
03-12-2003 BLD 03 793 MICRO CULTURE BLOOD				
1		03-17-2003		YEAST
2		03-17-2003		STAPHYLOCOCCUS
(COAGULASE NEGATIVE)				
1		03-15-2003		CANDIDA (TORULOPSIS)
GLABRATA				

**Example: New Detailed Verification Report of EPI Extracted Data from Site mailman messages**  
*continued.*

```
03-11-2003@0230 MYCOL 03 166 MICRO CULTURE BLOOD
      1                                03-17-2003  CANDIDA (TORULOPSIS)
GLABRATA
```

```
03-11-2003@0230 BLD 03 780 MICRO CULTURE BLOOD
      1                                03-17-2003  STAPHYLOCOCCUS
(COAGULASE NEGATIVE)
      2                                03-17-2003  YEAST
      1                                03-17-2003  CANDIDA (TORULOPSIS)
GLABRATA
```

```
03-08-2003@0915 BLD 03 757 MICRO CULTURE BLOOD
      1                                03-12-2003  YEAST
      1                                03-12-2003  CANDIDA (TORULOPSIS)
GLABRATA
```

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DETAILED VERIFICATION REPORT OF EPI EXTRACTED DATA  
 FROM STATION (Station name/number displayed here.)  
 PROCESSING PERIOD: 03-01-2003 through 03-31-2003

NTE~9-Report of Cryptosporidium

These data note persons at your facility during the month that had EITHER an ICD-9 coded diagnosis for Cryptosporidium OR a positive culture result. Identifying information, along with specimen and culture results has been provided.

NO PATIENTS REPORTED FOR THE REPORT PERIOD.

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DETAILED VERIFICATION REPORT OF EPI EXTRACTED DATA  
 FROM STATION (Station name/number displayed here.)  
 PROCESSING PERIOD: 03-01-2003 through 03-31-2003

NTE~10-Report of Escherichia coli O157

These data note persons at your facility during the month that had a positive result for Escherichia coli serotype O157. Identifying information, along with specimen and culture results has been provided.

NO PATIENTS REPORTED FOR THE REPORT PERIOD.

**Example: New Detailed Verification Report of EPI Extracted Data from Site mailman messages**  
*continued.*

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PAGE 11
      DETAILED VERIFICATION REPORT OF EPI EXTRACTED DATA
      STATION (Your station your number is displayed here)
      PROCESSING PERIOD: 03-01-2003 through 03-31-2003

NTE~11-Report of Malaria
These data note persons at your facility during the month that had an ICD-9
coded diagnosis for malaria. Identifying information has been provided.

NO PATIENTS REPORTED FOR THE REPORT PERIOD.

PAGE 12
      DETAILED VERIFICATION REPORT OF EPI EXTRACTED DATA
      STATION (Your station your number is displayed here)
      PROCESSING PERIOD: 03-01-2003 through 03-31-2003

NTE~12-Report of Dengue
These data note persons at your facility during the month that had an ICD-9
coded diagnosis for dengue. Identifying information has been provided.

NO PATIENTS REPORTED FOR THE REPORT PERIOD.

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      DETAILED VERIFICATION REPORT OF EPI EXTRACTED DATA
      FROM STATION (Your station number and name is displayed here.)
      PROCESSING PERIOD: 03-01-2003 through 03-31-2003

NTE~13-Report of Creutzfeldt-Jakob Disease
These data note persons at your facility during the month that had an ICD-9
coded diagnosis for Creutzfeldt-Jakob disease. Identifying information has
been provided.

NO PATIENTS REPORTED FOR THE REPORT PERIOD.

PAGE 14
      DETAILED VERIFICATION REPORT OF EPI EXTRACTED DATA
      FROM STATION (Your station number and name is displayed here.)
      PROCESSING PERIOD: 03-01-2003 through 03-31-2003

NTE~14-Report of Leishmaniasis
These data note persons at your facility during the month that had an ICD-
9coded diagnosis for Leishmania. Identifying information has been
provided.

NO PATIENTS REPORTED FOR THE REPORT PERIOD.
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**Example: New Detailed Verification Report of EPI Extracted Data from Site mailman messages**  
*continued.*

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DETAILED VERIFICATION REPORT OF EPI EXTRACTED DATA  
 FROM STATION (Your station number and name is displayed here.)  
 PROCESSING PERIOD: 03-01-2003 through 03-31-2003

NTE~15 Report of Hepatitis C antibody negative

This represents a line listing of persons reported during the month who had a negative test for hepatitis C antibody (based on accession date and not results reported date). Definitions for data to be extracted are provided in the Technical and User Guide documentation for Laboratory EPI LR\*5.2\*281.

Name	LAST 4	Accession Date	Test Name	Test Result
LABPATIENT7~EIGHT	0078	03-05-2003@0700	HEP C ANTIBODY	NEGATIVE
LABPATIENT7~NINE	0079	03-18-2003@0743	HEP C ANTIBODY	NEGATIVE
LABPATIENT7~TEN	0710	03-03-2003@0846	HEP C ANTIBODY	NEGATIVE
LABPATIENT8~ONE	0081	03-26-2003@1515	HEP C ANTIBODY	NEGATIVE
LABPATIENT8~TWO	0082	03-28-2003@1506	HEP C ANTIBODY	NEGATIVE
LABPATIENT8~THREE	0083	03-03-2003@0700	HEP C ANTIBODY	NEGATIVE
LABPATIENT8~FOUR	0084	03-25-2003@1039	HEP C ANTIBODY	NEGATIVE
LABPATIENT8~FIVE	0085	03-04-2003@1138	HEP C ANTIBODY	NEGATIVE
LABPATIENT8~SIX	0086	03-20-2003@0700	HEP C ANTIBODY	NEGATIVE
LABPATIENT8~SEVEN	0087	03-21-2003@0700	HEP C ANTIBODY	NEGATIVE
LABPATIENT8~EIGHT	0088	03-27-2003@0700	HEP C ANTIBODY	NEGATIVE
LABPATIENT8~NINE	0089	03-18-2003@1111	HEP C ANTIBODY	NEGATIVE
LABPATIENT8~TEN	0810	03-05-2003@0819	HEP C ANTIBODY	NEGATIVE
LABPATIENT9~ONE	0091	03-19-2003@1335	HEP C ANTIBODY	NEGATIVE
LABPATIENT9~TWO	0092	03-27-2003@1622	HEP C ANTIBODY	NEGATIVE
LABPATIENT9~THREE	0093	03-17-2003@1418	HEP C ANTIBODY	NEGATIVE
LABPATIENT9~FOUR	0094	03-28-2003@1439	HEP C ANTIBODY	NEGATIVE
LABPATIENT9~FIVE	0095	03-05-2003@0822	HEP C ANTIBODY	NEGATIVE
LABPATIENT9~SIX	0096	03-19-2003@1553	HEP C ANTIBODY	NEGATIVE
LABPATIENT9~SEVEN	0097	03-17-2003@1423	HEP C ANTIBODY	NEGATIVE
LABPATIENT9~EIGHT	0098	03-14-2003	HEP C ANTIBODY	NEGATIVE
LABPATIENT9~NINE	0099	03-21-2003@0939	HEP C ANTIBODY	NEGATIVE
LABPATIENT9~TEN	0910	03-06-2003@1007	HEP C ANTIBODY	NEGATIVE
LABPATIENT10~ONE	0101	03-21-2003@1210	HEP C ANTIBODY	NEGATIVE

**Example: New Detailed Verification Report of EPI Extracted Data from Site mailman messages**  
*continued.*

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DETAILED VERIFICATION REPORT OF EPI EXTRACTED DATA  
 FROM STATION (Your station number and name is displayed here.)  
 PROCESSING PERIOD: 03-01-2003 through 03-31-2003

NTE~16 Report of Hepatitis A antibody positive

This represents a line listing of persons reported during the month who had a positive test for hepatitis A antibody (based on accession date and not results reported date). Definitions for data to be extracted are provided in the Technical and User Guide documentation for Laboratory EPI LR\*5.2\*281.

Name	LAST 4	Accession Date	Test Name	Test Result
LABPATIENT7~NINE	0079	03-18-2003@0743	HEP A ANTIBODY (IGM)	NEGATIVE
LABPATIENT8~THREE	0083	03-03-2003@0700	HEP A ANTIBODY (IGM)	NEGATIVE
LABPATIENT4~ONE	0041	03-26-2003@1240	HEP A ANTIBODY-TOTAL	
REACTIVE				
LABPATIENT9~TWO	0092	03-27-2003@1622	HEP A ANTIBODY (IGM)	NEGATIVE
LABPATIENT4~FOUR	0044	03-19-2003	HEP A ANTIBODY-TOTAL	
REACTIVE				
LABPATIENT9~FOUR	0094	03-28-2003@1439	HEP A ANTIBODY (IGM)	NEGATIVE
LABPATIENT9~SIX	0096	03-19-2003@1553	HEP A ANTIBODY-TOTAL	
REACTIVE				
LABPATIENT10~TWO	0102	03-17-2003@1117	HEP A ANTIBODY-TOTAL	
REACTIVE				
LABPATIENT4~EIGHT	0048	03-08-2003@0700	HEP A ANTIBODY-TOTAL	
REACTIVE				
LABPATIENT10~THREE	0103	03-27-2003@0950	HEP A ANTIBODY (IGM)	NEGATIVE
LABPATIENT10~FOUR	0104	03-28-2003@1025	HEP A ANTIBODY-TOTAL	
REACTIVE				
LABPATIENT10~FIVE	0105	03-17-2003@1024	HEP A ANTIBODY-TOTAL	
REACTIVE				
LABPATIENT10~SIX	0106	03-12-2003@1450	HEP A ANTIBODY-TOTAL	
REACTIVE				
LABPATIENT10~SEVEN	0107	03-12-2003@1016	HEP A ANTIBODY (IGM)	NEGATIVE
LABPATIENT5~ONE	0051	03-07-2003@1015	HEP A ANTIBODY-TOTAL	
REACTIVE				
LABPATIENT10~EIGHT	0108	03-10-2003@0943	HEP A ANTIBODY-TOTAL	
REACTIVE				
LABPATIENT10~NINE	0109	03-06-2003@0920	HEP A ANTIBODY (IGM)	NEGATIVE

**Example: New Detailed Verification Report of EPI Extracted Data from Site mailman messages**  
*continued.*

LABPATIENT10~TEN	1010	03-06-2003@0700	HEP A ANTIBODY (IGM)	NEGATIVE
LABPATIENT11~ONE	0111	03-28-2003@0930	HEP A ANTIBODY (IGM)	NEGATIVE
LABPATIENT11~TWO	0112	03-03-2003@1549	HEP A ANTIBODY-TOTAL	
REACTIVE				
LABPATIENT11~THREE	0113	03-17-2003@1136	HEP A ANTIBODY-TOTAL	
REACTIVE				
LABPATIENT11~FOUR	0114	03-29-2003@0700	HEP A ANTIBODY-TOTAL	
REACTIVE				
LABPATIENT11~FIVE	0115	03-28-2003@1357	HEP A ANTIBODY (IGM)	NEGATIVE
LABPATIENT11~FIVE	0115		HEP A ANTIBODY-TOTAL	
REACTIVE				
PAGE 17				
DETAILED VERIFICATION REPORT OF EPI EXTRACTED DATA FROM STATION (Your station number and name is displayed here.) PROCESSING PERIOD: 03-01-2003 through 03-31-2003				
NTE~17 Report of Hepatitis B positive				
This represents a line listing of persons reported during the month who had a positive test for hepatitis B (based on accession date and not results reported date). Definitions for data to be extracted are provided in the Technical and User Guide documentation for Laboratory EPI LR*5.2*281.				
Name	LAST 4	Accession Date	Test Name	Test Result
LABPATIENT7~EIGHT	0078	03-05-2003@0700	HEP B SURFACE AG	NEGATIVE
LABPATIENT7~EIGHT	0078		HEP B SURFACE AB	LOW TITER
POSITIVE				
LABPATIENT9~TWO	0092	03-27-2003@1622	HEP B SURFACE AG	NEGATIVE
LABPATIENT9~TWO	0092		HEP B SURFACE AB	LOW TITER
POSITIVE				
LABPATIENT9~TWO	0092		HEP B CORE AB (IGM)	NEGATIVE
LABPATIENT11~SIX	0116	03-22-2003@0700	HEP B SURFACE AG	NEGATIVE
LABPATIENT11~SIX	0116		HEP B SURFACE AB	ADEQUATE
TITER				
POSITIVE				
LABPATIENT11~SEVEN	0117	03-25-2003@1610	HEP B SURFACE AB	ADEQUATE
TITER				
POSITIVE				
LABPATIENT11~EIGHT	0118	03-06-2003@1025	HEP B SURFACE AB	LOW TITER
POSITIVE				
LABPATIENT4~TEN	0410	03-14-2003@1004	HEP B SURFACE AG	NEGATIVE
LABPATIENT4~TEN	0410		HEP B SURFACE AB	ADEQUATE
TITER				
POSITIVE				
LABPATIENT11~NINE	0119	03-28-2003@1530	HEP B SURFACE AB	LOW TITER
POSITIVE				

**Example: New Detailed Verification Report of EPI Extracted Data from Site mailman messages**  
*continued.*

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LABPATIENT11~TEN      1110   03-13-2003@0700  HEP B SURFACE AG POSITIVE
LABPATIENT11~TEN      1110                               HEP B SURFACE AB NEGATIVE
LABPATIENT12~ONE      0121   03-19-2003@0700  HEP B SURFACE AG NEGATIVE
LABPATIENT12~ONE      0121                               HEP B SURFACE AB LOW TITER
POSITIVE
LABPATIENT12~ONE      0121                               HEP B CORE AB (IGM) NEGATIVE
WUDFES~JU HDFESXY~K  6546   03-07-2003@1258  HEP B SURFACE AB LOW TITER
POSITIVE
LABPATIENT12~TWO      0122   03-18-2003@1155  HEP B SURFACE AG NEGATIVE
LABPATIENT12~TWO      0122                               HEP B SURFACE AB LOW TITER
POSITIVE
LABPATIENT12~THREE    0123   03-10-2003@1214  HEP B SURFACE AG NEGATIVE
LABPATIENT12~THREE    0123                               HEP B SURFACE AB ADEQUATE
TITER POSITIVE
LABPATIENT12~FOUR     0124   03-19-2003@1520  HEP B SURFACE AG NEGATIVE
LABPATIENT12~FOUR     0124                               HEP B SURFACE AB ADEQUATE
TITER POSITIVE

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                DETAILED VERIFICATION REPORT OF EPI EXTRACTED DATA
FROM STATION (Your station number and name is displayed here.)
PROCESSING PERIOD: 03-01-2003 through 03-31-2003

NTE~18-Report of All Staphylococcus aureus
These data note persons at your facility during the month that had a
positive result for all Staphylococcus aureus. Identifying information,
along with specimen and culture results has been provided.

PATIENT NAME                LAST 4 DOB                SEX    PERIOD OF SERVICE
LABPATIENT12, FIVE          0125   04-25-1930 M        KOREAN
Inpatient Admission Date:  03-14-2003@2035
Discharge Date:           03-27-2003@1646 Discharge Disposition:  REGULAR

03-16-2003@2120 BLD 03 835 MICRO CULTURE BLOOD
   1                               03-23-2003   STAPHYLOCOCCUS AUREUS
03-16-2003@2100 BLD 03 836 MICRO CULTURE BLOOD
   1                               03-23-2003   STAPHYLOCOCCUS AUREUS
03-15-2003@2222 BLD 03 826 MICRO CULTURE BLOOD
   1                               03-18-2003   STAPHYLOCOCCUS AUREUS
03-15-2003@2222 BLD 03 825 MICRO CULTURE BLOOD
   1                               03-18-2003   STAPHYLOCOCCUS AUREUS
03-14-2003@2213 BLD 03 812 MICRO CULTURE BLOOD
   1                               03-20-2003   STAPHYLOCOCCUS AUREUS

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**Example: New Detailed Verification Report of EPI Extracted Data from Site mailman messages**  
*continued.*

```

ORG # 1 03-14-2003@2213 ANTIBIOTIC MIC BLOOD
PENICILLIN R R
CLINDAMYCIN S S
VANCOMYCIN S S
GENTAMICIN S S
CEFAZOLIN S S
TETRACYCLINE S S
TRIMETHOPRIM+SULFAMETHOXAZOLE S S
ERYTHROMYCIN S S
NITROFURANTOIN S S
RIFAMPIN S S
OXACILLIN S S
CIPROFLOXACIN S S
AMPICILLIN+SULBACTAM S S
LEVOFLOXACIN S S
AMOXICILLIN CLAVULANIC ACID S S

PATIENT NAME LAST 4 DOB SEX PERIOD OF SERVICE
LABPATIENT12, SIX 0126 01-28-1934 M KOREAN
Outpatient Accession Date: 03-04-2003

03-04-2003 BLD 03 726 MICRO CULTURE BLOOD
1 03-07-2003 STAPHYLOCOCCUS AUREUS

ORG # 1 03-04-2003 ANTIBIOTIC MIC BLOOD
PENICILLIN R R
CLINDAMYCIN S S
VANCOMYCIN S S
GENTAMICIN S S
CEFAZOLIN S S
TETRACYCLINE S S
TRIMETHOPRIM+SULFAMETHOXAZOLE S S
ERYTHROMYCIN S S
NITROFURANTOIN S S
RIFAMPIN S S
OXACILLIN S S
CIPROFLOXACIN S S
AMPICILLIN+SULBACTAM S S
LEVOFLOXACIN S S
AMOXICILLIN CLAVULANIC ACID S S

Outpatient Accession Date: 03-05-2003@0000

03-05-2003@0000 BLD 03 730 MICRO CULTURE BLOOD
1 03-07-2003 STAPHYLOCOCCUS AUREUS

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**Example: New Detailed Verification Report of EPI Extracted Data from Site mailman messages**  
*continued.*

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Inpatient Admission Date: 03-05-2003@1520
Discharge Date: 03-31-2003@1447 Discharge Disposition: REGULAR

03-09-2003@0940 BLD 03 762 MICRO CULTURE BLOOD
1 03-14-2003 STAPHYLOCOCCUS AUREUS

ORG # 1 03-09-2003@0940 ANTIBIOTIC MIC BLOOD
PENICILLIN R R
CLINDAMYCIN S S
VANCOMYCIN S S
GENTAMICIN S S
CEFAZOLIN S S
TETRACYCLINE S S
TRIMETHOPRIM+SULFAMETHOXAZOLE S S
ERYTHROMYCIN S S
NITROFURANTOIN S S
RIFAMPIN S S
OXACILLIN S S
CIPROFLOXACIN S S
AMPICILLIN+SULBACTAM S S
LEVOFLOXACIN S S
AMOXICILLIN CLAVULANIC ACID S S

03-05-2003 BLD 03 729 MICRO CULTURE BLOOD
1 03-07-2003 STAPHYLOCOCCUS AUREUS

PATIENT NAME LAST 4 DOB SEX PERIOD OF SERVICE
LABPATIENT12, SEVEN 0127 04-27-1953 M VIETNAM ERA
HOMELESS Inpatient Admission Date: 03-16-2003@0035
Discharge Date: 03-31-2003@1459 Discharge Disposition: REGULAR

03-22-2003@0419 BLD 03 879 MICRO CULTURE BLOOD
2 03-24-2003 STAPHYLOCOCCUS AUREUS
(MRSA)

ORG # 2 03-22-2003@0419 ANTIBIOTIC MIC BLOOD
PENICILLIN R R
CLINDAMYCIN S S
VANCOMYCIN S S
GENTAMICIN S S
CEFAZOLIN R R
TETRACYCLINE S S
TRIMETHOPRIM+SULFAMETHOXAZOLE S S
ERYTHROMYCIN R R
NITROFURANTOIN S S
RIFAMPIN S S
OXACILLIN R R
CIPROFLOXACIN S S
    
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**Example: New Detailed Verification Report of EPI Extracted Data from Site mailman messages**  
*continued.*

AMPICILLIN+SULBACTAM	R	R
LEVOFLOXACIN	S	S
AMOXICILLIN CLAVULANIC ACID	R	R
03-22-2003@0300 BLD 03 880 MICRO CULTURE BLOOD		
1	03-24-2003	STAPHYLOCOCCUS AUREUS (MRSA)
03-22-2003@0245 BLD 03 881 MICRO CULTURE BLOOD		
1	03-24-2003	STAPHYLOCOCCUS AUREUS (MRSA)
PAGE 19		
DETAILED VERIFICATION REPORT OF EPI EXTRACTED DATA FROM STATION 539 CINCINNATI VAMC PROCESSING PERIOD: 03-01-2003 through 03-31-2003		
NTE~19-Report of methicillin-resistant Staphylococcus These data note persons at your facility during the month that had a positive result for methicillin-resistant Staphylococcus aureus. Identifying information, along with specimen and culture results has been provided.		
PATIENT NAME	LAST 4	DOB
LABPATIENT12, SEVEN	0127	04-27-1953 M
HOMELESS		VIETNAM ERA
Inpatient Admission Date: 03-16-2003@0035		
Discharge Date: 03-31-2003@1459 Discharge Disposition: REGULAR		
03-22-2003@0419 BLD 03 879 MICRO CULTURE BLOOD		
2	03-24-2003	STAPHYLOCOCCUS AUREUS
(MRSA)		
ORG # 2 03-22-2003@0419 ANTIBIOTIC MIC BLOOD		
PENICILLIN	R	R
CLINDAMYCIN	S	S
VANCOMYCIN	S	S
GENTAMICIN	S	S
CEFAZOLIN	R	R
TETRACYCLINE	S	S
TRIMETHOPRIM+SULFAMETHOXAZOLE	S	S
ERYTHROMYCIN	R	R
NITROFURANTOIN	S	S
RIFAMPIN	S	S
OXACILLIN	R	R

**Example: New Detailed Verification Report of EPI Extracted Data from Site mailman messages**  
*continued.*

CIPROFLOXACIN	S	S
AMPICILLIN+SULBACTAM	R	R
LEVOFLOXACIN	S	S
AMOXICILLIN CLAVULANIC ACID	R	R
PATIENT NAME	LAST 4 DOB	SEX PERIOD OF SERVICE
LABPATIENT12, EIGHT	0128 08-26-1922 M	KOREAN
Inpatient Admission Date: 03-13-2003@2113		
Discharge Date: 04-03-2003@1216 Discharge Disposition: REGULAR		
03-23-2003@2130 BACT 03 2186 MICRO CULTURE SKIN		
1	03-27-2003	STAPHYLOCOCCUS AUREUS
(MRSA)		
ORG # 1 03-23-2003@2130 ANTIBIOTIC MIC SKIN		
PENICILLIN	R	R
CLINDAMYCIN	R	R
VANCOMYCIN	S	S
GENTAMICIN	S	S
CEFAZOLIN	R	R
TETRACYCLINE	S	S
TRIMETHOPRIM+SULFAMETHOXAZOLE	S	S
ERYTHROMYCIN	R	R
NITROFURANTOIN	S	S
RIFAMPIN	S	S
OXACILLIN	R	R
CIPROFLOXACIN	R	R
AMPICILLIN+SULBACTAM	R	R
LEVOFLOXACIN	R	R
AMOXICILLIN CLAVULANIC ACID	R	R
03-15-2003@0000 BACT 03 1984 MICRO CULTURE SPUTUM		
1	03-18-2003	STAPHYLOCOCCUS AUREUS
(MRSA)		
2	03-18-2003	PROTEUS MIRABILIS
3	03-18-2003	ACINETOBACTER BAUMANII
4	03-18-2003	CITROBACTER KOSERII
(DIVERSUS)		
ORG # 1 03-15-2003@0000 ANTIBIOTIC MIC SPUTUM		
PENICILLIN	R	R
CLINDAMYCIN	R	R
VANCOMYCIN	S	S
GENTAMICIN	S	S
CEFAZOLIN	R	R
TETRACYCLINE	S	S

**Example: New Detailed Verification Report of EPI Extracted Data from Site mailman messages**  
*continued.*

TRIMETHOPRIM+SULFAMETHOXAZOLE	S	S
ERYTHROMYCIN	R	R
NITROFURANTOIN	S	S
RIFAMPIN	S	S
OXACILLIN	R	R
CIPROFLOXACIN	R	R
AMPICILLIN+SULBACTAM	R	R
LEVOFLOXACIN	R	R
AMOXICILLIN CLAVULANIC ACID	R	R
ORG # 2 03-15-2003@0000 ANTIBIOTIC MIC SPUTUM		
GENTAMICIN	S	S
CEFAZOLIN	S	S
AMPICILLIN	R	R
POLYMXIN B	S	S
TRIMETHOPRIM+SULFAMETHOXAZOLE	R	R
AMIKACIN	S	S
PIPERACILLIN	R	R
CEFOTAXIME	S	S
CIPROFLOXACIN	R	R
IMIPENEM	S	S
CEFTAZIDIME	S	S
AMPICILLIN+SULBACTAM	R	R
CEFOTETAN	S	S
LEVOFLOXACIN	R	R
CEFEPIME	S	S
PIPERACILLIN+TAZOBACTAM	S	S
ORG # 3 03-15-2003@0000 ANTIBIOTIC MIC SPUTUM		
GENTAMICIN	S	S
CEFAZOLIN	R	R
AMPICILLIN	I	I
POLYMXIN B	S	S
TRIMETHOPRIM+SULFAMETHOXAZOLE	S	S
AMIKACIN	S	S
PIPERACILLIN	S	S
CEFOTAXIME	S	S
CIPROFLOXACIN	R	R
IMIPENEM	S	S
CEFTAZIDIME	S	S
AMPICILLIN+SULBACTAM	S	S
CEFOTETAN	R	R
LEVOFLOXACIN	R	R
CEFEPIME	S	S
PIPERACILLIN+TAZOBACTAM	S	S

**Example: New Detailed Verification Report of EPI Extracted Data from Site mailman messages**  
*continued.*

ORG # 4 03-15-2003@0000	ANTIBIOTIC MIC	SPUTUM	
GENTAMICIN	S		S
CEFAZOLIN	S		S
POLYMICIN B	S		S
TRIMETHOPRIM+SULFAMETHOXAZOLE	S		S
AMIKACIN	S		S
PIPERACILLIN	S		S
CEFOTAXIME	S		S
CIPROFLOXACIN	S		S
IMIPENEM	S		S
CEFTAZIDIME	S		S
CEFOTETAN	S		S
LEVOFLOXACIN	S		S
CEFEPIME	S		S
PIPERACILLIN+TAZOBACTAM	S		S
PAGE 20			
<p style="text-align: center;">DETAILED VERIFICATION REPORT OF EPI EXTRACTED DATA          FROM STATION (Your station number and name is displayed here.)          PROCESSING PERIOD: 03-01-2003 through 03-31-2003</p>			
<p>NTE~20-Vancomycin-resistant Staphylococcus aureus          These data note persons at your facility during the month that had a positive result for Vancomycin-resistant Staphylococcus aureus. Identifying information, along with specimen and culture results has been provided.</p>			
<p>NO PATIENTS REPORTED FOR THE REPORT PERIOD.</p>			
PAGE 21			
<p style="text-align: center;">DETAILED VERIFICATION REPORT OF EPI EXTRACTED DATA          FROM STATION (Your station number and name is displayed here.)          PROCESSING PERIOD: 03-01-2003 through 03-31-2003</p>			
<p>NTE~21-Vancomycin-resistant coagulase negative Staphylococcus          These data note persons at your facility during the month that had a positive result for Vancomycin-resistant coagulase negative staphylococcus. Identifying information, along with specimen and culture results has been provided.</p>			
<p>NO PATIENTS REPORTED FOR THE REPORT PERIOD.</p>			

**Example: New Detailed Verification Report of EPI Extracted Data from Site mailman messages**  
*continued.*

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DETAILED VERIFICATION REPORT OF EPI EXTRACTED DATA  
 FROM STATION (Your station number and name is displayed here.)  
 PROCESSING PERIOD: 03-01-2003 through 03-31-2003

NTE~22-All Streptococcus pneumoniae

These data note persons at your facility during the month that had a positive result for all Streptococcus pneumoniae. Identifying information, along with specimen and culture results has been provided.

PATIENT NAME	LAST 4	DOB	SEX	PERIOD OF SERVICE
LABPATIENT12, NINE	0129	07-06-1922	M	VIETNAM ERA
Inpatient Admission Date: 03-12-2003@1205				
Discharge Date: 03-20-2003@1320 Discharge Disposition: REGULAR				

03-12-2003@1420	BACT 03 1894	MICRO CULTURE	SPUTUM	
1		03-15-2003		STREPTOCOCCUS PNEUMONIAE

ORG #	ANTIBIOTIC	MIC	SPUTUM	
1	PENICILLIN			S
	CLINDAMYCIN			S
	VANCOMYCIN			S
	CHLORAMPHENICOL			S
	TETRACYCLINE			S
	TRIMETHOPRIM+SULFAMETHOXAZOLE			S
	ERYTHROMYCIN			S
	CEFOTAXIME			S
	CEFTRIAXONE			S
	LEVOFLOXACIN			S

PATIENT NAME	LAST 4	DOB	SEX	PERIOD OF SERVICE
LABPATIENT12, TEN	1210	03-27-1924	M	WORLD WAR II
Inpatient Admission Date: 03-21-2003@1657				
Discharge Date: --"" Discharge Disposition:				

03-21-2003	BACT 03 2154	MICRO CULTURE	SPUTUM	
1		03-25-2003		STREPTOCOCCUS PNEUMONIAE
2		03-25-2003		HAEMOPHILUS INFLUENZAE
3		03-25-2003		CANDIDA ALBICANS

**Example: New Detailed Verification Report of EPI Extracted Data from Site mailman messages**  
*continued.*

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ORG # 1 03-21-2003 ANTIBIOTIC MIC SPUTUM
PENICILLIN S S
CLINDAMYCIN S S
VANCOMYCIN S S
CHLORAMPHENICOL S S
TETRACYCLINE S S
AMPICILLIN S S
TRIMETHOPRIM+SULFAMETHOXAZOLE S S
ERYTHROMYCIN S S
CEFOTAXIME S S
CEFTRIAXONE S S
LEVOFLOXACIN S S

PATIENT NAME LAST 4 DOB SEX PERIOD OF SERVICE
LABPATIENT13, ONE 0131 12-13-1947 M VIETNAM ERA
Outpatient Accession Date: 03-24-2003

03-24-2003 BACT 03 2200 MICRO CULTURE BRONCHUS
1 03-27-2003 STREPTOCOCCUS PNEUMONIAE

ORG # 1 03-24-2003 ANTIBIOTIC MIC BRONCHUS
PENICILLIN S S
CLINDAMYCIN S S
VANCOMYCIN S S
CHLORAMPHENICOL S S
TETRACYCLINE S S
AMPICILLIN S S
TRIMETHOPRIM+SULFAMETHOXAZOLE S S
ERYTHROMYCIN S S
CEFOTAXIME S S
CEFTRIAXONE S S
LEVOFLOXACIN S S

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DETAILED VERIFICATION REPORT OF EPI EXTRACTED DATA
FROM STATION (Your station number and name is displayed here.)
PROCESSING PERIOD: 03-01-2003 through 03-31-2003

NTE~23- All Enterococci
These data note persons at your facility during the month that had a
positive result for all Enterococci. Identifying information, along with
specimen and culture results has been provided.
    
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**Example: New Detailed Verification Report of EPI Extracted Data from Site mailman messages**  
*continued.*

PATIENT NAME	LAST 4	DOB	SEX	PERIOD OF SERVICE
LABPATIENT3, TEN	0310	03-11-1925	M	WORLD WAR II
Inpatient Admission Date: 03-08-2003@1717				
Discharge Date: --"" Discharge Disposition:				
03-18-2003@0700 BACT 03 2038 MICRO CULTURE URINE				
2		03-20-2003		ENTEROCOCCUS FAECIUM
ORG # 2 03-18-2003@0700 ANTIBIOTIC MIC URINE				
PENICILLIN		R		R
VANCOMYCIN		R		R
NITROFURANTOIN		S		S
CIPROFLOXACIN		R		R
LEVOFLOXACIN		R		R
GENTAMICIN HP		SYN-S		SYN-S
STREPTOMYCIN HP		SYN-R		SYN-R
PATIENT NAME				
LAST 4				
DOB				
SEX				
PERIOD OF SERVICE				
LABPATIENT13, TWO	0132	05-29-1928	M	WORLD WAR II
Inpatient Admission Date: 02-27-2003@1650				
Discharge Date: 04-02-2003@1415 Discharge Disposition: REGULAR				
03-20-2003@1740 BLD 03 870 MICRO CULTURE BLOOD				
1		03-24-2003		ENTEROCOCCUS FAECALIS
2		03-24-2003		STAPHYLOCOCCUS
(COAGULASE NEGATIVE)				
ORG # 1 03-20-2003@1740 ANTIBIOTIC MIC BLOOD				
PENICILLIN		S		S
VANCOMYCIN		S		S
TETRACYCLINE		R		R
NITROFURANTOIN		S		S
CIPROFLOXACIN		S		S
LEVOFLOXACIN		S		S
GENTAMICIN HP		SYN-S		SYN-S
STREPTOMYCIN HP		SYN-R		SYN-R
ORG # 2 03-20-2003@1740 ANTIBIOTIC MIC BLOOD				
PENICILLIN		R		R
CLINDAMYCIN		S		S
VANCOMYCIN		S		S
GENTAMICIN		S		S
CEFAZOLIN		R		R
TRIMETHOPRIM+SULFAMETHOXAZOLE		S		S
ERYTHROMYCIN		R		R
NITROFURANTOIN		S		S

**Example: New Detailed Verification Report of EPI Extracted Data from Site mailman messages**  
*continued.*

RIFAMPIN	S	S
OXACILLIN	R	R
CIPROFLOXACIN	R	R
AMPICILLIN+SULBACTAM	R	R
LEVOFLOXACIN	I	I
AMOXICILLIN CLAVULANIC ACID	R	R
PATIENT NAME	LAST 4	DOB
LABPATIENT13, FOUR	0134	06-25-1939 M
Outpatient Accession Date:	03-10-2003	
03-10-2003 BACT 03 1816 MICRO CULTURE URINE		
1	03-12-2003	ENTEROCOCCUS
2	03-12-2003	STAPHYLOCOCCUS
(COAGULASE NEGATIVE)		
ORG # 1 03-10-2003 ANTIBIOTIC MIC URINE		
PENICILLIN	S	S
VANCOMYCIN	S	S
TETRACYCLINE	R	R
NITROFURANTOIN	S	S
CIPROFLOXACIN	R	R
LEVOFLOXACIN	R	R
GENTAMICIN HP	SYN-R	SYN-R
STREPTOMYCIN HP	SYN-S	SYN-S
PAGE 24		
UPDATES		
This section presents patients who had a transmission of information during a month on an EPI defined topic that was incomplete. These patients have information that has been transmitted during the current processing month in order to complete the EPI files. This information usually contains inpatient information about discharge date; ICD-9 coded diagnoses, and occasionally will contain laboratory based testing. This line listing of patient, SSN, and admission date and discharge date is provided to assist with analysis should a processing/error report occur with your monthly automated transmission of this data.		
Name	LAST 4	Admission date
		Discharge date
LABPATIENT13~FIVE	0135	12-19-2002@1605
LABPATIENT13~SIX	0136	01-28-2003@1720
LABPATIENT13~SEVEN	0137	02-04-2003@1045
		04-05-2003@1213
		03-06-2003@1614
		03-07-2003@1847

**Example: New Detailed Verification Report of EPI Extracted Data from Site mailman messages**  
*continued.*

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Pharmacy-based data extracted for EPI data base.

INTERFERON BETA-1A (AVONEX) 30MCG

0138	LABPATIENT13~EIGHT	Outpatient	03-12-2003
0139	LABPATIENT13~NINE	Outpatient	03-27-2003
1310	LABPATIENT13~TEN	Outpatient	03-19-2003
1310	LABPATIENT13~TEN	Outpatient	03-21-2003
1310	LABPATIENT13~TEN	Outpatient	03-28-2003
0141	LABPATIENT14~ONE	Outpatient	03-11-2003
0142	LABPATIENT14~TWO	Outpatient	03-20-2003
0143	LABPATIENT14~THREE	Outpatient	03-03-2003
0144	LABPATIENT14~FOUR	Outpatient	03-11-2003
0145	LABPATIENT14~FIVE	Outpatient	03-18-2003
0146	LABPATIENT14~SIX	Outpatient	03-28-2003
0147	LABPATIENT14~SEVEN	Outpatient	03-03-2003
0148	LABPATIENT14~EIGHT	Outpatient	03-24-2003
0149	LABPATIENT14~NINE	Outpatient	03-14-2003
1410	LABPATIENT14~TEN	Outpatient	03-10-2003
0151	LABPATIENT15~ONE	Outpatient	03-02-2003
0151	LABPATIENT15~ONE	Outpatient	03-21-2003
0152	LABPATIENT15~TWO	Outpatient	03-20-2003
0153	LABPATIENT15~THREE	Outpatient	03-20-2003
0154	LABPATIENT15~FOUR	Outpatient	03-14-2003
0155	LABPATIENT15~FIVE	Outpatient	03-14-2003
0156	LABPATIENT15~SIX	Outpatient	03-10-2003

-----  
 SUBCOUNT 22

INTERFERON BETA-1A 44MCG/SYR INJ (REBIF)

0951	FLUZHU~BHYHSE U~TU	Outpatient	03-06-2003
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 SUBCOUNT 1

INTERFERON BETA-1B 0.3MG (BETASERON)

0157	LABPATIENT15~SEVEN	Outpatient	03-25-2003
0158	LABPATIENT15~EIGHT	Outpatient	03-26-2003
0159	LABPATIENT15~NINE	Outpatient	03-06-2003
0159	LABPATIENT15~NINE	Outpatient	03-26-2003
1510	LABPATIENT15~TEN	Outpatient	03-18-2003

-----  
 SUBCOUNT 5

**Example: New Detailed Verification Report of EPI Extracted Data from Site mailman messages**  
*continued.*

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Detailed Listing of Hepatitis C Risk Assessment

These Health factors/Resolved terms for hepatitis C risk assessment are the national Health factors used for roll-up of risk assessment data. They may not reflect the terms actually utilized (seen) in the Clinical Reminder package at this facility. To determine which local/facility Clinical Reminder health factor(s) correspond(s) to the national term, please contact your facility Clinical Reminder application coordinator. Note that hepatitis C infection is based on a previously ICD-9 coded diagnosis of hepatitis C at your site/facility.

DECLINED ASSESSMENT FOR HEPATITIS C

-----  
 NO PATIENTS REPORTED FOR THE REPORT PERIOD

NO RISK FACTORS FOR HEPATITIS C

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0161	LABPATIENT16~ONE	Outpatient	03-24-2003@1140
0162	LABPATIENT16~TWO	Outpatient	03-20-2003@1300
0163	LABPATIENT16~THREE	Outpatient	03-03-2003@1500
0164	LABPATIENT16~FOUR	Outpatient	03-05-2003@1500
0165	LABPATIENT16~FIVE	Outpatient	03-18-2003@1000
0166	LABPATIENT16~SIX	Outpatient	03-17-2003@1500
0167	LABPATIENT16~SEVEN	Outpatient	03-24-2003@1515
0168	LABPATIENT16~EIGHT	Outpatient	03-05-2003@1000
0169	LABPATIENT16~NINE	Outpatient	03-10-2003@1500
1610	LABPATIENT16~TEN	Outpatient	03-31-2003@1400
0171	LABPATIENT17~ONE	Outpatient	03-05-2003@1000
0172	LABPATIENT17~TWO	Outpatient	03-18-2003@1500
0173	LABPATIENT17~THREE	Outpatient	03-04-2003@0815
0174	LABPATIENT17~FOUR	Outpatient	03-18-2003@1500
0175	LABPATIENT17~FIVE	Outpatient	03-12-2003@1300
0176	LABPATIENT17~SIX	Outpatient	03-24-2003@0900

-----  
 SUBCOUNT 238

PREVIOUSLY ASSESSED FOR HEPATITIS C

-----  

0177	LABPATIENT17~SEVEN	Inpatient	03-15-2003
0178	LABPATIENT17~EIGHT	Inpatient	03-14-2003

-----  
 SUBCOUNT 2

**Example: New Detailed Verification Report of EPI Extracted Data from Site mailman messages**  
*continued.*

RISK FACTORS FOR HEPATITIS C		
0179	LABPATIENT17~NINE	Outpatient 03-07-2003@1530
1710	LABPATIENT17~TEN	Outpatient 03-26-2003@1300
0181	LABPATIENT18~ONE	Outpatient 03-31-2003@1400
0182	LABPATIENT18~TWO	Outpatient 03-27-2003@1530
0044	LABPATIENT4~FOUR	Outpatient 03-19-2003@1300
0183	LABPATIENT18~THREE	Outpatient 03-03-2003@1000
0184	LABPATIENT18~FOUR	Outpatient 03-20-2003@1000
0185	LABPATIENT18~FIVE	Inpatient 03-10-2003@1120
0186	LABPATIENT18~SIX	Outpatient 03-26-2003@1000
0187	LABPATIENT18~SEVEN	Outpatient 03-13-2003@1500
0068	LABPATIENT6~EIGHT	Inpatient 03-25-2003@1203
0188	LABPATIENT18~EIGHT	Inpatient 03-26-2003@1239
-----		
SUBCOUNT 132		
POSITIVE TEST FOR HEPATITIS C ANTIBODY		
-----		
0041	LABPATIENT4~ONE	Outpatient 03-26-2003@1240
0042	LABPATIENT4~TWO	Outpatient 03-27-2003@1614
0043	LABPATIENT4~THREE	Inpatient 03-13-2003@0700
0044	LABPATIENT4~FOUR	Outpatient 03-19-2003
0045	LABPATIENT4~FIVE	Inpatient 03-08-2003@0700
0046	LABPATIENT4~SIX	Outpatient 03-05-2003@0823
0047	LABPATIENT4~SEVEN	Inpatient 03-08-2003@0700
0048	LABPATIENT4~EIGHT	Inpatient 03-08-2003@0700
0049	LABPATIENT4~NINE	Outpatient 03-05-2003@1726
0410	LABPATIENT4~TEN	Inpatient 03-14-2003@1004
0051	LABPATIENT5~ONE	Outpatient 03-07-2003@1015
0052	LABPATIENT5~TWO	Inpatient 03-21-2003@0700
0053	LABPATIENT5~THREE	Outpatient 03-10-2003@0807
0054	LABPATIENT5~FOUR	Outpatient 03-18-2003
0055	LABPATIENT5~FIVE	Outpatient 03-11-2003@0916
0056	LABPATIENT5~SIX	Inpatient 03-27-2003@0700
0057	LABPATIENT5~SEVEN	Inpatient 03-06-2003@0700
0058	LABPATIENT5~EIGHT	Inpatient 03-21-2003@0700
0189	LABPATIENT18~NINE	Outpatient 03-31-2003@1057
0059	LABPATIENT5~NINE	Outpatient 03-12-2003@0911
0510	LABPATIENT5~TEN	Outpatient 03-25-2003@1443
0061	LABPATIENT6~ONE	Outpatient 03-04-2003@1019
0062	LABPATIENT6~TWO	Inpatient 03-13-2003@0700
0063	LABPATIENT6~THREE	Inpatient 03-13-2003@0700
0064	LABPATIENT6~FOUR	Outpatient 03-04-2003@1648
0065	LABPATIENT6~FIVE	Inpatient 03-08-2003@0700
0066	LABPATIENT6~SIX	Outpatient 03-27-2003@1141
0067	LABPATIENT6~SEVEN	Outpatient 03-03-2003@1503
0068	LABPATIENT6~EIGHT	Inpatient 03-27-2003@0700
0069	LABPATIENT6~NINE	Inpatient 03-13-2003@0700
0610	LABPATIENT6~TEN	Outpatient 03-28-2003@1356
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SUBCOUNT 31		

**Example:** New Detailed Verification Report of EPI Extracted Data from Site mailman messages  
continued.

-----  
NEGATIVE TEST FOR HEPATITIS C ANTIBODY  
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0078	LABPATIENT7~EIGHT	Inpatient 03-05-2003@0700
0079	LABPATIENT7~NINE	Outpatient 03-18-2003@0743
0710	LABPATIENT7~TEN	Outpatient 03-03-2003@0846
0081	LABPATEINT8~ONE	Outpatient 03-26-2003@1515
0082	LABPATIENT8~TWO	Outpatient 03-28-2003@1506
0083	LABPATIENT8~THREE	Inpatient 03-03-2003@0700
0084	LABPATIENT8~FOUR	Outpatient 03-25-2003@1039
0085	LABPATIENT8~FIVE	Outpatient 03-04-2003@1138
1810	LABPATIENT18~TEN	Outpatient 03-24-2003@1700
0191	LABPATIENT19~ONE	Outpatient 03-25-2003@1120
0188	LABPATIENT18~EIGHT	Inpatient 03-27-2003@0700
0192	LABPATIENT19~TWO	Outpatient 03-28-2003@1406

-----  
SUBCOUNT 212  
-----

HEPATITIS C DIAGNOSIS (ICD-9 BASED)  
-----

0193	LABPATIENT19~THREE	Outpatient 03-17-2003@1330
0037	LABPATIENT3~SEVEN	Outpatient 03-05-2003@1300
0194	LABPATIENT19~FOUR	Outpatient 03-19-2003@1300
0195	LABPATIENT19~FIVE	Outpatient 03-24-2003@0800
0196	LABPATIENT19~SIX	Outpatient 03-18-2003
0197	LABPATIENT19~SEVEN	Outpatient 03-26-2003@1430
0198	LABPATIENT19, EIGHT	Outpatient 03-14-2003@1245
0064	LABPATIENT6~FOUR	Outpatient 03-04-2003@1500
0199	LABPATIENT19~NINE	Outpatient 03-18-2003
0069	LABPATIENT6~NINE	Inpatient 03-26-2003@1007

-----  
SUBCOUNT 130  
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COUNT 745  
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## New EPI Processing Error Report Mailman Message sent from Austin

The **new** EPI Processing/Error Report mailman message itemizes all transmissions received by AAC and document the records status as either being accepted or rejected (with the reason and reject code identified). This report is sent to the EPI mail group. (*Examples of "Tables of Rejects and Errors and/or Warning Codes" are located in the Appendix - B section of this manual.*)

### Example: New EPI Processing Error Report Mailman Message

```

Subj: EPT/DOY #041381117683754 [#19644680] 17 May 04 11:18 CST 46 lines
From: <POSTMASTER@FOC-AUSTIN.VA.GOV> In 'IN' basket. Page 1
-----
2EPI0003 DOY.
STATION 539 V3 EPI PROCESSING/ERROR REPORT REPORT DATE 2004/05/17
PAGE 01

PROCESS DATE SSN ENCOUNTER DATE MESSAGE ERROR CODES
20040430 000001010 20040415114936 090 240
20040430 000001011 20040408101856 090 240
20040430 000001012 20040428 042 W07
20040430 000001013 20040316145349 035 W07
20040430 000001014 20040428194521 057 W07
20040430 000001015 20040310110835 031 W07
20040430 000001016 200404271400 071 W05
20040430 000001017 19941104101210 026 W05

THIS REPORT REPRESENTS DATA FROM APRIL 2004 FROM YOUR STATION

AS A GENERAL GUIDE FOR INTEPRETATION, THERE ARE 2 TYPES OF ERROR CODES.
ONE TYPE HAS 3 DIGITS (E.G., 240) AND THE OTHER TYPE HAS THE LETTER W
FOLLOWED BY 2 DIGITS (E.G., W05). A LISTING OF MEANINGS FOR THE ERRORS

Enter RETURN to continue or '^' to exit:

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**Example:** EPI Processing Error Report Mailman Message *continued*

Subj: EPT/DOY #041381117683754 [#19644680] Page 2

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IS PROVIDED BELOW. THE 3-DIGIT ERROR CODE INDICATES THAT A FATAL ERROR OCCURRED FOR THE LISTED PATIENT AND THE ENTIRE EPI MESSAGE FOR THE MONTH OF APRIL 2004 WAS NOT ACCEPTED INTO THE DATA REPOSITORY. YOUR SITE WILL NEED TO CORRECT A 3-DIGIT FATAL ERROR CODE FOR ALL PATIENTS HAVING IT PRESENT, AND THEN RE-TRANSMIT THE APRIL 2004 EPI MESSAGE USING THE MANUAL RUN OPTION--L AB EPI MANUAL RUN (ENHANCED). THIS MANUALLY RE-SUBMITTED MESSAGE WILL BE PROCESSED AT THE AUSTIN AUTOMATION CENTER. KEEP IN MIND THAT IF YOU DO RE-SUBMIT A TRANSMISSION, THE NORMAL EPI PROCESS WILL ALSO GENERATE AND SEND ITS NORMAL MONTHLY DATA AS SCHEDULED; THEREFORE, AT THE TIME OF RECEIPT OF PROESSING MESSAGES, YOU SHOULD RECEIVE REPORTS FOR MORE THAN ONE TRANSMISSION. A WARNING CODE DOES NOT CONSTITUTE A FATAL ERROR. THESE WARNING MESSAGES SHOULD BE CORRECTED IF ABLE, BUT DO NOT NEED FOR THE DATA TO BE RESUBMITTED. YOU SHOULD MONITOR THE WARNING MESSAGES OVER THE NEXT COUPLE OF TRANSMISSIONS TO BE ASSURED THAT THEY DO NOT PERSIST. IF YOUR PROCESSING MESSAGE CONTAINS ONLY WARNING ERROR CODES (I.E., THERE ARE NO FATAL ERROR CODES), MANUAL RE-TRANSMISSION DOES NOT NEED TO BE PERFORMED.

240 Period of Service was invalid.

W07 Specimen Source Code is blank.

Enter RETURN to continue or '^' to exit:

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W05 Patient Date of Birth is not in a valid date format.

END OF REPORT TOTAL PAGES: 01

## Table of Reject and Errors and/or Warning Codes

The following Table of Rejects and Errors and/or Warning Codes definitions are used by the Austin Automation Center for the **new** EPI Error Processing Report mailman messages.

**Examples:** Tables of Rejects and Errors and/or Warning Codes.

Tables of Rejects and Errors and/or Warning Codes			
ERROR NUMBER	FIELD NAME	EDIT DESCRIPTION	ERROR MESSAGE
<b>000 Series</b>			
<i>Miscellaneous</i>			
<b>001</b>	Message Control ID	Must not be blank	Message control ID was blank
<b>002</b>	Batch Sending Facility	Sending Station not valid. (Refer to table AA001)	Invalid Batch Sending Facility.
<b>003</b>	Segment Name	PID Segment missing. Do not edit for the existence of PID when NTE segments are present.	PID Segment missing.
<b>004</b>	Segment Name	PV1 Segment missing. Do not edit for the existence of PV1 when NTE segments are present.	PV1 Segment missing.
<b>005</b>	Segment Name	Invalid Segment Name.	Invalid HL7 Segment Name.
<b>006</b>	Message Creation Date	Must a valid date.	Message Creation Date is Invalid.
<b>007</b>	Message Creation Time	Must a valid time.	Message Creation Time is invalid.
<b>008</b>	Processing Period	Must a valid date.	Processing period in the NTE segment is invalid.
<b>009</b>	Processing Period	Historical processing for V2 of EPI (commonly known as HEP C) must be received in Austin sequentially from 1998 forward.	For V2 only - Processing into AAC must be sequential from 10/98 forward.

**Examples:** Tables of Rejects and Errors and/or Warning Codes *continued.*

Tables of Rejects and Errors and/or Warning Codes			
ERROR NUMBER	FIELD NAME	EDIT DESCRIPTION	ERROR MESSAGE
<b>100 Series</b>			
<i>NTE Totals Segment</i>			
<b>100</b>	Action Ind	Currently not being used.	Currently not being used.
<b>105</b>	Totals Total Count	Must be numeric, if Action Ind is 'T'.	NTE Totals Total Count was not numeric.
<b>110</b>	Negative Input Ind	Must be 'N', if Action Ind is not 'T'.	Negative Input Ind was not 'N'.
<b>200 Series</b>			
<i>PID Segment</i>			
<b>200</b>	Patient Name	Required. Must be alpha numeric. Must not be all numeric. Must not be all blanks.	Patient Name is missing, or not alphanumeric, or all numeric, or all blanks.
<b>205</b>	Patient Date of Birth	Not required. Must be less than the processing year.	Date of Birth is after the Date of transmission. (Also see W03, W04, and W05)
<b>210</b>	Patient Sex	Not required. Must be blank or match table. (Refer to table T0001)	Sex code is not blank or a valid code. (Refer to table 0001)
<b>215</b>	Patient Race	Not required. Must be blank or a valid code. (Refer to table VA07)	Race code is not blank or a valid code. (Refer to table VA07)
<b>220</b>	Patient Address	Must be blank or 'H'.	Patient Address is not blank or 'H'.
<b>235</b>	Social Security Number	Required. Last byte must be 'P' or blank.	Pseudo SSN is not 'P' or blank.
<b>236</b>	Social Security Number	Required. Must be numeric. Must be greater than zeros.	Social Security Number is missing, or not numeric, or is equal to zeros.
<b>240</b>	Patient Veteran Status	Must be a valid code. (Refer to table VA11)	Period of Service was invalid. (Refer to table VA11).

**Examples:** Tables of Rejects and Errors and/or Warning Codes *continued*.

Tables of Rejects and Errors and/or Warning Codes			
ERROR NUMBER	FIELD NAME	EDIT DESCRIPTION	ERROR MESSAGE
<b>300 Series</b>			
<i>OBR Segment</i>			
<b>300</b>	Universal Service ID	Must be a valid code. (Refer to table NLT)	Invalid Universal Service ID (Refer to table NLT)
<b>305</b>	Observation Date	Must be numeric date. Must be a valid date. Must be less than Processing date.	Observation Date is invalid date or after the date of transmission.
<b>307</b>	Observation Time	Not required. Must be blank or numeric. If numeric, must be a valid time.	Observation Time is invalid.
<b>310</b>	Specimen Source Code	Not required. If not blank, must be a valid code. (Refer to table SPC)	Invalid Specimen Source (Refer to table SPC) Code. (also see W07)
<b>315</b>	Parent Observation ID	Not required. Must be blank or a valid code. (Refer to table NLT)	Invalid Parent Observation ID (Refer to table NLT).

**Examples:** Tables of Rejects and Errors and/or Warning Codes *continued*.

Tables of Rejects and Errors and/or Warning Codes			
ERROR NUMBER	FIELD NAME	EDIT DESCRIPTION	ERROR MESSAGE
<b>400 Series</b>			
<i>PVI Segment</i>			
<b>400</b>	Patient Class	Required. Must be 'T', 'O', or 'U'.	Patient Class is not 'T', 'O', or 'U'.
<b>410</b>	Discharge Date	Not required. Must be blank or a valid date. Must be less than or equal to processing date.	Discharge Date is invalid or after date of transmission.
<b>411</b>	Discharge Time	Not required. Time must be blank or a valid time.	Discharge Time is invalid
<b>420</b>	Admit Date/Time	Required. Must be numeric. Must be a valid date. Must be less than or equal to processing date.	Admit Date is invalid or after date of transmission.
<b>421</b>	Admit Date/Time	Required. Time must be numeric. Must be a valid time.	Admit Time is invalid.
<b>500 Series</b>			
<i>DGI Segment</i>			
<b>500</b>	Diagnosis Code	Required. Must be a valid code. (Refer to table AA010)	Invalid Diagnosis Code (Refer to table 0051)
<b>600 Series</b>			
<i>OBX Segment</i>			
<b>605</b>	Final Result Date	Must be blank or a valid date. Must be numeric. Must be a less than or equal to the processing date.	Final Result Date is invalid or after the date of transmission.

**Examples:** Tables of Rejects and Errors and/or Warning Codes *continued*.

Tables of Rejects and Errors and/or Warning Codes			
ERROR NUMBER	FIELD NAME	EDIT DESCRIPTION	ERROR MESSAGE
<b>W00 Series</b>			
<i>Warnings</i>			
<b>W03</b>	Patient Date of Birth	Must not be all spaces.	Patient Date of Birth is all spaces. (Also see 205)
<b>W04</b>	Patient Date of Birth	Year must not be all zeros	Patient Date of Birth Year is all zeros. (See also 205)
<b>W05</b>	Patient Date of Birth	Must be a valid date.	Patient Date of Birth is not in a valid date format. (Also see 205)
<b>W07</b>	Specimen Source Code	Blanks in code.	Specimen Source code is blank. (See also 310)
<b>W09</b>	Observation Nat Lab Num	Blanks in code.	Observation Nat Lab Num is blank. (Also see 600)
<b>W10</b>	Date of Prescription	Must not be all spaces.	Date of Prescription is all Spaces.
<b>W11</b>	Date of Prescription	Year must not be all zeros.	Date of Prescription is all Zeros.
<b>W12</b>	Date of Prescription	Must be a valid date.	Date of Prescription is not in a valid date format.
<b>W14</b>	Resolve Term	Must be numeric.	Resolve Term must be numeric.
<b>W15</b>	Days Supply	Must be numeric or blank.	Days Supply not numeric or blank.
<b>W16</b>	Release Date	Must be numeric date. Must be a valid date. Must be less than processing date.	Release Date is invalid date or after the date of transmission.
<b>W17</b>	Fill Date	Must be numeric date. Must be a valid date. Must be less than processing date.	Fill Date is invalid date or after the date of transmission.

**Examples:** Tables of Rejects and Errors and/or Warning Codes *continued*.

Tables of Rejects and Errors and/or Warning Codes			
ERROR NUMBER	FIELD NAME	EDIT DESCRIPTION	ERROR MESSAGE
<b>W18</b>	Stop Date	Must be numeric date. Must be a valid date. Must be less than processing date.	Stop Date is invalid date or after the date of transmission.
<b>W19</b>	Primary Indicator	One DG1 diagnostic code must be designated as the primary code - valid starting with version 2 of the software.	No diagnostic code designated as primary
<b>W20</b>	Release Date/Fill Date	At least one of the two - release date or fill date - must be present.	Release Date and Fill Date are both blank.
<b>W21</b>	DSP Nomenclature	Must not be all spaces.	DSP Nomenclature is all spaces.
<b>W22</b>	Resolve Term	Must be 1, 2, 3, 4, 5, 6, 7, or 0.	Invalid Resolve Term.
<b>W23</b>	Lab Result	Must be spaces if Resolve Term is 1, 2, 3, 4, or 7.	Lab Result is not insync with Resolve Term.
<b>W24</b>	LOINC Code	Must be a valid code or blank.	LOINC Code is invalid.

## National Laboratory Test (NLT) List

The NLT WKLD Code Request Form is accessible via the following web sites:

VistA Laboratory Version 5.2 Home Page

<http://vista.med.va.gov/ClinicalSpecialties/lab/>

VistA Documentation Library (VDL)

<http://www.va.gov/vdl/>

WKLD CODE	PROCEDURE			
DEVICE: 0;80;9999 UCX/TELNET				
VistA NLT List 3/25/2004		MAR 25,2004	15:04	PAGE 1
WKLD CODE	PROCEDURE			
80000.0000	Analyte NOS			
80079.0000	RAJI Cell			
81000.0000	Urinalysis Chemical w micr Man			
81001.0000	Urinalysis Micros only			
81002.0000	Urinalysis Chemical w o micro			
81003.0000	Bilirubin Conjugated			
81004.0000	Urinalysis Components			
81005.0000	Sulfonamide Crystals Qual			
81006.0000	Urine Volume Measure			
81007.0000	Urinalysis Microscopic			
81008.0000	Bilirubin Unconjugated			
81009.0000	Cholesterol VLDL			
81010.0000	Triglycerides VLDL			
81011.0000	Amylase Fractionation			
81012.0000	Angiotensin Converting Enzyme			
81013.0000	Histamine			
81014.0000	Desmethyldiazepam			
81015.0000	Drug Screen Opiate			
81016.0000	Pepsinogen			
81017.0000	Thiothixene			
81018.0000	Phenobarbital			
81019.0000	Vitamin B1			
81020.0000	Primidone			
81021.0000	Vitamin B2			
81022.0000	Procainamide			
81023.0000	Vitamin B6			
81024.0000	Propranolol			
81025.0000	Vitamin E			
81026.0000	Citrate			
81027.0000	Carnitine			
81028.0000	Chromogranin A			
81029.0000	Cyclic AMP			
81030.0000	DHEA			
81031.0000	DHEA S			
81032.0000	Encainide			
81033.0000	Hemoglobin Fetal Feces			
81034.0000	Erythropoietin			
81035.0000	Estrone			
81036.0000	Ethmozine			
81037.0000	Fiorinal			

## Appendix-B Helpful Hints

81038.0000	Fluoxetine
81039.0000	Fluphenazine
81040.0000	Free T3 (dialysis)
81041.0000	Gonadotrophins REL Hormone
81042.0000	Insulin Ab
81043.0000	Insulin Free
81044.0000	Insulin Immunoreactive
81045.0000	Ionize Calcium
81046.0000	Iron Liver Tissue
81047.0000	Ketones
81048.0000	Mepho Barbitol
81049.0000	Mesantoin
81050.0000	Methylmalonic Acid
81051.0000	Metopirone Response
81052.0000	Navane
81053.0000	Nitrogen Total
81054.0000	Pepsinogen I
81055.0000	Pepsinogen II
81056.0000	Phytanic Acid
81057.0000	Proinsulin
81058.0000	Pseudocholinesterase Total
81059.0000	PTH Related Protein
81060.0000	Sex Hormone Binding Globulin
81061.0000	Hemoglobin Unstable Isopropyl
81062.0000	Testosterone Free
81063.0000	Thyrotropin Bind Inhib Immuno
81064.0000	Thyroxine Free (Dialysis)
81065.0000	Tolmetin
81066.0000	Trazodone
81067.0000	Verapamil
81068.0000	Acetaminophen
81069.0000	Arylsulfatase a
81070.0000	Vitamin B12 Binding Capacity
81071.0000	Carbohydrate Ag
81072.0000	Ativan
81073.0000	Urinalysis Chemical w micro Au
81074.0000	Carisprodal
81075.0000	Beta Glucuronidase
81076.0000	Beta Hydroxybutyrate
81077.0000	C1 Esterase Inhibitor (Qual)
81078.0000	C1 Esterase Inhibitor (Quant)
81079.0000	Hemoglobin electrophoresis
81080.0000	Homocystine
81081.0000	Dibucaine number
81082.0000	IgG Subsets
81083.0000	Cotinine
81084.0000	Chylomicrons
81085.0000	Total iron binding capacity
81086.0000	Opiate group
81087.0000	Transthyretin
81088.0000	Protein electrophoresis
81089.0000	Free Hemoglobin, serum
81090.0000	Lactescence
81091.0000	T-UPTAKE
81092.0000	ALA Dehydratase
81093.0000	UPG Synthase
81094.0000	Clozaril
81095.0000	Myoglobin Serum
81096.0000	Misc Chem Test 1

81097.0000	Misc Chem Test 2
81098.0000	Amikacin
81098.3035	Amino Levulinic Acid Delta~DU
81098.3103	Amino Levulinic Acid Delta~EKT
81098.8044	Amino Levulinic Acid Delta~LAB
81099.0000	Misc Chem Test 3
81100.0000	Misc Chem Test 4
81101.0000	Misc Chem Test 5
81102.0000	Misc Chem Test 6
81103.0000	Misc Chem Test 7
81104.0000	Misc Chem Test 8
81105.0000	Misc Chem Test 9
81106.0000	Misc Chem Test 10
81107.0000	Instrument CH Setup
81108.0000	Auto Chem 1-2 test
81109.0000	Auto Chem 3 test
81110.0000	Auto Chem 4 test
81111.0000	Auto Chem 5 test
81112.0000	Amitriptyline
81113.0000	Auto Chem 6 test
81114.0000	Auto Chem 7 test
81115.0000	Auto Chem 8 test
81116.0000	Auto Chem 9 test
81117.0000	Auto Chem 10 test
81118.0000	Auto Chem 11 test
81119.0000	Auto Chem 12 test
81120.0000	Auto Chem 13-16 test
81121.0000	Auto Chem 17-18 test
81122.0000	Auto Chem >18 test
81123.0000	General Health Screen panel
81124.0000	Pre Marital Profile
81125.0000	Executive Profile
81126.0000	Obstetric Profile
81127.0000	Amenorrhea Profile
81128.0000	Male Infertility and/or Gyneco
81129.0000	Hepatic Function Panel
81130.0000	Hepatitis Panel
81131.0000	Hypertension Panel
81132.0000	Lipid Panel
81133.0000	Cardiac Evaluation Panel
81134.0000	Cardiac Injury Panel
81135.0000	Cardiac Injury Panel w CPK and
81136.0000	Metabolic Panel
81137.0000	Malabsorption Panel
81138.0000	Pulmonary Panel
81139.0000	Lung Maturity Profile
81140.0000	Thyroid Panel
81141.0000	Thyroid Panel w TRH
81142.0000	Arthritis Panel
81143.0000	Renal Panel
81144.0000	Parathyroid Panel
81145.0000	Prostatic Panel
81146.0000	Pancreatic Panel
81147.0000	Pituitary Panel
81148.0000	Microcytic Anemia Panel
81149.0000	Macrocytic Anemia Panel
81150.0000	Transition Panel
81151.0000	Muscle Panel
81152.0000	Antibody Panel

## Appendix-B Helpful Hints

81153.0000	Unlisted Panel
81154.0000	Thyrotropin Releasing Hormone
81155.0000	Therapeutic Quantitative Drug
81156.0000	Serum Antimicrobial Level, Bio
81157.0000	Serum RIA Circulating Antibiot
81158.0000	Vitamin K
81159.0000	Folate, RBC
81160.0000	Microalbumin
81161.0000	Felbamate
81162.0000	Glucose 2hr
81163.0000	Glucose Tolerance 3hr
81164.0000	Glucose Tolerance 6hr
81165.0000	Xylose TT
81166.0000	Lactose
81167.0000	Lactose TT
81168.0000	D-Xylose
81169.0000	Creatinine Clearance
81170.0000	Amorphus Sediment
81171.0000	Ascorbic Acid Stick
81172.0000	RBC Urine
81173.0000	Bilirubin Crystals
81174.0000	Bilirubin Stick
81175.0000	Calcium Carbonate Crystal
81176.0000	Calcium Oxalate Crystal
81177.0000	Calcium Phosphate Crystal
81178.0000	Cystine Crystal
81179.0000	Epithelial Cast
81180.0000	Epithelial Cell
81181.0000	Fat Globule
81182.0000	Fatty Cast
81183.0000	Filamentous Bodies
81184.0000	Glucose Stick
81185.0000	Granular Cast
81186.0000	Gross Blood
81187.0000	Hemoglobin Stick
81188.0000	Hyaline Cast
81189.0000	Ketone Stick
81190.0000	Mucus Urine
81191.0000	Nitrate Stick
81192.0000	pH Stick
81193.0000	Protein Stick
81194.0000	Pyrophosphate Crystal
81195.0000	RBC Cast
81196.0000	Reducing Substance
81197.0000	Renal Epithelial Cell
81198.0000	Specific Gravity Urine
81199.0000	Sperm in Urine
81200.0000	Squamous Epithelial Cell
81201.0000	Trichomonas in Urine
81202.0000	Triple Phosphate Crystal
81203.0000	Unidentified Crystal
81204.0000	Uric Acid Crystal
81205.0000	Clarity Urine
81206.0000	Color Urine
81207.0000	Urobilinogen Stick
81208.0000	Waxy Cast
81209.0000	WBC Cast
81210.0000	WBC Esterase Stick
81211.0000	WBC in Urine

81212.0000	Yeast in Urine
81213.0000	Anion Gap
81214.0000	Albumin/Creat Ratio
81215.0000	Amylase Pancreatic
81216.0000	Bicarbonate
81217.0000	BSA
81218.0000	BUN/Creat Ratio
81219.0000	Calcium Normalized
81220.0000	Deoxyhemoglobin
81221.0000	FiO2
81222.0000	Hemolyzed Specimen
81223.0000	Icteric Specimen
81224.0000	Turbid Specimen
81225.0000	LDH Isoenzyme 1
81226.0000	LDH Isoenzyme 2
81227.0000	LDH Isoenzyme 3
81228.0000	LDH Isoenzyme 4
81229.0000	LDH Isoenzyme 5
81230.0000	O2 Content
81231.0000	Oxyhemoglobin
81232.0000	Volume
81233.0000	MASS
81234.0000	GGTP
81234.3000	Ethanol~MANUAL
81234.3035	Ethanol~DU PONT ACA
81235.0000	Dilantin
81236.0000	Ethanol
81237.0000	N-Acetyl
81238.0000	Mysoline
81239.0000	Tegretol
81240.0000	Bence Jones Protein
81241.0000	Motility
81242.0000	Mesothelial Cell
81243.0000	O2Hb %
81244.0000	COHb %
81245.0000	MetHb %
81246.0000	Base Excess
81247.0000	Pt Temp
81248.0000	pH
81249.0000	pH Corrected
81250.0000	PCO2 Corrected
81251.0000	PO2 Corrected
81252.0000	pH Urine
81253.0000	WBC/HPF
81254.0000	RBC/HPF
81255.0000	Bacteria Urine
81256.0000	Urine Cast
81257.0000	Crystal Urine
81258.0000	Amorphus Urate
81259.0000	Amorphus Phosphate
81260.0000	Leucine Crystal
81261.0000	Tyrosine Crystal
81262.0000	Cholesterol Crystal
81263.0000	Calculus Urine
81264.0000	Addis Count
81265.0000	Transitional Epithelial
81266.0000	%O2
81267.0000	%CO2
81268.0000	Osmolality Calc

## Appendix-B Helpful Hints

81269.0000	Leukocyte Esterase
81270.0000	Mononuclear Cell
81271.0000	TCO2
81272.0000	Xanthochromic
81273.0000	Amiodarone
81274.0000	Ritalin
81275.0000	Methyl Tertiary Butyl Ether
81276.0000	Phenolphthalein
81277.0000	Phenelzine
81278.0000	Sertraline
81279.0000	Silver
81280.0000	Propafenone
81281.0000	T3 OK Ag
81282.0000	T3 OK Ab
81283.0000	Myelin Glycoprotein
81284.0000	Molybdenum
81285.0000	3-Methoxy 4-hydroxyphenylglyco
81286.0000	Anafranil
81287.0000	Bile Salt Conc.
81288.0000	Bypivacaine
81289.0000	Diltiazam
81290.0000	Xanthine
81291.0000	Bupropion Hydrochloride
81292.0000	Levodopa
81293.0000	Midazolam
81294.0000	Molindone Hydrochloride
81295.0000	Hexosamidiase
81296.0000	Disulfiram
81297.0000	Vitamin C
81298.0000	Trimipramine
81299.0000	2 Methylcitric Acid
81300.0000	Benzene
81301.0000	Beta Lactoglobulin
81302.0000	CPK BB
81303.0000	CPK MM
81304.0000	Cystathionine
81305.0000	DNA Analysis
81306.0000	Estradiol 17 B
81307.0000	Gentamicin
81308.0000	Estradiol E1 E2
81309.0000	Fluconazole
81310.0000	Gabapentin
81311.0000	Homocysteine
81312.0000	Metharbital
81313.0000	Normethsuximide
81314.0000	Fatty Acid VLC
81315.0000	Arylsulfatase a Leukocyte
81316.0000	Catecholamines Fract
81317.0000	Imipramine & Desipramine
81318.0000	PTH C Terminal
81319.0000	PTH Intact
81320.0000	Folic Acid
81321.0000	Vasopressin
81322.0000	FK506
81323.0000	Gen Chem Specimen
81324.0000	Sp Chem Specimen
81325.0000	Kanamycin
81326.0000	UA Specimen
81327.0000	UA Chem Specimen

81328.0000	Tox Specimen
81329.0000	TDM Specimen
81330.0000	STAT Lab Specimen
81331.0000	RIA Specimen
81332.0000	RIA Sp Specimen
81333.0000	Gen Specimen
81334.0000	IgG
81335.0000	Buspirone
81336.0000	Desethylaminodarone
81337.0000	Norverapamil
81338.0000	Tertiary Butyl Alcohol
81339.0000	Trichloroethanol
81340.0000	IgM
81341.0000	Meclofenamic Acid
81342.0000	IgD
81343.0000	Moricizine
81344.0000	Naproxen
81345.0000	Procardia
81346.0000	Pyridinium
81347.0000	Schlicter Test
81348.0000	Spironolactone
81349.0000	Tripamine
81350.0000	IgL
81351.0000	IgK
81352.0000	Glucose Fasting
81353.0000	Urine Dipstick Manual
81354.0000	Urine Dipstick Auto
81355.0000	Electrophoretic Fractionation
81356.0000	Methotrexate
81357.0000	Electrolytes
81358.0000	GLC Analysis
81359.0000	Immunoassay
81360.0000	Alpha Galactosidase
81361.0000	D-Lactate
81362.0000	Alpha1 Globulins
81363.0000	Alpha2 Globulins
81364.0000	Beta Globulins
81365.0000	Albumin Fraction
81366.0000	Relative Index
81367.0000	Excretion Rate
81368.0000	Iron Panel Chemistry
81369.0000	Adenosine Deaminase
81370.0000	Trichloracetia Acid
81371.0000	Acetoacetate
81372.0000	Augmentin
81373.0000	N-Telopeptide
81374.0000	5 Hydroxyindoleacetic Acid
81375.0000	Adenosine Diphosphate
81376.0000	Timentin
81377.0000	Free Hemoglobin, Urine
81378.0000	Fecal Electrolytes
81379.0000	Mycophenolic Acid
81380.0000	Phenazopyridine
81381.0000	Phosphofructokinase
81382.0000	Antabuse
81383.0000	Bertylium
81384.0000	Phencyclidine Quant
81385.0000	Bromocriptine
81386.0000	Captopril

## Appendix-B Helpful Hints

81387.0000	Malathion
81388.0000	N-Telopeptide ELISA
81389.0000	Pimozide
81390.0000	Sotalol
81391.0000	Sulfonylurea
81392.0000	Toxic Analysis
81393.0000	Toxic substance Analysis
81394.0000	Venlafaxine
81395.0000	Vistaril
81396.0000	Osmolality Urine
81397.0000	Osmolality Stool
81398.0000	Ictotest
81399.0000	Protein UR Quant
81400.0000	ACTH Stimulation
81401.0000	Amiodarone & Metabolite
81402.0000	Grepafloxacin
81403.0000	Trovafloxacin
81404.0000	T3 RIA
81405.0000	Clofazimine
81406.0000	Arsenic Nail
81407.0000	Trazodone2
81408.0000	Aldosterone Suppression
81409.0000	Hexacarboxypoprhrin
81410.0000	Pentacarboxyporphyrin
81411.0000	Norchlordiazepoxide
81412.0000	Cathartic Laxative Panel
81413.0000	Orotic Acid
81414.0000	Clonidine
81415.0000	Microalbumin Point
81416.0000	Arsenic Hair
81417.0000	Electrocardiogram
81418.0000	Cardiac Stress
81419.0000	Sulfonylurea Hypoglycemic
81420.0000	Dexamethasone
81421.0000	Beta-lactamase
81422.0000	C-Peptide 30min
81423.0000	X*C-Peptide
81424.0000	C-Peptide 60min
81425.0000	C-Peptide 90Min
81426.0000	C-Peptide 120min
81427.0000	C-Peptide 180min
81428.0000	Insulin 30min
81429.0000	Insulin 60min
81430.0000	Insulin 90min
81431.0000	Insulin 120min
81432.0000	Insulin 180min
81433.0000	LH 30min
81434.0000	LH Stimulation Panel
81435.0000	LH 60min
81436.0000	LH 90min
81437.0000	LH 120MIN
81438.0000	FSH Stimulation Panel
81439.0000	FSH 30min
81440.0000	FSH 60min
81441.0000	FSH 90min
81442.0000	FSH 120min
81443.0000	ACTH 30min
81444.0000	ACTH 60min
81445.0000	Cortisol 30min

81446.0000	Cortisol 60min
81447.0000	TRH Stimulation
81448.0000	TRH 30min
81449.0000	TRH 60min
81450.0000	Prolactin Stimulation
81451.0000	Prolactin 30min
81452.0000	Prolactin 60min
81453.0000	TSH 30min
81454.0000	TSH 60min
81455.0000	TSH Receptor Ab
81456.0000	Nifedipine
81457.0000	Lipase Urine
81458.0000	Normetanephrine
81459.0000	Norclozaril
81460.0000	Heptacarboxyprophyrin
81461.0000	Tripramine
81462.0000	Prednisoline
81463.0000	Porphyrin Feces
81464.0000	Joint Fluid Panel
81465.0000	Steroid Anabolic
81466.0000	Alpha Subunits Pituitary
81467.0000	Bentiromide
81468.0000	Phosphatase Alkaline Bone
81469.0000	Baclofen
81470.0000	Glucose Qual
81471.0000	Albumin/Globulin Ratio
81472.0000	Serotonin Release Heparin Indu
81473.0000	Phenolsulfophthalein
81474.0000	Trimethadoine
81475.0000	Tobramycin
81476.0000	Benzotropine
81477.0000	Porphobilinogen Deaminase
81478.0000	Trifluoperazine
81479.0000	Tricyclic Antidepressants
81480.0000	Cardiomyopathy Panel
81481.0000	Apolipoprotein E
81482.0000	Lipid Phenotype
81483.0000	Plasma Volume
81484.0000	Blood Volume
81485.0000	Vancomycin
81486.0000	B12/Folate Panel
81487.0000	Valproic Acid
81487.3035	Vanillylmandelic Acid~DU PONT A
81488.0000	Adenosine Triphosphate
81489.0000	Methyl Tetra Hydor Folate Redu
81490.0000	Oxypurinol
81491.0000	Free Valproic Acid
81492.0000	Hemoglobin Acid Prep
81493.0000	Allopurinol
81494.0000	Polychlorindate Biphenyl
81495.0000	Pyphylline
81496.0000	B-Human Chorionic Gonadotropin
81497.0000	Protein electrophoresis HR
81498.0000	Alpha-naphthyl acetate esteras
81499.0000	Lamotrigine
81500.0000	Acepromazine
81501.0000	Furosemide
81502.0000	Acetaldehyde
81503.0000	Free Thyroxine Index

## Appendix-B Helpful Hints

81504.0000	Acetone
81505.0000	Cefuroxime-Sodium
81506.0000	Alcohol Ethyl
81507.0000	Epoxide
81508.0000	Alcohol Isopropyl
81509.0000	Cefuroxime-Axetil
81510.0000	Alcohol Methyl
81511.0000	Alprazolam
81512.0000	Aluminum
81513.0000	Dimenhydrinate
81514.0000	Amdinocillin
81515.0000	Cefipime
81516.0000	Aminosalicyclic Acid Para
81517.0000	Cyclobenzaprine HCL
81518.0000	X*Amiodarone
81519.0000	Antihistamine
81520.0000	Amobarbital
81521.0000	Albuterol
81522.0000	Amoxapine
81523.0000	Trihexyphenidyl HCL
81524.0000	Amoxicillin
81525.0000	Tin
81526.0000	Amoxicillin Clavulanic Acid
81527.0000	Thiamine
81528.0000	Amphetamine
81529.0000	Phenol
81530.0000	Amphotericin B
81531.0000	Paroxetine
81532.0000	Ampicillin
81533.0000	Long Acting Thyroid Hormone
81534.0000	Amrinone
81535.0000	Anticonvulsants
81536.0000	Antimony
81537.0000	Crystals
81538.0000	Arsenic
81539.0000	Crystals Id
81540.0000	Atropine
81541.0000	Atrial Natriuretic Polypeptide
81542.0000	Azlocillin
81543.0000	Sperm Count
81544.0000	Aztreonam
81545.0000	Fluvoxamine
81546.0000	Bacitracin
81547.0000	Clotest
81548.0000	Barbiturate Identification
81549.0000	Barbiturate NOS
81550.0000	Barbiturate Screen
81551.0000	+Amikacin Peak
81552.0000	Benzodiazepines Quant
81553.0000	Marijuana
81554.0000	Benzodiazepines Screen
81555.0000	Amikacin Trough
81556.0000	Benzoylecgonine
81557.0000	Vancomycin Peak
81558.0000	Beryllium
81559.0000	Vancomycin Trough
81560.0000	Bismuth
81561.0000	Gentamicin Peak
81562.0000	Borate

81563.0000	Gentamicin Trough
81564.0000	Bromide
81565.0000	Tobramycin Peak
81566.0000	Butabarbital
81567.0000	Tobramycin Trough
81568.0000	Butalbital
81569.0000	Butorphanol Tartrate
81570.0000	Cadmium
81571.0000	Saturation %
81572.0000	Caffeine
81573.0000	Cyclosporine
81574.0000	Cannabinoids Screen
81575.0000	Cyclosporine Metabolite
81576.0000	Cannabinol Tetrahydro
81577.0000	Albumin Fract Urine
81578.0000	Cannabinol Tetrahydro Car
81579.0000	Alpha Globulin Urine
81580.0000	Cannabinol Tetrahydro Hydro
81581.0000	Beta Globulin Urine
81582.0000	Capreomycin
81583.0000	Gamma Globulin Urine
81584.0000	Carbamazepine
81585.0000	Amphetamine Quant
81586.0000	Carbamazepine Free
81587.0000	Opiate
81588.0000	Carbenicillin
81589.0000	Opiate Quant
81590.0000	Carbinoxamine
81591.0000	Propoxyphene Quant
81592.0000	Carbon Monoxide
81593.0000	Insulin Like Growth Factor II
81594.0000	Carbon Tetrachloride
81595.0000	Iodine
81596.0000	Carboxyhemoglobin
81597.0000	Estriol Unconjugated
81598.0000	Cefacetrile
81599.0000	Bartonella henselae Ab IgG
81600.0000	Cefaclor
81601.0000	Bartonella Henselae Ab IgM
81602.0000	Cefadroxil
81603.0000	Bartonella quintana Ab IgG
81604.0000	Cefamandole
81605.0000	Transglutaminase Tissue
81606.0000	Cefatrizinc
81607.0000	OK T3 and T Cells Total
81608.0000	Cefazaflur
81609.0000	Olanzapine
81610.0000	Cefazolin
81611.0000	Urea Urine
81612.0000	Cefmenoxime
81613.0000	Albumin Urine
81614.0000	Cefmetazole
81615.0000	Albumin Urine 24h
81616.0000	Cefoperazone
81617.0000	Report Chemistry
81618.0000	Ceforanide
81619.0000	Thyroid Ab
81620.0000	Cefotaxime
81621.0000	Adrenaline

## Appendix-B Helpful Hints

81622.0000	Adrenocorticotropic Hormone
81623.0000	Adrenocorticotropic Hormone St
81624.0000	Cefoxitin
81625.0000	Phosphate Urine 24h
81626.0000	Uric Acid Urine 24h
81627.0000	Iron Urine 24h
81628.0000	Cefradine
81629.0000	Glucose Tolerance 2hr
81630.0000	Ceftazidime
81631.0000	Glucose Tolerance 1hr
81632.0000	Glucose Tolerance 30min
81633.0000	Glucose Tolerance Fasting
81634.0000	Ceftizoxime
81635.0000	Lactose Tolerance Fasting
81636.0000	Ceftriaxone
81637.0000	Myeloperoxidase
81638.0000	Cefsulodin
81639.0000	Cystic Fibrosis F508
81640.0000	Cefuroxime
81641.0000	Deoxyypyridinoline
81642.0000	Cephalexin
81643.0000	Oxalate 24Hr
81644.0000	Cephaloglycin
81645.0000	Corticosteroids
81646.0000	Cephaloridine
81647.0000	Creatinine 24Hr
81648.0000	Cephalothin
81649.0000	Cryoglobulin Panel
81650.0000	Cephapirin
81651.0000	Cryoglobulin Comp
81652.0000	Cepharadine
81653.0000	Cortisol 24Hr
81654.0000	Chloral Hydrate
81655.0000	Cortisol PM
81656.0000	Chloramphenicol
81657.0000	Cortisol AM
81658.0000	Chlordiazepoxide
81659.0000	Amitriptyline Panel
81660.0000	Chloroform
81661.0000	Amiodarone Panel
81662.0000	Chlorpheniramine
81663.0000	p-ANCA
81664.0000	Chlorphentermine
81665.0000	c-ANCA
81666.0000	Chlorpromazine
81667.0000	Alpha Amino Acid
81668.0000	Chlorpropamide
81669.0000	Alcohol Screen
81670.0000	Chromium
81671.0000	Isopropanol
81672.0000	Cimetidine
81673.0000	Naltrexone
81674.0000	Ciprofloxacin
81675.0000	Cocaine Qt
81676.0000	Clindamycin
81677.0000	Pyridinoline
81678.0000	Clonazepam
81679.0000	Clorazepate
81680.0000	Cloxacillin

81681.0000	Cocaine
81682.0000	Codeine
81683.0000	Colistin
81684.0000	Copper
81685.0000	Coumermycin
81686.0000	Cyanide
81687.0000	Methadone Qt
81688.0000	Cycloserine
81689.0000	Cyclosporin
81690.0000	Dapsone
81691.0000	Daunomycin
81692.0000	Desipramine
81693.0000	Dexchlorpheniramine
81694.0000	Diazepam
81695.0000	Dicloxacillin
81696.0000	Digitoxin
81697.0000	Digoxin
81698.0000	Diphenhydramine
81699.0000	Dipyridamole
81700.0000	Disopyramide
81701.0000	Doxepin
81702.0000	Doxycycline
81703.0000	Drug Screen Acid Neutral
81704.0000	Drug Screen Basic
81705.0000	Drug Screen for Mult Const
81706.0000	Drug Screen Hypnotic
81707.0000	Drug Screen NOS
81708.0000	Enoxacin
81709.0000	Ephedrine
81710.0000	Erythromycin
81711.0000	Ethambutol
81712.0000	Ethchlorvynol
81713.0000	Ethionamide
81714.0000	Ethosuximide
81715.0000	Ethylene Glycol
81716.0000	Flucytosine
81717.0000	Fluoride
81718.0000	Fluorocytosine5
81719.0000	Flurazepam
81720.0000	Formic Acid Formaldehyde Expos
81721.0000	Epinephrine
81722.0000	Glutethimide
81723.0000	Flecainide
81724.0000	Gold
81725.0000	Hydrocarbons Halogenated
81726.0000	Alpha1 Microglobulin
81727.0000	Haloperidol
81728.0000	Alpha2 Macroglobin
81729.0000	Heavy Metal Screen Reinsch
81730.0000	Aluminin Urine
81731.0000	Hydrochlorothiazide
81732.0000	Hydrocodone
81733.0000	Hydromorphone
81734.0000	Hydroxyzine
81735.0000	Ibuprofen
81736.0000	Imipenum
81737.0000	Imipramine
81738.0000	Iodide
81739.0000	Isoniazid

## Appendix-B Helpful Hints

81740.0000	Ketoconazole
81741.0000	Lead
81742.0000	Lidocaine
81743.0000	Fentanyl Citrate
81744.0000	Lithium
81744.3103	Lung Carcinoma Surface Ag~EKTA
81745.0000	Mitotane
81746.0000	Loxapine
81747.0000	Aprobarbital
81748.0000	Lysergic Acid Diethylamide
81749.0000	Amino Acids CSF
81750.0000	Manganese
81751.0000	Amino Acids Urine
81752.0000	Maprotiline
81753.0000	5-Aminolevulinic Acid Urine
81754.0000	Meperidine
81755.0000	Amitriptyline and Nortriptylin
81756.0000	Mephentermine
81757.0000	Amylase/Creat Clearance
81758.0000	Mephenytoin
81759.0000	CPK MB/CPK Tot
81760.0000	Meprobamate
81761.0000	Synercid
81762.0000	Mercury
81763.0000	Insulin Fasting
81764.0000	Mescaline
81765.0000	Insulin Total
81766.0000	Mesoridazine
81767.0000	Alkaline Phosphatase Other
81768.0000	Methadone
81769.0000	Arsenic Urine
81770.0000	Methamphetamine
81771.0000	Mercury Urine
81772.0000	Methapyrilene
81773.0000	Immunoglobulin G CSF
81774.0000	Methaqualone Quant
81775.0000	Albumin CSF
81776.0000	Methaqualone Screen
81777.0000	Methemoglobin and Sulfhemo
81778.0000	Methicillin
81779.0000	Methemoglobin
81780.0000	Methocarbamol
81781.0000	Albumin Index
81782.0000	Methorphan Dextro
81783.0000	CSF IgG Synthesis
81784.0000	Methsuximide
81785.0000	IgG Index
81786.0000	Methylphenidate Hydrochl
81787.0000	Albumin/IgG Ratio
81788.0000	Methyprylon
81789.0000	Estrogen Fract
81790.0000	Metronidazole
81791.0000	Exposure Panel
81792.0000	Mexilitine
81793.0000	Lead Exposure Panel
81794.0000	Mezlocillin
81795.0000	CPK BB/CPK Tot
81796.0000	Miconazole
81797.0000	Microglobulin Beta 2

81798.0000	Minocycline
81799.0000	CPK MM/CPK Tot
81800.0000	Morphine
81801.0000	Arsenic 24H
81802.0000	Morphine Diacetyl (heroin)
81803.0000	Arsenic Panel
81804.0000	Morphine Glucuronide
81805.0000	Arsenic/Creatinine
81806.0000	Moxalactam
81807.0000	Muramidase (lysozyme)
81808.0000	Nafcillin
81809.0000	Nalbuphine Hydrochloride
81810.0000	Nalidixic Acid
81811.0000	Triglyceride
81812.0000	Neomycin
81813.0000	Barbiturate
81814.0000	Netilmicin
81815.0000	Lipoprotein Beta
81816.0000	Nickel
81817.0000	Lipoprotein Pre Beta
81818.0000	Nicotine
81819.0000	Lipoprotein Alpha
81820.0000	Nitrate
81821.0000	Iron Index
81822.0000	Nitrite
81823.0000	Microalbumin/Creatinine
81824.0000	Nitrofurantoin
81825.0000	Xylose Absorption
81826.0000	Nitrophenol Para
81827.0000	Amoxapine 8 Hydroxy
81828.0000	Nordiazepam
81829.0000	Creatine Kinase (CK MB) Mass
81830.0000	Norfloxacin
81831.0000	Color
81832.0000	Norpethidine
81833.0000	Norepinephrine
81834.0000	Norpropoxyphene
81835.0000	Tube Number
81836.0000	Nortriptyline
81837.0000	Desmethylsertraline
81838.0000	Novobiocin
81839.0000	Sirolimus
81840.0000	Nystatin
81841.0000	Organic Acids
81842.0000	Organophosphate NOS
81843.0000	Platelet Function
81844.0000	Oxacillin
81845.0000	Phosphorus Urine
81846.0000	Oxazepam
81847.0000	Phosphorus Timed
81848.0000	Oxycodone
81849.0000	Phosphorus Urine 24H
81850.0000	Paraldehyde
81851.0000	Procainamide N Acetyl (NAPA)
81852.0000	Penicillin
81853.0000	Comprehensive Met Panel
81854.0000	Pentazocine
81855.0000	Potassium Misc
81856.0000	Pentobarbital

## Appendix-B Helpful Hints

81857.0000	Sodium Misc
81858.0000	Percodan
81859.0000	Urea 24H
81860.0000	Perphenazine
81861.0000	Hemocystein
81862.0000	Pethidine
81863.0000	Homocystine Urine
81864.0000	Phenacetin
81865.0000	Lipoprotein Fractionation
81866.0000	Phencyclidine Screen
81867.0000	Zonisamide
81868.0000	Phenmetrazine
81869.0000	Carnitine Tot
81870.0000	Phenothiazine Quant
81871.0000	Carnitine Free
81872.0000	Phenothiazine Screen
81873.0000	Chloride Misc
81874.0000	Phensuximide
81875.0000	Phentermine
81876.0000	Phenylbutazone
81877.0000	Chlorine Esterase Inh
81878.0000	Phenylephrine
81879.0000	Glucose Misc
81880.0000	Phenylpropanolamine
81881.0000	Levitracetam
81882.0000	Phenytoin
81883.0000	Uranium
81884.0000	Phenytoin Free
81885.0000	Uranium Depleted
81886.0000	Piperacillin
81887.0000	Pesticide Exposure
81888.0000	Polymixin B
81889.0000	Prazepam
81890.0000	Primidone+Phenobarbital
81891.0000	Carnitine Esterified
81892.0000	Prochlorperazine
81893.0000	Alpha 1 Acid Glucoprotein
81894.0000	Promazine
81895.0000	Lipid Assoc Sialic Acid
81896.0000	Promethazine
81897.0000	Didanosine
81898.0000	Propoxyphene
81899.0000	Zalcitabine
81900.0000	Protriptyline
81901.0000	Stavudine
81902.0000	Pseudoephedrine
81903.0000	Lamivudine
81904.0000	Psilocybin
81905.0000	Abacavir
81906.0000	Pyrazinamide
81907.0000	Tenofovir
81908.0000	Pyrilamine
81909.0000	Nevirapine
81910.0000	Pyrimethamine Sulfadoxine
81911.0000	Delavirdine
81912.0000	Quadracyclic NOS
81913.0000	Efavirenz
81914.0000	Quinidine
81915.0000	Indinavir

81916.0000	Quinine
81917.0000	Ritonavir
81918.0000	Rifampin
81919.0000	Nelfinavir
81920.0000	Salicylamide
81921.0000	Amprenavir
81922.0000	Salicylates
81923.0000	Lopinavir
81924.0000	Secobarbital
81925.0000	Lopinavir Ritonavir
81926.0000	Selenium
81927.0000	Norfluoxetine
81928.0000	Silicon
81929.0000	Creatinine Urine
81930.0000	Sisomicin
81931.0000	Clozapine
81932.0000	Spectinomycin
81933.0000	Norclozapine
81934.0000	Spiramycin
81935.0000	Atenolol
81936.0000	Streptomycin
81937.0000	Calcium/Creatinine
81938.0000	Strychnine
81939.0000	Sulfhemoglobin
81940.0000	Sulfamethoxazole
81941.0000	Saquinavir
81942.0000	Sulfonamide NOS
81943.0000	Arachidonate
81944.0000	Teichoic Acid
81945.0000	Temazepam
81946.0000	Tetracycline NOS
81947.0000	Azathioprine
81948.0000	Thallium
81949.0000	Linoleate
81950.0000	Theophylline
81951.0000	Platinum
81952.0000	Thiazide
81953.0000	Procaine
81954.0000	Thiocyanate
81955.0000	Quetiapine
81956.0000	Thiopental
81957.0000	Magnesium RBC
81958.0000	Thioridazine
81959.0000	Tranlycypromine
81960.0000	Ticarcillin
81961.0000	Acteazolamidine
81962.0000	Ticarcillin Clavulanic Acid
81963.0000	Succinyl Acetone
81964.0000	Tocainide
81965.0000	Alpha-naphthyl Butyrate Estera
81966.0000	Tolazamide
81967.0000	Cortisol 90min
81968.0000	Tolbutamide
81969.0000	Metanephrine Total
81970.0000	Toluene
81971.0000	Triazolam
81972.0000	Trichloroethylene
81973.0000	Tiech Acid
81974.0000	Hexagonal Phospholipid Neut

## Appendix-B Helpful Hints

81975.0000	Dioxin
81976.0000	Tricyclic Antidepressants Scr
81977.0000	Metanephrine 24H
81978.0000	Sulfapyridine
81979.0000	Sperm Non-Motile
81980.0000	Trimethoprim
81981.0000	Sperm Slow
81982.0000	Tripelennamine
81983.0000	Blood Occult Semen
81984.0000	Volatile Screen
81985.0000	Hemoglobinuria Paroxysmal Noct
81986.0000	Warfarin
81987.0000	Topiramate
81988.0000	Zinc
81989.0000	Thin Layer Chromatography
81990.0000	Progesterone Binding Receptor
81991.0000	Allylbarbital
81992.0000	Talbutal
81993.0000	Demoxepam
81994.0000	Desalkylflurazepam
81995.0000	N Desmethyldiazepam
81996.0000	Flunitrazepam
81997.0000	Lorazepam
81998.0000	Mecloqualone
81999.0000	Levorphanol
82000.0000	TCP
82001.0000	Mercury Urine 24h
82002.0000	Blood Occult NOS
82003.0000	Carbohydrate Deficient Transfe
82004.0000	BUN Urine 24h
82005.0000	Microalbumin Urine Rand
82006.0000	Desmethylclomipramine
82007.0000	Glutamic Acid Decarboxylase
82008.0000	Antenolol
82009.0000	Clonidine Suppression
82010.0000	Cytomegalovirus PCR
82011.0000	Fragile X Syndrome
82012.0000	Glycerol Lysis
82013.0000	Hepatitis B Core Ab & IgM
82014.0000	Herpes simplex PCR
82015.0000	Tiagabine Hydrochloride
82016.0000	Hepatitis C RNA Qual
82017.0000	Hepatitis C RNA Quant
82018.0000	RBC Agglutinated
82019.0000	HIV 1 Qual PCR
82020.0000	ACTH
82021.0000	Natriuretic Peptide Brain (B T
82022.0000	Ovarian Ab
82023.0000	Microalbumin Urine 24h
82024.0000	Luteinizing Hormone Beta
82025.0000	Serotonin Platelet
82026.0000	C Reactive Protein HS
82027.0000	Sulfonylurea Urine
82028.0000	Viscosity Blood
82029.0000	Thrombotic Risk
82030.0000	Adenosine 5 Monophosphate
82031.0000	Mycobacterium TB Complex DNA P
82032.0000	Toxoplasma PCR
82033.0000	Viscosity Plasma

82034.0000	Glutamic Acid Decarboxylase Ab
82035.0000	Adenosine 5 Triphosphate
82036.0000	Clonidine Hydrochloride
82037.0000	Cortisol Stimulation Panel
82038.0000	Immunofixation Electrophoresis
82039.0000	Immunofixation Electrophoresis
82040.0000	Albumin
82041.0000	WBC Clumps
82042.0000	Albumin Pre
82043.0000	Ammonium Biruate Crystal
82044.0000	Lead Urine 24h
82045.0000	Malanin
82046.0000	Lactose Tolerance 30min
82047.0000	Lactose Tolerance 1h
82048.0000	Lactose Tolerance 2h
82049.0000	Lactose Tolerance 3h
82050.0000	Glucose Urine 24h
82051.0000	Acid Quant Urine
82052.0000	Macroglobulin Alpha2
82053.0000	Macroglobulins SIA
82054.0000	Saturation of Serum w Iron
82055.0000	Cholinesterase RBC
82056.0000	Potassium Urine 24h
82057.0000	Tetrahydroeoxycortisol
82058.0000	Heparin Cofactor II
82059.0000	Glutamic Acid
82060.0000	Transferrin
82061.0000	Extraction and Quant Chromato
82062.0000	Concentration of Specimen Dial
82063.0000	Extraction w Organic Solvent
82064.0000	Derivatization Compnd Chromat
82065.0000	Precipitation and Separation
82066.0000	Hemochromatosis Scr
82067.0000	Hemolysate Preparation
82068.0000	Kiniogen High MW
82069.0000	Cefotiam
82070.0000	Cephradine
82071.0000	Concentration of Specimen Ultr
82072.0000	Concentration of Specimen Evap
82073.0000	Levofloxacin
82074.0000	Levofloxacin Quant
82075.0000	Entrofloxacin
82076.0000	Fosfomycin
82077.0000	Fusidic Acid
82078.0000	3-Methoxy O Desmethylencaïnide
82079.0000	Dry Weight
82080.0000	Total Solids
82081.0000	Phosphatidyl Glycerol
82082.0000	Glucose Mean
82083.0000	Glucose Tolerance 1.5hr
82084.0000	Glycolic Acid
82085.0000	Procain+NAPA
82086.0000	Cloz+Norcloz
82087.0000	Oxcarbazepine
82088.0000	Amylase/Creat Ratio
82089.0000	Hydroxylysine
82090.0000	Aldolase
82091.0000	Niacin Vitamin
82092.0000	Niacinamide

## Appendix-B Helpful Hints

82093.0000	Sarcosine
82094.0000	Aminobutyric 4
82095.0000	Camosine
82096.0000	Anserine
82097.0000	Transferrin Receptor Soluble
82098.0000	Digoxin Free
82099.0000	Hydroxyitraconazole
82101.0000	Promonocytes Percent
82102.0000	Amylase Salivary
82103.0000	Citrate 24hr
82104.0000	WBC Clumps Urine
82105.0000	Amino Acids Nitrogen Total Ur
82106.0000	Opiate Synthetic
82107.0000	Prostatic Specific Ag Free Per
82108.0000	Busulfan
82109.0000	Amylase Macro
82110.0000	Phosphatase Alkaline Placental
82111.0000	Parathyroid Relate Protein
82112.0000	Tocopherol Alpha
82113.0000	Tocopherol Beta Gamma
82114.0000	Corticosteriod Binding Globuli
82115.0000	Glucose POC
82116.0000	Glucose Capillary
82117.0000	Glycohemoglobin HbA 1c Capilla
82118.0000	Comment
82119.0000	Acetylmethadol
82120.0000	Ketoglutarate Alpha
82121.0000	Creatine Kinase (BB)
82122.0000	Callagen Crosslink N Telopepti
82123.0000	O Desmethylencaïnide
82124.0000	Isoleucine
82125.0000	Lenght
82126.0000	Calculus
82127.0000	Length Calculus
82128.0000	Length NOS
82129.0000	Leucine
82130.0000	Amino Acids Quant
82131.0000	Leucine/Creatinine
82132.0000	Isoleucine+Leucine
82133.0000	Lysine
82134.0000	C1 Esterase Inhibitor Function
82135.0000	Creatinine eGFR
82136.0000	Atazanavir
82137.0000	Oxycodone,Rapid
82138.0000	Cytomegalovirus DNA
82139.0000	Cytomegalovirus DNA Probe
82140.0000	Ammonia
82141.0000	Epstein Barr PCR
82142.0000	Amniotic Fluid Scan
82143.0000	Lysozyme
82144.0000	Magnesium Stool
82145.0000	Methionine
82146.0000	Carbidoba and Levodopa
82147.0000	Liver Kidney Microsomal Ab
82148.0000	Hu Ab IFA
82149.0000	MTHFR DNA Mutation
82150.0000	Amylase
82151.0000	Carbidoba
82152.0000	Methlmalonic Acid Urine

82153.0000	Calculus Appearance
82154.0000	Androstanediol Glucuronide
82155.0000	Norclomipramine
82156.0000	Stone
82157.0000	Calculus Analysis
82158.0000	Calculus Constituents
82159.0000	Ornithine
82160.0000	Androstenedione
82161.0000	Other NOS
82162.0000	Drug NOS
82163.0000	Angiotensin II Enzyme
82164.0000	Phosphoethanolimine
82165.0000	Phosphoserine
82166.0000	Pidgeon Serum
82167.0000	Band
82168.0000	Band Predominant
82169.0000	Sperm Progression
82170.0000	Proline
82171.0000	Vitamin K Protein Induced
82172.0000	Pyruvate CSF
82173.0000	Risk factor
82174.0000	Risk Relative
82175.0000	Cholesterol/HDL Risk Factor
82177.0000	Serine
82178.0000	Steroid Screen
82179.0000	Steroid ID
82180.0000	Ascorbic Acid
82181.0000	Sodium Urine 24h
82182.0000	Sodium Urine
82183.0000	Phosphate Urine
82184.0000	Uric Acid Urine
82185.0000	Iron Urine
82186.0000	Glucose Urine
82187.0000	Potassium Urine
82188.0000	Magnesium Urine
82189.0000	Lead Urine
82190.0000	Threonine
82191.0000	Homocysteine Urine
82192.0000	Amylase Urine
82193.0000	Calcium Urine
82194.0000	Bismuth Urine
82195.0000	Nitrogen Urine
82196.0000	Chloride Urine
82197.0000	Carbon Dioxide Urine
82198.0000	Copper Urine
82199.0000	Calcium Urine 24h
82200.0000	Thiopurine Methyltransferase
82201.0000	Valine
82202.0000	Amylase Urine 24h
82203.0000	Chloride Urine 24h
82204.0000	Carbon Dioxide Urine 24h
82205.0000	Phosphate Urine 24h
82206.0000	Sperm Viscosity
82207.0000	Zinc Urine
82208.0000	Sperm Volume
82209.0000	Zinc Urine 24h
82210.0000	Sperm WBC
82211.0000	Dopamine Urine
82212.0000	Protein/Creatinine Ratio Urine

## Appendix-B Helpful Hints

82213.0000	Calculus Morphology
82214.0000	PaO2/PAO2 ratio
82215.0000	PAO2-PaO2 Difference
82216.0000	Doxepin and Nordoxepin Tot
82217.0000	Phosphatase Alkaline Intestine
82218.0000	Amitriptyline and Nortriptylin
82219.0000	Phosphatase Alkaline Liver
82220.0000	Amino Acids Qual
82221.0000	Epinephrine+Norepinephrine
82222.0000	Clomipramine + N Desmethly Clo
82223.0000	Hexosaminidase A
82224.0000	Hexosaminidase A Percent
82225.0000	Drug Screen 5
82226.0000	Drug Screen 5+
82227.0000	Drug Screen 6
82228.0000	Misc Toxicology 1
82229.0000	Misc Toxicology 2
82230.0000	Hemoglobin A1
82231.0000	Misc Toxicology 3
82232.0000	Misc Toxicology 4
82233.0000	Misc Toxicology 5
82234.0000	Misc Toxicology 6
82235.0000	Thiopurine Methyltransferase R
82236.0000	N Desmethyldoxepin
82237.0000	Nefazodone
82239.0000	Bile Acids Total
82240.0000	Bile Acids Triunsaturated
82241.0000	Cholyglycine
82242.0000	Normephenytoin
82243.0000	Organochloride
82244.0000	Operator
82245.0000	Serial Number
82246.0000	Trichomonas
82247.0000	Russell's Viper Venom Ratio
82249.0000	Bilirubin Direct
82249.3000	Bilirubin Total and Direct~MAN
82249.3035	Bilirubin Total and Direct~DU
82250.0000	Bilirubin Total
82250.3000	Bilirubin Qual Feces~MANUAL
82250.3035	Bilirubin Qual Feces~DU PONT A
82251.0000	Bilirubin Total and Direct
82252.0000	Bilirubin Qual Feces
82253.0000	Bilirubin Binding Capacity
82254.0000	Trichophyton Skin Test
82255.0000	Tuberculin Skin Test
82256.0000	PTT Aged Serum
82257.0000	PTT Incubated Mix
82258.0000	PTT Immediate Mix
82259.0000	Prophobilinogen
82260.0000	Stone Risk Profile
82261.0000	Sulfite
82262.0000	Sulfate
82263.0000	Histamine Plasma
82264.0000	Strontium
82265.0000	Cadmium Urine
82266.0000	1 Methylhistidine
82267.0000	2 Aminoadipic Acid
82268.0000	2 Aminobutyric Acid
82269.0000	3-Methylhistidine

82270.0000	Blood Occult feces
82271.0000	Blood Occult feces spot test
82272.0000	Amino Acid Interpretation
82273.0000	Alanine
82274.0000	Asparagine
82275.0000	Aldosterone Urine
82276.0000	Aspartic Acid
82277.0000	Alanine Beta
82278.0000	Blood Qual Duodenal Gastric
82279.0000	Chenodoxycholic Acid
82280.0000	Cholic Acid
82281.0000	Citrulline
82283.0000	Deoxycholic Acid
82284.0000	Ethanolamine
82285.0000	Phenobarbital Free
82286.0000	Bradykinin
82287.0000	Glycine
82288.0000	Histidine
82289.0000	Diazepam+Nordiazepam
82290.0000	P50
82291.0000	Coagulation Profile
82293.0000	Coagulation Profile Hyper
82294.0000	Thrombin Time Control
82295.0000	Trypsinogen 1
82296.0000	Trypsinogen 1 Free
82297.0000	Vitamin K Dependent Coag Facto
82298.0000	Anti Nuclear Ab Screen
82299.0000	Anti Nuclear Ab Stain
82300.0000	Atypical ANCA
82301.0000	Lactose Tolerance 4h
82302.0000	Drainage Site
82303.0000	Sulfate Urine
82304.0000	FSH Beta Subunit
82305.0000	2 4 Dichlorophenoxyacetate
82306.0000	Apolipoprotein A1/B
82307.0000	Apolipoprotein B/A1
82308.0000	Carotene Alpha
82309.0000	Carotene Beta
82310.0000	Calcium
82311.0000	Trasferrin Saturation
82312.0000	Color NOS
82313.0000	Mono,Eos,Baso Percent
82314.0000	Sperm Motility
82315.0000	Tissue Cell Percent
82316.0000	Pressure
82317.0000	Tidal Volume
82318.0000	Ventilation
82319.0000	Lactose Tolerance 15min
82320.0000	Lactose Tolerance 45min
82321.0000	Lactose Tolerance 1.5hr
82322.0000	Phosphatase Alkaline Heat Labi
82323.0000	Reticulocyte %
82324.0000	Prostatic Specific Ag Free/Tot
82325.0000	Log
82326.0000	HDW
82327.0000	Histocytes
82328.0000	Phosphatase Acid Tartrate Resi
82329.0000	Leukocyte Stick
82330.0000	Phosphate Alkaline MacroHepati

## Appendix-B Helpful Hints

82331.0000	Calcium Infusion
82332.0000	Porphobilinogen
82333.0000	Testosterone Bioavailable
82334.0000	Reticulocyte Immature
82335.0000	Terbinafine
82336.0000	Brompheniramine
82337.0000	Conglutin Immune Complex
82338.0000	Amacair
82339.0000	Ammonium
82340.0000	Methoxsalen
82341.0000	Hereditary Neuropathy Heridita
82342.0000	Hemachromatosis
82343.0000	Fat Neutral
82344.0000	Quentiapine
82345.0000	Calcium 24 hour Excret Feces
82346.0000	TAU Protein
82347.0000	Uroporphyrinogen Decarboxylase
82348.0000	Propoxyphene+Norpropoxyphenen
82349.0000	Nucleoside RT Inhibitors
82350.0000	Calculation
82351.0000	Nucleoside-Non RT Inhibitors
82352.0000	Protease Inhibitors
82353.0000	Calculus Nidus
82354.0000	KI-67
82355.0000	Calculus Analysis Chemical
82356.0000	BUN Blood
82357.0000	CSF Panel
82358.0000	Cytotoxic Rejection Percent
82359.0000	Mexlocillin
82361.0000	Norfentanyl
82363.0000	Spinocerebellar Ataxia 6
82364.0000	Occult
82365.0000	Pristamic Acid
82366.0000	Protein C Activity
82367.0000	Collagen/Epinephrine Platelet
82368.0000	Collagen/ADP Induced Platelet
82369.0000	Cortisol Binding Globulin
82370.0000	Ferritin
82371.0000	Schillings Test
82372.0000	G6PD Screen
82373.0000	Carbon Dioxide Combine Power
82374.0000	Phosphoinostiol
82375.0000	Phosphoethanolami
82376.0000	Persenilin 1
82377.0000	Colchicine
82378.0000	Citalopram
82379.0000	Insulin 240min
82380.0000	Carotene
82381.0000	Insulin 300min
82382.0000	Insulin 360min
82383.0000	Insulin Bovine
82384.0000	Insulin Porcine
82385.0000	Left Shift
82386.0000	Oxyphenisatin
82387.0000	Cathepsin-D
82388.0000	Biscodyl
82389.0000	Triiodothyronine Uptake
82390.0000	Ceruloplasmin (Copper O)
82390.3035	Checking Timer on Centrifuge~D

82390.3103	Checking Timer on Centrifuge~E
82391.0000	Neopterin
82392.0000	Renin Direct
82393.0000	Tigabine
82394.0000	Mercaptopurine
82395.0000	Biotin
82396.0000	Limulus Lystae
82397.0000	Chemiluminescent
82398.0000	Hydroxypregnenolone 17
82399.0000	Pincerred RBC
82400.0000	Chemistry Analysis Profile
82401.0000	Blood Unit Release
82402.0000	Hydroxyrisperidone 9
82403.0000	Hydroxylozepine 8
82404.0000	Arsenic (Inorganic)
82405.0000	Arsenic(Inorganic)/Creatinine
82406.0000	Cadmium/Creatinine Ratio
82407.0000	Lead/Creatinine
82408.0000	Copper, RBC
82409.0000	Copper, Plasma
82410.0000	Instrument Set Up
82411.0000	Western Equine Encephalitis Ig
82412.0000	Ritalinic Acid
82413.0000	Brodifacoum
82414.0000	Varicella Zoster PCR
82415.0000	La Crosse Virus PCR
82416.0000	Jamestown Canyon Virus PCR
82417.0000	Eastern Equine Encephalitis PC
82418.0000	Powassan Virus PCR
82419.0000	Cache Valley Virus PCR
82420.0000	Multiple Ion Analysis
82421.0000	St Louis Equine Encephalitis P
82422.0000	Western Equine Encaphalitis PC
82423.0000	Enterovirus PCR
82424.0000	California Encephalitis PCR
82425.0000	Viral PCR Panel
82426.0000	Interferon Neutralizing Ab
82427.0000	Myositis Assessment Profile
82428.0000	Inhibin A
82429.0000	Inhibin B
82430.0000	Charcoal Urine
82431.0000	Dichloromethane
82432.0000	Perchloroethylene
82433.0000	Barium
82434.0000	Tellurium
82435.0000	Chloride
82436.0000	Fat Stool Total Qual
82437.0000	Fat Neutral Stool Qual
82438.0000	Muscle Fibers Stool Qual
82439.0000	Fat/Fibers Stool Qual
82440.0000	Zolpidem
82441.0000	Chlorohydrocarbons
82442.0000	Volatile Panel 1
82443.0000	Volatile Panel 2
82444.0000	Volatile Panel 3
82445.0000	Volatile Panel 4
82446.0000	Volatile Panel 5
82447.0000	Acetonitrile
82449.0000	Acrolein

## Appendix-B Helpful Hints

82450.0000	Acrylonitrile
82451.0000	Allyl Alcohol
82452.0000	Amyl Acetate
82453.0000	Butane
82454.0000	Butanois
82455.0000	Butyl Acetates
82456.0000	Cumene
82457.0000	Cyclohexane
82458.0000	Cyclopentane
82459.0000	Cyclopropane
82460.0000	Dichloroethanes
82461.0000	Dichloroethylene
82462.0000	Diisobutyl Ketone
82463.0000	Enflurane
82464.0000	Epichlorhydrin
82465.0000	Ethyl Acetate
82466.0000	Cholesterol Total
82466.3035	Cholinesterase plus DN~DU PONT
82467.0000	Ethyl Benzenes
82468.0000	Ethyl Ether
82469.0000	Ethyl t-Butyl Ether
82470.0000	Ethylene Oxide
82471.0000	Freons
82472.0000	Halothane
82473.0000	Heptane
82474.0000	Hexane
82475.0000	Isoamyl Acetate
82476.0000	Isoamyl Alcohol
82477.0000	Iso-Butane
82478.0000	Isoflurane
82480.0000	Isopropyl Ether
82481.0000	Isovaleraldehyde
82482.0000	Mesityl Oxide
82483.0000	Methane
82484.0000	Methanol
82485.0000	Chondroitin Sulfate
82486.0000	Methoxyflurane
82487.0000	Methyl Ethyl Ketone
82488.0000	Methyl Isoamyl Ketone
82489.0000	Methyl Isobutyl Ketone
82490.0000	Chromogenic Substrate
82491.0000	Methyl Methacrylate
82492.0000	Methyl n-Amyl Ketone
82493.0000	Methyl n-Butyl Ketone
82494.0000	Methyl n-Propyl Ketone
82495.0000	Methyl t-Butyl Ether
82496.0000	Methyl Acrylate
82497.0000	Methylene Chloride
82498.0000	Methylpentanes
82499.0000	n-Amyl Alcohol
82500.0000	Nonane
82501.0000	Octane
82502.0000	Pentane
82503.0000	Propane
82504.0000	Propanol
82505.0000	Propyl Acetate
82507.0000	Drug 1 ID
82508.0000	Drug 2 ID
82509.0000	Drug 3 ID

82510.0000	Drug 4 ID
82511.0000	Drug 5 ID
82512.0000	Drug 6 ID
82513.0000	Drug 7 ID
82514.0000	Drug 8 ID
82515.0000	Drug 9 ID
82516.0000	Drug 10 ID
82517.0000	Drug 11 ID
82518.0000	Drug 12 ID
82519.0000	Drug 13 ID
82520.0000	Drug 14 ID
82521.0000	Drug 15 ID
82522.0000	Drug 16 ID
82523.0000	Collagen Ab
82524.0000	Drug 17 ID
82525.0000	Drug 18 ID
82526.0000	Drug 19 ID
82527.0000	Drug 20 ID
82528.0000	Gamma Hydroxybutyrateacnc
82529.0000	Amylase Pancreatic P1
82530.0000	Amylase Pancreatic P2
82531.0000	Amylase Pancreatic P3
82532.0000	Amylase Salivary S1
82533.0000	Amylase Salivary S2
82534.0000	Amylase Salivary S3
82535.0000	Porphyrin Copro
82536.0000	Amylase P1/Amylase Ratio
82537.0000	Porphyrin Proto
82538.0000	Amylase P2/Amylase Ratio
82539.0000	Amylase P3/Amylase Ratio
82540.0000	Creatine
82541.0000	Amylase S1 Amylase Ratio
82542.0000	Amylase S2/Amylase Ratio
82543.0000	Amylase S3/Amylase Ratio
82544.0000	Fentanyl/Norfentanyl
82545.0000	Fentanyl Total
82546.0000	Fentanyl
82547.0000	Pancreatic Elastase 1 Stool
82550.0000	Creatine Kinase (CK)
82555.0000	Creatine Kinase (CK MB)
82562.0000	Creatine Kinase Isoenz (CK MB)
82563.0000	Xylene Exposure Panel Quant Ur
82564.0000	Ion exchange Column Prep
82565.0000	Creatinine
82565.3035	Creatinine~DU PONT ACA
82565.3103	Creatinine~EKTACHEM 700
82566.0000	Pyridine
82567.0000	Styrene
82568.0000	Tetrachloroethane
82569.0000	Tetrachloroethylene
82570.0000	Tetrahydrofuran
82571.0000	Xylenes
82572.0000	Acetone Urine
82573.0000	o-Cresol Urine
82574.0000	Ethanol Urine
82575.0000	Hippuric Acid Urine
82576.0000	Isopropanol Urine
82577.0000	Mandelic Acid Urine
82578.0000	Methanol Urine

## Appendix-B Helpful Hints

82579.0000	Methyl Ethyl Ketone Urine
82580.0000	Methylhippuric Acid Urine
82581.0000	Methyl Isobutyl Ketone Urine
82582.0000	Phenol Urine
82583.0000	Phenylglyoxylic Acid Urine
82584.0000	Trichlororganic Metabolites Ur
82585.0000	Cryofibrinogen
82586.0000	Paraquat
82587.0000	Paraquat Urine
82588.0000	Osmium
82589.0000	Osmium Urine
82590.0000	Osmium 24Hr
82591.0000	Pentachlorophenol
82592.0000	Pentachlorophenol Urine
82593.0000	Pentachlorophenol 24Hr
82594.0000	Pentachlorophenol Exposure Sur
82595.0000	Cryoglobulin Qual Blood
82596.0000	Carbamate Pesticides
82597.0000	Bendiocarb
82598.0000	Carbaryl
82599.0000	Carbofuran
82600.0000	1-Naphthol
82601.0000	Propoxur
82602.0000	Bendiocarb Urine
82603.0000	Carbaryl Urine
82604.0000	Carbofuran Urine
82605.0000	1-Naphthol Urine
82606.0000	Propoxur Urine
82607.0000	Carbamate Pesticides Urine
82608.0000	Organochlorine Pesticides
82609.0000	DDE
82610.0000	Lindane
82611.0000	DDE Urine
82612.0000	Lindane Urine
82613.0000	Alpha-Chlordane
82614.0000	Alpha-Chlordane Urine
82615.0000	Cystine
82616.0000	Gamma-Chlordane
82617.0000	Gamma-Chlordane Urine
82618.0000	Trans-Nonachlor
82619.0000	Trans-Nonachlor Urine
82620.0000	Heptachlor
82621.0000	Heptachlor Urine
82623.0000	Heptachlorepoxyde
82624.0000	Heptachlorepoxyde Urine
82625.0000	DDT
82626.0000	DDT Urine
82627.0000	Hexachlorobenzene
82628.0000	Hexachlorobenzene Urine
82629.0000	Dieldrin Urine
82630.0000	Amino Levulinic Acid Delta
82632.0000	Dehydroepiandrosterone (DHEA)
82633.0000	Desoxycorticosterone
82634.0000	Dehydroepiandrosterone Sulfate
82635.0000	Deoxycortisol
82636.0000	Dieldrin
82637.0000	Methoxychlor Urine
82638.0000	Methoxychlor
82639.0000	DDD

82640.0000	DDD Urine
82641.0000	Organochlorine Pesticides Urin
82642.0000	Organophosphate Pesticides
82643.0000	Organophosphate Pesticides Uri
82644.0000	Methyl Parathion Urine
82645.0000	Methyl Parathion
82646.0000	Dihydrocodeinone
82647.0000	Vinyl Chloride Metabolite Qual
82649.0000	Dihydromorphinone
82651.0000	Dihydrotestosterone
82654.0000	Dimethadione
82655.0000	Mevinphos
82656.0000	Mevinphos Urine
82657.0000	P-Nitrophenol
82658.0000	P-Nitrophenol Urine
82659.0000	Parathion
82660.0000	Parathion Urine
82661.0000	Phorate
82662.0000	Phorate Urine
82663.0000	Terbufos
82664.0000	Terbufos Urine
82665.0000	Azinphos-Methyl
82666.0000	Epiandrosterone
82670.0000	Diphosphoglycerate 2 3
82671.0000	Azinphos-Methyl Urine
82672.0000	Carbophenthion
82673.0000	Carbophenthion Urine
82674.0000	Chlorpyrifos
82675.0000	Chlorpyrifos Urine
82676.0000	Coumaphos
82677.0000	Coumaphos Urine
82678.0000	Diazinon
82679.0000	Diazinon Urine
82680.0000	Deoxycorticosterone
82681.0000	Dichlorvos
82682.0000	Dichlorvos Urine
82683.0000	Dimethoate
82684.0000	Dimethoate Urine
82685.0000	EPN
82686.0000	EPN Urine
82687.0000	Ethion
82688.0000	Ethion Urine
82689.0000	Fenchlorphos Urine
82690.0000	Fenchlorphos
82691.0000	Fenthion
82692.0000	Fenthion Urine
82693.0000	Fonofos
82694.0000	Fonofos Urine
82696.0000	Etiocholanolone
82697.0000	Malathion Urine
82698.0000	Metasystox
82699.0000	Metasystox Urine
82700.0000	Dopamine
82701.0000	Cadmium Exposure Survey Panel
82702.0000	Oxychlordan
82703.0000	Oxychlordan Urine
82704.0000	Paraoxon
82705.0000	Fat Qual
82706.0000	Heavy Metal Panel 5

## Appendix-B Helpful Hints

82707.0000	Heavy Metal Panel 6
82708.0000	Heavy Metal Panel 7
82709.0000	Heavy Metal Panel 8
82710.0000	Fat Total Quant Feces
82711.0000	Paraoxon Urine
82712.0000	Barium Urine
82713.0000	Barium 24Hr
82714.0000	Tellurium Urine
82715.0000	Tellurium 24Hr
82716.0000	Heavy Metal Panel 1
82717.0000	Heavy Metal Panel 2
82718.0000	Heavy Metal Panel 3
82719.0000	Heavy Metal Panel 4
82720.0000	Fatty Acid Esters
82721.0000	Heavy Metal Panel 9
82722.0000	Heavy Metal Panel 10
82723.0000	Trichloroacetic Acid Urine
82724.0000	Trichloroacetic Acid 24Hr
82725.0000	Fatty Acids Free
82726.0000	Toluene Urine
82727.0000	Toluene 24Hr
82728.0000	Trichloroethylene Urine
82729.0000	Trichloroethylene 24Hr
82730.0000	Fibrin Degradation Products
82731.0000	Trichloroethane Urine
82732.0000	Trichloroethane 24Hr
82733.0000	Trichloroethane
82745.0000	Folate Bioassay
82751.0000	Folate
82756.0000	Fructosamine
82758.0000	Fructose
82759.0000	Galactokinase
82760.0000	Galactose
82775.0000	GAL 1 PHOS Uridyl Transferase
82785.0000	Gamma Globulin
82790.0000	Transpeptidase Gamma Glut
82804.0000	Entrance or Correction Pt Dem
82805.0000	pH Body Fluids
82820.0000	PCO2 Direct Reading
82830.0000	Carbon Dioxide Content
82840.0000	Carbon Dioxide Titrimetric
82870.0000	O2 Saturation
82880.0000	PO2 Direct Reading
82883.0000	Blood Gas Analysis
82884.0000	Blood Gas POC
82885.0000	Coagulation POC
82925.0000	Acid Free QNT DUOD
82930.0000	Acid TOT QNT DUOD
82945.0000	Gastric Analysis Tubeless
82955.0000	Glucose 6 Phos Dehydrogenase
82963.0000	Glucosidase
82965.0000	Glutamate Dehydrogenase
82975.0000	Glutamine
82980.0000	Glycoprotein Acid Alpha1
82985.0000	Glycoprotein
83001.0000	Glucose Tolerance 4hr
83002.0000	Glucose Tolerance 5hr
83003.0000	LDL Cholesterol Direct
83008.0000	Guanosine

83011.0000	Haptoglobin
83012.0000	LDL/HDL Ratio
83013.0000	Cholesterol HDL
83017.0000	Cholesterol LDL
83020.0000	Hemoglobin
83030.0000	Hemoglobin Fetal Chemical
83031.0000	Fetal Hemoglobin Detection K
83032.0000	Hemoglobin Plasma
83052.0000	Hemoglobin S Solubility
83055.0000	Hemoglobin Unstable Heat
83057.0000	Hemoglobin A(2)
83070.0000	Hemosiderin Urine
83071.0000	Urine WBC Cast
83072.0000	Urine RBC Cast
83073.0000	Urine Grandular Cast
83074.0000	Urine Fatty Cast
83075.0000	Crystal Am Urate
83076.0000	Phosphate Am Crystal
83077.0000	Urine RBC Clumps
83090.0000	Homogentisic Acid
83110.0000	Aldosterone
83118.0000	Calcitonin
83125.0000	Catecholamines
83132.0000	Acetohexamide
83133.0000	Renin Stimulation
83134.0000	Tryptase
83135.0000	Glipizide
83140.0000	Vanillylmandelic Acid
83141.0000	Phosphorus
83145.0000	Metanephrines
83146.0000	Pregnenolone
83148.0000	Protein CSF
83150.0000	Homovanillic Acid
83151.0000	Prostaglandin
83155.0000	Chemotaxis
83156.0000	Sialic Acid
83185.0000	Troponin T
83186.0000	Troponin C
83190.0000	Cortisol Free
83191.0000	Troponin I
83199.0000	Cortisol
83200.0000	Trimethadione
83201.0000	Tropomyosin
83210.0000	Insulin Tolerance
83224.0000	Nocardia
83230.0000	Corticosterone
83232.0000	Estrogen Binding Receptor
83233.0000	Estradiol
83234.0000	Estriol
83235.0000	Tripolid
83236.0000	Terfenadine
83245.0000	Estrogens
83248.0000	Gastrin
83249.0000	Hydroxyproline Free
83250.0000	Glucagon
83251.0000	Hydroxyproline
83252.0000	Iodine Total Urine
83253.0000	Hydroxyprogesterone 17
83254.0000	Insulin

## Appendix-B Helpful Hints

83255.0000	Ketogenic Steroids
83256.0000	Ketosteroids 17
83257.0000	Hydroxycorticosterone 18
83258.0000	Amantadine
83259.0000	Cobalt
83260.0000	Gallium
83261.0000	Glyburide
83262.0000	Heavy Metal Screen
83263.0000	Palladium
83264.0000	Para-Amino Benzoic Acid
83265.0000	Protoporphyrin
83266.0000	Protoporphyrin Zinc
83267.0000	Risperidone
83280.0000	Ketosteroids 17 Neutral
83290.0000	Ketosteroids 17 Beta
83305.0000	Luteinizing Hormone
83306.0000	LH/FSH Panel
83310.0000	Follicle Stimulating Hormone
83316.0000	Placental Lactogen
83319.0000	RBC Transketolase
83320.0000	Pregnanediol
83340.0000	Pregnanetriol
83350.0000	Progesterone
83351.0000	Progesterone Receptor
83355.0000	Prolactin
83355.3035	Protein Bence Jones Heat~DU PO
83355.3103	Protein Bence Jones Heat~EKTAC
83360.0000	Renin
83370.0000	Angiotensin
83380.0000	Growth Hormone
83395.0000	Parathormone
83400.0000	Deoxynucleotidyl Transferase
83405.0000	Testosterone
83415.0000	Testosterone + Dihydrotest
83440.0000	Triiodothyronine (T 3) Resin
83445.0000	Triiodothyronine (T 3)
83446.0000	Triiodothyronine (T 3) Rev
83447.0000	Triiodothyronine Free (FT3)
83448.0000	Alphal Antitrypsin
83449.0000	Alphal Antitrypsin Phenotype
83450.0000	Thyroxine (T 4)
83455.0000	Thyroxine Free (FT4)
83457.0000	Thyroxine Free (FT4) SA Ligand
83480.0000	Thyroid Stimulating Hormone
83490.0000	Thyroxine Binding Globulin
83495.0000	Hydroxybutyric Dehydrogenase
83496.0000	Hydroxycorticosteroids 17
83540.0000	Iron Total
83550.0000	Iron Total and Combining
83555.0000	Iron Binding Capac Unsatur(UIB
83575.0000	Isocitric Dehydrogenase
83600.0000	Kynurenic Acid
83605.0000	Lactic Acid
83620.0000	Lactate Dehydrogenase
83620.3000	Lactic Acid~MANUAL
83620.3035	Lactic Acid~DU PONT ACA
83625.0000	Lactate Dehydrogenase Isoenz
83642.0000	Lactose Qual Urine
83665.0000	Lecithin Sphingomyelin Ratio

83675.0000	Leucine Amino Peptidase
83690.0000	Lipase Blood
83700.0000	Lipids Total
83715.0000	Lipoprotein
83735.0000	Magnesium
83775.0000	Malate Dehydrogenase
83795.0000	Melanin Qual Urine
83857.0000	Methemalbumin
83865.0000	Mucopolysaccharides
83875.0000	Myoglobin Urine
83900.0000	Biotinidase
83915.0000	Nucleotidase 5'
83920.0000	Ornithine Carb Transferase
83925.0000	Osmolality
83930.0000	Osmolarity
83944.0000	Alphal Acid Glycoprotein
83945.0000	Oxalate
83946.0000	Anticentromere
83950.0000	Oxytocinase
83955.0000	Hippuric Acid Paraamino
83960.0000	Apolipoprotein A1
83962.0000	Apolipoprotein B
83966.0000	Antichymotrypsin Alpha1
83967.0000	Antitrypsin Alpha1
83968.0000	Endorphin Beta
83969.0000	Hemoglobin A
83970.0000	Hemoglobin S
83971.0000	Red Blood Cell Ag A
83972.0000	Red Blood Cell Ag B
83973.0000	Red Blood Cell Ag H
83974.0000	Gonadotropin Chorionic alpha
83975.0000	Gonadotropin Chorionic B Qual
83976.0000	Gonadotropin Chorionic B Quant
83977.0000	Melanocyte Stimulating Horm a
83978.0000	Melanocyte Stimulating Horm b
83979.0000	Secretin
83980.0000	Somatostatin
83981.0000	Substance P
83982.0000	Vasoactive Intestinal Polypep
83983.0000	Lipotropin
83984.0000	Vasopressin Arginine
83985.0000	Vasopressin Lysine
83986.0000	Oxytocin
83987.0000	Somatomedin C (IGF 1)
83988.0000	C-Peptide
83989.0000	Preinsulin
83990.0000	Pancreatic Polypeptide
83991.0000	Gastrin 17
83992.0000	Gastrin 34
83993.0000	Cholecystokinin
83994.0000	Parathyroid Hormone C Terminal
83995.0000	Parathyroid Hormone N Terminal
83996.0000	Protein Total Electro
83997.0000	Vitamin D 25 Hydroxy
83998.0000	Vitamin D 1 25 Dihydroxy
83999.0000	Osteocalcin (GLA protein)
84000.0000	Enkephalin Leucine
84001.0000	Enkephalin Methionine
84002.0000	Bombesin

Appendix-B Helpful Hints

84003.0000	Neurotensin
84004.0000	Corticotropin Releasing Hormon
84005.0000	Luteinizing Releasing Hormone
84006.0000	Cardioexcitatory Peptide
84007.0000	Choline Acetyltransferase
84008.0000	Butyric Acid gamma Amino
84009.0000	Serotonin
84009.3035	Silicon~DU PONT ACA
84009.3103	Silicon~EKTACHEM 700
84009.8044	Silicon~LAB1 SENDOUT
84010.0000	SP 1 Chromagranin
84011.0000	Parathyroid Hormone Mid Molec
84012.0000	Parathyroid Hormone Intact
84013.0000	Chymopapain
84014.0000	PTH Panel
84015.0000	Tubular Reabsorption PO4
84016.0000	Fractional Extraction NA
84017.0000	Fractional Extraction Nitrogen
84018.0000	Sandostatin
84019.0000	Cortisol Tolarence Test
84020.0000	Globulin Electro
84021.0000	Griseofulvin
84022.0000	Pimaricin
84023.0000	Clotrimazole
84024.0000	LDH Electrophoresis
84025.0000	CPK Electrophoresis
84026.0000	Protein Electro Urine
84027.0000	Protein Electro CSF
84028.0000	X*Glaidin Ab
84029.0000	Fat Stool
84030.0000	Phenylalanine
84031.0000	IgG Synthesis
84032.0000	Lymphocyte Absolute
84033.0000	LAP Score
84034.0000	Bleeding Time Surgicut
84035.0000	Mycoplasma Titer
84036.0000	HIV 1&2
84037.0000	Retinyl palitate
84038.0000	Interpretation
84039.0000	Parathyroid HRP
84040.0000	Phenylketone Urine (PKU)
84041.0000	Mercury/Creatinine
84042.0000	Copper 24H
84043.0000	Copper/Creatinine
84044.0000	Citric Acid
84045.0000	Citric Acid Urine
84046.0000	Cholinesterase Panel
84047.0000	6TG
84048.0000	6TG Metabolite
84049.0000	6MMP
84050.0000	6MMP Metabolites
84051.0000	B-Human Chorionic Gonadotropin
84060.0000	Phosphatase Acid Total
84061.0000	Phosphatase Acid Non Prost
84065.0000	Phosphatase Acid Prost Tart
84067.0000	Phosphatase Acid Prostatic
84075.0000	Phosphatase Alkaline
84075.3000	Phosphatase Alkaline Leukocyte
84075.3035	Phosphatase Alkaline Leukocyte

84080.0000	Phosphatase Alkaline Isoenz
84087.0000	Phosphohexose
84100.0000	Phosphate Inorganic
84100.3035	Photochromogenicity Test~DU PO
84101.0000	Alkaloids Screen
84103.0000	Phospholipids
84105.0000	Phosphorus Elemental
84110.0000	Porphobilinogen Quant Urine
84115.0000	Porphobilinogen Qual Urine
84120.0000	Porphyrin Quant Fraction
84123.0000	Protoporphyrin Free Erythro
84125.0000	Porphyrin Qual Urine
84140.0000	Potassium
84141.0000	Fungal Ab
84142.0000	Mycotoxin Ab
84155.0000	Protein Total
84156.0000	Protein Total Urine Point
84157.0000	Protein Total Urine Timed
84158.0000	Protein/Creatinine Ratio
84159.0000	Beta 2 transferrin
84160.0000	Pt Temp Est
84161.0000	Pt Temp Obs
84162.0000	Pt Weight Est
84163.0000	Pt Weight Obs
84164.0000	Pt Height Est
84165.0000	Pt Height Obs
84166.0000	Date LMP
84167.0000	Specimen Weight
84168.0000	Specimen Volume
84169.0000	Specimen Volume Reported
84171.0000	Globulin
84180.0000	Protein Quant Urine Fluid
84181.0000	Southern Blot
84185.0000	Protein Bence Jones Heat
84210.0000	Pyruvate
84220.0000	Pyruvate Kinase
84235.0000	Endocrine Hormone
84263.0000	Hydroxyind Acet Acid 5 Screen
84265.0000	Hydroxyind Acet Acid 5 Quant
84295.0000	Sodium
84305.0000	Urobilinogen
84310.0000	Sorbitol Dehydrogenase
84315.0000	Specific Gravity Excl Urine
84330.0000	+Glucose Quant
84400.0000	Body Fluid Exam for Crystals
84408.0000	Charcot Marie Tooth Screen
84409.0000	Enterovirus Ab by PCR
84410.0000	Spirometry
84411.0000	Bronchospasm Eval
84412.0000	Pulse Oximetry
84413.0000	Fibrinogen Activity
84455.0000	Transferase Aspartate SGOT
84455.3000	Urinalysis Micros only~MANUAL
84455.3035	Urinalysis Micros only~DU PONT
84456.0000	LDH1/LDH2 Ratio
84457.0000	Creatinine Random
84458.0000	Creatinine Random UA
84459.0000	LDH Total ISO
84465.0000	Transferase Alanine Amino SGP

## Appendix-B Helpful Hints

84465.3000	Transpeptidase Gamma Glut~MANU
84465.3035	Transpeptidase Gamma Glut~DU P
84466.0000	X*Drug Dependant
84476.0000	Itraconazole
84480.0000	Triglycerides w o extract
84481.0000	Desmethsuximide
84483.0000	Helicobacter Pylorii Breath
84484.0000	Tryptophan
84485.0000	Trypsin Qual Duod or Gastric
84486.0000	Ethotoin
84487.0000	Ethinamate
84488.0000	Trypsin Qual Feces
84489.0000	Fatty Acid
84490.0000	Trypsin
84491.0000	Phosphatase Alkaline Heat Stab
84492.0000	Temperature
84494.0000	Temperature Observed
84495.0000	Temperature Body
84496.0000	Temperature Corrected
84497.0000	Phencyclidine
84498.0000	HDL/Cholesterol Ratio
84499.0000	Urine Microscopic
84500.0000	Legionella pneumophilia Ab EIA
84501.0000	Cyclic Citrulline Peptide Ab I
84502.0000	Calcium VG Channel Ab, N-Type
84503.0000	Calcium VG Channel Ab, P/Q Typ
84504.0000	Neuronal Ab Type 1 IFA
84505.0000	Purkinje Cell Cytoplasmic Ab T
84506.0000	Amphiphysin Ab
84507.0000	Levetiracetam
84508.0000	Nickel Urine
84509.0000	Nickel Urine 24Hr
84510.0000	Tyrosine
84511.0000	Nickel/Creatinine Ratio
84512.0000	Aminolevulinic Acid Urine 24Hr
84513.0000	N-Telopeptide/Creatinine Ratio
84514.0000	Lysozyme Urine
84515.0000	Microglobulin Beta 2 Urine
84520.0000	Urea Nitrogen
84550.0000	Uric Acid
84581.0000	Uroporphyrins
84582.0000	Urobilinogen Quant Feces
84583.0000	Urobilinogen Semiquant Urine
84584.0000	Porphyrin Uro
84586.0000	Viscosity Fluid
84588.0000	Vitamin B12
84590.0000	Vitamin A
84591.0000	Retinol Binding Protein
84592.0000	Retinoic Acid
84612.0000	PCA I
84613.0000	Glycophorin A
84614.0000	Glycophorin
84615.0000	Xanthurenic Acid
84619.0000	Xylose
84686.0000	Bromide Serum Quant VIS
84719.0000	Cholinesterase plus DN
84720.0000	Cholinesterase Pseudo Serum
84775.0000	Galactose Transferase
84902.0000	Heparin-Protamine Sulfate Tole

84906.0000	Parathion Urine Quant
84930.0000	Appearance
84931.0000	Urine Appearance
84988.0000	Misc Sendout 1
84989.0000	Misc Sendout 2
84990.0000	Misc Sendout 3
84991.0000	Misc Sendout 4
84992.0000	Misc Sendout 5
84993.0000	Misc Sendout 6
84994.0000	Misc Sendout 7
84995.0000	Misc Sendout 8
84996.0000	Misc Sendout 9
84997.0000	Misc Sendout 10
84998.0000	Misc Sendout 11
84999.0000	Hemogram Manual
85000.0000	Bleeding Time Duke
85001.0000	Bleeding Time Template
85002.0000	Acquired Inhibitory Screen
85003.0000	Protein C
85004.0000	Autohemolysis Test
85005.0000	Antithrombin III Assay
85006.0000	Protein S
85007.0000	Coagulation Factor II Assay
85008.0000	Blood Film Examination
85009.0000	Russell's Viper Venom
85010.0000	Blood Smear(s)
85011.0000	Cytoplasmic Neutrophil Ab
85012.0000	D Dimer
85013.0000	Fibrin Monomers
85014.0000	Granulocyte Ab
85015.0000	Hemogram I
85016.0000	Hemogram II
85017.0000	Hemogram III
85018.0000	Hemogram IV
85019.0000	Hemogram V
85020.0000	Red Blood Cell Count
85021.0000	Heparin Aggregation
85022.0000	Platelet Ab
85023.0000	Platelet AB (Drug)
85024.0000	Platelet MAO Inhibition
85025.0000	Protein A Ag
85026.0000	Osmotic fragility
85027.0000	Glycosylated HGB, total
85028.0000	Factor VIII Related Ag
85029.0000	Ristocetin cofactor
85030.0000	White Blood Cell Count
85031.0000	Misc Hem Test 1
85032.0000	Misc Hem Test 2
85033.0000	Misc Hem Test 3
85034.0000	Misc Hem Test 4
85035.0000	Misc Hem Test 5
85036.0000	Instrument HE Setup
85037.0000	DIC Panel
85038.0000	Alpha2 Antiplasmin
85039.0000	Antithrombin 3 Ag
85040.0000	Beta Thromboglobulin
85041.0000	Factor 8 Inhibitor - QN
85042.0000	Factor 8 Related Ag
85043.0000	Lupus Inhibitor (PNP)

## Appendix-B Helpful Hints

85044.0000	Lupus Inhibitor (TTI)
85045.0000	Platelet Neutralization Proced
85046.0000	Tissue Thromboplastin Inhibiti
85047.0000	Plasminogen Activator
85048.0000	Plasminogen Ag
85049.0000	Prekallikrein (Fletcher) Assay
85050.0000	Hemoglobin RBC
85051.0000	Glycohemoglobin Fast Fraction
85052.0000	Glycohemoglobin A(1) C
85053.0000	Glycohemoglobin HbA 1c
85054.0000	Buffy Coat (prep smear&count)
85055.0000	Hematocrit Macro or Micro
85056.0000	Protamine Sulfate
85057.0000	Von Willebrand's Profile
85058.0000	Protein C Cofactor
85059.0000	Activated Clotting Time
85060.0000	Indices Hematologic
85061.0000	Acanthocyte
85062.0000	Anisochromic
85063.0000	Anisocytosis
85064.0000	Atypical Lymphocyte
85065.0000	Auer Rods
85066.0000	Band Neutrophil
85067.0000	Basophilic Stippling
85068.0000	Basophil
85069.0000	Basophil %
85070.0000	Blast
85071.0000	Burr Cells
85072.0000	Corrected WBC
85073.0000	Crenated RBC
85074.0000	Dohle Bodies
85075.0000	Elliptocyte
85076.0000	Eosinophil %
85077.0000	Granulocyte
85078.0000	Granulocyte %
85079.0000	Helmet Cell
85080.0000	Howell Jolly Bodies
85081.0000	Hypersegmented Neutrophil
85082.0000	Hypochromia
85083.0000	INR
85084.0000	Lymphocyte
85085.0000	Lymphocyte %
85086.0000	Macrocytes
85087.0000	MCD
85088.0000	MCH
85089.0000	MCHC
85090.0000	MCV
85091.0000	Megakaryocytes
85092.0000	Microcytes
85093.0000	Monocyte
85094.0000	Monocyte %
85095.0000	MPD
85096.0000	MPV
85097.0000	Myelocyte
85098.0000	Neutrophil
85099.0000	Neutrophil %
85100.0000	Nucleated RBC
85101.0000	Other Leukocytes
85102.0000	Ovalocytes

85103.0000	Pappenheimer
85104.0000	Pelger Huet
85105.0000	Bone Marrow Diff Count
85106.0000	Plasma Cell
85107.0000	Bone Marrow Film Prep
85108.0000	Bone Marrow Stain Romanowski
85109.0000	Platelet Estimate
85110.0000	Bone Marrow Aspiration
85111.0000	Poikilocytosis
85112.0000	Polychromasia
85113.0000	Promyelocyte
85114.0000	RDW
85115.0000	RDW-CV
85116.0000	RDW-SD
85117.0000	Reactive Lymphocyte
85118.0000	Red Blood Cell
85119.0000	Rouleaux
85120.0000	Schistocytes
85121.0000	Sickle Cell
85122.0000	Neutrophil Segmented
85123.0000	Siderocyte
85124.0000	Smudge Cell
85125.0000	Stomatocyte
85126.0000	Target Cell
85127.0000	Teardrop Cell
85128.0000	Toxic Granulation
85129.0000	Spherocyte
85130.0000	Malaria Forms
85131.0000	Malaria Smear
85132.0000	Factor V Leiden-DNA
85133.0000	Prothrombin Fragment
85134.0000	Eosinophil Smear
85135.0000	Erythroblast
85136.0000	Eosinophil Urine
85137.0000	Eosinophil Sputum Smear
85138.0000	Eosinophil Urine Smear
85139.0000	Porcine FVIII C Inhibitor
85140.0000	Hemoglobin & Hematocrit
85141.0000	Hem Specimen
85142.0000	Chronic Lymphoid Leukemia
85143.0000	Huntington's Disease
85144.0000	Vaginal Discharge Panel
85145.0000	Thalassemia Panel
85146.0000	Plasma Mix 1:1
85147.0000	PT 1:1 Mix
85148.0000	Hemogram+Platelet
85149.0000	Hemogram+PLT+Diff
85150.0000	Misc Sendout 12
85151.0000	Misc Sendout 13
85152.0000	Misc Sendout 14
85153.0000	Misc Sendout 15
85154.0000	Misc Sendout 16
85155.0000	Misc Sendout 17
85156.0000	Misc Sendout 18
85157.0000	Misc Sendout 19
85158.0000	Misc Sendout 20
85159.0000	Misc Stain 1
85160.0000	Misc Stain 2
85161.0000	Misc Stain 3

## Appendix-B Helpful Hints

85162.0000	HLA B8
85163.0000	Eosinophil
85164.0000	Cells Other
85165.0000	Capillary Fragility
85166.0000	Chloroacetate Esterase Stain
85167.0000	Neutrophil Seg Fluid
85168.0000	Lymphocyte Fluid
85169.0000	Macrophage
85170.0000	Clot Retraction Qual
85171.0000	RBC Morphology
85172.0000	Euglobulin Lysis Time
85173.0000	Elapsed Time
85174.0000	PT w INR
85175.0000	Clot Lysis Time Whole Blood
85176.0000	von Willebrand's Factor Ag
85177.0000	Ristocetin Platelet Aggl
85178.0000	Plasma multimers
85179.0000	Plasminogen Activator Inhib
85180.0000	Report Hematology
85181.0000	Report Blood Bank
85182.0000	Kaolin Clotting Time
85183.0000	PT Mixing Study
85184.0000	PTT Mixing Study
85185.0000	Platelet Ag 1
85186.0000	Tumor Cells
85187.0000	Platelet Ag 2
85188.0000	Platelet Associated IgA Direct
85189.0000	Platelet Associated IgA Indire
85190.0000	Platelet Associated IgG Direct
85191.0000	Platelet Associated IgG Indire
85192.0000	Platelet Associated IgM Direct
85193.0000	Platelet Associated IgM Indire
85194.0000	Platelet Morphology
85195.0000	D Dimer Quant
85196.0000	MuSK Antibody
85201.0000	Biopsy
85202.0000	Bone Marrow, Flow Cyto, each m
85203.0000	Bone Marrow Aspirate Smear Int
85204.0000	Bone Marrow Core Touch Exam
85205.0000	Cytopath Flds,Brush,Wash w/out
85206.0000	Cytopath Fls,Wash,Brush w/out
85210.0000	Prothrombin Assay
85220.0000	Coagulation Factor V Assay
85223.0000	Mucin Clot
85230.0000	Coagulation Factor VII Assay
85240.0000	Coagulation Factor VIII Assay
85249.0000	Differential Count WBC
85250.0000	Coagulation Factor IX Assay
85251.0000	Factor IX Activity
85252.0000	Factor XI Activity
85260.0000	Coagulation Factor X Assay
85270.0000	Coagulation Factor XI Assay
85280.0000	Coagulation Factor XII Assay
85290.0000	Coagulation Factor XIII Assay
85299.0000	Fibrinogen Ag/Fibrinogen Ratio
85300.0000	Coagulation Factor VIII Inhib
85301.0000	Fibrinogen Ag
85302.0000	Fibrinogen Ab
85303.0000	Protein C Ag

85304.0000	Protein C Ab
85305.0000	Anticoagulant Circulating Scre
85306.0000	Bethesda Inhibitor
85307.0000	Wintrobe ESR
85308.0000	Anticoagulant Circulating Titr
85309.0000	Liquification
85310.0000	Reticulocyte
85311.0000	Viscosity
85312.0000	Methylenetetrahydrofolate Redu
85313.0000	PT Control
85314.0000	PTT Control
85315.0000	Prothrombin (20210) Gene Mut
85316.0000	Reticulin IgA Ab
85317.0000	Reticulin IgG Ab
85320.0000	Thrombin III Ab
85321.0000	Osmotic Fragility,0.50 g/dL Na
85322.0000	Osmotic Fragility,0.60 g/dL Na
85323.0000	Osmotic Fragility,0.65 g/dL Na
85324.0000	Osmotic Fragility,0.75 g/dL Na
85336.0000	Eosinophil #
85345.0000	Clotting Time Lee White
85346.0000	Coagulation Factor Assay Panel
85350.0000	Eosinophil Count
85351.0000	Eosinophil Nasal Smear
85355.0000	Ethanol Gel Test
85370.0000	Fibrinogen Screening Test
85371.0000	Fibrin Degradation Prod Kit
85375.0000	Fibrinogen Chem Quant
85378.0000	Fibrinogen Semiquant
85379.0000	Zetacrit
85390.0000	Fibrinolysis Whole Clot
85394.0000	Von Willebrand Multimer
85395.0000	Fibrinolysis DIL or Plate
85397.0000	Plasmin
85490.0000	Heinz Bodies Smear for
85500.0000	Heinz Bodies Induction Test
85520.0000	Heparin Assay
85532.0000	Iron Stain for Siderocytes
85555.0000	Phosphatase Acid Leukocyte
85560.0000	Platelet Aggregation Substrate
85569.0000	Leukocyte Count
85570.0000	Platelet Count Whole Blood
85571.0000	Platelet Count Plasma
85572.0000	Platelet Count (Phase)
85573.0000	Factor VIII Activity
85574.0000	Factor VII
85576.0000	Factor VII Ab
85577.0000	Factor VII Ag
85581.0000	Blood Film Screen
85582.0000	Beta Galactosidase
85586.0000	Plate Factor III PF III
85587.0000	Reptilase R Test
85588.0000	Hemolysin Acid
85590.0000	Plasminogen
85595.0000	LE Cell Preparation
85596.0000	Activated Protein C Resis
85600.0000	Platelet Adhesivity Salzman
85610.0000	Prothrombin Time
85613.0000	Prothrombin Time+PTT

## Appendix-B Helpful Hints

85615.0000	Prothrombin Consumption
85620.0000	Red Blood Cell Fragility Qual
85621.0000	Platelet Aggreg Spon
85622.0000	Platelet Aggreg ADP 1:8
85623.0000	Platelet Aggreg ADP 1:4
85624.0000	Platelet Aggreg Rist
85625.0000	Platelet Aggreg Epinep
85626.0000	Platelet Aggreg Collagen
85627.0000	Platelet Aggreg Arach
85632.0000	Phosphatase Alkaline Leukocyte
85634.0000	Red Blood Cell Fragility Mech
85636.0000	Red Blood Cell Fragility Quant
85637.0000	Metamyelocyte
85638.0000	Normocytic
85639.0000	Normochromic
85640.0000	Aniocyctosis
85641.0000	Microcytosis
85642.0000	Cryocrit
85643.0000	Aspartate Erythrocyte
85644.0000	Iron Panel Hem
85645.0000	Reticulocyte Count
85646.0000	Natural Killer Cell
85647.0000	Foscarnet
85648.0000	LSA Lymp Subset
85649.0000	Fibrinogen
85650.0000	Reticulocyte Absolute
85651.0000	Fibrinogen Fragments
85652.0000	Polymorphonuclear Neutrophil
85653.0000	Ivy Bleeding Time
85654.0000	Hemoglobin E
85655.0000	Sedimentation Rate
85656.0000	Protein C&S Panel
85657.0000	Hemoglobin NOS
85658.0000	Reticulocyte Index
85659.0000	Kennedy Disease
85660.0000	Sickle Cell Identification
85661.0000	Snovial Cell
85662.0000	Sucrose Water Test
85663.0000	Sezary Cell
85664.0000	Malignant Cell
85665.0000	Sudan Black B Leucocyte
85666.0000	Epstein Barr Ab
85667.0000	Hgb Phenotype
85668.0000	Lining Cell
85669.0000	Epithelial NOS
85670.0000	Thrombin Time
85671.0000	PT-PTT Factor Assay
85672.0000	Hemoglobin C
85674.0000	PT Substitution
85675.0000	Thrombin Titer
85676.0000	Hemoglobin Phenotype
85678.0000	Ventricular Lining Cell
85679.0000	Columnar Epithelial Cell
85680.0000	Specimen Count
85681.0000	Mast Cell
85682.0000	Sperm Morphology
85683.0000	Ma Auto Ab
85684.0000	Ta Auto Ab
85685.0000	Metamyelocytes Absolute

85686.0000	Myelocyte Absolute
85687.0000	Promyelocyte Absolute
85688.0000	Plasma Cell Absolute
85689.0000	Red Blood Cells Nucleated Abso
85690.0000	PTT 1:1 MIX
85691.0000	PTT Mix 1Hr Incubation
85692.0000	PT Ratio
85693.0000	Prolymphocytes
85694.0000	PTT-Adsorbed
85695.0000	Prolymphocytes Percent
85696.0000	Promonocytes
85700.0000	Thromboplastin Screening H P
85725.0000	Thromboplastin Gen Defect ID
85730.0000	Thromboplastin Time Partial
85731.0000	Thromboplastin Time w Sub
86000.0000	HLA B27
86001.0000	B and T Cell Quant Ros
86002.0000	Misc BB Test 1
86003.0000	Misc BB Test 2
86004.0000	Misc BB Test 3
86005.0000	Misc BB Test 4
86006.0000	Misc BB Test 5
86007.0000	Instrument BB Setup
86011.0000	Phagocytic Bactericidal Assay
86045.0000	HLA Tissue Typing
86046.0000	HLA Tissue Typing A,B
86047.0000	HLA Class I II
86048.0000	Homocystein Genetic
86049.0000	4:1 Plasma Mix
86050.0000	Chlamydia Diff
86051.0000	Chlamydia Probe
86052.0000	Factor II
86053.0000	Factor II Ag
86054.0000	Factor II Activity
86055.0000	Factor II Mutation
86056.0000	Factor IX Ag
86057.0000	Factor IX Inh
86058.0000	Factor XI Inh
86059.0000	Factor XIII
86060.0000	Factor XIII Urea
86061.0000	Hepatitis A IgG/IgM
86062.0000	Hepatitis E Ab IgG
86063.0000	Hepatitis E Ab IgM
86064.0000	Neutrophil Cytoplasm Ab
86065.0000	Coccidioides IgM
86066.0000	Cell Marker Panel
86067.0000	Triple Marker Panel
86069.0000	HIV 1 P24
86070.0000	HIV 1 P18
86071.0000	HIV 1 P55
86072.0000	Transglutaminase Tissue Ab
86073.0000	Charcot Marie Tooth
86074.0000	Parvovirus B19 IgG
86076.0000	Parvovirus B19 IgM
86077.0000	Phytohemagglutinin
86078.0000	Protease Gene Mutation
86079.0000	Coxsackie A 10
86080.0000	ABO Cell and Serum Typing
86081.0000	ABO Cell and Rh(D) Typing

## Appendix-B Helpful Hints

86082.0000	ABO Cell Serum and Rh(D)
86083.0000	ABO Hemolysin Test
86084.0000	ABO Cell Typing Slide or Tube
86085.0000	ABO Cell, Serum & Rh Typing on
86086.0000	ABO Serum Typing Tube
86087.0000	ABO Cell & Rh Typing Unit
86088.0000	Rh(D) Typing
86089.0000	Coxsackie A 16
86090.0000	Coxsackie A 2
86091.0000	Coxsackie A 4
86092.0000	Coxsackie A 7
86093.0000	Coxsackie A 9
86094.0000	Coxsackie B 1
86095.0000	Coxsackie B 2
86097.0000	Coxsackie B 3
86098.0000	Coxsackie B 4
86099.0000	Coxsackie B 5
86100.0000	Rh(D) Typing Slide or Tube
86101.0000	Coxsackie B 6
86103.0000	Neutrophil Cytoplasmic Ab IgA
86104.0000	Neutrophil Cytoplasmic Ab IgM
86105.0000	Beryllium Lymphocyte Prolifera
86120.0000	Ag Blood Type
86121.0000	Red Cell Mass
86125.0000	Ag Blood Type w Antihuman
86129.0000	Blood Unit Labeling
86131.0000	Blood Component or Derivative
86132.0000	Blood Compon Deriv Exter Reloc
86133.0000	Donor Blood Collection
86134.0000	Blood Compon Deriv Inter Reloc
86135.0000	Ab Absorption Blood Bank
86136.0000	Donor Autologous Schedul 1st
86137.0000	Warm Autoadsorption ZZAP
86138.0000	Donor Autologous 1 Unit
86139.0000	Ab Detection w Antihuman (1 st
86140.0000	Ab Detect w o antihuman (1 sta
86141.0000	Donor Autologou Sched Add
86142.0000	Ab Detect w o Antihuman (2 sta
86143.0000	Ab Detection w AHG Donor
86144.0000	Ab Detect Antihuman (2 stage)
86145.0000	Ab Detection w/o AHG Donor
86148.0000	Ab Detect Capillary Test
86150.0000	Ab Elution
86152.0000	Ab ID w Antihuman
86153.0000	Ab Identification w AHG Donor
86154.0000	Ab Ident w o Antihuman
86155.0000	Ab Identification w/o Donor
86156.0000	Ab ID Capillary Testing
86158.0000	Ab ID w o Antihuman
86160.0000	Ab ID Antihuman globulin
86161.0000	Ab Titration
86162.0000	HLA B7
86164.0000	Compatibility Crossmatch Salin
86165.0000	HLA Phenotype A B
86166.0000	Compatibility Test Crossmatch
86167.0000	Ab Detection Type & Scr
86168.0000	Ab Detect crossmatch
86169.0000	HBcAb Blood Donor EIA
86170.0000	HIV Ab Blood Donor

86171.0000	HBsAg Blood Donor RIA batch
86172.0000	HBsAg Blood Donor RIA
86173.0000	HBsAg Blood Donor RPHA
86174.0000	HLA B14
86175.0000	HBsAg Blood Donor ELISA batch
86176.0000	HCV Blood Donor EIA batch
86177.0000	HLA Ab Screen
86178.0000	HLA Single Ag Screening
86179.0000	HLA Compatibility Testing
86180.0000	Leukoagglutinin Compatibility
86181.0000	HLA Phenotype A B C Complete
86182.0000	HLA Phenotype A B C initial
86183.0000	Irradiation of Blood Component
86184.0000	Lymphocyte Separation T&B
86185.0000	HLA Typing Tray Production
86186.0000	Lymphocyte Separation fr Blood
86187.0000	Leukoagglutinin Screen
86188.0000	HLA Phenotype Dr (initial)
86189.0000	HLA Phenotype Dr by Lympho
86190.0000	Calibrating Centrifuge
86191.0000	HLA Phenotype A
86192.0000	Checking Centrifuge
86193.0000	HLA Phenotyping Donor
86194.0000	Checking Timer on Centrifuge
86195.0000	Lymphocyte Thawing
86196.0000	Alarm Activation Blood Storage
86197.0000	HLA Lymphocyte Cell Count
86198.0000	Blood Storage Recording Daily
86199.0000	Instrument Thermometer Reading
86200.0000	Blood Storage Chart Change
86201.0000	Reagent RBC Freeze Glycerol
86202.0000	HLA Lymphocyte Cell Ct & Adj
86203.0000	HLA Lymphocyte Viability
86204.0000	Reagent RBC Freeze Liq Nitro
86205.0000	HLA Phenotype B
86206.0000	Hemoglobin Fetal
86207.0000	Reagent RBC Thawing
86208.0000	MaTa Auto Ab
86209.0000	CD3/CD7
86210.0000	DNA Mutation Analysis
86211.0000	Reagent RBC Prep A B O
86212.0000	Myotonic Dystrophy
86213.0000	Reagent RBC Prep Antihuman
86214.0000	Myotonic Dystrophy, DNA Mutati
86215.0000	T Cell Lymphocyte
86216.0000	Reagent RBC Prep Enzyme
86217.0000	Monocyte % Lymphocyte
86219.0000	Coagulation Concentrate Lyo
86220.0000	HTLV I Blood Donor
86221.0000	HLA DQW1
86222.0000	HLA DR(Ia)
86225.0000	DNA Ab
86226.0000	DNA Single Strand Ab
86227.0000	DNA Ab Native
86237.0000	JO-1 Ab
86250.0000	Antihuman Globulin Test
86252.0000	Autologous Unit Invent Blood o
86254.0000	Directed Unit Invent Blood or
86269.0000	Cryoprecipitate Prep (4+)

## Appendix-B Helpful Hints

86270.0000	Platelet Administration
86271.0000	Cryoprecipitate Preparation
86272.0000	Cryoprecipitate Thawing
86273.0000	Blood Products Administration
86275.0000	Frozen Blood Preparation
86276.0000	Frozen Blood Thaw & Deglyc
86277.0000	Rejuvenation of Red Cells
86291.0000	Cardiolipin Ag Prep
86292.0000	Washed RBC for CF HA HAI
86293.0000	Sensitize RBC for CF
86294.0000	Complement Titration
86297.0000	Preparation of Gelatin Water
86299.0000	Hemolysin Titration
86380.0000	Factor V Leiden PCR
86381.0000	Campylobacter Ab
86382.0000	Leukocyte Poor Blood Prep
86383.0000	Leukapheresis Donor
86384.0000	Lymphocyte Storage Liq Nitroge
86385.0000	Plasma Exchange Therapeutic
86386.0000	Thrombocytapheresis
86387.0000	Plasmapheresis First Unit
86388.0000	Platelet Agglutinins
86389.0000	Plasmapheresis add Units
86390.0000	Platelet Concentrate Prep 4+
86391.0000	Platelet Rich Plasma Prep
86392.0000	Platelet Concentrate Prep
86393.0000	Platelet Concentrate Pool
86394.0000	Thrombocyte Leukapheresis Dono
86395.0000	Platelet Freezing DMSO
86396.0000	Platelet Thawing and DE DMSO
86397.0000	Red Cell Exchange
86398.0000	Dithiothreitol Destruction
86399.0000	Prewarm Technique
86400.0000	Thrombocytapheresis Therap
86401.0000	Leukapheresis Therapeutic
86402.0000	Separation of Red Cell Mix
86403.0000	Decontamination of Lymphocyte
86404.0000	Mixed Lymphocyte Culture Setup
86405.0000	Mixed Lymphocyte Culture Pulse
86406.0000	Mitogen Assay Setup
86407.0000	Mitogen Assay Pulse Harvest
86408.0000	Transfusion Outpatient Setup
86409.0000	Lymphocyte Separation fr Sol
86410.0000	Transferase Alanine Amino BLD
86411.0000	Transfusion Outpatient Each
86412.0000	Transfusion Reaction Clerical
86413.0000	BB Specimen
86414.0000	Donor Specimen
86415.0000	Crossmatch Specimen
86416.0000	Sp BB Specimen
86430.0000	Blood Administration
86432.0000	Blood Products Admin Other
86472.0000	Influenza B Victoria Ab
86473.0000	Influenza B Panama Ab
86474.0000	Influenza Profile
86475.0000	Lymphocyte Stimulation NOS
86476.0000	Lymphocyte Stimulation Candida
86477.0000	Nitroblue Tetrazolium Dye
86478.0000	Chemotactic Study

86479.0000	Lymphocyte Stimulation Concan
86480.0000	Lymphocyte Stimulation Phyto
86481.0000	Lymphocyte Stimulation Poke
86482.0000	Surface Marker Alpha Chain
86483.0000	Surface Marker Gamma Chain
86484.0000	Surface Marker B1
86485.0000	Surface Marker B2
86486.0000	Surface Marker BA 1
86489.0000	Surface Marker Delta Chain
86490.0000	Surface Marker Epsilon Chain
86491.0000	Surface Marker Ia
86492.0000	Surface Marker J5 (CALLA)
86493.0000	Surface Marker Kappa Chain
86494.0000	Surface Marker Lambda Chain
86495.0000	Surface Marker Mu Chain
86496.0000	Surface Marker Leu Chain
86497.0000	Surface Marker Mo Chain
86498.0000	Surface Marker My Chain
86499.0000	Surface Marker T3
86500.0000	Surface Marker T4 Leu 3
86501.0000	Surface Marker T4 T8 Ratio
86502.0000	Surface Marker T6
86503.0000	Surface Marker T8 Leu 2
86504.0000	Surface Marker T10
86505.0000	Surface Marker T11
86506.0000	Surface Marker Tac
86507.0000	Surface Marker Leu 7
86508.0000	Surface Marker Leu 11
86509.0000	Surface Marker Leu 15
86510.0000	Surface Marker Mo 1
86511.0000	Surface Marker Mo 2
86512.0000	Surface Marker My 4
86513.0000	Surface Marker My 7
86514.0000	Surface Marker My 8
86515.0000	Surface Marker My 9
86516.0000	Platelet Associated IgG
86517.0000	Neuronal Nuclear Ab
86518.0000	Neuronal Nuclear Ab Panel
86519.0000	Ri Ab IFA
86520.0000	Hu Ab
86521.0000	CD1a
86522.0000	CD1b
86523.0000	CD1c
86524.0000	CD2
86525.0000	CD2R
86526.0000	CD3
86527.0000	CD4
86528.0000	CD5
86529.0000	CD6
86530.0000	CD7
86531.0000	CD8
86532.0000	CD8beta
86533.0000	CD9
86534.0000	CD10
86535.0000	CD11a
86536.0000	CD11b
86537.0000	CD11c
86538.0000	CDw12
86539.0000	CD13

## Appendix-B Helpful Hints

86540.0000	CD14
86541.0000	CD15
86542.0000	CD15s
86543.0000	CD16
86544.0000	CD16b
86545.0000	CDw17
86546.0000	CD18
86547.0000	CD19
86548.0000	CD20
86549.0000	CD21
86550.0000	CD22
86551.0000	CD23
86552.0000	CD24
86553.0000	CD25
86554.0000	CD26
86555.0000	CD27
86556.0000	CD28
86557.0000	CD29
86558.0000	CD30
86559.0000	CD31
86560.0000	CD32
86561.0000	CD33
86562.0000	CD34
86563.0000	CD35
86564.0000	CD36
86565.0000	CD37
86566.0000	CD38
86567.0000	CD39
86568.0000	CD40
86569.0000	CD40L
86570.0000	CD41
86571.0000	CD42a
86572.0000	CD42b
86573.0000	CD42c
86574.0000	CD43
86575.0000	CD44
86576.0000	CD45
86577.0000	CD45R0
86578.0000	CD45RA
86579.0000	CD45RB
86580.0000	CD46
86581.0000	CD47
86582.0000	CD48
86583.0000	CD49a
86584.0000	CD49b
86585.0000	CD49c
86586.0000	CD49d
86587.0000	CD49e
86588.0000	CD49f
86589.0000	CD50
86590.0000	CD51
86591.0000	CD52
86592.0000	CD54
86593.0000	CD55
86594.0000	CD56
86595.0000	CD57
86596.0000	CD58
86597.0000	CD59
86598.0000	CDw60

86599.0000	CD61
86600.0000	CD62E
86601.0000	Cell Suspension from Solid
86602.0000	CD62P
86603.0000	CD63
86604.0000	CD64
86605.0000	CDw65
86606.0000	CD66a
86607.0000	CD66abce
86608.0000	CD66acd
86609.0000	CD66acde
86610.0000	CD66ace
86611.0000	CD66ae
86612.0000	CD66b
86613.0000	CD66be
86614.0000	CD66c
86615.0000	CDce
86616.0000	CD66d
86617.0000	CD66de
86618.0000	CD68
86619.0000	CD69
86620.0000	CD70
86621.0000	CD71
86622.0000	CD72
86623.0000	CD73
86624.0000	CD74
86625.0000	CDw75
86626.0000	CDw76
86627.0000	CD77
86628.0000	CDw78
86629.0000	CD79a
86630.0000	CD79b
86631.0000	CD80
86632.0000	CD81
86633.0000	CD82
86634.0000	CD83
86635.0000	CDw84
86636.0000	CD85
86637.0000	CD86
86638.0000	CD87
86639.0000	CD88
86640.0000	CD89
86641.0000	CDw90
86642.0000	CD91
86643.0000	CDw92
86644.0000	CD93
86645.0000	CD94
86646.0000	CD95
86647.0000	CD96
86648.0000	CD97
86649.0000	CD99
86650.0000	CD99R
86651.0000	CD100
86652.0000	CDw101
86653.0000	CD102
86654.0000	CD103
86655.0000	CD104
86656.0000	CD106
86657.0000	CD107a

## Appendix-B Helpful Hints

86658.0000	CD107b
86659.0000	CDw108
86660.0000	CDw109
86661.0000	CD115
86662.0000	CDw116
86663.0000	CD117
86664.0000	CDw119
86665.0000	CD120a
86666.0000	CD120b
86667.0000	CDw121a
86668.0000	CDw121b
86669.0000	CDw122
86670.0000	Washed RBCs for Transfusion
86671.0000	CD126
86672.0000	CDw127
86673.0000	CDw128
86674.0000	CDw130
86675.0000	Leukocyte Agglutinins
86676.0000	Factor V Mutation
86677.0000	CD8 Percent
86678.0000	CD4/CD8
86679.0000	CD4 Absolute
86680.0000	Leukocyte Common Ag
86681.0000	CD8 Absolute
86682.0000	CD62L
86683.0000	CDw124
86684.0000	Strongyloides Ab
86685.0000	CD19 Percent
86686.0000	CD55/CD59
86687.0000	Ri Ab
86705.0000	Therapeutic Phlebotomy
86706.0000	Isohemagglutin Titer
86707.0000	Blood Salvage
86708.0000	Fetal Screen
86709.0000	Bone Marrow Freezing
86710.0000	Bone Marrow Conc.
86711.0000	Bone Marrow Modification
86712.0000	Rh Typing
86713.0000	Apheresis
86714.0000	Rh Recheck
86715.0000	Immediate Spin Crossmatch
86716.0000	DAT
86717.0000	Splitting of Blood Products
86718.0000	Leukodeplete in Lab
86719.0000	Concentrate
86720.0000	Prepare Frozen Blood
86721.0000	Thawing Frozen Blood
86722.0000	Freezing and Thawing Blood
86723.0000	Enzyme Treated Panel
86724.0000	Antibody Titer
86725.0000	Chloroquine Dissociation
86726.0000	Cold Autoabsorption
86727.0000	Complete Crossmatch Incub
86728.0000	Complete Crossmatch Antiglob
86729.0000	Density Gradient Sep
86730.0000	Dithiothreitol Diff
86731.0000	Neutralization
86732.0000	Mucormycosis
86733.0000	RBC Antigen Type Other

86734.0000	Rh Phenotype
86735.0000	Serum Dilution
86736.0000	Unit Phenotype/Screen
86737.0000	ZZAP Autoabsorption
86738.0000	Mycoplasma
86739.0000	Plateletpheresis
86740.0000	Insulin Like Growth Factor
86741.0000	Protein S AB
86742.0000	Acetylcholine Receptor Ab Pane
86743.0000	Acetylcholine Receptor Binding
86744.0000	Acetylcholinesterase
86745.0000	Protein S Ag
86746.0000	HLA Bw Phenotype
86747.0000	HLA Cw Phenotype
86748.0000	HLA DR Phenotype
86749.0000	HLA DQ Phenotype
86750.0000	HLA A Phenotype
86751.0000	HLA B Phenotype
86765.0000	Enterovirus Ab
86790.0000	Packed Red Blood Sediment
86795.0000	Packed Red Blood Cells
86796.0000	Packed Red Blood (4 or more)
86798.0000	Fetal Hemoglobin Detection F
86799.0000	Red Blood Cells Unit
86800.0000	Fresh Frozen Plasma Prep
86801.0000	Fresh Frozen Plasma (4+)
86802.0000	Red Blood Cells Leukocytes Red
86803.0000	Red Blood Cells Deglycerolized
86804.0000	Platelet Pack Unit
86805.0000	Fresh Frozen Plasma Thawing
86806.0000	Platelets Leukocytes Reduced
86807.0000	Platelet Pheresis Leukocytes R
86808.0000	Granulocyte Pheresis Irradiate
86809.0000	Fresh Frozen Plasma
86810.0000	Separation of Blood Unit
86811.0000	Fresh Frozen 24Hr
86812.0000	Cryoprecipitate Reduced Plasma
86813.0000	Plasma Solvent Detergent Treat
86814.0000	Cryoprecipitate AHF
86815.0000	HLA Typed Blood Product
86816.0000	Platelet Ag 1 Negative Product
86818.0000	Donor Recruitment In Hospital
86819.0000	Donor Recruitment In Comm
86820.0000	Blood Unit Credit Function
86821.0000	Compatibility Crossmatch Plate
86822.0000	Type + Screen Platelets
86823.0000	Neutrophil Ab
86824.0000	Leukocyte Ab
86825.0000	Donor Rejected
86826.0000	CMV Ab Negative Product
86827.0000	Pooling Products
86828.0000	Compatibility non RBC Crossmat
86829.0000	Washing Blood Products
86830.0000	Volume Reduction
86831.0000	Directed Donation
86832.0000	Transfusion
86833.0000	Transfusion Blood Products
86834.0000	Transfusion Leukocytes
86835.0000	Transfusion Procedure NOS

## Appendix-B Helpful Hints

86836.0000	CD3+HLA-DR+ Percent
86837.0000	CD3+HLA-DR+ Absolute
86838.0000	CD 2 Absolute
86839.0000	CD20 Absolute
86840.0000	Phlebotomy Therapeutic
86841.0000	T3 OK Percent
86842.0000	T3 OK Absolute
86843.0000	Cytoplasmic Neutrophil Atypica
86844.0000	Richettsia Panel
86845.0000	Phlebotomy Therapeutic Bedside
86846.0000	Norwalk Agent Ab
86847.0000	Inhibition Neutralization
86848.0000	Microplate Hemagglutination
86849.0000	Microplate Hemagg Tech Serum
86850.0000	Inventory(1)
86851.0000	Red Blood Cells ACD-A
86852.0000	Red Blood Cells Div Unit ACD-A
86853.0000	Red Blood Cells, Irrad ACD-A
86854.0000	Red Blood Cells Leuko Dep ACA-
86855.0000	Whole Blood ACD-A
86856.0000	Red Blood Cells CPD
86857.0000	Red Blood Cells Div Unit CPD
86858.0000	Red Blood Cell Irrad CPD
86859.0000	Red Blood Cell Leuko Dep CDP
86860.0000	Rh Immune Globulin
86861.0000	Squamous Cell CA Ag
86862.0000	C3 Nephritic Factor
86863.0000	BCR/ABL Gene
86864.0000	AutoImmune Ab Panel
86865.0000	Aspergillus Fumigatus Type 1 A
86866.0000	Aspergillus Fumigatus Type 2 A
86867.0000	Cytotoxic Ab Screen
86868.0000	HGE IgG Ab
86869.0000	Quinine Induced Ab
86870.0000	Toxocara Ab
86871.0000	Nabferon
86872.0000	CD138
86873.0000	CD125
86874.0000	CD NOS
86875.0000	IgG Subsets 1
86877.0000	IgG Subsets 4
86878.0000	Human Monocytic Ehrlichiosis A
86879.0000	Human Monocytic Ehrlichiosis A
86880.0000	Burkholderia pseudomallei Ab I
86881.0000	Burkholderia pseudomallei Ab I
86885.0000	Coombs Test
86886.0000	Coombs Test Indirect
86903.0000	Type + Screen Blood
86910.0000	Paternity Blood Typing
86960.0000	Hemochromatosis
86961.0000	Heparin Anti Xa Unfract
86994.0000	BKV ViActive qPCR
86995.0000	Adenovirus Ag,IF
86996.0000	Influenza A Ag,IF
86997.0000	Influenza B Ag,IF
86998.0000	Respiratory Syncytial Ag,IF
86999.0000	Rapid Respiratory Viral Panel
87000.0000	Bacteria Ab Coated
87001.0000	Fecal Leukocytes

87002.0000	Bacterium NOS
87003.0000	Legionella Culture
87004.0000	Bacteroides species
87005.0000	Bartonella species NOS
87006.0000	Bordatella Parapertussis
87007.0000	Bordetella Pertussis
87008.0000	Brucella species
87009.0000	Legionella DFA
87010.0000	Clostridium Difficile Toxin
87011.0000	Rapid Viral Smear
87012.0000	Clostridium Tetani Toxin
87013.0000	Corynebacterium species NOS
87014.0000	Corynebacterium Diphtheriae
87015.0000	Blood Culture Conventional
87016.0000	Escherichia coli Each Sero
87017.0000	Francisella tularensis
87018.0000	Haemophilus Influenzae
87019.0000	Feces Macroscopic Exam
87020.0000	Haemophilus influenzae Type A
87021.0000	Feces Microscopic Exam
87022.0000	Haemophilus Influenzae type B
87023.0000	Feces Pin Worm Examination
87024.0000	Legionella species NOS
87025.0000	Sodium Hydroxide Procedure
87026.0000	Legionella pneumophilia
87027.0000	Strep Grp A Coagglut
87028.0000	Listeria species
87029.0000	Neisseria species NOS
87030.0000	Neisseria Gonorrhoeae
87031.0000	Neisseria Meningitidis
87032.0000	Neisseria Meningitidis Typing
87033.0000	Nocardia species NOS
87034.0000	Proteus OX 2
87035.0000	Strep Grp A Enzyme Immun
87036.0000	Proteus OX 19
87037.0000	Strep Grp A Latex Agglut
87038.0000	Proteus OX K
87039.0000	Wet Prep for Trichomonas
87040.0000	Pseudomonas Pseudomallei
87041.0000	Escherichia Coli 0157
87042.0000	Salmonella Each Grouping
87043.0000	Ziehl Neelsen Stain
87044.0000	Salmonella Paratyphi A
87045.0000	Zinc Sulfate Flotation
87046.0000	Salmonella Paratyphi B
87047.0000	Fluorochrome Type Stains
87048.0000	Salmonella Typhi H
87049.0000	Formalin Ether or Ethyl
87050.0000	Salmonella Typhi O
87051.0000	Iron Hematoxylin Stain
87052.0000	Salmonella Typhi Vi
87053.0000	Kinyoun's Acid Fast Stain
87054.0000	Salmonella Each Typing
87055.0000	Merthiolate Iodine Formalin
87056.0000	Shigella Each Grouping
87057.0000	NALC Procedure
87058.0000	Shigella Each Typing
87059.0000	Staphylococcus species NOS
87060.0000	Streptobacillus species

## Appendix-B Helpful Hints

87061.0000	Trichrome Stain
87062.0000	Streptococcus Group A
87063.0000	Zephiran Trisodium Phosphate
87064.0000	Streptococcus Group B
87065.0000	Viral serology
87066.0000	Streptococcus Group C
87067.0000	India Ink prep
87068.0000	Streptococcus Group D
87069.0000	KOH prep, fungal
87070.0000	Streptococcus Group G
87071.0000	Haemophilus influenza Type B b
87072.0000	Streptococcus Group MG
87073.0000	Neisseria meningitidis by Late
87074.0000	Streptococcus Pneumoniae
87075.0000	Streptococcus species NOS
87076.0000	Vibrio Cholera
87077.0000	Histoplasmosis Ab yeast/mycel
87078.0000	Yersinia Enterocolitica
87079.0000	Chlamydia culture
87080.0000	Yersinia Pestis
87081.0000	Misc Micro Test 1
87082.0000	Yersinia Pseudotuberculosis
87083.0000	Yersinia species NOS
87084.0000	Misc Micro Test 2
87085.0000	Misc Micro Test 3
87086.0000	Misc Micro Test 4
87087.0000	Misc Micro Test 5
87088.0000	Herpes Simplex Encephalitis
87089.0000	Culture GC
87090.0000	Coccidioides Precipitin
87091.0000	Enteroviral Ab
87092.0000	Chlamydia/GC Panel
87093.0000	API Etiology Rapid
87094.0000	Misc Culture 1
87095.0000	Misc Culture 2
87096.0000	Misc Culture 3
87097.0000	Misc Culture 4
87098.0000	Misc Culture 5
87099.0000	Misc Culture 6
87100.0000	Misc Culture 7
87101.0000	InHouse or Send Out Test
87102.0000	Etiology
87103.0000	Specimen Source
87104.0000	Instrument MI Setup
87105.0000	Acyclovir
87106.0000	Almecillin
87107.0000	Anantadine
87108.0000	Amoxicillin+Clavulanate
87109.0000	Ampicillin+Sulbactam
87110.0000	Betalactase
87111.0000	Azithromycin
87112.0000	Bacampicillin
87113.0000	Betalactase ext Spectrum
87114.0000	Butirosin
87115.0000	Cefatrizine
87116.0000	Cefepime
87117.0000	Cefixime
87118.0000	Cefemetazole
87119.0000	Cefodizime

87120.0000	Cefonicid
87121.0000	Cefotetan
87122.0000	Cefpirome
87123.0000	Cefpodoxime
87124.0000	Cefprozil
87125.0000	Ceftazindime
87126.0000	Ceftibuten
87127.0000	Chlortetracycline
87128.0000	Cinoxacin
87129.0000	Clarithromycin
87130.0000	Colistimethate
87131.0000	Colinstin
87132.0000	Cyclacillin
87133.0000	Demeclocycline
87134.0000	Dirithromycin
87135.0000	Erythromycin+Sulfisoxazole
87136.0000	Fleroxacin
87137.0000	Floxacillin
87138.0000	FP-Amycetin
87139.0000	Fusidate
87140.0000	Ganciclovir
87141.0000	Gentamicin HP
87142.0000	Gramicidind
87143.0000	Hetacillin
87144.0000	Imipenem+Cilastatin
87145.0000	Kanamycin HP
87146.0000	Lincomycin
87147.0000	Lomefloxacin
87148.0000	Loracarbef
87149.0000	Lymecycline
87150.0000	Skin Test
87151.0000	Borrelia Burgdorferi
87152.0000	Meropenem
87153.0000	Borrelia Vincentii
87154.0000	TB Tine
87155.0000	Treponema carateum (pinta)
87156.0000	Tazobactam
87157.0000	Treponema pallidum (syphilis)
87158.0000	Neurogenic Viral Panel
87159.0000	Treponema pertenuae (yaws)
87160.0000	Piperacillin+Tazobactam
87161.0000	Leptospira species NOS
87162.0000	Trichinella Ab
87163.0000	Spirochete NOS
87164.0000	Echinococcus Ab
87165.0000	Methacycline
87166.0000	Miocamycin
87167.0000	Mupirocin
87168.0000	Coccidiodes Ab
87169.0000	Coccidiodes Ag
87170.0000	Nalidixate
87171.0000	Ofloxacin
87172.0000	Oleandomycin
87173.0000	Mycoplasma Ab
87174.0000	Oxytetracycline
87175.0000	Chlamydia Pneumoniae
87176.0000	Endotoxin
87177.0000	Chlamydia Psittaci
87178.0000	Pefloxacin

## Appendix-B Helpful Hints

87179.0000	Penicillin G
87180.0000	Penicillin V
87181.0000	Phenethicillin
87182.0000	Chlamydia Trachomatis
87183.0000	Pepemidate
87184.0000	Pepercil+Tazobactam
87185.0000	Pivampicillin
87186.0000	Ristocetin
87187.0000	Chlamydia NOS
87188.0000	Rolitetracycline
87189.0000	Rosoxacin
87190.0000	Roxithromycin
87191.0000	Sparfloxacin
87192.0000	Lymphogranuloma venereum
87193.0000	Streptomycin HP
87194.0000	Sulfadiazine
87195.0000	Sulfisoxazole
87196.0000	Ataxia Profile
87197.0000	Mycoplasma NOS
87198.0000	Talampicillin
87199.0000	Mycoplasma pneumoniae
87200.0000	Teicoplanin
87201.0000	Misc Culture 8
87202.0000	Actinomyces species
87203.0000	Temafloxacin
87204.0000	Temocillin
87205.0000	Tetracycline
87206.0000	Ticarcillin+Cavulanate
87207.0000	Aspergillus species NOS
87208.0000	Helicobacter Pylorii
87209.0000	Trimethoprim+Sulfamethoxazole
87210.0000	Troleandomycin
87211.0000	Viomycin
87212.0000	Aspergillus Fumigatus
87213.0000	Zidovudine
87214.0000	Giardia Ag
87215.0000	Giardia Ab
87216.0000	Giardia Ag EIA
87217.0000	Blastomyces Dermatitidis
87218.0000	Misc Culture 9
87219.0000	Misc Culture 10
87220.0000	Misc Immuno Test 6
87221.0000	Misc Immuno Test 7
87222.0000	Candida Albicans
87223.0000	Misc Immuno Test 8
87224.0000	Misc Immuno Test 9
87225.0000	Misc Immuno Test 10
87226.0000	Streptomycin Synergy Scr
87227.0000	Candida species NOS
87228.0000	IgA Quant Cardioliipin
87229.0000	Congo Red Stain
87230.0000	Acanthamoeba Culture
87231.0000	IgG Quant Cardioliipin
87232.0000	Coccidioides Immitis
87233.0000	IgG Qual Cardioliipin
87234.0000	Adenovirus Ab
87235.0000	Adrenal Ab
87236.0000	Acid Fast Org ID
87237.0000	Cryptococcus Neoformans

87238.0000	Fontana Masson Stain
87239.0000	Brown Hopp Stain
87240.0000	Leptospira Ab
87241.0000	Leptospira Ag
87242.0000	Fungus NOS
87243.0000	Dengue Virus Ab
87244.0000	Voriconazole
87245.0000	Sjorgren Syndrome A
87246.0000	Sjorgren Syndrome B
87247.0000	Histoplasma capsulatum Mycelia
87248.0000	Cytomegalovirus Ag
87249.0000	Chlamydia Trachomatis DNA
87250.0000	Cardiolipin Ab Panel
87251.0000	Cardiolipin Ab
87252.0000	Histoplasma capsulatum Yeast
87253.0000	IgM Quant Cardiolipin
87254.0000	Hepatitis C EIA
87255.0000	IgM Qual Cardiolipin
87256.0000	IgA Qual Cardiolipin
87257.0000	Micropolyspora faeni
87258.0000	Herpes I&II
87259.0000	Sjorgren Syndrome A Quant
87260.0000	Sjorgren Syndrome B Quant
87261.0000	Influenza A&B
87262.0000	Paracoccidioides Braziliensis
87263.0000	Axonal HMSN Eval
87264.0000	Platelet Associated Ab Dir
87265.0000	Platelet Associated Ab Ind
87266.0000	Herpesvirus-8 IgG
87267.0000	Saccharomonospora Viridis
87268.0000	Skin Dermal Epidermal Ab
87269.0000	Skin Intercellular Ab
87270.0000	Oxidase
87271.0000	Pipemidic Acid
87272.0000	Sporotrichum species
87273.0000	Pritstinamycin
87274.0000	Antibiotic NOS
87275.0000	Culture Clostridium Difficile
87276.0000	Cyclospora
87277.0000	Thermoactinomyces Candidus
87278.0000	Thermoactinomyces Candidus Ab
87279.0000	Mycobacterium Gordonea DNA
87280.0000	Mycobacterium Avium DNA
87281.0000	Neisseria Meningitidis A
87282.0000	Thermoactinomyces Vulgaris
87283.0000	Misc Flow Test 1
87284.0000	Misc Flow Test 2
87285.0000	Misc Flow Test 3
87286.0000	Misc Flow Test 4
87287.0000	Misc Flow Test 5
87288.0000	Misc Flow Test 6
87289.0000	Misc Flow Test 7
87290.0000	Misc Flow Test 8
87291.0000	Misc Flow Test 9
87292.0000	Misc Flow Test 10
87293.0000	Staphylococcus Aureus Meth Resis
87294.0000	Streptococcus Group A Scr
87295.0000	Sarcoptes Scabiei
87296.0000	Culture Vibrio

## Appendix-B Helpful Hints

87297.0000	Viral Smear
87298.0000	CH100
87299.0000	Friedreich Ataxia Mutation
87300.0000	Parvovirus AB IgM
87301.0000	Varicella Zoster AB IgM
87302.0000	Amoeba NOS
87303.0000	Cryptosporidium
87304.0000	Extractable Nuclear Ab
87305.0000	Fluoxetine+Norfluoxetine
87306.0000	Diasialyl Ganglioside Ab IgG
87307.0000	Tetrasialyl Ganglioside Ab IgG
87308.0000	Cysticercus
87309.0000	Hepatitis C Superoxidase Eis A
87310.0000	Myelin Associated Glycoprotein
87311.0000	Neural Thread Protein
87312.0000	Hepatitis C NS5 Ab
87313.0000	Echinococcus species
87314.0000	Linezolid
87315.0000	Parainfluenza 2 Ab
87316.0000	Parainfluenza 3 Ab
87317.0000	Entamoeba species NOS
87318.0000	Entamoeba Histolytica
87319.0000	Neisseria Gonorrhoeae DNA
87320.0000	Trypsinogen
87321.0000	Leishmania Braziliensis
87322.0000	Leishmania Braziliensis IgG
87323.0000	Filaria species
87324.0000	Leishmania Braziliensis IgM
87325.0000	Leishmania Donovanii
87326.0000	Leishmania Donovanii IgG
87327.0000	Leishmania Donovanii IgM
87328.0000	Microfilarial Ag
87329.0000	Leishmania Mexicana
87330.0000	Leishmania Mexicana IgG
87331.0000	Leishmania Mexicana IgM
87332.0000	Leishmania Tropicalis
87333.0000	Leishmania species NOS
87334.0000	Leishmania Tropicalis IgG
87335.0000	Leishmania Tropicalis IgM
87336.0000	Basement Membrane Ab Titer
87337.0000	Basement Membrane Zone
87338.0000	Parasite NOS
87339.0000	BCL 2
87340.0000	Intercellular Structure
87341.0000	Intercellular Structure Ab
87342.0000	Intercellular Structure Titer
87343.0000	Plasmodium species (malaria)
87344.0000	Hevea Brazil
87345.0000	Melas MT DNA Mutation
87346.0000	Hereditary Familial Hemochroma
87347.0000	HEF CYS 282 TRY Mutation
87348.0000	Schistosoma species
87349.0000	HEF HIS 63 ASP Mutation
87350.0000	PR Gene Mutation
87351.0000	Puumala Virus IgG
87352.0000	Puumala Virus IgM
87353.0000	Toxocara species
87354.0000	Prostrate Cancer Risk
87355.0000	Toxoplasma Gondii

87356.0000	RT Gene Mutation
87357.0000	Celiac Antibody Panel
87358.0000	Trichinella species NOS
87359.0000	Sulfatide ELISA IgM
87360.0000	Trypanosoma Cruzi
87361.0000	Sulfatide ELISA IgG
87362.0000	Trypanosoma Rhodesiense
87363.0000	X25
87364.0000	Trypanosoma Gambiense
87365.0000	X25 Allele1
87366.0000	Visceral Larval Migrants
87367.0000	X25 Allele2
87368.0000	Thyroid Stimulating Hormone Ab
87369.0000	Islet Cell Ag
87370.0000	Islet Cell Ab
87371.0000	Acanthamoeba Stain
87372.0000	Strongyloides Ab IgG
87373.0000	Cystic Fibrosis
87374.0000	Reticulin Ab
87375.0000	Smooth Muscle Ab
87376.0000	Arbovirus
87377.0000	Culture Varicella Zoster
87378.0000	Coxiella Burnetti
87379.0000	Herpes Virus VI
87380.0000	Rickettsia Akari
87381.0000	Influenza B Guangdong
87382.0000	Rickettsia NOS
87383.0000	Influenza A Taiwan
87384.0000	Rickettsia Rickettsii
87385.0000	Influenza B Beijing
87386.0000	Rickettsia typhi (mooseri)
87387.0000	Intrinsic Factor Ag
87388.0000	Rickettsia prowazekii
87389.0000	Pneumocystis
87390.0000	Rickettsia tsutsugamushi
87391.0000	Precipitating Ab
87392.0000	Salmonella C H
87393.0000	Salmonella C O
87394.0000	Salmonella D O
87395.0000	Stain
87396.0000	Paraneoplastic Neuronal Ab
87397.0000	Hepatitis B e Ag
87398.0000	Hepatitis B e Ab
87399.0000	Endocrine Neoplasia Type 2 Mul
87400.0000	Cryptococcus Ag
87401.0000	Cryptococcus Ab
87402.0000	Adenovirus
87403.0000	Pregnancy Test
87404.0000	California Encephalitis
87405.0000	Hepatitis C Neutral
87406.0000	Colorado Tick Fever Virus
87407.0000	Viro Specimen
87408.0000	Corona Virus
87409.0000	Myco Specimen
87410.0000	Coxsackie A
87411.0000	Parasite Specimen
87412.0000	Coxsackie B
87413.0000	Rubeola Ab
87414.0000	Cytomegalovirus

## Appendix-B Helpful Hints

87415.0000	Rubeola Ag
87416.0000	Dengue Fever Virus
87417.0000	Rubeola Ab Quant
87418.0000	Eastern Equine Encephalitis
87419.0000	X*Hepatitis C RNA
87420.0000	Echovirus
87421.0000	Viral Load
87422.0000	Epstein Barr Capsid Ag
87423.0000	HIV Viral Load Ultra
87424.0000	Epstein Barr Early Ag
87425.0000	VRE Culture
87426.0000	Epstein Barr Nuclear Ag
87427.0000	Epstein Barr
87428.0000	Hepatitis A
87429.0000	Epstein Barr Ag
87430.0000	Hepatitis B Core
87431.0000	Diasialyl Ganglioside Ab
87432.0000	Hepatitis B Delta
87433.0000	Diasialyl Ganglioside Ag
87434.0000	Hepatitis B e
87435.0000	Myeloperoxidase Ab
87436.0000	Hepatitis B Surface
87437.0000	Hepatitis C
87438.0000	Herpes simplex I
87439.0000	Hepatitis C Ag
87440.0000	Herpes simplex II
87441.0000	Myeloperoxidase Ag
87442.0000	Herpes zoster
87443.0000	Herpesvirus NOS
87444.0000	HTLV I
87445.0000	Chancroid Culture
87446.0000	HTLV II
87447.0000	Parvovirus B19 Ag
87448.0000	HIV
87449.0000	Phosphatidylserine Ab
87450.0000	Influenza A
87451.0000	Phosphatidylserine Ag
87452.0000	Influenza B
87453.0000	HEp 2 Cells ANA
87454.0000	Influenza C
87455.0000	Parvovirus B19 Ab
87456.0000	Japanese B Encephalitis
87457.0000	Mouse Kidney ANA
87458.0000	Lymphocytic Choriomeningitis
87459.0000	Mysoline Ab
87460.0000	Mumps Soluble
87461.0000	Mysoline Ag
87462.0000	Mumps Viral
87463.0000	Sarcolemma Ab
87464.0000	Papillomavirus
87465.0000	Sarcolemma Ag
87466.0000	Parainfluenza
87467.0000	Skeletal Muscle Ab
87468.0000	Poliomyelitis
87469.0000	Skeletal Muscle Ag
87470.0000	Q Fever Group
87471.0000	Arbovirus CALIF Titer
87472.0000	Reovirus
87473.0000	Arbovirus EEE Titer

87474.0000	Respiratory Syncytial Virus
87475.0000	Arbovirus SLE Titer
87476.0000	Rhinovirus
87477.0000	Arbovirus WEE Titer
87478.0000	Rotavirus
87479.0000	Clostridium Difficile Ag
87480.0000	Rubella
87481.0000	Clostridium Difficile Ab
87482.0000	Rubeola
87483.0000	Candida Complement Titer
87484.0000	St Louis Equine Encephalitis
87485.0000	Parvovirus Ab
87486.0000	Vaccinia
87487.0000	Histoplasmin Ag
87488.0000	Varicella Zoster
87489.0000	Histoplasmin Ab
87490.0000	Venezuelan Equine Encephalitis
87491.0000	Histoplasmin Titer
87492.0000	Virus NOS
87493.0000	HLA PRA
87494.0000	Yellow Fever
87495.0000	Influenza A Bangkok
87496.0000	Western Equine Encephalitis
87497.0000	Influenza A England
87498.0000	Influenza A Phillipine
87499.0000	Influenza A Singapore
87500.0000	Intrinsic Factor Ab
87501.0000	Bacteriology
87502.0000	Mycobacteriology
87503.0000	Mycology
87504.0000	Virology
87505.0000	Parasitology
87506.0000	Micro Misc
87507.0000	Thyperoxidase Ab
87508.0000	Aerobic Culture
87509.0000	Culture Fungus
87510.0000	Culture Chlamydia/GC
87511.0000	Blood Culture Manual
87512.0000	Blood Culture Automated
87513.0000	Gram Stain Blood Culture
87514.0000	Organism Identification Auto
87515.0000	Biochemical Test Automated
87516.0000	Organism ID MIC Automated
87517.0000	Body Fluid Culture Automated
87518.0000	Susceptibility MIC Automated
87519.0000	Brucella Abortus
87520.0000	Urine Bacterial Screen Automat
87521.0000	Org ID & Susceptibility Auto
87522.0000	Yeast ID Automated
87523.0000	Salmonella E
87524.0000	Bacteria Ag
87525.0000	Culture Mycobacteria
87526.0000	Culture Virus
87527.0000	Shell Vial (Spin)
87528.0000	Culture Aerobic&Anerobic
87529.0000	Culture Aerobic Routine
87530.0000	Accession Specimen Bac Cul
87531.0000	Planting 1 Pc Media Bact
87532.0000	Planting 2 Pc Media Bact

## Appendix-B Helpful Hints

87533.0000	Planting 3 Pc Media Bact
87534.0000	Planting 4 Pc Media Bact
87535.0000	Planting 5 Pc Media Bact
87536.0000	Planting 6 Pc Media Bact
87537.0000	Planting 7 Pc Media Bact
87538.0000	Planting 8 Pc Media Bact
87539.0000	Culture Campylobacter
87540.0000	Planting each add Pc Bact
87541.0000	Culture Verotoxin E. Coli
87542.0000	Reading Bact Culture Sterile
87543.0000	Culture Yersinia
87544.0000	Reading Bact Cult Non sterile
87545.0000	Culture Group B Strep
87546.0000	Reading Bact Culture Any Spec
87547.0000	Specimen Preparation
87548.0000	Reading Bact Culture 2+ Org
87548.7038	Reading Bact Culture Sterile~M
87549.0000	Amebiasis
87550.0000	Recording & Reporting Bact
87551.0000	Ehrlichia Chaffeensi
87552.0000	Babesia Microti
87553.0000	Urine Culture
87554.0000	CSF Culture
87555.0000	Blood Culture
87556.0000	Wound Culture
87557.0000	Stool Culture
87558.0000	Nose/Throat Culture
87559.0000	Misc Culture
87560.0000	Environmental Culture
87561.0000	Pertussis Culture
87562.0000	Thermoactinomyces Viridis Ab
87563.0000	Q Fever Phase 1 Ab
87564.0000	Q Fever Phase 2 Ab
87565.0000	Bacteriology Susc
87566.0000	Culture HIV 1 Qual
87567.0000	Cefdinir
87568.0000	Mycobacterium Susc
87569.0000	Coccidioides IgG
87570.0000	Bacteriology Organism
87571.0000	HIV Genotype PCR
87572.0000	Hepatitis C Genotype PCR
87573.0000	Niemann Pick Type C
87574.0000	Tay Sach Dis Mutation
87575.0000	JC Virus
87576.0000	Parasite Organism
87577.0000	JC Virus Ab
87578.0000	Fungal Organism
87579.0000	Neural Tube Defect
87580.0000	Down Syndrome
87581.0000	Trisomy
87582.0000	Trisomy 18
87583.0000	Acid Fast Quantity
87584.0000	Bartonella quintana Ab IgM
87585.0000	Platelet Associated IgM
87586.0000	Lymphoma Phenotype
87587.0000	Fetoprotein Alpha Maternal
87588.0000	Acetylcholine Modulating Ab
87589.0000	Mycobacterium Organism
87590.0000	Viral Agent

87591.0000	Myocardium Ab
87592.0000	Neutrophil Oxidative Burst
87593.0000	Salmonella O
87594.0000	Culture Skin
87595.0000	Salmonella O Grp D
87596.0000	Salmonella Flg d
87597.0000	Salmonella Flg a
87598.0000	Salmonella Flg b
87599.0000	Salmonella O Grp A
87600.0000	Inoculation Blood culture
87601.0000	Salmonella O Grp B
87602.0000	Histoplasma Ag
87603.0000	Weil Felix Ag
87604.0000	Subculture Blood Culture
87605.0000	AFB Smear
87606.0000	HIV 1 Genotype (PRI)
87607.0000	HIV 1 Genotype (RTI)
87608.0000	Calcium VG Channel Ab
87609.0000	West Nile IgG
87610.0000	West Nile IgM
87611.0000	Culture HS Virus
87612.0000	Autologous Collection
87613.0000	SGPG Ag
87614.0000	West Nile Ab
87615.0000	ECHO 11
87616.0000	ECHO 30
87617.0000	ECHO 4
87618.0000	ECHO 6
87619.0000	ECHO 7
87620.0000	ECHO 9
87621.0000	Chlamydia Pneumoniae IgG
87622.0000	Chlamydia Pneumoniae IgA
87623.0000	Chlamydia Pneumoniae IgM
87624.0000	Chlamydia Trachomatis IgG
87625.0000	Chlamydia Trachomatis IgA
87626.0000	Chlamydia Trachomatis IgM
87627.0000	Chlamydia Psittaci IgG
87628.0000	Chlamydia Psittaci IgA
87629.0000	Chlamydia Psittaci IgM
87630.0000	HU Ab
87631.0000	HU Ab Western Blot
87632.0000	Aspergillus Niger
87633.0000	Aspergillus Flavus
87634.0000	Neisseria Meningitis B
87635.0000	Neisseria Meningitis C
87636.0000	Neisseria Meningitis Y
87637.0000	Neisseria Meningitis W135
87638.0000	Coxiella Burnetti 1 IgG
87639.0000	CD3-CD19+ Percent
87640.0000	Aspergillus Flavus Ab
87641.0000	Aspergillus Fumigatus Type 6 A
87642.0000	Thermoactinomyces Sacchri Ab
87643.0000	Human Papillomavirus
87644.0000	Diasialyl Ganglioside Ab IgM
87645.0000	Aspergillus Ab IgA
87646.0000	Aspergillus Ab IgG
87647.0000	Aspergillus Ab IgM
87648.0000	Brucella Brugneri
87649.0000	Brucella Interpretation

## Appendix-B Helpful Hints

87650.0000	Organism Identification ID Kit
87651.0000	Brucella Canis
87652.0000	Burcella Pertussis
87653.0000	Candida Species Ag
87654.0000	CAR Associated Retinopathy Ab
87655.0000	Endomysial Ab IgA
87656.0000	Cysticerus Ab
87657.0000	Interferon Beta Ab IgG
87658.0000	PMP22 Gene Mutation
87659.0000	Sporotrichosis
87660.0000	Sporotrichosis Ab
87661.0000	Staphlococcus Aureus Toxin Ab
87662.0000	Staphlococcus Aureus Toxin 1 A
87663.0000	TSH Immunoglobulin Panel
87664.0000	TSH Immunoglobulin Index
87665.0000	Cytoplasmic Neutrophil Pattern
87666.0000	Culture Skin,Hair,Nails
87667.0000	Fungal Identification
87668.0000	Fungal ID Mold
87669.0000	Fungal ID Yeast
87670.0000	Bacteriology Organism ID
87671.0000	Bacteriology Organism Aerobic
87672.0000	Bacteriology Organism Anaerobi
87673.0000	DNA Probe Culture ID
87674.0000	Clostridium Difficile
87675.0000	Concentration Infectious Agent
87676.0000	Gatifloxacin
87677.0000	Moxifloxacin
87678.0000	Saccharomyces cerevisiae Ab Ig
87679.0000	Saccharomyces cerevisiae Ab Ig
87680.0000	Babesia Ab, Total
87681.0000	Babesia microti IgG
87682.0000	Babesia microti IgM
87683.0000	Babesia microti DNA PCR
87684.0000	SCA 7 Allele 1
87685.0000	SCA 7 Allele 2
87686.0000	HIV 1 Ab GP160
87687.0000	HIV 1 Ab GP120
87688.0000	HIV 1 Ab P66
87689.0000	HIV 1 Ab P65
87690.0000	HIV 1 Ab P51
87691.0000	HIV 1 Ab GP41
87692.0000	HIV 1 Ab P40
87693.0000	HIV 1 Ab P31
87694.0000	HIV 1 Ab P17
87695.0000	Arthropod Identification
87696.0000	Tick Identification
87697.0000	Cockroach Identification
87698.0000	Epstein Barr Nuclear Ab
87700.0000	Acridine Orange Stain
87701.0000	Digestion Decontam of Spec
87702.0000	Agglutination Slide
87703.0000	Anaerobic Jar Flushing
87704.0000	Autoclave Control Attest
87705.0000	Bactigen for Group B Strep
87706.0000	Biochemical Test Rapid
87707.0000	Bactigen Meningitis Panel
87708.0000	Conventional Micro Tube Test
87710.0000	Dark field Examination

87711.0000	Direct FA
87712.0000	Direct Fluorescent Ab
87713.0000	Disposal of Contaminated Matrl
87714.0000	Freezing Organisms
87715.0000	Gas Chromatography 1st inject
87716.0000	Gas Chromatography subs inj
87717.0000	Gas Pak or Biobag
87718.0000	Gram Stain Direct from Spec
87719.0000	Colony Count
87720.0000	Gram Stain Organism
87721.0000	Calcofluor White Stain
87722.0000	Autoclave Control Killet
87723.0000	Colony Count Fungal
87724.0000	Media Preparation
87725.0000	Monitoring Incubator CO2
87726.0000	Phadebac
87728.0000	Phenylalanine Blood Guthrie
87730.0000	Single Disc for Identification
87732.0000	Autoclave Control Spordex
87734.0000	Streptex
87736.0000	Subculture PBT
87737.0000	Strep Grp B Latex Agglut
87738.0000	Strep Grp B Enzyme Immun
87740.0000	Giardia Lamblia
87741.0000	Strongyloides
87742.0000	XV Strips for Haemophilus
87744.0000	Washing Bench Top
87745.0000	Biochemical ID
87746.0000	Abbreviated ID
87747.0000	Species ID
87748.0000	Species Typing
87749.0000	Biochemical ID + Sero
87750.0000	Organism ID MIC Combo Manual
87751.0000	Cellophane Tape Prep
87752.0000	Probe Test
87753.0000	Non-Immunologic ID
87754.0000	Gram Stain
87755.0000	Calcofluor Prep
87756.0000	Acid Fast Stain
87757.0000	Tzanck Prep
87758.0000	Giemsa Stain
87759.0000	Wet Prep w/o Iodine
87760.0000	Nucleic Acid Probe
87761.0000	Nucleic Acid Amplification
87762.0000	Darkfield
87763.0000	Agar Dilution
87764.0000	Diffusion Test
87765.0000	Disk Diffusion
87766.0000	Microtiter
87767.0000	Macrotube
87768.0000	Microtiter MBC
87769.0000	Macrotube MBC
87770.0000	Bactericidal Serum
87771.0000	Nuclear Molecular Diag
87772.0000	Enzymatic Digestion
87773.0000	Interpretation and Report
87799.0000	DNA Probe
87800.0000	Accession Specimen Mycol Cult
87801.0000	Planting 1 Pc Media Mycol

## Appendix-B Helpful Hints

87802.0000	Planting 2 Pc Media Mycol
87803.0000	Planting 3 Pc Media Mycol
87804.0000	Planting 4 Pc Media Mycol
87805.0000	Planting each add Pc Mycol
87806.0000	Culture Urea Plasma
87810.0000	Reading Mycology Culture
87820.0000	Recording & Reporting Mycol
87830.0000	Germ Tube
87832.0000	Mycology Slide Test
87834.0000	Yeast Carbohydrate Assimil
87836.0000	Yeast Morphology Agar
87850.0000	Accession Specimen Mycob
87851.0000	Planting 1 Pc Media Mycobact
87852.0000	Planting 2 Pc Media Myco
87853.0000	Planting 3 Pc Media Myco
87854.0000	Planting 4 Pc Media Myco
87856.0000	Planting each add Pc Myco
87860.0000	Reading Mycobact Culture
87870.0000	Recording & Reporting Mycobac
87885.0000	Mycobacteriology Stains
87886.0000	Cryptosporidium Spec Stain
87888.0000	Arylsulfatase 3 Day
87889.0000	TCH Sensitivity for Microact
87890.0000	Blastomyces Ab
87891.0000	Catalase
87892.0000	Sodium Chloride Tolerance
87893.0000	Niacin Test
87894.0000	Nitrate Reduction
87895.0000	Photochromogenicity Test
87896.0000	Growth on MacConkey Agar
87897.0000	Tellurite Reduction
87898.0000	Tween Hydrolysis
87899.0000	Susceptibility Test Mycobact
87900.0000	Accession Specimen Parasitic E
87901.0000	Candida Species Ab
87902.0000	Fetoprotein Alpha Tumor
87903.0000	Micorsporidia Spore
87904.0000	GM1 IgA
87905.0000	Myelin Ab
87906.0000	Sulfatide Ab
87907.0000	p53 Tumor Suppressor Gene
87910.0000	Recording & Reporting Parasit
87920.0000	Concentration of Specimen Para
87925.0000	Parasitology Examination
87930.0000	Parasitology Stain
87942.0000	Extraction of Organism Ag
87943.0000	TB Specimen
87944.0000	Heat inactivation
87945.0000	Sputum Liquification
87946.0000	Tissue Grinding
87947.0000	Culture Herpes
87948.0000	Anaerobe Suscept Test Disk Elu
87949.0000	Culture Mycoplasma Pneumoniae
87950.0000	Antimicrobial Assay
87951.0000	Antimicrobial Assay tube
87952.0000	Bactericidal Activity
87953.0000	Hepatitis C Genotyping
87954.0000	Sensitivity Testing or MIC
87956.0000	Sensitivity Testing Broth

87958.0000	Sensitivity Testing Kirby
87960.0000	Accession Specimen for Viral C
87964.0000	Parvovirus B19
87965.0000	Recording & Reporting Viral Cu
87966.0000	Media Prep Basal Medium
87967.0000	Media Prep Each Additive
87968.0000	Media Prep Basal Medium (500m
87969.0000	Virus Specimen Collection
87970.0000	Tzanck Test Viral Inclusions
87971.0000	Shell Vial Technique
87972.0000	Decontamination of Specimen
87973.0000	Viral Neutralization
87974.0000	Tissue Culture Feeding
87975.0000	Cytomegalovirus Culture
87976.0000	Tissue Culture Passage
87978.0000	Tissue Culture Reading
87980.0000	Tissue Culture Specimen
87982.0000	Tissue Culture Viral
87984.0000	Clostridium Difficile Toxin A
87985.0000	Report Microbiology
87986.0000	Fluconazole MIC
87987.0000	Thermocatinomyces Sacchari
87988.0000	Chlamydia T + Neisseria G DNA
87989.0000	Thermoactinomyces Vulgaris Ab
87990.0000	Anerobe Identification
87991.0000	Micro Smear Prep
87992.0000	Micro Serology
87993.0000	Micro Bacteriology Culture
87994.0000	Micro Mycology Culture
87995.0000	Micro Mycobacterium Culture
87996.0000	Micro Virology Culture
87997.0000	Micro Non Billable
87998.0000	Micro Anerobic Culture
87999.0000	Micro Misc Culture
88000.0000	SP Specimen
88001.0000	Alcoholic Hyaline Stain G3
88002.0000	Amido Black Hemoglobin Stain
88003.0000	Amyloid Stain Group1
88004.0000	Argentaffin Stain
88005.0000	Bielschowsky Stain Group 6
88006.0000	Bile Stain or Gmelin Stain
88007.0000	Bodian Stain Group2
88008.0000	Bowie Juxt Glom Stain
88009.0000	Calcium Stain Group1
88010.0000	Cone and Penfield Stain
88011.0000	Connective Tissue Masson
88012.0000	Crystal Violet Stain
88013.0000	DNA Feulgin Stain
88014.0000	Elastic Tissue Verhoeff Stain
88015.0000	Enzymes Stain Group3
88016.0000	Fat Neutral Nile Blue
88017.0000	Fatty Acid Fischler Stain
88018.0000	Acid Fast Incl Auromine O
88019.0000	Acridine Orange Fungus Stain
88020.0000	Fungus Gridley Stain
88021.0000	Fungus Silver Stain Group3
88022.0000	Giemsa Stain Group1
88023.0000	Glees and Marsland Stain
88024.0000	Glycogen Stain Group2

## Appendix-B Helpful Hints

88025.0000	Gram Stain Group2
88026.0000	Halls Stain Group1 Anat
88027.0000	Hemosiderin Stain Group1
88028.0000	Holmes Stain Group4
88029.0000	Holzer Stain Group4
88030.0000	Mucin Mucicrum PAS or Alcian
88031.0000	Russell MOVAT Mod
88032.0000	Lendrums Phloxrin Tartrazine S
88033.0000	Lipofuscin Stain Group2
88034.0000	Manns Stain Group2
88035.0000	Masson Trichrome Stain
88036.0000	Mast Cells Stain Group1
88037.0000	Melanin Stain Group
88038.0000	PAS ALCIAN BLUE
88039.0000	Myelin Heidenhain Stain
88040.0000	Autopsy Attendant
88041.0000	Myelin Luxol Fast Blue Stain
88042.0000	Myelin Marchi Stain
88043.0000	PTAH Stain Group1
88044.0000	PAS STAIN
88045.0000	Initial Handling Clerical Aut
88046.0000	Oil Red O Stain Group2
88047.0000	Orcein Giemsa Stain Group3
88048.0000	Spirochete Silver Stain
88049.0000	PTAH Neuropath Stain Group2
88050.0000	Sections Paraffin Aut compl
88051.0000	Reticulin Stain Group3
88052.0000	Romanes Stain Group3
88053.0000	Saffron Stain Group2
88054.0000	Unna Pappenheim Stain Group1
88055.0000	Sections Paraffin Aut Slide
88056.0000	CY Specimen
88057.0000	EM Specimen
88058.0000	Immunoperoxidase Stain
88059.0000	Immunofluorescence Stain
88060.0000	Sections Paraffin Aut (Cut)
88061.0000	Misc AP Test 1
88062.0000	Misc AP Test 2
88063.0000	Misc AP Test 3
88064.0000	Misc AP Test 4
88065.0000	Misc AP Test 5
88066.0000	Instrument AP Setup
88067.0000	Unstained Slide
88068.0000	Calreticulin
88069.0000	Cytokeratin 2D
88070.0000	Tissue Culture
88071.0000	Consultation and Report
88072.0000	Picornavirus
88073.0000	Filarial Ab
88074.0000	Leishmania Donovanii Ab
88075.0000	Phosphoserine
88076.0000	Smith Ab
88077.0000	HLA A3
88078.0000	English Plantain
88079.0000	English Plantain IgE
88080.0000	Agar Dilution E Test
88081.0000	HFE C282Y
88082.0000	HFE H63D
88083.0000	Ribonucleoprotein Ab

88084.0000	Polio Type 1 Ab
88085.0000	Polio Type 1 Ag
88086.0000	Polio Type 2 Ag
88087.0000	Polio Type 2 Ab
88088.0000	Polio Type 3 Ab
88089.0000	Polio Type 3 Ag
88090.0000	Latex IgE
88125.0000	Forensic Cytopathology
88150.0000	PAP Smear
88151.0000	PAP Thin Prep Cyto Interp
88152.0000	PAP Thin Prep Phy Interp
88160.0000	Hormonal Evaluation Cytology
88161.0000	Sperm Isolation
88190.0000	Slides Cytology Preparation
88191.0000	Smear Cyto Prep Pick&Smear
88192.0000	Smear and or Cell Block Cytol
88200.0000	Electron Micro Preparation
88202.0000	Electron Micro Embedding
88204.0000	Electron Micro Scan and Photo
88206.0000	Electron Micro Thick Section
88208.0000	Electron Micro Thin Section
88230.0000	Chromosome Karyotype Amni Comp
88231.0000	Chromosome Karyotype Amniot
88232.0000	Chromosome Karyotype Per Blood
88233.0000	Chromosome Karyotype Peri Bl
88234.0000	Chromosome Karyotype BM Leuk
88235.0000	Chromosome Karyotype Bone Mar
88236.0000	Chromosome Karyotype Tiss 1st
88237.0000	Chromosome Karyotype Tissue
88238.0000	Chromosome Karyotype Tiss Com
88239.0000	Chromosome Karyotype AST
88240.0000	Fine Needle Aspirate
88241.0000	Chromosome Karyotype
88244.0000	PAI Genetics
88245.0000	Sex Chromatin Smears
88257.0000	Autoradiography
88282.0000	Cystine Urine
88300.0000	Stain Group1
88305.0000	Stain Group2
88306.0000	Brown & Brenin Stain
88307.0000	C Schenk Stain
88308.0000	Iron Stain Colloidal
88309.0000	Fite Stain
88310.0000	Stain Group3
88311.0000	Mallory Heidenhaim Stain
88312.0000	Mallory Collagen Stain
88313.0000	Methyl Green Stain
88314.0000	Maxwell Stain
88315.0000	Stain Group4
88316.0000	Papanicolaou Stain
88317.0000	Wilson Ezrin Stain
88318.0000	Pentachrome Movat Stain
88319.0000	Mucicarmine Stain
88320.0000	Stain Group5
88321.0000	Warthin Starry Stain
88322.0000	Myeloperoxidase Stain
88325.0000	Stain Group6
88326.0000	Stain Only H & E
88327.0000	Steiner Stain

## Appendix-B Helpful Hints

88328.0000	B72.3
88329.0000	Ber-Ep4
88330.0000	GCDFP-15
88331.0000	Properdin
88332.0000	Dieterle Stain
88333.0000	Steiner&Steiner
88343.0000	Case Review Surg or Autopsy
88344.0000	Case Review Cytology
88350.0000	Frozen Section Rush Dx
88353.0000	Frozen Section Add Rush Block
88354.0000	Frozen Section Not Rush
88355.0000	Frozen Section Add Section
88356.0000	Body Brushing
88357.0000	Body Fluid Exam
88358.0000	Washing Fluid Exam
88360.0000	Frozen Section Add Cut
88363.0000	Sections Plastic Complete
88365.0000	Sections Paraffin SP Cut
88366.0000	Thyroid Transcription Factor
88375.0000	Tissue Processing Plastic Emb
88410.0000	Chromosome Karotype Stimulated
88420.0000	Decalcification Tissue
88430.0000	Photographs Gross Specimen
88435.0000	Photography Print Enlarge
88493.0000	Temperature Patient
88499.0000	Scanning EM Analysis
88500.0000	Gross Surgical Description Lev
88501.0000	Gross Surgical Tech Assistance
88502.0000	Tissue Preparation
88503.0000	Gross & Microscopic Pathology
88504.0000	Interpretation CytoPath
88505.0000	Cytopathology Procedures NOS
88506.0000	Buccal Smear
88507.0000	Consultation Referred Slides
88508.0000	Consultation Referred Specimen
88509.0000	Stain Cytology Extended
88510.0000	Pathology Surgery Consult
88511.0000	Gross & Microscopic Pathology
88512.0000	Gross & Microscopic Pathology
88513.0000	Gross & Microscopic Pathology
88514.0000	Gross & Microscopic Pathology
88515.0000	Surgical Pathology Procedures
88516.0000	Homogenization Tissue
88517.0000	Tissue Preparation Drug
88518.0000	Surgical Pathology Level II
88520.0000	Surgical Path Init Handling
88522.0000	Transcription File Search Retr
88524.0000	Transcription Report Prep only
88526.0000	Transcription Report Disp
88528.0000	Sections Paraffin Surg Path
88529.0000	Autopsy Gross Only
88530.0000	Stain H&E Automated
88531.0000	Autopsy Complete w/o Brain
88532.0000	Autopsy Complete with Brain
88533.0000	Autopsy Complete with Brain/CN
88534.0000	Autopsy Limited
88535.0000	Sections Diagnostic Thick
88536.0000	Sections Thin EM
88537.0000	Fine Needle Consult

88538.0000	Cytogenetic
88539.0000	Specimen
88540.0000	History
88541.0000	Clinical History
88542.0000	Brief Clinical History
88543.0000	Diagnosis
88544.0000	Diagnosis PreOp
88545.0000	Findings
88546.0000	Findings PreOp
88547.0000	Findings PostOp
88548.0000	Description
88549.0000	Description Gross
88550.0000	Initial Handling Cytology (Gyn
88551.0000	Surgical Pathology Level I
88552.0000	Initial Handling Cyto (Non Gyn
88553.0000	Surgical Pathology Level III
88554.0000	Stain Cytology Routine
88555.0000	Surgical Pathology Level IV
88556.0000	Stain Cyto Membrane Filt Prep
88557.0000	Surgical Pathology Level V
88558.0000	Stain Cyto Rapid Pap or H&E
88559.0000	Surgical Pathology Level VI
88560.0000	Stain Cyto Romanowski Diff Qui
88561.0000	Cytology Misc
88562.0000	File Search Update Cytology
88563.0000	Description Micro
88564.0000	Report Record File Cytology
88565.0000	Section
88566.0000	Cell Block Cytology
88567.0000	Coccidioides IgM
88568.0000	Smear Cyto Prep of Spec Saccom
88569.0000	Frozen Section
88570.0000	Smear Cyto Prep of Fluid Centr
88571.0000	Diagnosis Pathology
88572.0000	Smear Cyto Cytocentrifugation
88573.0000	Report Pathology
88574.0000	Smear Cyto Simple Special Proc
88575.0000	Report Preliminary
88576.0000	Smear Cyto Complicated Sp Proc
88577.0000	Cytology Smear GYN
88578.0000	Screen Cyto Tech Interp Neg Gy
88579.0000	Cytology Smears
88580.0000	Screen Cyto Tech Interp Abn Gy
88581.0000	Nerve Tissue
88582.0000	Screen Cyto Tech Interp Memb F
88583.0000	Report Final
88584.0000	Screen Cyto NonGyn CMC<50%
88585.0000	Report Amended
88586.0000	Screen Cyto NonGyn CMC>50%
88587.0000	Report Partial
88588.0000	Screen Cyto Tech Interp Cell B
88589.0000	Report Supplemental
88590.0000	Screen Cyto Tech Interp Sp St
88591.0000	Diagnosis PostOp
88592.0000	Screen Cyto Tech. Interp. Sp.
88593.0000	Report Cytology
88594.0000	Differential Cell Count Cyto
88596.0000	Screen Cyto Rescreen Neg Gyn (
88597.0000	Report Electron Microscopy

## Appendix-B Helpful Hints

88598.0000	Report Histology
88599.0000	FISH Interphase
88601.0000	Report Immunology
88602.0000	Report Laboratory
88603.0000	Consultation and Report, Compr
88605.0000	Cell Block Any Source
88606.0000	Autopsy Single Organ
88607.0000	Autopsy Forensic Exam
88608.0000	Autopsy Exam NOS
88609.0000	Cytology Smear GYN Auto Thin M
88610.0000	Cytology Smear GYN Phy Interp
88612.0000	Cytology Smear non GYN <5 Slid
88613.0000	Cytology Smear non GYN >5 Slid
88615.0000	Sudan Black Stain
88616.0000	Fine Needle Aspirate Deep Guid
88617.0000	Estrogen/Progesterone Receptor
88618.0000	Coxsackie
88619.0000	Sacchromyces
88620.0000	Sacchromyces Ab
88621.0000	Sperm Ab
88622.0000	Sacchromyces Cerevisiae Ab
88623.0000	Spinocerebellar Ataxia 2
88624.0000	Proline Beta Alanine
88625.0000	Machado Joseph Disease
88626.0000	Myelin Associated Glycoprotein
88627.0000	Fascio Scapulo Humoral Dystrop
88628.0000	Creutzfeldt Jakob Disease
88629.0000	Echovirus 6 Ab
88630.0000	Echovirus 7 Ab
88631.0000	Ethidium Monoazide
88632.0000	Rast Profile
88633.0000	Pork
88634.0000	Wheat Bran Ab IgG
88635.0000	Milk (cow)
88636.0000	Milk (cow) Ab IgG
88637.0000	Wheat
88638.0000	Corn
88639.0000	Peanut
88640.0000	Soybean
88641.0000	Beef
88642.0000	Fish/Sea Food
88643.0000	Shell Fish
88644.0000	Fish/Shell
88645.0000	Egg
88646.0000	Egg White
88647.0000	Spinocerebellar Ataxia 3
88648.0000	Spinocerebellar Ataxia 7
88649.0000	Egg White Ab IgG
88650.0000	Bladder Tumor
88651.0000	Borrelia Pertussis
88652.0000	Leptospira Australis
88653.0000	Leptospira Australis Ab
88654.0000	Presenilin 1 Allele1
88655.0000	Presenilin 1 Allele2
88656.0000	Streptococcus Pneumoniae 1
88657.0000	Streptococcus Pneumoniae 2
88658.0000	Streptococcus Pneumoniae 19
88659.0000	Streptococcus Pneumoniae 14
88660.0000	Streptococcus Pneumoniae 23

88661.0000	Streptococcus Pneumoniae 51
88662.0000	IgG Subsets 2
88663.0000	IgG Subsets 3
88664.0000	Echovirus 2 Ab
88665.0000	Echovirus 3 Ab
88666.0000	Echovirus 8 Ab
88667.0000	Echovirus 16
88668.0000	Fitzgerald Factor
88669.0000	Fine Needle Aspirate Pathologi
88670.0000	PAS Stain Micro
88671.0000	Orcein Giemsa Stain Micro
88672.0000	Giemsa Stain Micro
88673.0000	Fite Stain Micro
88674.0000	Cytology Smear Any Source
88675.0000	Cytology Smear Auto Rescreen b
88676.0000	Cytology Smear Computer Rescre
88677.0000	Cytology Smear Auto Man/Comput
88678.0000	Cytology Smear Auto by Phy
88679.0000	Cytology Smear Auto/Man Rescr
88680.0000	Cytology Smear Bethesda Rescr
88681.0000	Cytology Smear Bethesda Rescr
88682.0000	Cytology Smear Bethesda Rescr
88683.0000	GD1B Elisa
88684.0000	GQ1B Elisa
88685.0000	Sensorimotor Neuropathy Profil
88686.0000	Beta 2 Glycoprotein IgG Ab
88687.0000	Beta 2 Glycoprotein IgA Ab
88688.0000	Beta 2 Glycoprotein IgM Ab
88689.0000	EGFR-Paraffin
88690.0000	ER-IHC/Paraffin
88691.0000	PR-IHC/Paraffin
88692.0000	Micropolyspora faeni Ab
88693.0000	Aspergillus pullulans Ab
88694.0000	Toxoplasma IgG Ab, CSF
88695.0000	Toxoplasma IgM Ab, CSF
88696.0000	Spinocerebellar Ataxia 8
88697.0000	Spinocerebellar Ataxia 10
88698.0000	DRPLA DNA
88757.0000	Cytology Smear non GYN
88885.0000	Misc Stain 4
88886.0000	Misc Stain 5
88887.0000	Misc Stain 6
88888.0000	Misc Stain 7
88889.0000	Misc Stain 8
88890.0000	Misc Stain 9
88891.0000	Misc Stain 10
88978.0000	Febrile Agglutinins Panel
88979.0000	St Louis Equine Encephalitis I
88980.0000	St Louis Equine Encephalitis I
88981.0000	La Crosse Virus IGM
88982.0000	La Crosse Virus IGG
88983.0000	La Crosse Virus Ab
88984.0000	Eastern Equine Encephalitis IG
88985.0000	Eastern Equine Encephalitis IG
88986.0000	Dengue Virus Ab IGM
88987.0000	Dengue Virus Ab IGG
88988.0000	Galop Auto Ab
88989.0000	HIV 2
88990.0000	HIV Quant

## Appendix-B Helpful Hints

88991.0000	HIV Qual
88992.0000	Herpes Virus VI IgG IgM
88993.0000	Rubella Titer
88995.0000	APC GENE MUTATION
88996.0000	Complement Total
88997.0000	Hepatitis G Ab
88998.0000	Charcot Marie Tooth Profile
88999.0000	Interferon Alpha Receptor
89000.0000	Surface Marker Leu9
89001.0000	Surface Marker B4
89002.0000	Surface Marker My10
89003.0000	Surface Marker KC56
89004.0000	Neutrophil Cytoplasm
89005.0000	Farmer's Lung
89006.0000	Histone
89007.0000	Hypersensitivity Aspergillus
89008.0000	Hypersensitivity Pneumonitis
89009.0000	Alpha Pituitary G Hormone
89010.0000	Alphal Antitrypsin Clearance
89011.0000	Anti Adrenal Ab
89012.0000	Anti Dnase B
89013.0000	DS DNA Ab
89014.0000	Anti Single Stranded DNA
89015.0000	Anti Thyroglobulin Ab
89016.0000	Anti Diuretic Hormone
89017.0000	Antineuronal Nuclear Ab
89018.0000	Anti Streptolysin O
89019.0000	Aspergillus Complement Titer
89020.0000	Blastomyces Complement Titer
89021.0000	Legionella IFA Ab
89022.0000	Coccidioides Complement Fix
89023.0000	Complement C9
89024.0000	Febrile Agglutinins
89025.0000	GM1 Autoantibody
89026.0000	Immunocytochemistry
89027.0000	Legionella Ag
89028.0000	Lupus Anticoagulant
89029.0000	Lyme Disease
89030.0000	Measles Rubeola titer
89031.0000	Monospot Screen
89032.0000	Polymyositis Ab
89033.0000	Purkinje Cell Ab
89034.0000	Rocky Mountain Spotted Fever
89035.0000	Tetanus Ab EIA
89036.0000	Tularmia Agglutination
89037.0000	Typhus Ab Titer
89038.0000	Anti Microsomal Ab
89039.0000	Anti Nuclear Ab
89040.0000	Oligoclonal bands
89041.0000	Psittacosis
89042.0000	Endomysial Ab
89043.0000	Surface Marker CD30
89044.0000	Surface Marker CD15 Leu M1
89045.0000	Surface Marker CD11c
89046.0000	Anti Myocardial Ab
89047.0000	Surface Marker CD25
89048.0000	Surface Marker FMC-7
89049.0000	Anti Mitochondrial Ab
89050.0000	Cell Count Body Fluid

89051.0000	Cell Count with Film
89052.0000	Anti Parietal Cell Ab
89053.0000	Anti Glomerular Basement Membr
89054.0000	Anti Smooth Muscle Ab
89055.0000	Anti Cardiolipin Ab
89056.0000	Anti Viral Ab
89057.0000	Anti Skin Ab
89058.0000	Histone Reaction Ab
89059.0000	Diphtheria Antitoxoid ELISA
89060.0000	Pneumococcal IgG Vaccine Respo
89061.0000	Tetanus Antitoxoid ELISA
89062.0000	HLA DR2
89063.0000	Legionella Urinary Ag
89064.0000	Hepatitis A Ab
89065.0000	Hepatitis B Core Ab
89066.0000	Hepatitis B Core Ag
89067.0000	Hepatitis B Surface Ab
89068.0000	Hepatitis B Surface Ag
89069.0000	Hepatitis B Virus DNA
89070.0000	Hepatitis C Ab
89071.0000	HIV Ag
89072.0000	HIV Ab
89073.0000	CA-15-3
89074.0000	MAG Autoantibody
89075.0000	Protein S activity
89076.0000	Protein S, Total
89077.0000	Protein S, free
89078.0000	RAST test
89079.0000	Acetylcholine REC Blocking Ab
89080.0000	Acetylcholine receptor
89081.0000	T cell subsets
89082.0000	Cell surface markers
89083.0000	Hepatitis A IgM Ab
89084.0000	Immunodiffusion, histoplasmosi
89085.0000	Immunodiffusion, aspergillosis
89086.0000	Immunodiffusion, blastomycosis
89087.0000	Immunodiffusion, candidiosis
89088.0000	Immunodiffusion, coccidioidiosi
89089.0000	EIA Clostridium diff tox A or
89090.0000	Latex agglut Clostridium diffi
89091.0000	Direct FA, Chlamydia trachomat
89092.0000	EIA, Chlamydia trachomatis
89093.0000	Hepatitis B, early Ab
89094.0000	Hepatitis B, early Ag
89095.0000	Hepatitis B core IgM Ab
89096.0000	FTA ABS
89097.0000	MHA TP
89098.0000	HIV 1 by EIA
89099.0000	HIV 1 by Western Blot
89100.0000	HIV 1 by IFA
89101.0000	HIV 1 P24 Ag by EIA
89102.0000	HTLV 1 Ab by EIA
89103.0000	Lymes Ab by EIA
89104.0000	Lymes Ab by IFA
89105.0000	Nordoxepin done by GC
89106.0000	Rapid Plasma Reagin
89107.0000	Pneumococcal Ab
89108.0000	Rabies Ab
89109.0000	Poliovirus Ab

## Appendix-B Helpful Hints

89110.0000	Drug Dependent Ab
89111.0000	Mumps Immune Status
89112.0000	Chlamydia Titer
89113.0000	Helicobacter pylori Serology
89114.0000	Antitrypsin alpha 1 phenotype
89115.0000	Heparin dependent Ab
89116.0000	Viral serology panel
89117.0000	Striated Muscle Ab
89118.0000	Misc Immuno Test 1
89119.0000	Misc Immuno Test 2
89120.0000	Misc Immuno Test 3
89121.0000	Misc Immuno Test 4
89122.0000	Misc Immuno Test 5
89123.0000	Instrument IM Setup
89124.0000	Hepatitis C RNA by PCR
89125.0000	Myasthenia Gravis Panel
89126.0000	Heparin dependent Platelet Ab
89127.0000	Hepatitis B Delta Ab, IgG
89128.0000	Hepatitis B Delta Ab, IgM
89129.0000	Hepatitis B Delta Ag
89130.0000	Gastric Contents
89131.0000	Toxoplasma Ab CSF
89132.0000	Toxoplasma Ab IgG
89133.0000	Toxoplasma Ab IgM
89134.0000	Sulfatide Autoantibody
89135.0000	DNA Ploidy
89136.0000	Hantavirus
89137.0000	Multiple Sclerosis Panel
89138.0000	Complement C3/C4 Panel
89139.0000	Immunoglobulin Panel NOS
89140.0000	Report Delivery
89141.0000	Interleukin 6 Receptor
89142.0000	Report Charting
89143.0000	Gowning Degowning
89144.0000	Specimen Rejection
89145.0000	Gowing Degowing Only
89146.0000	Surface Marker Panel
89147.0000	Gluten Sensitivity Eval
89148.0000	Hepatitis Immuno Panel
89149.0000	Varicella Immune Status
89150.0000	Gloving Degloving
89151.0000	Hepatitis A, IgG Ab
89152.0000	Kappa/Lambda Ratio
89153.0000	Candida Precipitan Ab titer
89154.0000	FMC7
89155.0000	VDRL
89156.0000	Hepatitis E Ab
89157.0000	Hepatitis E Ag
89158.0000	Sjorgren's Ab
89159.0000	Sjorgren's Ag
89160.0000	Ribonucleic Protein Ab
89161.0000	Ribonucleic Protein Ag
89162.0000	Serology Specimen
89163.0000	Immuno Specimen
89164.0000	Flow Specimen
89165.0000	Sp Flow Specimen
89166.0000	Ehrlichiosis Ab
89167.0000	Hemophilus Influenza
89168.0000	Ehrlichiosis Ag

89169.0000	TdT
89170.0000	HTLVI
89171.0000	TORCH Ab Panel
89172.0000	HTLVII
89173.0000	HTLVI/HTLVII
89174.0000	Brucella Ab
89175.0000	Herpes Ab
89176.0000	Helicobacter pylori Ab
89177.0000	Leishmania Ab
89178.0000	Listeria Ab
89179.0000	Skin Test NOS
89180.0000	HIV 1 RNA Quant
89181.0000	Tetanus Ab
89182.0000	Diphtheria Ab
89183.0000	Toxoplasma Ab
89184.0000	CD14/CD45
89185.0000	CD2/CD20
89186.0000	CD19/CD10
89187.0000	CALLA
89188.0000	CD19/CALLA
89189.0000	CD3/CD8
89190.0000	CD3/CD4
89191.0000	CD19/CD5
89192.0000	CD22/CD3
89193.0000	CD10/CD34
89194.0000	CD7/CD13/CD33
89195.0000	Flow Cytometry
89196.0000	Fasciola Hepatica Ab
89197.0000	Anti Nuclear Ab Quant
89198.0000	Lyme Ab Quant
89199.0000	Immunoglobulin Heavy Chain Gen
89200.0000	HCV Ab Quant
89201.0000	Lyme Ab
89202.0000	Lyme Ab IgG
89203.0000	Lyme Ab IgG Quant
89204.0000	Lyme Ab IgM
89205.0000	Lyme Ab IgM Quant
89206.0000	Rubella Ab
89207.0000	Rubella Ab Quant
89208.0000	Extractable Nuclear Ag RNP Qua
89209.0000	Extractable Nuclear Ag Sci 70
89210.0000	Extractable Nuclear Ag Sm Qt
89211.0000	Mycoplasma Pneumoniae Ab IgG
89212.0000	Mycoplasma pneumoniae Ab IgM
89213.0000	Streptozyyme Qt
89214.0000	Leukemia Panel Acute
89215.0000	Leukemia Panel Chronic
89216.0000	Leukemia Panel Hairy
89217.0000	Cancer Ag 27.29
89218.0000	Pneumonitis Hypersensitivity
89219.0000	Gardnerella Vaginalis
89220.0000	Scleroderma Ab Quant
89221.0000	Streptozyyme Ab Quant
89222.0000	T Cell Receptor
89223.0000	Beta 2 Glycoprotein 1 Ab
89224.0000	Western Blot
89225.0000	HIV Genotype
89226.0000	Complexed Prostate Specific Ag
89227.0000	Varicella Rapid Culture

## Appendix-B Helpful Hints

89228.0000	HCV Genotyping
89229.0000	Cell Viability
89230.0000	Fat Stain
89231.0000	Tumor Necrosis Factor
89232.0000	HIV 1 Proviral DNA PCR
89233.0000	Toxoplasmosis Ab, IgA&IgM
89234.0000	Proteinase 3 Ab
89235.0000	HIV 1 and HIV 2
89236.0000	HIV 1
89237.0000	Epstein Barr Ab IgG
89238.0000	Signal Recognition Particle Au
89239.0000	Epstein Barr Ab IgM
89240.0000	Proliferating Cell Nuclear Ab
89241.0000	Herpes Virus VI IgG
89242.0000	Herpes Virus VI IgM
89243.0000	Centromere Ab
89244.0000	von Hippel Lindau
89245.0000	T Cell Receptor Alpha
89246.0000	T Cell Receptor Beta
89247.0000	T Cell Receptor Gamma
89248.0000	T Cell Receptor Delta
89249.0000	Centromere Ab Titer
89250.0000	GM1 IgG
89251.0000	Asialo GM1 IgG
89252.0000	GM1 IgM
89253.0000	Asialo GM1 IgM
89254.0000	GM1 Panel
89255.0000	X*Hypersensitive Pneumonitis
89256.0000	Neocerebellar Degeneration Pro
89257.0000	HCV 5-1-1 Ab
89258.0000	HCV C33C Ab
89259.0000	HCV C22-3 Ab
89260.0000	HCV NS5 Ab
89261.0000	HCV RIBA Panel
89262.0000	HCV Panel Interp
89264.0000	Lyme Ab IgG/IgM
89265.0000	Microspordin Stain
89266.0000	Mumps Ab
89267.0000	Mumps Ab IgM
89268.0000	CD3/CD16*CD56
89269.0000	Basement Membrane
89270.0000	Basement Membrane Ab
89272.0000	CD20 Percent
89273.0000	Lymphocyte B
89274.0000	Lymphocyte T Percent
89275.0000	CA 27 29
89276.0000	CA 72-4
89277.0000	CD2 Percent
89278.0000	CD3-CD16+CD56+ Absolute
89279.0000	CD3-CD16+CD56+ Percent
89280.0000	Echovirus 4 Ab
89281.0000	Echovirus 9 Ab
89282.0000	Echovirus 11 Ab
89283.0000	Echovirus 30 Ab
89284.0000	Galop Ab
89285.0000	Hepatitis C Band c100-3
89286.0000	Hepatitis C Band c22p
89287.0000	Hepatitis C Band hSOD
89288.0000	Human Granulocytic Ehrlichiosi

89289.0000	Human Granulocytic Ehrlichiosi
89290.0000	Human Granulocytic Ehrlichiosi
89291.0000	HIV Log
89292.0000	HIV Log Ultra
89293.0000	HIV 2 gp105 Ab
89294.0000	HIV 2 gp120 Ab
89295.0000	HIV 2 gp34 Ab
89296.0000	HIV 2 p15 Ab
89297.0000	HIV 2 p26 Ab
89298.0000	HIV 2 p31 Ab
89300.0000	Semen Analysis Sperm
89301.0000	HIV 2 p58 Ab
89302.0000	HIV 2 p68 Ab
89303.0000	HIV 2 Ab Western Blot
89304.0000	HPV Hybrid Capture Inter High
89305.0000	HPV Typing, Biopsy
89306.0000	HPV Hybrid Capture Low Risk
89307.0000	Herpes Simplex Virus DNA
89308.0000	Herpes Simplex 1 DNA
89309.0000	Herpes Simplex 2 DNA
89310.0000	Herpes Simplex Ab
89311.0000	Herpes Simplex Ag
89312.0000	Parainfluenza 1 Ab
89313.0000	Parainfluenza Ag
89314.0000	Parainfluenza 1 Ag
89315.0000	Parainfluenza 2 Ag
89316.0000	Parainfluenza 3 Ag
89317.0000	Coxiella Burnetti 1 IgM
89318.0000	Coxiella Burnetti 2
89319.0000	Coxiella Bernetti 2 IgG
89320.0000	Semen Analysis Count Motil
89321.0000	Coxiella Bernetti 2 IgM
89322.0000	Thphus
89323.0000	Typhus IgG
89324.0000	Typhus IgM
89325.0000	Rocky Mountain Spotted Fever I
89326.0000	Rocky Mountain Spotted Fever I
89328.0000	RNA Polymerase 1,2,3 Ab
89329.0000	Varicella Zoster Ab IgG
89330.0000	Cervical Mucus
89331.0000	Yersina Enterocolitica Ab 0:3
89332.0000	Yersina Enterocolitica Ab 0:5
89333.0000	Yersinia Enterocolitica Ab 0:8
89334.0000	Yersinia Enterocolitica Ab 0:9
89335.0000	Capillary Puncture Out Lab
89336.0000	Capillary Puncture Collection
89337.0000	Hantavirus Ab
89338.0000	Microbiological Specimen
89339.0000	Herpes Simplex 1 Ab
89340.0000	Urine (coll by lab)
89341.0000	+Venipuncture Travel Time
89342.0000	Prep Sterile Venipuncture
89343.0000	+Venipuncture Outpatient
89344.0000	Drainage
89345.0000	Venipuncture <3YR
89346.0000	Venipuncture (Scalp)
89347.0000	Venipuncture (Other)
89348.0000	Specimen Dispatch prep mail
89349.0000	Specimen Dispatch Ice

## Appendix-B Helpful Hints

89350.0000	Arterial Puncture
89351.0000	Specimen Dispatch w data handl
89352.0000	Specimen Dispatch Nonal w dat
89353.0000	Specimen Dispatch w o Data Han
89354.0000	Specimen Dispatch Non w o data
89355.0000	Travel Time
89356.0000	Specimen Handling (Misc)
89357.0000	Venipuncture Transfusion
89358.0000	Arterial Catheterization
89359.0000	Specimen Collection Time
89360.0000	Chloride Sweat Test Quant
89361.0000	Tay Sach
89362.0000	Specimen Preprocessing Airfuge
89363.0000	Reverse Transcript Mutation
89364.0000	Specimen Preprocess Sphingo
89365.0000	Ward Collect Spec
89366.0000	LEDI Specimen
89367.0000	Referred Specimen
89368.0000	DoD Specimen
89369.0000	Research Specimen
89370.0000	Fee Basis Specimen
89371.0000	Contract Specimen
89372.0000	Hepatitis C RIBA
89373.0000	Pokeweed Mitogen
89374.0000	Concanavalin A Mitogen
89375.0000	Lymphocyte Mitogen Prolif
89376.0000	c100 5-1-1 Ab
89377.0000	c33c Ab
89378.0000	c22 Ab
89379.0000	NS5 Ab
89380.0000	Zea Mays Ab IgG
89381.0000	Arachis Hypogaea Ab IgG
89382.0000	Chronic Granulomatous Disease
89383.0000	Glycine Max Ab IgG
89384.0000	SOD1 DNA
89385.0000	Familial ALS
89386.0000	MA1 Ab
89387.0000	MA2 Ab
89388.0000	Satratoxin IgG
89389.0000	Satratoxin IgA
89390.0000	Satratoxin IgM
89391.0000	hSOD Ab
89392.0000	Satratoxin IgE
89393.0000	Aflatoxin IgG
89394.0000	Aflatoxin IgA
89395.0000	Aflatoxin IgM
89396.0000	Aflatoxin IgE
89397.0000	Trichothecene IgG
89398.0000	Trichothecene IgA
89399.0000	Trichothecene IgM
89400.0000	Trichothecene IgE
89403.0000	Hepatitis GBV
89404.0000	Rh (D) Typing
89405.0000	HBs Ag
89406.0000	HBe Ag
89407.0000	HBe Ab
89408.0000	HBs Ab
89409.0000	HBV
89410.0000	HBc Ab

89411.0000	HCV Ab
89412.0000	HCV Ag
89413.0000	Cutaneous Ab
89414.0000	Extractable Nuclear Ag NOS
89415.0000	Herpes Simplex 2 Ab
89416.0000	Nuclear Matrix Protein Tumor M
89417.0000	Leptospira Grippo Ab
89418.0000	Leptospira Icterohaemorrhiae A
89420.0000	Leptospira Pomona Ab
89421.0000	CD1+ Percent
89422.0000	HLA -DR+DQ Ag
89423.0000	Mumps Skin Test
89424.0000	Spinocerebellar Ataxia 1
89425.0000	Molecular Cytogenetics Probe
89426.0000	FISH
89427.0000	HEREDITARY SPASTIC PARAPARESIS
89428.0000	Spinocerebellar Ataxia Type 17
89429.0000	Spinocerebellar Ataxia Type 1&
89430.0000	Lyme IB 21kDa
89431.0000	Lyme IB 23kDa
89432.0000	Lyme IB 28kDa
89433.0000	Lyme IB 30kDa
89434.0000	Lyme IB 39kDa
89435.0000	Lyme IB 41kDa
89436.0000	Lyme IB 45kDa
89437.0000	Lyme IB 58kDa
89438.0000	Lyme IB 66kDa
89439.0000	Lyme IB 93kDa
89440.0000	Hu Ab CSF
89441.0000	ANA-Atypical Speckled Pattern
89442.0000	B Cell Gene Rearrangement
89443.0000	ANA-Homogeneous Pattern
89444.0000	Inflammatory Bowel Disease Pan
89445.0000	ANA-Mitotic Spindle Pattern
89446.0000	ANA-Nuclear Pattern
89447.0000	ANA-Speckled Pattern
89448.0000	RET Proto Oncogene Mutations
89449.0000	Muscular Dystrophy Duchenne Be
89450.0000	Interleukin 5 Receptor
89451.0000	Presenilin-1 Analysis
89452.0000	ApoE Allele 1
89453.0000	ApoE Allele 2
89454.0000	ApoE Genotype Analysis
89455.0000	BCL 1 Gene Translocation
89456.0000	ANA-Peripheral Pattern
89485.0000	Hepatitis C RNA
89486.0000	Heparin LMW
89496.0000	HCV Viral Load
89497.0000	Aureobasidium Pullans
89498.0000	HIV Viral Load
89499.0000	Immunoglobulin Lambda L Mon
89500.0000	Immunoglobulin Kappa L Mon
89501.0000	Helminth Ab
89502.0000	Rubeola Immune Status
89503.0000	Varicella Zoster Ab
89504.0000	VDRL Quant
89505.0000	HSV Ab IgG
89506.0000	HSV Ab IgM
89507.0000	PL-7 Autoantibodies

## Appendix-B Helpful Hints

89508.0000	PL-12 Autoantibodies
89509.0000	Mi-2 Autoantibodies
89510.0000	Ku Autoantibodies
89511.0000	EJ Autoantibodies
89512.0000	OJ Autoantibodies
89513.0000	U2 SnRNP Autoantibodies
89530.0000	CA-125 Cancer Ag
89531.0000	Complement C1 Esterase Inhib
89532.0000	Complement C1q
89533.0000	Complement C1r
89534.0000	Complement C1s
89535.0000	Complement C2
89536.0000	Complement C3
89536.3035	Complement C3b Inhibitor~DU PO
89537.0000	Complement C3b Inhibitor
89538.0000	Complement C3c
89539.0000	Complement C3 Mobility
89540.0000	Complement C4
89540.3035	Complement C5~DU PONT ACA
89541.0000	Complement C4 Allotypes
89542.0000	Complement C5
89543.0000	Complement C6
89544.0000	Complement C7
89545.0000	Complement C8
89546.0000	Complement Activation Products
89547.0000	Complement Decay Rate
89548.0000	Complement Factor B (C3PA)
89549.0000	Complement Properidin
89550.0000	Complement Total (CH50 CH100)
89551.0000	Immunoglobulin A
89552.0000	Immunoglobulin D
89553.0000	Immunoglobulin E
89554.0000	Immunoglobulin G
89555.0000	Immunoglobulin G Albumin Index
89556.0000	Immunoglobulin G Synthesis Rt
89557.0000	Immunoglobulin G1
89558.0000	Immunoglobulin G2
89559.0000	Immunoglobulin G3
89560.0000	Immunoglobulin G4
89561.0000	Immunoglobulin J Chain
89562.0000	Immunoglobulin Kappa Light Ch
89563.0000	Immunoglobulin Lambda Light Ch
89564.0000	Immunoglobulin M
89565.0000	Immunoglobulin Oligoclonal
89566.0000	Immunoglobulin G Low Level
89567.0000	Delta Ab
89568.0000	Heparin Induced Ab
89569.0000	HLA DR
89570.0000	Multiple Serum Proteins
89571.0000	Molecular Diag Separation
89572.0000	Helicobacter pylori Ab IgA
89573.0000	Helicobacter pylori Ag
89574.0000	EBV-VCA, IgM Quant
89575.0000	EBV-VCA, IgM
89576.0000	EBV-VCA, IgG
89577.0000	EBV-VCA, IgG Quant
89578.0000	EBV-VCA
89579.0000	CMV Ab, IgM Quant
89580.0000	CMV Ab, IgM

89581.0000	CMV Ab, IgG Quant
89582.0000	CMV Ab, IgG
89583.0000	CMV Ag
89584.0000	CMV Ab
89585.0000	Parietal Cell Ab Quant
89586.0000	Parietal Cell Ab
89587.0000	Smooth Muscle Ag
89588.0000	Smooth Muscle Ab Quant
89589.0000	Gliadin Ab IgA
89590.0000	DNA Ab Quant
89591.0000	Varicella Immune status Quant
89592.0000	Immune Status
89593.0000	Varicella Ab Quant
89594.0000	Varicella Ag
89595.0000	Varicella Ab
89596.0000	Toxoplasma Ab IgM Quant
89597.0000	Toxoplasma Ab IgG Quant
89598.0000	Sulfoglucuronyl paragloboside
89599.0000	T Cell Receptor Gene
89600.0000	Deoxyribonucleoprotein Ag
89601.0000	Deoxyribonucleoprotein Ab
89602.0000	Acetylcholine Receptor Binding
89603.0000	Chagas Disease
89604.0000	Acetylcholine Receptor Blockin
89605.0000	Polymavirus
89606.0000	Actin
89607.0000	Helicobacter pylori Ab IgG
89608.0000	Adenocarcinoma Surface Ag
89609.0000	Acute Myeloid Leukemia Panel
89610.0000	Adrenal Cortex
89611.0000	Lymphoma Panel
89612.0000	Bile Canaliculus
89613.0000	Chronic Leukemia Panel
89614.0000	Bile Duct
89615.0000	Acute Leukemia Panel
89616.0000	Blood Species Specific
89617.0000	Cat Scratch Fever
89618.0000	Bovine Milk
89619.0000	Histochemistry Panel
89620.0000	Breast Carcinoma Surface Ab
89621.0000	Lupus Panel
89622.0000	Brush Border
89623.0000	Carcinoembryonic Ag Polyclonal
89624.0000	CA 19 9 Carbohydrate Ag
89625.0000	Lupus Erythematosus
89626.0000	CA 125 Ovarian Cancer Ag
89627.0000	Delta Ag
89628.0000	Carcinoembryonic Ag
89629.0000	Genetics Study
89630.0000	Cardiolipin
89631.0000	Helicobacter pylori Ab IgM
89632.0000	Centriole
89633.0000	Tiech Acid Ab
89634.0000	Centromere
89635.0000	Gliadin Ab IgG
89636.0000	Cold Agglutinins
89637.0000	Gliadin Ab Panel
89638.0000	Cold Hemolysins Donath Land
89639.0000	Fetoprotein Alpha Stain

## Appendix-B Helpful Hints

89640.0000	C Reactive Protein
89641.0000	Herpes I&II Stain
89642.0000	Cystic Disease Protein (CDP)
89643.0000	West Nile Virus
89644.0000	Cytokeratin
89645.0000	c-erbB-2 (HER-2/neu)
89646.0000	Deoxyribonuclease B
89648.0000	Deoxyribonucleic Acid Double
89650.0000	Deoxyribonucleic Acid Quant
89652.0000	Deoxyribonucleic Acid Single
89654.0000	Desmin
89656.0000	Desmosome
89658.0000	Extractable Nuclear Ag H
89660.0000	Extractable Nuclear Ag Jo
89661.0000	Microsomal Ab
89662.0000	Extractable Nuclear Ag Ku
89663.0000	Extractable Nuclear Ag MA
89664.0000	Extractable Nuclear Ag Mi
89666.0000	Extractable Nuclear Ag PM
89668.0000	Extractable Nuclear Ag RA
89670.0000	Extractable Nuclear Ag RNP
89672.0000	Extractable Nuclear Ag Scl 70
89674.0000	Extractable Nuclear Ag Sm
89676.0000	Extractable Nuclear Ag SS
89677.0000	Extractable Nuclear Ag SSA
89678.0000	Extractable Nuclear Ag SSB
89680.0000	Epithelial Membrane Ag
89682.0000	Fetoprotein Alpha
89684.0000	Fibronectin
89686.0000	Gliadin
89688.0000	Glial Fibrillary Acidic Prot
89690.0000	Glomerular Basement Membrane
89691.0000	Glycoprotein Beta1 Pregnancy
89692.0000	IgA
89693.0000	Histone DNA Complex IgG Ab
89694.0000	Heterophile
89695.0000	Machado Joseph Panel
89696.0000	Hyaluronidase
89697.0000	Prostatic Specific Ag Free
89698.0000	Immune Complex Clq Binding
89699.0000	Hepatitis B Surface Ab Quant
89700.0000	Immune Complex Polyethylene G
89701.0000	Rapid Plasma Reagin Quant
89702.0000	Immune Complex Raji Cell
89703.0000	Interleukin 2 Receptor
89704.0000	Intrinsic Factor
89705.0000	Rheumatoid Factor Quant
89706.0000	Islet Cell
89707.0000	Viral Titer
89708.0000	Keratin Squamous
89709.0000	DNA Binding
89710.0000	Keratin Nonsquamous
89711.0000	Hepatitis D Ag
89712.0000	Lactalbumin Alpha
89713.0000	Hepatitis D Ab
89714.0000	Lactoferrin
89715.0000	Rochaumaea Ag
89716.0000	Lung Carcinoma Surface Ag
89717.0000	Rochaumaea Ab

89718.0000	Melanoma Surface Ag
89719.0000	Microsomes Liver and Kidney
89720.0000	Microsomes Thyroid
89721.0000	Schistosoma Ab
89722.0000	Mitochondria
89723.0000	Heamophilus Pylorii Stain
89724.0000	Myelin
89725.0000	Thyroid Peroxidase Ab
89726.0000	Myelin Basic Protein
89727.0000	Hu Auto Ab
89728.0000	Myocardium
89729.0000	Yo Auto Ab
89730.0000	Myosin
89731.0000	Chlamydia Ab
89732.0000	Nuclear
89734.0000	Neurofilament Triplet Pro 200
89736.0000	Neurofilament Triplet Pro 160
89738.0000	Neurofilament Triplet Protein
89740.0000	Neuroleptic Receptor
89742.0000	Neuron Specific Enolase
89744.0000	Neurophysin
89746.0000	Panfilament
89748.0000	Pancreatic Carcinoma
89750.0000	Pancreatic Onofetal Ag
89752.0000	Parietal Cell
89754.0000	Pigeon Serum
89756.0000	Prekeratin
89758.0000	Prostatic Carcinoma Surface
89760.0000	Prostate Specific Ag
89762.0000	Reticulin
89764.0000	Rheumatoid Factor
89766.0000	Ribonuclease
89768.0000	Ribosome
89770.0000	S 100 Neural Ag
89772.0000	Salivary Gland
89773.0000	Mumps Ab Titer
89774.0000	Sarcolemma
89776.0000	Skin
89778.0000	Smooth Muscle
89780.0000	Sperm
89782.0000	Streptokinase
89784.0000	Anti Streptolysin O (ASO)
89786.0000	Streptozyyme
89788.0000	Striated Muscle
89790.0000	Tamm Horsfall Protein
89792.0000	Thyroglobulin
89794.0000	Thyroid Stimulating Immunoglob
89796.0000	Tubulin
89798.0000	Vimentin
89801.0000	Percent Recovery
89802.0000	Thyroglobulin Panel
89803.0000	CD3 Absolute
89804.0000	CD3 Percent
89805.0000	CD4 Percent
89806.0000	Bermuda Grass
89807.0000	Bermuda Grass IgE
89808.0000	Scleroderma Ab
89809.0000	Johnson Grass
89810.0000	Johnson Grass IgE

## Appendix-B Helpful Hints

89811.0000	Timothy Grass
89812.0000	Timothy Grass IgE
89813.0000	Alternaria tenuis
89814.0000	Elm Tree
89815.0000	Mountain Cedar
89816.0000	Oak Tree
89817.0000	Sycamore Tree
89819.0000	Pecan Tree
89820.0000	Ash Tree
89821.0000	Privet
89822.0000	Ragweed Common
89823.0000	Lamb's Quarters
89824.0000	Russian Thistle
89825.0000	Marsh Elder
89826.0000	Cat Dander
89827.0000	Dog Dander
89828.0000	Mites
89829.0000	Allergy Panel
89830.0000	Endomysial Ab Titer
89831.0000	Giardia Ab IFA
89832.0000	Ribosomal P Protein Ab
89833.0000	Pneumococcal Sero 3
89834.0000	Pneumococcal Sero 7F
89835.0000	Pneumococcal Sero 9N
89836.0000	Pneumococcal Sero 14
89837.0000	Pneumococcal IgG
89838.0000	IGF 3 Binding Protein
89839.0000	Glomerular Basement Membrane A
89840.0000	Glomerular Basement Membrane A
89841.0000	Glomerular Basement Membrane A
89842.0000	Pneumococcal IgG Type 08
89843.0000	Pneumococcal IgG Type 12
89955.0000	Grass Allergens
89960.0000	Tree Allergens
89965.0000	Mold Allergens
89970.0000	Weed Allergens
89975.0000	Epithelial Allergens
89980.0000	Food Allergens
89981.0000	Chocolate Ab IgG
89982.0000	Lycopersicon Lycopersicum Ab I
89985.0000	House Dust Allergens
89990.0000	House Dust Mite Allergens
89995.0000	Venom Allergens
91941.0000	Acetazolamide



# APPENDIX – C

## Health Level Seven (HL7) Protocol



# Health Level Seven (HL7) Protocol

The EPI Rollup Modification patch LR\*5.2\*281, utilizes the *VistA* Laboratory, PIMS, Pharmacy, Clinical Reminders, and Social Work databases for the EPI Rollup Modification criteria. The *VistA* HL7 software is used to transmit EPI Rollup Modification data to the AAC database.

## 3. General Specifications

### 3.1 Communication Protocol

The electronic *VistA* Mailman software application is used as the communications protocol for sending the EPI HL7 mailman messages between *VistA* database and AAC database.

### 3.2 Application Processing Rules

The HL7 protocol itself describes the basic rules for application processing by the sending and receiving systems. The HL7 Version 2.2 protocol is used. The Observational Results Unsolicited (ORU) message is sent using the HL7 batch protocol.

### 3.3 Message

The following HL7 mail message is used to support the exchange of data:

ORU Observational Results Unsolicited

### 3.4 Segments

The following HL7 segments are used to support the exchange of data:

HL7 segments	Exchange of Data
<b>DG1</b>	Diagnosis
<b>DSP</b>	Display Data
<b>MSH</b>	Message Header
<b>NTE</b>	Notes and Comments
<b>OBR</b>	Observation Request
<b>OBX</b>	Observation Results
<b>PID</b>	Patient Identification
<b>PV1</b>	Patient Visit
<b>ZXE</b>	Pharmacy Prescription Order

### 3.5 Fields

The following HL7 fields are used to support the exchange of data for each of the segments listed in the 3.4 Segments:

SEGMENT	FIELD SEQUENCE NUMBER	Data Type/Length HL/7	FIELD ELEMENT NAME	USER/HL7 DEFINED
DG1	1	4/SI	Set ID-Diagnosis (Sequence #)	HL7
	3	60/CE	Diagnosis Code (Code(id) ^Text (St.) ^ Name of coding system (st))	HL7
	4	19/TS	Admission Date	HL7
	6	2/IS	Diagnosis Type (PR=DXLS)	HL7
MSH	1	1/ST	Field Separator	HL7
	2	4/ST	Encoding Characters	HL7
	3	180/HD	Sending Application	HL7
	4	180/HD	Sending Facility	HL7
	5	180/HD	Receiving Application	HL7
	6	180/HD	Receiving Facility	HL7
	7	19/TS	Date/Time of Message	HL7
	8	40/SY	Security	HL7
	9	7/CM	Message Type	HL7
	10	20/ST	Message Control ID	HL7
	11	3/PT	Processing ID	HL7
	12	8/ID	Version ID	HL7
OBR	1	4/SI	Set ID-Observation Request (Seq #)	HL7
	4	200/CE	Universal Service ID (identifier ~ text ~ name of coding system ~ alt id ~ alt text ~ alt coding system)	HL7
	7	19/TS	Observation Date/Time	HL7
	15	300/CM	Specimen Source (Specimen source code (CE) ~~ text (TX) )	HL7 (Table 0070)
	26	400/CM	Parent Results (OBX observation id of parent ^OBX sub ID	HL7

## 3.5 Fields continued

SEGMENT	FIELD SEQUENCE NUMBER	Data Type/Length HL/7	FIELD ELEMENT NAME	USER/HL7 DEFINED
NTE	1	4/SI	Set ID (seq. #)	HL7
	3	64K/FT	Comment (five formats exist for this segment, see Note #2)	HL7
OBX	1	4/SI	Set Id-Observational Simple (seq. #)	HL7
	2	2/ID	Value Type	HL7
New LOINC	3	80/CE	Observation Identifier (identifier ~ text ~ name of coding system ~ alt id ~ alt text ^ alt coding system)	HL7
	4	20/ST	Sub Id	HL7
New MIC value	5		Observation Value (Result)	HL7
	6	60/CE	Units (Units)	HL7
	8	10/ID	Abnormal Flags	HL7 (Table 0078)
	14	60/CE	Date/Time of the Observation (Verified Date/Time)	HL7
PID	1	4/SI	Set ID – Patient ID	HL7
	2	16/CK	Patient ID (External ID)	HL7
New MPI	3	20/CM	Patient ID (Internal ID)	HL7
	5	48/PN	Patient Name	HL7
	7	19/TS	Date of Birth	HL7
	8	1/ID	Sex	HL7 (Table 0001)
New Race	10	1/ID	Race	HL7 (Table VA07)
	11	106/AD	Address (Homeless{where applicable}~Zip Code)	HL7
New County Code	12	4/IS	County Code	HL7
	19	16/ST	SSN	HL7

## 3.5 Fields continued

SEGMENT	FIELD SEQUENCE NUMBER	Data Type/Length HL/7	FIELD ELEMENT NAME	USER/HL7 DEFINED
New Ethnic Group	22	80/CE	Ethnic Group	HL7
	27	60/CE	Veteran's Military Status	HL7 (Table Va011)
PV1	1	4/SI	Set ID - Patient Visit	HL7
	36	3/ID	Discharge Disposition (Type of Disposition {Code}~Type of Disposition {Text}~Source ID {VA45=VA File 45})	HL7
Servicing Facility	39	2/SI	Servicing Facility	HL7
	44	19/TS	Admit Date/Time (Event Date/Time)	HL7
	45	19/TS	Discharge Date/Time	HL7
DSP	1	2/ID	Set ID	HL7
	3	80/FT	Date~Text Term~Resolved Term~Result~Sourceid	USER
	5	2/ID	Result ID (linking DSP and ZXE)	HL7
ZXE	1	20/FT	NDC	USER
	2	75/FT	Drug Name~Coding System	USER
	3	4/NM	Days Supply	USER
	4	19/TS	Release Date/Time	USER
	5	19/TS	Fill Date/Time	USER
	6	19/TS	Stop Date/Time	USER
	7	2/ID	Result ID (linking DSP and ZXE)	USER

**NOTE:** The NTE segment is present in four forms. EPI only items tagged with (EPI).

a. NTE||manual/automatic indicator (Null for automatic, R for Manual)~REPORTING DATE FROM from date TO to date~message number~~software version number (blank for original system/V2 for new system(epi)~Negative Input Indicator (null if input is present, N if negative)

b. NTE|sequence number|reference number from field .05 (reference number) in 5 (LAB SEARCH/EXTRACT file (#69).

c. NTE||Totals indicator (T if NTE describes totals for run)~National Lab Test Code~Test Name from LAB TEST file (#60) or (ETIOLOGY FIELD file (#61.2)~Total number of tests performed

d. NTE||Totals indicator (T if NTE describes totals for run)~National Lab Test Code~ "PATIENTS WITH" \_Test Name from LAB TEST file (#60) or ETIOLOGY FIELD file (#61.2)~Number of unique patients receiving this test

## Definitions from Austin

Field Name	Start	End	Length	Properties	
DG1 SEGMENT					
SET-ID	94	97	4	alphanumeric	
DIAG- CODING- METHOD	98	99	2	alphanumeric	
DIAG-CODE	100	106	7	alphanumeric	
DIAG-TEXT	107	146	40	alphanumeric	
DIAG- CODING-SYT	147	156	10	alphanumeric	
FILLER	157	467	311	alphanumeric	
NTE-SEGMENT					
SET-ID	94	97	4	alphanumeric	
ACTION-IND	98	99	2	alphanumeric	valid total indicator T
NATIONAL- LAB-TEST- NUM	100	109	10	alphanumeric	
BACTERIA	110	144	35	alphanumeric	
TOTAL- COUNT	145	149	5	alphanumeric	
FILLER	150	467	318	alphanumeric	
<b>NTE- SEGMENT</b> (alternate type)					
SET-ID	94	97	4	alphanumeric	
ACTION-IND	98	99	2	alphanumeric	
FILLER	100	119	20	alphanumeric	
FROM-DATE	120	127	8	alphanumeric	
FILLER	128	131	4	alphanumeric	
TO-DATE	132	139	8	alphanumeric	
MSG-SEQ- NUM	140	142	3	alphanumeric	
NEGATIVE- INPUT-IND	143	143	1	alphanumeric	
FILLER	144	467	324	alphanumeric	

*Continued*

Field Name	Start	End	Length	Properties	
OBR-SEGMENT					
SET-ID	94	97	4	alphanumeric	
PATHOGEN-NAME	98	132	35	alphanumeric	
UNIV-SERVICE-ID	133	142	10	alphanumeric	
UNIV-SERVICE-TEXT	143	172	30	alphanumeric	
UNIV-SERVICE-CODE	173	187	15	alphanumeric	
ALT-UNIV-SERVICE-ID	188	202	15	alphanumeric	
ALT-UNIV-SERVICE-TEXT	203	232	30	alphanumeric	
ALT-UNIV-SERVICE-CODE	233	247	15	alphanumeric	
OBSER-DATE	248	255	8	yyyymmdd	
OBSER-TIME	256	261	6	hhmmss	
OBSER-DATE-A	262	269	8	alphanumeric	
SPECIMEN-CODE	270	273	4	alphanumeric	
FILLER	274	274	1	alphanumeric	
SPECIMEN-CODE-TEXT	275	304	30	alphanumeric	
ACCESSION-NUM	305	324	20	alphanumeric	
PARENT-OBSER-ID	335	334	10	alphanumeric	
PARENT-OBSER-SUB-ID	355	340	6	alphanumeric	
PARENT-TEST-SYS	361	350	10	alphanumeric	
PARENT-LAB-NUM	371	360	10	alphanumeric	

*Continued*

Field Name	Start	End	Length	Properties	
FILLER	381	458	98	alphanumeric	
OBX- SEGMENT					
OBR-SET-ID	94	97	4	alphanumeric	
OBX-SET-ID	98	101	4	alphanumeric	
VALUE-TYPE	102	103	2	alphanumeric	
OBSERVATIO N-ID	104	113	10	alphanumeric	
OBSERVATIO N-TEXT	114	143	30	alphanumeric	
OBSERVATIO N-CODE	144	158	15	alphanumeric	
OBSERVATIO N-ID-ALT	159	168	10	alphanumeric	
OBSERVATIO N-TEXT-ALT	169	198	30	alphanumeric	
OBSERVATIO N-CODE-ALT	199	213	15	alphanumeric	
OBSERVATIO N-SUB-ID	214	219	6	alphanumeric	
OBSERVATIO N-NAT-LAB	220	229	10	alphanumeric	
OBSERVATIO N-VALUE	230	274	45	alphanumeric	
OBSERVATIO N-UNITS	275	289	15	alphanumeric	
OBSERVATIO N-REF- RANGE	290	304	15	alphanumeric	
ABNORMAL- FLAGS	305	314	10	alphanumeric	
FINAL- RESULT- DATE	315	322	8	yyyymmdd	
FILLER	323	450	128	alphanumeric	
PID- SEGMENT					
SET-ID	94	<sup>97</sup>	4	alphanumeric	

*Continued*

Field Name	Start	End	Length	Properties	
PATIENT-EXTERNAL-ID	98	114	17	alphanumeric	
PATIENT-INTERNAL-ID	115	135	21	alphanumeric	
PATIENT-NAME	136	220	85	alphanumeric	
PATIENT-BIRTH-DATE	221	228	8	yyyymmdd	
PATIENT-SEX	229	229	1	alphanumeric	
PATIENT-RACE	230	230	1	alphanumeric	
PATIENT-ADDRESS	231	231	1	alphanumeric	valid patient address H
ZIP	232	240	9	alphanumeric	
FILLER	241	241	1	alphanumeric	
PATIENT-SSN	242	250	9	alphanumeric	
PATIENT-PSEUDO	251	251	1	alphanumeric	valid pseudo space or P
PATIENT-VETERAN-STATUS	252	253	2	alphanumeric	
FILLER	254	450	197	alphanumeric	
PV1-SEGMENT					
SET-ID	94	97	4	alphanumeric	
PATIENT-CLASS	98	98	1	alphanumeric	valid patient class I or O or U
DISCHARGE-DISPOSITION	99	133	35	alphanumeric	
ADMIT-DATE	134	141	8	yyyymmdd	
ADMIT-TIME	142	147	6	hhmmss	
DISCHARGE-DATE	148	155	8	yyyymmdd	
DISCHARGE-TIME	156	161	6	hhmmss	
FILLER	162	450	289	alphanumeric	

## 4.0 Transaction Specifications

### 4.1 General

The VistA software sends an Observational Result Unsolicited (ORU) result type HL7 message whenever one or more of the defined emerging pathogen initiatives are identified.

### 4.2 Specific Transaction

#### A. Identified Encounter

When EPI data are identified an EPI Observational Result Unsolicited (ORU) message is sent to the AAC. The EPI ORU message consists of the following segments:

#### Example: EPI ORU Message

ORU	OBSERVATIONAL RESULT UNSOLICITED
MSH	Message Header
NTE	Notes and Comments
PID	Patient Identification
PV1	Patient Visit
NTE	Notes and Comments
DG1	Diagnosis
DSP	Display Data
ZXE	Pharmacy Prescription
OBR	Observation Report
OBX	Results

```
MSH|~|\&|EPI-XXX|170|EPI-XXX|170|19961018113521||ORU~R01|107|P|2.2|||||USA
NTE||REPORTING DATE FROM 19850101 TO 19961018
PID|1|000-00-
0008~0~M10|5~5~M10||LABPATIENT~EIGHT||19220912|M||7|||||||052167946
PV1|1|O|||||||||||||||||||||||||||||||||19950315151907
NTE|1|Vanc-Res Enterococcus
DG1|1|I9|451.19^DEEP PHLEBITIS-LEG NEC^I9
DG1|2|I9|511.9^PLEURAL EFFUSION NOS^I9
DG1|3|I9|670.02^MAJOR PUERP INF-DEL P/P^I9
DG1|4|I9|331.0^ALZHEIMER'S DISEASE^I9
DG1|5|I9|500.^COAL WORKERS' PNEUMOCON^I9
OBR|1|||^CHEMISTRY TEST^VANLT|||19950315151907|||||||SER^^SERUM
OBX|1|ST|84330.0000^Glucose Quant^VANLT^260^GLUCOSE1^VA60||25|mg/dL|70-125|L*
NTE|2|2^Hepatitis C antibody
OBR|2|||^CHEMISTRY TEST^VANLT|||19950315151907|||||||SER^^SERUM
OBX|1|ST|84330.0000^Glucose Quant^VANLT^260^GLUCOSE1^VA60||25|mg/dL|70-125|L*
PID|2|000-00-
0009~8~M10|7~7~M10||LABPATIENT~NINE||19591229|F||7|||||||023456666
PV1|1|O|||||||||||||||||||||||||||||||||19950315152721
NTE|1|1^Vanc-Res Enterococcus
OBR|1|||87999.0000^MICRO CULTURE^VANLT|||198612100835|||||||^BLOOD
OBX|1|CE|87993.0000^BACTERIOLOGY CULTURE^VANLT|1|^ESCHERICHIA COLI
OBR|2||^ANTIBIOTIC
MIC^VANLT|||198612100835|||||||^BLOOD|||||||87993.0000^1
OBX|1|ST|81812.0000^Neomycin^VANLT^18^NEOMYCIN^VA62.06|||||R
OBX|2|ST|^35^BACTRCN^VA62.06|||||R
OBX|3|ST|81852.0000^Penicillin^VANLT^23^PENICLN^VA62.06|||||R
OBX|4|ST|81676.0000^Clindamycin^VANLT^3^CLINDAM^VA62.06|||||S
```

**Table VA011 - Period of Service**

Value	Description
0	KOREAN
1	WORLD WAR I
2	WORLD WAR II
3	SPANISH AMERICAN
4	PRE-KOREAN
5	POST-KOREAN
6	OPERATION DESERT SHIELD
7	VIETNAM ERA
8	POST-VIETNAM
9	OTHER OR NONE
A	ARMY--ACTIVE DUTY
B	NAVY, MARINE--ACTIVE DUTY
C	AIR FORCE--ACTIVE DUTY
D	COAST GUARD--ACTIVE DUTY
E	RETIRED, UNIFORMED FORCES
F	MEDICAL REMEDIAL ENLIST
G	MERCHANT SEAMEN--USPHS
H	OTHER USPHS BENEFICIARIES
I	OBSERVATION/EXAMINATION
J	OFFICE OF WORKERS COMP.
K	JOB CORPS/PEACE CORPS
L	RAILROAD RETIREMENT
M	BENEFICIARIES-FOREIGN GOV
N	HUMANITARIAN (NON-VET)
O	CHAMPUS RESTORE
P	OTHER REIMBURS. (NON-VET)
Q	OTHER FEDERAL - DEPENDENT
R	DONORS (NON-VET)
S	SPECIAL STUDIES (NON-VET)
T	OTHER NON-VETERANS
U	CHAMPVA--SPOUSE, CHILD
V	CHAMPUS
W	CZECHOSLOVAKIA/POLAND SVC
X	PERSIAN GULF WAR
Y	CAV/NPS
Z	MERCHANT MARINE

**Table 0070 - Specimen Source Codes (continued)**

Abbreviations	Descriptions	Abbreviations	Descriptions	Abbreviations	Descriptions
ABS	Abscess	FLU	Body fluid, unsp	SER	Serum
AMN	Amniotic fluid	GAS	Gas	SKN	Skin
ASP	Aspirate	GAST	Gastric fluid/contents	SKM	Skeletal muscle
BPH	Basophils	GEN	Genital	SPRM	Spermatozoa
BIFL	Bile fluid	GENC	Genital cervix	SPT	Sputum
BBL	Blood bag	GENV	Genital vaginal	SPTT	Sputum tracheal aspirate
BLDC	Blood capillary	HAR	Hair	STON	Stone (use CALC)
BPU	Blood product unit	IHG	Inhaled Gas	STL	Stool = Fecal
BLDV	Blood venous	IT	Intubation tube	SWT	Sweat
BON	Bone	ISLT	Isolate	SNV	Synovial fluid (Joint fluid)
BRTH	Breath (use EXHLD)	LAM	Lamella	TEAR	Tears
BRO	Bronchial	WBC	Leukocytes	THRT	Throat
BRN	Burn	LN	Line	THRB	Thrombocyte (platelet)
CALC	Calculus (=Stone)	LNA	Line arterial	TISS	Tissue
CDM	Cardiac muscle	LNV	Line venous	TISG	Tissue gall bladder
CNL	Cannula	LIQ	Liquid NOS	TLGI	Tissue large intestine
CTP	Catheter tip	LYM	Lymphocytes	TLNG	Tissue lung
CSF	Cerebral spinal fluid	MAC	Macrophages	TISPL	Tissue placenta
CVM	Cervical mucus	MAR	Marrow	TSMI	Tissue small intestine
CVX	Cervix	MEC	Meconium	TISU	Tissue ulcer
COL	Colostrum	MBLD	Menstrual blood	TUB	Tube NOS
CBLD	Cord blood	MLK	Milk	ULC	Ulcer
CNJT	Conjunctiva	MILK	Breast milk	UMB	Umbilical blood
CUR	Curettage	NAIL	Nail	UMED	Unknown medicine

**Table 0070 - Specimen Source Codes (continued)**

Abbreviations	Descriptions	Abbreviations	Descriptions	Abbreviations	Descriptions
CYST	Cyst	NOS	Nose (nasal passage)	URTH	Urethra
DIAF	Dialysis fluid	ORH	Other	UR	Urine
DOSE	Dose med or substance	PAFL	Pancreatic fluid	URC	Urine clean catch
DRN	Drain	PAT	Patient	URT	Urine catheter
DUFL	Duodenal fluid	PRT	Peritoneal fluid ascites	URNS	Urine sediment
EAR	Ear	PLC	Placenta	USUB	Unknown substance
EARW	Ear wax (cerumen)	PLAS	Plasma	VOM	Vomitus
ELT	Electrode	PLB	Plasma bag	BLD	Whole blood
ENDC	Endocardium	PLR	Pleural fluid (thoracentesis fld)	BDY	Whole body
ENDM	Endometrium	PMN	Polymorphonucle arneutrophils	WAT	Water
EOS	Eosinophils	PPP	Platelet poor plasma	WICK	Wick
RBC	Erythrocytes	PRP	Platelet rich plasma	WND	Wound
EYE	Eye	PUS	Pus	WNDA	Wound abscess
EXHLD	Exhaled gas (breath)	RT	Route of medicine	WNDE	Wound exudate
FIB	Fibroblasts	SAL	Saliva	WNDD	Wound drainage
FLT	Filter	SEM	Seminal fluid	XXX	To be specified in another part of the message
FIST	Fistula				

**Table 0005 – Race:**

1ST RACE COMPONENT Identifier comes from table 0005.

2ND COMPONENT Text- comes from table 0005.

IDENTIFIER	TEXT
0000-0-SLF	Declined to answer
9999-4-SLF	Unknown by patient
1002-5-SLF	American Indian or Alaska Native (self identified)
1002-5-PRX	American Indian or Alaska Native (proxy identified)
1002-5-OBS	American Indian or Alaska Native (observer identified)
1002-5-UNK	American Indian or Alaska Native (unknown identifier)
2028-9-xxx	Asian (xxx identified)
2054-5-xxx	Black or African American (xxx identified)
2076-8-xxx	Native Hawaiian or other Pacific Islander (xxx identified)
2106-3-xxx	White (xxx identified)

**Table CDC – Race:**

3rd RACE COMPONENT Identifier - comes from table CDC.

4th COMPONENT Text - comes from table CDC.

IDENTIFIER	TEXT
null	Unknown by patient or Declined to answer
1002-5	American Indian or Alaska Native
2028-9	Asian
2054-5	Black or African American
2076-8	Native Hawaiian or other Pacific Islander
2106-3	White

**Table 0189 - Ethnic Group**

1ST ETHNICITY COMPONENT Identifier - comes from table 0189.

2ND COMPONENT Text - comes from table 0189.

IDENTIFIER	TEXT
0000-0-SLF	Declined to answer
9999-4-SLF	Unknown by patient
2135-2-SLF	Hispanic or Latino (self identified)
2135-2-PRX	Hispanic or Latino (proxy identified)
2135-2-OBS	Hispanic or Latino (observer identified)
2135-2-UNK	Hispanic or Latino (unknown identifier)
2186-5-xxx	Not Hispanic or Latino (xxx identified)

**Table CDC - Ethnic Group**

3rd ETHNICITY COMPONENT Identifier - comes from table CDC.

4th ETHNICITY COMPONENT Text - comes from table CDC.

Value	Description
Null	Unknown by patient or Declined to answer
2135-2	Hispanic or Latino
2186-5	Not Hispanic or Latino

**Table 0001 - Sex**

Value	Description
F	FEMALE
M	MALE
O	OTHER

**Table 0078 - Abnormal flags**

Value	Description
L	Below low normal
H	Above high normal
LL	Below lower panic limits
HH	Above upper panic limits
For microbiology sensitivities only	
S	Sensitive
R	Resistant
I	Intermediate
MS	Moderately sensitive
VS	Very sensitive

**Table Specimen Source ID Code**

Value	Description
Problem List	1
Encounter Dx	2
Discharge DX	3

**Table Hepatitis Risk Assessment Resolutions**

Value	Description
Declined Hep C Risk Assessment	1
No Risk Factors for Hep C	2
Prev Positive Test for Hep C	3
Risk Factor for Hepatitis C	4
Hep C Virus Antibody Positive	5
Hep C Virus Antibody Negative	6
Hepatitis C Infection	7

**NOTE:** Term other than Hepatitis C National Risk Assessment Clinical Reminders resolution term 00

**APPENDIX – D**  
**VHA DIRECTIVE 2001-039**  
**JUNE 27, 2001**  
**IMPLEMENTATION OF LOGICAL**  
**OBSERVATION IDENTIFIERS NAMES**  
**AND CODES (LOINC®) FOR**  
**LABORATORY DATA**



# APPENDIX – D

Department of Veterans Affairs	VHA DIRECTIVE 2001-039
Veterans Health Administration	
Washington, DC 20420	June 27, 2001

## IMPLEMENTATION OF LOGICAL OBSERVATION IDENTIFIERS NAMES AND CODES (LOINC®) FOR LABORATORY DATA

*NOTE: LOINC® is a registered trademark symbol.*

**1. PURPOSE:** This Veterans Health Administration (VHA) Directive defines policies on the need for consistent laboratory test names across the national system within the Veterans Health Information Systems Technology Architecture (VistA) software.

### 2. BACKGROUND

a. Improving health data is also a high priority that is consistent with VHA’s goal of improving the quality and accessibility of medical information for clinicians and veterans. In order to provide optimal clinical care, accurate, comprehensive, accessible, and timely data is necessary. Improvements in the provision and outcomes of VHA health care can only be measured by consistent and valid information.

b. LOINC® is a data system that provides a standard set of universal names and codes for identifying individual laboratory results. Developed as a collaborative effort including VHA’s Office of Information (OI) staff, LOINC® codes were first released in April 1996 and have since been formally endorsed by the American Clinical Laboratory Association, the association of large referral laboratories whose membership is responsible for over 60 percent of outpatient laboratory testing in the United States. Numerous private commercial laboratories, health plans and health care provider systems have since adopted this system. LOINC® codes have been incorporated into the National Library of Medicine’s Unified Medical Language System and are the basis of the Health Care Financing Administration’s (HCFA) proposed International Classification of Diseases, 10<sup>th</sup> edition (ICD-10), laboratory codes. The codes have been incorporated into HCFA’s quality assurance testing pilot programs and adopted by the Centers for Disease Control and Prevention to test reporting of communicable disease information electronically. VHA is represented on the committee responsible for introducing new codes.

c. The primary benefit to the Department of Veterans Affairs (VA) health care is having a system that integrates data across inpatient and outpatient settings and across facilities, allowing easy and timely retrieval of clinically useful information needed to provide efficient, high quality individual patient care. LOINC® allows the aggregation of clinical laboratory data within Veterans Integrated Service Networks (VISNs), and nationally, efforts that are currently encumbered by the high rates of variation in local laboratory test naming. Such mapping provides a way to support multiple, normal ranges based on test, method, specimen, sex, and patient age.

d. Hepatitis C infection, an important public health and medical problem for many veterans, is a high priority for VHA. The Under Secretary for Health has requested the creation of an electronic database to

monitor the clinical outcomes of patients in the VA system with Hepatitis C infection and information needed for the oversight and management of the national hepatitis C program. A prerequisite for the implementation of such a registry is the availability of standardized laboratory test result data across VHA.

**THIS VHA DIRECTIVE EXPIRES JUNE 30, 2006**

e. Patch LR\*5.2\*215, to Version 5.2 of the Laboratory software application, was released in April 1999. This patch provides a mapping process for linking VA National Laboratory Test (NLT) codes to LOINC®.

**3. POLICY:** It is VHA policy that VISN and facility Directors must provide a national system for laboratory test names by ensuring the installation, set-up, and maintenance of each facility's laboratory software mapping to LOINC®.

**4. ACTION**

a. By June 30, 2001, each facility must install Patch LR\*5.2\*215 to laboratory software version 5.2.

b. By July 16, 2001, each VISN Director must have designated one lead person, to be known as the VISN LOINC® Coordinator, who will be responsible for ensuring that, at each VistA site, the appropriate mapping of NLT to LOINC® codes will be performed. In addition, the VISN LOINC® Coordinator will serve as a VistA corporate liaison between the VISN and VHA Information Technology team responsible for providing training on the use of the mapping tool. *NOTE: The VISN LOINC® Coordinators will work to ensure complete implementation of LOINC® coding within their respective VISNs.*

(1) The LOINC® Coordinator needs to have a broad-based knowledge of clinical laboratory medicine, an overall understanding of the VistA Laboratory Service software package, experience using general VistA applications (i.e., FileMan, MailMan), and be able to grasp the analytical concepts to properly encode test results in all areas of laboratory (i.e., serology, chemistry, microbiology, blood bank, and immunology).

(2) VISN LOINC® Coordinators will receive training on the lab linking process and orientation to their roles as LOINC® Coordinators through a series of teleconferences for that purpose. Training will be coordinated through the OI National Training and Education Office. Specific information on the LOINC® training is available at: <http://vaww.vistau.med.va.gov/vistau/loinc/loinc.htm>. Training and support through teleconferences and audio question and answer sessions will be made available to the VistA site clinical laboratory VistA liaison (Laboratory Information Manager (LIM) or Automated Data Processing Application Coordinator (ADPAC)). *NOTE: It is requested that facilities do not initiate the mapping process until they have been appropriately trained.*

c. By July 16, 2001, each VISN Director must forward the name and contact information for each VISN LOINC® Coordinator to the National Pathology Enforcement Officer (115), Veterans Health Administration, 810 Vermont Avenue, NW, Washington, DC 20420, or fax to (202) 273-7561.

d. By September 30, 2001, each VISN LOINC® Coordinator must ensure the linking of Hepatitis C-related laboratory tests at each facility and report completion to the VISN Director. *NOTE: The actual mapping will be performed by the LIM or ADPAC at all facilities.*

e. By December 31, 2001, VISN LOINC® Coordinators must have completed the full mapping of LOINC® codes within all facility clinical laboratories and report completion of the task to the VISN Director as well as the Pathology Regional Commissioners. Complete mapping for all laboratory test names is required.

**5. REFERENCES**

a VHA Executive Decision memorandum approved by the Under Secretary for Health on September 20, 2000. <<http://www.va.gov/hepatitisc>>

b. Logical Observation Identifier Names and Codes (LOINC®) User’s Guide, January 5, 2001, c/o Regenstrief Institute, Indianapolis, IN. The LOINC® is copyrighted (1995-2001) by Regenstrief Institute and the LOINC® Committee. The Department of Veterans Affairs abides by all copyright restrictions. For further information go to <<http://www.regenstrief.org/loinc/>>.

c. National Laboratory Test (NLT) Mapping to Logical Observation Identifier Names and Codes (LOINC®) Patch LR\*5.2\*215, Technical, Installation and User Guides, Version 5.2, April 1999, Department of Veterans Affairs, Software Service, Clinical Ancillary Product Line. Further information is at <[http://vista.med.va.gov/softserv/clin\\_nar.row/lab/loinc/loinchm.htm](http://vista.med.va.gov/softserv/clin_nar.row/lab/loinc/loinchm.htm)>.

**6. FOLLOW-UP RESPONSIBILITY:** The Chief Consultant for Public Health, Strategic Healthcare Group (SHG), and Chief Consultant, Diagnostic Services SHG, are responsible for the contents of this Directive. Technical support for the preceding actions will be provided by the OI Software Design and Development Group. Content support will be provided by the Chief Consultant, Diagnostic Services SHG.

**7. RECISSIONS:** None. This VHA Directive expires June 30, 2006.

		S/ Timothy N. Buckley for
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		Under Secretary for Health
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