LABORATORY
EMERGING PATHOGENS INITIATIVE (EPI) TECHNICAL AND USER GUIDE

PATCH LR*5.2*132

Version 5.2

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Information Resources Management Field Office
Birmingham, Alabama

Preface

The Veterans Health Information Systems and Architecture (***VISTA***) formerly Decentralized Hospital Computer Program (DHCP) Laboratory Emerging Pathogens Initiative (EPI) Patch LR*5.2*132 Technical and User Guide provides the Department of Veterans Affairs Medical Center (DVAMC) Information Resource Management (IRM) and other medical center users with a straightforward means for installing and implementing the EPI software package.

NOTE: It is highly recommended that the Laboratory Information Manager (LIM), and a representative from the Microbiology section (director, supervisor, or technologist) jointly participate in reviewing the 14 Emerging Pathogen parameters descriptions and entering of data for the EPI software package. The individual(s) will be responsible for initially defining the EPI parameters and a yearly review of the 14 Emerging Pathogens.

It is also suggested that a Total Quality Improvement/Quality Improvement/ Quality Assurance (TQI/QI/QA) staff (or person at the site with similar function) be involved in the EPI process. The individual(s) will assist in initially defining the EPI parameters, a yearly review of the 14 Emerging Pathogens, and a periodic review of the ICDM-9 codes to assure they are current. Also, this function will help coordinate the overall implementation at each site.

This EPI Patch LR*5.2*132 Technical and User Guide focuses on easy-to-follow, step-by-step instructions. This guide includes the following four sections:

Pre-Installation: This section covers the requirements that must be performed prior to installing the software.

Installation Instructions: This section includes a detailed example of the actual EPI Patch LR*5.2*132 installation process.

Post Installation Instructions: This section provides all the necessary information required for the IRM personnel to implement the EPI software package after the installation process is completed.

User Guide: This section provides all necessary information required for the user to implement and maintain the EPI software.

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Introduction

Under the auspices of the Program Office for Infectious Diseases VAHQ the Laboratory Emerging Pathogens Initiative (EPI) software package is to allow the Department of Veterans Affairs (DVA) to track Emerging Pathogens on the national level without the necessity for additional local data entry. Using this objective information, plans can be formulated on the national level for intervention strategies and resource needs. Results of aggregate data can also be shared with appropriate public health authorities for planning on the national level for the non-VA and private health care sectors.

Major functions**:**

The Laboratory EPI program is designed to automatically provide data on emerging pathogens to Veterans Affairs Headquarters (VAHQ) without additional individual data entry at the site level. The data will be sent to Austin Automation Center (AAC) for initial processing and coupling with denominator data related to workload. VAHQ data retrieval and analysis can then be accomplished.

Objectives:

⇒ Identify Emerging Pathogens.
⇒ Extract specific data associated with the Emerging Pathogen.
⇒ Transmit data to AAC.
⇒ Create national Statistical Analysis System (SAS) data sets for Infectious Diseases Program Office access.

How The Software Accomplishes The Objective:

Emerging Pathogens (as defined by VAHQ) act as triggers for data acquisition for the automated program. The system then retrieves relevant, predetermined, patient-specific information for transmission to the central data repository. Once at that location, the data will be analyzed using a SAS based statistical package. VAHQ Reports can then be generated for appropriate use and distribution.

VISTA Process

The Department of Veterans Affairs provides a unique opportunity to assist public health surveillance activities for new, antibiotic-resistant, or otherwise problematic pathogens. The Laboratory EPI software interface will obtain data from the V*ist*A database and report the data to a registry that will assist the Emerging Pathogens Initiative of the VAHQ Infectious Disease Program Office to produce predictive trends in health care events.

The EPI software consists of two new files, 10 new routines, two mail groups, one menu consisting of three options, and one Emerging Pathogens Nightly Task option. After installation minimal file setup will be required. Two mail groups are created and will require populating with the appropriate members. Some of the Emerging Pathogens data will have to be added using the Emerging Pathogens Parameter update option if the installation process cannot make the match. IRM personnel will assign the Emerging Pathogens Primary Menu to a specified user (TQI/QI/QA staff, Laboratory Information Manager (LIM), and Microbiology personnel are highly recommended).

The Search/Extract process runs once a month. This process uses the criteria defined in the EMERGING PATHOGEN file (#69.5) to search the verified Lab results in the LAB DATA file (#63) and PTF file (#45) for any of the defined Emerging Pathogens. If an Emerging Pathogen is identified the Search/Extract process builds an entry into the ^TMP global along with the appropriate inpatient or outpatient information. An inpatient associated PTF number is placed into the EMERGING PATHOGEN file (#69.5) for the appropriate Emerging Pathogen until the inpatient is discharged. During the sequential months the inpatient associated PTF record is monitored until discharged. The additional discharge information is sent to Austin as a “patient update.”

Local Reports

On a monthly basis the EPI data is transmitted to the AAC. Before the EPI data is transmitted, an Emerging Pathogens Verification Report is available for the sites to review, verify, and make corrections if needed. After the EPI data is transmitted to AAC, it is then added to the National Database.

The purpose of the Emerging Pathogen Verification Report is to determine that the information being sent to ACC is accurate (i.e. complete social security numbers, valid Date of Births, and the Period of Services are present). The purpose of verification is not to determine that the total reported for actual laboratory or ICDM-9 collected data are valid (i.e. that there were X numbers of cases of positive tests for Hepatitis C or that there were X positive culture results for Streptococcus, Group A). The validation of laboratory and ICDM-9 capture should be done with the initial setup of the patch and at intermittent periodic review as determined by site (e.g. see Appendix section).

Austin Automation Center:

The Austin Automation Center creates two file structures, both in Statistical Analysis System (SAS) file format, which are used primarily as a source of data for the Infectious Diseases Program Office. The data will be available to the Infectious Diseases Program Office to be manipulated and used for analysis and reporting.

The two file structures are referred to as the "Numerators" and the "Denominators" because of their planned utilization.

Numerator:

This file is an accumulation of the EPI data sent from all medical centers. It will contain twelve individual months worth of data and will be updated monthly. Each month the oldest month will be dropped from the file and the latest month's data will be added. Upon receipt of the monthly input, the AAC will return acknowledgments to the facility, and will identify any "problem" transmissions. These "problem" transmissions are records that, because of field format or the actual field value, either Austin is rejecting as invalid records or is just warning the facility that the record has some discrepancy, but it is not being rejected. Both the "problem" transmissions and the accepted records are documented on a Processing Report that will be transmitted from Austin to the facility. This Processing Report will itemize all of the transmissions received by Austin and will document the records status as either being accepted or rejected (with the reason code identified) but with a warning that there is something unusual about the value of one or more fields (warning reason code identified). An example of the "Tables of Reject and Warning codes" are located in the Appendix section of this guide. The Numerator information will be specific to unique patients with a VAHQ designated Emerging Pathogen which has been flagged through the V*ist*A process. Numerator data will be collected and transmitted to Austin monthly.

Denominator:

This file will provide to the Infectious Diseases Program Office, data elements for each facility. The source of these data elements will be the corporate medical data base residing in Austin. The individual files that these data elements will be extracted from are the National Patient Care (NPC), Inpatient Treatment File (PTF), Automated Management Information System (AMIS) and Cost Distribution Report (CDR) systems.

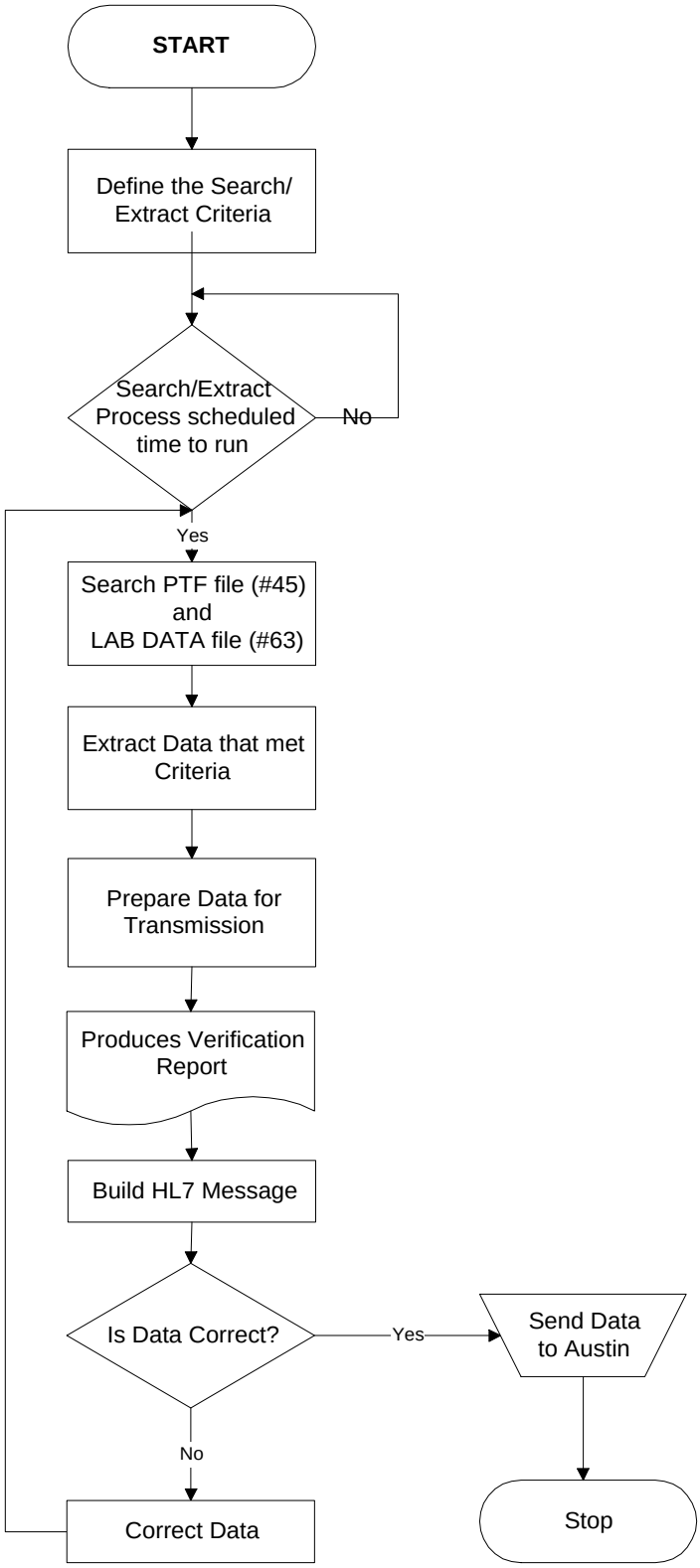
The data elements are:

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

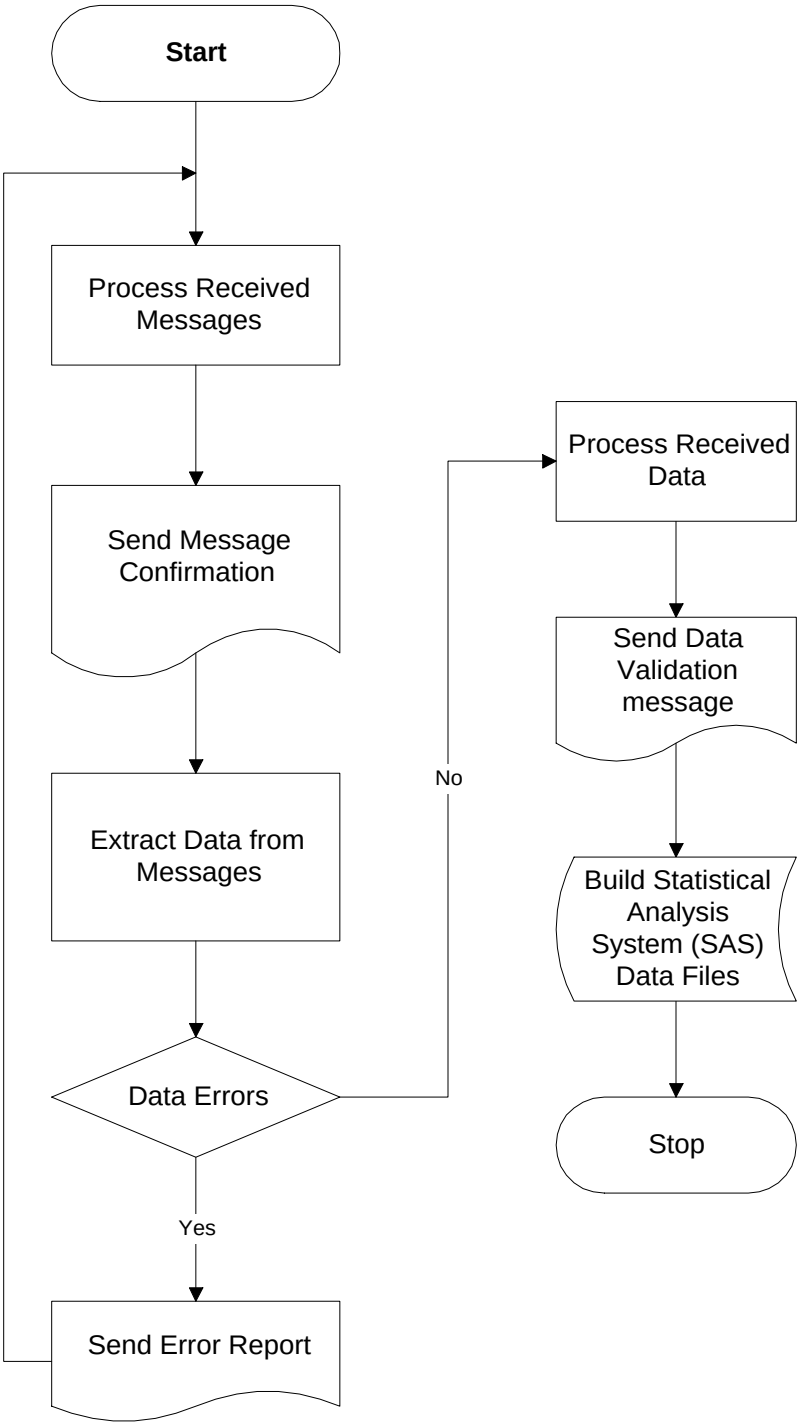
A "running 12 month" accumulation is required (i.e., there will always be one year's worth of monthly counts) with the oldest month dropped off each cycle and a new one added.

NOTE: The need to track individual station data and to consolidate by parent station has not been specified. At this time we are only gathering by individual station number.

VISTA Emerging Pathogens Initiative Process Flowchart



Austin's Emerging Pathogens Initiative Process Flowchart



EPI Technical and User Guide Notations

This section addresses the symbols and computer dialogue that are displayed in this guide.

Screen Displays

The EPI Primary menu options are using VA FileMan-ScreenMan forms for editing and displaying data. For detailed instructions using ScreenMan forms please refer to the VA FileMan V. 21.0 User Manual, Section 6 - ScreenMan.

Computer Dialogue

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 **<Enter>**

User response to computer dialogue is followed by the **`<Enter>`** symbol which appears in Courier font, no larger than 10 points, and bolded.

Example: **`<Enter>`**

Tab Symbol <Tab>

User response to computer dialogue is followed by the **`<Tab>`** symbol which appears in Courier font, no larger than 10 points, and bolded.

Example: **`<Tab>`**

References

Kernel V. 8.0 Systems Manual
HL7 V. 1.6 Manuals
PIMS V. 5.3 Manuals
VA FileMan V. 21.0 User Manual, Section 6 - ScreenMan.

EPI Technical and User Guide Distributions

The EPI Technical and User Guide is distributed in hard copy and electronic formats. Listed below are the ways the EPI guide may be obtained.

Electronic Distributions

Hyper Text Markup Language (HTML)

The EPI Technical and User Guide is available on the Intranet at the following address **http://152.127.1.95/softserv/clin_nar.row/lab/**

Portable Document Format (PDF)

The EPI Technical and User Guide is available on the ANONYMOUS.SOFTWARE accounts at the Albany, Hines, and Salt Lake City Information Resources Management Field Offices (IRMFOs) in the Portable Document Format (PDF).

IRMFO	FTP Address
Albany	152.127.1.5 - anonymous.software
Hines	152.129.1.110 - anonymous.software
Salt Lake City	152.131.2.1 - anonymous.software

NOTE: This guide is also available in PDF on the Intranet at the following address **http://152.127.1.95/softserv/clin_nar.row/lab/**

Hard Copy

The EPI Technical and User Guide hard copies are distributed to all VA Medical Centers by the National Center for Documentation (NCD).

Pre-Installation Instructions

This Pre-Installation Instructions section provides the necessary information and requirements for installing EPI Patch LR*5.2*132.

Hardware and Operating System Requirements

VISTA software operates on two hardware platforms. The hardware platforms are mini-computer category, providing multi-tasking and multi-user capabilities.

The hardware systems are:

Digital Equipment Corporation (DEC) Alpha series using DEC Open Virtual Memory System (VMS), Version 6.1 or greater, operating system. This platform uses 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.

- Personal Computer (PC) System with 486 or Pentium computer processor chip using Microsoft Disk Operating System (MS-DOS). This platform uses Micronetics Standard Mumps (MSM), Version 3.0.14 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.

Performance/Capacity Impact

There are no changes in the performance of the system once the installation process is complete.

Backup Routines

It is highly recommended that a backup of the transport global is performed.

EPI Test Sites

This chart displays the sites that assisted in testing the EPI Patch LR*5.2*132 prior to the release date.

Test Site	Type of Test Site	Date Installed	Hardware Platform /Operating System
Cincinnati VAMC	Alpha	11/4/96 test and production accounts	DEC Alpha/DSM
Miami VAMC	Beta	1/9/97 test and production accounts	DEC Alpha/DSM
Muskogee VAMC	Beta	1/27/97 test and production accounts	MSM
North Hampton VAMC	Beta	1/28/97 test and production accounts	MSM

Test Account

It is highly recommended that the EPI Patch LR*5.2*132 is installed into a test account before installing into a live Production Account. The Test and Production Accounts **must** include all required software versions and patches to assure a successful installation of this patch.

Installation Time

The actual installation time for this patch should take no more than 10 minutes. Although users may remain on the system, it is recommended that you install this patch during non-peak hours.

Kernel Installation and Distribution System (KIDS)

The Kernel Installation and Distribution System(KIDS) is a new method of installing DHCP software and a new module in Kernel Version 8.0. The Emerging Pathogens Initiative LR*5.2*132 patch is distributed using KIDS. For further instructions on using KIDS please refer to the Kernel Version 8.0 Systems Manual.

Health Level Seven (HL7)

The Emerging Pathogen Initiative Patch LR*5.2*132 is using the DHCP HL7 software to transport the EPI health care data onto the AAC system. These health care data are extracted from the Laboratory, PIMS, Social Work, and EPI data bases. The health care data are used to assist public health surveillance activities for new antibiotic - resistant or otherwise problematic pathogens. The EPI health care data reside on the AAC system.

Database Integration Agreements (DBIA)

There are three DBIAs (#418, #1372, and #1881) that were approved for the EPI Patch LR*5.2*132.

EPI Routines

LR132
LR132P
LREPI
LREPI1
LREPI2
LREPI3
LREPI4
LREPILK
LREPIRN
LREPIRP

Staffing Requirement

IRM Staff

IRM staff is required for installing EPI Patch LR*5.2*132, setting up the EPI-Domain, EPI-Lab mail groups and menu assignments.

Laboratory Staff

It is highly recommended that the Laboratory Information Manager (LIM), and a representative from the Microbiology section (director, supervisor, or technologist) jointly participate in reviewing the 14 Emerging Pathogen descriptions and entering of data for the EPI software package. The individual(s) will assist in the initially setting of the EPI parameters and doing periodic reviews of the parameters to assure they are current.

Total Quality Improvement/Quality Improvement/Quality Assurance (TQI/QI/QA) Staff

It is highly recommended that a Total Quality Improvement/Quality Improvement/ Quality Assurance (TQI/QI/QA) staff (or persons at site with similar function) be involved in the EPI process due to the multi-disciplinary nature of the information to be retrieved by the EPI program (both patient-specific for pathogens and site-specific for denominators). This will facilitate coordination of subsequent site interactions once the actual patch has been installed (i.e. to be responsible for reviewing verification reports, transmitting data once it is determined to be correct, review the data error messages and make corrections as needed, periodic validation of verification reports, to assist with coordinating the yearly update of parameters, and the intermittent specific update of parameters requests from Veterans Affairs Headquarters).

VISTA\DHCP Software Requirements

Packages	Versions (or Greater)
VA FileMan	21 (with patches installed)
Kernel	8.0 (with patches installed)
Laboratory	5.2 (with patches installed)
MAS/PIMS	5.3 (with patches installed)
HL7	1.6 (with patches installed)
Social Work	3.0 (with patches installed)
MailMan	7.1 (with patches installed)

Patches Required

Prior to the installation of LR*5.2*132, the following patches **MUST** be installed:

Packages	Patches
Kernel V. 8.0	XU*8*44
MailMan V.7.1	XM*DBA*103 (EPI-Lab Domain)
Health Level Seven V. 1.6	HL*1.6*17
Laboratory V. 5.2	LR*5.2*128
Social Work V. 3.0	SOW*3*42 (install after LR*5.2*128)

EPI Files

EMERGING PATH PROTOCOL file (#69.4): This file contains additional parameters that are not specific to entries in EMERGING PATHOGENS file (#69.5), but are specific to the protocol used.

EMERGING PATHOGENS file (#69.5): This file contains search criteria along with additional information associated with the Emerging Pathogen Initiative (EPI) software. This file should only be edited using the ScreenMan 'Emerging Pathogens Parameter update' option which is provided by the EPI Software.

EPI Namespace

The EPI Patch LR*5.2*132 is using Laboratory's LR namespace.

EPI Menu and Options

The Laboratory EPI software has one stand-alone menu. There are no locks or security keys created for this menu. The Emerging Pathogen Primary Menu consists of the following three options:

Antimicrobial Link Update: This option will allows the user to link the ANTIMICROBIAL SUSCEPIBILTY' file (#62.06) with WKLD CODE file (#64).

NOTE: Please see the Appendix section of this guide on "How to Link Antimicrobial Entries to Workload Codes Entries" using this option.

Emerging Pathogen Manual Run: This option allows the user to select any month to run the Search/Extract process manually. The first and last day of the month will be determined automatically.

Emerging Pathogens Parameter update: This option is used to define the search criteria along with additional information associated with the Emerging Pathogen Initiative.

NOTE: The Emerging Pathogen Primary Menu options are using VA FileMan screens displays, referred to as ScreenMan. For detailed instructions on how to use the screens displays please review the VA FileMan V. 21.0 User Manual, Section 6 ScreenMan.

Emerging Pathogens Nightly Task Option

The Emerging Pathogens Nightly Task option **must** be scheduled to run each night by TaskMan. This option will build the Emerging Pathogen HL7 Message for Austin. The HL7 message is built after the 15th day of each month for the previous month search data.

New Q-EPI.MED.VA.GOV Domain

The new Q-EPI.MED.VA.GOV domain implementation instructions are released by MailMan XM*DBA*103 informational patch.

Protocols

LREP: This event driver protocol defines the associated parameters needed to build the HL7 Message used to send the EPI data to Austin.

LREPI CLIENT: This subscriber protocol defines the parameter needed by the HL7 package to determine where to send the HL7 formatted message containing the EPI information.

EPI-Mail Groups

The EPI Patch LR*5.2*132 creates two mail groups during the installation process.

EPI: This mail group is used for the transmission of HL7 messages derived from the parameters defined in the EMERGING PATHOGEN file (#69.5) to the Austin Automation Center. This mail group will also receive Confirmation and Processing Report Messages from Austin.

EPI-REPORT: 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.

NOTE: The Office of the Director (00) will be the initial individual/function to whom the EPI mail and EPI-Report mail groups will be directed. The Office of the Director at each site will then determine responsible individual(s)/function(s) for the mail groups. For further information regarding the EPI mail groups please see the Appendix section page 122.

NOTE: To transmit a mail message please reference the example in the Appendix section of this guide.

Data Dictionaries

EMERGING PATH PROTOCOL file (#69.4)

```
STANDARD DATA DICTIONARY #69.4 -- EMERGING PATH PROTOCOL FILE   01/30/97  PAGE 1
STORED IN ^LAB(69.4,  (1 ENTRY)   SITE: DALLAS ISC-DEVELOPMENT

DATA          NAME                  GLOBAL        DATA
ELEMENT       TITLE                 LOCATION      TYPE
--------------------------------------------------------------------------------
This file contains additional parameters that are not specific to entries in file
(#69.5), but are specific to the protocol used.

POINTED TO BY: PROTOCOL field (#12) of the EMERGING PATHOGENS File (#69.5)

CROSS REFERENCED BY: PROTOCOL(B)

CREATED ON: NOV 8,1996

69.4,.01      PROTOCOL              0;1 POINTER TO PROTOCOL FILE (#101)
                                   (Required)

              INPUT TRANSFORM:  S DINUM=X
              LAST EDITED:      NOV 08, 1996
              DESCRIPTION:      Select the protocol from the Protocol file
                                (#101) that will be used to build the HL7
                                Message. This allows additional parameters to
                                be associated with the protocol.
               NOTES:           XXXX--CAN'T BE ALTERED EXCEPT BY PROGRAMMER
              CROSS-REFERENCE:  69.4^B
                                1)= S ^LAB(69.4,"B",$E(X,1,30),DA)=""
                                2)= K ^LAB(69.4,"B",$E(X,1,30),DA)


69.4,1        Report Mail Group     0;2 POINTER TO MAIL GROUP FILE (#3.8)

              LAST EDITED:      NOV 08, 1996
              HELP-PROMPT:      Select what mail group to send the verification
                                report.
              DESCRIPTION:      This defines what mail group to send the
                                verification report.


69.4,2        Message Size          0;3 NUMBER

              INPUT TRANSFORM:  K:+X'=X!(X>999999)!(X<100)!(X?.E1"."1N.N) X
              LAST EDITED:      DEC 04, 1996
              HELP-PROMPT:      Type a Number between 100 and 999999, 0 Decimal
                                Digits.
              DESCRIPTION:      This determines how big the HL7 message will be
                                before it breaks into another message.

FILES POINTED TO                  FIELDS

MAIL GROUP (#3.8)                 Report Mail Group (#1)

PROTOCOL (#101)                   PROTOCOL (#.01)

INPUT TEMPLATE(S):

PRINT TEMPLATE(S):

SORT TEMPLATE(S):

FORM(S)/BLOCK(S):
```

EMERGING PATHOGENS file (#69.5)

```
STANDARD DATA DICTIONARY #69.5 -- EMERGING PATHOGENS FILE     01/30/97  PAGE 1
STORED IN ^LAB(69.5,  (14 ENTRIES)  SITE: DALLAS ISC-DEVELOPMENT ACCOUNT

DATA          NAME                  GLOBAL        DATA
ELEMENT       TITLE                 LOCATION      TYPE
-------------------------------------------------------------------------------
This file contains search criteria along with additional information associated
with the Emerging Pathogen Initiative (EPI) software. This file should only be edited
using the ScreenMan 'Emerging Pathogens Parameter update' option that is provided by
the EPI software.

CROSS REFERENCED BY: NAME(B), REFERENCE NUMBER(C)

CREATED ON: AUG 29,1996

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

              INPUT TRANSFORM:  K:$L(X)>50!($L(X)<3)!'(X'?1P.E)!(X'?.ANP) X
              LAST EDITED:      DEC 17, 1996
              HELP-PROMPT:      Answer must be 3-50 characters in length.
              NOTES:            XXXX--CAN'T BE ALTERED EXCEPT BY PROGRAMMER
              DESCRIPTION:      This is the name of the Search/Extract
                                parameters you are defining.
              CROSS-REFERENCE:  69.5^B
                                1)= S ^LAB(69.5,"B",$E(X,1,30),DA)=""
                                2)= K ^LAB(69.5,"B",$E(X,1,30),DA)


69.5,.05      REFERENCE NUMBER        0;9 NUMBER

              INPUT TRANSFORM: K:+X'=X!(X>999)!(X<1)!(X?.E1"."1N.N)!(X'>99)!
                               (^LAB(69.5,"C",X)) X
              LAST EDITED:      NOV 29, 1996
              HELP-PROMPT:      Type a Number between 100 and 999. Numbers from
                                1 to   99 are reserved for future use.
                                UNEDITABLE
              NOTES:            XXXX--CAN'T BE ALTERED EXCEPT BY PROGRAMMER
              DESCRIPTION:      This is a unique number used to identify this
                                entry.
              CROSS-REFERENCE:  69.5^C
                                1)= S ^LAB(69.5,"C",$E(X,1,30),DA)=""
                                2)= K ^LAB(69.5,"C",$E(X,1,30),DA)


69.5,1        ACTIVE                  0;2 SET

                                '0' FOR YES;
                                '1' FOR NO;
              LAST EDITED:      AUG 29, 1996
              HELP-PROMPT:      Indicates if the entry is active or inactive.
              DESCRIPTION:      This defines if this entry is active or not.


69.5,2        LAB TEST             1;0 POINTER Multiple #69.52
              DESCRIPTION:      This is the test that is searched for.

69.52,.01     LAB TEST              0;1 POINTER TO LABORATORY TEST FILE (#60)
                                (Multiply asked)
              INPUT TRANSFORM:  I $P($G(^(0)),U,4)="CH" D ^DIC K DIC S DIC=DIE
                                ,X=+Y K:Y<0 X
              LAST EDITED:      OCT 07, 1996
              HELP-PROMPT:      Consider this synonymous with chemistry, serology,
                                hematology "blood/serum" test.
```

```
STANDARD DATA DICTIONARY #69.5 -- EMERGING PATHOGENS FILE   01/30/97  PAGE 2
STORED IN ^LAB(69.5,  (14 ENTRIES)  SITE: DALLAS ISC-DEVELOPMENT ACCOUNT

DATA          NAME                  GLOBAL        DATA
ELEMENT       TITLE                 LOCATION      TYPE
-------------------------------------------------------------------------------

              DESCRIPTION:      This is the lab test that is searched for and
                                retrieved.
                  SCREEN:       I $P($G(^(0)),U,4)="CH"


EXPLANATION:      Only CH subscripts are selectable.
              CROSS-REFERENCE:  69.52^B
                                  1)= S ^LAB(69.5,DA(1),1,"B",$E(X,1,30),DA)=""
                                  2)= K ^LAB(69.5,DA(1),1,"B",$E(X,1,30),DA)


69.52,1         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:         SEP 18, 1996
                 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.


69.52,2         INDICATED VALUE       0;3 FREE TEXT
                INPUT TRANSFORM:  K:$L(X)>15!($L(X)<1) X
                LAST EDITED:      SEP 17, 1996
                HELP-PROMPT:      Answer must be 1-15 characters in length.
                DESCRIPTION:      If the search is conditional this defines the
                                  criteria.


69.5,3          ETIOLOGY             2;0 POINTER Multiple #69.53
                DESCRIPTION:         This defines the Etiology to search for.


69.53,.01       ETIOLOGY              0;1 POINTER TO ETIOLOGY FIELD FILE (#61.2)
                                      (Multiply asked)
                LAST EDITED:      AUG 29, 1996
                HELP-PROMPT:      Select the Etiology to search for.
                DESCRIPTION:      This defines the Etiology to search for.
                                  Select the appropriate Etiology.
                CROSS-REFERENCE:  69.53^B
                                  1)= S ^LAB(69.5,DA(1),2,"B",$E(X,1,30),DA)=""
                                  2)= K ^LAB(69.5,DA(1),2,"B",$E(X,1,30),DA)


69.5,4          ICD9                  3;0 POINTER Multiple #69.54
                DESCRIPTION:      This defines the ICD9 to search for.


69.54,.01       ICD9                  0;1 POINTER TO ICD DIAGNOSIS FILE (#80)
                                     (Multiply asked)
                LAST EDITED       OCT 11, 1996
                HELP-PROMPT:      Select the ICDM-9 standardized code used
                                  nationwide in federal and non-federal/private
                                  health care facilities
                DESCRIPTION:      This defines the ICD9 to search for.
```

```
STANDARD DATA DICTIONARY #69.5 -- EMERGING PATHOGENS FILE   01/30/97  PAGE 3
STORED IN ^LAB(69.5,  (14 ENTRIES)  SITE: DALLAS ISC-DEVELOPMENT ACCOUNT

DATA          NAME                  GLOBAL        DATA
ELEMENT       TITLE                 LOCATION      TYPE
--------------------------------------------------------------------------------
               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)


69.5,5         ANTIMICROBIAL SUSCEPTIBILITY 4;0 POINTER Multiple #69.55

               LAST EDITED:      JAN 22, 1997
               DESCRIPTION:      This determines that if any of the Etiologies
                                 selected are to be resistant to any
                                 Antimicrobials.


69.55,.01       ANTIMICROBIAL SUSCEPTIBILITY 0;1 POINTER TO ANTIMICROBIAL
                SUSCEPTIBILITY FILE (#62.06) (Multiply asked)

                LAST EDITED:      JAN 22, 1997
                HELP-PROMPT:      Enter the Antimicrobial that will be used in
                                  screening out sensitive Etiologies.
                DESCRIPTION:      This determines that if any of the Etiologies
                                  selected are to be resistant to any
                                  Antimicrobials. Select the appropriate
                                  Antimicrobials to screen out the Etiologies.
                CROSS-REFERENCE:  69.55^B
                                  1)= S ^LAB(69.5,DA(1),4,"B",$E(X,1,30),DA)=""
                                  2)= K ^LAB(69.5,DA(1),4,"B",$E(X,1,30),DA)


69.5,6         INCLUDED SITES         5;0 POINTER Multiple #69.56

               LAST EDITED:        OCT 04, 1996
               DESCRIPTION:        This determines what Topography to screen for.


69.56,.01       TOPOGRAPHY              0;1 POINTER TO TOPOGRAPHY FIELD FILE (#61)
                                        (Multiply asked)
                LAST EDITED:        OCT 04, 1996
                HELP-PROMPT:        selection of a Topography screens all others out
                                    except the ones selected. For "ALL" leave blank.
                                    Not to be used in conjunction with the exclude
                                    Topography
                DESCRIPTION:        This determines what Topography to screen
                                    for. Select the appropriate Topography to
                                    include in the extract.
                CROSS-REFERENCE:    69.56^B
                                    1)= S ^LAB(69.5,DA(1),5,"B",$E(X,1,30),DA)=""
                                    2)= K ^LAB(69.5,DA(1),5,"B",$E(X,1,30),DA)


69.5,7         EXCLUDED SITES         6;0 POINTER Multiple #69.57
               DESCRIPTION:        This determines what Topography to screen out.


69.57,.01      TOPOGRAPHY             0;1 POINTER TO TOPOGRAPHY FIELD FILE (#61)
                                      (Multiply asked)
                 LAST EDITED:      OCT 04, 1996
                 HELP-PROMPT:      Select the Topography to out. Not to be used in
                                   conjunction with the Include Topography selection.
                 DESCRIPTION:      This determines what Topography to screen
                                   out. Select the appropriate Topography to be
                                   excluded from the extract.
```

```
STANDARD DATA DICTIONARY #69.5 -- EMERGING PATHOGENS FILE   01/30/97  PAGE 4
STORED IN ^LAB(69.5,  (14 ENTRIES)   SITE: DALLAS ISC-DEVELOPMENT ACCOUNT

DATA          NAME                  GLOBAL        DATA
ELEMENT       TITLE                 LOCATION      TYPE
--------------------------------------------------------------------------------
               CROSS-REFERENCE:  69.57^B
                                 1)= S ^LAB(69.5,DA(1),6,"B",$E(X,1,30),DA)=""
                                 2)= K ^LAB(69.5,DA(1),6,"B",$E(X,1,30),DA)

69.5,9        RUN DATE               0;4 DATE

              INPUT TRANSFORM:  S %DT="ESTX" D ^%DT S X=Y K:Y<1 X
              LAST EDITED:      OCT 09, 1996
              HELP-PROMPT:      Date that the last Auto Search/Extract processed.
              DESCRIPTION:      The date that the last Auto Search/Extract
                                processed


69.5,10       CYCLE                  0;5 SET

                                'Y' FOR YEARLY;
                                'M' FOR MONTHLY;
                                'W' FOR WEEKLY;
                                'D' FOR DAILY;
              LAST EDITED:      OCT 09, 1996
              HELP-PROMPT:      This field is currently not used. For future use.
              DESCRIPTION:      This field is not currently used.


69.5,11       FIRST ENCOUNTER        0;6 SET

                                '1' FOR YES;
                                '0' FOR NO;
              LAST EDITED:      DEC 30, 1996
              HELP-PROMPT:      Limits the output to the first encounter for the
              DESCRIPTION:      This determines if after the first encounter is
                                found and extracted should sequential
                                encounters be extracted. patient. Otherwise list all
                                encounters.


69.5,12       PROTOCOL            0;7 POINTER TO EMERGING PATH PROTOCAL FILE (#69.4)

              LAST EDITED:      NOV 08, 1996
              HELP-PROMPT:      Defines the protocol used to define the output
                                message.
              DESCRIPTION:      This defines what protocol is associated with
                                the parameters.


69.5,13       FOLLOW PTF             0;8 SET


                                '1' FOR YES;
                                '0' FOR NO;
              LAST EDITED:      OCT 17, 1996
              HELP-PROMPT:      Indicates if the PTF record will be followed until
                                a discharge has been entered.
              DESCRIPTION:      This determines that if a inpatient encounter
                                does not have a discharge should the discharge
                                information be updated upon discharge.


69.5,14       PTF                    7;0 POINTER Multiple #69.514
                                (Add New Entry without Asking)
              DESCRIPTION:      This is the Inpatient information to follow.
```

```
STANDARD DATA DICTIONARY #69.5 -- EMERGING PATHOGENS FILE   01/30/97  PAGE 5
STORED IN ^LAB(69.5,  (14 ENTRIES)   SITE: DALLAS ISC-DEVELOPMENT ACCOUNT UCI:

DATA          NAME                  GLOBAL        DATA
ELEMENT       TITLE                 LOCATION      TYPE
-------------------------------------------------------------------------------
69.514,.01      PTF                     0;1 POINTER TO PTF FILE (#45)

                LAST EDITED:      OCT 17, 1996
                DESCRIPTION:      This is the Inpatient information to follow.
                CROSS-REFERENCE:  69.514^B
                                  1)= S ^LAB(69.5,DA(1),7,"B",$E(X,1,30),DA)=""
                                  2)= K ^LAB(69.5,DA(1),7,"B",$E(X,1,30),DA)

69.514,1        DATE                    0;2 DATE

                INPUT TRANSFORM:  S %DT="E" D ^%DT S X=Y K:Y<1 X
                LAST EDITED:      DEC 31, 1996
                DESCRIPTION:      This is the date that the Inpatient discharge
                                  information was included in the report as a
                                  update.

69.5,15       Description           8;0   WORD-PROCESSING #69.515
              DESCRIPTION:        This is the general description for the entry.

FILES POINTED TO                      FIELDS

ANTIMICROBIAL SUSCEPTIBILITY
                    (#62.06)        ANTIMICROBIAL SUSCEPTIBILITY:ANTIMICROBIAL
SUSCEPTIBILITY (#.01)

EMERGING PATH PROTOCAL (#69.4)    PROTOCOL (#12)

ETIOLOGY FIELD (#61.2)            ETIOLOGY:ETIOLOGY (#.01)

ICD DIAGNOSIS (#80)               ICD9:ICD9 (#.01)

LABORATORY TEST (#60)             LAB TEST:LAB TEST (#.01)

PTF (#45)                         PTF:PTF (#.01)

TOPOGRAPHY FIELD (#61)            INCLUDED SITES:TOPOGRAPHY (#.01)
                                  EXCLUDED SITES:TOPOGRAPHY (#.01)

INPUT TEMPLATE(S):

PRINT TEMPLATE(S):
CAPTIONED                                       USER #0

SORT TEMPLATE(S):

FORM(S)/BLOCK(S):

  LREPI                         OCT 07, 1996@10:13  USER #6459
  LREPIHEAD                     DD #69.5
  LREPI2                        DD #69.52
  LREPI3                        DD #69.54
  LREPI1                        DD #69.5
  LREPI11                       DD #69.5
  LREPI4                        DD #69.53
  LREPI5                        DD #69.55
  LREPI6                        DD #69.5
  LREPI7                        DD #69.5
  LREPI8                        DD #69.56
  LREPI9                        DD #69.57
  LREPI10                       DD #69.5
```

Installation Instructions for Patch LR*5.2*132

The Kernel Installation and Distribution System (KIDS) is a new method of installing VISTA software and the replacement for DIFROM. The EPI patch LR*5.2*132 is using the KIDS standard distribution. The KIDS standard distributions are done in three phases:

Phase 1: Loading transport globals from a PackMan message.

Phase 2: Answering installation questions for transport globals in a distribution.

Phase 3: KIDS installation of the patch.

NOTE: For further instructions on using KIDS, please refer to the Kernel V. 8.0 Systems Manual, Chapter 26, pages 393-409.

Installation Time

The actual installation time for this patch should take no more than 10 minutes. Although users may remain on the system, it is recommended that you install this patch during off-peak hours.

NOTE: Kernel Patch XU*8*44 **MUST** be installed prior to installing EPI Patch LR*5.2*132 or this installation of will abort.

Installation Process

The following is an example of the terminal screen dialogue seen during the KIDS install. However, the dates shown will **not** be the same as those on the released version.

Phase 1: Loading transport globals from a PackMan message.

```
KIDS   Kernel Installation & Distribution System


          Edits and Distribution ...
          Utilities ...
          Installation ...

Select Kernel Installation & Distribution System Option: In<Enter>stallation


   1      Load a Distribution
   2      Verify Checksums in Transport Global
   3      Print Transport Global
   4      Compare Transport Global to Current System
   5      Backup a Transport Global
   6      Install Package(s)
          Restart Install of Package(s)
          Unload a Distribution

Select Installation Option: 2<Enter>  Verify Checksums in Transport Global
Select INSTALL NAME:    LR*5.2*132<Enter>        Loaded from Distribution
1/23/97@07:36:06
     => LR*5.2*132
DEVICE: HOME//<Enter>

PACKAGE: LR*5.2*132     Jan 23, 1997 7:57 am                          PAGE 1
-------------------------------------------------------------------------------

10 Routine checked, 0 failed.


   1      Load a Distribution
   2      Verify Checksums in Transport Global
   3      Print Transport Global
   4      Compare Transport Global to Current System
   5      Backup a Transport Global
   6      Install Package(s)
          Restart Install of Package(s)
          Unload a Distribution

Select Installation Option: 5<Enter>  Backup a Transport Global
Select INSTALL NAME:   LR*5.2*132<Enter>    Loaded from Distribution
1/23/97@07:36:06
     => LR*5.2*132

This Distribution was loaded on Jan 23, 1997@07:36:06 with header of
LR*5.2*132
It consisted of the following Install(s):
LR*5.2*132
```

```
Subject: BACKUP 132
Loading Routines for LR*5.2*132.
Routine LR132P is not on the disk.......
Routine LREPILK is not on the disk...
Routine LREPIRP is not on the disk..
Send mail to: LABMAIL,ONE<Enter>     Last used MailMan: 23 Jan 97 07:54
  Select basket to send to: IN//<Enter>
And send to: <Enter>
```

Phase 2: Answering installation questions for transport globals in a distribution.

```
   1      Load a Distribution
   2      Verify Checksums in Transport Global
   3      Print Transport Global
   4      Compare Transport Global to Current System
   5      Backup a Transport Global
   6      Install Package(s)
          Restart Install of Package(s)
          Unload a Distribution


Select Installation Option: 6<Enter>  Install Package(s)
Select INSTALL NAME:   LR*5.2*132<Enter>    Loaded from Distribution
1/23/97@07:36:06
     => LR*5.2*132

This Distribution was loaded on Jan 23, 1997@07:36:06 with header of
LR*5.2*132
It consisted of the following Install(s):
LR*5.2*132

   LR*5.2*132
Will first run the Environment Check Routine, LR132


                           Environment Check is Ok ---

Install Questions for LR*5.2*132


   62.06     ANTIMICROBIAL SUSCEPTIBILITY  (Partial Definition)
Note:  You already have the 'ANTIMICROBIAL SUSCEPTIBILITY' File.


   69.4      EMERGING PATH PROTOCOL


   69.5      EMERGING PATHOGENS  (including data)


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>
```

Phase 3: KIDS installation of the patch.

```
Install Started for LR*5.2*132 :
               Jan 23, 1997@07:59:07

 Installing Routines:
              Jan 23, 1997@07:59:08

 Installing Data Dictionaries:
               Jan 23, 1997@07:59:12

 Installing Data:
               Jan 23, 1997@07:59:13

 Installing PACKAGE COMPONENTS:

 Installing HELP FRAME

 Installing FORM

 Installing MAIL GROUP

 Installing HL LOWER LEVEL PROTOCOL PARAMETER

 Installing HL LOGICAL LINK

 Installing HL7 APPLICATION PARAMETER

 Installing PROTOCOL

 Installing OPTION
               Jan 23, 1997@07:59:24

 Running Post-Install Routine: ^LR132P

Adding Protocol 'LREPI' to the Emerging Pathogen File (69.5)

********
**Updating Emerging Pathogen File (69.5) with ICD9 Codes**

Adding 085.0 VISCERAL LEISHMANIASIS into LEISHMANAISIS

Adding 085.1 CUTAN LEISHMANIAS URBAN into LEISHMANAISIS

Adding 085.2 CUTAN LEISHMANIAS ASIAN into LEISHMANAISIS

Adding 085.3 CUTAN LEISHMANIAS ETHIOP into LEISHMANAISIS

Adding 085.4 CUTAN LEISHMANIAS AMER into LEISHMANAISIS

Adding 085.5 MUCOCUTAN LEISHMANIASIS into LEISHMANAISIS

Adding 085.9 LEISHMANIASIS NOS into LEISHMANAISIS

Adding 084.0 FALCIPARUM MALARIA into MALARIA

Adding 084.1 VIVAX MALARIA into MALARIA

Adding 084.2 QUARTAN MALARIA into MALARIA

Adding 084.3 OVALE MALARIA into MALARIA

Adding 084.4 MALARIA NEC into MALARIA
```

```
Adding 084.5 MIXED MALARIA into MALARIA

Adding 084.6 MALARIA NOS into MALARIA

Adding 084.7 INDUCED MALARIA into MALARIA

Adding 084.8 BLACKWATER FEVER into MALARIA

Adding 084.9 MALARIA COMPLICATED NEC into MALARIA

Adding 007.8 PROTOZOAL INTEST DIS NEC into CRYPTOSPORIDIUM

Adding 046.1 JAKOB-CREUTZFELDT DIS into CREUTZFELDT-JAKOB DISEASE

Adding 061. DENGUE into DENGUE

Adding 065.4 MOSQUITO-BORNE HEM FEVER into DENGUE

Adding 482.80 LEGIONNAIRE'S DISEASE into LEGIONELLA

********

**Updating Emerging Pathogen File (69.5) with Etiology**

Adding CANDIDA ALBICANS into CANDIDA

Adding CANDIDA GUILLIERMONDII into CANDIDA

Adding CANDIDA KRUSEI into CANDIDA

Adding CANDIDA PARAPSILOSIS into CANDIDA

Adding CANDIDA PSEUDOTROPICALIS into CANDIDA

Adding CANDIDA SKIN TEST ANTIGEN into CANDIDA

Adding CANDIDA STELLATOIDEA into CANDIDA

Adding CANDIDA TROPICALIS into CANDIDA

Adding CANDIDA, NOS into CANDIDA

Adding ENTEROCOCCUS  (STREPT. FAECALI into VANC-RES ENTEROCOCCUS

Adding LEGIONELLA BOZEMANII into LEGIONELLA

Adding LEGIONELLA DUMOFFII into LEGIONELLA

Adding LEGIONELLA MICDADEI into LEGIONELLA

Adding LEGIONELLA PNEUMOPHILIA into LEGIONELLA

Adding LEGIONELLA SP into LEGIONELLA

I will auto link file '62.06 ANTIMICROBIAL SUSCEPTIBILITY' to file '64 WKLD
CODE.

AMIKACN      <----Linked---->     Amikacin

AMPICLN      <----Linked---->     Ampicillin

CLINDAM      <----Linked---->     Clindamycin
```

```
CARBCLN      <----Linked---->     Carbenicillin
CEFMAND      <----Linked---->     Cefamandole
CEFOPERAZONE      <----Linked---->     Cefoperazone
CEFOTAXIME      <----Linked---->     Cefotaxime
CEFOXITIN      <----Linked---->     Cefoxitin
CEFAZOLIN      <----Linked---->     Cefazolin
CHLORAM      <----Linked---->     Chloramphenicol
ERYTHROMYCIN      <----Linked---->     Erythromycin
KANAMCN      <----Linked---->     Kanamycin
METHCLN      <----Linked---->     Methicillin
MEZLOCILLIN      <----Linked---->     Mezlocillin
NEOMYCN      <----Linked---->     Neomycin
NETILMICIN      <----Linked---->     Netilmicin
NITROFURANTOIN      <----Linked---->     Nitrofurantoin
NOVOBIOCIN      <----Linked---->     Novobiocin
OXACILLIN      <----Linked---->     Oxacillin
PENICLN      <----Linked---->     Penicillin
PIPERACILLIN      <----Linked---->     Piperacillin
POLYMYXIN B    <----Not Linked---->    No Match Found
RIFAMPIN      <----Linked---->     Rifampin
TETRCLN    <----Not Linked---->    No Match Found
TOBRMCN      <----Linked---->     Tobramycin
TRMSULF    <----Not Linked---->    No Match Found
VANCMCN      <----Linked---->     Vancomycin
MOXALACTAM      <----Linked---->     Moxalactam
GENTMCN      <----Linked---->     Gentamicin
SULFISOXAZOLE    <----Not Linked---->    No Match Found
BACTRCN      <----Linked---->     Bacitracin
NAFCILLIN      <----Linked---->     Nafcillin
NALIDIXIC ACID      <----Linked---->     Nalidixic Acid
COLISTIN      <----Linked---->     Colistin
CEPHALOTHIN      <----Linked---->     Cephalothin
```

```
METRONIDAZOLE      <----Linked---->     Metronidazole

 Updating Routine file

 Updating KIDS files

 LR*5.2*132 Installed.
              Jan 23, 1997@07:59:35.

 Install Message sent #13957


Install Completed
```

Post Installation Instructions

The post installation instructions for the EPI Patch LR*5.2*132 **should** be followed as recommended. This will assure a successful implementation of the EPI software.

DSM/Alpha Sites

If you have disabled journaling, you may now re-enable it.

MSM Sites

It is recommended that MSM sites move the routines to the other servers. Using a mapped system, rebuild your map set.

IRM Staff

1. Assure that the Q-EPI-MED.GOV Domain is set-up as instructed by MailMan Patch XM*DBA*103.

2. Set-up the EPI-Lab and EPI-Report Lab mail groups. Recipients of these mail groups are designated by the EPI coordinator.

3. Using VA FileMan V. 21.0 edit the facility name field in the HL7 APPLICATION PARAMETER file (#771) for the EPI-LAB entry.

Example:

```
Select OPTION: ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE:  HL7 APPLICATION PARAMETER<Enter>
                                          (7 entries)
EDIT WHICH FIELD: ALL// FACILITY NAME<Enter>

THEN EDIT FIELD: <Enter>

Select HL7 APPLICATION PARAMETER NAME: EPI-LAB<Enter>          ACTIVE

FACILITY NAME: 170<Enter>     ← Enter your facility number

Select HL7 APPLICATION PARAMETER NAME: <Enter>
```

4. Start the Lower Level Protocol of the HL7 V. 1.6 background job for EPI.

```
Select Systems Manager Menu Option:    HL7 Main<Enter> Menu


   1      V1.5 OPTIONS ...
   2      V1.6 OPTIONS ...
   3      Activate/Inactivate Application
   4      Print/Display Menu ...
   5      Purge Message Text File Entries

Select HL7 Main Menu Option: 2<Enter>  V1.6 OPTIONS


   1      Communications Server ...
   2      Interface Workbench
   3      Message Requeuer

Select V1.6 OPTIONS Option: 1<Enter>  Communications Server


   1      Edit Communication Server parameters
   2      Manage incoming & outgoing filers ...
   3      Monitor incoming & outgoing filers
   4      Start LLP
   5      Stop LLP
   6      Systems Link Monitor
   7      Logical Link Queue Management ...
   8      Report

Select Communications Server Option: 4<Enter>  Start LLP

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 JAN 30, 1997 12:06:19.


     Select one of the following:

          F         FOREGROUND
          B         BACKGROUND
          Q         QUIT

Method for running the receiver: B//<Enter> ACKGROUND
Job was queued as 131225.
```

5. Assign the Emerging Pathogen Primary Menu to specified users.

NOTE: It is highly recommended that the Laboratory Information Manager (LIM), TQI/QA/QI, and a representative from the Microbiology section (director, supervisor, or technologist) are assigned the Emerging Pathogen Primary Menu. This will be the individual(s) responsible for initially setting the parameters and doing periodic reviews of parameters to assure they are current.

6. Schedule the Emerging Pathogen Nightly Task option to run each night.

Health Level Seven (HL7) Protocol

The Emerging Pathogen Initiative Patch LR*5.2*132 is using the V*IST*A HL7 software to transport the EPI health care data onto the ACC system. This health care data is extracted from the Laboratory, PIMS, and EPI data bases. The health care data is used to assist public health surveillance activities for new antibiotic - resistant or otherwise problematic pathogens. The EPI health care data is transmitted to ACC system monthly where it will be processed.

3. General Specifications

3.1 Communication Protocol
The V*IST*A MailMan electronic mail system will be used as the communications protocol for sending HL7 messages between D V*IST*A and EPI.

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 will be used. The ORU message will be sent using the HL7 batch protocol.

3.3 Messages
The following HL7 messages will be used to support the exchange of EPI data.

ORU	Observational Results Unsolicited

3.4 Segments
The following HL7 segments will be used to support the exchange of EPI data.

DG1	Diagnosis	OBR	Observation Request
MSH	Message Header	PID	Patient Identification
NTE	Notes and Comments	PV1	Patient Visit

3.5 Fields: The following HL7 fields will be used to support the exchange of EPI data for each of the segments listed in the 3.4 Segments.

	FIELD SEQUENCE		USER/HL7
SEGMENT	NUMBER	FIELD ELEMENT NAME	DEFINED
DG1	1	Set ID-Diagnosis (Sequence #)	HL7
	3	Diagnosis Code (Code(id) ^Text (St.) ^ Name of coding system (st)	HL7
MSH	1	Field Separator	HL7
	2	Encoding Characters	HL7
	3	Sending Application	HL7
	4	Sending Facility	HL7
	5	Receiving Application	HL7
	6	Receiving Facility	HL7
	7	Date/Time of Message	HL7
	8	Security	HL7
	9	Message Type	HL7
	10	Message Control ID	HL7
	11	Processing ID	HL7
	12	Version ID	HL7
OBR	1	Set ID-Observation Request (Seq #)	HL7
	4	Universal Service ID (identifier^ text ^ name of coding system ^ alt id ^ alt text ^ alt coding system)	HL7
	7	Observation Date/Time	HL7
	15	Specimen Source (Specimen source code (CE) ^^ text (TX))	HL7 (Table 0070)
	26	Parent Results (OBX observation id of parent ^OBX sub ID	HL7
NTE	1	Set ID Notes and Comments (Seq #)	HL7
	3	Comment	HL7
OBX	1	Set Id-Observational Simple (seq. #)	HL7
	2	Value Type	HL7
	3	Observation Identifier (identifier ^ text ^ name of coding system ^ alt id ^ alt text ^ alt coding system)	HL7
	4	Sub Id	HL7
	5	Observation Value (Result)	HL7
	6	Units (Units)	HL7
	8	Abnormal Flags	HL7 (Table 0078)
	15	Date/Time of the Observation (Verified Date/Time)	HL7
PID	2	Patient ID (External ID)	HL7
	3	Patient ID (Internal ID)	HL7
	5	Patient Name	HL7
	7	Date of Birth	HL7
	8	Sex	HL7 (Table 0001)
	10	Race	HL7 (Table VA07)
	11	Address (Homeless)	HL7
	19	SSN	HL7
	27	Veteran's Military Status	HL7 (Table Va011)
PV1	1	Set ID - Patient Visit	HL7
	2	Patient Class	HL7
	36	Discharge Disposition	HL7
	44	Admit Date/Time (Event Date/Time)	HL7
	45	Discharge Date/Time	HL7

4.0 Transaction Specifications

4.1 General

The V*ist*A system will send the ORU observation result type HL7 message whenever one or more of the defined pathogens have been identified.

4.2 Specific Transaction

A. Identified Encounter

When the Emerging Pathogens have been identified an ORU message is sent from the V*ist*A system to the EPI database. These ORU messages will consist of the following segments.

Example:

```
ORU     OBSERVATIONAL RESULT UNSOLICITED

MSH     Message Header
NTE     Notes and Comments
PID     Patient Identification
PV1     Patient Visit
NTE     Notes and Comments
DG1     Diagnosis
OBR     Observation Report
OBX     Results
```

Example: Message

```
MSH|~|\&|EPI-LAB|170|EPI-LAB|170|19961018113521||ORU~R01|107|P|2.2|||||USA
NTE|1|REPORTING DATE FROM 19850101 TO 19961018
PID|1|052-16-7946~0~M10|5~5~M10||LABPATIENT, EIGHT||000000008|M||7|||||||||052167946
PV1|1|O|||||||||||||||||||||||||||||||||||||||19950315151907
NTE|1|1^Vanc-Res Enterococcus
DG1|1|I9|451.19^DEEP PHLEBITIS-LEG NEC^I9
DG1|2|I9|511.9^PLEURAL EFFUSION NOS^I9
DG1|3|I9|670.02^MAJOR PUERP INF-DEL P/P^I9
DG1|4|I9|331.0^ALZHEIMER'S DISEASE^I9
DG1|5|I9|500.^COAL WORKERS' PNEUMOCON^I9
OBR|1|||^CHEMISTRY TEST^VANLT|||19950315151907|||||||SER^^SERUM
OBX|1|ST|84330.0000^Glucose Quant^VANLT^175^GLUCOSE1^VA60||25|mg/dL|70-125|L*
NTE|2|2^Hepatitis C antibody
OBR|2|||^CHEMISTRY TEST^VANLT|||19950315151907|||||||SER^^SERUM
OBX|1|ST|84330.0000^Glucose Quant^VANLT^175^GLUCOSE1^VA60||25|mg/dL|70-125|L*
PID|2|023-45-6666~8~M10|7~7~M10||LABPATIENT, NINE||000000009|F||7|||||||||023456666
PV1|1|O|||||||||||||||||||||||||||||||||||||||19950315152721
NTE|1|1^Vanc-Res Enterococcus
OBR|1||87999.0000^MICRO CULTURE^VANLT|||198612100835|||||||^^BLOOD
OBX|1|CE|87993.0000^BACTERIOLOGY CULTURE^VANLT|1|^ESCHERICHIA COLI
OBR|2|^ANTIBIOTIC MIC^VANLT||||198612100835|||||||^^BLOOD||||||||||87993.0000^1
OBX|1|ST|81812.0000^Neomycin^VANLT^18^NEOMYCN^VA62.06|||||R
OBX|2|ST|^^^35^BACTRCN^VA62.06|||||R
OBX|3|ST|81852.0000^Penicillin^VANLT^23^PENICLN^VA62.06|||||R
OBX|4|ST|81676.0000^Clindamycin^VANLT^3^CLINDAM^VA62.06|||||S
OBX|5|ST|81307.0000^Gentamicin^VANLT^33^GENTMCN^VA62.06|||||R
OBX|6|ST|81656.0000^Chloramphenicol^VANLT^10^CHLORAM^VA62.06|||||R
OBX|7|ST|81946.0000^Tetracycline NOS^VANLT^27^TETRCLN^VA62.06|||||R
OBX|8|ST|81532.0000^Ampicillin^VANLT^2^AMPICLN^VA62.06|||||R
OBX|9|ST|81475.0000^Tobramycin^VANLT^28^TOBRMCN^VA62.06|||||R
OBX|10|ST|^^^29^TRMSULF^VA62.06|||||R
OBX|11|ST|81098.0000^Amikacin^VANLT^1^AMIKACN^VA62.06|||||R
OBX|12|ST|81604.0000^Cefamandole^VANLT^5^CEFMAND^VA62.06|||||R
OBX|13|ST|81886.0000^Piperacillin^VANLT^24^PIPERACILLIN^VA62.06|||||R
OBX|14|ST|81616.0000^Cefoperazone^VANLT^6^CEFOPERAZONE^VA62.06|||||R
OBX|15|ST|81794.0000^Mezlocillin^VANLT^16^MEZLOCILLIN^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	ARMY--ACTIVE DUTY
B	NAVY, MARINE--ACTIVE DUTY
C	AIR FORCE--ACTIVE DUTY
D	COAST GUARD--ACTIVE DUTY
E	RETIRED, UNIFORMED FORCES
F	MEDICAL REMEDIAL ENLIST
G	MERCHANT SEAMEN--USPHS
H	OTHER USPHS BENEFICIARIES
I	OBSERVATION/EXAMINATION
J	OFFICE OF WORKERS COMP.
K	JOB CORPS/PEACE CORPS
L	RAILROAD RETIREMENT
M	BENEFICIARIES-FOREIGN GOV
N	HUMANITARIAN (NON-VET)
O	CHAMPUS RESTORE
P	OTHER REIMBURS. (NON-VET)
Q	OTHER FEDERAL - DEPENDENT
R	DONORS (NON-VET)
S	SPECIAL STUDIES (NON-VET)
T	OTHER NON-VETERANS
U	CHAMPVA--SPOUSE, CHILD
V	CHAMPUS
W	CZECHOSLOVAKIA/POLAND SVC
X	PERSIAN GULF WAR
Y	CAV/NPS
Z	MERCHANT MARINE

Table 0070 - Specimen Source Codes

Abbreviations	Descriptions	Abbreviations	Descriptions	Abbreviations	Descriptions
ABS	Abscess	FLU	Body fluid, unsp	SER	Serum
AMN	Amniotic fluid	GAS	Gas	SKN	Skin
ASP	Aspirate	GAST	Gastric fluid/contents	SKM	Skeletal muscle
BPH	Basophils	GEN	Genital	SPRM	Spermatozoa
BIFL	Bile fluid	GENC	Genital cervix	SPT	Sputum
BBL	Blood bag	GENV	Genital vaginal	SPTT	Sputum tracheal aspirate
BLDC	Blood capillary	HAR	Hair	STON	Stone (use CALC)
BPU	Blood product unit	IHG	Inhaled Gas	STL	Stool = Fecal
BLDV	Blood venous	IT	Intubation tube	SWT	Sweat
BON	Bone	ISLT	Isolate	SNV	Synovial fluid (Joint fluid)
BRTH	Breath (use EXHLD)	LAM	Lamella	TEAR	Tears
BRO	Bronchial	WBC	Leukocytes	THRT	Throat
BRN	Burn	LN	Line	THRB	Thrombocyte (platelet)
CALC	Calculus (=Stone)	LNA	Line arterial	TISS	Tissue
CDM	Cardiac muscle	LNV	Line venous	TISG	Tissue gall bladder
CNL	Cannula	LIQ	Liquid NOS	TLGI	Tissue large intestine
CTP	Catheter tip	LYM	Lymphocytes	TLNG	Tissue lung
CSF	Cerebral spinal fluid	MAC	Macrophages	TISPL	Tissue placenta
CVM	Cervical mucus	MAR	Marrow	TSMI	Tissue small intestine
CVX	Cervix	MEC	Meconium	TISU	Tissue ulcer
COL	Colostrum	MBLD	Menstrual blood	TUB	Tube NOS
CBLD	Cord blood	MLK	Milk	ULC	Ulcer
CNJT	Conjunctiva	MILK	Breast milk	UMB	Umbilical blood
CUR	Curettage	NAIL	Nail	UMED	Unknown medicine
CYST	Cyst	NOS	Nose (nasal passage)	URTH	Urethra
DIAF	Dialysis fluid	ORH	Other	UR	Urine
DOSE	Dose med or substance	PAFL	Pancreatic fluid	URC	Urine clean catch
DRN	Drain	PAT	Patient	URT	Urine catheter
DUFL	Duodenal fluid	PRT	Peritoneal fluid ascites	URNS	Urine sediment
EAR	Ear	PLC	Placenta	USUB	Unknown substance
EARW	Ear wax (cerumen)	PLAS	Plasma	VOM	Vomitus
ELT	Electrode	PLB	Plasma bag	BLD	Whole blood
ENDC	Endocardium	PLR	Pleural fluid (thoracentesis fld)	BDY	Whole body
ENDM	Endometrium	PMN	Polymorphonuclear neutrophils	WAT	Water
EOS	Eosinophils	PPP	Platelet poor plasma	WICK	Wick
RBC	Erythrocytes	PRP	Platelet rich plasma	WND	Wound
EYE	Eye	PUS	Pus	WNDA	Wound abscess
EXHLD	Exhaled gas (breath)	RT	Route of medicine	WNDE	Wound exudate
FIB	Fibroblasts	SAL	Saliva	WNDD	Wound drainage
FLT	Filter	SEM	Seminal fluid	XXX	To be specified in another part of the message
FIST	Fistula				

Table VA07 - Race

Value	Description
1	HISPANIC, WHITE
2	HISPANIC, BLACK
3	AMERICAN INDIAN OR ALASKA NATIVE
4	BLACK, NOT OF HISPANIC ORIGIN
5	ASIAN OR PACIFIC ISLANDER
6	WHITE NOT OF HISPANIC ORIGIN
7	UNKNOWN

Table 0001 - Sex

Value	Description
F	**FEMALE**
M	**MALE**
O	**OTHER**
U	**UNKNOWN**

Table 0078 - Abnormal flags

Value	Description
L	Below low normal
H	Above high normal
LL	Below lower panic limits
HH	Above upper panic limits
For microbiology sensitivities only	
S	Sensitive
R	Resistant
I	Intermediate
MS	Moderately sensitive
VS	Very sensitive

LABORATORY EPI PATCH LR*5.2*132 USER GUIDE

Laboratory EPI Patch LR*5.2*132 User Guide

The Laboratory EPI Patch LR*5.2*132 User Guide 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 EPI software package. This information **should** be adhered to as recommended to assure a successful implementation of the EPI software.

NOTE: It is highly recommended that the Laboratory Information Manager (LIM), TQI/QA/QI, and a representative from the Microbiology section (director, supervisor, or technologist) jointly participate in reviewing the 14 Emerging Pathogen descriptions and entering of data for the EPI software package. The individual(s) will be responsible for initially setting the EPI parameters, doing periodic reviews of ICDM-9 codes and parameters to assure they are current.

Emerging Pathogens

Listed below are the 14 Emerging Pathogens that the EPI software package has been defined to track:

Candida
Clostridium difficile
Creutzfeldt-Jakob Disease
Cryptosporidium
Dengue
E. coli O157:H7
Hepatitis C Antibody Pos
Legionella
Leishmanaisis
Malaria
Pen- Res Pneumococcus
Streptococcus-Group A
Tuberculosis
Vanc-Res *Enterococcus*

NOTE: Descriptions for each of the 14 Emerging Pathogens are located in the "Emerging Pathogens Descriptions and Screen Displays" section of this User Guide.

Emerging Pathogen Primary Menu

The Laboratory EPI software has one stand-alone menu. There are no locks or security keys created for this menu. The Emerging Pathogen Primary Menu consists of the following three options:

Antimicrobial Link Update: This option will allows the user to link the ANTIMICROBIAL SUSCEPIBILTY' file (#62.06) with WKLD CODE file (#64).

NOTE: Please see the Appendix section of this guide on "How to Link Antimicrobial Entries to Workload Codes Entries" using this option.

Emerging Pathogen Manual Run: This option allows the user to select any month to run the Search/Extract process manually. The first and last day of the month will be determined automatically.

Emerging Pathogens Parameter update: This option is used to define the search criteria along with additional information associated with the Emerging Pathogen Initiative.

NOTE: The Emerging Pathogen Primary Menu options are using VA FileMan screens displays, referred to as ScreenMan. For detailed instructions on how to use the screens displays please review the VA FileMan V. 21.0 User Manual, Section 6 ScreenMan.

Emerging Pathogens Parameter update option screen and help prompts definitions:

Emerging Pathogen update option Parameters Screens Prompts	**Emerging Pathogen Parameter update option Screens Help Prompts**
Serology Lab Test (s)	Consider this synonymous with, chemistry, serology, hematology "blood/serum" tests. Results anticipated to be found here will have had a test done, under chemistry/hematology accession areas, even if physically performed in microbiology other areas. Select 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
Value	Positive, etc. Answer must be 1-15 characters in length. This is a Free Text field.
ICDM-9	ICDM-9 standardized code used nationwide in federal and non-federal/private health care facilities. Select from the ICDM-9 DIAGNOSIS file (#80).
ICDM-9 Description	Title of ICDM-9 diagnosis
Selected Etiology	Consider synonymous with organism, final microbial diagnosis/isolate. Select from the ETIOLOGY FIELD file (61.2).
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	
Include	Selection of a 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).
Follow PTF:	Indicates if the PTF record will be followed until a discharge has been entered. Choose: '1' FOR YES '0' FOR NO
Run Date:	Date that the last Auto Search/Extract processed.
Run Cycle:	This field is currently not used. For future use.
First Encounter:	Limits the output to the first encounter for the patient. Otherwise list all encounters. Choose: '1' FOR YES '0' FOR NO
Protocol:	Defines the protocol used to define the output messages. Select from the EMERGING PATH PROTOCOL file (#69.4).
General Description:	To review or edit the General Description use the **<Enter>** key instead of the**<Tab>** key.

Emerging Pathogens Descriptions and Screen Displays

This section includes the 14 Emerging Pathogens descriptions and screen displays. The screen displays contains examples of the pre-populated fields. The ETIOLOGY FIELD file (#61.2) site specific data is used to partially pre-populate the fields in the EMERGING PATHOGENS file (#69.5). However, further entries will be required for site specific data. Additional entries may be added or deleted to meet your site specific needs. These examples will assist in the initial Emerging Pathogens parameter updates.

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 we have chosen the fungus *Candida* (and *Torulopsis*) as an initial indicator organism. This may **not** be a prevalent or significant entity at your site, but its presence is more likely to be indicative of serious or true infection than other organisms which 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 such as *Staphylococcus aureus* and coagulase negative *Staphylococcus*, which can cause a number of community acquired syndromes not at all related to IV lines.

We wish to capture all episodes of *Candida* (*Torulopsis,* yeast) isolation from blood or a blood source (central line, IV catheter tip, etc.). For *Candida* a partial pre-populated list of (etiologies/organisms) to choose from has been included. These should be entered, in addition to any site specific (etiologies organisms) which also fit the description.

NOTE: The Emerging Pathogen Primary Menu options are using VA FileMan screens displays, referred to as ScreenMan. For detailed instructions on how to use the screens displays please review the VA FileMan V. 21.0 User Manual, Section 6 ScreenMan.

```
                        Emerging Pathogen Primary Menu


   MAN    Emerging Pathogen Manual Run
   LK     Antimicrobial Link Update
   UP     Emerging Pathogens Parameter update

Select Emerging Pathogens (EPI) Primary menu Option: UP<Enter>  Emerging
Pathogens Parameter update

Select EMERGING PATHOGENS NAME: ?<Enter>
 Answer with EMERGING PATHOGENS NAME, or REFERENCE NUMBER
 Do you want the entire 14-Entry EMERGING PATHOGENS List? Y<Enter>  (Yes)
Choose from:
   CANDIDA
   CLOSTRIDIUM DIFFICILE
   CREUTZFELDT-JAKOB DISEASE
   CRYPTOSPORIDIUM
   DENGUE
   E. COLI 0157:H7
   HEPATITIS C ANTIBODY POS
   LEGIONELLA
   LEISHMANIASIS
   MALARIA
   PEN-RES PNEUMOCOCCUS
   STREPTOCOCCUS-GROUP A
   TUBERCULOSIS
   VANC-RES ENTEROCOCCUS

Select EMERGING PATHOGENS NAME:CAN<Enter>DIDA
```

NOTE: Please be consistent with site specific data spelling or alternate spelling to assure accurate EPI data capture.

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 1 of 4

NAME: Candida                                                    ACTIVE: YES
_____________________________________________________________________________

Serology Lab Test(s)              Indicator                            Value
<Enter>


ICDM-9                            ICDM-9 Description
<Enter>

_____________________________________________________________________________
Exit     Save     Next Page     Refresh

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

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 2 of 4

NAME: CANDIDA                                                    ACTIVE: YES
_____________________________________________________________________________
Selected Etiology
Examples:CANDIDA
         CANDIDA GUILLIERMONDII
         CANDIDA KRUSEI
         CANDIDA PARAPSILOSIS
         CANDIDA PSEUDOTROPICALIS
         CANDIDA SKIN TEST ANTIGEN
         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
```

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 3 of 4

NAME: Candida                                                    ACTIVE: YES
_____________________________________________________________________________

                           Topography Selection

Include                                  Exclude
Blood<Enter>                               <Enter>
Bloodstream<Enter>
Catheter Tip<Enter>
```

Note: These are only suggestions. Please add accordingly to your site definition.

```
_____________________________________________________________________________
Exit     Save     Next Page     Refresh

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

```
            EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 4 of 4

NAME: Candida                                                  ACTIVE: YES
_____________________________________________________________________________

Follow PTF: YES<Enter>                        Run Date: <Enter>

Run Cycle: MONTHLY<Enter>                     First Encounter:<Enter>

Protocol: LREPI<Enter>                        General Description: <Tab>
                                            Note: To review or
                                            edit the General
                                            Description use the
                                            <Enter> key instead of
                                            the <Tab> key.
_____________________________________________________________________________
Exit     Save     Refresh

COMMAND: E<Enter>                                Press <PF1>H for help   Insert
Save changes before leaving form (Y/N)?Y<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 + 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"). Any results contained in a "Comments" or "Free-text" sections 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 system. As long as the toxin assay results are in a retrievable format (straight from the V*ist*A system without additional manual input needed), how it is entered is not of significance to the EPI package.

NOTE: However, there are two preferred methods that makes it easy to capture the EPI data. Please reference the Appendix section of this guide for the two methods.

```
                        Emerging Pathogen Primary Menu

   MAN     Emerging Pathogen Manual Run
   LK      Antimicrobial Link Update
   UP      Emerging Pathogens Parameter update

Select Emerging Pathogens (EPI) Primary menu Option: UP<Enter>  Emerging
Pathogens Parameter update

Select EMERGING PATHOGENS NAME: ?<Enter>
 Answer with EMERGING PATHOGENS NAME, or REFERENCE NUMBER
 Do you want the entire 14-Entry EMERGING PATHOGENS List? Y<Enter>  (Yes)
Choose from:
   CANDIDA
   CLOSTRIDIUM DIFFICILE
   CREUTZFELDT-JAKOB DISEASE
   CRYPTOSPORIDIUM
   DENGUE
   E. COLI 0157:H7
   HEPATITIS C ANTIBODY POS
   LEGIONELLA
   LEISHMANIASIS
   MALARIA
   PEN-RES PNEUMOCOCCUS
   STREPTOCOCCUS GROUP A
   TUBERCULOSIS
   VANC-RES ENTEROCOCCUS

Select EMERGING PATHOGENS NAME: CLO<Enter>STRIDIUM DIFFICILE
```

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 1 of 4

NAME: CLOSTRIDIUM DIFFICILE                                  ACTIVE: YES
_____________________________________________________________________________

Serology Lab Test(s)                  Indicator                 Value
Clostridium<Enter> difficile toxin      Contains<Enter>
Pos<Enter>
```

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

```
ICDM-9                                ICDM-9 Description
<Enter>

_____________________________________________________________________________
Exit     Save     Next Page     Refresh

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

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 2 of 4
NAME: CLOSTRIDIUM DIFFICILE                                    ACTIVE: YES
_____________________________________________________________________________

Selected Etiology
Clostridium difficile toxin positive<Enter>
```

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

```
Antimicrobial Susceptibility          NLT Code       NLT Description
<Enter>

_____________________________________________________________________________
Exit     Save     Next Page     Refresh

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

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 3 of 4
NAME: CLOSTRIDIUM DIFFICILE                                    ACTIVE: YES
_____________________________________________________________________________

                           Topography Selection

Include                                        Exclude
<Enter>                                          <Enter>

_____________________________________________________________________________
Exit     Save     Next Page     Refresh

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

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 4 of 4
NAME: CLOSTRIDIUM DIFFICILE                                    ACTIVE: YES
_____________________________________________________________________________

Follow PTF: YES<Enter>                       Run Date: <Enter>

Run Cycle: MONTHLY<Enter>                    First Encounter:<Enter>

Protocol: LREPI<Enter>                       General Description: <Tab>
                                           Note: To review or
                                           edit the General
                                           Description use the
                                           <Enter> key instead of
                                           the <Tab> key.
_____________________________________________________________________________
Exit     Save     Refresh

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

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

Creutzfeldt-Jakob Disease (CJD*)* disease is a rare illness associated with prions. The VA has chosen to follow this entity because of historic problems with certain blood products in use in both the private and public health care sectors. The EPI 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, we will follow this entity through ICDM-9 coding.

```
                        Emerging Pathogen Primary Menu

   MAN     Emerging Pathogen Manual Run
   LK      Antimicrobial Link Update
   UP      Emerging Pathogens Parameter update

Select Emerging Pathogens (EPI) Primary menu Option: UP<Enter>  Emerging
Pathogens Parameter update

Select EMERGING PATHOGENS NAME: ?<Enter>
 Answer with EMERGING PATHOGENS NAME, or REFERENCE NUMBER
 Do you want the entire 14-Entry EMERGING PATHOGENS List? Y<Enter>  (Yes)
Choose from:
   CANDIDA
   CLOSTRIDIUM DIFFICILE
   CREUTZFELDT-JAKOB DISEASE
   CRYPTOSPORIDIUM
   DENGUE
   E. COLI 0157:H7
   HEPATITIS C ANTIBODY POS
   LEGIONELLA
   LEISHMANIASIS
   MALARIA
   PEN-RES PNEUMOCOCCUS
   STREPTOCOCCUS GROUP A
   TUBERCULOSIS
   VANC-RES ENTEROCOCCUS

Select EMERGING PATHOGENS NAME: CRE<Enter>UTZFELDT-JAKOB DISEASE
```

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 1 of 4
NAME: CREUTZFELDT-JAKOB DISEASE                                  ACTIVE: YES
_____________________________________________________________________________
Serology Lab Test(s)                  Indicator                        Value
<Enter>



ICDM-9                                ICDM-9 Description
046.1                                 JAKOB-CREUTZFELDT DIS
<Enter>

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

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 2 of 4
NAME: CREUTZFELDT-JAKOB DISEASE                                  ACTIVE: YES
_____________________________________________________________________________
Selected Etiology
<Enter>

Antimicrobial Susceptibility          NLT Code             NLT Description
<Enter>



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

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 3 of 4
NAME: CREUTZFELDT-JAKOB DISEASE                                  ACTIVE: YES
_____________________________________________________________________________

                            Topography Selection

Include                                     Exclude
<Enter>                                       <Enter>




_____________________________________________________________________________
Exit      Save      Next Page      Refresh

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

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 4 of 4
NAME: CREUTZFELDT-JAKOB DISEASE                                  ACTIVE: YES
_____________________________________________________________________________

Follow PTF: YES<Enter>                        Run Date: <Enter>

Run Cycle: MONTHLY<Enter>                     First Encounter: <Enter>

Protocol: LREPI<Enter>                        General Description: <Tab>
                                            Note: To review or
                                            edit the General
                                            Description use the
                                            <Enter> key instead of
                                            the <Tab> key.


_____________________________________________________________________________
Exit      Save      Refresh

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

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. We will utilize both microbiology laboratory data (parasitology for most laboratories), as well as ICDM-9 coding to track this disease as both are narrowly defined parameters.

NOTE: Microsporidiosis is a similar disease, but we do not currently wish to follow this disease process and Microsporidian etiologies should **not** be entered.

```
                        Emerging Pathogen Primary Menu


   MAN     Emerging Pathogen Manual Run
   LK      Antimicrobial Link Update
   UP      Emerging Pathogens Parameter update

Select Emerging Pathogens (EPI) Primary menu Option: UP<Enter>  Emerging
Pathogens Parameter update

Select EMERGING PATHOGENS NAME: ? <Enter>
 Answer with EMERGING PATHOGENS NAME, or REFERENCE NUMBER
 Do you want the entire 14-Entry EMERGING PATHOGENS List? Y<Enter>  (Yes)
Choose from:
   CANDIDA
   CLOSTRIDIUM DIFFICILE
   CREUTZFELDT-JAKOB DISEASE
   CRYPTOSPORIDIUM
   DENGUE
   E. COLI 0157:H7
   HEPATITIS C ANTIBODY POS
   LEGIONELLA
   LEISHMANIASIS
   MALARIA
   PEN-RES PNEUMOCOCCUS
   STREPTOCOCCUS GROUP A
   TUBERCULOSIS
   VANC-RES ENTEROCOCCUS

Select EMERGING PATHOGENS NAME: CRY<Enter>PTOSPORIDIUM
```

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 1 of 4
NAME: CRYPTOSPORIDIUM                                            ACTIVE: YES
_____________________________________________________________________________
Serology Lab Test(s)                        Indicator                   Value
<Enter>



ICDM-9                                      ICDM-9 Description
007.8                                       PROTOZOAL INTEST DIS N
<Enter>


_____________________________________________________________________________
Exit     Save     Next Page     Refresh

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

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 2 of 4
NAME: CRYPTOSPORIDIUM                                            ACTIVE: YES
_____________________________________________________________________________
Selected Etiology
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
```

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 3 of 4
NAME: CRYPTOSPORIDIUM                                          ACTIVE: YES
_____________________________________________________________________________

                            Topography Selection

Include                                     Exclude
<Enter>                                       <Enter>









_____________________________________________________________________________
Exit      Save      Next Page      Refresh

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

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 4 of 4
NAME: CRYPTOSPORIDIUM                                          ACTIVE: YES
_____________________________________________________________________________

Follow PTF: YES<Enter>                        Run Date: <Enter>

Run Cycle: MONTHLY<Enter>                     First Encounter: <Enter>

Protocol: LREPI<Enter>                        General Description: <Tab>
                                            Note: To review or
                                            edit the General
                                            Description use the
                                            <Enter> key instead of
                                            the <Tab> key.


_____________________________________________________________________________
Exit      Save      Refresh


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

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 endemnity expands, more cases are likely to occur. Because microbiologic culture is not routinely done and serology can be difficult to track, we will initially use ICDM-9 coded diagnoses to track this entity.

```
                        Emerging Pathogen Primary Menu


   MAN    Emerging Pathogen Manual Run
   LK     Antimicrobial Link Update
   UP     Emerging Pathogens Parameter update

Select Emerging Pathogens (EPI) Primary menu Option: UP<Enter>  Emerging
Pathogens Parameter update

Select EMERGING PATHOGENS NAME: ?<Enter>
 Answer with EMERGING PATHOGENS NAME, or REFERENCE NUMBER
 Do you want the entire 14-Entry EMERGING PATHOGENS List? Y<Enter>  (Yes)
Choose from:
   CANDIDA
   CLOSTRIDIUM DIFFICILE
   CREUTZFELDT-JAKOB DISEASE
   CRYPTOSPORIDIUM
   DENGUE
   E. COLI 0157:H7
   HEPATITIS C ANTIBODY POS
   LEGIONELLA
   LEISHMANIASIS
   MALARIA
   PEN-RES PNEUMOCOCCUS
   STREPTOCOCCUS GROUP A
   TUBERCULOSIS
   VANC-RES ENTEROCOCCUS

Select EMERGING PATHOGENS NAME: DEN<Enter>GUE
```

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 1 of 4
NAME: DENGUE                                                     ACTIVE: YES
_____________________________________________________________________________

Serology Lab Test(s)                  Indicator                Value
<Enter>



ICDM-9                                ICDM-9 Description
061.                                  DENGUE
065.4                                 MOSQUITO-BORNE HEM FEVER
<Enter>

_____________________________________________________________________________
Exit     Save     Next Page     Refresh

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

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 2 of 4
NAME: DENGUE                                                  ACTIVE: YES
_____________________________________________________________________________

Selected Etiology
<Enter>



Antimicrobial Susceptibility           NLT Code       NLT Description
<Enter>



_____________________________________________________________________________
Exit     Save     Next Page     Refresh

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

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 3 of 4
NAME: DENGUE                                                    ACTIVE: YES
_____________________________________________________________________________

                            Topography Selection

Include                                     Exclude
<Enter>                                       <Enter>









_____________________________________________________________________________
Exit      Save      Next Page      Refresh

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

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

              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 4 of 4
NAME: DENGUE                                                    ACTIVE: YES
_____________________________________________________________________________

Follow PTF: YES <Enter>                          Run Date: <Enter>

Run Cycle: MONTHLY <Enter>                       First Encounter: <Enter>

Protocol: LREPI<Enter>                         General Description: <Tab>
                                             Note: To review or
                                             edit the General
                                             Description use the
                                             <Enter> key instead of
                                             the <Tab> key.


_____________________________________________________________________________
Exit      Save      Refresh

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

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. Also, *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 section" or in "Free Text" 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.

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

```
                        Emerging Pathogen Primary Menu


   MAN    Emerging Pathogen Manual Run
   LK     Antimicrobial Link Update
   UP     Emerging Pathogens Parameter update

Select Emerging Pathogens (EPI) Primary menu Option: UP<Enter>  Emerging
Pathogens Parameter update

Select EMERGING PATHOGENS NAME: ?<Enter>
 Answer with EMERGING PATHOGENS NAME, or REFERENCE NUMBER
 Do you want the entire 14-Entry EMERGING PATHOGENS List? Y<Enter>    (Yes)
Choose from:
   CANDIDA
   CLOSTRIDIUM DIFFICILE
   CREUTZFELDT-JAKOB DISEASE
   CRYPTOSPORIDIUM
   DENGUE
   E. COLI 0157:H7
   HEPATITIS C ANTIBODY POS
   LEGIONELLA
   LEISHMANIASIS
   MALARIA
   PEN-RES PNEUMOCOCCUS
   STREPTOCOCCUS GROUP A
   TUBERCULOSIS
   VANC-RES ENTEROCOCCUS

Select EMERGING PATHOGENS NAME: E.<Enter>   COLI 0157:H7
```

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 1 of 4

NAME: E. COLI 0157:H7                                            ACTIVE: YES
_____________________________________________________________________________

Serology Lab Test(s)                  Indicator                        Value
<Enter>




ICDM-9                                 ICDM-9 Description
<Enter>

_____________________________________________________________________________
Exit     Save     Next Page     Refresh


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

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 2 of 4

NAME: E. COLI 0157:H7                                            ACTIVE: YES
_____________________________________________________________________________

Selected Etiology
Example: Escherichia coli O157<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    Insert
```

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 3 of 4

NAME: E. COLI 0157:H7                                            ACTIVE: YES
_____________________________________________________________________________

                            Topography Selection

Include                                          Exclude
<Enter>                                            <Enter>



_____________________________________________________________________________
Exit      Save      Next Page      Refresh


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

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 4 of 4

NAME: E. COLI 0157:H7                                            ACTIVE: YES
_____________________________________________________________________________

Follow PTF: YES<Enter>                          Run Date: <Enter>

Run Cycle: MONTHLY<Enter>                       First Encounter: <Enter>

Protocol: LREPI<Enter>                          General Description: <Tab>
                                               Note: To review or
                                               edit the General
                                               Description use the
                                               <Enter> key instead of
                                               the <Tab> key.


_____________________________________________________________________________
Exit      Save      Refresh

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

Hepatitis C Antibody Positive (Reference #2)

Hepatitis C is much more prevalent than originally thought at least in certain key patient sub-populations. As new and more sensitive assays come into use, we seem to find more evidence of this pathogen. We are looking for evidence of exposure to Hepatitis C in patients as demonstrated by Hepatitis C antibody positivity. The need for confirmatory testing or demonstration of active disease is not currently necessary in gathering data for this program. Different facilities may use different assays for this test. What we are looking for are 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”.

```
                        Emerging Pathogen Primary Menu


   MAN     Emerging Pathogen Manual Run
   LK      Antimicrobial Link Update
   UP      Emerging Pathogens Parameter update

Select Emerging Pathogens (EPI) Primary menu Option: UP<Enter>  Emerging
Pathogens Parameter update

Select EMERGING PATHOGENS NAME: ? <Enter>
 Answer with EMERGING PATHOGENS NAME, or REFERENCE NUMBER
 Do you want the entire 14-Entry EMERGING PATHOGENS List? Y<Enter>  (Yes)
Choose from:
   CANDIDA
   CLOSTRIDIUM DIFFICILE
   CREUTZFELDT-JAKOB DISEASE
   CRYPTOSPORIDIUM
   DENGUE
   E. COLI 0157:H7
   HEPATITIS C ANTIBODY POS
   LEGIONELLA
   LEISHMANIASIS
   MALARIA
   PEN-RES PNEUMOCOCCUS
   STREPTOCOCCUS GROUP A
   TUBERCULOSIS
   VANC-RES ENTEROCOCCUS

Select EMERGING PATHOGENS NAME: HEP<Enter>ATITIS C ANTIBODY POS
```

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 1 of 4
NAME: HEPATITIS C ANTIBODY POS                                   ACTIVE: YES
_____________________________________________________________________________

Serology Lab 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.


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

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

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 2 of 4
NAME: HEPATITIS C ANTIBODY POS                                   ACTIVE: YES
_____________________________________________________________________________

Selected Etiology
<Enter>



Antimicrobial Susceptibility          NLT Code       NLT Description
<Enter>



_____________________________________________________________________________
Exit     Save     Next Page     Refresh

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

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 3 of 4
NAME: HEPATITIS C ANTIBODY POS                                   ACTIVE: YES
_____________________________________________________________________________

                            Topography Selection

Include                                     Exclude
<Enter>                                       <Enter>









_____________________________________________________________________________
Exit      Save      Next Page      Refresh

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

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 4 of 4
NAME: HEPATITIS C ANTIBODY POS                                   ACTIVE: YES
_____________________________________________________________________________

Follow PTF: YES<Enter>                        Run Date: <Enter>

Run Cycle: MONTHLY<Enter>                     First Encounter: <Enter>

Protocol: LREPI<Enter>                        General Description: <Tab>
                                            Note: To review or
                                            edit the General
                                            Description use the
                                            <Enter> key instead of
                                            the <Tab> key.


_____________________________________________________________________________
Exit      Save      Refresh

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

Legionella (Reference #7)

Since the American Legion Convention in Philadelphia in the 1970's, Legionnaires' Disease has been an illness of keen interest to the DVA. Because diagnosis is complex, we have chosen to review for presence of *Legionella* in culture and in ICDM-9 DIAGNOSIS file (#80). We will not look at *Legionella* direct fluorescent antibody positivity because of the potential high false positivity of this test. Likewise, serology is not easy to interpret or easily extracted from V*IST*A 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.

```
                        Emerging Pathogen Primary Menu


   MAN     Emerging Pathogen Manual Run
   LK      Antimicrobial Link Update
   UP      Emerging Pathogens Parameter update

Select Emerging Pathogens (EPI) Primary menu Option: UP<Enter>  Emerging
Pathogens Parameter update

Select EMERGING PATHOGENS NAME: ? <Enter>
 Answer with EMERGING PATHOGENS NAME, or REFERENCE NUMBER
 Do you want the entire 14-Entry EMERGING PATHOGENS List? Y<Enter>  (Yes)
Choose from:
   CANDIDA
   CLOSTRIDIUM DIFFICILE
   CREUTZFELDT-JAKOB DISEASE
   CRYPTOSPORIDIUM
   DENGUE
   E. COLI 0157:H7
   HEPATITIS C ANTIBODY POS
   LEGIONELLA
   LEISHMANIASIS
   MALARIA
   PEN-RES PNEUMOCOCCUS
   STREPTOCOCCUS GROUP A
   TUBERCULOSIS
   VANC-RES ENTEROCOCCUS

Select EMERGING PATHOGENS NAME: LEG<Enter>IONELLA
```

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 1 of 4

NAME: LEGIONELLA                                                 ACTIVE: YES
_____________________________________________________________________________

Serology Lab Test(s)              Indicator                  Value
<Enter>



ICDM-9                            ICDM-9 Description
482.80                            LEGIONNARIE'S DISEASE
<Enter>

_____________________________________________________________________________
Exit     Save     Next Page     Refresh

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

```
EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 2 of 4

NAME: LEGIONELLA                                                 ACTIVE: YES
_____________________________________________________________________________

Selected Etiology
Examples:LEGIONELLA BOZEMANII
         LEGIONELLA DUMOFFII
         LEGIONELLA GORMANII
         LEGIONELLA JORDANIS
         LEGIONELLA LONGBEACHAE
         LEGIONELLA MICDADEI
         LEGIONELLA OAKRIDGENSIS
         LEGIONELLA PNEUMOPHILIA
         LEGIONELLA SP
         LEGIONELLA WADSWORTHII
<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
```

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 3 of 4
NAME: LEGIONELLA                                                 ACTIVE: YES
_____________________________________________________________________________

                            Topography Selection

Include                                          Exclude
<Enter>                                            <Enter>




_____________________________________________________________________________
Exit      Save      Next Page      Refresh

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

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 4 of 4
NAME: LEGIONELLA                                                 ACTIVE: YES
_____________________________________________________________________________

Follow PTF: YES<Enter>                           Run Date: <Enter>

Run Cycle: MONTHLY<Enter>                        First Encounter: <Enter>

Protocol: LREPI<Enter>                           General Description: <Tab>
                                               Note: To review or
                                               edit the General
                                               Description use the
                                               <Enter> key instead of
                                               the <Tab> key.

_____________________________________________________________________________
Exit      Save      Refresh

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

Leishmaniasis (Reference #14)

Leishmaniasis is a significant tropical disease which 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, straight-forward serology exists and no standard culture techniques exist, we have chosen to follow this entity through ICDM-9 diagnosis codes.

```
                        Emerging Pathogen Primary Menu


   MAN     Emerging Pathogen Manual Run
   LK      Antimicrobial Link Update
   UP      Emerging Pathogens Parameter update

Select Emerging Pathogens (EPI) Primary menu Option: UP<Enter>  Emerging
Pathogens Parameter update

Select EMERGING PATHOGENS NAME: ? <Enter>
 Answer with EMERGING PATHOGENS NAME, or REFERENCE NUMBER
 Do you want the entire 14-Entry EMERGING PATHOGENS List? Y<Enter>  (Yes)
Choose from:
   CANDIDA
   CLOSTRIDIUM DIFFICILE
   CREUTZFELDT-JAKOB DISEASE
   CRYPTOSPORIDIUM
   DENGUE
   E. COLI 0157:H7
   HEPATITIS C ANTIBODY POS
   LEGIONELLA
   LEISHMANIASIS
   MALARIA
   PEN-RES PNEUMOCOCCUS
   STREPTOCOCCUS GROUP A
   TUBERCULOSIS
   VANC-RES ENTEROCOCCUS

Select EMERGING PATHOGENS NAME: LEI<Enter>SHMANIASIS
```

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 1 of 4
NAME: LEISHMANIASIS                                              ACTIVE: YES
_____________________________________________________________________________
Serology Lab Test(s)                  Indicator                  Value
<Enter>



ICD9                                  ICD9 Description
085.0                                 VISCERAL LEISHMANIASIS
085.1                                 CUTAN LEISHMANIAS URBAN
085.2                                 CUTAN LEISHMANIAS ASIAN
085.3                                 CUTAN LEISHMANIAS ETHIOP
085.4                                 CUTAN LEISHMANIAS AMER
085.5                                 MUCOCUTAN LEISHMANIASIS
085.9                                 LEISHMANIASIS NOS
<Enter>
_____________________________________________________________________________
Exit     Save     Next Page     Refresh

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

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 2 of 4
NAME: LEISHMANIASIS                                              ACTIVE: YES
_____________________________________________________________________________
Selected Etiology
<Enter>



Antimicrobial Susceptibility          NLT Code       NLT Description
<Enter>



_____________________________________________________________________________
Exit     Save     Next Page     Refresh

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

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 3 of 4
NAME: LEISHMANIASIS                                              ACTIVE: YES
_____________________________________________________________________________

                            Topography Selection

Include                                     Exclude
<Enter>                                       <Enter>









_____________________________________________________________________________
Exit      Save      Next Page      Refresh

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

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

              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 4 of 4
NAME: LEISHMANIASIS                                              ACTIVE: YES
_____________________________________________________________________________

Follow PTF: YES<Enter>                          Run Date: <Enter>

Run Cycle: MONTHLY<Enter>                       First Encounter: <Enter>

Protocol: LREPI<Enter>                          General Description: <Tab>
                                              Note: To review or
                                              edit the General
                                              Description use the
                                              <Enter> key instead of
                                              the <Tab> key.
_____________________________________________________________________________
Exit      Save      Refresh

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

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, either acute or chronic, relapsing, and in either inpatient or outpatient status. No standardized serologic test allows for easy identification. Since not all sites consistently code and record malarial parasites seen histologically or on blood smears (not all of these interpretations are done through the Pathology and Laboratory Service), we have currently decided to track malaria based on ICDM-9 coding.

```
                        Emerging Pathogen Primary Menu


   MAN     Emerging Pathogen Manual Run
   LK      Antimicrobial Link Update
   UP      Emerging Pathogens Parameter update

Select Emerging Pathogens (EPI) Primary menu Option: UP<Enter>  Emerging
Pathogens Parameter update

Select EMERGING PATHOGENS NAME: ? <Enter>
 Answer with EMERGING PATHOGENS NAME, or REFERENCE NUMBER
 Do you want the entire 14-Entry EMERGING PATHOGENS List? Y<Enter>  (Yes)
Choose from:
   CANDIDA
   CLOSTRIDIUM DIFFICILE
   CREUTZFELDT-JAKOB DISEASE
   CRYPTOSPORIDIUM
   DENGUE
   E. COLI 0157:H7
   HEPATITIS C ANTIBODY POS
   LEGIONELLA
   LEISHMANIASIS
   MALARIA
   PEN-RES PNEUMOCOCCUS
   STREPTOCOCCUS GROUP A
   TUBERCULOSIS
   VANC-RES ENTEROCOCCUS

Select EMERGING PATHOGENS NAME: MAL<Enter>ARIA
```

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 1 of 4
NAME: MALARIA                                                  ACTIVE: YES
_____________________________________________________________________________
Serology Lab Test(s)                  Indicator                    Value
<Enter>



ICDM-9                      ICDM-9 Description
084.0                       FALCIPARUM MALARIA
084.1                       VIVAX MALARIA
084.2                       QUARTAN MALARIA
084.3                       OVALE MALARIA
084.4                       MALARIA NEC
084.5                       MIXED MALARIA
084.6                       MALARIA NOS
084.7                       INDUCED MALARIA
084.8                       BLACKWATER FEVER
084.9                       MALARIA COMPLICATED NEC
<Enter>
_____________________________________________________________________________
Exit     Save     Next Page     Refresh

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

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 2 of 4
NAME: MALARIA                                                  ACTIVE: YES
_____________________________________________________________________________
Selected Etiology
<Enter>



Antimicrobial Susceptibility          NLT Code       NLT Description
<Enter>




_____________________________________________________________________________
Exit     Save     Next Page     Refresh

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

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 3 of 4
NAME: MALARIA                                                  ACTIVE: YES
_____________________________________________________________________________

                            Topography Selection

Include                                     Exclude
<Enter>                                       <Enter>









_____________________________________________________________________________
Exit      Save      Next Page      Refresh

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

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 4 of 4
NAME: MALARIA                                                  ACTIVE: YES
_____________________________________________________________________________

Follow PTF: YES<Enter>                        Run Date: <Enter>

Run Cycle: MONTHLY<Enter>                     First Encounter: <Enter>

Protocol: LREPI<Enter>                        General Description: <Tab>
                                            Note: To review or
                                            edit the General
                                            Description use the
                                            <Enter> key instead of
                                            the <Tab> key.
_____________________________________________________________________________
Exit      Save      Refresh

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

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.

```
                        Emerging Pathogen Primary Menu


   MAN    Emerging Pathogen Manual Run
   LK     Antimicrobial Link Update
   UP     Emerging Pathogens Parameter update

Select Emerging Pathogens (EPI) Primary menu Option: UP<Enter>  Emerging
Pathogens Parameter update


Select EMERGING PATHOGENS NAME: ? <Enter>
 Answer with EMERGING PATHOGENS NAME, or REFERENCE NUMBER
 Do you want the entire 14-Entry EMERGING PATHOGENS List? Y<Enter>  (Yes)
Choose from:
   CANDIDA
   CLOSTRIDIUM DIFFICILE
   CREUTZFELDT-JAKOB DISEASE
   CRYPTOSPORIDIUM
   DENGUE
   E. COLI 0157:H7
   HEPATITIS C ANTIBODY POS
   LEGIONELLA
   LEISHMANIASIS
   MALARIA
   PEN-RES PNEUMOCOCCUS
   STREPTOCOCCUS GROUP A
   TUBERCULOSIS
   VANC-RES ENTEROCOCCUS


Select EMERGING PATHOGENS NAME: PEN<Enter>-RES PNEUMOCOCCUS
```

```
NAME: PEN-RES PNEUMOCOCCUS                                    ACTIVE: YES
_____________________________________________________________________________
Serology Lab Test(s)                  Indicator                       Value
<Enter>



ICDM-9                                ICDM-9 Description
<Enter>


_____________________________________________________________________________
Exit     Save     Next Page     Refresh

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

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 2 of 4
NAME: PEN-RES PNEUMOCOCCUS                                  ACTIVE: YES
_____________________________________________________________________________
Selected Etiology

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
```

```
EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN                    Page 3 of 4

NAME: PEN-RES PNEUMOCOCCUS                                        ACTIVE: YES
_____________________________________________________________________________

                          Topography Selection

Include                                          Exclude
<Enter>                                            <Enter>




_____________________________________________________________________________
Exit      Save      Next Page      Refresh

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

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 4 of 4

NAME: PEN-RES PNEUMOCOCCUS                                    ACTIVE: YES
_____________________________________________________________________________

Follow PTF: YES<Enter>                        Run Date: <Enter>

Run Cycle: MONTHLY<Enter>                     First Encounter: <Enter>

Protocol: LREPI<Enter>                        General Description: <Tab>
                                            Note: To review or
                                            edit the General
                                            Description use the
                                            <Enter> key instead of
                                            the <Tab> key.

_____________________________________________________________________________
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.

```
                        Emerging Pathogen Primary Menu


   MAN    Emerging Pathogen Manual Run
   LK     Antimicrobial Link Update
   UP     Emerging Pathogens Parameter update

Select Emerging Pathogens (EPI) Primary menu Option: UP<Enter>  Emerging
Pathogens Parameter update

Select EMERGING PATHOGENS NAME: ? <Enter>
 Answer with EMERGING PATHOGENS NAME, or REFERENCE NUMBER
 Do you want the entire 14-Entry EMERGING PATHOGENS List? Y<Enter>  (Yes)
Choose from:
   CANDIDA
   CLOSTRIDIUM DIFFICILE
   CREUTZFELDT-JAKOB DISEASE
   CRYPTOSPORIDIUM
   DENGUE
   E. COLI 0157:H7
   HEPATITIS C ANTIBODY POS
   LEGIONELLA
   LEISHMANIASIS
   MALARIA
   PEN-RES PNEUMOCOCCUS
   STREPTOCOCCUS-GROUP A
   TUBERCULOSIS
   VANC-RES ENTEROCOCCUS

Select EMERGING PATHOGENS NAME: STR<Enter>EPTOCOCCUS-GROUP A
```

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 1 of 4
NAME: STREPTOCOCCUS-GROUP A                                      ACTIVE: YES
_____________________________________________________________________________
Serology Lab Test(s)                  Indicator                  Value
<Enter>



ICDM-9                                ICDM-9 Description
<Enter>


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

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 2 of 4
NAME: STREPTOCOCCUS-GROUP A                                   ACTIVE: YES
_____________________________________________________________________________
Selected Etiology
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
```

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 3 of 4
NAME: STREPTOCOCCUS-GROUP A                                    ACTIVE: YES
_____________________________________________________________________________

                            Topography Selection

Include                                          Exclude
<Enter>                                            <Enter>




_____________________________________________________________________________
Exit      Save      Next Page      Refresh

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

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 4 of 4
NAME: STREPTOCOCCUS-GROUP A                                    ACTIVE: YES
_____________________________________________________________________________

Follow PTF: YES<<Enter>                          Run Date: <Enter>

Run Cycle: MONTHLY<Enter>                       First Encounter: <Enter>

Protocol: LREPI<Enter>                          General Description: <Tab>
                                               Note: To review or
                                               edit the General
                                               Description use the
                                               <Enter> key instead of
                                               the <Tab> key.

_____________________________________________________________________________
Exit      Save      Refresh

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

Tuberculosis (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 package. Information regarding susceptibility will be tracked as well. For the national EPI program, there will be no need to enter specific antimycobacterial agents to be tracked; it will be done automatically. ICDM-9 coding is complex and confusing for many cases of tuberculosis and therefore will **not** be used.

```
                        Emerging Pathogen Primary Menu


   MAN    Emerging Pathogen Manual Run
   LK     Antimicrobial Link Update
   UP     Emerging Pathogens Parameter update

Select Emerging Pathogens (EPI) Primary menu Option: UP<Enter>  Emerging
Pathogens Parameter update

Select EMERGING PATHOGENS NAME: ? <Enter>
 Answer with EMERGING PATHOGENS NAME, or REFERENCE NUMBER
 Do you want the entire 14-Entry EMERGING PATHOGENS List? Y<Enter>  (Yes)
Choose from:
   CANDIDA
   CLOSTRIDIUM DIFFICILE
   CREUTZFELDT-JAKOB DISEASE
   CRYPTOSPORIDIUM
   DENGUE
   E. COLI 0157:H7
   HEPATITIS C ANTIBODY POS
   LEGIONELLA
   LEISHMANIASIS
   MALARIA
   PEN-RES PNEUMOCOCCUS
   STREPTOCOCCUS-GROUP A
   TUBERCULOSIS
   VANC-RES ENTEROCOCCUS

Select EMERGING PATHOGENS NAME: TUB<Enter>ERCULOSIS
```

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 1 of 4
NAME: TUBERCULOSIS                                              ACTIVE: YES
_____________________________________________________________________________
Serology Lab Test(s)                  Indicator                 Value
<Enter>



ICDM-9                                ICDM-9 Description
<Enter>


_____________________________________________________________________________
Exit      Save      Next Page      Refresh

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

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 2 of 4
NAME: TUBERCULOSIS                                              ACTIVE: YES
_____________________________________________________________________________
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
```

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 3 of 4
NAME: TUBERCULOSIS                                               ACTIVE: YES
_____________________________________________________________________________

                            Topography Selection

Include                                          Exclude
<Enter>                                            <Enter>




_____________________________________________________________________________
Exit      Save      Next Page      Refresh

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

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 4 of 4
NAME: TUBERCULOSIS                                               ACTIVE: YES
_____________________________________________________________________________

Follow PTF: YES<Enter>                           Run Date: <Enter>

Run Cycle: MONTHLY<Enter>                        First Encounter: <Enter>

Protocol: LREPI<Enter>                           General Description: <Tab>
                                               Note: To review or
                                               edit the General
                                               Description use the
                                               <Enter> key instead of
                                               the <Tab> key.
_____________________________________________________________________________
Exit      Save      Refresh

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

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.

Note: This includes cultures positive for prevalence and surveillance review, including specimens of stool and rectal swabs.

Vancomycin-resistant *Enterococcus faecalis* and *E. faecium* are most common, but we wish to look at all vancomycin resistant enterococci whether speciated or not. Therefore, it is important to be sure to list all the places in the Micro Lab package where *Enterococcus* are found, either as *Enterococcus*, *E. (sp.),* Group D-*Streptococcus*, *E. faecalis*, *E. faecium*, *E. durans*, *E. gallinarum*, *E. casseliflavus*, etc.

NOTE: Only a partial pre-populated Etiology list is shown in the screen display example at the Selected Etiology prompt. Please be sure to review the entire Etiology list. If you have other etiology results at your site, they can be added to this Etiology list. Again, if alternate spellings are present in your site's ETIOLOGY FIELD file (#61.2), be certain those spellings assure capture of all data points possible.

```
                        Emerging Pathogen Primary Menu

   MAN    Emerging Pathogen Manual Run
   LK     Antimicrobial Link Update
   UP     Emerging Pathogens Parameter update

Select Emerging Pathogens (EPI) Primary menu Option: UP<Enter>  Emerging
Pathogens Parameter update

Select EMERGING PATHOGENS NAME: ? <Enter>
 Answer with EMERGING PATHOGENS NAME, or REFERENCE NUMBER
 Do you want the entire 14-Entry EMERGING PATHOGENS List? Y<Enter>  (Yes)
Choose from:
   CANDIDA
   CLOSTRIDIUM DIFFICILE
   CREUTZFELDT-JAKOB DISEASE
   CRYPTOSPORIDIUM
   DENGUE
   E. COLI 0157:H7
   HEPATITIS C ANTIBODY POS
   LEGIONELLA
   LEISHMANIASIS
   MALARIA
   PEN-RES PNEUMOCOCCUS
   STREPTOCOCCUS-GROUP A
   TUBERCULOSIS
   VANC-RES ENTEROCOCCUS

Select EMERGING PATHOGENS NAME: VANC<Enter>-RES ENTEROCOCCUS
```

```
EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN                  Page 1 of 4

NAME: VANC-RES ENTEROCOCCUS                                     ACTIVE: YES
_____________________________________________________________________________

Serology Lab Test(s)            Indicator                           Value
<Enter>




ICDM-9                           ICDM-9 Description
<Enter>


_____________________________________________________________________________
Exit     Save     Next Page     Refresh


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

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN    Page 2 of 4

NAME: VANC-RES ENTEROCOCCUS                                     ACTIVE: YES
_____________________________________________________________________________

Selected Etiology
Examples:Enterococcus
         Enterococcus  (Strept. faecalis-Group D)
         Streptococcus faecalis      Enterococcus durans
         Streptococcus faecium       Streptococcus sp. Group D
         Enterococcus avium
         Enterococcus avium - (Group D)
         Enterococcus casseliflavus
         Enterococcus faecalis
         Enterococcus gallinarum
         Enterococcus malodoratus    Enterococcus
         Enterococcus hirae          solitarius
         Enterococcus mundtii        Enterococcus
         Enterococcus raffinosus     pseudoavium
         Enterococcus sp.            Enterococcus faecium
         Enterococcus species        Enterococcus durans
<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
```

```
              EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 3 of 4
NAME: VANC-RES ENTEROCOCCUS                                      ACTIVE: YES
_____________________________________________________________________________

                           Topography Selection

Include                                    Exclude
<Enter>                                           <Enter>




_____________________________________________________________________________
Exit      Save      Next Page      Refresh

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

```
EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN                   Page 4 of 4
NAME: VANC-RES ENTEROCOCCUS                                      ACTIVE: YES
_____________________________________________________________________________

Follow PTF: YES<<Enter>                          Run Date: <Enter>

Run Cycle: MONTHLY<Enter>                        First Encounter: <Enter>

Protocol: LREPI<Enter>                           General Description: <Tab>
                                                 Note: To review or
                                                 edit the General
                                                 Description use the
                                                 <Enter> key instead of
                                                 the <Tab> key.
_____________________________________________________________________________
Exit      Save      Refresh

COMMAND: E<Enter>                                  Press <PF1>H for help    Insert
Save changes before leaving form (Y/N)?Y<Enter>
```

Conclusion

Once you have finished entering the information as directed by the national Infectious Diseases Program Office, these fields should **not** again be changed except for the following conditions:

1. As requested by the national EPI program office to either update, modify, add, or delete data from the existing files used by the EPI software or an addition of a new entity to be tracked.

2. At the yearly review to assure that the entry is acceptable and to update the EPI package with any changes in etiology, lab tests or results parameters which may have occurred locally at the site during the previous year.

Annually the EPI national package materials should be reviewed by the sites and updated. It is suggested that this review occur in February. If no changes have occurred in lab practices, etiologies, sites, or results parameters have occurred, leave the information as is until the next review period. If changes did occur, then enter them as appropriate in order to capture the data requested for each EPI national entity (disease/organism) to be tracked.

As entities (diseases/organisms) are no longer to be tracked nationally ("dropped from the list"), or a new entity is to be tracked ("added to the list"), revision will be forwarded to the sites to assist in updating your site files.

APPENDIX

Appendix

This section contains instructions for validating data captures, defining files, linking of data, examples of verification reports, tables, request forms and a Helpful Hint section.

Validation Of Data Capture

Sites will evaluate the EPI software program once it is implemented to assure that the software is accurately capturing VAHQ defined Emerging Pathogens.

Once the initial parameters update is completed, it is recommended that the Emerging Pathogen Manual Run option is run to evaluate 1-3 months of data (as determined by the sites). The Emerging Pathogens Verification Report is automatically generated, and should be compared with site specific records to assure optimal data capture of the Laboratory EPI program. This comparison will also help determine that site parameters for the EPI software has been accurately defined.

The Microbiology Laboratory staff, Laboratory Manager, TQI/QI/QA, or other person (as determined by the sites) may already have records of isolated "organisms of interest". Several of nationally defined EPI pathogens may well correspond to those lists, and can thus be quickly compared to the Emerging Pathogens Verification Report to ensure that cases and numbers are being appropriately captured by the EPI program (this helps to determine that the site parameters for the EPI software has been installed optimally.)

For tests such as Hepatitis C, most Laboratory Managers should be able to generate reports (with patient names) that includes "positive" tests results to use for comparison.

Additionally, the Health Information Management Section at each site should be able to generate a report of ICDM-9 Diagnoses by date. This ICDM-9 Diagnoses by date Report will help determine if the 14 VAHQ defined Emerging Pathogens data captures will concur with the 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 Emerging Pathogens do not occur at a high frequency. Sites with previously known cases of Emerging Pathogens, such as TB, should run the Emerging Pathogen Manual Update option for the month that the TB culture was isolated to see if it is captured. Additionally, “test patients” known to have these lab results can also be run.

The purpose of this validation is not to require extra paperwork of QI monitors and long term document files. The validation is to be done at initial setup and reviewed once every 4-6 months to assure that parameters remain entered appropriately, or to achieve parameter changes if a new lab test or result format is implemented for one of the EPI.

Emerging Pathogens Verification Report

Example:

```
Subj: Emerging Pathogens Verification Report  [#60004] Page 1
------------------------------------------------------------------------------

REPORTING DATE FROM  12-01-1996  TO  12-31-1996    Message Seq # 1  Auto


LABPATIENT, ONE 000-00-0001 07-07-1913    M   WORLD WAR II      45205
Outpatient  Accession Date  12-11-1996@1025

*********  STREPTOCOCCUS GROUP A  *********

12-11-1996@1025  BACT 96 10383  MICRO CULTURE  LEG
     1    12-13-1996   STREPTOCOCCUS BETA HEMOLYTIC, GROUP A
     2    12-13-1996   STAPHYLOCOCCUS (COAGULASE NEGATIVE)

ORG # 1  12-11-1996@1025  ANTIBIOTIC MIC  LEG

ORG # 2  12-11-1996@1025  ANTIBIOTIC MIC  LEG


LABPATIENT, TWO 000-00-0002    01-08-1923    M   WORLD WAR II      45239
Inpatient   Admission Date  12-19-1996@1125

*********4  CLOSTRIDIUM DIFFICILE *********
12-25-1996@1415  MSER 96 418  CHEMISTRY TEST  FECES

Clostridium Difficile Toxin  12-27-1996@1403
POSITIVE

LABPATIENT, THREE  000-00-0003    11-05-1910    M   WORLD WAR II      45255
Inpatient   Admission Date  12-03-1996@1908
            Discharge Date  12-09-1996@1151  Discharge Disposition  REGULAR

250.01         DIABETES MELLI W/0 COMP TYP I

276.8          HYPOPOTASSEMIA

427.31         ATRIAL FIBRILLATION

428.0          CONGESTIVE HEART FAILURE

482.30         PNEUM. UNSPEC. STREPTOCOCCUS

*********6  STREPTOCOCCUS GROUP A  *********

12-04-1996  BACT 96 10187  MICRO CULTURE  SPUTUM
     1    12-06-1996   STREPTOCOCCUS BETA HEMOLYTIC, GROUP A
     2    12-06-1996   STAPHYLOCOCCUS AUREUS

ORG # 1  12-04-1996  ANTIBIOTIC MIC  SPUTUM
```

Can be verified using standard result reviews for "CH" subscripted tests (e.g., LRRSP, LRRP3, LRSORD, LRSORA, LRGEN)

PTF data can be verified using several different PTF options:
DG PTF ICD DIAGNOSIS SEARCH
DG PTF SUMMARY DIAG/OP OUTPUT
DG PTF COMPREHENSIVE INQUIRY
(most require DGPTFSUP key)

```
ORG # 2  12-04-1996  ANTIBIOTIC MIC  SPUTUM
     Penicillin                    R
     Clindamycin                   S
     Vancomycin                    S
     TETRCLN                       S
     TRMSULF                       S
     Erythromycin                  S
     Oxacillin                     S
     Cephalothin                   S
     Ciprofloxacin                 S
     AMPICILLIN-SULBACTAM          S


LABPATIENT, FOUR  000-00-0004    02-23-1920    M   PRE-KOREAN      45150
Inpatient   Admission Date  11-18-1996@2213

*********8  CANDIDA  *********

12-11-1996@0100  BLD 96 3914  MICRO CULTURE  BLOOD
     1    12-15-1996   CANDIDA ALBICANS

ORG # 1  12-11-1996@0100  ANTIBIOTIC MIC  BLOOD


LABPATIENT, FIVE  000-00-0005    12-23-1949    M   VIETNAM ERA      45206
Outpatient  Accession Date  12-20-1996@1309

*********2  HEPATITIS C ANTIBODY POS  *********

12-20-1996@1309  RIA 1220 68  CHEMISTRY TEST  SERUM
     Hepatitis C Ab  01-03-1997@1347   STRONG POSITIVE    -


LABPATIENT, SIX  000-00-0006    07-06-1919    M   WORLD WAR II      41074
Outpatient  Accession Date  12-19-1996@1007

*********1  VANC-RES ENTEROCOCCUS  *********

12-19-1996@1007  BACT 96 10618  MICRO CULTURE  URINE
     1    12-23-1996   PSEUDOMONAS AERUGINOSA
     2    12-23-1996   ENTEROCOCCUS FAECIUM

ORG # 1  12-19-1996@1007  ANTIBIOTIC MIC  URINE
     Gentamicin                    S
     Cefazolin                     R
     Ampicillin                    R
     Tobramycin                    S
     TRMSULF                       R
     Amikacin                      S
     Cefoxitin                     R
     Cefotaxime                    I
     Nitrofurantoin                R
     Cefoperazone                  S
     Mezlocillin                   S
```

Microbiology subscripted organisms and susceptibilities can be reviewed using LRMIPSZ, LRMIPC, LRMIPLOG, LRGEN, LRRSP, and LRRP3.

Table of Reject and Warning Codes

Example:

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 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 Time	Must a valid time.	Message Creation Time is invalid.
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 alphanumeric. Must not be all numeric. Must not be all blanks.	Patient Name is missing, or not alphanumeric, or all numeric, or all blanks.

ERROR NUMBER	FIELD NAME	EDIT DESCRIPTION	ERROR MESSAGE
205	Patient Date of Birth	Not required. Must be less than the processing year.	Date of Birth is after the date of transmission. (see also 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'.
224	Patient Zip Code	Not required. Must be blank or numeric. If numeric, first five digits must not be all zeros. If last four digits exist, then must be numeric.	Address - Zip Code is missing or not numeric.
235	Social Security Number	Required. Last byte must be 'P' or blank.	Pseudo SSN is not 'P' or blank.
236	Social Security Number	Required. Must be numeric. Must be greater than zeros.	Social Security Number is missing, or not numeric, or is equal to zeros.
240	Patient Veteran Status	Must be a valid code. (Refer to table VA11)	Period of Service was invalid. (Refer to table VA11).
300 Series *OBR Segment*			
300	Universal Service ID	Must be a valid code. (Refer to table NLT)	Invalid Universal Service ID (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 Code (Refer to table (SPC). (see also 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).

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*			
600	Observation Nat Lab Num	If not blank, must be a valid code. (Refer to table NLT)	Invalid Observation Nat Lab Num (Refer to table NLT). (see also W09)
605	Final Result Date	Must be blank or a valid date. Must be numeric. Must be a less that or equal to processing date.	Final Result Date is invalid or after the date of transmission.
W00 Series			
Warnings			
W03	Patient Date of Birth	Must not be all spaces.	Patient Date of Birth is all spaces. (see also 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. (see also 205)
W07	Speciman Source Code	Blanks in code.	Speciman Source code is blank. (see also 310)
W09	Observation Nat Lab Num	Blanks in code.	Observation Nat Lab Num is blank. (see also 600)

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. The specific HL7 codes that **must** be added to 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 - Enter Or Edit File Entries option.

Example: How to Populate TOPOGRAPHY file (#61) with HL7 codes.

```
Select OPTION:    ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: TOPOGRAPHY FIELD// <Enter>
EDIT WHICH FIELD: ALL// .08  HL7 CODE
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 code from the left column:

ABS       ABCs
AMN       Amniotic fluid
ASP       Aspirate
BPH       Basophils
ABLD      Blood arterial
BBL       Blood bag
BON       Bone
BRTH      Breath
BRO       Bronchial
BRN       Burn
Enter RETURN to continue or '^' to exit: ^

HL7 CODE: AMN<Enter>
```

How to Link Antimicrobial Entries to Workload Codes Entries

The post INIT links as many of the ANTIMICROBIAL SUSCEPTIBILITY' file (#62.06) entries to the WKLD CODE file (#64) entries that are identified in your site files. However, the ANTIMICROBIAL SUSCEPTIBILITY' file (#62.06) entries that were **not** linked (i.e. no match found) to the WKLD CODE file (#64) entries by the post INIT will require linking. The Antimicrobial Link Update option contains the following three options that are used to identify and link the entries that were **not** linked by the post INIT.

AUTO: This option will identify and attempt to link any entries that are not currently linked.

Manual: This option can create or edit the links. Selection is by entry in the ANTIMICROBIAL SUSCEPTIBILITY file (#62.06).

Semi-Auto: This option looks for entries that are not currently linked and prompts the user to select the corresponding entry in the WKLD CODE file (#64).

Examples: Using the Antimicrobial Link Update option.

```
Select Emerging Pathogen Primary Menu<Enter>

   MAN    Emerging Pathogen Manual Run
   LK     Antimicrobial Link Update
   UP     Emerging Pathogens Parameter update

Select Emerging Pathogens (EPI) Primary menu Option: LK <Enter>  Antimicrobial
Link Update

This option will allow you to link file '62.06 ANTIMICROBIAL
SUSCEPTIBILITY' file with file '64 WKLD CODE.

     Select one of the following:

          A         AUTO
          M         MANUAL
          S         SEMI-AUTO
```

Example: How to add links using the AUTO option. This option will also display linked and non linked entries.

```
Enter response: A<Enter>UTO
AMIKACN                       <----Linked---->    Amikacin
AMPICLN                       <----Linked---->    Ampicillin
CLINDAM                       <----Linked---->    Clindamycin
POLYMYXIN B                   <----Not Linked---->No Match Found
RIFAMPIN                      <----Linked---->    Rifampin
```

Example: How to add and delete entries using the MANUAL option.

```
Enter response: M<Enter>ANUAL
Select ANTIMICROBIAL SUSCEPTIBILITY NAME: PENICLIN<Enter>          PENICILLIN
NATIONAL VA LAB CODE: Substance P// PEN<Enter>
     1   PENFIELD AND CONE STAIN          88010.0000
     2   PENICILLIN  Penicillin        81852.0000
     3   PENTAZOCINE  Pentazocine        81854.0000
     4   PENTOBARBITAL  Pentobarbital        81856.0000
CHOOSE 1-4: 2  Penicillin<Enter>
Select ANTIMICROBIAL SUSCEPTIBILITY NAME: VANCMCN<Enter>          VANCOMYCIN
NATIONAL VA LAB CODE: Shell Vial Technique// VANCOMYCIN<Enter>  Vancomycin
 81485.0000<Enter>
Select ANTIMICROBIAL SUSCEPTIBILITY NAME: Ampicillin/sulbactam<Enter>
Ampicillin/subalctam
NATIONAL VA LAB CODE: Ampicillin// @<Enter>
   SURE YOU WANT TO DELETE? Y  (Yes)<Enter>
Select ANTIMICROBIAL SUSCEPTIBILITY NAME:
```

Example: How to add entries using the SEMI-AUTO option

```
Enter response: S<Enter>EMI-AUTO

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>
```

Request Form

The following page contains a Request Form that may be reproduced and used for requesting additional Workload and Suffixes codes as needed by your site. Please submit the Request Form to the address located at bottom of form.

Additional Workload Codes and Workload Codes Suffixes Request Form

Site Name: _____ Site Number: _____ Date:_____

Contact Person: _____ Commercial Ph#: _____ Ext. ____
FTS Phone: _____ Ext. ____

Procedure Name _____ Lab Section _____
Abbreviations: _____

Procedure Name _____ Lab Section _____
Abbreviations: _____

Procedure Name _____ Lab Section _____
Abbreviations: _____

Procedure Name _____ Lab Section _____
Abbreviation: _____

Method: _____ Lab Section _____
Abbreviation: _____

Method: _____ Lab Section _____
Abbreviation: _____

Method: _____ Lab Section _____
Abbreviation: _____

Instrument Name: _____ Manufacturer's Name: _____

Instrument Name: _____ Manufacturer's Name: _____

Instrument Name: _____ Manufacturer's Name: _____

Instrument Name: _____ Manufacturer's Name: _____

Instrument Name: _____ Manufacturer's Name: _____

Submit Request Forms to:
Frank Stalling, P&LMS Informatics Manager
1901 North Highway 360, Suite 351
Grand Prairie, Texas 75050

Helpful Hints:

Screens Enter/Edits

The Emerging Pathogen Primary Menu options are using VA FileMan screens displays, referred to as ScreenMan. For detailed instructions on how to use the screens displays please review the VA FileMan V. 21.0 User Manual, Section 6 ScreenMan.

How to delete a entry.

Use the Return key to move the cursor. When the entry that is to be deleted is highlighted enter a "@" then press enter/return. You will then receive a deletion warning and asked if you are sure.

```
         EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 2 of 4

NAME: CANDIDA                                              ACTIVE: YES
_____________________________________________________________________________
Selected Etiology

CANDIDA PARAPSILOSIS <Tab>
CANDIDA PSEUDOTROPICALIS <Tab>
CANDIDA SKIN TEST ANTIGEN     @ <Enter>
CANDIDA STELLATOIDEA


Antimicrobial Susceptibility      NLT Code       NLT Description
<Tab>



_____________________________________________________________________________

_____________________________________________________________________________
Exit     Save     Next Page     Refresh

COMMAND:                                Press <PF1>H for help
WARNING: DELETIONS ARE DONE IMMEDIATELY!
          (EXITING WITHOUT SAVING WILL NOT RESTORE DELETED RECORDS.)
Are you sure you want to delete this entire Subrecord (Y/N)? y <Enter>
```

How to add a entry

Use the tab key to move the cursor and highlight a blank line were the entry is to be added.

```
        EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 2 of 4

NAME: CANDIDA                                              ACTIVE: YES
_____________________________________________________________________________
Selected Etiology
 CANDIDA
 CANDIDA GUILLIERMONDII
 CAN <Enter>

Antimicrobial Susceptibility      NLT Code       NLT Description
<Tab>



_____________________________________________________________________________

1       CAN  CANDIDA ALBICANS      4081
2       CANARYPOX VIRUS        3604
3       CANDICIDIN         7328
4       CANDIDA, NOS         4080
5       CANDIDA GUILLIERMONDII         4082
Choose 1-5 or '^' to quit: 1 <Enter>
```

```
        EMERGING PATHOGEN SITE PARAMETERS INPUT SCREEN     Page 2 of 4

NAME: CANDIDA                                              ACTIVE: YES
_____________________________________________________________________________
Selected Etiology
 CANDIDA GUILLIERMONDII
 CANDIDA KRUSEI
 CANDIDA ALBICANS       <- The entry will appear after answering yes
                           to the adding a new ETIOLOGY prompt.
Antimicrobial Susceptibility      NLT Code       NLT Description
<Tab>



_____________________________________________________________________________

CAN  CANDIDA ALBICANS
  Are you adding 'CANDIDA ALBICANS' as a new ETIOLOGY? Y <Enter>
```

Clostridium difficile

There are two preferred methods for the Laboratory EPI patch that may make it easy to capture for the EPI data, as well as several other methods which site may already employ. As long as the designated parameter result to be obtained is in a. retrievable field and not a free text or comment field, the method the site chooses is an individual decision.

One of two preferred methods, would be to have a site etiology of **"Clostridium difficile toxin positive"**. This would allow a topography specimen of accession area **"feces/stool"** to be accessioned through the Microbiology accession area. Then, if the stool specimen was 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 would require sites to enter three new local etiologies:

1) **Clostridium difficile toxin positive**
2) **Clostridium difficile toxin negative**
3) **Clostridium difficile toxin indeterminant**

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 then leaves the etiology of *Clostridium difficile* for actual culture positive specimens for the organism *Clostridium difficile*. Then at the EPI parameter update, the site parameter by which the EPI program 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.

A second preferred method of 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 program to search in the chemistry/serology format. The result would be retrievable for the EPI package 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 package, "positive" or "negative" results cannot be located in a free text or comments section as these are not retrievable.

Some VAs accession the stool specimen for the *Clostridium difficile* toxin assay under 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 package.

Some VAs still use cytotoxin assays of cell culture which are again entered as free text or under the comments section. 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 VAs choose to report *Clostridium difficile* toxin assay positivity under the Microbiology package, 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.

EPI Mail Groups Assignments

Two mail groups have been determined for the Emerging Pathogens Initiative program. The EPI mail group and the EPI-Report mail group. The EPI mail group is a national mail group and will serve as the communication for the EPI patch between the local site and the and the Austin Automation Center. The EPI Report mail group is a local site mail group to receive verification reports and other information as directed. Additionally, one individual/function at site should be responsible for the EPI mail group, but the EPI-Report mail group may contain one or several individual/function, of which the EPI mail group individual(s) function(s) will most likely be a member.

Office of the Director (00)

The Office of the Director (00) will be the initial individual/function to whom the EPI mail and EPI-Report mail groups will be directed. The Office of the Director at each site will then determine responsible individual(s)/function(s) for the mail groups. The following are explanations of the functions of each of these two mail groups, with suggestions as to which site individual(s)/function(s) may be appropriate to consider for membership of these groups. Other individual(s)/ function(s) may desire access to this at site for assuring that the EPI information is collected and transmitted properly.

EPI mail group

The function of the EPI mail group is to transmit the site message (in HL7 format as defined by the EPI patch) to the Austin Automation Center. Additionally, this mail group will receive confirmation messages from Austin Automation Center that the report has been received and a receipt verification number which should be kept for future reference. Further, if the message has an error or is unacceptable to be received at the Austin Automation Center, an error message or messages will be sent to the EPI mail group individual/function at the site to attend or to corrections before re-transmittal of the message. Once the corrections are made, it will be the responsibility of the EPI mail group individual(s)/function(s) at site to retransmit the data to the Austin Automation Center. Because the information being collected and transmitted is being obtained from numerous different areas/functions/services (Patient Treatment Files, Medical Administration Service, Health Information Management Section, Laboratory, IRM, etc.) it is recommended that a TQI/QI/QA staff (or person with similar function at site) be the responsible party for this function.

EPI-Report mail group

The function of the EPI-Report mail group is to receive the site message (formatted from the HL7 message into a more readable format.) The EPI-Report mail group is composed of those who will receive this local site Emerging Pathogens Verification Report from the automatic monthly runs and from manual runs (and reruns if necessary). Again, this report is the Emerging Pathogens Verification Report, and is used to assist in verification as previously described (see the Appendix section of this guide). Obviously, the individual(s)/function(s) designated to be responsible for the transmission of the data to the Austin Automation Center (i.e. EPI mail group) should be contained within this mail group because of the more easily readable format in which the report is generated. However, others on site, may also be appropriate to receive this data, such as Laboratory Information Manager, Microbiology director or supervisor, Infection Control Practitioners, or Hospital Epidemiologist. These individuals should all be considered to be included in this mail group as they may derive benefit from the local report, but further, they may be of assistance with verification or with the periodic validation (see the Appendix section for example of the verification report), as deemed appropriate by site. Be aware that validation and verification are two different processes.

Transmitting a Message to Austin

On or about the 15th of the month the EPI package will produce two mail messages. Both messages are comprised of the same data , the only difference being the format of the data. In the verification report portions of the data has been extracted from the HL7 message. Use the verification message to insure the accuracy of the data that will be sent to Austin. If the extracted data is incorrect make the corrections and rerun the Search/Extract using the "Emerging Pathogen Manual Run" option to build the messages again. When satisfied with the report transmit the HL7 Message to Austin Automation Center (AAC). **Do not** transmit the verification report. The HL7 messages need to be sent to Austin by the 25th of the month. Once the message has been received by Austin a confirmation message will be returned indicating that they have received the message. At the end of the cycle Austin will process the messages and transmit a processing report back confirming the data and/or listing any error/warning codes.

To transmit the HL7 message forward the message to XXX@Q-EPI.

Example:

```
Subj: HL7 Message FEB 10,1997@15:56:29 from Station XXX STATION XXX  [#63430]
10 Feb 97 15:56  262 Lines
From: POSTMASTER (Sender: ANYBODY)  in 'IN' basket.   Page 1
---------------------------------------------------------------------------

MSH|~^\&|EPI-LAB||EPI-LAB||19970210155618||ORU~R01|483|P|2.2|||NE|NE|USA

NTE||R~REPORTING DATE FROM 19960101 TO 19970131~1

PID|1|000-00-0007~4~M10|17~8~M10||LABPATIENT, SEVEN||19840426|M||7|~|||||||064543435

PV1|1|O|||||||||||||||||||||||||||||||||||||||||19960312123902

NTE|1|1~VANC-RES ENTEROCOCCUS

OBR|1|||81121.0000~CHEMISTRY TEST~VANLT|||19960312123902|||||||SER~~SERUM|||CH
 0312 14

OBX|1|ST|~~~183~CHOLESTEROL~VA60||190|mg/dL|$S(AGE<50:135,1:120)-288|||||||1996
0328145221
Enter RETURN to continue or '^' to exit: ^<Enter>

Select MESSAGE Action: IGNORE (IN basket)// FORWARD<Enter>

Send mail to: XXX@Q-EPI <Enter>.MED.VA.GOV    via FOC-AUSTIN.VA.GOV
And send to: <Enter>.
Mail forwarded
```

EPI Processing Report

```
Subj: EPI/LRK #970451447950300  [#1425971] 14 Feb 97 14:55 CST  50 Lines
From: <POSTMASTER@FOC-AUSTIN.VA.GOV>  in 'IN' basket.   Page 1  **NEW**
------------------------------------------------------------------------------

2EPI0001 LRK.
 STATION  XXX         EPI PROCESSING REPORT      REPORT DATE  1997/02/11
PAGE 01

  PROCESS DATE    SSN       ENCOUNTER DATE   MESSAGE  ERROR CODES
    19970131   000000190    19970131132151     001     NO ERRORS
    19970131   000466370    19961002160512     001     500
    19970131   000225556    19970121121609     001     NO ERRORS
    19970131   000368799    19961229043131     001     NO ERRORS
    19970131   000187860    19960917165748     001     NO ERRORS
    19970131   000267678    19970131125821     001     NO ERRORS
    19970131   000385860    19961230185116     001     NO ERRORS
    19970131   000385860    19970107162010     001     NO ERRORS
    19970131   000684002    19970109103417     001     NO ERRORS
    19970131   000501279    19970128090146     001     NO ERRORS
    19970131   000549144    19970108132918     001     NO ERRORS
    19970131   000302298    19970108082142     001     NO ERRORS
    19970131   000345601    19970113114752     001     NO ERRORS
    19970131   000166277    19970122095702     001     NO ERRORS
    19970131   000541525    19970106225241     001     NO ERRORS
    19970131   000328446    19970114143128     001     NO ERRORS
    19970131   000425965    19970131105820     001     NO ERRORS
    19970131   000205512    19960607174229     001     NO ERRORS
    19970131   000384641    19970114082310     001     NO ERRORS
    19970131   000185119    19960220155121     001     NO ERRORS
    19970131   000609042    19970129172826     001     NO ERRORS
    19970131   000364130    199701141902       001     NO ERRORS
    19970131   000565414    19961011133221     001     500
    19970131   000749494    19970123203635     001     NO ERRORS
    19970131   000461267    19970121115616     001     NO ERRORS
    19970131   000769911    19970115085841     001     NO ERRORS
    19970131   000783854    19970118162650     001     NO ERRORS
    19970131   000387083    19961028154210     001     NO ERRORS
    19970131   000061089    19961115111612     001     NO ERRORS
    19970131   000376819    19970126001019     001     NO ERRORS
    19970131   000376819    19970126003234     001     NO ERRORS
    19970131   000701169    19970121162629     001     NO ERRORS
```