#### Laboratory

# Emerging Pathogens Initiative (EPI) Roll Up Modifications Technical and User Manual



Version 5.2

June 2004

Revised July 2014

Department of Veterans Affairs

Office of Information and Technology (OIT)

Product Development

#### **Revision History**

| Date    | Version  | Description   | Author                                     |
|---------|--|---|--|
| 07/2014 | LR*5.2*421<br>pp. iii-ii,  | Updated for ICD-10 Remediation: Added Revision History.   | Kathy Krause, VA<br>PM;<br>Dave Getman, HP |
|         | p. <u>iii,</u>   | Updated information in Preface.   | PM;<br>G. Bach, TW                         |
|         | p. <u>v</u>  | Updated Orientation   | er Baerr, TT                               |
|         | p. <u>ix-xvi</u>   | Updated and renumbered TOC.   |  |
|         | pp.74, 78, 111, 122,<br>127, 131, 135, 139,<br>142, 146, 149, 153,<br>157, 161, 165, 169,<br>173, 176, 179, 183,<br>186, 189, 193, 197,<br>201, 205, 214, 219  | Added information on ICD-10 input screens and examples.   |  |
|         | pp. <u>16</u> , <u>66</u> , <u>114</u> , <u>141</u> ,<br><u>144</u> , <u>148</u> , <u>171</u> , <u>175</u> ,<br><u>178</u> , <u>191</u> , <u>212</u> , <u>226</u> ,<br><u>234</u> , <u>262</u> , <u>264</u> , <u>266</u> | General changes from ICD-9 to ICD.  |  |
|         | p. <u>362</u> , <u>356</u>   | Updated DG1 Segment of HL7 message to utilize ~ rather than ^.  |  |
|         | p. <u>40</u>   | Updated file (#69.5) file fields.   |  |
|         | pp. <u>36</u> , <u>39</u> , <u>45</u> , <u>50</u>  | Added notes that refer users to the LR*5.2*421 Release Notes for Required Patches, Installation and Post Installation instructions. |  |
|         | pp. <u>229, 230</u>  | Removed Personally Identifiable Information (PII).  |  |
|         | Multiple pages   | Changed AAC to Austin Information Technology Center (AITC) throughout manual  |  |
| 05/2008 | LR*5.2*175   | Initial release   |  |

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#### **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.

The International Classification of Diseases, Tenth Revision (ICD-10) Remediation patch LR\* 5.2\*421 makes the following changes to the Emerging Pathogens Initiative (EPI) application:

- The following fields and screens have been updated to refer to "ICD" rather than "ICD9":
  - o Laboratory Search/Extract Parameters Input screens
  - o Enter/Edit Local Pathogens screens
  - o Detailed Verification Report
  - o Help text
- Within the Enter/Edit Local Pathogens and Laboratory Search/Extract Parameters Input screens, users are prompted to specify a code set on which to search prior to entering an ICD code. Based on this input, the system will only allow ICD-9 entry or ICD-10 entry.
- The Pathogen Inquiry option has been modified to list both ICD-9 and ICD-10 codes.
- The Generate Local Report/Spreadsheet option has been modified to include both the Diagnosis Code Set Designation and the Diagnosis Code.
- Health Level 7 (HL7) Reports that are sent to Austin Information Technical Center (AITC), formerly Austin Automation Center (AAC), have been modified to include ICD-10 Codes and Descriptions, which are included in the DG1 HL7 Segments.

#### **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 Information Technology Center (AITC) 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 Information Technology Center (AITC)

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 (AITC) 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 Information Technology Center (AITC) 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 (AITC) capacity limitations.

Sites may transmit EPI historical data reports to AITC 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:

| OIFOs               | FTP ADDRESS               | DIRECTORY            |
|---------------------|---------------------------|----------------------|
| Albany              | ftp.fo-albany.med.va.gov  | [ANONYMOUS.SOFTWARE] |
| Hines               | ftp.fo-hines.med.va.gov   | [ANONYMOUS.SOFTWARE] |
| Salt Lake City      | ftp.fo-slc.med.va.gov     | [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:

| FILE NAME             | RETRIEVAL FORMATS                |
|-----------------------|----------------------------------|
| 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) <a href="http://www.va.gov/vdl/">http://www.va.gov/vdl/</a>

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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 PXRM\*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.

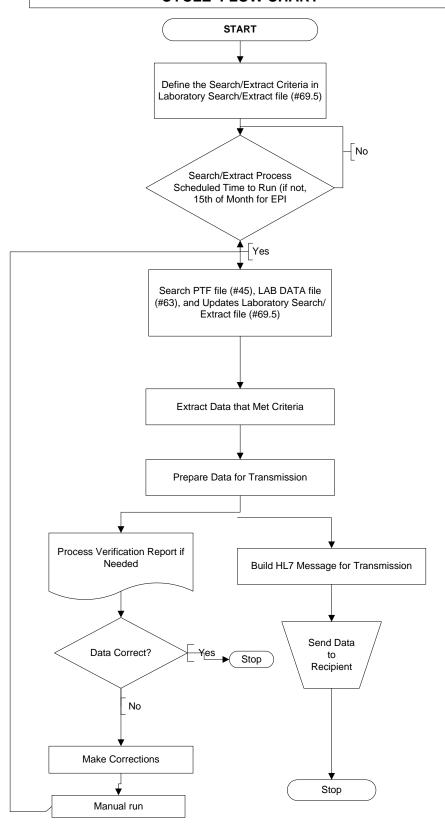
1

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):

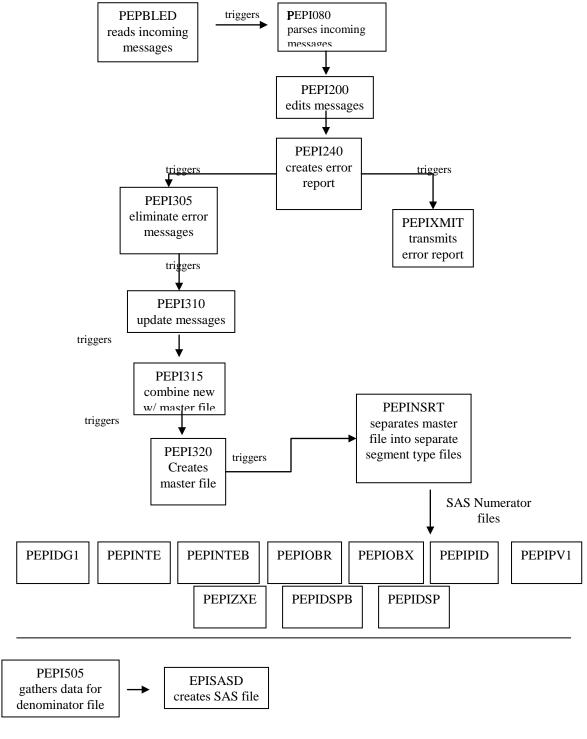
- New EPI Summary Verification Report of EPI-extracted data from site in plain text (human-readable) format for nationally rolled-up pathogen information
- New EPI Detailed Verification Report of EPI-extracted data from site in plain text (human-readable) format for nationally rolled-up pathogen information
- 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-10, 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-subscripted 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-subscripted)
- 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

### AUTOMATED EMERGING PATHOGENS INITIATIVE DATA CYCLE FLOW CHART



#### 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 Information Technology Center (AITC), 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 AITC, 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).

#### <u>Lab EPI Generate Report/Spreadsheet [LREPI GENERATE REPORT/SP] option:</u>

This **new** option is used to <u>generate</u> 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 AITC when using this option.

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

This **new** option is used to <u>print</u> 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 <u>delete</u> local pathogens entries ONLY.

**NOTE:** National emerging pathogens entries CANNOT be deleted.

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

This **new** option is use to <u>delete</u> 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 AITC 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 [AITC])
- 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 AITC 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:**

#### <u>Logical Observation, Identifiers, Name, and Codes (LOINC)</u>

EPI Roll up Modifications software provides the ability to <u>automatically</u> extract LOINC data, transmit the data to the AITC, 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 <u>automatically</u> extract MPI values and transmit the data to AITC.

#### Susceptibility Results MIC Values

EPI Roll Up Modifications software provides the ability to <u>automatically</u> 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 AITC. 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 AITC, 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 AITC, 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 <u>without</u> 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 AITC 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 AITC 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.

**Enhancements and Modifications** 

## Austin Information Technology Center Database Processing

The Austin Information Technology Center (AITC) serves as the central data repository for the national EPI pathogen data that is rolled-up from sites. AITC 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 AITC 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.

#### **AITC 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 AITC. 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 AITC 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.

#### **AITC Transmission Reports**

#### EPI Confirmation Mailman Message sent from AITC

An EPI Confirmation mailman message is sent from the AITC 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 AITC for processing.

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

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

The **new** EPI Processing Error Report mailman message itemizes all transmissions received by AITC 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 AITC and for AITC 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 AITC.

#### 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 AITC. 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 **V**IST**A** 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 Ll 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.

### <u>Laboratory Staff:</u>

It is **highly recommended** that the following person(s) <u>jointly</u> 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) <u>jointly</u> 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 minicomputer category, which provides <u>multi-tasking</u> and <u>multi-user</u> 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 <u>highly</u> 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:**

**NOTE:** For a list of patches required to install patch LR\*5.2\*421, please refer to the ICD-10 Release Notes for LR\*5.2\*421.

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 AITC.

#### **Protocols:**

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

**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 AITC.

### **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
        VISIT
                            0;3
.03
                                     Direct Global Read
      PROVIDER NARRATIVE
                            0;4
.04
                                      Direct Global Read
.12
                                      Direct Global Read
       PRIMARY/SECONDARY
                            0;12
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
             DATA SOURCE 812;3
      81203
                                           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
                                        ENTERED: MAY 27,2004
             USAGE: Private
                                         EXPIRES:
             STATUS:
           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
                                       0;1 FREE TEXT (Required)
              NAME
              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.
                                 This is the name of the Search/Extract
              DESCRIPTION:
                                 parameter you are defining.
              NOTES:
                                 XXXX--CAN'T BE ALTERED EXCEPT BY PROGRAMMER
                                 69.5<sup>A</sup>B
              CROSS-REFERENCE:
                                 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)

**NOTE:** For Patch LR\*5.2\*421, the following changes have been made for File (#69.5) to support ICD-10 implementation. The "ICD-9 Diagnosis" field has been modified to "ICD Diagnosis." Please refer to the ICD-10 Release Notes for LR\*5.2\*421.

69.5,4 ICD DIAGNOSIS 3;0 POINTER Multiple #69.54

LAST EDITED: JUN 12, 2012

DESCRIPTION: This defines the ICD to search for.

69.54,.01 ICD DIAGNOSIS 0;1 POINTER TO ICD DIAGNOSIS FILE (#80)

(Multiply asked)

LAST EDITED: SEP 17, 2012

HELP-PROMPT: Select the ICD standardized code, used

nationwide in federal and non-federal private health care facilities, to be included in the

search.

DESCRIPTION: This defines an ICD for use in emerging

pathogens data search/extract.

CROSS-REFERENCE: 69.54^B

1)= S LAB(69.5,DA(1),3,"B",\$E(X,1,30),DA)="" 2)= K ^LAB(69.5,DA(1),3,"B",\$E(X,1,30),DA)

69.54,1 CODING SYSTEM 0;2 POINTER TO ICD CODING SYSTEMS FILE

(#80.4)

LAST EDITED: AUG 10, 2012

HELP-PROMPT: Enter the applicable ICD coding system for

this ICD.

#### **INACTIVE** field (#69.5,1)

This field has been renamed from ACTIVE to INACTIVE.

Example: 69.5,1 INACTIVE 0;2 SET

'1' FOR YES;
'0' FOR NO;

LAST EDITED: JUN 19, 2002

HELP-PROMPT: '1' or 'YES' indicates that this is an

inactive entry. '0' or 'NO' indicates that

this is an active entry.

DESCRIPTION:

This defines if this entry is active or not.

#### PROTOCOL field (#69.55,12):

This field defines the protocol associated with the parameters. This field has been **changed** to UNEDITABLE.

Example: 69.5,12 PROTOCOL 0;7 POINTER TO LAB

SEARCH/EXTRACT PROTOCOL

FILE (#69.4)

LAST EDITED: NOV 06, 2003

HELP-PROMPT: Select the Protocol to be used to define the

output messages.

DESCRIPTION: This defines what protocol is associated with

the parameters.

UNEDITABLE

#### **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

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 subfield (#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 |          |                         |
| <br>LR281    | N/A          | 4418686  | 281(Deleted by KIDS)    |
| LREPI        | 14217525     |          | 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      |          | 132,175,260,281         |
| LREPI5       | NEW          | 2408593  |                         |
| LREPIPH      | 5818757      | 6144410  | 260,281                 |
| LREPIPI      | NEW          | 5220624  | 260,281<br>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 |                         |
| LREPIRP7     | NEW          | 17171829 | 281                     |
| LREPIRP8     | NEW          | 8376752  | 281                     |
| LREPIRP9     | NEW          | 4718     | 281                     |
| LREPIRS      | NEW          | 8576522  | 281                     |
| LREPIRS1     | NEW          | 16664999 |                         |
| LREPIRS2     | NEW          | 22133542 |                         |
| LREPIRS3     | NEW          | 16290972 | 281                     |
| LREPISRV     | 12552990     | 15211664 | 260,281                 |
| LREPISV1     | NEW          | 4805594  | 281                     |

Pre-Installation Information

# Installation Instructions

**NOTE:** For Patch LR\*5.2\*421 installation instructions, please refer to the ICD-10 Release Notes for LR\*5.2\*421.

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

# **Installation Instructions**

production account to the routines in the patch by using the 'Compare a Transport Global to Current System' option.

- 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 ***
```

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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% 25 50 75 Complete

Install Completed

# Post Installation and Implementation Instructions

**NOTE:** For Patch LR\*5.2\*421 post installation instructions, please refer to the ICD-10 Release Notes for LR\*5.2\*421.

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:**

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

**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>
          Systems Link Monitor
   SM
   FM
          Monitor, Start, Stop Filers
          TCP Link Manager Start/Stop
          Stop All Messaging Background Processes
   SA
          Restart/Start All Links and Filers
  RA
          Default Filers Startup
  \mathsf{DF}
   \operatorname{SL}
          Start/Stop Links
          Ping (TCP Only)
   PΙ
   ED
          Link Edit
          Link Errors ...
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: 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:  $\mathbf{B}//$  ACKGROUND

Job was queued as 130212.

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

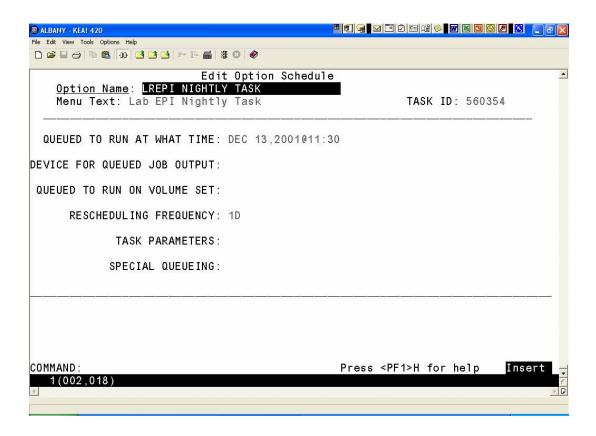
The Lab EPI Nightly Task [LREPI NIGHTLY TASK] option **must** be scheduled to run nightly. This option will build HL7 messages and send them to the defined locations specified by the LREPI protocol.

# 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>
```

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**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 Information Technology Center (AITC) and for AITC 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 AITC. 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 AITC. 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

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 no 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 AITC 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**

created to assist in the verification of data.

```
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
```

# 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 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 (the 2ND 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, PXRM\*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.

# <u>LIM - Step 3: Link the Logical Observations, Identifiers, Names, and Codes</u> (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, PXRM\*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 Information Technology Center (AITC) 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 (AITC) 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 (AITC) capacity limitations.

Sites may transmit EPI historical data reports to AITC 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.

Post Installation and Implementation Instructions

# Vista Laboratory EPI ROLLUP MODIFICATIONS USER MANUAL

Post Installation and Implementation Instructions

# 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) <u>jointly</u> 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 ICD 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 Menu (LREPI SEARCH EXTRACT MENU) |  |  |  |  |
|--|--|--|--|--|
| <br>   | ENH                                    | Lab EPI Manual Run (Enhanced) [LREPI ENHANCE MANUAL RUN]   |  |  |
|  | VR                                     | Print Detailed Verification<br>Report [LREPI VERIFICATION<br>REPORT]   |  |  |
|  | Pathogen Menu [LREPI<br>PATHOGEN MENU] | Enter/Edit Local Pathogens<br>[LREPI ENTER/EDIT LOCAL PATH]  |  |  |
|  | GEN                                    | Lab EPI Generate Local<br>Report/Spreadsheet [LREPI<br>GENERATE REPORT/SP]   |  |  |
|  | PRT                                    | Lab EPI Print Local<br>Report/Spreadsheet [LREPI<br>PRINT REPORT/SPSHT]  |  |  |
|  |  | Delete Local Pathogen [LREPI<br>DELETE LOCAL PATHOGEN]<br>Delete Local Report or<br>Spreadsheet [LREPI DELETE LOCAL<br>REPORT] |  |  |
|  | PI                                     | Pathogen Inquiry [LREPI PATHOGEN INQUIRY]  |  |  |
|  | UP                                     | Lab EPI Parameter Setup [LREPI PARAMETER SETUP]  |  |  |
|  |  | Lab EPI Protocol Edit [LREPI PROTOCOL EDIT]  |  |  |
|  | LK                                     | Antimicrobial Link Update [LREPILK]  |  |  |

# 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 Information Technology Center (AITC), 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 AITC, local pathogens extract data will NOT be transmitted.

Lab EPI Transmissions to AITC 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

June 2004

## 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
         Local Pathogen Menu ...
  \Gamma_i O
         Pathogen Inquiry
  PΙ
          Lab EPI Parameter Setup
  UP
          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  |  | ST 4   | DOB  | SE   |  | _   | OF SE  | RVICE   |
|---|--|--|--|--|--|---|--|---|
| LABPATIENT~ONE  |  | 001  | 02-05-194  | 9 M  | 4  | VIETNA  | AM ERA   |   |
| Outpatient Accession  |  |  |  |  |  |   |  |   |
| 01-09-2003@1600 BACT  | 3 03 275   | MICRO (  | CULTURE U  |  |  |   |  |   |
| 1   |  |  | 01-12-20   | 03   | ENT  | EROCOCCU  | JS FAEC  | IUM   |
| ORG # 1 01-09-2003@1  | 600 ANTT   | DTOTTC   | MIC URIN   | c  |  |   |  |   |
| PENICILLIN  | OUU ANII   | втоттс   | R C OKIN.  | E .  |  | R   |  |   |
| VANCOMYCIN  |  |  | R  |  |  | R   |  |   |
| VANCOMICIN<br>NITROFURANTOIN  |  |  | S  |  |  | S   |  |   |
| CIPROFLOXACIN   |  |  | R  |  |  | R   |  |   |
| LEVOFLOXACIN<br>LEVOFLOXACIN  |  |  | R<br>R   |  |  | R<br>R  |  |   |
|   |  |  |  |  |  |   | D.   |   |
| GENTAMICIN HP   |  |  | SYN-R  |  | SYN-R  |   |  |   |
| STREPTOMYCIN HP   |  |  | SYN-R  |  |  | SYN-  |  | . ~= ^  |
|   |  | ~  |  |  |  |   |  | AGE 2   |
| DETAIL  |  |  | REPORT OF  |  |  |   |  | J   |
| will be displayed)  | F.RC   | IM STAT.   | ION (your  | site   | sta  | illon nur   | wer and  | ı name  |
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| NTE~2 Report of Hepat   |  |  |  | ıır oug  | JII U  | ,1-31-20(   | در   |   |
|   |  |  |  |  |  |   |  | مام ما ما   |
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|   |  | antiboo  | ıv (Dased (  | on ac  | ces  | ssion dat   |  |   |
| positive test for hep   |  |  |  |  |  |   |  | . 2 . 2 . 2   |
| results reported date   | e). Defini   | tions f  | for data t   | o be   | ext  |   |  |   |
|   | e). Defini   | tions f  | for data t   | o be   | ext  |   |  |   |
| results reported date<br>Technical and User Ma  | e). Defini<br>unual docu   | tions i  | for data to<br>ion for Lai   | o be<br>borat  | ext  | EPI LR'   | 5.2*28   | L.  |
| results reported date   | e). Defini<br>unual docu   | tions i  | for data t   | o be<br>borat  | ext  | EPI LR'   |  | L.  |
| results reported date<br>Technical and User Ma  | e). Defini<br>unual docu   | tions fumentations of the desired tensor of  | for data to ion for Ladession Date -2003@0700  | o be<br>borat<br>e Te<br>HEP                                       | ext<br>cory<br>est<br>C A  | Name TANTIBODY  | *5.2*28<br>Test Res  | l. sult POSITIVE  |
| results reported date<br>Technical and User Ma<br>Name  | e). Defini<br>nual docu<br>LAST  | tions fumentations of the desired tensor of  | for data to<br>ion for La<br>ession Data   | o be<br>borat<br>e Te<br>HEP                                       | ext<br>cory<br>est<br>C A  | Name TANTIBODY  | *5.2*28<br>Test Res  | l. sult POSITIVE  |
| results reported date Technical and User Ma Name LABPATIENT~TWO   | e). Defini<br>nual docu<br>LAST  | tions famentat: 4 Acce 01-16- 01-14-   | for data to ion for Ladession Date -2003@0700  | o be<br>borat<br>e Te<br>HEP<br>HEP                                | ext<br>cory<br>est<br>C A  | Name TANTIBODY  | *5.2*283<br>Test Res<br>STRONG<br>STRONG   | POSITIVE POSITIVE   |
| results reported date Technical and User Ma Name LABPATIENT~TWO LABPATIENT~THREE  | LAST 0002 0003   | 4 Acce<br>01-16-<br>01-14-<br>01-22-<br>01-30-   | for data to<br>ion for La<br>ession Data<br>-2003@0700<br>-2003@0909<br>-2003@1833<br>-2003@1137   | o be borat  E Te  HEP  HEP  HEP  HEP                               | ext<br>cory<br>cst<br>C A<br>C A   | Name TANTIBODY ANTIBODY ANTIBODY ANTIBODY   | STRONG<br>STRONG<br>STRONG<br>STRONG<br>STRONG   | POSITIVE POSITIVE POSITIVE POSITIVE   |
| results reported date Technical and User Ma Name LABPATIENT~TWO LABPATIENT~THREE LABPATIENT~FOUR  | LAST  0002 0003 0004   | 4 Acce<br>01-16-<br>01-14-<br>01-22-<br>01-30-   | for data to<br>ion for La<br>ession Data<br>-2003@0700<br>-2003@0909<br>-2003@1833   | o be borat  E Te  HEP  HEP  HEP  HEP                               | ext<br>cory<br>cst<br>C A<br>C A   | Name TANTIBODY ANTIBODY ANTIBODY ANTIBODY   | STRONG<br>STRONG<br>STRONG<br>STRONG<br>STRONG   | POSITIVE POSITIVE POSITIVE POSITIVE   |
| results reported date Technical and User Ma  Name  LABPATIENT~TWO LABPATIENT~THREE LABPATIENT~FOUR LABPATIENT~FIVE  | LAST 0002 0003 0004 0005   | 4 Acce<br>01-16-<br>01-14-<br>01-22-<br>01-30-<br>01-13-   | for data to<br>ion for La<br>ession Data<br>-2003@0700<br>-2003@0909<br>-2003@1833<br>-2003@1137   | o be borat  HEP HEP HEP HEP HEP                                    | ext<br>cory<br>cst<br>C A<br>C A<br>C A  | Name TANTIBODY ANTIBODY ANTIBODY ANTIBODY ANTIBODY ANTIBODY ANTIBODY  | STRONG<br>STRONG<br>STRONG<br>STRONG<br>STRONG<br>STRONG   | POSITIVE POSITIVE POSITIVE POSITIVE POSITIVE POSITIVE   |
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**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.

0023

01-15-2003@1653 HEP C ANTIBODY STRONG POSITIVE

LABPATIENT2~THREE

# 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 Search/Extract Manual Run (Enhanced)
       Print Detailed Verification Report
  VR
       Local Pathogen Menu ...
  LO
  ΡI
       Pathogen Inquiry
       Lab EPI Parameter Setup
  UP
        Lab EPI Protocol Edit
       Antimicrobial Link Update
  LK
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 INACTIVE: NO NAME: Herpes virus539 Laboratory Test(s) Indicator Value < > ICD Coding System [ICD-9 or ICD-10]? (9/10):<RET> ICD Code Cd Set ICD 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 Refresh Save Next Page Enter a command or '^' followed by a caption to jump to a specific field. Press <PF1>H for help COMMAND: n 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 Refresh

Next Page

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
         Lab EPI Manual Run (Enhanced)
         Print Detailed Verification Report
        Local Pathogen Menu ...
       Pathogen Inquiry
        Lab EPI Parameter Setup
         Lab EPI Protocol Edit
  LK
        Antimicrobial Link Update
Select Lab EPI Primary Menu Option: lo Local Pathogen Menu<ENTER>
         Enter/Edit Local Pathogens
  ENT
  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 INACTIVE: NO NAME: Herpes virus539 Laboratory Test(s) Indicator Value < > ICD Coding System [ICD-9 or ICD-10]? (9/10):<RET> ICD Code Cd Set ICD Description < > Exit Refresh Save Next Page Enter a command or '^' followed by a caption to jump to a specific field. COMMAND: n Press <PF1>H for help Insert

NAME: Herpes virus539

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.

Press <PF1>H for help

LABORATORY EPI PARAMETERS INPUT SCREEN

Insert

Page 2 of 5

COMMAND: n

**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 AITC 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
       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:
                    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.

```
Enter/Edit Local Pathogens
         Lab EPI Generate Local Report/Spreadsheet
   GEN
         Lab EPI Print Local Report/Spreadsheet
   PRT
  DEL
         Delete Local Pathogen
         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>
       STREPTOCOCCUS GROUP A
    1
        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: 10 Local Pathogen Menu<ENTER>
          Enter/Edit Local Pathogens
   ENT
         Lab EPI Generate Local Report/Spreadsheet
   GEN
         Lab EPI Print Local Report/Spreadsheet
   PRT
   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
                   SPREADSHEET
Which one do you wish to print: 1 REPORT<ENTER>
1 JAN 14,2004@14:50:29 Locl 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 V
                        Test Result Verified Date/Time
********************
     000000024 LABPATIENT2, FOUR
     Outpatient
     MICRO CULTURE 04-25-2002@0041 BLOOD
1
      SALMONELLA SP 05-08-2002
1
    ANTIBIOTIC MIC 04-25-2002@0041 BLOOD
2
     AMPICILLIN R
1
2.
     TRIMETHOPRIM+SULFAMETHOXAZOLE S
     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 V
     Test Name Test Result Verified Date/Time
LEVOFLOXACIN S
      Inpatient 6 NORTH~A612~1 539
2
     MICRO CULTURE 05-01-2002@0000 FECES
1
     SALMONELLA SP 05-08-2002
1
                             ************
     000000025 LABPATIENT2, FIVE
1
     Outpatient
      MICRO CULTURE 12-30-2002@0000 BLOOD
1
       SALMONELLA SP 01-13-2003
1
***THIS REPORT CONTAINS CONFIDENTIAL INFORMATION.***
       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 V
                                 Test Result Verified Date/Time
    ANTIBIOTIC MIC 12-30-2002@0000 BLOOD
      AMPICILLIN S
1
      TRIMETHOPRIM+SULFAMETHOXAZOLE S
2.
     CEFOTAXIME S
3
     LEVOFLOXACIN S
4
    Inpatient 6 SOUTH~A667~1 539
2
     MICRO CULTURE 12-31-2002@0000 FECES
1
     SALMONELLA SP 01-03-2003
******************
```

```
***THIS REPORT CONTAINS CONFIDENTIAL INFORMATION.***
        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 V
                               Test Result Verified Date/Time
     000000026 LABPATIENT2, SIX
      Inpatient MICU/CCU~B608~8 539
      MICRO CULTURE 05-06-2002@0220 BLOOD
1
      SALMONELLA SP 05-24-2002
1
   ANTIBIOTIC MIC 05-06-2002@0220 BLOOD AMPICILLIN S
TRIMETHOPRIM+SULFAMETHOXAZOLE S
2
1
3
     CEFOTAXIME S
     LEVOFLOXACIN S
***THIS REPORT CONTAINS CONFIDENTIAL INFORMATION.***
        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
               Patient Name
Set Id SSN
Set Id Patient Class Hospital Location Facility
Set ID Test Name Accession Date Specimen
Set Id Test Name Test Result Verified Date/Time
***********************
      000000027 LABPATIENT2, SEVEN
     Outpatient
1
      MICRO CULTURE 11-03-2000@0000 FECES
1
      SALMONELLA SP 11-22-2000
1
   ANTIBIOTIC MIC 11-03-2000@0000 FECES AMPICILLIN S
2
1
2
      TRIMETHOPRIM+SULFAMETHOXAZOLE S
3
      LEVOFLOXACIN S
***THIS REPORT CONTAINS CONFIDENTIAL INFORMATION.***
        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
                   Accession Date Specimen
Set ID Test Name
Set Id Test Name
                                       Test Result Verified Date/Time
     Outpatient
       MICRO CULTURE 12-29-2000@1400 FECES
1
        SALMONELLA SP 01-03-2001
1
     ANTIBIOTIC MIC 12-29-2000@1400 FECES
2
     GENTAMICIN
1
2
      CEFAZOLIN
3
      AMPICILLIN S
4
      POLYMIXIN B
5
       TRIMETHOPRIM+SULFAMETHOXAZOLE S
***THIS REPORT CONTAINS CONFIDENTIAL INFORMATION.***
         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
             Patient Name
Set Id SSN
Set Id Patient Class Hospital Location Facility
Set ID Test Name Accession Date Specimen
Set Id Test Name Test Result V
                                      Test Result Verified Date/Time
     PIPERACILLIN
7
      CEFOTAXIME
8
      CIPROFLOXACIN
9
       IMIPENUM
10 CEFTAZIDIME
11 TIMENTIN
12 AMPICILLIN+SULBACTAM
13 CEFOTETAN
14 CEFTRIAXONE
      CEFTRIAXONE
***THIS REPORT CONTAINS CONFIDENTIAL INFORMATION.***
         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
                Patient Name
Set Id SSN
Set Id Patient Class Hospital Location Facility
Set ID Test Name Accession Date Specimen
Set Id Test Name Test Result V
                                      Test Result Verified Date/Time
     CEFUROXIME-SODIUM
15
16
      CEFUROXIME-AXETIL
17 LEVOFLOXACIN S
```

```
************************
      000000028 LABPATIENT2, EIGHT
1
      Outpatient
      MICRO CULTURE
                      06-18-1997 FECES
1
        SALMONELLA SP 06-23-1997
      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 V
                                    Test Result Verified Date/Time
      GENTAMICIN
      CEFAZOLIN
     AMPICILLIN S
3
     POLYMIXIN B
5
      TRIMETHOPRIM+SULFAMETHOXAZOLE S
6
     AMIKACIN
      CEFOXITIN
8
     PIPERACILLIN
      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 V
                                    Test Result Verified Date/Time
    NITROFURANTOIN
10
11
      CEFOPERAZONE
12
     MEZLOCILLIN
13
      CEPHALOTHIN
14
      CEFUROXIME
15
      TICARCILLIN
16
      CIPROFLOXACIN S
17
     AZTREONAM
18
     IMIPENUM
```

```
***THIS REPORT CONTAINS CONFIDENTIAL INFORMATION.***
        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 V
                                  Test Result Verified Date/Time
    CEFTAZIDIME
19
20
      TIMENTIN
21
     AMPICILLIN+SULBACTAM
    NORFLOXACIN
22
********************
     000000029 LABPATIENT2, NINE
      Inpatient 6 NORTH~A624~1 539
1
      MICRO CULTURE 01-23-2003@0000 FECES
1
       SALMONELLA SP 02-07-2003
1
***THIS REPORT CONTAINS CONFIDENTIAL INFORMATION.***
       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 V
                                  Test Result Verified Date/Time
     ANTIBIOTIC MIC 01-23-2003@0000 FECES
      AMPICILLIN S
1
2
      TRIMETHOPRIM+SULFAMETHOXAZOLE S
    LEVOFLOXACIN S
3
*******************
     000000210 LABPATIENT2, TEN
     Outpatient
1
      MICRO CULTURE 04-03-1996@0000 FECES
1
      SALMONELLA SP 04-07-1996
1
```

```
***THIS REPORT CONTAINS CONFIDENTIAL INFORMATION.***
        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 V
                                     Test Result Verified Date/Time
      ANTIBIOTIC MIC 04-03-1996@0000 FECES
      AMPICILLIN S
1
2
      TRIMETHOPRIM+SULFAMETHOXAZOLE S
3
      CIPROFLOXACIN S
********************
      000000031 LABPATIENT3, ONE
      Outpatient
1
      MICRO CULTURE 06-27-2002@0000 FECES
1
1
        SALMONELLA SP 07-24-2002
***THIS REPORT CONTAINS CONFIDENTIAL INFORMATION.***
        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
               Patient Name
Set Id SSN
Set Id Patient Class Hospital Location Facility
Set ID Test Name Accession Date Specimen
Set Id Test Name Test Name
                                    Test Result Verified Date/Time
      ANTIBIOTIC MIC 06-27-2002@0000 FECES
1
      AMPICILLIN S
2
      TRIMETHOPRIM+SULFAMETHOXAZOLE S
3
      LEVOFLOXACIN S
         Enter/Edit Local Pathogens
  ENT
  GEN Lab EPI Generate Local Report/Spreadsheet
         Lab EPI Print Local Report/Spreadsheet
  PRT
  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**.

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

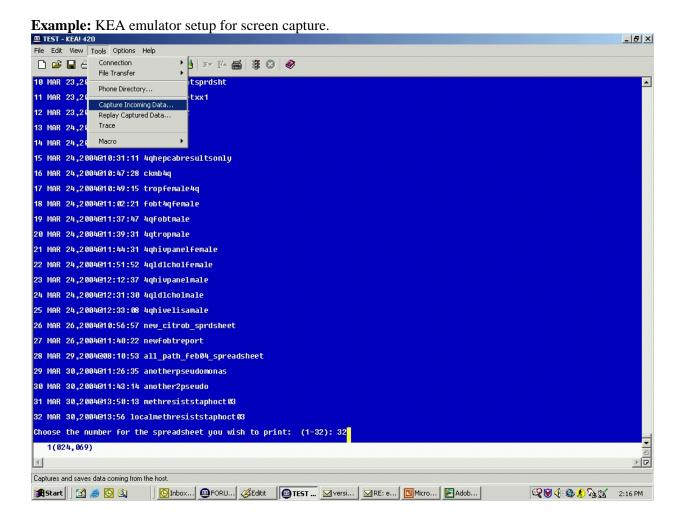
```
********************
1 | 000000024 | LABPATIENT2, FOUR |
1 Outpatient | |
1 MICRO CULTURE | 04-25-2002@0041 | BLOOD |
1 | SALMONELLA SP | 05-08-2002 |
2 ANTIBIOTIC MIC 04-25-2002@0041 | BLOOD |
1 AMPICILLIN | R | |
2 TRIMETHOPRIM+SULFAMETHOXAZOLE | S | |
3 CEFOTAXIME | S | |
4 LEVOFLOXACIN S |
2 | 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 POLYMIXIN B
5 TRIMETHOPRIM+SULFAMETHOXAZOLE | S | |
6 PIPERACILLIN | | |
7 CEFOTAXIME |
8 CIPROFLOXACIN | |
9 | IMIPENUM | | |
10 | CEFTAZIDIME | | |
11 TIMENTIN | | |
12 AMPICILLIN+SULBACTAM | | |
13 CEFOTETAN | | |
14 | CEFTRIAXONE | | |
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 POLYMIXIN 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 | |
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 |
```

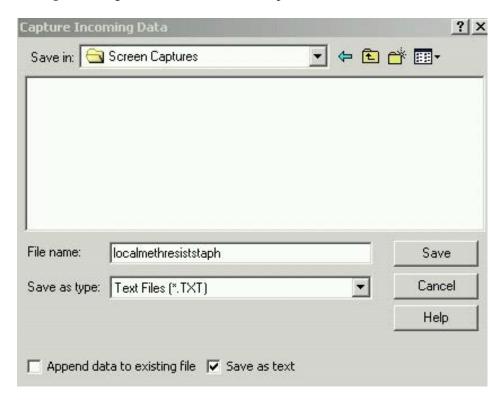
1. Start the KEA Emulator. From the menu bar, click on the "Tools" menu, and select the "Capture Incoming Data" command.

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

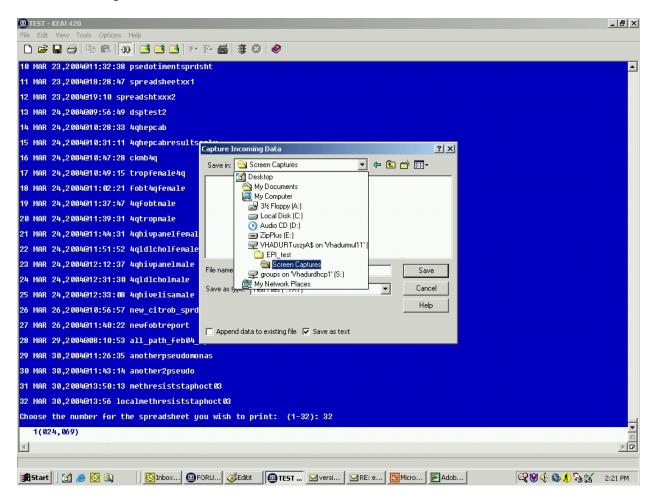


2. After indicating the preferred capture, you **must** define the location you want the capture file to be stored in (important... remember where you indicated). **Note:** It may be a good idea to create a special folder for this purpose and always route the captured data to this particular folder. 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).

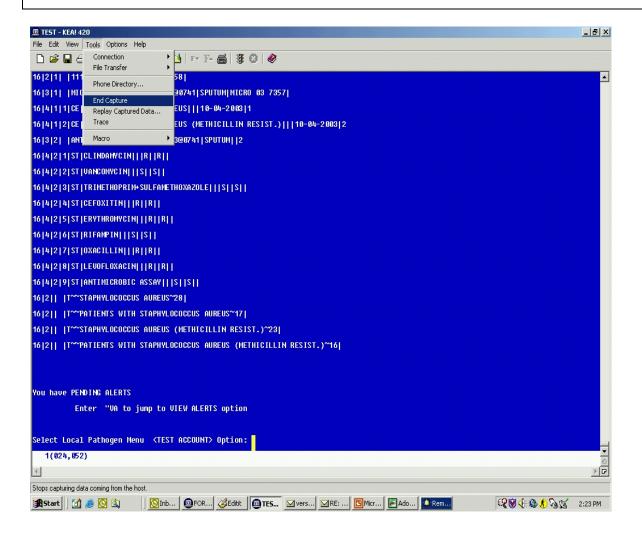


**Example:** Captured data folder location. **Note:** It may be helpful to see the full folder location path in order to find it again.

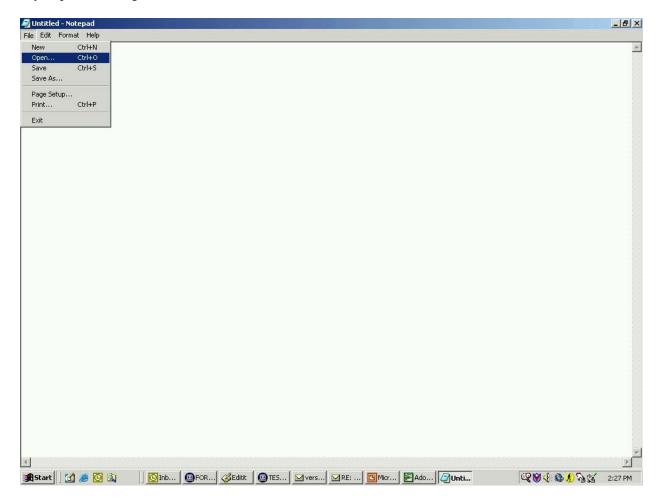


3. After the data capture has finished scrolling to the screen, from the KEA emulator menu bar, click on the "Tools" menu, and select the "End Capture" command to decrease the amount of unwanted text that will appear in the saved file.

**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.

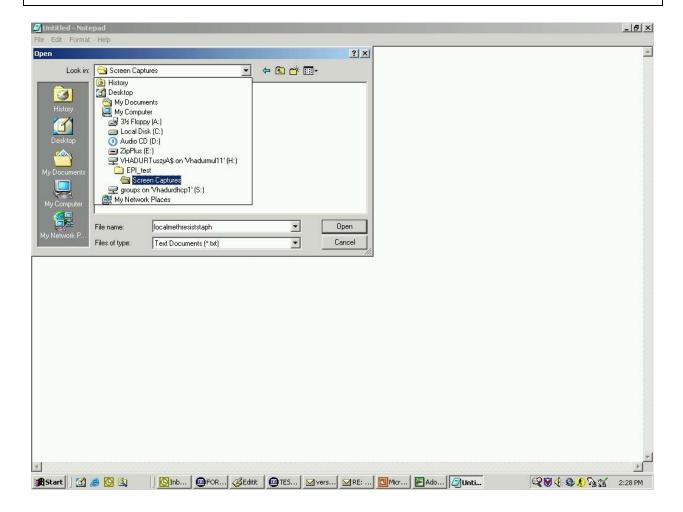


4. Select the basic Notepad program to open the saved text file folder (remember the location of the saved text file folder). Navigate to the folder via the Notepad program and then open saved text file. Do any required editing and resave the edited text file under the same file name.

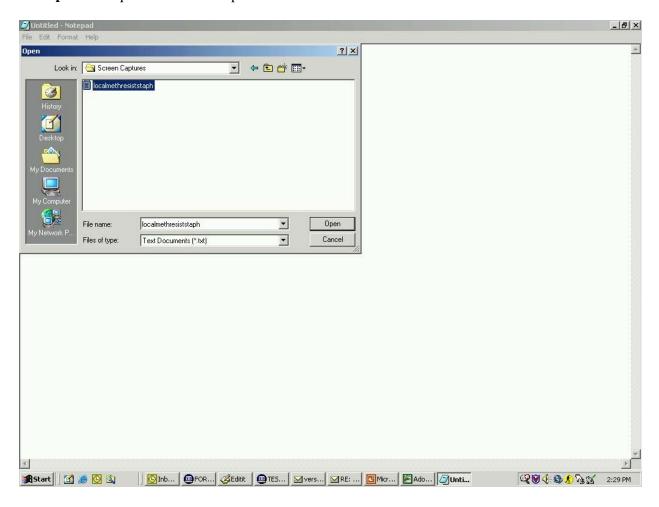


**Example:** This is an example of the saved text file folder location where the particular screen captures were stored in this example.

**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.



Example: A unique file name in a specific download folder

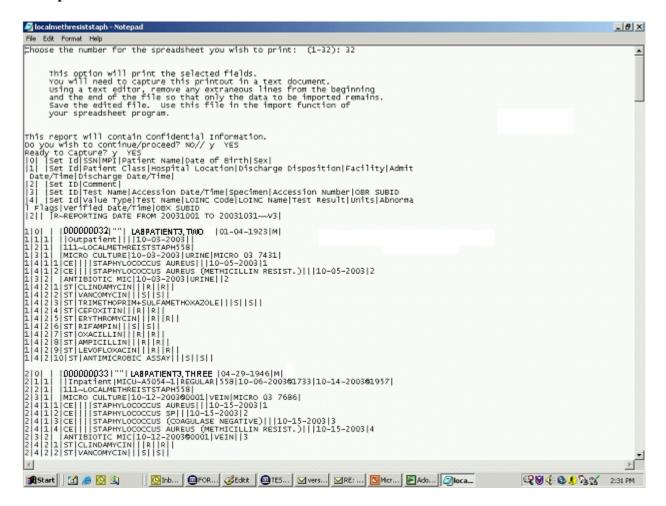


How to **ENTER** local SPREADSHEET captures to a TEXT FILE or EXCEL spreadsheet software continued.

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.

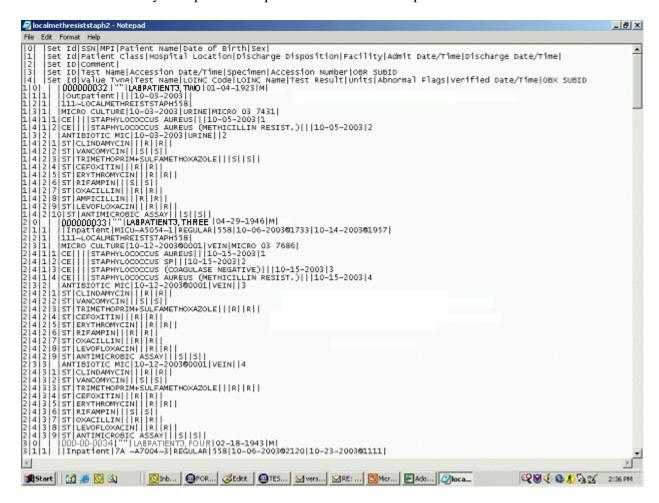
**NOTE:** If the text download "wrapped" (lines at 80 columns), edit the lines to "unwrap" the text. Usually this can be done via Notepad by putting the curser at the end of the first line that is wrapped and press "delete" once or twice to get the next line down that is wrapped. The text **must** appear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

#### **Example:** Saved Text File Download



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

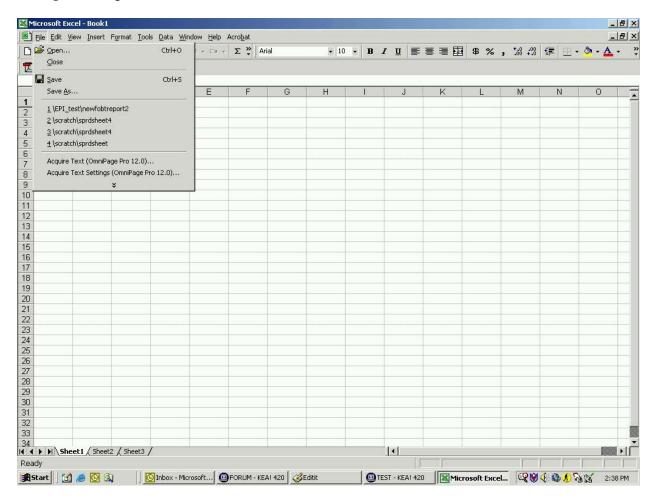
**Example:** This is screen capture example of how the text file should appear after being edited. This will make the text file ready to import into a spreadsheet file via the import wizard.



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 Spreadsheet
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
                   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
                   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) (NEW)        | Hepatitis C Antibody Positive                               |
|  | (Reference #2)  |
|  |   |
| All Staphylococcus aureus (Reference #18)    | Legionella (Reference #7)                                   |
| (NEW)  | <b>Note:</b> The <b>new</b> Legionella Urinary Antigen test |
|  | has been added to the existing Legionella test              |
|  | criteria.   |
|  |   |
| All Streptococcus pneumoniae (Reference #22) | Leishmaniasis (Reference #14)                               |
| (NEW)  |   |
| Candida (Reference #8)                       | Malaria (Reference #11)                                     |
| Candida (Reference #6)                       | Walaria (Reference #11)                                     |
| Clostridium difficle (Reference #4)          | Methicillin - resistant Staphylococcus aureus               |
| Crossition difficie (recretence # 1)         | (MRSA) (Reference #19) ( <b>NEW</b> )                       |
|  | (======================================                     |
| Creutzfeldt-Jakob Disease (CJD)              | Penicillin - Resistant Pneumococcus (Reference              |
| (Reference #13)                              | #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                     |
|  | Staphylococci/Staph epi (VRSE)                              |
|  | (Reference #21) (NEW)                                       |
| Hepatitis A Antibody Positive                | Vancomycin-Resistant Enterococcus (VRE)                     |
| (Reference #16)                              | (Reference #1)  |
| (ποιοιοίου π10)                              | (πετειείες π1)  |
| Hepatitis B Positive (Reference #17)         | Vancomycin-Resistant Staphylococcus aureus                  |
| 1  | (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 | LABORATORY EPI PARAMETERS INPUT SCREEN   |
|---------------------------|--|
| INPUT SCREEN PROMPTS:     | PROMPTS DEFINITIONS:   |
| Name:                     | The LAB SEARCH/EXTRACT file (#69.5), Name field (#69.5.01) is modified to include 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) |
|                           | Answer with the EPI name or reference number   |
| Inactive:                 | 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.  |
| Laboratory Test (s):      | 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).  |
| Indicator:                | Select the code that will determine how to match lab results.  '1' FOR Use Reference Ranges  '2' FOR Contains  '3' FOR Greater Than  '4' FOR Less Than  '5' FOR Equal To  Note: This new INDICATOR field (#69.55,1), located under  ANTIMICROBIL SUSCEPTIBILITY sub-field (#69.55) is FOR FUTURE USE ONLY.   |
| Value:                    | Positive, etc. Answer must be 1-15 characters in length. This is a Free Text field.  |
| ICD-9:                    | ICD-9 standardized code used nationwide in federal and non-federal/private health care facilities. Select from the ICDM-9 DIAGNOSIS file (#80).  |
| ICD9 Description:         | Title of ICD diagnosis   |
| ICD10 Description:        | Title of ICD diagnosis   |
| ICD-10:                   | ICD-10 standardized code used nationwide in federal and non-federal/private health care facilities. Select from the ICDM-10 DIAGNOSIS file (#80).  |

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

| LABORATORY EPI PARAMETERS     | LABORATORY EPI PARAMETERS INPUT SCREEN                               |
|-------------------------------|--|
| INPUT SCREEN PROMPTS:         | 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 <b><tab></tab></b> 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 predefined 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 <u>partially</u> pre-populated entries. The ETIOLOGY FIELD file (#61.2) site-specific data entries are used to <u>partially</u> 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 <u>example</u> 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<br>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 Staphylococcus aureus (Reference #18):                       | STAPHYLOCOCCUS AUREUS                                |
|  | STAPHYLOCOCCUS AUREUS (MRSA)                         |
|  | STAPHYLOCOCCUS AUREUS (VRSA)                         |
| All Streptococcus pneumoniae (Reference #22):                    | STREPTOCOCCUS PNEUMONIAE                             |
|  | DIPLOCOCCUS  |
|  | PNEUMOCOCCUS   |
| Methicillin - Resistant Staphylococcus aureus                    | STAPHYLOCOCCUS AUREUS                                |
| (MRSA) (Reference #19):  | STAPHYLOC+   |
|  | OCCUS AUREUS (MRSA)                                  |
| Vancomycin-Resistant Coagulase Negative                          | STAPHYLOCOCCUS (COAGULASE                            |
| Staphylococci/Staph epi (VRSE) (Reference #21):                  | NEGATIVE)  |
|  | STAPHYLOCOCCUS (COAGULASE                            |
|  | NEGATIVE)  |
|  | STAPHYLOCOCCUS EPIDERMIDIS                           |
|  | STAPHYLOCOCCUS HAEMOLYTICUS                          |
|  | STAPHYLOCOCCUS SAPROPHYTICUS                         |
|  | STAPHYLOCOCCUS SALIVARIUS<br>STAPHYLOCOCCUS SIMULANS |
|  | STAPHYLOCOCCUS SIMULANS STAPHYLOCOCCUS SP            |
|  | Note: These are just samples. There are many         |
|  | other named species of coagulase negative            |
|  | staphylococci.                                       |
| Vancomycin-Resistant Staphylococcus aureus                       | STAPHYLOCOCCUS AUREUS                                |
| (VRSA) (Reference #20)   | STAPHYLOCOCCUS AUREUS (VRSA)                         |
| (VINDA) (NOICICILLE #20)   | STALLITEOCOCCOS AUKEOS (VKSA)                        |

## 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
          Lab EPI Manual Run (Enhanced)
VR
          Print Detailed Verification Report
LO
          Local Pathogen Menu ...
         Pathogen Inquiry
PI
         Lab EPI Parameter Setup
UP
         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

Laboratory Test(s) Indicator Value

<Enter>

ICD Coding System [ICD-9 or ICD-10]? (9/10):<RET>

ICD Code Cd Set ICD 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 ENTEROCOCCI INACTIVE: NO

Selected Etiology

Selected Snomed Codes

ENTEROCOCCUS

STREP D ENTEROCOCCUS

ENTEROCOCCUS (STREPT. FAECALIS-GROUP)

ENTEROCOCCUS FAECALIS
ENTEROCOCCUS DURANS
ENTEROCOCCUS FAECIUM

ENTEROCOCCUS AVIUM

Note: 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

<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

**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 <u>add</u> 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 ACTI

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 CASSELIFLAVUS 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 Exclude

<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: ALL ENTEROCOCCI 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: ALL ENTEROCOCCI INACTIVE: NO

Run Date:<Enter> Protocol: LREPI<Enter>

Run Cycle: MONTHLY<Enter> Lag Days: 15<Enter>

Previous Cycle: <Enter>

General Description:<Enter>

Exit Save Next Page Refresh

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

COMMAND: **E<Enter>** 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
          Lab EPI Manual Run (Enhanced)
VR
          Print Detailed Verification Report
          Local Pathogen Menu ...
ΡI
          Pathogen Inquiry
          Lab EPI Parameter Setup
UP
          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: ALL STAPHYLOCOCCUS AUREUS INACTIVE: NO

Laboratory Test(s) Indicator Value

<Enter>

ICD Coding System [ICD-9 or ICD-10]? (9/10):<RET>

ICD Code Cd Set ICD Description

<Enter>

Built Cours Nove Dans Defugsh

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

Selected Snomed Codes

NAME: ALL STAPH AUREUS INACTIVE: NO

Selected Etiology

STAPHYLOCOCCUS AUREUS

STAPHYLOCOCCUS AUREUS (MRSA)

STAPHYLOCOCCUS AUREUS (VRSA) < Enter >

Note: You may enter a new etiology, if you wish.

If your facility uses a separate "selected etiology" designation to report Staphylococcus aureus with resistance to an antibiotic (e.g. Staphylococcus aureus (MRSA)), be sure to include this etiology in your list of names here so that the EPI process will acquire all Staphylococcus aureus isolates.

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 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: ALL 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: ALL 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

## 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
          Lab EPI Manual Run (Enhanced)
          Print Detailed Verification Report
VR
LO
          Local Pathogen Menu ...
ΡI
          Pathogen Inquiry
          Lab EPI Parameter Setup
UP
          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>

ICD Coding System [ICD-9 or ICD-10]? (9/10):<RET>

ICD Code Cd Set ICD 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

Topography Selection

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: ALL STREP PNEUMO INACTIVE: NO

FIRST ENCOUNTER: <Enter> FOLLOW PTF: YES<Enter>

BEFORE DATE OF BIRTH: <Enter> AFTER DATE OF BIRTH:<

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: ALL STREP PNEUMO 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

## 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 prepopulated 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
          Lab EPI Manual Run (Enhanced)
          Print Detailed Verification Report
VR
          Local Pathogen Menu ...
ΡI
          Pathogen Inquiry
          Lab EPI Parameter Setup
UP
          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>

ICD Coding System [ICD-9 or ICD-10]? (9/10):<RET>

ICD Code Cd Set ICD 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 Blood<Enter> <Enter>

Bloodstream<Enter>
Catheter Tip<Enter>

**Note:** 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: N<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:<

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: Candida INACTIVE: NO

Run Date: <Enter> Protocol: LREPI <Enter>

Run Cycle: MONTHLY<Enter> Lag Days: 15<Enter>

Previous Cycle:

General Description: <TAB>

Exit Save Refresh

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

Save changes before leaving form (Y/N)?<br/>
\*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 **V***IST***A** database. As long as the toxin assay results are in a retrievable format (straight from the **V***IST***A** 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 ...
         Pathogen Inquiry
PΙ
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.

ICD Coding System [ICD-9 or ICD-10]? (9/10):<RET>

ICD Code Cd Set ICD Description

<Enter>

Exit Refresh Save Next Page

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>

Next Page Exit Refres Save

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:<

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 ICD coding.

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

```
Lab EPI Primary Menu
          Lab EPI Manual Run (Enhanced)
ENH
VR
          Print Detailed Verification Report
          Local Pathogen Menu ...
LO
ΡI
          Pathogen Inquiry
          Lab EPI Parameter Setup
UP
          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>
```

NAME:CREUTZFELDT-JAKOB DISEASE INACTIVE: NO

Laboratory Test(s) Indicator Value

<Enter>

ICD Coding System [ICD-9 or ICD-10]? (9/10):<RET>

ICD Code Cd Set ICD Description

046.1 ICD-9 JAKOB-CREUTZFELDT DIS

<Enter>

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

Selected Etiology Selected Snomed Codes<Enter>

Antimicrobial Susceptibility NLT Code NLT Description

<Enter>

Exit Save Next Page Refresh

NAME: CREUTZFELDT-JAKOB DISEASE INACTIVE: NO

Topography Selection

Include
<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 ICD 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
          Lab EPI Manual Run (Enhanced)
          Print Detailed Verification Report
          Local Pathogen Menu ...
ΡI
          Pathogen Inquiry
          Lab EPI Parameter Setup
UP
          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>
```

NAME: CRYPTOSPORIDIUM INACTIVE: NO

Laboratory Test(s) Indicator Value

<Enter>

ICD Coding System [ICD-9 or ICD-10]? (9/10):<RET>

ICD Code Cd Set ICD Description

007.8 ICD-9 PROTOZOAL INTEST DIS N

<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: CRYPTOSPORIDIUM INACTIVE: NO

Selected Etiology Selected Snomed Codes

Cryptosporidium<Enter>

Note: If Cryptosporidium is reported under parasitology, add Cryptosporidium

species at the Etiology prompt.

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: CRYPTOSPORIDIUM INACTIVE: NO

Topography Selection

Include
<Enter>
Exclude
<Enter>

Exit Save Next Page Refresh

NAME: CRYPTOSPORIDIUM INACTIVE: NO

First Encounter: <Enter> Follow PTF: YES<Enter>

BEFORE DATE OF BIRTH: <Enter> AFTER DATE OF BIRTH: <

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 ICD 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
          Local Pathogen Menu ...
LO
ΡI
         Pathogen Inquiry
         Lab EPI Parameter Setup
UP
          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>
```

NAME: DENGUE INACTIVE: NO

Laboratory Test(s) Indicator Value

<Enter>

ICD Coding System [ICD-9 or ICD-10]? (9/10):<RET>

ICD Code Cd Set ICD Description

061. ICD-9 DENGUE

065.4 ICD-9 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
<Enter>
Exclude
<Enter>

Exit Save Next Page Refresh

NAME: DENGUE INACTIVE: NO

First Encounter: <Enter> Follow PTF: YES <Enter>

BEFORE DATE OF BIRTH: <Enter> AFTER DATE OF BIRTH: <

Select SEX:<Enter>

Exit Save Refresh

COMMAND: **E<Enter>** Press <PF1>H for help

LABORATORY EPI PARAMETERS INPUT SCREEN Page 5 of 5

NAME: DENGUE 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>

# 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
          Lab EPI Manual Run (Enhanced)
          Print Detailed Verification Report
          Local Pathogen Menu ...
PΙ
          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>
```

NAME: E. COLI 0157:H7 INACTIVE: NO

Laboratory Test(s) Indicator Value

<Enter>

ICD Coding System [ICD-9 or ICD-10]? (9/10):<RET>

ICD Code Cd Set ICD 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 O157" or "O157", 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
<Enter>
Exclude
<Enter>

Exit Save Next Page Refresh

NAME: E. COLI 0157:H7 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. COLI 0157:H7 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>

## 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
          Lab EPI Manual Run (Enhanced)
          Print Detailed Verification Report
VR
LO
         Local Pathogen Menu...
ΡI
         Pathogen Inquiry
         Lab EPI Parameter Setup
UP
         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, PXRM\*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.

NAME: HEPATITIS A ANTIBODY POS INACTIVE: NO

Laboratory Test(s) Indicator Value

HEP A ANTIBODY-TOTAL<Enter>
Equal To<Enter>

REACTIVE < 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> POS < Enter> "HEPATITIS A AB(IGG)D/C(2/99) " < Enter> Contains < Enter> POS < Enter

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

ICD Coding System [ICD-9 or ICD-10]? (9/10):<RET>

ICD Code Cd Set ICD 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 A ANTIBODY 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 A ANTIBODY POS INACTIVE: NO

Topography Selection

Include
<Enter>
Exclude
<Enter>

Exit Save Next Page Refresh

NAME: HEPATITIS A 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 A 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>

## 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
          Lab EPI Manual Run (Enhanced)
VR
          Print Detailed Verification Report
LO
         Local Pathogen Menu ...
ΡI
          Pathogen Inquiry
         Lab EPI Parameter Setup
UP
          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, PXRM\*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-upconcurrent 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 Indicator Value Laboratory Test(s) Contains<Enter> HEP B SURFACE Ag<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. ICD Coding System [ICD-9 or ICD-10]? (9/10):<RET> ICD Description ICD Code Cd Set <Enter> Exit Next Page Refresh Save COMMAND: N<Enter> Press <PF1>H for help Insert

| LABORATORY EPI PARAMETER                     | S INPUT SCREEN Page 2 of 5         |  |  |  |
|--|------------------------------------|--|--|--|
| NAME: HEPATITIS B POS                        | INACTIVE: NO                       |  |  |  |
| Selected Etiology <enter></enter>            | Selected Snomed Codes              |  |  |  |
| Antimicrobial Susceptibility <enter></enter> | NLT Code NLT Description           |  |  |  |
| Exit Save Next Page Refr                     | esh                                |  |  |  |
| COMMAND: N <enter></enter>                   | Press <pf1>H for help Insert</pf1> |  |  |  |

|                                | LABORATO          | RY EPI                  | PARAMETE | RS INPUT | SCREEN | Page 3 o         | f 5  |        |
|--------------------------------|-------------------|-------------------------|----------|----------|--------|------------------|------|--------|
| NAME: HE                       | PATITIS B         | POS                     |          |          |        | INACTIVE         | : NO |        |
| Topography Selection           |                   |                         |          |          |        |                  |      |        |
| Include <b><enter></enter></b> |                   | Exclude <enter></enter> |          |          |        |                  |      |        |
| Exit                           | Save              | Next                    | Page     | Refresh  |        |                  |      |        |
| COMMAND:                       | N <enter></enter> |                         |          |          | Press  | <pf1>H for</pf1> | help | Insert |

NAME: HEPATITIS B POS INACTIVE: NO

First Encounter: <Enter> Follow PTF: YES <Enter>

BEFORE DATE OF BIRTH:<Enter> AFTER DATE OF BIRTH:<

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 place 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
          Lab EPI Manual Run (Enhanced)
VR
          Print Detailed Verification Report
LO
         Local Pathogen Menu ...
ΡI
          Pathogen Inquiry
         Lab EPI Parameter Setup
UP
         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, PXRM\*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-upconcurrent 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.

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> "HEP C ANTIBODY" < Enter> Contains < Enter> # < Enter>

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

ICD Coding System [ICD-9 or ICD-10]? (9/10):<RET>

ICD Code Cd Set ICD 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>

Evit Cove Nevt Dogo Defreed

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

Exit Save Next Page Refresh

NAME: HEPATITIS C ANTIBODY NEG INACTIVE: NO

First Encounter: <Enter> Follow PTF: YES <Enter>

BEFORE DATE OF BIRTH: <Enter> AFTER DATE OF BIRTH: <

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>

# <u>Hepatitis C Antibody Positive (Reference #2)</u>

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 ...
PΙ
          Pathogen Inquiry
         Lab EPI Parameter Setup
UP
          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
  MATIARTA
  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, PXRM\*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.

NAME: HEPATITIS C ANTIBODY POS INACTIVE: NO

Laboratory Test(s) Indicator Value

HEPATITIS C ANTIBODY<Enter> Contains<Enter>

POS<Enter>

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

reported.

ICD Coding System [ICD-9 or ICD-10]? (9/10):<RET>

ICD Code Cd Set ICD 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 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 C ANTIBODY POS INACTIVE: NO

Topography Selection

Exit Save Next Page Refresh

NAME: HEPATITIS C ANTIBODY POS INACTIVE: NO

First Encounter: <Enter> Follow PTF: YES <Enter>

BEFORE DATE OF BIRTH: <Enter> AFTER DATE OF BIRTH: <

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>

## <u>Legionella (Reference #7)</u>

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 ICD 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
          Lab EPI Manual Run (Enhanced)
          Print Detailed Verification Report
          Local Pathogen Menu ...
PΙ
          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>
```

NAME: LEGIONELLA INACTIVE: NO

Laboratory Test(s) Indicator Value

<Enter>

ICD Coding System [ICD-9 or ICD-10]? (9/10):<RET>

ICD Code Cd Set ICD Description
482.80 ICD-9 LEGIONNARIE'S DISEASE
482.84 ICD-9 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>

Built Core North David Defineds

Exit Save Next Page Refresh

NAME: LEGIONELLA 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: 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 ICD diagnosis codes.

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

```
Lab EPI Primary Menu
ENH
          Lab EPI Manual Run (Enhanced)
          Print Detailed Verification Report
VR
\Gamma_i O
          Local Pathogen Menu ...
          Pathogen Inquiry
PΤ
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>
```

|       | I        | LABORATORY | EPI | PARAMETERS | INPUT | SCREEN | Page 1  | of  | 5  |
|-------|----------|------------|-----|------------|-------|--------|---------|-----|----|
| NAME: | LEISHMAN | NIASIS     |     |            |       |        | INACTIV | VE: | NO |

Laboratory Test(s) Indicator Value

<Enter>

ICD Coding System [ICD-9 or ICD-10]? (9/10):<RET>

| _               | _      |                          |
|-----------------|--------|--------------------------|
| ICD Code        | Cd Set | ICD Description          |
| 085.0           | ICD-9  | VISCERAL LEISHMANIASIS   |
| 085.1           | ICD-9  | CUTAN LEISHMANIAS URBAN  |
| 085.2           | ICD-9  | CUTAN LEISHMANIAS ASIAN  |
| 085.3           | ICD-9  | CUTAN LEISHMANIAS ETHIOP |
| 085.4           | ICD-9  | CUTAN LEISHMANIAS AMER   |
| 085.5           | ICD-9  | MUCOCUTAN LEISHMANIASIS  |
| 085.9           | ICD-9  | LEISHMANIASIS NOS        |
| <enter></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: LEISHMANIASIS 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: LEISHMANIASIS INACTIVE: NO

Topography Selection

Exit Save Next Page Refresh

LABORATORY EPI PARAMETERS INPUT SCREEN Page 4 of 5

NAME: LEISHMANIASIS INACTIVE: NO

First Encounter: <Enter> FOLLOW PTF:YES<Enter>

BEFORE DATE OF BIRTH:<Enter> AFTER DATE OF BIRTH:<

Select SEX: RET>

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

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>

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#### 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 ICD 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 ...
ΡI
          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>
```

Insert

| LABORA                                 | TORY EPI PARAMETER | RS INPUT SCREEN                                  | Page 1 of 5             |  |  |  |
|--|--------------------|--|-------------------------|--|--|--|
| NAME: MALAR                            | IA                 |  | INACTIVE: NO            |  |  |  |
| Laboratory :<br><b><enter></enter></b> | Гest(s)            | Indicator  | Value                   |  |  |  |
| ICD Coding S                           | System [ICD-9 or I | CCD-10]? (9/10): <f< td=""><td>RET&gt;</td></f<> | RET>                    |  |  |  |
| ICD Code                               | Cd Set             |  | ICD Description084.0    |  |  |  |
| ICD-9                                  | FAI                | CIPARUM MALARIA                                  | -                       |  |  |  |
| 084.1                                  | ICD-9              |  | VIVAX MALARIA           |  |  |  |
| 084.2                                  | ICD-9              |  | QUARTAN MALARIA         |  |  |  |
| 084.3                                  | ICD-9              |  | OVALE MALARIA           |  |  |  |
| 084.4                                  | ICD-9              |  | MALARIA NEC             |  |  |  |
| 084.5                                  | ICD-9              |  | MIXED MALARIA           |  |  |  |
| 084.6                                  | ICD-9              |  | MALARIA NOS             |  |  |  |
| 084.7                                  | ICD-9              |  | INDUCED MALARIA         |  |  |  |
| 084.8                                  | ICD-9              |  | BLACKWATER FEVER        |  |  |  |
| 084.9                                  | ICD-9              |  | MALARIA COMPLICATED NEC |  |  |  |
| <enter></enter>                        |                    |  |                         |  |  |  |
| Exit Say                               | ve Next Page       | Refresh  |                         |  |  |  |

| LABORATORY EPI PARAMETERS                               | INPUT SCREEN Page 2 of 5           |  |  |  |  |  |  |
|---|------------------------------------|--|--|--|--|--|--|
| NAME: MALARIA   | INACTIVE: NO                       |  |  |  |  |  |  |
| Selected Etiology Selected Snomed Codes <enter></enter> |                                    |  |  |  |  |  |  |
| Antimicrobial Susceptibility <enter></enter>            | NLT Code NLT Description           |  |  |  |  |  |  |
| Exit Save Next Page Re:                                 | fresh                              |  |  |  |  |  |  |
| COMMAND: N <enter></enter>                              | Press <pf1>H for help Insert</pf1> |  |  |  |  |  |  |

Press <PF1>H for help

| LA                      | BORATORY          | EPI                     | PARAMETERS | INPUT  | SCREEN |       | Page 3       | of 5   |       |      |  |
|-------------------------|-------------------|-------------------------|------------|--------|--------|-------|--------------|--------|-------|------|--|
| NAME: MA                | LARIA             |                         |            |        |        |       | INACTI       | VE: NO |       |      |  |
| Topography Selection    |                   |                         |            |        |        |       |              |        |       |      |  |
| Include <enter></enter> |                   | Exclude <enter></enter> |            |        |        |       |              |        |       |      |  |
| Exit                    | Save              | Nex                     | t Page     | Refres | sh     |       |              |        |       |      |  |
| COMMAND:                | N <enter></enter> | ı                       |            |        |        | Press | <pf1>H</pf1> | for he | lp Ir | sert |  |

COMMAND: N<Enter>

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 ...
ΡI
        Pathogen Inquiry
UP
        Lab EPI Parameter Setup
         Lab EPI Protocol Edit
        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>

ICD Coding System [ICD-9 or ICD-10]? (9/10):<RET>

ICD Code Cd Set ICD 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 ...
PТ
         Pathogen Inquiry
IJΡ
         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>

ICD Coding System [ICD-9 or ICD-10]? (9/10):<RET>

ICD Code Cd Set ICD 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
<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: PEN-RES PNEUMOCOCCUS INACTIVE: NO

First Encounter:<Enter> FOLLOW PTF:YES<Enter>

BEFORE DATE OF BIRTH:<Enter> AFTER DATE OF BIRTH:<

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>

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 ...
ΡI
          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

Laboratory Test(s) Indicator Value

<Enter>

ICD Coding System [ICD-9 or ICD-10]? (9/10):<RET>

ICD Code Cd Set ICD 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: STREPTOCOCCUS-GROUP A INACTIVE: NO

Selected Etiology Selected Snomed Codes

STREPTOCOCCUS-GROUP A<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: STREPTOCOCCUS-GROUP A 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: 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. ICD 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
          Lab EPI Manual Run (Enhanced)
          Print Detailed Verification Report
          Local Pathogen Menu ...
PΙ
          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>

ICD Coding System [ICD-9 or ICD-10]? (9/10):<RET>

ICD Code Cd Set ICD Description

<Enter>

Refresh Exit Save Next Page

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

LABORATORY EPI PARAMETERS INPUT SCREEN Page 2 of 5

NAME: TUBERCULOSIS INACTIVE: NO

Selected Snomed Codes Selected Etiology

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: <

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 Staphylcocci/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).

June 2004

## 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)
         Print Detailed Verification Report
VR
LO
         Local Pathogen Menu ...
ΡI
        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

Laboratory Test(s) Indicator Value

<Enter>

ICD Coding System [ICD-9 or ICD-10]? (9/10):<RET>

ICD Code Cd Set ICD 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: VANC-RES COAG NEG STAPH INACTIVE: NO

Selected Etiology Selected Snomed Codes

STAPHYLOCOCCUS (COAGULASE NEGATIVE)

STAPHYLOCOCCUS (COAGULASE NEGATIVE)

STAPHYLOCOCCUS EPIDERMIDIS

STAPHYLOCOCCUS HAEMOLYTICUS

STAPHYLOCOCCUS SAPROPHYTICUS

STAPHYLOCOCCUS SALIVARIUS

STAPHYLOCOCCUS SIMULANS

Note: 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<Enter>

Are you adding a new ETIOLOGY? No// Y<Enter>

Antimicrobial Susceptibility NLT Code NLT Description

VANCOMYCIN<Enter>

STAPHYLOCOCCUS SP

Are you adding a new ANTIMICROBIAL SUSCEPTIBILITY? No// Y<Enter>

VANCMCN 81485.0000 Vancomycin

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: VANC-RES COAG NEG STAPH INACTIVE: NO

Topography Selection

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 <u>Selected Etiology</u> 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)
         Print Detailed Verification Report
VR
LO
         Local Pathogen Menu ...
ΡI
         Pathogen Inquiry
UP
         Lab EPI Parameter Setup
         Lab EPI Protocol Edit
        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>

ICD Coding System [ICD-9 or ICD-10]? (9/10):<RET>

ICD Code Cd Set ICD 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 faecium Streptococcus sp. Group D

Enterococcus avium

Enterococcus (VRE)

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

#### <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

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
         Lab EPI Manual Run (Enhanced)
         Print Detailed Verification Report
VR
LO
        Local Pathogen Menu ...
ΡI
        Pathogen Inquiry
UP
        Lab EPI Parameter Setup
         Lab EPI Protocol Edit
        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

<Enter>

ICD Coding System [ICD-9 or ICD-10]? (9/10):<RET>

ICD Code Cd Set ICD 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: VANC-RES STAPH AUREUS (VRSA) INACTIVE: NO

Selected Etiology Selected Snomed Codes

#### STAPHYLOCOCCUS AUREUS

#### STAPHYLOCOCCUS AUREUS (MRSA)

#### STAPHYLOCOCCUS AUREUS (VRSA)

NOTE: 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.

Note: You may enter a new etiology, is you wish STAPHYLOCOCCUS AUREUS (VRSA)<Enter>

Are you adding a new ETIOLOGY? No// Y<Enter>

Antimicrobial Susceptibility NLT Code NLT Description

VANCOMYCIN<Enter>

Are you adding a new ANTIMICROBIAL SUSCEPTIBILITY? No// Y<Enter>

VANCMCN 81485.0000 Vancomycin

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: 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 <u>did</u> 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

## 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:
          ABCs
ABS
AMN
          Amniotic fluid
ASP
          Aspirate
BPH
          Basophils
ABLD
          Blood arterial
\mathsf{BBL}
          Blood bag
BON
          Bone
          Breath
BRTH
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 cm. (2 entries)
                                          (19 entries)
        LAB SEARCH/EXTRACT PROTOCOL
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:
                NAME
   .01
   .05
               REFERENCE NUMBER
                ACTIVE
                LAB TEST (multiple)
ETIOLOGY (multiple)
   3
   4
                 ICD DIAGNOSIS (multiple)
              ANTIMICROBIAL SUSCEPTIBILITY (multiple)
INCLUDED SITES (multiple)
EXCLUDED SITES (multiple)
SNOMED CODES (multiple)
   5
   6
   7
   8
   9
                RUN DATE
   10
                CYCLE
   10.5
                LAG DAYS
   11
                FIRST ENCOUNTER
   12
                PROTOCOL
              FOLLOW PTF
PTF (multiple)
Description (word-processing)
   13
   14
   15
   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>
                               (multiple) < Enter >
THEN PRINT FIELD: LAB TEST
  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(IqM)
   HEP A ANTIBODY(IqM)
                                   Contains
                                                POS
   HEPATITIS A AB(IGG)D/C(2/99) Contains
HEPATITIS A AB(IGG)D/C(2/99) Contains
HEPATITIS A AB(IGG)D/C(2/99) Contains
                                                POS
                                                Pos
                                                р
   HEPATITIS A AB(IGG)D/C(2/99) Equal TO
HEPATITIS A AB(IGG)D/C(2/99) Contains
HEPATITIS A AB(IGG)D/C(2/99) Equal To
                                                Reactive
                                                Pos
HEPATITIS B POS
                               NO
                                        15
   HEP B SURFACE Aq
                                   Contains
                                                 POS
   HEP B SURFACE AB
                                   Contains
                                                POS
   HEP B CORE AB(IqM)
                                   Contains
                                                POS
   HEP Be ANTIGEN
                                   Contains
                                                POS
   HEP Be ANTIGEN
                                   Contains
                                                Pos
                                  Contains
   HEP Be ANTIGEN
HEP BE ANTIGEN
HEP ANTIGEN
HEPATITIS C ANTIBODY NEG NO
                                                 Ρ
                                   Contains
                                          15
                                Contains
Contains
   HEP C ANTIBODY
                                                 NEG
   HEP C ANTIBODY
                                                 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 <u>identify</u> and <u>link</u> 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>
          Lab Search/Extract Manual Run (Enhanced)
   ENH
          Print Detailed Verification Report
   VR
          Local Pathogen Menu ...
  LO
  PΤ
          Pathogen Inquiry
  ΠP
          Lab EPI Parameter Setup
          Lab EPI Protocol Edit
          Antimicrobial Link Update
  LK
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:
          Α
                    AUTO
          M
                    MANIJAL
                    SEMI-AUTO
          S
```

#### **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

#### **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 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<a href="mailto:vancomycin">Enter> Vancomycin</a> 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

EXIL 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
                                                                   YES
                                                         ACTIVE:
Selected Etiology
CANDIDA
CANDIDA GUILLIERMONDII
CAN <Ret>
Antimicrobial Susceptibility NLT Code
                                                NLT Description
<Tab>
      CAN CANDIDA ALBICANS
                                  4081
                             3604
2
      CANARYPOX VIRUS
3
      CANDICIDIN 7328
CANDIDA, NOS 4080
                        7328
      CANDIDA GUILLIERMONDII
                                     4082
Choose 1-5 or '^' to quit: 1 <Ret>
```

```
LABORATORY EPI PARAMETERS INPUT SCREEN
                                          Page 2 of 5
NAME: CANDIDA
                                                                 YES
                                                      ACTIVE:
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 (Code(id) ~Text | Diagnosis Code  |  |  |
|         |        | (St.) ~ Name of coding system  |   |  |  |
|         |        | (st)                           |   |  |  |
|         | 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:                                      |  |  |
|         |        |                                | NITE Have a see 1/2-14 and 1/2-14 and 1/2-14 for                          |  |  |
|         |        |                                | 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)  |  |  |
|         |        |                                | input is present, iv it 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   |
|---------|--------|------------------------------------|---|
|         |        |                                    | 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.                               |
|         |        |                                    | 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 |
|         |        |                                    | e. NTE  Totals indicator (T if NTE describes totals for run)~Hepatitis Assessment~Total number of Hepatitis C Assessments   |
| OBR     | 1      | Set ID-Observation Request (Seq #) | 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.          |
|         | 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               | 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.          |
|         | 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 AITC, formerly AAC, on the 15<sup>th</sup> day of each month. Upon receipt of the EPI HL7 Format mailman messages transmission, AITC 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 <u>station number</u> and all predetermined emerging pathogens extracted data occurrences <u>totals</u> 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 <u>station number</u> 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 ICD Diagnoses by date. This ICD 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 retransmit the EPI data to the AITC 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 Information Technology Center (AITC). This mail group is also used by AITC 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 AITC.

## **EPI-REPORT Mail Group Description**

The EPI-Report mail group is use to <u>receive</u> 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 AITC 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^PATIENT||||||000000035||||||||0
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^PATIENT|||||||000000036||||||||
PID | 3 | 000-00-0037~~ | 310~3~M10~1008185084V033776~VAMPI | | LABPATIENT3,
SEVEN | | 19551019
|M|||~~~12^FLORIDA~33931~~~~39^LEE||||||000000037||||||8
PV1|1|0|||||||||||||||||539||||20030108
                                          ||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*

```
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|
PV1|1|I|6 NORTH~A611~2|||||||||||||||||||||||||||||7~DEATH WITHOUT
AUTOPSY~
VA45|||539|||||20021227043712-0400|20030126155036-0400
DG1|1||112.2~CANDIDIAS UROGENITAL NEC~19|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^PATIENT|||||||00000039|||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~19|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 AITC 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 AITC 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 AITC for processing.

**Examples:** EPI Confirmation mailman message sent by AITC

```
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 <u>station number</u> and all predetermined emerging pathogens extracted data occurrences <u>totals</u> 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 AITC 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<br>128 lines<br>From: POSTMASTER In 'IN' basket. Page 1 *New* |                          |     |  |  |  |  |
|--|--------------------------|-----|--|--|--|--|
| SUMMARY VERIFICATION REPORT OF EPI EXTRACTED DATA FROM STATION 539 CINCINNATI  |                          |     |  |  |  |  |
|  |                          |     |  |  |  |  |
| Processing Month PROCESSING PERIOD: 04-01-2004 throug  | h 04-30-2004             |     |  |  |  |  |
| with Emerging Pathogen   | Number of<br>Occurrences |     |  |  |  |  |
| 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] P  | age 2                    |     |  |  |  |  |
| NTE~9-Crytosporidium   | 0                        | 0   |  |  |  |  |
| NTE~10-Escherichia coli 0157   | 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 (M  | rsa) 22                  | 20  |  |  |  |  |
| NTE~20-Vancomycin-Resistant Staphylococcus Aureus (Vr NTE~21-Vancomycin-Resistant Coagulase Negative                           | sa) 0                    | 0   |  |  |  |  |
| Staphylococci/Staph EPI (Vrse)   | 0                        | 0   |  |  |  |  |
| NTE~22-All Streptococcus Pneumoniae  | 5                        | 4   |  |  |  |  |
| NTE~23-All Enterococci   | 24                       | 21  |  |  |  |  |
|  |                          |     |  |  |  |  |

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

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 (PXRM\*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<br>with the Term and<br>Transmitted For<br>National Roll-up |
|--|---|
| Resolved term-1-Declined Assessment for Hepatitis C  |   |
| 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 based)  | 173   |
|  |   |
| Total Hepatitis C Risk Assessment Resolution   | 636   |
| This table represents only those who had a once-lifetime r<br>National Clinical Reminder for Risk Assessment for Hepatit<br>resolution will only occur once during the care of a patie | is C. This  |
| changed by a point-of-care practitioner at a later date).  |   |
| Processing Month: PROCESSING PERIOD: 04-01-2004 through 04 539 CINCINNATI Site totals  | -30-2004 for site #   |

| STAPHYLOCOCCUS AUREUS                                 | 12             |
|---|----------------|
| PATIENTS WITH STAPHYLOCOCCUS AUREUS                   | 9              |
| CANDIDA ALBICANS                                      | 36             |
| PATIENTS WITH CANDIDA ALBICANS                        | 20             |
|   | <del>-</del> - |
| ENTEROCOCCUS  RATIONES MARIN ENTEROCOCCUS             | 20             |
| PATIENTS WITH ENTEROCOCCUS                            | 15             |
| Subj: EPI Summary Verification Report [#19669319]     |                |
| 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<br>7        |
| STREPTOCOCCUS PNEUMONIAE                              | •              |
| 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 TOX: | IN 4           |
| Subj: EPI Summary Verification Report [#19669319]     |                |
| 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             |
| INTERNIO WITH HEL A ANTIDODI TOTAL                    | 11             |
|   |                |

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 <u>second pass</u> 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*  |                          |   |  |  |  |
|---|--------------------------|---|--|--|--|
| 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 throug   | gh 03-31-2004            |   |  |  |  |
| with Emerging Pathogen  | Number of<br>Occurrences |   |  |  |  |
| Subj: EPI Summary Verification Report for prior month -TB only [#19669069] Page 2   |                          |   |  |  |  |
| NTE~1-Vancomycin-resistant Enterococcus 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*.

| NTT 4 Cl   | 0        | 0  |  |  |
|--|----------|--|--|--|
| 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-Crytosporidium   | 0        | 0  |  |  |
| NTE~10-Escherichia coli 0157   | 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  |  |  |
| THE TO THE Scaping roots have as   | Ü        | · ·  |  |  |
| Subj: EPI Summary Verification Report for prior month -TB [#19669069] Page 3   | only     |  |  |  |
| 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  |  |  |
| 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.  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 (PXRM*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.  Subj: EPI Summary Verification Report for prior month -TB only |          |  |  |  |
| [#19669069] Page 4   | <br>Numb | er of Persons                                  |  |  |
| Nationally rolled-up resolution term   | Tran     | n the Term and<br>asmitted For<br>onal 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   |  |  |  |  |
| 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 isolates="" lab="" result=""> (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 test="" with<non-microbiology=""> (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.</patients></named></microbiology> |  |  |  |  |
| Subj: EPI Summary Verification Report for prior month -TB only [#19669069] Page 6   |  |  |  |  |
| 3. These results have been obtained based on specimen accession date and not results reported dating.   |  |  |  |  |
| Enter message action (in IN basket): Ignore// <enter></enter>   |  |  |  |  |
| IN Basket Message: 7842// <b><enter></enter></b>  |  |  |  |  |

## 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 <u>station number</u> 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
                                               SEX
                                                      PERIOD OF SERVICE
                             LAST 4 DOB
LAST 4 DOB SEX 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
                                      03-20-2003
                                                   ENTEROCOCCUS FAECIUM
ORG # 2 03-18-2003@0700 ANTIBIOTIC MIC URINE
    PENICILLIN
                                                          R
    VANCOMYCIN
                                      R
                                                          R
                                      S
                                                          S
    NITROFURANTOIN
                                      R
                                                          R
    CIPROFLOXACIN
    LEVOFLOXACIN
                                      R
                                                          R
    GENTAMICIN HP
                                      SYN-S
                                                          SYN-S
    STREPTOMYCIN HP
                                      SYN-R
                                                          SYN-R
```

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 Ac | cession Date Test | t Name  | Test Re                                 | esult    |
|----------------------------|-----------|-------------------|---------|---|----------|
| LABPATIENT4~ONE            | 0041      | 03-26-2003@1240   | HEP C   | ANTIBODY                                | STRONG   |
| POSITIVE                   |           |                   |         |   |          |
| LABPATIENT4~TWO            | 0042      | 03-27-2003@1614   | HEP C   | ANTIBODY                                | STRONG   |
| POSITIVE                   |           |                   |         |   |          |
| LABPATIENT4~THREE          | 0043      | 03-13-2003@0700   | HEP C   | ANTIBODY                                | STRONG   |
| POSITIVE                   |           |                   |         |   |          |
| LABPATIENT4~FOUR           | 0044      | 03-19-2003        | HEP C   | ANTIBODY                                | STRONG   |
| POSITIVE                   | 0045      |                   |         |   |          |
| LABPATIENT4~FIVE           | 0045      | 03-08-2003@0700   | HEP C   | ANTIBODY                                | STRONG   |
| POSITIVE                   | 0046      | 02 05 000200002   |         |   | CEED ONG |
| LABPATIENT4~SIX            | 0046      | 03-05-2003@0823   | HEP C   | AN.I.TRODA                              | STRONG   |
| POSITIVE                   | 0045      | 02 00 000200000   |         |   | CEED ONG |
| LABPATIENT4~SEVEN POSITIVE | 0047      | 03-08-2003@0700   | HEP C   | ANTIBODY                                | STRONG   |
| LABPATTENT4~ETGHT          | 0048      | 03-08-2003@0700   | HEP C   | ANTIBODY                                | CULONG   |
| POSTTIVE                   | 0040      | 03-06-2003@0700   | пьр С   | ANTIBODI                                | SIRONG   |
| LABPATIENT4~NINE           | 0049      | 03-05-2003@1726   | HED C   | 7 NITT BODV                             | STRONG   |
| POSITIVE                   | 0047      | 05 05 2005@1720   | IIEF C  | ANTIBODI                                | DIRONG   |
| LABPATIENT4~TEN            | 0410      | 03-14-2003@1004   | HED C   | ANTTRODY                                | STRONG   |
| POSITIVE                   | 0110      | 05 11 2005@1001   | 11111 C | 7MVIIDODI                               | BIRONG   |
| LABPATIENT5~ONE            | 0051      | 03-07-2003@1015   | HEP C   | ANTIBODY                                | STRONG   |
| POSITIVE                   | 0001      | 00 07 200002020   |         | 111111111111111111111111111111111111111 | 21110110 |
| LABPATIENT5~TWO            | 0052      | 03-21-2003@0700   | HEP C   | ANTIBODY                                | STRONG   |
| POSITIVE                   |           |                   |         |   |          |
| LABPATIENT5~THREE          | 0053      | 03-10-2003@0807   | HEP C   | ANTIBODY                                | STRONG   |
| POSITIVE                   |           |                   |         |   |          |
| LABPATIENT5~FOUR           | 0054      | 03-18-2003        | HEP C   | ANTIBODY                                | STRONG   |
| POSITIVE                   |           |                   |         |   |          |
|                            |           |                   |         |   |          |

**Example:** New Detailed Verification Report of EPI Extracted Data from Site mailman messages *continued*.

| LABPATIENT5~FIVE  | 0055 | 03-11-2003@0916 | HEP C | ANTIBODY | STRONG |
|-------------------|------|-----------------|-------|----------|--------|
| POSITIVE          |      |                 |       |          |        |
| LABPATIENT5~SIX   | 0056 | 03-27-2003@0700 | HEP C | ANTIBODY | STRONG |
| POSITIVE          |      |                 |       |          |        |
| LABPATIENT5~SEVEN | 0057 | 03-06-2003@0700 | HEP C | ANTIBODY | STRONG |
| POSITIVE          |      |                 |       |          |        |
| LABPATIENT5~EIGHT | 0058 | 03-21-2003@0700 | HEP C | ANTIBODY | STRONG |
| POSITIVE          |      |                 |       |          |        |
| LABPATIENT5~NINE  | 0059 | 03-12-2003@0911 | HEP C | ANTIBODY | STRONG |
| POSITIVE          |      |                 |       |          |        |
| LABPATIENT5~TEN   | 0510 | 03-25-2003@1443 | HEP C | ANTIBODY | STRONG |
| POSITIVE          |      |                 |       |          |        |
| LABPATIENT6~ONE   | 0061 | 03-04-2003@1019 | HEP C | ANTIBODY | STRONG |
| POSITIVE          |      |                 |       |          |        |
| LABPATIENT6~TWO   | 0062 | 03-13-2003@0700 | HEP C | ANTIBODY | STRONG |
| POSITIVE          |      |                 |       |          |        |
| LABPATIENT6~THREE | 0063 | 03-13-2003@0700 | HEP C | ANTIBODY | STRONG |
| POSITIVE          |      |                 |       |          |        |
| LABPATIENT6~FOUR  | 0064 | 03-04-2003@1648 | HEP C | ANTIBODY | STRONG |
| POSITIVE          |      |                 |       |          |        |
| LABPATIENT6~FIVE  | 0065 | 03-08-2003@0700 | HEP C | ANTIBODY | STRONG |
| POSITIVE          |      |                 |       |          |        |
| LABPATIENT6~SIX   | 0066 | 03-27-2003@1141 | HEP C | ANTIBODY | STRONG |
| POSITIVE          |      |                 |       |          |        |
| LABPATIENT6~SEVEN | 0067 | 03-03-2003@1503 | HEP C | ANTIBODY | STRONG |
| POSITIVE          |      |                 |       |          |        |
| LABPATIENT6~EIGHT | 0068 | 03-27-2003@0700 | HEP C | ANTIBODY | STRONG |
| POSITIVE          |      |                 |       |          |        |
| LABPATIENT6~NINE  | 0069 | 03-13-2003@0700 | HEP C | ANTIBODY | STRONG |
| POSITIVE          |      |                 |       |          |        |
| LABPATIENT6~TEN   | 0610 | 03-28-2003@1356 | HEP C | ANTIBODY | STRONG |
| 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~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.

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~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.

LAST 4 DOB PATIENT NAME SEX PERIOD OF SERVICE

LABPATIENT7, ONE 0071 01-00-1925 M WORLD WAR II

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

03-05-2003 POSITIVE FOR CLOSTRIDIUM 1

DIFFICILE TOXIN

PATIENT NAME LAST 4 DOB SEX PERIOD OF SELABPATIENT7, TWO 0072 09-11-1934 M VIETNAM ERA SEX PERIOD OF SERVICE

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

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

03-19-2003 POSITIVE FOR CLOSTRIDIUM

DIFFICILE TOXIN

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.

SEX PERIOD OF SERVICE PATIENT NAME LAST 4 DOB

LABPATIENT7, FOUR 0074 06-07-1930 F VIETNAM ERA

Outpatient Accession Date: 03-12-2003

03-12-2003 TB 03 212 MICRO CULTURE SPUTUM

05-21-2003 MYCOBACTERIUM

TUBERCULOSIS COMPLEX

Outpatient Accession Date: 03-22-2003

03-22-2003 TB 03 213 MICRO CULTURE SPUTUM

--0 MYCOBACTERIUM TUBERCULOSIS

COMPLEX

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PAGE 6
               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 SELABPATIENT7, FIVE 0075 08-14-1941 M VIETNAM ERA
                                           SEX PERIOD OF SERVICE
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
                                     03-17-2003 STREPTOCOCCUS BETA
HEMOLYTIC, GROUP A
                                      03-17-2003 ESCHERICHIA COLI
ORG # 2 03-14-2003 ANTIBIOTIC MIC RECTUM
    GENTAMICIN
                                                          S
    CEFAZOLIN
                                      S
                                                          S
                                                          S
    AMPICILLIN
                                      S
                                                          S
    POLYMIXIN B
                                      S
    TRIMETHOPRIM+SULFAMETHOXAZOLE
                                                          R
                                     R
                                                          S
    AMIKACIN
                                      S
    PIPERACILLIN
                                      S
                                                          S
    CEFOTAXIME
                                      S
                                                          S
    CIPROFLOXACIN
                                     S
                                                          S
    IMIPENUM
                                     S
                                                          S
    CEFTAZIDIME
                                     S
                                                          S
    AMPICILLIN+SULBACTAM
                                     S
                                                          S
                                     S
                                                          S
    CEFOTETAN
    LEVOFLOXACIN
                                     S
                                                          S
                                      S
                                                          S
    CEFEPIME
    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
                              03-05-2003 STREPTOCOCCUS BETA
HEMOLYTIC, GROUP A
```

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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.

PAGE 8 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 03-25-2003 YEAST 1 1 03-25-2003 CANDIDA (TORULOPSIS) GLABRATA 03-16-2003@1600 BLD 03 837 MICRO CULTURE BLOOD 03-22-2003 YEAST 1 03-23-2003 CANDIDA (TORULOPSIS) 1 GLABRATA 03-12-2003 BLD 03 793 MICRO CULTURE BLOOD 03-17-2003 YEAST 1 03-17-2003 STAPHYLOCOCCUS 2 (COAGULASE NEGATIVE) 1 03-15-2003 CANDIDA (TORULOPSIS) GLABRATA

| 03-11-2003@0230 MYCOL 03 166 MICRO C<br>1<br>GLABRATA  | ULTURE BLOOD<br>03-17-2003             | CANDIDA (TORULOPSIS)          |  |  |  |  |
|--|--|-------------------------------|--|--|--|--|
| 03-11-2003@0230 BLD 03 780 MICRO CUL<br>1<br>(COAGULASE NEGATIVE)  | TURE BLOOD<br>03-17-2003               | STAPHYLOCOCCUS                |  |  |  |  |
| 2 1 GLABRATA   | 03-17-2003<br>03-17-2003               | YEAST<br>CANDIDA (TORULOPSIS) |  |  |  |  |
| 03-08-2003@0915 BLD 03 757 MICRO CUL<br>1<br>1<br>GLABRATA   | TURE BLOOD<br>03-12-2003<br>03-12-2003 | YEAST<br>CANDIDA (TORULOPSIS) |  |  |  |  |
| PAGE 9  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.  |  |                               |  |  |  |  |
| PAGE 10  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 0157 These data note persons at your facility during the month that had a positive result for Escherichia coli serotype 0157. 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 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.

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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.

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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~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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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 N | ame Tes  | st 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  |
|                   |        |                 |        |          |           |

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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 $\sim$ 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   |                 | HEP A ANTIBODY(IGM) NEGATIVE |
| LABPATIENT4~FOUR             | 0044   | 03-19-2003      | HEP A ANTIBODY-TOTAL         |
| REACTIVE                     | 2224   | 00 00 0000-1400 |                              |
| LABPATIENT9~FOUR             | 0094   |                 | HEP A ANTIBODY(IGM) NEGATIVE |
| LABPATIENT9~SIX              | 0096   | 03-19-2003@1553 | HEP A ANTIBODY-TOTAL         |
| REACTIVE                     | 0100   | 02 17 000201117 | TIED A ANIETDODY HOMAT       |
| LABPATIENT10~TWO<br>REACTIVE | 0102   | 03-17-2003@1117 | HEP A ANTIBODY-TOTAL         |
| LABPATIENT4~EIGHT            | 0048   | 02 00 2002@0700 | HEP A ANTIBODY-TOTAL         |
| REACTIVE                     | 0040   | 03-06-2003@0700 | HEP A ANTIBODI-TOTAL         |
| LABPATIENT10~THREE           | 0103   | 03-27-2003@0950 | HEP A ANTIBODY(IGM) NEGATIVE |
| LABPATIENT10~FOUR            | 0103   |                 | HEP A ANTIBODY-TOTAL         |
| REACTIVE                     | 0101   | 03 20 200301023 |                              |
| 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 |

| 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           |      |                 |       |                        |
| 1                  |      |                 |       |                        |

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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~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 | E AG NEGATIVE   |
| LABPATIENT7~EIGHT  | 0078   |                 | HEP B | SURFACE | E AB LOW TITER  |
| POSITIVE           |        |                 |       |         |                 |
| LABPATIENT9~TWO    | 0092   | 03-27-2003@1622 | HEP B | SURFACE | E AG NEGATIVE   |
| LABPATIENT9~TWO    | 0092   |                 | HEP B | SURFACE | E AB LOW TITER  |
| POSITIVE           |        |                 |       |         |                 |
| LABPATIENT9~TWO    | 0092   |                 | HEP B | CORE AE | B(IGM) NEGATIVE |
| LABPATIENT11~SIX   | 0116   | 03-22-2003@0700 | HEP B | SURFACE | E AG NEGATIVE   |
| LABPATIENT11~SIX   | 0116   |                 | HEP B | SURFACE | E AB ADEQUATE   |
| TITER              |        |                 |       |         |                 |
| POSITIVE           |        |                 |       |         |                 |
| LABPATIENT11~SEVEN | 0117   | 03-25-2003@1610 | HEP B | SURFACE | E AB ADEQUATE   |
| TITER              |        |                 |       |         |                 |
| POSITIVE           |        |                 |       |         |                 |
| LABPATIENT11~EIGHT | 0118   | 03-06-2003@1025 | HEP B | SURFACE | E AB LOW TITER  |
| POSITIVE           |        |                 |       |         |                 |
| LABPATIENT4~TEN    | 0410   | 03-14-2003@1004 | HEP B | SURFACE | E AG NEGATIVE   |
| LABPATIENT4~TEN    | 0410   |                 | HEP B | SURFACE | E AB ADEQUATE   |
| TITER POSITIVE     |        |                 |       |         |                 |
| LABPATIENT11~NINE  | 0119   | 03-28-2003@1530 | HEP B | SURFACE | E AB LOW TITER  |
| POSITIVE           |        |                 |       |         |                 |

**Example:** New Detailed Verification Report of EPI Extracted Data from Site mailman messages *continued*.

|  |  |  | 1  |
|--|--|--|--|
| LABPATIENT11~TEN   | 1110   | 03-13-2003@0700 H  | EP B SURFACE AG POSITIVE   |
| LABPATIENT11~TEN   | 1110   | H  | EP B SURFACE AB NEGATIVE   |
| LABPATIENT12~ONE   | 0121   | 03-19-2003@0700 H  | EP B SURFACE AG NEGATIVE   |
| LABPATIENT12~ONE   | 0121   | Н  | EP B SURFACE AB LOW TITER  |
| POSITIVE   |  |  |  |
| LABPATIENT12~ONE   | 0121   | Н  | EP B CORE AB (IGM) NEGATIVE  |
| WUDFES~JUHDFESXY~K   | 6546   | 03-07-2003@1258  | HEP B SURFACE AB LOW TITER   |
| POSITIVE   |  |  |  |
| LABPATIENT12~TWO   | 0122   | 03-18-2003@1155 H  | EP B SURFACE AG NEGATIVE   |
| LABPATIENT12~TWO   | 0122   | Н  | EP B SURFACE AB LOW TITER  |
| POSITIVE   |  |  |  |
| LABPATIENT12~THREE   | 0123   | 03-10-2003@1214 H  | EP B SURFACE AG NEGATIVE   |
| LABPATIENT12~THREE   | 0123   |  | EP B SURFACE AB ADEQUATE   |
| TITER POSITIVE   | 0110   |  |  |
| LABPATIENT12~FOUR  | 0124   | 03-19-2003@1520 н  | EP B SURFACE AG NEGATIVE   |
| LABPATIENT12~FOUR  | 0124   |  | EP B SURFACE AB ADEQUATE   |
| TITER POSITIVE   | 0124   | 11   | EF B SORPACE AB ADEQUATE   |
| TITER POSITIVE   |  |  |  |
| PAGE 18  |  |  |  |
|  | TAND TET   | CATION REPORT OF E   | DI EVTDACTED DATA  |
|  |  |  | _  |
| PROGESSIA  | ON (YOU.   | DD: 03-01-2003 thr   | nd name is displayed here.)  |
| PROCESSI   | NG PERIO   | DD: 03-01-2003 thr   | ougn 03-31-2003  |
|  |  |  |  |
| 10 D   | 1. 7   |  |  |
| NTE~18-Report of All St  |  |  | ., ., ., ., .  |
| These data note persons  | at you   | r facility during  |  |
| These data note persons positive result for all  | at you:<br>Staphy:   | r facility during<br>lococcus aureus. I  | dentifying information,  |
| These data note persons  | at you:<br>Staphy:   | r facility during<br>lococcus aureus. I  | dentifying information,  |
| These data note persons positive result for all  | at you:<br>Staphy:   | r facility during<br>lococcus aureus. I  | dentifying information,  |
| These data note persons positive result for all along with specimen and  | at you:<br>Staphy:<br>culture                              | r facility during<br>lococcus aureus. I<br>e results has been  | dentifying information, provided.  |
| These data note persons positive result for all along with specimen and PATIENT NAME   | at you<br>Staphy<br>culture                                | r facility during<br>lococcus aureus. I<br>e results has been<br>LAST 4 DOB  | dentifying information, provided.  SEX PERIOD OF SERVICE   |
| These data note persons positive result for all along with specimen and PATIENT NAME LABPATIENT12, FIVE  | at you<br>Staphy:<br>culture                               | r facility during lococcus aureus. I e results has been LAST 4 DOB   | dentifying information, provided.  SEX PERIOD OF SERVICE   |
| These data note persons positive result for all along with specimen and PATIENT NAME LABPATIENT12, FIVE Inpatient Admission Dat  | at you<br>Staphy<br>culture                                | r facility during lococcus aureus. I e results has been LAST 4 DOB 0125 04-25-1930 14-2003@2035  | dentifying information, provided.  SEX PERIOD OF SERVICE M KOREAN  |
| These data note persons positive result for all along with specimen and PATIENT NAME LABPATIENT12, FIVE  | at you<br>Staphy<br>culture                                | r facility during lococcus aureus. I e results has been LAST 4 DOB 0125 04-25-1930 14-2003@2035  | dentifying information, provided.  SEX PERIOD OF SERVICE M KOREAN  |
| These data note persons positive result for all along with specimen and PATIENT NAME LABPATIENT12, FIVE Inpatient Admission Dat  | at you<br>Staphy<br>culture                                | r facility during lococcus aureus. I e results has been LAST 4 DOB 0125 04-25-1930 14-2003@2035  | dentifying information, provided.  SEX PERIOD OF SERVICE M KOREAN  |
| These data note persons positive result for all along with specimen and PATIENT NAME LABPATIENT12, FIVE Inpatient Admission Dat  | at you: Staphy: culture e: 03-: 2003@16                    | r facility during lococcus aureus. I e results has been LAST 4 DOB 0125 04-25-1930 14-2003@2035 46 Discharge Dispo   | dentifying information, provided.  SEX PERIOD OF SERVICE M KOREAN  |
| These data note persons positive result for all along with specimen and PATIENT NAME LABPATIENT12, FIVE Inpatient Admission Dat Discharge Date: 03-27-   | at you: Staphy: culture e: 03-: 2003@16                    | r facility during lococcus aureus. I e results has been LAST 4 DOB 0125 04-25-1930 14-2003@2035 46 Discharge Dispo   | dentifying information, provided.  SEX PERIOD OF SERVICE M KOREAN sition: REGULAR  |
| These data note persons positive result for all along with specimen and PATIENT NAME LABPATIENT12, FIVE Inpatient Admission Dat Discharge Date: 03-27-03-16-2003@2120 BLD 03   | at you: Staphy: culture e: 03-: 2003@16                    | r facility during lococcus aureus. I e results has been LAST 4 DOB 0125 04-25-1930 14-2003@2035 46 Discharge Dispo   | dentifying information, provided.  SEX PERIOD OF SERVICE M KOREAN sition: REGULAR  |
| These data note persons positive result for all along with specimen and PATIENT NAME LABPATIENT12, FIVE Inpatient Admission Dat Discharge Date: 03-27-03-16-2003@2120 BLD 03   | at you: Staphy: culture e: 03-1 2003@166                   | r facility during lococcus aureus. I e results has been LAST 4 DOB 0125 04-25-1930 14-2003@2035 46 Discharge Dispo 03-23-2003  | dentifying information, provided.  SEX PERIOD OF SERVICE M KOREAN sition: REGULAR  |
| These data note persons positive result for all along with specimen and PATIENT NAME LABPATIENT12, FIVE Inpatient Admission Dat Discharge Date: 03-27-03-16-2003@2120 BLD 03   | at you: Staphy: culture e: 03-1 2003@166                   | r facility during lococcus aureus. I e results has been LAST 4 DOB 0125 04-25-1930 14-2003@2035 46 Discharge Dispo 03-23-2003  | dentifying information, provided.  SEX PERIOD OF SERVICE M KOREAN  sition: REGULAR  STAPHYLOCOCCUS AUREUS  |
| These data note persons positive result for all along with specimen and PATIENT NAME LABPATIENT12, FIVE Inpatient Admission Dat Discharge Date: 03-27-03-16-2003@2120 BLD 03 1   | at you: Staphy: culture e: 03-1 2003@166                   | r facility during lococcus aureus. I e results has been LAST 4 DOB 0125 04-25-1930 14-2003@2035 46 Discharge Dispo 03-23-2003  | dentifying information, provided.  SEX PERIOD OF SERVICE M KOREAN  sition: REGULAR  STAPHYLOCOCCUS AUREUS  |
| These data note persons positive result for all along with specimen and PATIENT NAME LABPATIENT12, FIVE Inpatient Admission Dat Discharge Date: 03-27-03-16-2003@2120 BLD 03 1   | at you: Staphy: culture e: 03-: 2003@164 835 MICI          | r facility during lococcus aureus. I e results has been LAST 4 DOB 0125 04-25-1930 14-2003@2035 46 Discharge Dispo 03-23-2003  | dentifying information, provided.  SEX PERIOD OF SERVICE M KOREAN  sition: REGULAR  STAPHYLOCOCCUS AUREUS  |
| These data note persons positive result for all along with specimen and PATIENT NAME LABPATIENT12, FIVE Inpatient Admission Dat Discharge Date: 03-27-03-16-2003@2120 BLD 03 1 03-16-2003@2100 BLD 03 1 03-15-2003@2222 BLD 03   | at you: Staphy: culture e: 03-: 2003@164 835 MICI          | r facility during lococcus aureus. I e results has been LAST 4 DOB 0125 04-25-1930 14-2003@2035 46 Discharge Dispo 03-23-2003 RO CULTURE BLOOD 03-23-2003  | dentifying information, provided.  SEX PERIOD OF SERVICE M KOREAN  sition: REGULAR  STAPHYLOCOCCUS AUREUS  STAPHYLOCOCCUS AUREUS   |
| These data note persons positive result for all along with specimen and PATIENT NAME LABPATIENT12, FIVE Inpatient Admission Dat Discharge Date: 03-27-03-16-2003@2120 BLD 03 1   | at you: Staphy: culture e: 03-: 2003@164 835 MICI          | r facility during lococcus aureus. I e results has been LAST 4 DOB 0125 04-25-1930 14-2003@2035 46 Discharge Dispo 03-23-2003  | dentifying information, provided.  SEX PERIOD OF SERVICE M KOREAN  sition: REGULAR  STAPHYLOCOCCUS AUREUS  STAPHYLOCOCCUS AUREUS   |
| These data note persons positive result for all along with specimen and PATIENT NAME LABPATIENT12, FIVE Inpatient Admission Dat Discharge Date: 03-27-03-16-2003@2120 BLD 03 1 03-16-2003@2120 BLD 03 1 03-15-2003@2222 BLD 03 1 | at you: Staphy: culture e: 03-: 2003@16- 835 MICI          | r facility during lococcus aureus. I e results has been LAST 4 DOB 0125 04-25-1930 14-2003@2035 46 Discharge Dispo 03-23-2003 RO CULTURE BLOOD 03-23-2003 RO CULTURE BLOOD 03-18-2003  | dentifying information, provided.  SEX PERIOD OF SERVICE M KOREAN  sition: REGULAR  STAPHYLOCOCCUS AUREUS  STAPHYLOCOCCUS AUREUS   |
| These data note persons positive result for all along with specimen and PATIENT NAME LABPATIENT12, FIVE Inpatient Admission Dat Discharge Date: 03-27-03-16-2003@2120 BLD 03 1 03-15-2003@2222 BLD 03 1 03-15-2003@2222 BLD 03 1 | at you: Staphy: culture e: 03-: 2003@16- 835 MICI          | r facility during lococcus aureus. I results has been last 4 DOB 0125 04-25-1930 14-2003@2035 146 Discharge Dispo 03-23-2003 RO CULTURE BLOOD 03-23-2003 RO CULTURE BLOOD 03-18-2003 RO CULTURE BLOOD 03-18-2003                             | dentifying information, provided.  SEX PERIOD OF SERVICE M KOREAN  sition: REGULAR  STAPHYLOCOCCUS AUREUS  STAPHYLOCOCCUS AUREUS  STAPHYLOCOCCUS AUREUS                        |
| These data note persons positive result for all along with specimen and PATIENT NAME LABPATIENT12, FIVE Inpatient Admission Dat Discharge Date: 03-27-03-16-2003@2120 BLD 03 1 03-16-2003@2120 BLD 03 1 03-15-2003@2222 BLD 03 1 | at you: Staphy: culture e: 03-: 2003@16- 835 MICI          | r facility during lococcus aureus. I e results has been LAST 4 DOB 0125 04-25-1930 14-2003@2035 46 Discharge Dispo 03-23-2003 RO CULTURE BLOOD 03-23-2003 RO CULTURE BLOOD 03-18-2003  | dentifying information, provided.  SEX PERIOD OF SERVICE M KOREAN  sition: REGULAR  STAPHYLOCOCCUS AUREUS  STAPHYLOCOCCUS AUREUS  STAPHYLOCOCCUS AUREUS                        |
| These data note persons positive result for all along with specimen and PATIENT NAME LABPATIENT12, FIVE Inpatient Admission Dat Discharge Date: 03-27-03-16-2003@2120 BLD 03 1 03-15-2003@2222 BLD 03 1 03-15-2003@2222 BLD 03 1 | at you: Staphy: Culture e: 03-: 2003@16- 835 MICI 836 MICI | r facility during lococcus aureus. I results has been last 4 DOB 0125 04-25-1930 14-2003@2035 146 Discharge Dispo 03-23-2003 RO CULTURE BLOOD 03-23-2003 RO CULTURE BLOOD 03-18-2003 RO CULTURE BLOOD 03-18-2003 RO CULTURE BLOOD 03-18-2003 | dentifying information, provided.  SEX PERIOD OF SERVICE M KOREAN  sition: REGULAR  STAPHYLOCOCCUS AUREUS  STAPHYLOCOCCUS AUREUS  STAPHYLOCOCCUS AUREUS                        |
| These data note persons positive result for all along with specimen and PATIENT NAME LABPATIENT12, FIVE Inpatient Admission Dat Discharge Date: 03-27-03-16-2003@2120 BLD 03 1 03-15-2003@2222 BLD 03 1 03-15-2003@2222 BLD 03 1 | at you: Staphy: Culture e: 03-: 2003@16- 835 MICI 836 MICI | r facility during lococcus aureus. I results has been last 4 DOB 0125 04-25-1930 14-2003@2035 146 Discharge Dispo 03-23-2003 RO CULTURE BLOOD 03-23-2003 RO CULTURE BLOOD 03-18-2003 RO CULTURE BLOOD 03-18-2003 RO CULTURE BLOOD 03-18-2003 | dentifying information, provided.  SEX PERIOD OF SERVICE M KOREAN  sition: REGULAR  STAPHYLOCOCCUS AUREUS  STAPHYLOCOCCUS AUREUS  STAPHYLOCOCCUS AUREUS  STAPHYLOCOCCUS AUREUS |

Example: New Detailed Verification Report of EPI Extracted Data from Site mailman messages continued.

| ODG # 1 02 14 2002@2212 ANTIDIOTIC            | MIG DIOOD    |   |
|---|--------------|---|
| ORG # 1 03-14-2003@2213 ANTIBIOTIC PENICILLIN | R BLOOD      | R                                       |
| CLINDAMYCIN                                   | s<br>S       | K<br>S                                  |
| VANCOMYCIN                                    | S            | 5<br>S                                  |
| GENTAMICIN                                    | S<br>S       | 5<br>S                                  |
| CEFAZOLIN                                     | S<br>S       | 5<br>S                                  |
| TETRACYCLINE                                  | S            | S                                       |
| TRIMETHOPRIM+SULFAMETHOXAZOLE                 | S<br>S       | S                                       |
| ERYTHROMYCIN                                  | S<br>S       | 5<br>S                                  |
|   | S<br>S       | S<br>S                                  |
| NITROFURANTOIN                                | S<br>S       | 5<br>S                                  |
| RIFAMPIN<br>OXACILLIN                         | S<br>S       | 5<br>S                                  |
| CIPROFLOXACIN                                 | S<br>S       | 5<br>S                                  |
| AMPICILLIN+SULBACTAM                          | S<br>S       | 5<br>S                                  |
| LEVOFLOXACIN                                  | S<br>S       | 5<br>S                                  |
|   | S<br>S       | S<br>S                                  |
| AMOXICILLIN CLAVULANIC ACID                   | 5            | 5                                       |
| PATIENT NAME LAST                             | 4 DOB        | SEX PERIOD OF SERVICE                   |
|   | 01-28-1934   |   |
| Outpatient Accession Date: 03-04-2            |              | M KOKEAN                                |
| Outpatient Accession Date: 03-04-2            | 2003         |   |
| 03-04-2003 BLD 03 726 MICRO CULTURE           | מסטנא י      |   |
| 1   |              | STAPHYLOCOCCUS AUREUS                   |
| _   | 00 07 2000   | 211111111111111111111111111111111111111 |
| 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: 03-05-2            | 2003@0000    |   |
| 03-05-2003@0000 BLD 03 730 MICRO CU           | JLTURE BLOOD |   |
| 1   |              | STAPHYLOCOCCUS AUREUS                   |
|   |              |   |

| Transtiant Adminsion Date: 02 05 200                                    | 201520         |   |
|---|----------------|---|
| Inpatient Admission Date: 03-05-200 Discharge Date: 03-31-2003@1447 Dis |                | tion: DECILIAD                                |
| Discharge Date: 03-31-2003@1447 Dis                                     | charge Disposi | CIOII: REGULAR                                |
| 03-09-2003@0940 BLD 03 762 MICRO CUL                                    | דווסד פו.      |   |
| 1   |                | STAPHYLOCOCCUS AUREUS                         |
| <u> </u>  | 03-14-2003     | STAPHILOCOCCOS AUREOS                         |
| ORG # 1 03-09-2003@0940 ANTIBIOTIC M                                    | TC BLOOD       |   |
| PENICILLIN  | R              | R   |
| CLINDAMYCIN   | S              | S   |
| VANCOMYCIN  | S              | S   |
| GENTAMICIN  | S              | S   |
| CEFAZOLIN   | S              | S   |
| TETRACYCLINE  | S              | S   |
| TRIMETHOPRIM+SULFAMETHOXAZOLE   |                | 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   |
| 03-05-2003 BLD 03 729 MICRO CULTURE                                     |                | 2   |
| 1   |                | STAPHYLOCOCCUS AUREUS                         |
|   | 00 07 2005     |   |
| PATIENT NAME LAST 4 LABPATIENT12, SEVEN 0127                            | DOD 077        |   |
| TADDATTENTI O CEVEN 0107  |                | A PERIOD OF SERVICE                           |
| HOMELESS Inpatient Admission Date:                                      | 04-4/-1333 M   | A T T I I I V Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y |
| Discharge Date: 03-31-2003@1459 Dis                                     |                |   |
| DISCHAIGE Date: 03-31-2003@1459 DIS                                     | charge Disposi | CIOII. KEGULAK                                |
| 03-22-2003@0419 BLD 03 879 MICRO CUL                                    | דיווסב פו. ריי |   |
| 2   |                | STAPHYLOCOCCUS AUREUS                         |
| (MRSA)  | 03-24-2003     | STAFILLOCOCCOS AUREUS                         |
| (FIKOA)   |                |   |
| ORG # 2 03-22-2003@0419 ANTIBIOTIC M                                    | TC 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   |
|   | ~              | 2   |

| AMPICILLIN+SULBACTAM   | R R  |            |
|--|--|------------|
| LEVOFLOXACIN   | S S  |            |
| AMOXICILLIN CLAVULANIC ACID  | R R  |            |
| 03-22-2003@0300 BLD 03 880 MICRO   | CULTURE BLOOD 03-24-2003 STAPHYLOCOCCUS AUR                      | EUS (MRSA) |
| 03-22-2003@0245 BLD 03 881 MICRO<br>1  | CULTURE BLOOD 03-24-2003 STAPHYLOCOCCUS AURE                     | US (MRSA)  |
|  | FION REPORT OF EPI EXTRACTED DAT                                 | 'A         |
|  | FION 539 CINCINNATI VAMC: 03-01-2003                             |            |
| TROCESSING TERTOS  | - 03 01 2003 ciii 0agii 03 31 2003                               |            |
| NTE~19-Report of methicillin-resing These data note persons at your for positive result for methicillin-relation information, along with provided. | facility during the month that hresistant Staphylococcus aureus. |            |
|  |  | A          |
| 03-22-2003@0419 BLD 03 879 MICRO   | CULTURE BLOOD  |            |
| 2<br>(MRSA)  | 03-24-2003 STAPHYLOCOCCU   | S AUREUS   |
| ORG # 2 03-22-2003@0419 ANTIBIOTI  | IC MIC BLOOD   |            |
| PENICILLIN   | R R  |            |
| CLINDAMYCIN  | S S  |            |
| VANCOMYCIN   | S  |            |
| GENTAMICIN   | S S  |            |
| CEFAZOLIN  | R R  |            |
| TETRACYCLINE   | S  |            |
| TRIMETHOPRIM+SULFAMETHOXAZOI   |  |            |
| 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                  | Г 4 DOB      | SEX PERIOD OF SERVICE    |
| LABPATIENT12, EIGHT 0128           |              | M KOREAN                 |
| Inpatient Admission Date: 03-13-2  |              |                          |
| Discharge Date: 04-03-2003@1216 I  |              | osition: REGULAR         |
|                                    |              | 112002111                |
| 03-23-2003@2130 BACT 03 2186 MICRO | CULTURE SKIN |                          |
| 1                                  |              | 3 STAPHYLOCOCCUS AUREUS  |
| (MRSA)                             | 00 27 2000   |                          |
| (                                  |              |                          |
| ORG # 1 03-23-2003@2130 ANTIBIOTIC | C MIC SKIN   |                          |
| PENICILLIN                         | R R          | R                        |
| CLINDAMYCIN                        | R            | R                        |
| VANCOMYCIN                         | S            | S                        |
| GENTAMICIN                         | S            | S                        |
| CEFAZOLIN                          | R            | R                        |
| TETRACYCLINE                       | S            | S                        |
| TRIMETHOPRIM+SULFAMETHOXAZOLE      |              | S                        |
| ERYTHROMYCIN                       | R 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 |              |                          |
| 1                                  |              | STAPHYLOCOCCUS AUREUS    |
| (MRSA)                             | 03-10-2003   | STAFFILLOCOCCOS AUREUS   |
| 2                                  | 03_10_2003   | 3 PROTEUS MIRABILIS      |
| 3                                  |              | 3 ACINETOBACTER BAUMANII |
| 3                                  | 03-10-2003   | ACINETOBACTER BAUMANTI   |
| 4                                  | 02-10 2001   | 3 CITROBACTER KOSERII    |
| _                                  | 03-10-2003   | CIIKUBACIEK KUSEKII      |
| (DIVERSUS)                         |              |                          |
| ORG # 1 03-15-2003@0000 ANTIBIOTIC | NTC CDITUITM |                          |
| - "                                |              | D                        |
| PENICILLIN                         | R            | R                        |
| CLINDAMYCIN                        | R            | R                        |
| VANCOMYCIN                         | S            | S                        |
| GENTAMICIN                         | S            | S                        |
| CEFAZOLIN                          | R<br>S       | R<br>S                   |
| TETRACYCLINE                       | ۵            | ۵                        |

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      |
| ANONICIBLIN CHAVOLANIC ACID         | 10           | 10     |
| ORG # 2 03-15-2003@0000 ANTIBIOTIC  | MIC SPIITIIM |        |
| GENTAMICIN                          | S S          | S      |
| CEFAZOLIN                           | S            | S      |
| AMPICILLIN                          | R            | R      |
| POLYMIXIN B                         | S            | S      |
| TRIMETHOPRIM+SULFAMETHOXAZOLE       |              | R      |
| AMIKACIN                            | S            | S      |
| PIPERACILLIN                        | S<br>R       | S<br>R |
| -                                   |              |        |
| CEFOTAXIME                          | S            | S      |
| CIPROFLOXACIN                       | R            | R      |
| IMIPENUM                            | 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 ANTIBIOTION |              |        |
| GENTAMICIN                          | S            | S      |
| CEFAZOLIN                           | R            | R      |
| AMPICILLIN                          | I            | I      |
| POLYMIXIN B                         | S            | S      |
| TRIMETHOPRIM+SULFAMETHOXAZOLE       | S            | S      |
| AMIKACIN                            | S            | S      |
| PIPERACILLIN                        | S            | S      |
| CEFOTAXIME                          | S            | S      |
| CIPROFLOXACIN                       | R            | R      |
| IMIPENUM                            | S            | S      |
| CEFTAZIDIME                         | S            | S      |
| AMPICILLIN+SULBACTAM                | S            | S      |
| CEFOTETAN                           | R            | R      |
| LEVOFLOXACIN                        | R            | R      |
| CEFEPIME                            | S            | S      |
| PIPERACILLIN+TAZOBACTAM             | S            | S      |

| ORG # 4 03-15-2003@0000 | ANTIBIOTIC MIC | SPUTUM |  |
|-------------------------|----------------|--------|--|
| GENTAMICIN              | S              | S      |  |
| CEFAZOLIN               | S              | S      |  |
| POLYMIXIN B             | S              | S      |  |
| TRIMETHOPRIM+SULFAM     | ETHOXAZOLE S   | S      |  |
| AMIKACIN                | S              | S      |  |
| PIPERACILLIN            | S              | S      |  |
| CEFOTAXIME              | S              | S      |  |
|                         |                |        |  |
| CIPROFLOXACIN           | S              | S      |  |
| IMIPENUM                | S              | S      |  |
| CEFTAZIDIME             | S              | S      |  |
| CEFOTETAN               | S              | S      |  |
| LEVOFLOXACIN            | S              | S      |  |
| CEFEPIME                | S              | S      |  |
| PIPERACILLIN+TAZOBA     | CTAM 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~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.

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~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.

NO PATIENTS REPORTED FOR THE REPORT PERIOD.

| PAGE 22                                     |   |
|---|---|
| DETAILED VERIFICATION                       | REPORT OF EPI EXTRACTED DATA                          |
| FROM STATION (Your statio                   | n number and name is displayed here.)                 |
|   | 01-2003 through 03-31-2003                            |
|   | 01 1000 011100311 00 01 1000                          |
| NTE~22-All Streptococcus pneumoniae         |   |
| These data note persons at your facil       | ity during the month that had a                       |
|   | pneumoniae. Identifying information,                  |
| along with specimen and culture resul       |   |
| dieng wien specimen and carears resur       | os nas seen providea.                                 |
|   |   |
| PATIENT NAME LAST 4                         | DOB SEX PERIOD OF SERVICE                             |
| PATIENT NAME LAST 4 LABPATIENT12, NINE 0129 | DOB SEX PERIOD OF SERVICE<br>07-06-1922 M VIETNAM ERA |
| Inpatient Admission Date: 03-12-2003        |   |
| Discharge Date: 03-20-2003@1320 Disc        |   |
| Discharge bace. 03 20 2003@1320 bibe        | narge bibpobicion. Rhoomik                            |
| 03-12-2003@1420 BACT 03 1894 MICRO CU       | TTIRE SPITTIM   |
| 1   | 03-15-2003 STREPTOCOCCUS PNEUMONIAE                   |
|   | US 13 2005 BINDI 1000000 INDOMONIAL                   |
| ORG # 1 03-12-2003@1420 ANTIBIOTIC MI       | C SPUTUM  |
| PENICILLIN                                  | S S   |
| CLINDAMYCIN                                 | S S   |
| VANCOMYCIN                                  | S S   |
| CHLORAMPHENICOL                             | S S   |
| TETRACYCLINE                                | S S   |
| TRIMETHOPRIM+SULFAMETHOXAZOLE               | S S   |
| ERYTHROMYCIN                                | S S   |
| CEFOTAXIME                                  | S S   |
|   |   |
| CEFTRIAXONE                                 |   |
| LEVOFLOXACIN                                |   |
| PATIENT NAME LAST 4 LABPATIENT12, TEN 1210  | DOD GEV DEDIOD OF GEDVICE                             |
| 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        |   |
| Discharge Date:"" Discharge Dispo           | SILIOH  |
| 02 21 2002 PAGE 02 21E4 MIGRO CITIETTE      | CDITHIM   |
| 03-21-2003 BACT 03 2154 MICRO CULTURE       |   |
| 1   | 03-25-2003 STREPTOCOCCUS PNEUMONIAE                   |
|   | 02 05 0002 113 5340 5111 110 1315 1153 15             |
| 2   | 03-25-2003 HAEMOPHILUS INFLUENZAE                     |
|   | 02 05 0002 GANDIDA ALDIGANG                           |
| 3   | 03-25-2003 CANDIDA ALBICANS                           |

**Example:** New Detailed Verification Report of EPI Extracted Data from Site mailman messages *continued*.

| ORG # 1 03-21-2003 ANTIBIOTIC MIC SE    | TTITITINA        |   |
|---|------------------|---|
|   |                  | G.  |
| 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   |
| DAGITENG MANG                           | DOD GTT          | DEDIOD OF CERTICE                         |
|   |                  | PERIOD OF SERVICE                         |
|   | 12-13-1947 M     | VIETNAM ERA                               |
| Outpatient Accession Date: 03-24-20     | 03               |   |
| 02 04 0002 PAGE 02 0000 MTGD0 5         | T DDOMGUTTC      |   |
| 03-24-2003 BACT 03 2200 MICRO CULTUR    |                  | MD = D = 0.00 0.00 0.00 0.00 0.00 0.00 0. |
| 1                                       | 03-27-2003 S     | TREPTOCOCCUS PNEUMONIAE                   |
| ODG    1 02 04 0002 AMBEDIORIG MIG DE   | ONGUIG           |   |
| ORG # 1 03-24-2003 ANTIBIOTIC MIC BE    |                  |   |
| 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   |
|   |                  |   |
| PAGE 23                                 |                  |   |
| DETAILED VERIFICATION                   |                  | =   |
|   |                  | name is displayed here.)                  |
| PROCESSING PERIOD: 03                   | -01-2003 through | 1 03-31-2003                              |
| NTE~23- All Enterococci                 |                  |   |
| These data note persons at your faci    | lity during the  | month that had a                          |
| positive result for all Enterococci.    |                  |   |
| specimen and culture results has been   |                  | · , · · · · · · · · · · · · · · · · · ·   |
| 1 | 1                |   |
|   |                  |   |

**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: |
|--|
| Inpatient Admission Date: 03-08-2003@1717  |
|  |
|  |
|  |
| 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 A      | CID R                | R                          |
|                               |                      |                            |
|                               |                      |                            |
| PATIENT NAME                  |                      | EX PERIOD OF SERVICE       |
| LABPATIENT13, FOUR            | 0134 06-25-1939 M    | POST-KOREAN                |
| Outpatient Accession Date: 0  | 3-10-2003            |                            |
|                               | -                    |                            |
| 03-10-2003 BACT 03 1816 MICRO |                      |                            |
| 1                             |                      | 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                      |
|                               | SIN B                |                            |
|                               |                      |                            |
|                               |                      |                            |
| PAGE 24                       |                      |                            |
| UPDATES                       |                      |                            |
| This section presents patient | a who had a twanamia | gion of information during |
|                               |                      |                            |
| a month on an EPI defined top |                      |                            |
| information that has been tra |                      |                            |
| in order to complete the EPI  |                      |                            |
| inpatient information about d |                      |                            |
| occasionally will contain lab |                      |                            |
| patient, SSN, and admission d |                      |                            |
| with analysis should a proces | sing/error report oc | cur with your monthly      |
| automated transmission of thi |                      | _                          |
| Name LAST                     | ' 4 Admission date   | Discharge date             |
|                               |                      |                            |
| LABPATIENT13~FIVE 0135        | 12-19-2002@1605      | 04-05-2003@1213            |
| LABPATIENT13~SIX 0136         | 01-28-2003@1720      |                            |
| LABPATIENT13~SEVEN 0137       | 02-04-2003@1045      | 03-07-2003@1847            |
| TYPERTIFICATION OF A DITAL    | 02 01 2003@1043      | 02 01 2002@1011            |

```
PAGE 25
Pharmacy-based data extracted for EPI data base.
INTERFERON BETA-1A (AVONEX) 30MCG
    0138 LABPATIENT13~EIGHT
                                       Outpatient 03-12-2003
     SUBCOUNT 22
INTERFERON BETA-1A 44MCG/SYR INJ (REBIF)
   0951 FLUZHU~BHYYHSE U~TU Outpatient 03-06-2003
     SUBCOUNT 1
INTERFERON BETA-1B 0.3MG (BETASERON)
     0157 LABPATIENT15~SEVEN Outpatient 03-25-2003
            LABPATIENT15~EIGHT Outpatient 03-26-2003

LABPATIENT15~NINE Outpatient 03-06-2003

LABPATIENT15~NINE Outpatient 03-26-2003

LABPATIENT15~TEN Outpatient 03-18-2003
     0158
     0159
     0159
     1510
     SUBCOUNT 5
```

```
PAGE 26
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 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

        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
        03-04-2003@01500

        0173
        LABPATIENT17~FOUR
        Outpatient
        03-04-2003@01500

        0175
        LABPATIENT17~FIVE
        Outpatient
        03-12-2003@1300

        0176
        LABPATIENT17~SIX
        Outpatient
        03-24-2003@0900

          0161 LABPATIENT16~ONE Outpatient 03-24-2003@1140
0162 LABPATIENT16~TWO Outpatient 03-20-2003@1300
-
------
          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 | S 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  |
| SUBCOU       | <br>NT 132             |                            |
| 505000       | 194                    |                            |
| POSITIVE TES | ST FOR HEPATITIS C ANT | IBODY                      |
|              |                        |                            |
| 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 |
| SUBCOU       | NT 31                  |                            |
| 202000       | ··= <b>v=</b>          |                            |

| 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   |   | Inpatient 03-27-2003@0700  |
|  | T A D D A M T M A M M 1 O M M 1 O   | 0 1 1 1 00 00 000001406  |
|  | LABPATIENT19~TWONT 212 DIAGNOSIS (ICD BASED)  | Outpatient 03-28-2003@1406   |
| SUBCOU   | NT 212  DIAGNOSIS (ICD BASED)   |  |
| SUBCOU   | DIAGNOSIS (ICD BASED) LABPATIENT19~THREE  | Outpatient 03-17-2003@1330   |
| SUBCOU   | DIAGNOSIS (ICD BASED)  LABPATIENT19~THREE  LABPATIENT3~SEVEN  | Outpatient 03-17-2003@1330 Outpatient 03-05-2003@1300  |
| SUBCOU<br>TITIS C<br><br>0193<br>0037<br>0194                    | DIAGNOSIS (ICD BASED)  LABPATIENT19~THREE  LABPATIENT3~SEVEN  LABPATIENT19~FOUR   | Outpatient 03-17-2003@1330 Outpatient 03-05-2003@1300 Outpatient 03-19-2003@1300   |
| SUBCOU   | DIAGNOSIS (ICD BASED)  LABPATIENT19~THREE  LABPATIENT3~SEVEN  | Outpatient 03-17-2003@1330 Outpatient 03-05-2003@1300 Outpatient 03-19-2003@1300 Outpatient 03-24-2003@0800  |
| SUBCOU TITIS C 0193 0037 0194 0195                               | DIAGNOSIS (ICD BASED)  LABPATIENT19~THREE LABPATIENT3~SEVEN LABPATIENT19~FOUR LABPATIENT19~FIVE   | Outpatient 03-17-2003@1330 Outpatient 03-05-2003@1300 Outpatient 03-19-2003@1300   |
| SUBCOU TITIS C 0193 0037 0194 0195 0196                          | DIAGNOSIS (ICD BASED)  LABPATIENT19~THREE LABPATIENT3~SEVEN LABPATIENT19~FOUR LABPATIENT19~FIVE LABPATIENT19~SIX  | Outpatient 03-17-2003@1330 Outpatient 03-05-2003@1300 Outpatient 03-19-2003@1300 Outpatient 03-24-2003@0800 Outpatient 03-18-2003  |
| SUBCOU TITIS C 0193 0037 0194 0195 0196 0197                     | DIAGNOSIS (ICD BASED)  LABPATIENT19~THREE LABPATIENT3~SEVEN LABPATIENT19~FOUR LABPATIENT19~FIVE LABPATIENT19~SIX LABPATIENT19~SEVEN   | Outpatient 03-17-2003@1330 Outpatient 03-05-2003@1300 Outpatient 03-19-2003@1300 Outpatient 03-24-2003@0800 Outpatient 03-18-2003 Outpatient 03-26-2003@1430   |
| SUBCOU  FITIS C  0193 0037 0194 0195 0196 0197 0198              | DIAGNOSIS (ICD BASED)  LABPATIENT19~THREE LABPATIENT3~SEVEN LABPATIENT19~FOUR LABPATIENT19~FIVE LABPATIENT19~SIX LABPATIENT19~SEVEN LABPATIENT19, EIGHT                                       | Outpatient 03-17-2003@1330 Outpatient 03-05-2003@1300 Outpatient 03-19-2003@1300 Outpatient 03-24-2003@0800 Outpatient 03-18-2003 Outpatient 03-26-2003@1430 Outpatient 03-14-2003@1245  |
| SUBCOU FITIS C 0193 0037 0194 0195 0196 0197 0198 0064           | DIAGNOSIS (ICD BASED)  LABPATIENT19~THREE LABPATIENT3~SEVEN LABPATIENT19~FOUR LABPATIENT19~FIVE LABPATIENT19~SIX LABPATIENT19~SEVEN LABPATIENT19, EIGHT LABPATIENT19, EIGHT LABPATIENT6~FOUR  | Outpatient 03-17-2003@1330 Outpatient 03-05-2003@1300 Outpatient 03-19-2003@1300 Outpatient 03-24-2003@0800 Outpatient 03-18-2003 Outpatient 03-26-2003@1430 Outpatient 03-14-2003@1245 Outpatient 03-04-2003@1500                       |
| SUBCOU FITIS C 0193 0037 0194 0195 0196 0197 0198 0064 0199 0069 | DIAGNOSIS (ICD BASED)  LABPATIENT19~THREE LABPATIENT3~SEVEN LABPATIENT19~FOUR LABPATIENT19~FIVE LABPATIENT19~SIX LABPATIENT19~SEVEN LABPATIENT19, EIGHT LABPATIENT19, EIGHT LABPATIENT19~NINE | Outpatient 03-17-2003@1330 Outpatient 03-05-2003@1300 Outpatient 03-19-2003@1300 Outpatient 03-24-2003@0800 Outpatient 03-18-2003 Outpatient 03-26-2003@1430 Outpatient 03-14-2003@1245 Outpatient 03-04-2003@1500 Outpatient 03-18-2003 |

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

The **new** EPI Processing/Error Report mailman message itemizes all transmissions received by AITC 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
                          20040408101856
                                          090
   20040430
            000001011
                                                   240
             000001012
   20040430
                          20040428
                                           042
                                                   W07
                          20040316145349
   20040430
             000001013
                                           035
                                                   W07
                          20040428194521
             000001014
   20040430
                                           057
                                                   W07
                         20040310110835
   20040430
             000001015
                                           031
                                                   W07
             000001016
   20040430
                          200404271400
                                          071
                                                   W05
                          19941104101210 026
   20040430
             000001017
                                                   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:
```

#### **Example:** EPI Processing Error Report Mailman Message continued

Subj: EPT/DOY #041381117683754 [#19644680] Page 2

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 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.

|               | Tables of Rejects a       | nd Errors and/or Warning   | Codes   |
|---------------|---------------------------|--|---|
| ERROR NUMBER  | FIELD NAME                | EDIT DESCRIPTION   | ERROR MESSAGE   |
| 000 Series    |                           |  |   |
| Miscellaneous |                           |  |   |
| 001           | Message Control ID        | Must not be blank  | Message control ID was blank  |
| 002           | Batch Sending<br>Facility | Sending Station not valid. (Refer to table AA001)  | Invalid Batch Sending Facility.   |
| 003           | Segment Name              | PID Segment missing. Do not edit for the existence of PID when NTE segments are present.                                 | PID Segment missing.  |
| 004           | Segment Name              | PV1 Segment missing. Do not edit for the existence of PV1 when NTE segments are present.                                 | PV1 Segment missing.  |
| 005           | Segment Name              | Invalid Segment Name.  | Invalid HL7 Segment Name.   |
| 006           | Message Creation Date     | Must a valid date.   | Message Creation Date is Invalid.   |
| 007           | Message Creation<br>Time  | Must a valid time.   | Message Creation Time is invalid.   |
| 008           | Processing Period         | Must a valid date.   | Processing period in the NTE segment is invalid.                          |
| 009           | 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 AITC must be sequential from 10/98 forward. |

|                    | Tables of Rejects a       | nd Errors and/or Warning (  | Codes  |
|--------------------|---------------------------|---|--|
| ERROR NUMBER       | FIELD NAME                | EDIT DESCRIPTION  | ERROR MESSAGE  |
| 100 Series         |                           |   |  |
| NTE Totals Segment |                           |   |  |
| 100                | Action Ind                | Currently not being used.   | Currently not being used.  |
| 105                | Totals Total Count        | Must be numeric, if Action Ind is 'T'.  | NTE Totals Total Count was not numeric.  |
| 110                | Negative Input Ind        | Must be 'N', if Action Ind is not 'T'.  | Negative Input Ind was not 'N'.  |
| 200 Series         |                           |   |  |
| PID Segment        |                           |   |  |
| 200                | Patient Name              | Required. Must be alpha numeric. Must not be all numeric. Must not be all blanks. | Patient Name is missing, or<br>not alphanumeric, or all<br>numeric, or all blanks. |
| 205                | 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)      |
| 210                | 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)                       |
| 215                | 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)                      |
| 220                | Patient Address           | Must be blank or 'H'.   | Patient Address is not blank or 'H'.   |
| 235                | Social Security<br>Number | Required. Last byte must be 'P' or blank.   | Pseudo SSN is not 'P' or blank.  |
| 236                | Social Security<br>Number | Required. Must be numeric. Must be greater than zeros.                            | Social Security Number is missing, or not numeric, or is equal to zeros.           |
| 240                | Patient Veteran Status    | Must be a valid code. (Refer to table VA11)                                       | Period of Service was invalid. (Refer to table VA11).                              |

|              | Tables of Rejects an  | nd Errors and/or Warning   | Codes   |
|--------------|-----------------------|--|---|
| ERROR NUMBER | FIELD NAME            | EDIT DESCRIPTION   | ERROR MESSAGE   |
| 300 Series   |                       |  |   |
| OBR Segment  |                       |  |   |
| 300          | Universal Service ID  | Must be a valid code.<br>(Refer to table NLT)                                  | Invalid Universal Service ID<br>(Refer to table NLT)                    |
| 305          | 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.     |
| 307          | Observation Time      | Not required. Must be blank or numeric. If numeric, must be a valid time.      | Observation Time is invalid.  |
| 310          | Specimen Source Code  | Not required. If not blank, must be a valid code. (Refer to table SPC)         | Invalid Specimen Source<br>(Refer to table SPC) Code.<br>(also see W07) |
| 315          | Parent Observation ID | Not required. Must be blank or a valid code. (Refer to table NLT)              | Invalid Parent Observation ID (Refer to table NLT).                     |

|              | Tables of Rejects | and Errors and/or Warning  | Codes   |
|--------------|-------------------|--|---|
| ERROR NUMBER | FIELD NAME        | EDIT DESCRIPTION   | ERROR MESSAGE   |
| 400 Series   |                   |  |   |
| PV1 Segment  |                   |  |   |
| 400          | Patient Class     | Required. Must be 'I', 'O', or 'U'.  | Patient Class is not 'I', 'O', or 'U'.                          |
| 410          | 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.        |
| 411          | Discharge Time    | Not required. Time must be blank or a valid time.  | Discharge Time is invalid                                       |
| 420          | 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.            |
| 421          | Admit Date/Time   | Required. Time must be numeric. Must be a valid time.  | Admit Time is invalid.  |
| 500 Series   |                   |  |   |
| DG1 Segment  |                   |  |   |
| 500          | Diagnosis Code    | Required. Must be a valid code. (Refer to table AA010)   | Invalid Diagnosis Code (Refer to table 0051)                    |
| 600 Series   |                   |  |   |
| OBX Segment  |                   |  |   |
| 605          | 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. |

|              | Tables of Rejects ar       | nd Errors and/or Warning  | Codes   |
|--------------|----------------------------|---|---|
| ERROR NUMBER | FIELD NAME                 | EDIT DESCRIPTION  | ERROR MESSAGE   |
| W00 Series   |                            |   |   |
| Warnings     |                            |   |   |
| W03          | Patient Date of Birth      | Must not be all spaces.   | Patient Date of Birth is all spaces. (Also see 205)                 |
| W04          | Patient Date of Birth      | Year must not be all zeros  | Patient Date of Birth Year is all zeros. (See also 205)             |
| W05          | Patient Date of Birth      | Must be a valid date.   | Patient Date of Birth is not in a valid date format. (Also see 205) |
| W07          | Specimen Source Code       | Blanks in code.   | Specimen Source code is blank. (See also 310)                       |
| W09          | Observation Nat Lab<br>Num | Blanks in code.   | Observation Nat Lab Num is blank. (Also see 600)                    |
| W10          | Date of Prescription       | Must not be all spaces.   | Date of Prescription is all Spaces.                                 |
| W11          | Date of Prescription       | Year must not be all zeros.   | Date of Prescription is all Zeros.                                  |
| W12          | Date of Prescription       | Must be a valid date.   | Date of Prescription is not in a valid date format.                 |
| W14          | Resolve Term               | Must be numeric.  | Resolve Term must be numeric.                                       |
| W15          | Days Supply                | Must be numeric or blank.   | Days Supply not numeric or blank.                                   |
| W16          | Release Date               | Must be numeric date.<br>Must be a valid date. Must<br>be less than processing<br>date. | Release Date is invalid date or after the date of transmission.     |
| W17          | 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.        |

|              | Tables of Rejects ar   | nd Errors and/or Warning     | Codes                           |
|--------------|------------------------|------------------------------|---------------------------------|
| ERROR NUMBER | FIELD NAME             | EDIT DESCRIPTION             | ERROR MESSAGE                   |
|              |                        |                              |                                 |
| W18          | Stop Date              | Must be numeric date.        | Stop Date is invalid date or    |
|              |                        | Must be a valid date.        | after the date of transmission. |
|              |                        | Must be less than            |                                 |
|              |                        | processing date.             |                                 |
| W19          | Primary Indicator      | One DG1 diagnostic code      | No diagnostic code designated   |
|              |                        | must be designated as the    | as primary                      |
|              |                        | primary code - valid         |                                 |
|              |                        | starting with version 2 of   |                                 |
|              |                        | the software.                |                                 |
| W20          | Release Date/Fill Date | At least one of the two -    | Release Date and Fill Date are  |
|              |                        | release date or fill date -  | both blank.                     |
|              |                        | must be present.             |                                 |
| W21          | DSP Nomenclature       | Must not be all spaces.      | DSP Nomenclature is all         |
|              |                        |                              | spaces.                         |
| W22          | Resolve Term           | Must be 1, 2, 3, 4, 5, 6, 7, | Invalid Resolve Term.           |
|              |                        | or 0.                        |                                 |
| W23          | Lab Result             | Must be spaces if Resolve    | Lab Result is not insync with   |
|              |                        | Term is 1, 2, 3, 4, or 7.    | Resolve Term.                   |
| W24          | LOINC Code             | Must be a valid code or      | LOINC Code is invalid.          |
|              |                        | blank.                       |                                 |

### **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/

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|------------|--------------------------------|-----|---------|-------|------|---|
|            | 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 Microsopic          |     |         |       |      |   |
| 81008.0000 | Bilirubin Unconjugated         |     |         |       |      |   |
| 81009.0000 | Cholesterol VLDL               |     |         |       |      |   |
| 81010.0000 | Triglycerides VLDL             |     |         |       |      |   |
| 81011.0000 | Amylase Fractionation          |     |         |       |      |   |
| 81012.0000 | Angiotensin Converting Enzyme  |     |         |       |      |   |
| 31013.0000 | Histamine                      |     |         |       |      |   |
| 31014.0000 | Desmethyldiazepam              |     |         |       |      |   |
| 31015.0000 | Drug Screen Opiate             |     |         |       |      |   |
| 31016.0000 | Pepsinogen                     |     |         |       |      |   |
| 81017.0000 | Thiothixene                    |     |         |       |      |   |
| 81018.0000 | Phenobarbital                  |     |         |       |      |   |
| 81019.0000 | Vitamin B1                     |     |         |       |      |   |
| 31020.0000 | Primidone                      |     |         |       |      |   |
| 31021.0000 | Vitamin B2                     |     |         |       |      |   |
| 31022.0000 | Procainamide                   |     |         |       |      |   |
| 31023.0000 | Vitamin B6                     |     |         |       |      |   |
| 31024.0000 | Propranolol                    |     |         |       |      |   |
| 31025.0000 | Vitamin E                      |     |         |       |      |   |
| 31026.0000 | Citrate                        |     |         |       |      |   |
| 31027.0000 | Carnitine                      |     |         |       |      |   |
| 31028.0000 | Chromogranin A                 |     |         |       |      |   |
| 81029.0000 | Cyclic AMP                     |     |         |       |      |   |
| 31030.0000 | DHEA                           |     |         |       |      |   |
| 31031.0000 | DHEA S                         |     |         |       |      |   |
| 31032.0000 | Encainide                      |     |         |       |      |   |
| 31033.0000 | Hemoglobin Fetal Feces         |     |         |       |      |   |
| 31034.0000 | Erythropoietin                 |     |         |       |      |   |
| 81035.0000 | Estrone                        |     |         |       |      |   |
| 81036.0000 | Ethmozine                      |     |         |       |      |   |
| 31037.0000 | Fiorinal                       |     |         |       |      |   |
| 31038.0000 | 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 Barbital                 |
| 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                     |
| 81057.0000 | Pseudocholinesterase Total     |
| 81058.0000 | 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                |
| 81095.0000 | Misc Chem Test 1               |
| 81090.0000 | Misc Chem Test 2               |
| 81097.0000 | Amikacin                       |
| 81098.3035 | Amino Levulinic Acid Delta~DU  |
| 01090.3033 | WILLIO PEANTIFIE WELN DETENADO |

| 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 |                                     |
| 81137.0000 | Malabsorption Panel Pulmonary Panel |
| 81139.0000 | Lung Maturity Profile               |
| 81140.0000 | Thyroid Panel                       |
| 81141.0000 | Thyroid Panel w TRH                 |
| 81141.0000 | Arthritis Panel                     |
| 81142.0000 | Renal Panel                         |
| 81144.0000 | Parathyroid Panel                   |
| 81144.0000 | Prostatic Panel                     |
| 81145.0000 | Prostatic Panel 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                      |
| 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           |

| 1          |                             |
|------------|-----------------------------|
| 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 | COHD %                      |
| 81245.0000 | MetHb %                     |
|            |                             |
| 81246.0000 | Base Excess                 |
| 81247.0000 | Pt Temp                     |
| 81248.0000 | Н                           |
| 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         |
|            | Calculus Urine              |
| 81263.0000 |                             |
| 81264.0000 | Addis Count                 |
| 81265.0000 | Transitional Epithelial     |
| 81266.0000 | %O2                         |
| 81267.0000 | %CO2                        |
|            |                             |
| 81268.0000 | Osmolality Calc             |
| 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-Methyoxy 4-hydroxypheylglyco    |
| 81286.0000               | Anafranil                         |
| 81287.0000               | Bile Salt Conc.                   |
| 81288.0000               | Bypivicaine                       |
| 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<br>81303.0000 | CPK BB 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<br>81330.0000 | TDM Specimen<br>STAT Lab Specimen |
| 81330.0000               | RIA Specimen                      |
| 81331.0000               | RIA Specimen RIA Sp Specimen      |
| 81332.0000               | Gen Specimen                      |
| 81334.0000               | IqG                               |
| 81335.0000               | Buspirone                         |
| 81336.0000               | Desethylaminodarone               |
| 81337.0000               | Norverapamil                      |
| 81338.0000               | Tertiary Butyl Alcohol            |
| 3233.000                 |                                   |

| 01000 0000 |                               |
|------------|-------------------------------|
| 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 | IqL                           |
| 81351.0000 | IqK                           |
| 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              |
|            | Beta Globulins                |
| 81364.0000 | Albumin Fraction              |
| 81365.0000 |                               |
| 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 Hydroyindoleacetic Acid     |
| 81375.0000 | Adenosine Diphosphate         |
| 81376.0000 | Timentin                      |
| 81377.0000 | Free Hemoblobin, 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 | Bromociptine                  |
| 81386.0000 | Captopril                     |
| 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               | Hexacarboxypoprhyrin           |
| 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<br>Insulin 90min |
| 81430.0000               | Insulin 120min                 |
| 81431.0000               | Insulin 120min                 |
| 81432.0000<br>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 | Benztropine  |
| 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   |
|            | B12/Folate Panel   |
| 81486.0000 | Valproic Acid  |
| 81487.0000 | -  |
| 81487.3035 | Vanillymandelic 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  R. Warran, Character and a Constitution of the Constit |
| 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   |
| 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               | Trihexyhenidyl 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<br>81560.0000 | Vancomycin Trough<br>Bismuth   |
| 81561.0000               | Gentamicin Peak                |
| 81562.0000               |                                |
| 81563.0000               | Borate<br>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            |
| 1                        |                                |

| 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 henselea 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<br>Cefazaflur |
| 81608.0000<br>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                            |
| 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 Tolerence 1hr                 |
| 81632.0000               | Glucose Tolerence 30min               |
| 81633.0000               | Glucose Tolerence Fasting             |
| 81634.0000               | Ceftizoxime                           |
| 81635.0000               | Lactose Tolerence Fasting             |
| 81636.0000               | Ceftriaxone                           |
| 81637.0000               | Myeloperoxidase                       |
| 81638.0000               | Cefsulodin                            |
| 81639.0000               | Cystic Fibrosis F508                  |
| 81640.0000               | Cefuroxime                            |
| 81641.0000               | Deoxypyridinoline                     |
| 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 |

| 01504 0000 |                                |
|------------|--------------------------------|
| 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 | Alphal 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                      |
| 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              |
|            | Albumin Index              |
| 81781.0000 |                            |
| 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  Phagubarus Mimad              |
| 81847.0000               | Phosphorus Timed                        |
| 81848.0000               | Oxycodone  Pharmharma India 2411        |
| 81849.0000               | Phorphorus Urine 24H                    |
| 81850.0000               | Paraldehyde Procainamide N Acetyl(NAPA) |
| 81851.0000<br>81852.0000 | Penicillin                              |
| 81853.0000               | Comprehensive Met Panel                 |
| 81854.0000               | Pentazocine                             |
| 81855.0000               | Potassium Misc                          |
| 81856.0000               | Pentobarbital                           |
| 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               | Liprotein 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               | Chonylpropagolamino                     |
| 81880.0000               | Phenylpropanolamine<br>Levitracetam     |
| 81881.0000<br>81882.0000 | Phenytoin                               |
| 81883.0000               | Uranium                                 |
| 81884.0000               | Phenytoin Free                          |
| 81885.0000               | Uranium Depleted                        |
| 01000.0000               | oraniam Depresed                        |

| 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 | Tranylcypromine                |
| 81960.0000 | Ticarcillin                    |
| 81961.0000 | Acteazolaminde                 |
| 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    |
| 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    |

| 00000 0000 7                              |  |
|---|--|
| 82008.0000 Antenolol                      |  |
| 82009.0000 Clonidine Suppression          |  |
| 82010.0000 Cytomegalovirus PCR            |  |
| 82011.0000 Fragile X Syndrone             |  |
| 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 Tolerence 30min        |  |
| 82047.0000 Lactose Tolerence 1h           |  |
| 82048.0000 Lactose Tolerence 2h           |  |
| 82049.0000 Lactose Tolerence 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 Desmethylencainide     |
| 82079.0000 | Dry Weight                         |
| 82080.0000 | Total Solids                       |
| 82081.0000 | Phosphatidyl Glycerol              |
| 82082.0000 | Glucose Mean                       |
| 82083.0000 | Glucose Tolerence 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                        |
| 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 Desmethylencainide<br>Isoleucine |
| 82124.0000 |                                    |
| 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               | Cl 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<br>82163.0000 | Drug NOS                            |
|                          | Angiotensin II Enzyme               |
| 82164.0000<br>82165.0000 | Phosphoethanolimine<br>Phophoserine |
| 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 | Phospate 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                  |
| 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 Al                                   |
| 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 | Cholylglycine                                   |
| 82242.0000 | Normephenytoin                                  |
| 82243.0000 | Organochloride                                  |
| 82244.0000 | Operator Social Number                          |
| 82245.0000 | Serial Number Trighomonag                       |
| 82246.0000 | Trichomonas  Ruggellia Viner Venem Ratio        |
| 82247.0000 | Russell's Viper Venom Ratio<br>Bilirubin Direct |
| 82249.0000 | Bilirubin Direct Bilirubin Total and Direct~MAN |
| 82249.3000 |   |
| 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 | Lacatose Tolerence 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/Al            |
| 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                 |
| 02314.0000 | oberm montrica                 |

| 82315.0000   | Tissue Cell Percent  |
|--|--|
| 82316.0000   | Pressure   |
| 82317.0000   | Tidal Volume   |
| 82318.0000   | Ventilation  |
| 82319.0000   | Lactose Tolerence 15min  |
| 82320.0000   | Lactose Tolerence 45min  |
| 82321.0000   | Lactose Tolerence 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   |
| 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   |  |
| 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   |
| 82365.0000<br>82366.0000<br>82367.0000<br>82368.0000<br>82369.0000<br>82370.0000<br>82371.0000<br>82372.0000<br>82373.0000<br>82374.0000<br>82375.0000<br>82376.0000 | Pristamic Acid Protein C Activity Collagen/Epinephrine Platelet Collagen/ADP Induced Platelet Cortisol Binding Globulin Ferritin Schillings Test G6PD Screen Carbon Dioxide Combine Power Phosphoinostiol Phosphoethanolami Persenilin 1 |

| 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 0)                         |
| 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 Pincered RBC              |
| 82399.0000               |  |
| 82400.0000<br>82401.0000 | Chemistry Analysis Profile<br>Blood Unit Release |
| 82402.0000               | Hydroxyrisperidone 9                             |
| 82403.0000               | Hydroxyloxepine 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<br>Viral PCR Panel   |
| 82425.0000<br>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                             |
| L                        | 17   |

| 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                         |
| 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 Algabal                  |
| 82476.0000               | Isoamyl Alcohol                  |
| 82477.0000               | Iso-Butane                       |
| 82478.0000<br>82480.0000 | Isoflurane                       |
| 82481.0000               | Isopropyl Ether 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                   |
| 02470.0000               | rectif Epottemen                 |

```
82499.0000
              n-Amyl Alcohol
82500.0000
              Nonane
82501.0000
              Octane
82502.0000
              Pentane
82503.0000
              Propane
82504.0000
              Propanol
82505.0000
              Propyl Acetate
              Drug 1 ID
82507.0000
              Drug 2 ID
82508.0000
              Drug 3 ID
82509.0000
              Drug 4 ID
82510.0000
              Drug 5 ID
82511.0000
82512.0000
              Drug 6 ID
              Drug 7 ID
82513.0000
82514.0000
              Drug 8 ID
              Drug 9 ID
82515.0000
82516.0000
              Drug 10 ID
              Drug 11 ID
82517.0000
              Drug 12 ID
82518.0000
              Drug 13 ID
82519.0000
              Drug 14 ID
82520.0000
              Drug 15 ID
82521.0000
              Drug 16 ID
82522.0000
82523.0000
              Collagen Ab
              Drug 17 ID
82524.0000
              Drug 18 ID
82525.0000
              Drug 19 ID
82526.0000
              Drug 20 ID
82527.0000
82528.0000
              Gamma Hydroxybutyrateacnc
82529.0000
              Amylase Pancreatic P1
              Amylase Pancreatic P2
82530.0000
82531.0000
              Amylase Pancreatic P3
              Amylase Salivary S1
82532.0000
              Amylase Salivary S2
82533.0000
              Amylase Salivary S3
82534.0000
82535.0000
              Porphyrin Copro
              Amylase P1/Amylase Ratio
82536.0000
              Porphyrin Proto
82537.0000
              Amylase P2/Amylase Ratio
82538.0000
              Amylase P3/Amylase Ratio
82539.0000
82540.0000
              Creatine
              Amylase S1 Amylase Ratio
82541.0000
              Amylase S2/Amylase Ratio
82542.0000
82543.0000
              Amylase S3/Amylase Ratio
82544.0000
              Fentanyl/Norfentanyl
              Fentanyl Total
82545.0000
82546.0000
              Fentanyl
82547.0000
              Pancreatic Elastase 1 Stool
              Creatine Kinase (CK)
82550.0000
              Creatine Kinase (CK MB)
82555.0000
              Creatine Kinase Isoenz (CK MB)
82562.0000
82563.0000
              Xylene Exposure Panel Quant Ur
82564.0000
              Ion exchange Column Prep
              Creatinine
82565.0000
82565.3035
              Creatinine~DU PONT ACA
              Creatinine~EKTACHEM 700
82565.3103
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                        |
| 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 Gamma-Chlordane               |
| 82616.0000<br>82617.0000 | Gamma-Chlordane Gamma-Chlordane Urine |
| 82617.0000               | Trans-Nonachlor                       |
| 82619.0000               | Trans-Nonachlor Urine                 |
| 82620.0000               |                                       |
| 82621.0000               | Heptachlor Heptachlor Urine           |
| 82623.0000               | Heptachlorepoxide                     |
| 82624.0000               | Heptachlorepoxide 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                  |
| 02033.0000               | Debox, col eleopectore                |

| 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  Parathian Thins     |
| 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                               |
| 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<br>82790.0000 | Gamma Globulin                                    |
|                          | Transpeptidase Gamma Glut                         |
| 82804.0000               | Entrance or Correction Pt Dem                     |
| 82805.0000<br>82820.0000 | pH Body Fluids<br>PCO2 Direct Reading             |
| 82830.0000               | Carbon Dioxide Content                            |
| 82840.0000               | Carbon Dioxide Content Carbon Dioxide Titrimetric |
| 82870.0000               | 02 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 Alphal                          |
| 82985.0000               | Glycoprotein                                      |
| 83001.0000               | Glucose Tolerance 4hr                             |
| 83002.0000               | Glucose Tolerance 5hr                             |
| 33002.0000               | 220000 1010101100 0111                            |

| _ |  |  |
|---|--|--|
|   | 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                             | Vanillymandelic 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                             | Triprolid  |
|   | 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                             |  |
|   | 83254.0000                             | Insulin  |
|   | 83251.0000<br>83252.0000<br>83253.0000 | Hydroxyproline Iodine Total Urine Hydroxyprogesterone 17 |

| _                        |   |
|--------------------------|---|
| 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<br>83319.0000 | Placental Lactogen<br>RBC Transketolase |
|                          |   |
| 83320.0000               | Pregnanediol                            |
| 83340.0000               | Pregnanetriol                           |
| 83350.0000               | Progesterone Pogenter                   |
| 83351.0000               | Progesterone Receptor Prolactin         |
| 83355.0000               |   |
| 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               | Parathoromone                           |
| 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                            |
| 23070.0000               |   |

| 83700.0000               | Lipids Total   |
|--------------------------|--|
| 83715.0000               | Lipoprotein  |
| 83735.0000               | Magnesium  |
| 83775.0000               | Malate Dehydrogenase   |
| 83795.0000               | Melanin Qual Urine   |
| 83857.0000               | Methemalbumin  |
| 83865.0000               | Mucopolysaccarides   |
| 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 Al  |
| 83962.0000               | Apolipoprotein B   |
| 83966.0000               | Antichymotrypsin Alphal  |
| 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<br>83978.0000 | Melanocyte Stimulating Horm a<br>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   |
| 84003.0000               | Neurotensin  |
| 84004.0000               | Corticotropin Releasing Hormon                                 |
| 84005.0000               | Luteinizing Releasing Hormone                                  |
| 84006.0000               | Cardioexcitatory Peptide                                       |

| 04005 0000 |                                |
|------------|--------------------------------|
| 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 Tolerence Test        |
| 84020.0000 | Globulin Electro               |
| 84021.0000 | Griseofulvin                   |
| 84022.0000 | Pimarcin                       |
| 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  |
| 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                     |
| 31101.0000 | 1115 column                    |

| 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
              Misc Sendout 9
84996.0000
              Misc Sendout 10
84997.0000
              Misc Sendout 11
84998.0000
              Hemogram Manual
84999.0000
85000.0000
              Bleeding Time Duke
              Bleeding Time Template
85001.0000
              Acquired Inhibitory Screen
85002.0000
85003.0000
              Protein C
              Autohemolysis Test
85004.0000
85005.0000
              Antithrombin III Assay
              Protein S
85006.0000
85007.0000
              Coagulation Factor II Assay
              Blood Film Examination
85008.0000
              Russell's Viper Venom
85009.0000
              Blood Smear(s)
85010.0000
85011.0000
              Cytoplasmic Neutrophil Ab
              D Dimer
85012.0000
85013.0000
              Fibrin Monomers
85014.0000
              Granulocyte Ab
85015.0000
              Hemogram I
              Hemogram II
85016.0000
85017.0000
              Hemogram III
              Hemogram IV
85018.0000
85019.0000
              Hemogram V
              Red Blood Cell Count
85020.0000
85021.0000
              Heparin Aggregation
85022.0000
              Platelet Ab
              Platelet AB (Drug)
85023.0000
              Platelet MAO Inhibition
85024.0000
85025.0000
              Protein A Ag
              Osmotic fragility
85026.0000
85027.0000
              Glycosylated HGB, total
              Factor VIII Related Ag
85028.0000
              Ristocetin cofactor
85029.0000
              White Blood Cell Count
85030.0000
              Misc Hem Test 1
85031.0000
              Misc Hem Test 2
85032.0000
              Misc Hem Test 3
85033.0000
              Misc Hem Test 4
85034.0000
              Misc Hem Test 5
85035.0000
85036.0000
              Instrument HE Setup
              DIC Panel
85037.0000
85038.0000
              Alpha2 Antiplasmin
85039.0000
              Antithrombin 3 Ag
              Beta Thromboglobulin
85040.0000
              Factor 8 Inhibitor - QN
85041.0000
              Factor 8 Related Aq
85042.0000
85043.0000
              Lupus Inhibitor (PNP)
              Lupus Inhibitor (TTI)
85044.0000
              Platelet Neutralization Proced
85045.0000
              Tissue Thromboplastin Inhibiti
85046.0000
              Plasminogen Activator
85047.0000
              Plasminogen Ag
85048.0000
85049.0000
              Prekallikrein (Fletcher) Assay
85050.0000
              Hemoglobin RBC
85051.0000
              Glycohemoglobin Fast Fraction
              Glycohemoglobin A(1) C
85052.0000
85053.0000
              Glycohemoglobin HbA 1c
              Buffy Coat (prep smear&count)
85054.0000
              Hematocrit Macro or Micro
85055.0000
```

| 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 %                 |
|                          | Granulocyte                  |
| 85077.0000<br>85078.0000 | Granulocyte %                |
| 85078.0000               | Helmet Cell                  |
|                          | Howell Jolly Bodies          |
| 85080.0000               | - I                          |
| 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-CV<br>RDW-SD             |
| 22110.0000               | VDM OD                       |

| 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<br>85161.0000 | Misc Stain 2 Misc Stain 3    |
| 85162.0000               | HLA B8                       |
| 85162.0000               | 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     |
| 33177.0000               | Windowser I I describe Wali  |

| 05150 0000 |                                 |
|------------|---------------------------------|
| 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  |

| F           |                                |
|-------------|--------------------------------|
| 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     |
|             | Platelet Count Plasma          |
| 85571.0000  |                                |
| 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           |
| 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  | Aniocytosis                    |
| 85641.0000  | Microcytosis                   |
| 85642.0000  | Cryocrit                       |
| 85643.0000  | Aspartate Erythrocyte          |
| 85644.0000  | Iron Panel Hem                 |
| 000014.0000 | 11011 1 01101 11011            |

| 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<br>85689.0000 | Plasma Cell Absolute 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                                      |
|                          |   |

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86007.0000
              Instrument BB Setup
86011.0000
              Phagocytic Bactericidal Assay
86045.0000
              HLA Tissue Typing
              HLA Tissue Typing A,B
86046.0000
              HLA Class I II
86047.0000
              Homocystein Genetic
86048.0000
86049.0000
              4:1 Plasma Mix
              Chlamydia Diff
86050.0000
              Chlamydia Probe
86051.0000
              Factor II
86052.0000
              Factor II Ag
86053.0000
              Factor II Activity
86054.0000
              Factor II Mutation
86055.0000
              Factor IX Ag
86056.0000
              Factor IX Inh
86057.0000
              Factor XI Inh
86058.0000
              Factor XIII
86059.0000
              Factor XIII Urea
86060.0000
86061.0000
              Hepatitis A IgG/IgM
86062.0000
              Hepatitis E Ab IgG
              Hepatitis E Ab IgM
86063.0000
              Neutrophil Cytoplasm Ab
86064.0000
86065.0000
              Coccidioides IqM
              Cell Marker Panel
86066.0000
86067.0000
              Triple Marker Panel
              HIV 1 P24
86069.0000
              HIV 1 P18
86070.0000
86071.0000
              HIV 1 P55
86072.0000
              Transglutaminase Tissue Ab
              Charcot Marie Tooth
86073.0000
              Parvovirus B19 IgG
86074.0000
86076.0000
              Parvovirus B19 IqM
              Phytohemagglutinin
86077.0000
              Protease Gene Mutation
86078.0000
              Coxsackie A 10
86079.0000
              ABO Cell and Serum Typing
86080.0000
              ABO Cell and Rh(D) Typing
86081.0000
              ABO Cell Serum and Rh(D)
86082.0000
              ABO Hemolysin Test
86083.0000
              ABO Cell Typing Slide or Tube
86084.0000
              ABO Cell, Serum & Rh Typing on
86085.0000
86086.0000
              ABO Serum Typing Tube
86087.0000
              ABO Cell & Rh Typing Unit
              Rh(D) Typing
86088.0000
86089.0000
              Coxsackie A 16
              Coxsackie A 2
86090.0000
              Coxsackie A 4
86091.0000
              Coxsackie A 7
86092.0000
              Coxsackie A 9
86093.0000
              Coxsackie B 1
86094.0000
              Coxsackie B 2
86095.0000
              Coxsackie B 3
86097.0000
              Coxsackie B 4
86098.0000
              Coxsackie B 5
86099.0000
86100.0000
              Rh(D) Typing Slide or Tube
86101.0000
              Coxsackie B 6
86103.0000
              Neutrophil Cytoplasmic Ab IgA
              Neutrophil Cytoplasmic Ab IgM
86104.0000
86105.0000
              Beryllium Lymphocyte Prolifera
              Ag Blood Type
86120.0000
              Red Cell Mass
86121.0000
```

| 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<br>86173.0000 | HBsAg Blood Donor RIA                                   |
|                          | HBsAg Blood Donor RPHA<br>HLA B14                       |
| 86174.0000<br>86175.0000 |   |
| 86176.0000               | HBsAg Blood Donor ELISA batch 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                          |
| l                        | <del>-</del>  |

| 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 | J0-1 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+)      |
| 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 | Dithiothreiotol 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            |
| 30310.0000 | Puttace Matvet MO 1            |

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86511.0000
               Surface Marker Mo 2
86512.0000
               Surface Marker My 4
86513.0000
               Surface Marker My
               Surface Marker My 8
86514.0000
86515.0000
               Surface Marker My 9
86516.0000
               Platelet Associated IgG
86517.0000
               Neuronal Nuclear Ab
               Neuronal Nuclear Ab Panel
86518.0000
               Ri Ab IFA
86519.0000
               Hu Ab
86520.0000
               CD1a
86521.0000
86522.0000
               CD1b
86523.0000
               CD1c
86524.0000
               CD2
86525.0000
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               CD11b
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               CD11c
               CDw12
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               CD49d
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               CD79b
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              CD120b
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              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
              Strongyloides Ab
86684.0000
              CD19 Percent
86685.0000
              CD55/CD59
86686.0000
86687.0000
              Ri Ab
86705.0000
              Therapeutic Phlebotomy
86706.0000
              Isohemagglutin Titer
86707.0000
              Blood Salvage
              Fetal Screen
86708.0000
              Bone Marrow Freezing
86709.0000
86710.0000
              Bone Marrow Conc.
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| 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 | Dithiothreital 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 | Acetycholine 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                                     |
| 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<br>86861.0000 | Rh Immune Globulin  |
|                          | Squamous Cell CA Ag   |
| 86862.0000               | C3 Nephritic Factor BCR/ABL Gene                              |
| 86863.0000<br>86864.0000 | AutoImmune Ab Panel   |
| 86865.0000               | Aspergillus Fumigatus Type 1 A                                |
| 86866.0000               | Aspergillus Fumigatus Type 1 A Aspergillus Fumigatus Type 2 A |
| 86867.0000               | Aspergillus Fumigatus Type 2 A<br>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               | CD136<br>CD125  |
| 86874.0000               | CD NOS  |
| 86875.0000               | IgG Subsets 1   |
| 000/3.0000               | iga subsets i   |

| 86877.0000   |           |                           |          |
|--|-----------|---------------------------|----------|
| 86879.0000   | 86877.000 | 00 IgG Subsets 4          |          |
| 86879.0000   | 86878.000 | 00 Human Monocytic Ehrlic | hiosis A |
| 86881.0000   | 86879.000 | 00 Human Monocytic Ehrlic | hiosis A |
| 86881.0000   | 86880.000 |                           |          |
| 86885.0000   | 86881.000 |                           |          |
| Sease  |           | <del>-</del>              |          |
| 86903.0000         Type + Screen Blood           86910.0000         Paternity Blood Typing           86961.0000         Hemochromatosis           86961.0000         Hemochromatosis           86994.0000         BKV ViActive gCCR           86995.0000         Influenza A Ag.IF           86995.0000         Influenza A Ag.IF           86998.0000         Respiratory Syncytial Ag.IF           86999.0000         Rapid Respiratory Viral Panel           87000.000         Bacteria Ab Coated           87001.000         Fecal Leukocytes           87002.000         Bacteria Ab Coated           87001.000         Fecal Leukocytes           87002.000         Bacteria Culture           87004.000         Bacteria Species           87005.0000         Bartonella species NOS           87006.0000         Bordatella Partussis           87007.0000         Bordatella Pertussis           87008.0000         Brucatella Pertussis           87009.0000         Legionella PFA           87011.0000         Rapid Viral Smear           87012.0000         Clostridium Tetani Toxin           87013.0000         Corynebacterium species NOS           87014.0001         Corynebacterium species NOS   |           |                           |          |
| 86910.0000         Paternity Blood Typing           86961.0000         Heparin Anti Xa Unfract           86994.0000         BKV ViActive qCCR           86995.0000         Adenovirus Ag,IF           86995.0000         Influenza A Ag,IF           86995.0000         Respiratory Syncytial Ag,IF           86999.0000         Respiratory Viral Panel           87001.0000         Fecal Leukocytes           87001.0000         Fecal Leukocytes           87002.0000         Bacterium NOS           87004.0000         Bacterium NOS           87004.0000         Bacterium NOS           87005.0000         Barteroides species           87004.0000         Barteroides species           87005.0000         Barteroides species           87007.0000         Bardatella Parapertussis           87007.0000         Bordatella Parapertussis           87007.0000         Bordatella Parapertussis           87008.0000         Brucella species           87009.0000         Brucella pertussis           87019.0000         Brucella percussis           87019.0000         Clostridium Tetani Toxin           87012.0000         Clostridium Tetani Toxin           87014.0000         Corynebacterium Diptheriae   |           |                           |          |
| 86961.0000         Hemochromatosis           86994.0000         HeW ViActive qPCR           86995.0000         Adenovirus Ag, IF           86995.0000         Influenza A Ag, IF           86997.0001         Influenza B Ag, IF           86998.0000         Respiratory Syncytial Ag, IF           86999.0000         Rapid Respiratory Viral Panel           87000.0000         Bacteria MD Coated           87001.0000         Fecal Leukocytes           87002.0000         Bacterium NOS           87003.0000         Legionella Culture           87004.0000         Bacteroides species           87005.0000         Bartonella species NOS           87007.0000         Bordatella Pertussis           87007.0000         Clostridium Difficile Toxin           87012.0000         Rejonella Dif  |           |                           |          |
| 88994.000         BKV Viactive qPCR           86995.0000         Adenovirus Ag, IF           86995.0000         Influenza A Ag, IF           86997.0000         Influenza B Ag, IF           86999.0000         Respiratory Syncytial Ag, IF           86999.0000         Respiratory Syncytial Panel           87001.000         Bacteria Ab Coated           87001.000         Bacteria MOS           87002.0000         Bacterium NOS           87003.0000         Legionella Culture           87004.0000         Bacteroides species           87005.0000         Bartonella Species NOS           87005.0000         Bartonella Species NOS           87007.0000         Bordetella Pertussis           87008.000         Brodetella Species           87009.0000         Legionella DFA           87011.0000         Rapid Viral Smear           87012.0000         Clostridium Tetani Toxin           87013.0000         Corynebacterium Diptheriae           87014.0000         Corynebacterium Diptheriae           87015.000         Blood Culture Conventional           87016.0000         Escherichia coli Each Sero           87017.000         Fracisella tularensis           87019.000         Feces Macroscopic Exam  |           |                           |          |
| 88994.0000         BKV VlActive qPCR           86995.0000         Influenza A Ag,IF           86997.0000         Influenza B Ag,IF           86997.0000         Respiratory Syncytial Ag,IF           86999.0000         Rapid Respiratory Viral Panel           87000.0000         Bacteria Ab Coated           87001.0000         Bacterium NOS           87002.0000         Bacterium NOS           87004.0000         Bacterides Species           87005.0000         Bartonella Species NOS           87005.0000         Bartonella Species NOS           87007.0000         Bordetella Pertussis           87008.0000         Brucella Species           87009.0000         Legionella DFA           87010.0000         Clostridium Difficile Toxin           87011.0000         Rotatridium Tetani Toxin           87012.0000         Cotstridium Tetani Toxin           87014.0000         Corynebacterium Species NOS           87014.0000         Corynebacterium Species NOS           87014.0000         Bacherichia coli Each Sero           87017.000         Facherichia coli Each Sero           87018.0000         Haemophilus Influenzae           87019.0000         Feces Macroscopic Exam           87021.0000         Haemophilus I  |           |                           | +        |
| 86995.0000         Adenovirus Ag,IF           86997.0000         Influenza A Ag,IF           86997.0000         Influenza B Ag,IF           86999.0000         Respiratory Syncytial Ag,IF           86999.0000         Rapid Respiratory Viral Panel           87001.000         Bacteria Ab Coated           87002.0000         Bacterium NOS           87003.0000         Legionella Culture           87004.0000         Bacteroides species           87005.0000         Bartonella Species NOS           87005.0000         Bordatella Pertussis           87008.0000         Bordatella Pertussis           87019.0000         Clostridium Difficile Toxin           87011.0000         Clostridium Tetani Toxin           87012.0000         Clostridium Tetani Toxin           87013.0000         Corynebacterium Diptheriae           87014.0000         Corynebacterium Diptheriae           87015.0000         Blood Culture Conventional           87016.0000         Facesherichia coli Each Sero           87017.0000         Fran  |           |                           |          |
| 86995.0000   |           | <b>-</b>                  |          |
| 86999.0000         Influenza B 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           87005.0000         Bordatella Pertussis           87008.0000         Brucella species           87009.0000         Legionella DFA           87010.0000         Clostridium Difficile Toxin           87011.0000         Rapid Viral Smear           87012.0000         Corynebacterium Species NOS           87014.0000         Corynebacterium Diptheriae           87015.000         Blood Culture Conventional           87016.0000         Escherichia coli Each Sero           87017.0000         Francisella tularensis           87018.0000         Haemophilus Influenzae           87021.0000         Feces Macroscopic Exam           87022.0000         Haemophilus influenzae type B           87022.0000         Haemophilus influenzae           87022.0000         Feces Microscopic Exam           87022.0000         Haemophilus  |           | 2 ·                       |          |
| 86999.0000         Respiratory Syncytial Ag,IF           86999.0000         Bacteria Ab Coated           87001.0000         Bacterium NOS           87002.0000         Bacterium NOS           87004.0000         Bacterium NOS           87004.0000         Bacteroides species           87005.0000         Bartonella species NOS           87007.0000         Bordatella Pertussis           87008.0000         Brucella species           87009.0000         Legionella DFA           87010.0000         Clostridium Difficile Toxin           87011.0000         Rapid Viral Smear           87012.0000         Clostridium Tetani Toxin           87014.0000         Corynebacterium Species NOS           87014.0000         Corynebacterium Diptheriae           87015.0000         Blood Culture Conventional           87016.0000         Fecherichia coli Each Sero           87017.0000         Francisella tularensis           87018.000         Haemophilus Influenzae           87019.0000         Feces Macroscopic Exam           87022.0000         Haemophilus Influenzae type A           87022.0000         Haemophilus Influenzae type B           87022.0000         Legionella preumophilia           87024.0000         Legion  |           |                           |          |
| Respin   |           |                           | AC TE    |
| 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   87005.0000   Bordatella Parapertussis   87007.0000   Bordatella Pertussis   87007.0000   Bordatella 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 Species NOS   87014.0000   Corynebacterium Diptheriae   87015.0000   Blood Culture Conventional   87015.0000   Blood Culture Conventional   87016.0000   Braces Halmannia   Francisella tularensis   87018.0000   Francisella tularensis   87018.0000   Haemophilus Influenzae   Type A   87021.0000   Feces Macroscopic Exam   87022.0000   Haemophilus influenzae Type A   87021.0000   Feces Microscopic Exam   87022.0000   Haemophilus Influenzae   Type A   87023.0000   Feces Microscopic Exam   87024.0000   Egionella species NOS   87025.0000   Sodium Hydroxide Procedure   87026.0000   Sodium Hydroxide Procedure   87026.0000   Legionella species NOS   87028.0000   Listeria species   NOS   87039.0000   Neisseria Species NOS   87031.0000   Neisseria Meningitidis   Typing   87033.0000   Neisseria Meningitidis   Typing   87033.0000   Neisseria Meningitidis   Typing   87033.0000   Norcardia species NOS   87034.0000   Proteus OX 2   87035.0000   Strep Grp A Enzyme Immun   87036.0000   Proteus OX 2   87035.0000   Proteus OX K   87039.0000   Proteus OX K   87039.00 |           |                           |          |
| 87001.0000   |           |                           | I Pallel |
| 87002.0000 Bacterium NOS 87003.0000 Legionella Culture 87004.0000 Bartonella species NOS 87005.0000 Bartonella species NOS 87006.0000 Bordatella Parapertussis 87007.0000 Bordatella Parapertussis 87008.0000 Brucella Species 87009.0000 Legionella DFA 87010.0000 Clostridium Difficile Toxin 87011.0000 Rapid Viral Smear 87012.0000 Clostridium Tetani Toxin 87011.0000 Corynebacterium species NOS 87014.0000 Corynebacterium species NOS 87014.0000 Corynebacterium Species NOS 87015.0000 Blood Culture Conventional 87015.0000 Bcherichia coli Each Sero 87017.0000 Francisella tularensis 87018.0000 Freces Macroscopic Exam 87020.0000 Haemophilus Influenzae 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 species NOS 87026.0000 Legionella pneumophilia 87027.0000 Strep Grp A Coagglut 87028.0000 Neisseria Gonorrhoeae 87031.0000 Neisseria Meningitidis Typing 87033.0000 Neisseria Meningitidis Typing 87033.0000 Neisseria Meningitidis Typing 87033.0000 Strep Grp A Enzyme Immun 87035.0000 Strep Grp A Latex Agglut 87038.0000 Proteus OX 2 87035.0000 Strep Grp A Latex Agglut 87038.0000 Proteus OX I 87039.0000 Proteus OX I 87039.0000 Proteus OX I 87039.0000 Proteus OX K 87039.0000 Proteus OX K 87039.0000 Proteus OX K 87039.0000 Proteus OX K 87039.0000 Proteus OX E 87030.0000 Proteus OX B 87030.0000 Proteus OX E   |           |                           |          |
| 87003.0000 Legionella Culture 87004.0000 Bacteroides species 87005.0000 Bartonella species NOS 87006.0000 Bordatella Parapertussis 87007.0000 Bordatella 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 Diptheriae 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 87022.0000 Haemophilus Influenzae type B 87023.0000 Feces Microscopic Exam 87022.0000 Legionella species NOS 87025.0000 Sodium Hydroxide Procedure 87026.0000 Legionella pneumophilia 87027.0000 Strep Grp A Coagglut 87028.0000 Neisseria Sencies NOS 87030.0000 Neisseria Gonorrhoeae 87031.0000 Neisseria Meningitidis Typing 87032.0000 Neisseria Meningitidis Typing 87033.0000 Strep Grp A Enzyme Immun 87036.0000 Strep Grp A Enzyme Immun 87036.0000 Strep Grp A Latex Agglut 87037.0000 Strep Grp A Latex Agglut 87038.0000 Proteus OX 19 87037.0000 Strep Grp A Latex Agglut 87038.0000 Proteus OX K 87039.0000 Proteus OX F 87040.0000 Escherichia Coli 0157 87042.0000 Salmonella Each Grouping  |           | -                         |          |
| 87004.0000 Barteneila species NOS 87005.0000 Bordatella Parapertussis 87007.0000 Bordatella 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 species NOS 87014.0000 Corynebacterium Diptheriae 87015.0000 Blood Culture Conventional 87016.0000 Escherichia coli Each Sero 87017.0000 Francisella tularensis 87018.0000 Feces Macroscopic Exam 87020.0000 Haemophilus Influenzae 87019.0000 Feces Macroscopic Exam 87021.0000 Feces Millus influenzae Type A 87021.0000 Feces Millus influenzae Type A 87021.0000 Feces Millus Influenzae Type A 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 87030.0000 Neisseria Gonorrhoeae 87031.0000 Neisseria Meningitidis Typing 87033.0000 Neisseria Meningitidis Typing 87033.0000 Strep Grp A Enzyme Immun 87036.0000 Proteus OX 2 87035.0000 Strep Grp A Latex Agglut 87038.0000 Proteus OX 19 87039.0000 Proteus OX 19 87039.0000 Proteus OX 19 87039.0000 Proteus OX 19 87039.0000 Proteus OX K 87039.0000 Proteus OX E   |           |                           |          |
| 87005.0000 Bartonella species NOS 87006.0000 Bordatella Parapertussis 87007.0000 Bordatella Parapertussis 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 Diptheriae 87015.0000 Blood Culture Conventional 87016.0000 Escherichia coli Each Sero 87017.0000 Francisella tularensis 87018.0000 Haemophilus Influenzae 87019.0000 Feces Macroscopic Exam 87021.0000 Feces Microscopic Exam 87021.0000 Haemophilus influenzae type A 87021.0000 Feces Microscopic Exam 87022.0000 Haemophilus Influenzae type B 87023.0000 Feces Microscopic Exam 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 Species NOS 87031.0000 Neisseria Meningitidis Typing 87032.0000 Neisseria Meningitidis Typing 87033.0000 Neisseria Meningitidis Typing 87033.0000 Strep Grp A Latex Agglut 87035.0000 Strep Grp A Latex Agglut 87038.0000 Proteus OX 19 87037.0000 Wet Prep for Trichomonas 87040.0000 Pseudomonas Pseudomallei 87041.0000 Escherichia Coli 0157 87042.0000 Salmonella Each Grouping   |           |                           |          |
| 87006.0000         Bordatella Parapertussis           87007.0000         Bordetella Pertussis           87008.0000         Brucella species           87010.0000         Legionella DFA           87011.0000         Clostridium Difficile Toxin           87012.0000         Clostridium Tetani Toxin           87013.0000         Corynebacterium species NOS           87014.0000         Corynebacterium Diptheriae           87015.0000         Blood Culture Conventional           87016.0000         Escherichia coli Each Sero           87017.0000         Francisella tularensis           87018.0000         Haemophilus Influenzae           87019.0000         Feces Microscopic Exam           87022.0000         Haemophilus Influenzae Type A           87022.0000         Haemophilus Influenzae type B           87023.0000         Feces Pin Worm Examination           87024.0000         Legionella species NOS           87025.0000         Sodium Hydroxide Procedure           87027.0000         Strep Grp A Coagglut           87029.0000         Neisseria species NOS           87030.0000         Neisseria Gonorrhoeae           87031.0000         Neisseria Meningitidis           87032.0000         Neisseria Meningitidis Typing   |           |                           |          |
| 87007.0000 Bordetella Pertussis 87008.0000 Legionella DFA 87010.0000 Clostridium Difficile Toxin 87011.0000 Rapid Viral Smear 87012.0000 Clostridium Tetani Toxin 87013.0000 Corynebacterium species NOS 87014.0000 Escherichia coli Each Sero 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 Gonorrhoeae 87031.0000 Neisseria Meningitidis 87032.0000 Norcardia species NOS 87033.0000 Norcardia species NOS 87033.0000 Norcardia 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 19 87037.0000 Proteus OX K 87039.0000 Proteus OX K 87039.0000 Proteus OX Secherichia Coli 0157 87042.0000 Salmonella Each Grouping  |           |                           |          |
| 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 Diptheriae   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 species NOS   87029.0000   Listeria species   87029.0000   Neisseria Species NOS   87030.0000   Neisseria Gonorrhoeae   87031.0000   Neisseria Gonorrhoeae   87031.0000   Neisseria Meningitidis Typing   87033.0000   Neisseria Meningitidis Typing   87033.0000   Neisseria Meningitidis Typing   87033.0000   Strep Grp A Enzyme Immun   87036.0000   Proteus OX 2   87035.0000   Strep Grp A Latex Agglut   87037.0000   Strep Grp A Latex Agglut   87038.0000   Proteus OX 19   87037.0000   Strep Grp A Latex Agglut   87038.0000   Proteus OX 19   87039.0000   Strep Grp A Latex Agglut   87038.0000   Proteus OX 19   87039.0000   Strep Grp A Latex Agglut   87038.0000   Proteus OX 19   87039.0000   Strep Grp A Latex Agglut   87038.0000   Proteus OX 19   Strep Grp A Latex Agglut   87038.0000   Proteus OX 19   87039.0000   Strep Grp A Latex Agglut   87039.0000   Strep Grp A Latex Agglut   87039.0000   Proteus OX 19   Strep Grp A Latex Agglut   87039.0000   Proteus OX 19   Strep Grp A Latex Agglut   87038.0000   Proteus OX 19   Strep Grp A Latex Agglut   87039.0000   Strep G |           | <del>-</del>              | IS       |
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| 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 Norcardia 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  |           | _                         |          |
| 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 Norcardia 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  |           |                           |          |
| 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 Norcardia 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   |           | <del>_</del>              |          |
| 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 Norcardia 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   |           | -                         |          |
| 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 Norcardia 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   |           |                           |          |
| 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 Norcardia 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   |           |                           |          |
| 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 Norcardia 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  |           |                           |          |
| 87028.0000 Listeria species 87029.0000 Neisseria species NOS 87030.0000 Neisseria Gonorrhoeae 87031.0000 Neisseria Meningitidis 87032.0000 Neisseria Meningitidis Typing 87033.0000 Norcardia 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  |           |                           | a        |
| 87029.0000 Neisseria species NOS 87030.0000 Neisseria Gonorrhoeae 87031.0000 Neisseria Meningitidis 87032.0000 Neisseria Meningitidis Typing 87033.0000 Norcardia 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  |           |                           |          |
| 87030.0000 Neisseria Gonorrhoeae 87031.0000 Neisseria Meningitidis 87032.0000 Neisseria Meningitidis Typing 87033.0000 Norcardia 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   |           |                           |          |
| 87031.0000 Neisseria Meningitidis 87032.0000 Neisseria Meningitidis Typing 87033.0000 Norcardia 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  |           |                           |          |
| 87032.0000 Neisseria Meningitidis Typing 87033.0000 Norcardia 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  |           |                           |          |
| 87033.0000 Norcardia 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   |           |                           |          |
| 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  |           |                           | Typing   |
| 87035.0000 Strep Grp A Enzyme Immun<br>87036.0000 Proteus OX 19<br>87037.0000 Strep Grp A Latex Agglut<br>87038.0000 Proteus OX K<br>87039.0000 Wet Prep for Trichomonas<br>87040.0000 Pseudomonas Pseudomallei<br>87041.0000 Escherichia Coli 0157<br>87042.0000 Salmonella Each Grouping   |           |                           |          |
| 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  |           |                           |          |
| 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   |           |                           | ıun      |
| 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   | 87036.000 | 00 Proteus OX 19          |          |
| 87039.0000 Wet Prep for Trichomonas<br>87040.0000 Pseudomonas Pseudomallei<br>87041.0000 Escherichia Coli 0157<br>87042.0000 Salmonella Each Grouping  | 87037.000 |                           | lut      |
| 87039.0000 Wet Prep for Trichomonas<br>87040.0000 Pseudomonas Pseudomallei<br>87041.0000 Escherichia Coli 0157<br>87042.0000 Salmonella Each Grouping  |           |                           |          |
| 87040.0000 Pseudomonas Pseudomallei<br>87041.0000 Escherichia Coli 0157<br>87042.0000 Salmonella Each Grouping   |           |                           | as       |
| 87041.0000 Escherichia Coli 0157<br>87042.0000 Salmonella Each Grouping  |           | <del>-</del>              |          |
| 87042.0000 Salmonella Each Grouping  |           |                           |          |
| = =  |           |                           | ng       |
|  |           | <del>-</del>              |          |

| 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        |
| 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            |
| 37131.0000 |                                |

| 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 pertenue (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                  |
| 37133.0000 | rectine, ettile               |

| 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 | Mycoplama Ab                  |
| 87174.0000 | Oxytetracycline               |
| 87175.0000 | Chlamydia Pneumoniae          |
| 87176.0000 | Endotoxin                     |
| 87177.0000 | Chlamydia Psittaci            |
| 87178.0000 | Pefloxacin                    |
| 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 Cardiolipin          |
| 87229.0000 | Congo Red Stain                |
| 87230.0000 | Acanthamoeba Culture           |
| 87231.0000 | IgG Quant Cardiolipin          |
|            | 5 ~ I                          |
| 87232.0000 | Coccidioides Immitis           |
| 87233.0000 | IgG Qual Cardiolipin           |
| 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 | Paracoccidiodes Braziliensis   |
| 87263.0000 | Axonal HMSN Eval               |
|            | Platelet Associated Ab Dir     |
| 87264.0000 |                                |
| 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 Difficle   |
| 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 Meninigitidis 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               |

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87288.0000
              Misc Flow Test 6
              Misc Flow Test 7
87289.0000
              Misc Flow Test 8
87290.0000
              Misc Flow Test 9
87291.0000
87292.0000
              Misc Flow Test 10
87293.0000
              Staphlococcus Aures Meth Resis
87294.0000
              Streptococcus Group A Scr
              Sarcoptes Scabiei
87295.0000
              Culture Vibrio
87296.0000
              Viral Smear
87297.0000
              CH100
87298.0000
              Friedreich Ataxia Mutation
87299.0000
              Parvovirus AB IqM
87300.0000
87301.0000
              Varicella Zoster AB IgM
87302.0000
              Amoeba NOS
              Cryptosporidium
87303.0000
87304.0000
              Extractable Nuclear Ab
              Fluoxetine+Norfluoxetine
87305.0000
87306.0000
              Diasialyl Ganglioside Ab IgG
87307.0000
              Tetrasialyl Gangloside Ab IgG
87308.0000
              Cysticercus
              Hepatitis C Superoxidase Eis A
87309.0000
87310.0000
              Myelin Associated Glycoprotein
              Neural Thread Protein
87311.0000
87312.0000
              Hepatitis C NS5 Ab
              Echinococcus species
87313.0000
87314.0000
              Linezolid
              Parainfluenza 2 Ab
87315.0000
              Parainfluenza 3 Ab
87316.0000
87317.0000
              Entamoeba species NOS
              Entamoeba Histolytica
87318.0000
87319.0000
              Neisseria Gonorrhoeae DNA
              Trypsinogen
87320.0000
87321.0000
              Leishmania Braziliensis
87322.0000
              Lieshmania Braziliensis IgG
87323.0000
              Filaria species
              Leishmania Braziliensis IgM
87324.0000
              Leishmania Donovani
87325.0000
87326.0000
              Leishmania Donovani IgG
              Leishmania Donovani IgM
87327.0000
              Microfilarial Ag
87328.0000
              Leishmania Mexicana
87329.0000
              Leishmania Mexicana IgG
87330.0000
87331.0000
              Leishmania Mexicana IqM
              Leishmania Tropicalis
87332.0000
              Leishmania species NOS
87333.0000
              Leishmania Tropicalis IgG
87334.0000
              Leishmania Tropicalis IqM
87335.0000
87336.0000
              Basement Membrane Ab Titer
              Basement Membrane Zone
87337.0000
              Parasite NOS
87338.0000
              BCL 2
87339.0000
              Intercellular Structure
87340.0000
              Intercellular Structure Ab
87341.0000
87342.0000
              Intercellular Structure Titer
87343.0000
              Plasmodium species (malaria)
87344.0000
              Hevea Brazil
              Melas MT DNA Mutation
87345.0000
              Hereditary Familial Hemochroma
87346.0000
87347.0000
              HEF CYS 282 TRY Mutation
              Schistosoma species
87348.0000
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| 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              |
|            | RT Gene Mutation               |
| 87356.0000 |                                |
| 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 Rhodesiensis       |
| 87363.0000 | X25                            |
| 87364.0000 | Trypanosoma Gambiensis         |
| 87365.0000 | X25 Allele1                    |
| 87366.0000 | Visceral Larval Migrans        |
| 87367.0000 | X25 Allele2                    |
| 87368.0000 | Thyroid Stimulating Hormone Ab |
| 87369.0000 | Islet Cell Aq                  |
| 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                      |
|            | Culture Varicella Zoster       |
| 87377.0000 |                                |
| 87378.0000 | Coxiella Burnetti              |
| 87379.0000 | Herpes Virus VI                |
| 87380.0000 | Rickettsia Akari               |
| 87381.0000 | Influenza B Guandong           |
| 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                     |
|            | Pregnancy Test                 |
| 87403.0000 |                                |
| 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              |
| 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                       |
|            | <del></del>                    |
| 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       |
|            | 3                              |

| 87532.0000               | Planting 2 Pc Media Bact              |
|--------------------------|---------------------------------------|
| 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<br>Neural Tube Defect |
| 87579.0000<br>87580.0000 | Down Syndrome                         |
|                          |                                       |
| 87581.0000<br>87582.0000 | Trisomy 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                         |
| 0/391.0000               | ryocatutum AD                         |

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87592.0000
              Neutrophil Oxidative Burst
87593.0000
              Salmonella O
              Culture Skin
87594.0000
              Salmonella O Grp D
87595.0000
              Salmonella Flg d
87596.0000
87597.0000
              Salmonella Flg a
87598.0000
              Salmonella Flq b
              Salmonella O Grp A
87599.0000
              Inoculation Blood culture
87600.0000
              Salmonella O Grp B
87601.0000
              Histoplasma Aq
87602.0000
87603.0000
              Weil Felix Aq
87604.0000
              Subculture Blood Culture
87605.0000
              AFB Smear
              HIV 1 Genotype (PRI)
87606.0000
87607.0000
              HIV 1 Genotype (RTI)
              Calcium VG Channel Ab
87608.0000
87609.0000
              West Nile IgG
              West Nile IqM
87610.0000
              Culture HS Virus
87611.0000
              Autologous Collection
87612.0000
87613.0000
              SGPG Ag
              West Nile Ab
87614.0000
              ECHO 11
87615.0000
              ECHO 30
87616.0000
              ECHO 4
87617.0000
              ЕСНО б
87618.0000
              ECHO 7
87619.0000
              ECHO 9
87620.0000
87621.0000
              Chlamydia Pneumoniae IgG
              Chlamydia Pneumoniae IgA
87622.0000
87623.0000
              Chlamydia Pneumoniae IgM
              Chlamydia Trachomatis IgG
87624.0000
              Chlamydia Trachomatis IqA
87625.0000
              Chlamydia Trachomatis IgM
87626.0000
              Chlamydia Psittaci IgG
87627.0000
              Chlamydia Psittaci IqA
87628.0000
87629.0000
              Chlamydia Psittaci IgM
87630.0000
              HU Ab
87631.0000
              HU Ab Western Blot
87632.0000
              Aspergillus Niger
              Aspergillus Flavus
87633.0000
              Neiseria Meningitis B
87634.0000
87635.0000
              Neisseria Meningitis C
87636.0000
              Neisseria Meningitis Y
              Neisseria Meningitis W135
87637.0000
              Coxiella Burnetti 1 IgG
87638.0000
              CD3-CD19+ Percent
87639.0000
              Aspergillus Flavus Ab
87640.0000
87641.0000
              Aspergillus Fumigatus Type 6 A
87642.0000
              Thermoactinomyces Sacchri Ab
              Human Papillomavirus
87643.0000
              Diasialyl Ganglioside Ab IgM
87644.0000
              Aspergillus Ab IgA
87645.0000
87646.0000
              Aspergillus Ab IgG
87647.0000
              Aspergillus Ab IgM
              Brucella Brugneri
87648.0000
              Brucella Interpretation
87649.0000
              Organism Identification ID Kit
87650.0000
              Brucella Canis
87651.0000
87652.0000
              Burcella Pertussis
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| 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              |
|            | Biochemical ID                 |
| 87745.0000 | Abbreviated ID                 |
| 87746.0000 |                                |
| 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      |
| 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 | Arysulfatase 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 | Antimicrobic Assay                                   |
| 87951.0000 | Antimicrobic Assay tube                              |
| 87952.0000 | Bactericidal Activity                                |
| 87953.0000 | Hepatitis C Genotyping                               |
| 87954.0000 | Sensitivity Testing or MIC                           |
| 87956.0000 | Sensitivity Testing Or Mic 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                         |
| 0/2/0.0000 | 12difer 1ege Vilai 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          |
| 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 Groupl             |
| 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 Donovani 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               |

| 00100 0000 |                                |
|------------|--------------------------------|
| 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 Groupl                   |
| 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                  |
| 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  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 Prep Only Transcription Report Disp     |
| 88528.0000 | Sections Paraffin Surg Path                                  |
| 88529.0000 |  |
| 88530.0000 | Autopsy Gross Only<br>Stain H&E Automated                    |
| 88531.0000 |  |
|            | Autopsy Complete w/o Brain<br>Autopsy Complete with Brain    |
| 88532.0000 |  |
| 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 Clinical History                                     |
| 88541.0000 | Clinical History   |
| 88542.0000 | Brief Clinical History                                       |
| 88543.0000 | Diagnosis Piagnosis  |
| 88544.0000 | Diagnosis PreOp  |
| 88545.0000 | Findings   |
| 88546.0000 | Findings PreOp   |
| 88547.0000 | Findings PostOp  |
| 88548.0000 | Description  Paraminting Guard                               |
| 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               | Cocciddioides 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<br>88587.0000 | Screen Cyto NonGyn CMC>50%<br>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                   |
| 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 | Eqq 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  |

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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 IqM Ab
88689.0000
              EGFR-Paraffin
              ER-IHC/Paraffin
88690.0000
              PR-IHC/Paraffin
88691.0000
              Micropolyspora faeni Ab
88692.0000
88693.0000
              Aspergillus pullulans Ab
              Toxoplasma IgG Ab, CSF
88694.0000
88695.0000
              Toxoplasma IgM Ab, CSF
              Spinocerebellar Ataxia 8
88696.0000
              Spinocerebellar Ataxia 10
88697.0000
              DRPLA DNA
88698.0000
88757.0000
              Cytology Smear non GYN
              Misc Stain 4
88885.0000
              Misc Stain 5
88886.0000
              Misc Stain 6
88887.0000
              Misc Stain 7
88888.0000
88889.0000
              Misc Stain 8
              Misc Stain 9
88890.0000
              Misc Stain 10
88891.0000
              Febrile Agglutinins Panel
88978.0000
              St Louis Equine Encephalitis I
88979.0000
88980.0000
              St Louis Equine Encephalitis I
              La Crosse Virus IGM
88981.0000
              La Crosse Virus IGG
88982.0000
              La Crosse Virus Ab
88983.0000
              Eastern Equine Encephalitis IG
88984.0000
              Eastern Equine Encephalitis IG
88985.0000
88986.0000
              Dengue Virus Ab IGM
              Dengue Virus Ab IGG
88987.0000
88988.0000
              Galop Auto Ab
              HIV 2
88989.0000
88990.0000
              HIV Quant
              HIV Qual
88991.0000
88992.0000
              Herpes Virus VI IgG IgM
              Rubella Titer
88993.0000
              APC GENE MUTATION
88995.0000
              Complement Total
88996.0000
88997.0000
              Hepatitis G Ab
88998.0000
              Charcot Marie Tooth Profile
88999.0000
              Interferon Alpha Receptor
              Surface Marker Leu9
89000.0000
              Surface Marker B4
89001.0000
              Surface Marker My10
89002.0000
89003.0000
              Surface Marker KC56
89004.0000
              Neutrophil Cytoplasm
89005.0000
              Farmer's Lung
89006.0000
              Histone
89007.0000
              Hypersensitivity Aspergillus
              Hypersensitivity Pneumonitis
89008.0000
89009.0000
              Alpha Pituitary G Hormone
              Alphal Antitrypsin Clearance
89010.0000
89011.0000
              Anti Adrenal Ab
              Anti Dnase B
89012.0000
              DS DNA Ab
89013.0000
89014.0000
              Anti Single Stranded DNA
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| 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               | Coccidiodes 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 Mitochrondrial Ab                     |
| 89050.0000               | Cell Count Body Fluid Cell Count with Film |
| 89051.0000               | Anti Parietal Cell Ab                      |
| 89052.0000<br>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               | Diptheria 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                         |

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89076.0000
              Protein S, Total
              Protein S, free
89077.0000
89078.0000
              RAST test
              Acetylcholine REC Blocking Ab
89079.0000
89080.0000
              Acetylcholine receptor
89081.0000
              T cell subsets
89082.0000
              Cell surface markers
              Hepatitis A IgM Ab
89083.0000
              Immunodiffusion, histoplasmosi
89084.0000
              Immunodiffusion, aspergillosis
89085.0000
              Immunodiffusion, blastomycosis
89086.0000
              Immunodiffusion, candidiosis
89087.0000
              Immunodiffusion, coccidiodiosi
89088.0000
              EIA Clostridium diff tox A or
89089.0000
89090.0000
              Latex agglut Clostridium diffi
              Direct FA, Chlamydia trachomat
89091.0000
89092.0000
              EIA, Chlamydia trachomatis
              Hepatitis B, early Ab
89093.0000
              Hepatitis B, early Ag
89094.0000
              Hepatitis B core IgM Ab
89095.0000
89096.0000
              FTA ABS
              MHA TP
89097.0000
89098.0000
              HIV 1 by EIA
              HIV 1 by Western Blot
89099.0000
              HIV 1 by IFA
89100.0000
89101.0000
              HIV 1 P24 Ag by EIA
89102.0000
              HTLV 1 Ab by EIA
89103.0000
              Lymes Ab by EIA
              Lymes Ab by IFA
89104.0000
89105.0000
              Nordoxepin done by GC
89106.0000
              Rapid Plasma Reagin
89107.0000
              Pneumococcal Ab
              Rabies Ab
89108.0000
              Poliovirus Ab
89109.0000
              Drug Dependent Ab
89110.0000
              Mumps Immune Status
89111.0000
              Chlamydia Titer
89112.0000
89113.0000
              Helicobacter pylori Serology
              Antitrypsin alpha 1 phenotype
89114.0000
89115.0000
              Heparin dependent Ab
89116.0000
              Viral serology panel
89117.0000
              Striated Muscle Ab
              Misc Immuno Test 1
89118.0000
89119.0000
              Misc Immuno Test 2
              Misc Immuno Test 3
89120.0000
              Misc Immuno Test 4
89121.0000
              Misc Immuno Test 5
89122.0000
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
              Hepatitis B Delta Ab, IgM
89128.0000
89129.0000
              Hepatitis B Delta Ag
89130.0000
              Gastric Contents
89131.0000
              Toxoplasma Ab CSF
89132.0000
              Toxoplasma Ab IqG
              Toxoplasma Ab IqM
89133.0000
              Sulfatide Autoantibody
89134.0000
89135.0000
              DNA Ploidy
89136.0000
              Hantavirus
```

| 89137.0000               | Multiple Sclerosis Panel                |
|--------------------------|---|
| 89138.0000               | Complement C3/C4 Panel                  |
| 89139.0000               | Immunogloblin 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<br>89160.0000 | Sjorgren's Ag<br>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               | Ehrlichosis 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<br>89181.0000 | HIV 1 RNA Quant<br>Tetanus Ab           |
| 89182.0000               | Diptheria 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 Pneumoniea Ab IgG   |
| 89212.0000 | Mycoplasma pneumoniae Ab IgM   |
| 89213.0000 | Streptozyme Qt                 |
| 89214.0000 | Leukemia Panel Acute           |
| 89215.0000 | Leukemia Panel Chronic         |
| 89216.0000 | Leukemia Panel Hairy           |
| 89217.0000 | Cancer Ag 27.29                |
| 89218.0000 | Pneumonititis Hypersensitivity |
| 89219.0000 | Gardnerella Vaginalis          |
| 89220.0000 | Scleroderma Ab Quant           |
| 89221.0000 | Streptozyme Ab Quant           |
| 89222.0000 | T Cell Receptor                |
| 89223.0000 | Beta 2 Glycoprotein 1 Ab       |
| 89224.0000 | Western Blot                   |
| 89225.0000 |                                |
| 89226.0000 | HIV Genotype                   |
|            | Complexed Prostate Specific Ag |
| 89227.0000 | Varicella Rapid Culture        |
| 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                    |
| 0,2,30.000 | 110 V 0000 11D                 |

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89259.0000
              HCV C22-3 Ab
89260.0000
              HCV NS5 Ab
              HCV RIBA Panel
89261.0000
              HCV Panel Interp
89262.0000
89264.0000
              Lyme Ab IgG/IgM
89265.0000
              Microspordin Stain
89266.0000
              Mumps Ab
              Mumps Ab IqM
89267.0000
              CD3/CD16*CD56
89268.0000
              Basement Membrane
89269.0000
              Basement Membrane Ab
89270.0000
89272.0000
              CD20 Percent
89273.0000
              Lymphocyte B
89274.0000
              Lymphocyte T Percent
              CA 27 29
89275.0000
              CA 72-4
89276.0000
89277.0000
              CD2 Percent
89278.0000
              CD3-CD16+CD56+ Absolute
89279.0000
              CD3-CD16+CD56+ Percent
89280.0000
              Echovirus 4 Ab
              Echovirus 9 Ab
89281.0000
              Echovirus 11 Ab
89282.0000
89283.0000
              Echovirus 30 Ab
              Galop Ab
89284.0000
              Hepatitis C Band c100-3
89285.0000
              Hepatitis C Band c22p
89286.0000
              Hepatitis C Band hSOD
89287.0000
89288.0000
              Human Granulocytic Ehrlichiosi
              Human Granulocutic Ehrlichiosi
89289.0000
              Human Granulocytic Ehrlichiosi
89290.0000
              HIV Log
89291.0000
89292.0000
              HIV Log Ultra
              HIV 2 qp105 Ab
89293.0000
              HIV 2 gp120 Ab
89294.0000
              HIV 2 qp34 Ab
89295.0000
              HIV 2 p15 Ab
89296.0000
              HIV 2 p26 Ab
89297.0000
              HIV 2 p31 Ab
89298.0000
89300.0000
              Semen Analysis Sperm
              HIV 2 p58 Ab
89301.0000
              HIV 2 p68 Ab
89302.0000
              HIV 2 Ab Western Blot
89303.0000
              HPV Hybrid Capture Inter High
89304.0000
89305.0000
              HPV Typing, Biopsy
              HPV Hybrid Capture Low Risk
89306.0000
              Herpes Simplex Virus DNA
89307.0000
              Herpes Simplex 1 DNA
89308.0000
              Herpes Simplex 2 DNA
89309.0000
              Herpes Simplex Ab
89310.0000
89311.0000
              Herpes Simplex Aq
              Parainfluenza 1 Ab
89312.0000
              Parainfluenza Ag
89313.0000
              Parainfluenza 1 Ag
89314.0000
89315.0000
              Parainfluenza 2 Ag
89316.0000
              Parainfluenza 3 Ag
              Coxiella Burnetti 1 IgM
89317.0000
89318.0000
              Coxiella Burnetti 2
              Coxiella Bernetti 2 IgG
89319.0000
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          |
| 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             |
| 89370.0000 | 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
              MA2 Ab
89387.0000
              Satratoxin IgG
89388.0000
89389.0000
              Satratoxin IgA
89390.0000
              Satratoxin IgM
89391.0000
              hSOD Ab
89392.0000
              Satratoxin IqE
89393.0000
              Aflatoxin IqG
              Aflatoxin IqA
89394.0000
              Aflatoxin IqM
89395.0000
89396.0000
              Aflatoxin IqE
89397.0000
              Trichothecene IqG
              Trichothecene IgA
89398.0000
89399.0000
              Trichothecene IgM
89400.0000
              Trichothecene IgE
              Hepatitis GBV
89403.0000
              Rh (D) Typing
89404.0000
              HBs Aq
89405.0000
89406.0000
              HBe Ag
89407.0000
              HBe Ab
              HBs Ab
89408.0000
89409.0000
              HBV
89410.0000
              HBc Ab
              HCV Ab
89411.0000
89412.0000
              HCV Ag
89413.0000
              Cutaneous Ab
              Extractable Nuclear Ag NOS
89414.0000
89415.0000
              Herpes Simplex 2 Ab
              Nuclear Matrix Protein Tumor M
89416.0000
89417.0000
              Leptospira Grippo Ab
89418.0000
              Leptospira Icterohaemorrhiae A
89420.0000
              Leptospira Pomona Ab
89421.0000
              CD1+ Percent
              HLA -DR+DQ Aq
89422.0000
89423.0000
              Mumps Skin Test
              Spinocerebellar Ataxia 1
89424.0000
89425.0000
              Molecular Cytogenetics Probe
89426.0000
              FISH
              HEREDITARY SPASTIC PARAPARESIS
89427.0000
              Spinocerebellar Ataxia Type 17
89428.0000
              Spinocerebellar Ataxia Type 1&
89429.0000
              Lyme IB 21kDa
89430.0000
89431.0000
              Lyme IB 23kDa
89432.0000
              Lyme IB 28kDa
              Lyme IB 30kDa
89433.0000
              Lyme IB 39kDa
89434.0000
              Lyme IB 41kDa
89435.0000
              Lyme IB 45kDa
89436.0000
89437.0000
              Lyme IB 58kDa
89438.0000
              Lyme IB 66kDa
              Lyme IB 93kDa
89439.0000
89440.0000
              Hu Ab CSF
              ANA-Atypical Speckled Pattern
89441.0000
89442.0000
              B Cell Gene Rearrangement
89443.0000
              ANA-Homogeneous Pattern
              Inflammatory Bowel Disease Pan
89444.0000
              ANA-Mitotic Spindle Pattern
89445.0000
              ANA-Nuclear Pattern
89446.0000
89447.0000
              ANA-Speckled Pattern
89448.0000
              RET Proto Oncogene Mutations
```

```
89449.0000
              Muscular Dystrophy Duchenne Be
              Interleukin 5 Receptor
89450.0000
              Presenilin-1 Analysis
89451.0000
              ApoE Allele 1
89452.0000
              ApoE Allele 2
89453.0000
              ApoE Genotype Analysis
89454.0000
89455.0000
              BCL 1 Gene Translocation
89456.0000
              ANA-Peripheral Pattern
89485.0000
              Hepatitis C RNA
              Heparin LMW
89486.0000
              HCV Viral Load
89496.0000
89497.0000
              Aureobasidium Pullans
89498.0000
              HIV Viral Load
              Immunoglobulin Lambda L Mon
89499.0000
              Immunoglubulin Kappa L Mon
89500.0000
              Helminth Ab
89501.0000
89502.0000
              Rubeola Immune Status
89503.0000
              Varicella Zoster Ab
89504.0000
              VDRL Quant
              HSV Ab IgG
89505.0000
89506.0000
              HSV Ab IqM
89507.0000
              PL-7 Autoantibodies
89508.0000
              PL-12 Autoantibodies
              Mi-2 Autoantibodies
89509.0000
              Ku Autoantibodies
89510.0000
              EJ Autoantibodies
89511.0000
89512.0000
              OJ Autoantibodies
              U2 SnRNP Autoantibodies
89513.0000
89530.0000
              CA-125 Cancer Ag
              Complement C1 Esterase Inhib
89531.0000
              Complement Clq
89532.0000
89533.0000
              Complement C1r
              Complement C1s
89534.0000
89535.0000
              Complement C2
              Complement C3
89536.0000
              Complement C3b Inhibitor~DU PO
89536.3035
              Complement C3b Inhibitor
89537.0000
              Complement C3c
89538.0000
              Complement C3 Mobility
89539.0000
              Complement C4
89540.0000
              Complement C5~DU PONT ACA
89540.3035
              Complement C4 Allotypes
89541.0000
89542.0000
              Complement C5
89543.0000
              Complement C6
89544.0000
              Complement C7
              Complement C8
89545.0000
              Complement Activation Products
89546.0000
              Complement Decay Rate
89547.0000
              Complement Factor B (C3PA)
89548.0000
              Complement Properidin
89549.0000
              Complement Total (CH50 CH100)
89550.0000
              Immunoglobulin A
89551.0000
89552.0000
              Immunoglobulin D
              Immunoglobulin E
89553.0000
              Immunoglobulin G
89554.0000
89555.0000
              Immunoglobulin G Albumin Index
              Immunoglobulin G Synthesis Rt
89556.0000
89557.0000
              Immunoglobulin G1
89558.0000
              Immunoglobulin G2
              Immunoglobulin G3
89559.0000
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                      |
|                          | C Reactive Protein                           |
| 89640.0000<br>89641.0000 | Herpes I&II Stain                            |
|                          |  |
| 89642.0000               | Cystic Disease Protein (CDP) West Nile Virus |
| 89643.0000               |  |
| 89644.0000               | Cytokeratin                                  |
| 89645.0000               | c-erB-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 Betal 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                    |
|                          | <u> </u>                                     |

| S9704.0000   Intrinsic Factor   S9705.0000   Rheumatoid Factor Quant   Islet Cell   S9708.0000   Viral Titer   S9708.0000   Viral Titer   S9708.0000   Viral Titer   S9708.0000   DNA Binding   S9710.0000   Eventis Squamous   S9711.0000   Hepatitis D Ag   S9712.0000   Hepatitis D Ag   S9712.0000   Hepatitis D Ab   S9714.0000   Hepatitis D Ab   S9714.0000   Rochaumaea Ag   S9716.0000   Rochaumaea Ag   S9716.0000   Rochaumaea Ab   S9716.0000   Rochaumaea Ab   S9716.0000   Rochaumaea Ab   S9716.0000   Rochaumaea Ab   S9710.0000   Rochaumaea Ab   R | 89702.0000 | Immune Complex Raji Cell |
|--|------------|--------------------------|
| 89705.0000   Siet Cell   | 89703.0000 |                          |
| 19706.0000   Viral Titer   V | 89704.0000 |                          |
| 89707.0000   | 89705.0000 | Rheumatoid Factor Quant  |
| S9708.0000   MA Binding  | 89706.0000 | Islet Cell               |
| S9709.0000   NAB Sinding   | 89707.0000 | Viral Titer              |
| 89710.0000   | 89708.0000 | Keratin Squamous         |
| S9711.0000   | 89709.0000 | DNA Binding              |
| S9711.0000   | 89710.0000 | Keratin Nonsquamous      |
| 89712.0000   | 89711.0000 |                          |
| S9713.0000   |            |                          |
| 89714.0000   |            |                          |
| 89715.0000   |            |                          |
| 89716.0000   |            |                          |
| 89717.0000   Rochaumaea Ab   89718.0000   Melanoma Surface Ag   89718.0000   Microsomes Liver and Kidney   89720.0000   Microsomes Thyroid   89721.0000   Schistosoma Ab   89722.0000   Micchondria   89722.0000   Melanombilus Pylorii Stain   89724.0000   Myelin   89725.0000   Myelin   89725.0000   Myelin   89726.0000   Myelin   89726.0000   Myelin   89726.0000   Myelin   89728.0000   Myeardium   89729.0000   Myeardium   89729.0000   Myesin   89731.0000   Myesin   89731.0000   Myesin   89731.0000   Mulear   89734.0000   Mulear   89734.0000   Mulear   89736.0000   Pancreatic Carcinoma   89736.0000   Pancreatic Carcinoma   89736.0000   Pancreatic Carcinoma   89736.0000   Pancreatic Carcinoma   89736.0000   Prostatic Carcinoma   89736.0000   Reticulin   89736.0000   Reticulin   89736.0000   Reticulin   89733.0000   Reticulin   89733.0000   Reticulin   89733.0000   Reticulin   89733.0000   Sunoth Muscle   89733. |            |                          |
| 89718.0000   Microsomes Liver and Kidney   |            |                          |
| 89719.0000   Microsomes Liver and Kidney   89720.0000   Microsomes Thyroid   89721.0000   Mitochondria   89722.0000   Mitochondria   89724.0000   Myelin   89725.0000   Thyroid Peroxidase Ab   89726.0000   Myelin   8880   89726.0000   Myelin   889727.0000   Myelin   889727.0000   Myelin   889727.0000   Myelin   89728.0000   Myesin   89730.0000   Myesin   89731.0000   Chlamydia Ab   89732.0000   Myesin   89731.0000   Murofilament Triplet Pro 160   89738.0000   Neurofilament Triplet Pro 160   89738.0000   Neurofilament Triplet Protein   89740.0000   Neurofilament Triplet Protein   89740.0000   Neurofilament Triplet Protein   89744.0000   Neurofilament Triplet Protein   89744.0000   Panfilament   89748.0000   Panfilament   89748.0000   Panfilament   89748.0000   Panfilament   89748.0000   Panfilament   89748.0000   Pancreatic Carcinoma   89750.0000   Pancreatic Carcinoma   89750.0000   Pancreatic Carcinoma   89758.0000   Prostate Specific Ag   89762.0000   Prostate Specific Ag   89762.0000   Ribosome   89768.0000   Ribosome   89768.0000   Ribosome   89768.0000   Salivary Gland   89772.0000   Salivary Gland   89773.0000   Sarcolemma   89774.0000   Sicon   89788.0000   Streptoskinase   89788.0000   Streptoskinase   89788.0000   Streptoskinase   89788.0000   Striated Muscle   Striated  |            |                          |
| 89720.0000   Schistosoma Ab   Schistosoma Ab   Schistosoma Ab   Schistosoma Ab   Seprendi S |            |                          |
| 89721.0000   Mitochondria   89723.0000   Mitochondria   89724.0000   Myelin   89724.0000   Myelin   89725.0000   Myelin   89725.0000   Myelin   89727.0000   Myelin   89727.0000   Myelin   89727.0000   Myelin   89727.0000   Myelin   89727.0000   Myelin   89728.0000   Myelin   89729.0000   Myocardium   89729.0000   Yo Auto Ab   89731.0000   Myosin   89731.0000   Chlamydia Ab   89731.0000   Neurofilament Triplet Pro 160   89736.0000   Neurofilament Triplet Pro 160   89736.0000   Neurofilament Triplet Pro 160   89740.0000   Neuroleptic Receptor   89742.0000   Neurophysin   89746.0000   Panfilament   89746.0000   Panfilament   89746.0000   Pancreatic Carcinoma   89750.0000   Pancreatic Carcinoma   89750.0000   Parietal Cell   89752.0000   Prostatic Carcinoma Surface   89760.0000   Prostatic Carcinoma Surface   89760.0000   Prostatic Carcinoma Surface   89760.0000   Prostatic Carcinoma Surface   89760.0000   Ribosome   89760.0000   Ribosome   89760.0000   Ribosome   89770.0000   Salivary Gland   89771.0000   Sarcolemma   89771.0000   Sarcolemma   89771.0000   Shin   89778.0000   Shooth Muscle   89788.0000   Streptokinase   89781.0000   Streptokinase   89781.0000   Striated Muscle   89781.0000   Striated Muscle   89781.0000   Striated Muscle   89781.0000   Striated Muscle  |            | <del>_</del>             |
| 89722.0000   |            | _                        |
| 89723.0000   Heamophilus Pylorii Stain   89724.0000   Myelin   Basic Protein   89725.0000   Myelin   Basic Protein   89727.0000   Hu Auto Ab   89728.0000   Myocardium   89729.0000   Yo Auto Ab   89731.0000   Myosin   89731.0000   Chlamydia Ab   Nuclear   89734.0000   Neurofilament Triplet Pro 200   89736.0000   Neurofilament Triplet Protein   Neurofilament Triplet Protein   Neurofilament Triplet Protein   Neurofilament   Section   |            |                          |
| 89724.0000   |            |                          |
| 89725.0000   |            |                          |
| 89726.0000   |            | -                        |
| 89727.0000   |            |                          |
| 89728.0000   |            | <u>-</u>                 |
| 89729.0000   |            |                          |
| 89730.0000         Myosin           89731.0000         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           89748.0000         Pancreatic Carcinoma           89750.0000         Pancreatic Confetal Ag           89752.0000         Parietal Cell           89755.0000         Prekeratin           89756.0000         Prostatic Carcinoma Surface           89760.0000         Prostate Specific Ag           89762.0000         Reticulin           89766.0000         Ribosome           89766.0000         Ribosome           89770.0000         Salivary Gland           89772.0000         Sarcolemma           89776.0000         Sincolemma           89778.0000         Smooth Muscle           89780.0000         Sperm           89780.0000         Streptokinase           89784.0000         Anti Streptolysin O (ASO)           89788.0000         Streptozyme           89788.   |            | 4                        |
| 89731.0000   |            |                          |
| 89732.0000   Nuclear   |            |                          |
| 89734.0000         Neurofilament Triplet Pro 200           89736.0000         Neurofilament Triplet Pro 160           89738.0000         Neurofilament Triplet Protein           89740.0000         Neuroleptic Receptor           89744.0000         Neuron Specific Enolase           89744.0000         Neurophysin           89748.0000         Panfilament           89748.0000         Pancreatic Carcinoma           89750.0000         Pancreatic Conofetal Ag           89752.0000         Parietal Cell           89754.0000         Prekeratin           89755.0000         Prostatic Carcinoma Surface           89760.0000         Prostatic Specific Ag           89762.0000         Reticulin           89764.0000         Rheumatoid Factor           89766.0000         Ribonuclease           89770.0000         S 100 Neural Ag           89772.0000         Salivary Gland           89774.0000         Sarcolemma           89778.0000         Smooth Muscle           89780.0000         Sperm           89782.0000         Streptokinase           89784.0000         Streptokysin O (ASO)           89786.0000         Streptozyme           Striated Muscle   |            |                          |
| 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 Confetal Ag           89752.0000         Parietal Cell           89754.0000         Prekeratin           89758.0000         Prostatic Carcinoma Surface           89760.0000         Prostate Specific Ag           89761.0000         Reticulin           89762.0000         Rebumatoid Factor           89766.0000         Ribonuclease           89768.0000         Ribonuclease           89770.0000         Salivary Gland           89773.0000         Sarcolemma           89774.0000         Sarcolemma           89778.0000         Smooth Muscle           89780.0000         Sperm           89782.0000         Streptokinase           89784.0000         Streptokinase           89786.0000         Streptozyme           89788.0000         Striated Muscle   |            |                          |
| 89738.0000         Neurofilament Triplet Protein           89740.0000         Neuroleptic Receptor           89742.0000         Neuron Specific Enolase           89744.0000         Neurophysin           89746.0000         Panfilament           89750.0000         Pancreatic Carcinoma           89752.0000         Pancreatic Onofetal Ag           89754.0000         Parietal Cell           89756.0000         Prekeratin           89760.0000         Prostatic Carcinoma Surface           89760.0000         Prostate Specific Ag           89764.0000         Reticulin           89766.0000         Ribonuclease           89768.0000         Ribosome           89772.0000         Salivary Gland           89773.0000         Mumps Ab Titer           89776.0000         Sarcolemma           89778.0000         Smooth Muscle           89780.0000         Sperm           89782.0000         Anti Streptolysin O (ASO)           89786.0000         Streptozyme           89788.0000         Striated Muscle  |            |                          |
| 89740.0000         Neuroleptic Receptor           89742.0000         Neuron Specific Enolase           89744.0000         Neurophysin           89748.0000         Panfilament           89750.0000         Pancreatic Carcinoma           89752.0000         Parietal Cell           89754.0000         Prekeratin           89758.0000         Prekeratin           89760.0000         Prostatic Carcinoma Surface           89760.0000         Prostate Specific Ag           89762.0000         Reticulin           89766.0000         Ribonuclease           89768.0000         Ribosome           89770.0000         S 100 Neural Ag           89772.0000         Salivary Gland           89774.0000         Sarcolemma           89776.0000         Skin           89780.0000         Sperm           89780.0000         Streptokinase           89784.0000         Anti Streptolysin O (ASO)           89786.0000         Streptozyme           89788.0000         Striated Muscle  |            |                          |
| 89742.0000         Neuron Specific Enolase           89744.0000         Neurophysin           89746.0000         Panfilament           89748.0000         Pancreatic Carcinoma           89750.0000         Parietal Cell           89754.0000         Prescrum           89758.0000         Prescrum           89750.0000         Prostatic Carcinoma Surface           89760.0000         Prostate Specific Ag           89762.0000         Reticulin           89764.0000         Ribonuclease           89768.0000         Ribonuclease           89770.0000         S 100 Neural Ag           89772.0000         Salivary Gland           89774.0000         Sarcolemma           89774.0000         Sarcolemma           89778.0000         Smooth Muscle           89780.0000         Sperm           89784.0000         Anti Streptolysin O (ASO)           89786.0000         Striated Muscle   |            |                          |
| 89744.0000         Neurophysin           89746.0000         Panfilament           89748.0000         Pancreatic Carcinoma           89750.0000         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           89768.0000         Ribosome           89770.0000         Salivary Gland           89773.0000         Mumps Ab Titer           89774.0000         Sarcolemma           89778.0000         Smooth Muscle           89780.0000         Sperm           89782.0000         Streptokinase           89784.0000         Anti Streptolysin O (ASO)           89788.0000         Striated Muscle   |            |                          |
| 89746.0000       Panfilament         89748.0000       Pancreatic Carcinoma         89750.0000       Pancreatic Onofetal Ag         89752.0000       Parietal Cell         89754.0000       Pigeon Serum         89758.0000       Prostatic Carcinoma Surface         89760.0000       Prostate Specific Ag         89762.0000       Reticulin         89764.0000       Rheumatoid Factor         89768.0000       Ribosome         89770.0000       S 100 Neural Ag         89772.0000       Salivary Gland         89773.0000       Mumps Ab Titer         89774.0000       Sarcolemma         89778.0000       Smooth Muscle         89780.0000       Sperm         89782.0000       Streptokinase         89784.0000       Anti Streptolysin O (ASO)         89788.0000       Striated Muscle   |            |                          |
| 89748.0000       Pancreatic Carcinoma         89750.0000       Pancreatic Onofetal Ag         89752.0000       Parietal Cell         89754.0000       Pigeon Serum         89756.0000       Prostatic Carcinoma Surface         89760.0000       Prostate Specific Ag         89762.0000       Reticulin         89766.0000       Ribonuclease         89768.0000       Ribosome         89770.0000       S 100 Neural Ag         89772.0000       Salivary Gland         89773.0000       Mumps Ab Titer         89776.0000       Skin         89778.0000       Smooth Muscle         89780.0000       Streptokinase         89784.0000       Anti Streptolysin O (ASO)         89786.0000       Striated Muscle  |            |                          |
| 89750.0000       Pancreatic Onofetal Ag         89752.0000       Parietal Cell         89754.0000       Pigeon Serum         89756.0000       Prekeratin         89760.0000       Prostate Specific Ag         89762.0000       Reticulin         89764.0000       Rheumatoid Factor         89768.0000       Ribosome         89770.0000       S 100 Neural Ag         89772.0000       Salivary Gland         89773.0000       Mumps Ab Titer         89776.0000       Skin         89778.0000       Smooth Muscle         89780.0000       Sperm         89782.0000       Streptokinase         89784.0000       Anti Streptolysin O (ASO)         89788.0000       Striated Muscle   |            |                          |
| 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 Sperm 89780.0000 Sperm 89782.0000 Streptokinase 89784.0000 Anti Streptolysin O (ASO) 89786.0000 Striated Muscle  |            |                          |
| 89754.0000       Pigeon Serum         89756.0000       Prekeratin         89762.0000       Prostatic Carcinoma Surface         89762.0000       Reticulin         89764.0000       Rheumatoid Factor         89766.0000       Ribonuclease         89768.0000       Ribosome         89770.0000       S 100 Neural Ag         89772.0000       Salivary Gland         89774.0000       Sarcolemma         89776.0000       Skin         89780.0000       Sperm         89782.0000       Streptokinase         89784.0000       Streptokinase         89786.0000       Streptozyme         89788.0000       Striated Muscle   |            |                          |
| 89756.0000       Prekeratin         89758.0000       Prostatic Carcinoma Surface         89760.0000       Prostate Specific Ag         89762.0000       Reticulin         89764.0000       Rheumatoid Factor         89768.0000       Ribonuclease         89770.0000       Ribosome         89772.0000       Salivary Gland         89773.0000       Mumps Ab Titer         89774.0000       Sarcolemma         89776.0000       Skin         89778.0000       Smooth Muscle         89780.0000       Sperm         89784.0000       Anti Streptolysin O (ASO)         89786.0000       Striated Muscle   |            |                          |
| 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 Striated Muscle   |            |                          |
| 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 Streptozyme 89788.0000 Striated Muscle   |            |                          |
| 89762.0000 Reticulin 89764.0000 Rheumatoid Factor 89766.0000 Ribonuclease 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 Streptozyme 89788.0000 Striated Muscle   |            |                          |
| 89764.0000       Rheumatoid Factor         89766.0000       Ribonuclease         89770.0000       Ribosome         89772.0000       Salivary Gland         89773.0000       Mumps Ab Titer         89774.0000       Sarcolemma         89776.0000       Skin         89778.0000       Smooth Muscle         89780.0000       Sperm         89784.0000       Anti Streptolysin O (ASO)         89786.0000       Streptozyme         89788.0000       Striated Muscle  |            |                          |
| 89766.0000 Ribonuclease 89778.0000 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 Streptozyme 89788.0000 Striated Muscle   |            |                          |
| 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 Streptozyme 89788.0000 Striated Muscle   |            |                          |
| 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 Streptozyme 89788.0000 Striated Muscle   |            |                          |
| 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 Streptozyme 89788.0000 Striated Muscle  |            |                          |
| 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 Streptozyme 89788.0000 Striated Muscle  |            |                          |
| 89774.0000 Sarcolemma 89776.0000 Skin 89778.0000 Smooth Muscle 89780.0000 Sperm 89782.0000 Streptokinase 89784.0000 Anti Streptolysin O (ASO) 89786.0000 Streptozyme 89788.0000 Striated Muscle  |            | -                        |
| 89776.0000 Skin 89778.0000 Smooth Muscle 89780.0000 Sperm 89782.0000 Streptokinase 89784.0000 Anti Streptolysin O (ASO) 89786.0000 Streptozyme 89788.0000 Striated Muscle  |            | _                        |
| 89778.0000 Smooth Muscle<br>89780.0000 Sperm<br>89782.0000 Streptokinase<br>89784.0000 Anti Streptolysin O (ASO)<br>89786.0000 Streptozyme<br>89788.0000 Striated Muscle   |            |                          |
| 89780.0000 Sperm  89782.0000 Streptokinase  89784.0000 Anti Streptolysin O (ASO)  89786.0000 Streptozyme  89788.0000 Striated Muscle   |            |                          |
| 89782.0000 Streptokinase<br>89784.0000 Anti Streptolysin O (ASO)<br>89786.0000 Streptozyme<br>89788.0000 Striated Muscle   |            |                          |
| 89784.0000 Anti Streptolysin O (ASO)<br>89786.0000 Streptozyme<br>89788.0000 Striated Muscle   |            |                          |
| 89786.0000 Streptozyme<br>89788.0000 Striated Muscle   |            |                          |
| 89788.0000 Striated Muscle   |            |                          |
|  |            |                          |
| 89790.0000 Tamm Horsfall Protein   |            |                          |
|  | 89790.0000 | Tamm Horstall 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              |
| 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-B Helpful Hints

# APPENDIX – C Health Level Seven (HL7) Protocol

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 AITC 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 AITC 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      | Exchange of Data            |
|----------|-----------------------------|
| segments |                             |
| DG1      | Diagnosis                   |
| DSP      | Display Data                |
| MSH      | Message Header              |
| NTE      | Notes and Comments          |
| OBR      | Observation Request         |
| OBX      | Observation Results         |
| PID      | Patient Identification      |
| PV1      | Patient Visit               |
| ZXE      | 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:

|         | FIELD    | Data        |                              |            |
|---------|----------|-------------|------------------------------|------------|
| SEGMENT | SEQUENCE | Type/Length | FIELD ELEMENT NAME           | USER/HL7   |
|         | NUMBER   | HL/7        |                              | DEFINED    |
| DG1     | 1        | 4/SI        | Set ID-Diagnosis             | HL7        |
|         |          |             | (Sequence #)                 |            |
|         | 3        | 60/CE       | Diagnosis Code (Code(id)     | HL7        |
|         |          |             | ~Text (St.) ~Name of         |            |
|         |          |             | coding system (st)           |            |
|         | 4        | 19/TS       | Admission Date               | HL7        |
|         | 6        | 2/IS        | Diagnosis Type               | HL7        |
|         |          |             | (PR=DXLS)                    |            |
| 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   | HL7        |
|         |          |             | (Seq #)                      |            |
|         | 4        | 200/CE      | Universal Service ID         | HL7        |
|         |          |             | (identifier ~ text ~ name of |            |
|         |          |             | coding system ~ alt id ~ alt |            |
|         |          |             | text ~ alt coding system)    |            |
|         | 7        | 19/TS       | Observation Date/Time        | HL7        |
|         | 15       | 300/CM      | Specimen Source              | HL7 (Table |
|         |          |             | (Specimen source code        | 0070)      |
|         |          |             | (CE) ~~ text (TX))           |            |
|         | 26       | 400/CM      | Parent Results (OBX          | HL7        |
|         |          |             | observation id of parent     |            |
|         |          |             | ^OBX sub ID                  |            |

#### 3.5 Fields continued

|                    | FIELD    | Data        |  |                  |
|--------------------|----------|-------------|--|------------------|
| SEGMENT            | SEQUENCE | Type/Length | FIELD ELEMENT NAME   | USER/HL7         |
|                    | NUMBER   | HL/7        |  | 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<br>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  | H17              |
|                    | 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<br>Code | 12       | 4/IS        | County Code  | HL7              |
|                    | 19       | 16/ST       | SSN  | HL7              |
|                    |          |             |  |                  |

# 3.5 Fields continued

|                       | FIELD    | Data        |   |                      |
|-----------------------|----------|-------------|---|----------------------|
| SEGMENT               | SEQUENCE | Type/Length | FIELD ELEMENT NAME  | USER/HL7             |
|                       | NUMBER   | HL/7        |   | DEFINED              |
| New Ethnic<br>Group   |          |             | Ethnic Group  | HL7                  |
|                       | 27       | 60/CE       | Veteran's Military Status   | HL7 (Table<br>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<br>Facility | •        |             | 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<br>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   |                         |
|------------------|-------|------|--------|--------------|-------------------------|
| Tiera i vanie    | Start | Liid | Longin | Troperties   |                         |
| DG1              |       |      |        |              |                         |
| SEGMENT          |       |      |        |              |                         |
| SET-ID           | 94    | 97   | 4      | alphanumeric |                         |
| DIAG-            | 98    | 99   | 2      | alphanumeric |                         |
| CODING-          |       |      |        |              |                         |
| METHOD           |       |      |        |              |                         |
| DIAG-CODE        | 100   | 106  | 7      | alphanumeric |                         |
| DIAG-TEXT        | 107   | 146  | 40     | alphanumeric |                         |
| DIAG-            | 147   | 156  | 10     | alphanumeric |                         |
| CODING-SYT       |       |      |        |              |                         |
| FILLER           | 157   | 467  | 311    | alphanumeric |                         |
|                  |       |      |        |              |                         |
| NTE-SEGMENT      |       |      |        |              |                         |
| SET-ID           | 94    | 97   | 4      | alphanumeric |                         |
| ACTION-IND       | 98    | 99   | 2      | alphanumeric | valid total indicator T |
| NATIONAL-        | 100   | 109  | 10     | alphanumeric |                         |
| LAB-TEST-        |       |      |        |              |                         |
| NUM              |       |      |        |              |                         |
| BACTERIA         | 110   | 144  | 35     | alphanumeric |                         |
| TOTAL-           | 145   | 149  | 5      | alphanumeric |                         |
| COUNT            |       |      |        |              |                         |
| FILLER           | 150   | 467  | 318    | alphanumeric |                         |
|                  |       |      |        |              |                         |
| NTE-             |       |      |        |              |                         |
| SEGMENT          |       |      |        |              |                         |
| (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-         | 140   | 142  | 3      | alphanumeric |                         |
| NUM              |       |      |        |              |                         |
| NEGATIVE-        | 143   | 143  | 1      | alphanumeric |                         |
| INPUT-IND        |       |      |        |              |                         |
| FILLER           | 144   | 467  | 324    | alphanumeric |                         |

#### Continued

| Field Name  | Start | End  | Length | Properties   |
|-------------|-------|------|--------|--------------|
| OBR-        |       |      |        |              |
| SEGMENT     |       |      |        |              |
| SET-ID      | 94    | 97   | 4      | alphanumeric |
| PATHOGEN-   | 98    | 132  | 35     | alphanumeric |
| NAME        |       |      |        |              |
| UNIV-       | 133   | 142  | 10     | alphanumeric |
| SERVICE-ID  |       |      |        |              |
| UNIV-       | 143   | 172  | 30     | alphanumeric |
| SERVICE-    |       |      |        |              |
| TEXT        |       |      |        |              |
| UNIV-       | 173   | 187  | 15     | alphanumeric |
| SERVICE-    |       |      |        |              |
| CODE        |       |      |        |              |
| ALT-UNIV-   | 188   | 202  | 15     | alphanumeric |
| SERVICE-ID  |       |      |        |              |
| ALT-UNIV-   | 203   | 232  | 30     | alphanumeric |
| SERVICE-    |       |      |        |              |
| TEXT        |       |      |        |              |
| ALT-UNIV-   | 233   | 247  | 15     | alphanumeric |
| SERVICE-    |       |      |        |              |
| CODE        |       |      | _      |              |
| OBSER-DATE  | 248   | 255  | 8      | yyyymmdd     |
| OBSER-TIME  | 256   | 261  | 6      | hhmmss       |
| OBSER-DATE- | 262   | 269  | 8      | alphanumeric |
| A           |       |      | _      |              |
| SPECIMEN-   | 270   | 273  | 4      | alphanumeric |
| CODE        |       |      |        |              |
| FILLER      | 274   | 274  | 1      | alphanumeric |
| SPECIMEN-   | 275   | 304  | 30     | alphanumeric |
| CODE-TEXT   |       |      |        |              |
| ACCESSION-  | 305   | 324  | 20     | alphanumeric |
| NUM         | 225   | 22.4 | 10     |              |
| PARENT-     | 335   | 334  | 10     | alphanumeric |
| OBSER-ID    | 277   | 2.10 |        |              |
| PARENT-     | 355   | 340  | 6      | alphanumeric |
| OBSER-SUB-  |       |      |        |              |
| ID DA DENTE | 261   | 250  | 10     |              |
| PARENT-     | 361   | 350  | 10     | alphanumeric |
| TEST-SYS    | 271   | 260  | 10     |              |
| PARENT-LAB- | 371   | 360  | 10     | alphanumeric |
| NUM         |       |      |        |              |

#### Continued

| Field Name | Start | End | Length | Properties    |  |
|------------|-------|-----|--------|---------------|--|
| FILLER     | 381   | 458 | 98     | alphanumeric  |  |
| OBX-       | 361   | 436 | 70     | aiphanumenc   |  |
| SEGMENT    |       |     |        |               |  |
| OBR-SET-ID | 94    | 97  | 4      | alphanumeric  |  |
| OBX-SET-ID | 98    | 101 | 4      | alphanumeric  |  |
| VALUE-TYPE | 102   | 103 | 2      | alphanumeric  |  |
| OBSERVATIO | 104   | 113 | 10     | alphanumeric  |  |
| N-ID       | 104   | 113 | 10     | aiphanumeric  |  |
| OBSERVATIO | 114   | 143 | 30     | alphanumeric  |  |
| N-TEXT     | 114   | 143 | 30     | агрианатисте  |  |
| OBSERVATIO | 144   | 158 | 15     | alphanumeric  |  |
| N-CODE     | 111   | 130 | 15     | шриштитет     |  |
| OBSERVATIO | 159   | 168 | 10     | alphanumeric  |  |
| N-ID-ALT   | 107   | 100 | 10     | wip manumorro |  |
| OBSERVATIO | 169   | 198 | 30     | alphanumeric  |  |
| N-TEXT-ALT |       |     |        |               |  |
| OBSERVATIO | 199   | 213 | 15     | alphanumeric  |  |
| N-CODE-ALT |       |     |        | 1             |  |
| OBSERVATIO | 214   | 219 | 6      | alphanumeric  |  |
| N-SUB-ID   |       |     |        |               |  |
| OBSERVATIO | 220   | 229 | 10     | alphanumeric  |  |
| N-NAT-LAB  |       |     |        |               |  |
| OBSERVATIO | 230   | 274 | 45     | alphanumeric  |  |
| N-VALUE    |       |     |        |               |  |
| OBSERVATIO | 275   | 289 | 15     | alphanumeric  |  |
| N-UNITS    |       |     |        |               |  |
| OBSERVATIO | 290   | 304 | 15     | alphanumeric  |  |
| N-REF-     |       |     |        |               |  |
| RANGE      |       |     |        |               |  |
| ABNORMAL-  | 305   | 314 | 10     | alphanumeric  |  |
| FLAGS      |       |     |        |               |  |
| FINAL-     | 315   | 322 | 8      | yyyymmdd      |  |
| RESULT-    |       |     |        |               |  |
| DATE       |       |     |        |               |  |
| FILLER     | 323   | 450 | 128    | alphanumeric  |  |
| PID-       |       |     |        |               |  |
| SEGMENT    |       | 0.7 | 1      |               |  |
| SET-ID     | 94    | 97  | 4      | alphanumeric  |  |

#### Continued

| Field Name  | Start | End | Length | Properties   |                                 |
|-------------|-------|-----|--------|--------------|---------------------------------|
| PATIENT-    | 98    | 114 | 17     | alphanumeric |                                 |
| EXTERNAL-   |       |     |        | •            |                                 |
| ID          |       |     |        |              |                                 |
| PATIENT-    | 115   | 135 | 21     | alphanumeric |                                 |
| INTERNAL-ID |       |     |        | •            |                                 |
| PATIENT-    | 136   | 220 | 85     | alphanumeric |                                 |
| NAME        |       |     |        |              |                                 |
| PATIENT-    | 221   | 228 | 8      | yyyymmdd     |                                 |
| BIRTH-DATE  |       |     |        |              |                                 |
| PATIENT-SEX | 229   | 229 | 1      | alphanumeric |                                 |
| PATIENT-    | 230   | 230 | 1      | alphanumeric |                                 |
| RACE        |       |     |        |              |                                 |
| PATIENT-    | 231   | 231 | 1      | alphanumeric | valid patient address H         |
| ADDRESS     |       |     |        |              |                                 |
| ZIP         | 232   | 240 | 9      | alphanumeric |                                 |
| FILLER      | 241   | 241 | 1      | alphanumeric |                                 |
| PATIENT-SSN | 242   | 250 | 9      | alphanumeric |                                 |
| PATIENT-    | 251   | 251 | 1      | alphanumeric | valid pseudo space or P         |
| PSEUDO      |       |     |        |              |                                 |
| PATIENT-    | 252   | 253 | 2      | alphanumeric |                                 |
| VETERAN-    |       |     |        |              |                                 |
| STATUS      |       |     |        |              |                                 |
| FILLER      | 254   | 450 | 197    | alphanumeric |                                 |
|             |       |     |        |              |                                 |
| PV1-        |       |     |        |              |                                 |
| SEGMENT     |       |     |        |              |                                 |
| SET-ID      | 94    | 97  | 4      | alphanumeric |                                 |
| PATIENT-    | 98    | 98  | 1      | alphanumeric | valid patient class I or O or U |
| CLASS       |       |     |        |              |                                 |
| DISCHARGE-  | 99    | 133 | 35     | alphanumeric |                                 |
| DISPOSITION |       |     |        |              |                                 |
| ADMIT-DATE  | 134   | 141 | 8      | yyyymmdd     |                                 |
| ADMIT-TIME  | 142   | 147 | 6      | hhmmss       |                                 |
| DISCHARGE-  | 148   | 155 | 8      | yyyymmdd     |                                 |
| DATE        |       |     |        |              |                                 |
| DISCHARGE-  | 156   | 161 | 6      | hhmmss       |                                 |
| TIME        |       |     |        |              |                                 |
| 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 AITC. The EPI ORU message consists of the following segments:

#### Example: EPI ORU Message

```
ORU
           OBSERVATIONAL RESULT UNSOLICITED
MSH
          Message Header
NTE
          Notes and Comments
PTD
          Patient Identification
PV/1
          Patient Visit
NTE
          Notes and Comments
          Diagnosis
DG1
          Display Data
          Pharmacy Prescription
          Observation Report
OBR
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
NTE | 1 | Vanc-Res Enterococcus
      451.19 DEEP PHLEBITIS-LEG NEC~19
DG1 | 1 |
DG1 | 2 |
       511.9 PLEURAL EFFUSION NOS~19
DG1 | 3 |
       670.02 MAJOR PUERP INF-DEL P/P~19
DG1 | 4 |
       331.0^ALZHEIMER'S DISEASE~19
DG1 | 5 |
       500.^COAL WORKERS' PNEUMOCON~19
OBX 1 ST 84330.0000 Glucose Quant VANLT 260 GLUCOSE 1 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 GLUCOSE 1 VA60 | 25 mg/dL 70-125 L*
PID 2 000-00-
0009~8~M10|7~7~M10||LABPATIENT~NINE||19591229|F||7||||||||023456666
NTE | 1 | 1 ^ Vanc-Res Enterococcus
OBR | 1 | | | 87999.0000^MICRO CULTURE^VANLT | | | 198612100835 | | | | | | | | | | ^^BLOOD
OBX 1 CE 87993.0000 BACTERIOLOGY CULTURE VANLT 1 PESCHERICHIA COLI
OBR 2 | ^ANTIBIOTIC
MIC^VANLT|||198612100835|||||||^^BLOOD|||||||87993.0000^1
OBX | 1 | ST | 81812.0000 Neomycin VANLT 18 NEOMYCN VA62.06 | | | | R
OBX 2 ST ^^^35^BACTRCN^VA62.06 | | | | R
OBX 3 ST 81852.0000^Penicillin^VANLT^23^PENICLN^VA62.06 | | | | | R
```

# **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     | ARMYACTIVE DUTY           |
| В     | NAVY, MARINEACTIVE DUTY   |
| С     | AIR FORCEACTIVE DUTY      |
| D     | COAST GUARDACTIVE DUTY    |
| Е     | RETIRED, UNIFORMED FORCES |
| F     | MEDICAL REMEDIAL ENLIST   |
| G     | MERCHANT SEAMENUSPHS      |
| Н     | OTHER USPHS BENEFICIARIES |
| Ι     | OBSERVATION/EXAMINATION   |
| J     | OFFICE OF WORKERS COMP.   |
| K     | JOB CORPS/PEACE CORPS     |
| L     | RAILROAD RETIREMENT       |
| M     | BENEFICIARIES-FOREIGN GOV |
| N     | HUMANITARIAN (NON-VET)    |
| О     | 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     | CHAMPVASPOUSE, CHILD      |
| V     | CHAMPUS                   |
| W     | CZECHOSLOVAKIA/POLAND SVC |
| X     | PERSIAN GULF WAR          |
| Y     | CAV/NPS                   |
| Z     | MERCHANT MARINE           |

**Table 0070 - Specimen Source Codes (**continued)

| Abbreviation s | Descriptions          | Abbreviation s | Descriptions     | Abbreviations | Descriptions                    |
|----------------|-----------------------|----------------|------------------|---------------|---------------------------------|
| ABS            | Abscess               | FLU            | Body fluid, unsp | SER           | Serum                           |
| AMN            | Amniotic fluid        | GAS            | Gas              | SKN           | Skin                            |
| ASP            | Aspirate              | GAST           | Gastric          | SKM           | Skeletal muscle                 |
|                |                       |                | fluid/contents   |               |                                 |
| BPH            | Basophils             | GEN            | Genital          | SPRM          | Spermatozoa                     |
| BIFL           | Bile fluid            | GENC           | Genital cervix   | SPT           | Sputum                          |
| BBL            | Blood bag             | GENV           | Genital vaginal  | SPTT          | Sputum<br>tracheal<br>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<br>(Joint fluid) |
| BRTH           | Breath (use<br>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<br>bladder          |
| CNL            | Cannula               | LIQ            | Liquid NOS       | TLGI          | Tissue large intestine          |
| СТР            | 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<br>blood              |
| CUR            | Curettage             | NAIL           | Nail             | UMED          | Unknown<br>medicine             |

 Table 0070 - Specimen Source Codes (continued)

| Abbreviation | Descriptions          | Abbreviation | Descriptions                            | Abbreviations | Descriptions                                   |
|--------------|-----------------------|--------------|---|---------------|--|
| S            | G                     | S            |   | T VD CTV      | ** 1   |
| CYST         | Cyst                  | NOS          | Nose (nasal                             | URTH          | Urethra  |
| DILE         | D: 1 : C! : 1         | ODY          | passage)                                | TID           | ***  |
| 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<br>(thoracentesis<br>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<br>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        |
| 0     | OTHER       |

# **Table 0078 - Abnormal flags**

| Value                               | Description              |
|-------------------------------------|--------------------------|
| L                                   | Below low normal         |
| Н                                   | Above high normal        |
| LL                                  | Below lower panic limits |
| НН                                  | 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 |
|---------------------------------------|------------------------|
| <b>Veterans Health Administration</b> |                        |
| 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: <a href="http://vaww>.vistau.med.va.gov/vistau/loinc/loinc.htm">http://vaww>.vistau.med.va.gov/vistau/loinc/loinc.htm</a>. 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. <a href="http://www.va.gov/hepatitisc">http://www.va.gov/hepatitisc</a>>
- 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 <a href="http://www.regenstrief.org/loinc/">http://www.regenstrief.org/loinc/</a>>.
- 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 <a href="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</a>.
- **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  |
|---------------|------|--|----------------------------|
|               |      |  | Thomas L. Garthwaite, M.D. |
|               |      |  | Under Secretary for Health |
|               |      |  |                            |
| DISTRIBUTION: | CO:  | E-mailed 6/27/2001                                   |                            |
|               | FLD: | VISN, MA, DO, OC, OCRO, and 200 - E-mailed 6/27/2001 |                            |

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