RESOURCE AND PATIENT MANAGEMENT SYSTEM

Laboratory

(LR)

Technical Manual

Version 5.2
December 1997

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About This Manual

The Laboratory Package/PCC Link technical manual has been written for Site Managers, Laboratory Implementation Coordinators, and other IRM staff who are responsible for implementing and maintaining the VA Laboratory Package, Version 5.2. The Information Systems Development staff at the Indian Health Service (IHS) has developed a link between the VA Laboratory Package, Version 5.2, and the Patient Care Component (PCC) of the IHS Resource and Patient Management System (RPMS). This link allows for data entered into the Laboratory Package to pass to the PCC automatically, thereby enriching the information stored in the central repository of the RPMS. This technical manual provides instructions for the setup and maintenance of the Laboratory/PCC Link, as well as detailed information on the passage of data from the Lab package to the PCC for both clinical and billing purposes.

Throughout this manual, sample computer dialogs are included to illustrate the performance of various steps. Within these dialogs, computer-generated text appears in courier type, similar to the type that displays on the computer terminal. User responses appear in bold, block type (see the sample below).

In many instances, the user is required to press the RETURN key for accepting default values and entering data. This key may be labeled on your keyboard as the ENTER key. Within the sample computer dialogs that appear in this manual, the RETURN key will be indicated as: <RETURN> (see the sample below).

Sample Computer Dialog

```
KEYWORD-DRIVEN LOOKUP UTILITY (3.51)
SELLS HOSPITAL/CLINIC

  DL   ICD-9 Dx Lookup
  PL   ICD-9 Procedure Lookup
  CL   CPT Procedure Lookup

Select ICD-9 Auto-Coding System Option: DL  ICD-9 Dx Lookup

NARRATIVE: DIABETES MELLITUS

250.00 (DM UNCOMPL/T-II/NIDDM,NS UNCON)
DIABETES MELLITUS WITHOUT MENTION OF COMPLICATION/TYPE II/NON-INSULIN
DEPENDENT/ADULT-ONSET,OR UNSPECIFIED TYPE,NOT STATED AS UNCONTROLLED

 OK? Y// <RETURN>
```

If you have any questions about this system or manual, please contact:

If you have any questions or comments regarding this distribution, please contact the OIT Help Desk (IHS).

Phone: (505) 248-4371 or (888) 830-7280 (toll free)

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Email: support@ihs.gov

1.0   Introduction

The IHS Resource and Patient Management System utilizes a central repository of data that has been entered into the system via the various packages that encompass the system. This repository, the Patient Care Component (PCC), stores data from the many different packages in use at each facility. The passage of data from various packages to the PCC occurs via links and typically occurs automatically in the background. The most recent version of the Laboratory Package (Version 5.1) allowed tests from only one module, CH subscribed tests, to pass from the Lab system to the PCC. As a result, only this data was accessible to PCC users who did not have access to the Laboratory Package. Individual tests only, not panels, passed to the PCC. For example, if results for a CBC panel were entered into the Laboratory package, only the results for the individual tests included in this panel—WBC, RBC, etc.—passed to the PCC. In this instance, providers could not search the database for the CBC panel; they could only search for the individual tests within the panel.

The Laboratory package, Version 5.2, received from the Veterans Administration (VA) has been modified by the Indian Health Service to support the additional functionality of passing data to the PCC. The VA Lab package routines and functionality have not been modified to any great degree, thus keeping all data dictionaries the same and minimizing routines. Where appropriate, IHS modifications necessary for passing data from the Laboratory package to the PCC are addressed through calls to the BLR namespace. By minimizing modifications to the VA package, future Laboratory package releases from the VA will be easily adaptable to utilize the IHS-developed link with the PCC. Each modification of a VA LR namespaced routine has been identified according to the IHS Standards and Conventions guidelines. Whenever possible within the MUMPS code, the VA line that has changed is first copied and prefixed with a semicolon for review purposes.

1.1   MAS Issues

The VA Laboratory package, Version 5.2, requires the Medical Administration Service (MAS) Version 5.3. The routines furnished by the VA reference Version 5.0 of MAS; however, IHS is not utilizing either of these releases. To address this issue, all references in the LR 5.2 routines to VADPT* have been modified to call BLRDPT*. Although the VADPT* routines have been renamed to BLRDPT*, the variables within the called routines remain namespaced VA*.

2.0   System Requirements

In order to implement the link between the Laboratory package, Version 5.2 and the PCC, a number of new files, patches, and data dictionary changes are required.

During the installation of the Laboratory package, either as a first-time installation or an upgrade, six new files are established, as follows.

IHS Lab Transaction Log file (9009022): This file serves as a holding place for all laboratory data that will potentially be passed to the PCC. The data populating this file may come either from the IHS Laboratory package or via an interface with a commercial laboratory package. A transaction is initiated at the time a laboratory order is placed and its status is subsequently updated to accessioned, resulted, or deleted, depending upon activity initiated from the Laboratory package.

IHS Lab CPT Code file (9009021): This file defines the CPT codes, modifiers, and qualifiers, as applicable to those codes, for individual tests and panels of tests that each facility has defined as billable within their system.

IHS Lab CPT Review Code file (9009021.1): This file defines those codes that the laboratory and billing offices have identified as signals for manual review to ensure correct billing. The entry of one of these codes in the appropriate field of the IHS Lab CPT Review Code file will ensure passage of this code to the PCC. For example, a review code of MI could be identified as a signal to the billing office to manually review a V MICRO entry for additional billing associated with identification of an organism and the performance of an antimicrobial susceptibility panel.

IHS Lab CPT Action Code file (9009021.2): This file contains the action code routine to adjust the CPT codes based on any activities performed by the laboratory. For example, if an automated CBC and a manual differential are performed, the routine identifies the combination of CPT codes 85027 and 85007 and automatically passes the CPT code, 85023, for billing.

BLR Lock file (9009023): This file is used only as a lock to ensure that only one link job can be running at a time.

IHS LAB V Conversion file (9009028.1): This file contains the entries used to set pointers from tests in the PCC V Lab file to the entries in File 60 (Laboratory Test file) supplied in a new installation of the Laboratory package.

BLR Master Control file (9009029): This file contains the fields necessary for implementing the link between the Laboratory package and the PCC. Each site for which the laboratory performs testing must have an entry in this file. Fields must be set for each site to define whether laboratory data is passed into the transaction log and whether data in the transaction log is passed to the PCC.

2.1   PCC Changes

In order to implement the Laboratory/PCC Link, the PCC must have redefined fields for V LAB and new files for V Micro and V Blood Bank for the laboratory data to populate. These files and fields are established with the installation of AUPN Version 93.2, patch 6. The BLR Master Control file must not be set for Transaction to PCC unless this patch has been installed. Directions for installation are included in the Laboratory package Version 5.2 Installation Guide.

2.2   Health Summary Changes

The Health Summary has been modified to display the laboratory data passed to PCC via the Laboratory/PCC link in a more readable format. Panel as well as component tests are differentiated with dates of tests, results, flags, units, and status. This modification to the Health Summary is included in Version 2.0 of APCH.

2.3   Billing

Version 2.0 of the IHS Third Party Billing package contains the routines created to capture the CPT codes and other billing data passed to PCC from the Laboratory package.

3.0   Overview of the Laboratory/PCC Link

The primary functionality provided in the BLR namespace is the passing of data from the Laboratory Package into the Patient Care Component (PCC). Both clinical and administrative (billing) data is passed in the routines with this namespace.

The BLR files and routines act as a temporary interface between any legacy Laboratory package and the IHS RPMS PCC. In Laboratory Package Versions 5.1 and lower, data could be passed from the Laboratory package into the PCC whenever a result was verified. This process utilized class III software, referred to as the ALRHOOK package. Only tests with results from the CH subscript module passed to the PCC. ALRHOOK did not address panels or data from the microbiology, blood bank, or pathology modules.

In order to ensure the functionality of the laboratory package and the Laboratory /PCC Link, all locally modified Laboratory menus must include the entry and exit actions defined for the original DHCP LRMENU.

3.1   Passing Clinical Data

Most data generated in the Laboratory package Version 5.2 is passed into the IHS Lab Transaction Log file. The BLR component of the Laboratory package allows data to be passed subsequently from the Transaction Log file to the PCC, as described below.

Data from all tests and panels from the CH subscript module (e.g., Chemistry, Hematology, Serology, etc.) is passed to the Transaction Log file. The original transaction is passed to the PCC at the time of the test order and the status is subsequently updated to accessioned and resulted when these events occur. If the lab test is a panel, data from both the panel and its component tests is passed. The passing of this data into the Transaction Log occurs without user intervention. In addition, the Transaction Log file has been designed to allow data from other commercial lab packages to be accepted. Once the data is reviewed and verified, it will pass from the Transaction Log file into the PCC without user intervention, in the same way as data from the RPMS Lab 5.2 package.

An enhancement to the Lab/PCC Link is the ability to pass MI (Microbiology) subscripted test data into the IHS Lab Transaction Log file. Unlike test data from the CH subscript module, Microbiology data is only passed to PCC when the test results have been verified in the laboratory. In addition, the Transaction Log file has been designed to allow data from other commercial lab packages to be accepted. Once the data is reviewed and verified, it will pass into the PCC without user intervention.

Limited BB (Blood Bank) subscripted lab test data is passed into the IHS Lab Transaction Log file. Again, the passage of data into the Transaction Log occurs without user intervention after initial file setup. The Transaction Log file has been designed to allow data from other commercial lab packages to be accepted. Once the data is reviewed and verified, it passes into the PCC without user intervention.

Several sites are running the ALRHOOK interface between PCC and the Laboratory package, Version 5.1. To assure backward compatibility, the BLR interface maintains the same file structure as ALRHOOK. CH subscripted data is stored in the V Lab file. The BLR link uses a V Micro file to hold microbiology data and a V Blood Bank file to hold blood bank data. The installation of AUPN patch 6 adds the new fields for V LAB, V MICRO, and V Blood Bank files, along with the appropriate templates.

3.2   Rules for Passing Clinical Data

To determine whether data from the Laboratory package, Version 5.2, is passed to the PCC, the following rules apply:

1. An entry must exist in the BLR Master Control file for each institution that passes data into the Transaction Log file. If the BLR Master Control file entry has the IHS LAB LOG TRANSACTION field set to 1 (yes), then data is passed from the Lab package into the Transaction Log file. At this point, data exists only in the Transaction Log file and is not passed to the PCC. If no entry exists in the BLR Master Control file for an institution/ division managed by the facility, lab data for that particular institution/division will not pass into the Transaction Log. The lack of an entry for an institution in the BLR Master Control file will result in a bulletin noting that a BLR cross-reference could not be set.

2. If the BLR Master Control file has the LAB LOG TO PCC field set to 1 (yes), then data is passed from the Transaction Log file into the appropriate PCC V file under the following conditions:

   • Laboratory Service must be added as a new package to the PCC Master Control file if this is a first-time installation. The PASS DATA TO PCC field must be set to 1 (yes) in order for data to be passed from the Laboratory package to the PCC.

   • An entry must exist in the PCC Master Control file for each institution from which the PCC will be accepting data. If an institution is not entered into the PCC Master Control file, data will not pass to the PCC.

- If this is an upgrade installation, there may be a series of numerical entries separated by "~" in the PACKAGE FLAG field of the PCC Master Control file. The first number of the entry in this field determines if the institution is an outpatient facility or both an inpatient and an outpatient facility. The number 0 indicates that this is an outpatient facility; the number 1 indicates that this is both an inpatient and outpatient facility. If this is a first-time installation, the entry must be set appropriately for the site. No entry is needed in the field, Don't Display Link Messages.

- If the VA Patient file has an entry in the WARD LOCATION field, then the patient is considered an inpatient. If the patient is identified as an inpatient by virtue of an entry in this field and the PCC Master Control file indicates that the lab ordering institution is only an outpatient facility, then data is not passed to the PCC.

- The institution or division of the user who is logged onto the Lab system and the   location of the patient for whom laboratory work is being ordered determine whether data will be passed to the PCC. If the INSTITUTION field in the Hospital Location file has no entry, the institution of the user who is logged onto the Lab system is used as the default and data is passed to the PCC. If both the user's institution and the institution defined under the hospital location of the patient match, and the above rules regarding the Master Control file apply, the data is passed to the PCC. Note that a laboratorian may be logged onto a computer at a different institution for ordering laboratory tests. If the INSTITUTION field of the ordering location is different from the institution of the logged on user, no data will be transmitted to the PCC. In a multi-divisional environment, a user may be logged into a separate institution and order tests for patients at locations within this institution. Data will be passed into the PCC for the institution where the order occurred. This process enables a single laboratory to act as a referral laboratory for multiple institutions.

Please refer to the Laboratory Installation manual for examples on setting up the BLR Master Control file entries. Note that there are two separate sections of the installation manual, depending on whether your facility was running a previous version of the Laboratory package. Be sure that you are referring to the correct section of the manual when setting up the BLR Master Control entries.

- First Time Installation
- Upgrade from Version 5.1

3.3   Rules for Passing Administrative/Billing Data

In order for the PCC to accept CPT data that is passed from the Laboratory package, Version 5.2, the conditions detailed in the previous section (Passing Clinical Data) must be met. In addition, the following rules apply to obtaining CPT data for a lab order.

1. An entry must exist in the IHS Lab CPT file for each billable panel or test associated with the lab order. The entry must identify the associated panel or test. One or more IHS Lab CPT file entries may contain the panel or test.

2. The first entry matching the test name in the IHS Lab CPT file that identifies the panel or test must be active. In other words, the INACTIVATE FLAG field must not equal 1 (yes). The first entry matched must also contain a null value or a date and time less than the lab ordering date in the DATE/TIME ACTIVE field. If both of these conditions are met, the CPT data is passed to the PCC.

3. In the event that a panel is ordered, the tests associated with the panel do not receive CPT data. Only the panel entry in the PCC contains CPT data because all tests reside within the panel.

4. In the event that an individual test is ordered, that PCC entry will receive CPT data; therefore, individual tests ordered also need to be defined in the IHS Lab CPT file.

5. If a panel is added to a given accession through the Lab system option, Add Test to Given Accession, the panel will change to individual tests at the time of order if results have not been verified for the original test. As a result of this process, the PCC will recognize only the individual tests, not the panel. If a panel is added to an accession after the results have been verified for the original accession, the panel is added as a complete entity. This is an important issue for billing purposes as in most cases many of the individual tests of a panel are not billable; for example, MCV, urine mucus, and anion gap. This issue should be considered during file setup and staff training.

6. When an MI subscripted order is placed, the initial order passes to the IHS Lab Transaction Log file. The PCC is updated at the initial order time. Microbiology data is not updated again in the PCC until the laboratorian completes the microbiology order/ accession and assigns a final date. At the final report time, the result data and the CPT data, if available, pass to the PCC. The data is placed in a new V Micro file. At present, PCC Management reports, Q-Man queries, and health summaries do not display data from this file.

7. When a blood bank subscripted order is placed, the initial order passes to the IHS Lab Transaction Log file. The PCC is updated at the initial order time. Blood bank data is not updated again in the PCC until the laboratorian completes the order/accession and assigns a final date. At the final report time, the result data and the CPT data, if available, pass to the PCC.

8. Facilities utilizing Multi-Facility Integration (MFI) should consult the Laboratory package development team to determine the proper setup of the BLR Master Control file and the PCC Master Control file.

If the Laboratory package, Version 5.2, was a first-time installation at your facility, the data in Appendix A, Table of 1997 IHS Lab CPT Codes, was entered into the IHS Lab CPT file at the time of installation. This data should be reviewed and edited to match the tests and methodologies used at each site. Sites that are upgrading from Version 5.1 to 5.2 will not have any data in the file so will need to manually populate the file.

4.0   Setup and Management of the Laboratory/PCC Link

This section of the manual provides instructions on using the Main Menu Utilities available in the BLR system for setting up and managing the Laboratory/PCC Link. These utilities include functions to update site parameters for the system; edit the CPT, Action, and Review Code files; and inquire about a specific transaction in the Transaction Log file. Instructions are also provided here for procedures that are required upon initial implementation of the link.

> **Note**: In order to use the Enter/Edit options of the BLR menu, users must have an "L" entered in the FILEMANAGER ACCESS CODE field of the New Person file (#200).

4.1   Security and Menu Assignment

Before implementing and enabling the Lab/PCC link, you will need to assign security keys and menu options to designated Laboratory system users who will be responsible for maintaining and troubleshooting the link. The instructions below detail the steps for doing so and display sample computer dialogs to illustrate the processes.

4.1.1   Assigning Security Keys

You will need to add the BLRZMENU security key to Lab system users to allow them access to the BLR main menu. To assign the key, you can use the Site Manager's EVE menu or use the programmer's prompt and follow the example shown below.

```
>D ^XUP

Setting up programmer environment
Terminal Type set to: C-VT100
Select OPTION NAME: ALLOCATION OF SECURITY KEYS XUKEYALL
Allocation of Security Keys

Allocate key: BLRZMENU

Another key: <RETURN>

Holder of key: EVANS,F.J.

Another holder: <RETURN>

You've selected the following keys:
BLRZMENU

You've selected the following holders:
EVANS,F.J.
You are allocating keys. Do you wish to proceed? YES// <RETURN>
```

```
BLRZMENU being assigned to:
   EVANS,F.J.
```

4.1.2   Assigning the BLR Menu

To allow Lab system users access to the BLR Lab Main Support menu, you will need to assign the BLRMENU option and add it to the LRMENU (or local menu for the Laboratory package) for each person who will be allowed to monitor the Lab/PCC link. An example of the process is shown here.

```
[LBP,AAA]>D ^XUP
Setting up programmer environment
Terminal Type set to: C-VT100
Select OPTION NAME: EVE           Systems Manager Menu

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

Select Systems Manager Menu Option: MENU Management

           Edit options
           Key Management ...
           Secure Menu Delegation ...
           Restrict Availability of Options
           Option Access By User
           List Options by Parents and Use
           Build Primary Menu Trees
           Fix Option File Pointers
           Help Processor ...
           Display Menus and Options ...
           Out-Of-Order Set Management ...
           Show Users With Selected Primary or Secondary Menu

Select Menu Management Option: EDIT options

Select OPTION to edit: LRMENU          Laboratory DHCP Menu
NAME: LRMENU// <RETURN>
MENU TEXT: Laboratory DHCP Menu  Replace
PACKAGE: LAB SERVICE// <RETURN>
OUT OF ORDER MESSAGE: <RETURN>
LOCK: LRLAB// <RETURN>
REVERSE/NEGATIVE LOCK: <RETURN>
DESCRIPTION:
  1>Main laboratory menu.
EDIT Option: <RETURN>
TYPE: menu// <RETURN>
```

```
HEADER: <RETURN>
ENTRY ACTION: D ^LRPARAM// <RETURN>
EXIT ACTION: D ^LRKILL// <RETURN>
Select ITEM: LRSUPERVISOR// <RETURN>
  ITEM: LRSUPERVISOR// <RETURN>
  SYNONYM: 11// <RETURN>
  DISPLAY ORDER: <RETURN>
Select ITEM: ?
 Answer with MENU ITEM, or SYNONYM
 Do you want the entire 11-Entry MENU List? Y  (Yes)
Choose from:
   LRMI     10     Microbiology menu
   LRBL     9      Blood bank
   LR IN    2      Accessioning menu
   LR OUT    5      Results menu
   LR GET    1      Phlebotomy menu
   LR DO!    3      Process data in lab menu
   LRSUPERVISOR    11     Supervisor menu
   LRQCM    4      Quality control menu
   LRWARDM    7      Ward lab menu
   LRHELP    6      Information-help menu
   LRAP     8      Anatomic pathology

    You may enter a new MENU, if you wish
    A USER CAN ASSIGN A 'LOCKED' MENU ONLY IF HE HAS THAT LOCK
 Answer with OPTION NAME, or MENU TEXT
 Do you want the entire OPTION List? N  (No)
Select ITEM: BLRMENU        IHS Lab Main Support Menu
  Are you adding 'BLRMENU' as a new MENU (the 12TH for this OPTION)? Y
(Yes)
   MENU SYNONYM: BLR
  SYNONYM: BLR// <RETURN>
```

4.2   Using the Utilities

The BLR utilities available are shown on the following menu. Instructions on the use of each of these options and sample computer dialogs are included here. Note that these utilities are divided into two main categories: those for setting up the link and those for monitoring the link and troubleshooting problems.

```
Select OPTION NAME: LRMENU           Laboratory DHCP Menu

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

Select Laboratory DHCP Menu Option: BLR  IHS Lab Main Support Menu
```

```
     LS      Link Transaction Processor Status
     INQ     Inquire into the IHS LAB Transaction Log
     FLD     Search Transactions for PCC LINK DISABLE Error
     S       Search Transaction Log for PCC Link Requeue
     RSN     Requeue by Sequence Number
     RST     Requeue Transaction by Sort Template
     CPT     Enter/edit IHS Lab CPT File
     RES     Enter/edit IHS LAB Review Code File
     ACT     Enter/edit IHS LAB CPT Action Code File
     MSTR    Enter/edit BLR MASTER CONTROL FILE
     FALL    Find ALL PCC Link Errors from Lab
```

4.3   Options for Setting Up the Lab/PCC Link

4.3.1   MSTR – Enter/Edit the BLR Master Control File

An entry for each institution for which the laboratory performs testing must be established in the BLR Master Control file. For each institution entered into this file, it must be determined if that institution maintains a separate PCC database. If that institution maintains a separate PCC database, there is no entry in the PCC Master Control file for that institution and the fields Lab Log Transaction and Lab Log to PCC in the BLR Master Control file must be set to "No." If data is to be passed into a common PCC database, the institution must be entered into the PCC Master Control file and both fields in the BLR Master Control file must be set to "Yes." The following example shows how to use the MSTR option to enter or edit an entry in the Master Control file. You may need to review the previous sections on passing clinical and administrative data to determine how to set the flags.

```
Select IHS Lab Main Support Menu Option: MSTR Enter/edit BLR MASTER CONTROL
FILE

Select BLR MASTER CONTROL SITE: ?
 Answer with BLR MASTER CONTROL SITE
Choose from:
  SELLS HOSPITAL/CLINIC
  SAN XAVIER HEALTH CENTER

  You may enter a new BLR MASTER CONTROL, if you wish

 Answer with LOCATION NAME
 Do you want the entire 4197-Entry LOCATION List? NO

Select BLR MASTER CONTROL SITE:  SELLS HOSPITAL/CLINIC    000101 TUCSON
SELLS 01
     ...OK? Yes// <RETURN> (Yes)

SITE: SELLS HOSPITAL/CLINIC// <RETURN>
LAB LOG TRANSACTION: YES// <RETURN>
LAB LOG TO PCC: YES// N  NO
GUI LAB ORDER SEND PAT: N  NO
GUI LAB ORDER LAB COLLECT: N  NO
GUI LAB ORDER W/C COLLECT: N  NO
GUI LAB MULTIPURPOSE ACC: N  NO
```

```
Select BLR MASTER CONTROL SITE: SAN XAVIER HEALTH CENTER   000111 TUCSON
SELLS 11
      ...OK? Yes// <RETURN> (Yes)


SITE: SAN XAVIER HEALTH CENTER// <RETURN>
LAB LOG TRANSACTION: YES// <RETURN>
LAB LOG TO PCC: YES// <RETURN>
GUI LAB ORDER SEND PAT: NO// <RETURN>
GUI LAB ORDER LAB COLLECT: NO// <RETURN>
GUI LAB ORDER W/C COLLECT: NO// <RETURN>
GUI LAB MULTIPURPOSE ACC: NO// <RETURN>

Select BLR MASTER CONTROL SITE: <RETURN>
```

4.3.2   CPT – Enter/Edit the IHS Lab CPT File

The following example shows the process of entering or editing an entry in the IHS
Lab CPT file. This file allows for the passing of billing data to the PCC. If your site
will be passing this type of data, you must populate the CPT file. Review the previous
section on passing clinical data for further details.

```
Select IHS Lab Main Support Menu Option: CPT Enter/edit IHS Lab CPT File

Select IHS LAB CPT CODE NAME: CHEM 7
 Are you adding 'CHEM 7' as a new IHS LAB CPT CODE (the 1ST)? Y (Yes)
NAME: CHEM 7// <RETURN>
LAB SECTION: CHEMISTRY
CREATE DATE: ??
   Examples of Valid Dates:
    JAN 20 1957 or 20 JAN 57 or 1/20/57 or 012057
    T  (for TODAY), T+1 (for TOMORROW), T+2, T+7, etc.
    T-1 (for YESTERDAY), T-3W (for 3 WEEKS AGO), etc.
   If the year is omitted, the computer uses the CURRENT YEAR.
   If only the time is entered, the current date is assumed.
   Follow the date with a time, such as JAN 20@10, T@10AM, 10:30, etc.
   You may enter a time, such as NOON, MIDNIGHT or NOW.
   Seconds may be entered as 10:30:30 or 103030AM.
   Time is REQUIRED in this response.
   Enter the date/time this entry is created.
CREATE DATE: T@1200 (APR 14, 1997@12:00:00)
DATE/TIME ACTIVE: T@1200 (APR 14, 1997@12:00:00)
DATE/TIME INACTIVE: <RETURN>
PANEL/TEST: CHEM
   1  CHEM 11
   2  CHEM 20
   3  CHEM 7
   4  CHEM CONTROL PANEL
CHOOSE 1-4: 3
INACTIVE FLAG: <RETURN>
Select CPT CODE: 80007    7 CLINICAL CHEMISTRY TESTS
    AUTOMATED MULTICHANNEL TEST; 7 CLINICAL CHEMISTRY TESTS
    7 CLINICAL CHEMISTRY TESTS
     ...OK? Yes// Y (Yes)
Are you adding '80007' as a new CPT CODE (the 1ST for this IHS LAB CPT
CODE)? Y (Yes)
 LAB LIST COST: 7.00
 REVIEW CODE: <RETURN>
 ACTION CODE: <RETURN>
```

```
 Select MODIFIER: 09990
Are you adding '09990' as a new MODIFIER (the 1ST for this CPT CODE)? Y
(Yes)
 Select MODIFIER: <RETURN>
 Select QUALIFIER: <RETURN>
Select CPT CODE: <RETURN>
DESCRIPTION:
 1>CHEM 7 ENTRY 1997 FJE
 2><RETURN>
EDIT Option: <RETURN>

Select IHS LAB CPT CODE NAME: <RETURN>
```

4.3.3   ACT – Enter/Edit the IHS Lab CPT Action Code File

In BLR, Version 5.2, the entries in the CPT Action Code file are not in use by the
BLR routines. This file has been designed to adjust the CPT codes based on activities
performed by the laboratory. An entry needs to be made in this file before the CPT
entry can point to this action. The following example shows how to enter or edit an
entry in the IHS Lab CPT Action Code file.

```
Select IHS Lab Main Support Menu Option: ACT Enter/edit IHS LAB CPT Action
Code File

Select IHS LAB CPT ACTION CODE NAME: A99
Are you adding 'A99' as a new IHS LAB CPT ACTION CODE (the 1ST)? Y(Yes)
NAME: A99// <RETURN>
LAB SUBSCRIPT: CH CHEMISTRY,HEME,SER,ETC
RUN ROUTINE: BLRTEST
DESCRIPTION: <RETURN>
 1>This routine modifies the CPT to add $1.50 for each additional test
 2>for the Chem 22 panel.
 3><RETURN>
EDIT Option: <RETURN>

Select IHS LAB CPT ACTION CODE NAME: <RETURN>
```

4.3.4   RES – Enter/Edit the IHS Lab CPT Review Code File

The entries in the Review Code file are not in use by BLR, Version 5.2. This file is
designed to notify the billing office of a need for a specific kind of review. This file
also contains the run routine that is invoked to modify the resulting CPT entry. Before
the CPT entry can point to a result, an entry needs to be made in this file. The
following example illustrates making an entry in the IHS Lab CPT Review Code file.

```
Select IHS Lab Main Support Menu Option: RES Enter/edit IHS LAB CPT Review
Code File

Select IHS LAB CPT REVIEW CODE NAME: R99
Are you adding 'R99' as a new IHS LAB CPT REVIEW CODE (the 1ST)?Y (Yes)
NAME: R99// <RETURN>
LAB SUBSCRIPT: CH CHEMISTRY,HEME,SER,ETC
RUN ROUTINE: BLRTEST
```

```
DESCRIPTION:
 1>This review code checks to see if the Micro culture has a positive
culture.
 2>If positive, the code is changed based on the number of pos organisms.
 3><RETURN>
EDIT Option: <RETURN>
Select IHS LAB CPT REVIEW CODE NAME: <RETURN>
```

4.4   Options for Monitoring and Managing the Link

4.4.1   INQ – Inquiring into the IHS/Lab Transaction Log

To review an entry in the Transaction Log using this menu option, you can enter the
internal sequence number, as shown in the example below, or you can choose an
entry by typing the accession number of the test in question; for example, CH 0411 8.

```
Select IHS Lab Main Support Menu Option: INQ Inquire into the IHS LAB
Transaction Log

Select IHS LAB TRANSACTION LOG SEQUENCE NUMBER: 244
      ...OK? Yes//  <RETURN>  (Yes)

DEVICE:   RIGHT MARGIN: 80// <RETURN>
```

When finished, the following printout displays. A detailed description of each of the
fields is contained in Appendix B.

```
IHS LAB TRANSACTION LOG LIST             APR 14,1997 19:19  PAGE 1
-------------------------------------------------------------------------

SEQUENCE NUMBER: 244              LRFILE: 2
 LRDFN: 11288                     PATIENT POINTER VALUE: 41149
 PANEL/TEST POINTER: CHEM 7          LAB MODULE: GENERAL
DUZ(2): 4587                      I/O CATEGORY: OUT PATIENT
 STATUS FLAG: ACCESSIONED         ENTRY DATE/TIME: APR 11, 1997@16:18:24
 ASSOCIATED V FILE: V LAB         IEN OF V FILE ENTRY: 1756422
 PCC ERROR FLAG:                  LAB TEST LIST COST: 1.52
 CLINIC STOP CODE POINTER: FAMILY PRACTICE
 ORDER DATE: APR 11, 1997@16:18:24    ORDER SEQUENCE NUMBER: 36
 ORDER NUMBER: 76693
 ORDERING PROVIDER POINTER: NEUFELD,BRENDA G
 ORDERING PROVIDER NAME: NEUFELD,BRENDA G
 ORDERING LOCATION POINTER: SAN XAVIER CLINIC
 ORDERING LOCATION NAME: SXC
 COLLECTION DATE/TIME: APR 11, 1997@16:18:24
 ACCESSION NUMBER: CH 0411 8       SITE/SPECIMEN POINTER: SERUM
 VERIFIER POINTER: WARES,LORI      VERIFIER NAME: WARES,LORI
```

4.4.2   LS – Link Transaction Processor Status

This option allows the user to determine whether the processor that passes data from
the Transaction Log to PCC is currently running and whether there are any delays in
the transmission of data.

```
Processor Status
                        SEP 04, 1997@10:09:25

                 Currently processing day SEP 04, 1997

                                   IHS Lab Transaction
                    Entry Position in Queue            Sequence Number
--------------------------------------------------------------------------

Last Entry Assigned                541                         164,310

Last Entry Processed               541                         164,310

Press Enter to continue: <RETURN>
```

The Entry Position in the Queue is a number that begins with 1 at the beginning of each day. The system automatically assigns the entry numbers and as long as the system is keeping up, the last entry processed matches the last entry assigned. The Currently Processing Day ___ should match the current date.

The IHS Lab Transaction Sequence Number is the number assigned by the system to each test or panel ordered. Each transaction's status flag is updated to accessioned, resulted, or deleted as the test or panel is processed through the lab. The transaction sequence number does not change once assigned. This number corresponds to the total number of tests and panels ordered since the BLR Master Control file field, LAB LOG TRANSACTION, was set to "Yes" during setup.

You may see a message "Link is not running!" This could mean one of two things:

- All current transactions have been processed and nobody has accessed any of the Lab system options for ten minutes so the processor has shut down. The processor will restart as soon as any of the Lab menu options are accessed.

- The processor has shut down because of some kind of a "fatal error." You will usually see a significant discrepancy between the Last Entry Assigned and the Last Entry Processed. You may also note that the Currently Processing Day___ entry is not the current date. You will probably also have had some kind of a warning via the generation of errors in the error trap and/or VA alerts. Correcting this problem will be addressed in the Troubleshooting section of this manual.

4.4.3   FLD – Search Transaction Log for PCC Link DISABLE Error

During setup or troubleshooting problems with the Laboratory package or PCC, the Lab/PCC link may be disabled by setting the LAB LOG TO PCC field to "No" in the BLR Master Control file. During the time the link has been disabled, laboratory data will have accumulated in the IHS Lab Transaction Log file. This option allows for the identification of these transactions and the ability to refile them.

```
Select IHS Lab Main Support Menu Option: FLD  Search Transactions for PCC
LINK DISABLE error
START WITH SEQUENCE NUMBER: 1// 75000
```

```
GO TO SEQUENCE NUMBER: 198586// 100000

                     IHS LAB Transaction Sequence Numbers
                  WITH PCC ERRORS CONTAINING PCC LINK DISABLED

99507     99508     99509

Do you wish to Queue these entries for processing?

Enter Yes or No? N// YES
```

4.4.4   RST – Requeue by Sort Template

If a series of transactions has not been passed to PCC either because the link has been
disabled or other problems with the Link Processor have occurred, these transactions
may be queued to be transmitted to PCC. A Sort Template of transactions may be
identified via the FileMan Search option. Entry of the template name at the prompt,
Sort Template: will automatically requeue this series of transactions. In the following
example, all transactions that failed immediate transmission to the PCC because of an
invalid entry in the Provider file (Field 1104 of File 9009022 not in Provider file)
were compiled into a sort template. The correct entry was made in the Provider file
and the transactions were refiled using the option RST, Requeue Transaction by Sort
Template.

```
VA FileMan 21.0
Select OPTION: SEARCH FILE ENTRIES
OUTPUT FROM WHAT FILE: IHS LAB TRANSACTION LOG// <RETURN>
  -A- SEARCH FOR IHS LAB TRANSACTION LOG FIELD: PCC ERROR FLAG      -A-
CONDITION: CONTAINS     -A- CONTAINS: Field 1104 of file 9009022

  -B- SEARCH FOR IHS LAB TRANSACTION LOG FIELD: <RETURN>

IF: A//     PCC ERROR FLAG CONTAINS "Field 1104 of file 9009022"

STORE RESULTS OF SEARCH IN TEMPLATE: DKR SX1
DESCRIPTION:
  1> <RETURN>

SORT BY: SEQUENCE NUMBER// <RETURN>
START WITH SEQUENCE NUMBER: FIRST// 191000
GO TO SEQUENCE NUMBER: LAST// <RETURN>
FIRST PRINT FIELD: .01  SEQUENCE NUMBER
THEN PRINT FIELD:  PCC ERROR FLAG
************************
Heading (S/C): IHS LAB TRANSACTION LOG SEARCH  Replace
START AT PAGE: 1// <RETURN>
DEVICE: <RETURN>   RIGHT MARGIN: 80// <RETURN>

IHS LAB TRANSACTION LOG SEARCH                    OCT  6,1997  15:26    PAGE 1
                                                                      ORDER
SEQUENCE NUMBER                    ACCESSION NUMBER                    NUMBER
  PCC ERROR FLAG
-----------------------------------------------------------------------------

191759                            HE 0930 3                           87813
  Field 1104 of file 9009022 not in Provider file
```

```
191760                         HE 0930 3                        87813
  Field 1104 of file 9009022 not in Provider file
191761                         HE 0930 3                        87813
  Field 1104 of file 9009022 not in Provider file
191762                         HE 0930 3                        87813
  Field 1104 of file 9009022 not in Provider file
191763                         HE 0930 3                        87813
  Field 1104 of file 9009022 not in Provider file
191764                         HE 0930 3                        87813
  Field 1104 of file 9009022 not in Provider file
191765                         HE 0930 3                        87813
  Field 1104 of file 9009022 not in Provider file


Field 1104 of file 9009022 not in Provider file
191773                         HE 0930 3                        87813
  Field 1104 of file 9009022 not in Provider file
```

After correction of the entry in the Provider file, the transactions are refiled using the RST option.

Select IHS Lab Main Support Menu Option: RST Requeue Transaction by Sort Template

```
Select SORT TEMPLATE: ?
 Answer with SORT TEMPLATE NAME
 Do you want the entire 434-Entry SORT TEMPLATE List? N  (No)
Select SORT TEMPLATE: [DKR SX1
```

4.4.5   S – Search Transaction for PCC Link Requeue

This option allows the user to identify any transactions that have not been passed to the PCC and a message (PCC Error Flag) indicating the reason the transaction was not passed. The presence of a number in the IEN of V FILE ENTRY field indicates that an entry was made in the V file in PCC. A description of these messages and the appropriate means of handling disrupted transmissions will be addressed in the Troubleshooting section of this manual.

```
Select IHS Lab Main Support Menu Option: S  Search Transaction Log for PCC
Link Requeue

SORT BY: SEQUENCE NUMBER// <RETURN>
START WITH SEQUENCE NUMBER: FIRST// <RETURN>
DEVICE:     RIGHT MARGIN: 80// <RETURN>

IHS LAB TRANSACTION LOG LIST                     SEP 30,1997  16:21    PAGE 1
                                                           IEN OF V
                                                              FILE
SEQUENCE NUMBER                  ACCESSION NUMBER                 ENTRY
  PCC ERROR FLAG
----------------------------------------------------------------------

1                                CH 0926 11
  Lab deleted test...PCC entries deleted
2                                CH 0926 11
  Lab deleted test...PCC entries already deleted
```

```
3                                    CH 0926 11
  Lab deleted test...PCC entries already deleted
4                                    CH 0926 11
  Lab deleted test...PCC entries deleted
5                                    CH 0926 11
  Lab deleted test...PCC entries deleted
6                                    CH 0926 11
  Lab deleted test...PCC entries already deleted
```

4.4.6   RSN – Requeue by Sequence Number

If you have determined that no valid reason exists for a transaction not to have transmitted to the PCC, that transaction may be retransmitted using the RSN option. Also, if a transmission has been disrupted by missing or incorrect data, that transaction may be refiled after correcting or supplying the missing data. This option allows the user to refile transactions one at a time as identified by the IHS Lab Transaction Log sequence number.

Select IHS Lab Main Support Menu Option: RSN Requeue by Sequence Number

```
Select IHS LAB TRANSACTION LOG SEQUENCE NUMBER: 38
SEQUENCE NUMBER: 38                        LRFILE: 2
  LRDFN: 5                                 PATIENT POINTER VALUE: 1
  PANEL/TEST POINTER: LIVER FUNCTION       LAB MODULE: GENERAL
  DUZ(2): 4585                             I/O CATEGORY: IN PATIENT
  STATUS FLAG: DELETED                     ENTRY DATE/TIME: SEP 30,
1997@08:04:40
  PCC ERROR FLAG: Lab deleted test...PCC entries deleted
  CLINIC STOP CODE POINTER: INTERNAL MEDICINE
  CPT LAB CODE POINTER: LIVER FUNCTION
  BILLING CPT STRING:
82250|||||;84075|||||;84450|||||;84460|||||;82977|||||
  ORDER DATE: SEP 30, 1997@08:04:40    ORDER SEQUENCE NUMBER: 1
  ORDER NUMBER: 371                        ORDERING PROVIDER POINTER:
BRIO,ALINA
  ORDERING PROVIDER NAME: BRIO,ALINA    ORDERING LOCATION POINTER: ICU
  ORDERING LOCATION NAME: ICU           COLLECTION DATE/TIME: SEP 30, 1997
  ACCESSION NUMBER: CH 0930 6           SITE/SPECIMEN POINTER: BLOOD
  VERIFIER POINTER: EVANS,F.J.          VERIFIER NAME: EVANS,F.J.

Do you wish to try and refile this entry?

Enter Yes or No? N// YES
```

4.4.7   FALL – Find ALL PCC Link Errors from Lab

This option allows for the identification of all laboratory transactions that generated an error message and failed to transmit to the PCC. It is a quick way to assess that all is going well with the link. While it is possible to requeue all of the transactions at the time of review, it is not recommended. In many cases, a transaction may not be passed to PCC because of the business rules related to institution, test cancellations, or the fact that the transaction involves a laboratory control, survey, or other non-patient specimen.

```
Select IHS Lab Main Support Menu Option: FALL  Find ALL PCC Link Errors
from Lab
START WITH SEQUENCE NUMBER: 1//  <RETURN>
GO TO SEQUENCE NUMBER: 115//   <RETURN>

                    IHS LAB Transction Sequence Numbers
                           WITH PCC ERRORS

1         2         3         4         5         6         7         8
9         10        11        12        13        14        15        16
17        18        19        20        21        22        23        24
38        39        40        41        42        43        44        45
46        47        48        49        50        51        52        53
54        55        56        57        58        59        60        61

Do you wish to Queue these entries for processing?

Enter Yes or No? N// <RETURN>
Entries NOT Queued
```

4.5   Bulletins and Mail Groups

Several menu options are available for monitoring and managing the Laboratory/PCC Link. In addition, automatic bulletins can be generated to notify the Site Manager if a problem occurs in the transmission of data from the Laboratory Package to the PCC. A number of bulletins have been predefined (see list), but may be edited to suit the needs of each site. In addition, it must be determined at each site who should be members of the mail group to receive the bulletins. Bulletins fall into two general categories: (1) those of an informational nature, and (2) those considered "fatal," which must be investigated. Descriptions of the bulletins are included in the Troubleshooting section of this manual.

One or more of the following bulletins may be generated when an error occurs:

- Update to IHS TRANSACTION LOG TO THE PCC ERROR field not done...REFILE

- PCC error flag not nulled

- Lab deleted test…PCC entries deleted

- Test subscript not defined

- Record is from file (62.3,67.1, etc.) – is not Patient file

- Patient IEN is required

- No Collection date

- Field .05 of File 9009022 not a valid antibody IEN

- Field (field number) is required for PCC and cannot be null

- Write to V Lab rejected

- Write to V MIC rejected

- Write to V Blood Bank rejected

- Field .05 of File 9009022 not a valid antibiotic IEN

- Test subscript not defined

- No institution entry

- No lab entry in PCC Master Control file

- No entry in Provider file for the ORDERING PROVIDER

- No entry in PROVIDER field for the Encounter Provider

- PCC visit not created APCDFLG = (1 or 2)

- Visit not created—task terminated

- • Invalid template for result display

- PCC check error

- Unknown Test Subscript—link not yet implemented

- Future Collection – No update of PCC

- Field (field number) of File 9009022 is invalid

- Field .06 of File 9009022 not a valid test in File 60

- Field (field number) is required for PCC and cannot be null

See the Troubleshooting section of this manual for explanations of each bulletin type and guidelines for fixing the associated errors.

4.5.1   Creating a Mail Group for BLR Bulletins

The following example shows how to create a new mail group with members who will receive the BLR Transaction (TX) Log bulletins that are generated automatically when an error in transmitting data to the PCC occurs.

```
>D P^DI

VA FileMan 21.0

Select OPTION: ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: BLR MASTER CONTROL// MAIL GROUP
                    (14 entries)
EDIT WHICH FIELD: ALL// <RETURN>
Select MAIL GROUP NAME: BLRLINK
Are you adding 'BLRLINK' as a new MAIL GROUP (the 15TH)? Y (Yes)
  MAIL GROUP COORDINATOR: EVANS,F.J.
Select MEMBER: EVANS,F.J.
Are you adding 'EVANS,F.J.' as a new MEM (the 1ST for this MAIL GROUP)? Y
(Yes)
```

```
Select MEMBER: <RETURN>
DESCRIPTION:
 1>This mail group receives messages from Lab/PCC Link errors
 2>
EDIT Option: <RETURN>
TYPE: PR  PRIVATE
ORGANIZER: EVANS,F.J.
COORDINATOR: EVANS,F.J.// <RETURN>
Select AUTHORIZED SENDER: <RETURN>
ALLOW SELF ENROLLMENT? ^

Select MAIL GROUP NAME:  <RETURN>
```

4.5.2   Adding Mail Groups to a Bulletin

The following example shows how to edit the bulletin to enter the mail group.

```
Select OPTION: ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: MAIL GROUP// BULLETIN   (91 entries)
EDIT WHICH FIELD: ALL// <RETURN>

Select BULLETIN NAME: BLRTXLOG
   NAME: BLRTXLOG// <RETURN>
SUBJECT: PCC FILING ERROR FOR THIS ENTRY Replace
Select MAIL GROUP: BLRLINK
Are you adding 'BLRLINK' as a new MAIL GROUP (the 1ST for this BULLETIN)? Y
(Yes)
Select MAIL GROUP: ^
```

4.5.3   Disabling Selected Bulletins

Bulletins may be divided into two broad categories: informational or fatal.

Examples of informational bulletins are:

- Record is from 62.3 – is not Patient file

- Lab deleted test…PCC entries deleted

Examples of fatal errors would be:

- Test subscript not defined

- No entry in Provider file for the ORDERING PROVIDER

Some system users may prefer not to see informational bulletins. To prevent members
of the mail group from receiving bulletins about non-patient tests, this bulletin may be
disabled by setting a flag in the LOG PAT DATA ONLY field in the BLR Master
Control file as follows. User requests to disable other bulletins will be addressed by
the developers in the future.

```
FILE: MSTR  Enter/edit BLR MASTER CONTROL FILE
```

```
Select BLR MASTER CONTROL SITE:    SELLS HOSPITAL/CLINIC
SITE: SELLS HOSPITAL/CLINIC// <RETURN>
LAB LOG TRANSACTION: YES// <RETURN>
LAB LOG TO PCC: YES// <RETURN>
LOG PAT DATA ONLY: NO// Y  YES
GUI LAB ORDER SEND PAT: NO// <RETURN>
GUI LAB ORDER LAB COLLECT: NO// <RETURN>
GUI LAB ORDER WARD COLLECT: NO// <RETURN>
GUI LAB MULTIPURPOSE ACC: NO// <RETURN>
ACCESSION TEST GROUP TEMPLATE: <RETURN>
START PROCESSING DATE: OCT 01, 1997// ^
```

4.6   Troubleshooting Errors

Upon installing Version 5.2 of the Laboratory package and enabling the Lab/PCC
Link, a number of PCC Error messages and bulletins can be expected. These will
relate primarily to incorrectly defined tests or panels in File 60 (Laboratory Test file),
incorrect settings for institutions in the PCC and BLR Master Control file, and
identification of providers in File 200. As these file definitions are addressed, the
number of bulletins will decline and will be mostly informational in nature.

Once an error is detected in the filing of data in the PCC from the Laboratory
package, the following steps are recommended for identifying the problem, correcting
it, and then refiling the data in the PCC. Users may become aware of an error either
via a bulletin, a VA Alert, or one of the link monitoring utilities in the BLR menu.
Programmer mode may be required for reviewing an error and/or performing some of
the actions to correct the error. If a menu option currently exists for correcting and
refiling transactions, it will be noted.

4.6.1   Checking and Restarting the Transaction Processor

The link processor may be shut down if a fatal error has occurred. This may be noted
by an error in the error trap, a bulletin, or a VA Alert. Check the processor status
using the LS option under the IHS Lab Main Support menu. If all is going well, it
should look like the following.

```
Processor Status
                        SEP 04, 1997@10:09:25

               Currently processing day SEP 04, 1997

                                                   IHS Lab
Transaction
                   Entry Position in Queue         Sequence Number
-------------------------------------------------------------------

Last Entry Assigned              541                     164,310

Last Entry Processed             541                     164,310

Press Enter to continue: <RETURN>
```

The Entry Position in the Queue is a number that begins with 1 at the beginning of each day. The system automatically assigns the entry numbers and as long as the system is keeping up, the last entry processed matches the last entry assigned and the date listed is the current date.

The IHS Lab Transaction Sequence Number is the number assigned by the system to each test or panel ordered. Each transaction's status flag is updated to accessioned, resulted, or deleted as the test or panel is processed through the lab. The transaction sequence number does not change once assigned. This number corresponds to the total number of tests and panels ordered since the BLR Master Control file LAB LOG TRANSACTION field was set to "Yes" during setup.

```
Processor Status
                          SEP 04, 1997@10:08:41

                  Currently processing day SEP 04, 1997
                                                             IHS Lab
Transaction
                     Entry Position in Queue             Sequence
Number
   -------------------------------------------------------------------

Last Entry Assigned              541                         164,310

Last Entry Processed             538                         164,307

Now Processing Entry             539                         164,308

Link is not running!

Press Enter to exit:
```

You may see a message, "Link is not running!" This could mean one of two things:

- All current transactions have been processed and none of the Lab options has been used for ten minutes so the processor has shut down. The processor will restart as soon as any of the Lab menu options are accessed.

- The processor has shut down because of some kind of a "fatal error." Usually you will see a significant discrepancy between the Last Entry Assigned and the Last Entry Processed. You may also see a processing date prior to the current date. You will probably also have had some kind of a warning via the generation of errors in the error trap and/or VA alerts.

If the processor does not restart when accessing the Lab menu, you should review the Transaction Sequence Number being processed when the processor shut down. Use the Support Menu option, INQ. In general, the processor will only shut down if some major problem with a test definition occurs. You (your Site Manager or one of the support staff in Tucson) can restart the processor by using FileMan Enter/Edit to "skip" the bad sequence number and advance to the next one (or two or three, etc., if the panel was bad).

At the "Select Processing Date" prompt, enter the date when the processor stopped. Do not make an entry for the Last Transaction Assigned, just accept the value that the system has assigned. Enter the sequence number for the Last Transaction Processed +1 to bypass the bad sequence number. Then recheck to see that the processor has restarted. It may be necessary to increment the sequence number more than one if there was more than one bad transaction. This is an unusual event and it is not expected that this will occur on a frequent basis.

Once the processor status has been restarted, check to see if any LR, LA, or BLR errors are in the error trap. If any errors exist, please call Tucson DIR for programming assistance.

4.6.2   Informational Bulletins

The following bulletins are considered informational and once the user becomes familiar with their content, they may not require further review.

Lab deleted test…PCC entries deleted. Tests have been deleted so the tests have been removed from PCC. The transactions still exist in the IHS Lab Transaction Log with this PCC ERROR Flag.

Record is from file (file name – 62.3, 67, 67.1) – is not Patient file. The data is not patient data; it may be a control, a referral patient, research, or an environmental specimen. The transactions still exist in the IHS Lab Transaction Log with this PCC ERROR flag. See the example below.

```
Subj: PCC FILING ERROR FOR THIS ENTRY [#1007787]29 Sep 97 14:43 17 Lines
From: POSTMASTER  in 'IN' basket.  Page 1  **NEW**
------------------------------------------------------------------------

An entry in PCC could not be created for the following lab
order because there is a filing error reported in PCC.

PATIENT NAME:    PATIENT DFN:    VISIT DATE:
LAB SYSTEM ORDER NUMBER:  105058  ACCESSION NUMBER:
LAB TEST:  TSH TX LOG IEN: 302002
PCC ERROR:  Record is from file 62.3 - is not Patient File

No results entered for this test were transferred into the PCC.
```

Future collection – No update of PCC. A future collection date (other than today's date) was entered. Data with future collection dates are not transmitted to the PCC. This transaction is automatically updated once the specimen is collected and transmitted to the PCC.

No Lab entry in PCC Master Control File. Data was processed for a patient that was seen at a site that is not defined in the PCC Master Control file. If the site maintains its own separate PCC at a site distinct from the laboratory, this is an informational message because data should not be passed to the PCC. If data should be passed to the PCC because of a common database, an entry for that institution needs to be entered into the PCC Master Control file.

Unknown Test Subscript – link not yet implemented. The subsection to which the test has been defined does not have a corresponding file for data in the PCC; for example, AP for Anatomical Pathology or CY for Cytology. See the example bulletin below.

```
Subj: PCC FILING ERROR FOR THIS ENTRY [#1008239]02 Oct 97 09:27 10 Lines
From: POSTMASTER  in 'IN' basket.   Page 1  **NEW**
-----------------------------------------------------------------------

An entry in PCC could not be created for the following lab
order because there is a filing error reported in PCC.

PATIENT NAME: DEMO,PATIENT  PATIENT DFN:  11759  VISIT DATE:  OCT 2,1997
LAB SYSTEM ORDER NUMBER:  105464  ACCESSION NUMBER:
LAB TEST:  PHLEBOTOMY TX LOG IEN: 309109
PCC ERROR:  Unknown Test Subscript - link not yet implemented
```

No results entered for this test were transferred into the PCC.

4.7   Investigating Fatal Errors

The easiest way to investigate so-called "fatal" errors is to:

1. Identify the failed transaction sequence number by reviewing the bulletin generated by the error or use the S menu option: Search Transaction Log for PCC Link Requeue.

2. Either use INQ, Inquire into the IHS LAB Transaction Log, or review the bulletin text to identify the patient, the accession number, the date of service, and the order number.

3. Use one or all three menu options in the Laboratory Menu: Lookup Accession, Review by Order Number, or Order/Test Status to determine what sequence of events occurred on the laboratory side that may have initiated the failed transaction.

4. If it is determined that the data was not passed to the PCC for a valid reason, for instance, the test was deleted in the laboratory or the patient was from a location not defined in the BLR or Master Control file, no further action is necessary and the transaction will not be refiled.

5. If all indications on the Laboratory side are that this is valid data for transmission to the PCC, investigate the file settings indicated by the bulletin to determine if a correction must be made. Make any necessary corrections in the transaction using FileMan Enter/Edit. Make any necessary corrections in files as indicated by the bulletin. Refile the corrected transaction(s).

6. In the example below, the error is "Lab Module not defined." The phrase "lab module" in the PCC equates to "test subscript" in the Laboratory Package Laboratory Test file (#60). In this case, entry 244 in the IHS Lab Transaction Log file failed because the lab test IEN 267 does not have a subscript defined in file 60. A sequence of steps is listed here to follow when investigating, correcting, and refiling a transaction.

> **Note**: Bulletins come in several different formats, depending on the source of the error. Occasionally you may want to access the PCC to see if a test passed the link despite the error message. Use the DISP menu option in the PCC to review the V LAB, V MICRO, etc. files for the date of the lab visit.

1. **Read the MailMan Bulletin and Identify the Transaction Log Number**

```
Subj: PCC FILING ERROR FOR THIS ENTRY [#661096] 14 Apr 97 19:15 10 Lines
From: POSTMASTER in 'IN' basket.  Page 1 **NEW**
-------------------------------------------------------------------------

An entry in PCC could not be created for the following lab
order because there is a filing error reported in PCC.

PATIENT NAME:  PATIENT DFN:  VISIT DATE:
LAB SYSTEM ORDER NUMBER: 76693 ACCESSION NUMBER: CHEM 0904 21
LAB TEST: 267 TX LOG IEN: 244
PCC ERROR: LAB MODULE not defined

No results entered for this test were transferred into the PCC.
```

2. **Inquire into the Referenced Transaction Log**

```
Select OPTION: INQ  INQUIRE TO FILE ENTRIES

OUTPUT FROM WHAT FILE: IHS LAB TRANSACTION LOG// <RETURN>
Select IHS LAB TRANSACTION LOG SEQUENCE NUMBER: `244  ...OK? Yes// <RETURN>
(Yes)
ANOTHER ONE: <RETURN>
STANDARD CAPTIONED OUTPUT? Yes// <RETURN> (Yes)
Include COMPUTED fields: (N/Y/R/B): NO// <RETURN> No record number (IEN),
no Computed Fields


SEQUENCE NUMBER: 244          LRFILE: 2
 LRDFN: 11288                PATIENT POINTER VALUE: 41149
 PANEL/TEST POINTER: CHEM 7
 DUZ(2): 4587               I/O CATEGORY: OUT PATIENT
```

```
 STATUS FLAG: ACCESSIONED        ENTRY DATE/TIME: APR 11, 1997@16:18:24
 PCC ERROR FLAG: LAB MODULE not defined
 LAB TEST LIST COST: 1.52
 CLINIC STOP CODE POINTER: FAMILY PRACTICE
 ORDER DATE: APR 11, 1997@16:18:24   ORDER SEQUENCE NUMBER: 36
 ORDER NUMBER: 76693
 ORDERING PROVIDER POINTER: NEUFELD,BRENDA G
 ORDERING PROVIDER NAME: NEUFELD,BRENDA G
 ORDERING LOCATION POINTER: SAN XAVIER CLINIC
 ORDERING LOCATION NAME: SXC
 COLLECTION DATE/TIME: APR 11, 1997@16:18:24
 ACCESSION NUMBER: CH 0411 8      SITE/SPECIMEN POINTER: SERUM
 VERIFIER POINTER: WARES,LORI     VERIFIER NAME: WARES,LORI
```

3. **Correct the Error in the Transaction Log**

```
>D P^DI

VA FileMan 21.0

Select OPTION: ENTER OR EDIT FILE ENTRIES

INPUT TO WHAT FILE: IHS LAB TRANSACTION LOG// <RETURN>
EDIT WHICH FIELD: ALL// <RETURN>

Select IHS LAB TRANSACTION LOG SEQUENCE NUMBER: `244 244
     ...OK? Yes// <RETURN> (Yes)
SEQUENCE NUMBER: 244// <RETURN>
LRFILE: 2// <RETURN>
LRDFN: 11288// <RETURN>
PATIENT POINTER VALUE: 41149// <RETURN>
PATIENT NAME: <RETURN>
PANEL/TEST POINTER: CHEM 7// <RETURN>
PANEL/TEST NAME: <RETURN>
LAB MODULE: ?
   Enter SUBSCRIPT Code for section (ex: CH for GENERAL)
   Choose from:
    CH     GENERAL
    MI     MICROBIOLOGY
    BB     BLOOD BANK
    AU     AUTOPSY
    CY     CYTOPATHOLOGY
    SP     SURGICAL PATHOLOGY
    OT     OTHER
LAB MODULE: CH GENERAL
DUZ(2): 4587// ^
```

You can then inquire into the failed transaction log entry after editing it, as follows.

```
Select OPTION: INQ  INQUIRE TO FILE ENTRIES

OUTPUT FROM WHAT FILE: IHS LAB TRANSACTION LOG// <RETURN>
Select IHS LAB TRANSACTION LOG SEQUENCE NUMBER: `244 244
     ...OK? Yes// <RETURN> (Yes)
ANOTHER ONE: <RETURN>
STANDARD CAPTIONED OUTPUT? Yes// <RETURN> (Yes)
Include COMPUTED fields: (N/Y/R/B): NO// <RETURN> No record number (IEN),
no Computed Fields
```

```
SEQUENCE NUMBER: 244                 LRFILE: 2
 LRDFN: 11288                        PATIENT POINTER VALUE: 41149
 PANEL/TEST POINTER: CHEM 7            LAB MODULE: GENERAL
 DUZ(2): 4587                        I/O CATEGORY: OUT PATIENT
 STATUS FLAG: ACCESSIONED           ENTRY DATE/TIME: APR 11, 1997@16:18:24
 PCC ERROR FLAG: LAB MODULE not defined
 LAB TEST LIST COST: 1.52
 CLINIC STOP CODE POINTER: FAMILY PRACTICE
 ORDER DATE: APR 11, 1997@16:18:24   ORDER SEQUENCE NUMBER: 36
 ORDER NUMBER: 76693
 ORDERING PROVIDER POINTER: NEUFELD,BRENDA G
 ORDERING PROVIDER NAME: NEUFELD,BRENDA G
 ORDERING LOCATION POINTER: SAN XAVIER CLINIC
 ORDERING LOCATION NAME: SXC
 COLLECTION DATE/TIME: APR 11, 1997@16:18:24
 ACCESSION NUMBER: CH 0411 8          SITE/SPECIMEN POINTER: SERUM
 VERIFIER POINTER: WARES,LORI         VERIFIER NAME: WARES,LORI
```

4. **Refile the Entry After Error Correction**

Refile the transaction after correction using the option RSN – Requeue by Sequence
Number. Enter the sequence number 244 at the prompt. Review the screen to be sure
this is the appropriate transaction and answer "Yes" to the prompt, "Do you wish to
try to refile this transaction?"

5. **Correct Error in the Lab File that Prevented the Initial Transmission**

In this example, you would fix the missing entry in File 60 by using FileMan option,
Enter/Edit. Edit the SUBSCRIPT field at the Edit prompt, as shown here. In this
example, you can then enter `267 to identify the test, instead of entering the test
name. (For specific information on correcting errors in Lab files, refer to the
Laboratory Package Planning and Implementation Guide.)

```
[LBP,AAA]>D P^DI


VA FileMan 21.0


Select OPTION: ENTER OR EDIT FILE ENTRIES


INPUT TO WHAT FILE: AUTO INSTRUMENT// 60  LABORATORY TEST
                                          (1037 entries)
EDIT WHICH FIELD: ALL// SUBSCRIPT
THEN EDIT FIELD: <RETURN>

Select LABORATORY TEST NAME: CHEM 7
SUBSCRIPT: CHEM, HEM, TOX, SER, RIA, ETC.// ?
     Choose from:
       CH        CHEM, HEM, TOX, SER, RIA, ETC.
       MI        MICROBIOLOGY
       BB        BLOOD BANK
       EM        ELECTRON MICROSCOPY
       SP        SURGICAL PATHOLOGY
       CY        CYTOLOGY
       AU        AUTOPSY
       WK        WORKLOAD
```

```
SUBSCRIPT: CHEM, HEM, TOX, SER, RIA, ETC.// CH  CHEM, HEM, TOX, SER, RIA,
ETC.

Select LABORATORY TEST NAME: <RETURN>
```

Other Fatal Errors

An example of another fatal error is: Field ____ of File 9009022 not in Provider file.
A review of the data dictionary for File 9009022 indicates that field 1104 is the
ordering provider and is a pointer to the New Person file, File 200. An entry must be
made for the ordering provider in the appropriate files and the transactions with this
error message must be edited and refiled. The easiest way to refile a panel of tests
with this type of error is to create a sort template (see page 21) and refile using the
BLR menu option, RST, Requeue Transaction by Sort Template.

```
Subj: PCC FILING ERROR FOR THIS ENTRY [#709373] 30 Sep 97 15:32 10 Lines
From: POSTMASTER  in 'IN' basket.   Page 1  **NEW**
------------------------------------------------------------------------

An entry in PCC could not be created for the following lab
order because there is a filing error reported in PCC.

PATIENT NAME:  PATIENT,DEMO  PATIENT DFN: 43544  VISIT DATE: SEP 30,1997
LAB SYSTEM ORDER NUMBER:  87813  ACCESSION NUMBER: UA 0930 4
LAB TEST:  TRANSITIONAL EPITHELIAL CELLS TX LOG IEN: 191829
PCC ERROR:  Field 1104 of file 9009022 not in Provider file

No results entered for this test were transferred into the PCC.
```

A fatal error with a bulletin stating "Something wrong—problem with IHS Lab
Transaction Cross Reference" usually means one of two things:

- There may be a discrepancy between the institution where the user is logged on
  and the institution defined in the BLR Master Control file.

- There may be a problem with a File 60 test definition in which two different tests
  point to the same data name in File 63.

The starting point in resolving this error is to identify the institution of the patient and
the test that has been rejected. Depending on the findings, a correction may have to be
made in File 60 following the guidelines in the Laboratory Package Planning and
Implementation Guide. Alternatively, it may be found that the problem is with an
institution discrepancy, which may or may not require editing entries in the BLR
Master Control file or PCC Master Control file, depending on the relationships of the
PCC databases of the institutions.

```
Subj: IHS Lab Transaction Log Error  [#709501] 02 Oct 97 09:50  11 Lines
From: POSTMASTER  in 'IN' basket.   Page 1  **NEW**
------------------------------------------------------------------------

An entry in the IHS Lab Transaction Log could not be created
because of missing or invalid data.
```

```
IHS Lab Transaction Log ERROR:

Something wrong -- problem with IHS Lab Transaction Log Cross Reference:
^BLRTX
LOG("AAT",CH 1002 4,175)

VARIABLES:
```

The fatal message "PCC Visit not created APCDFLG = (1 or 2)" indicates that either an invalid template specification was made, the Visit DFN is incorrect, or ^DIE rejected the data for a variety of reasons. The best way to handle this kind of bulletin is to review the sequence of events on the Laboratory side and determine whether data would be passed to the PCC under the normal business rules. If it is determined that data should have passed to the PCC, call Tucson DIR for assistance in resolving this error.

```
Subj: PCC FILING ERROR FOR THIS ENTRY [#1007885]30 Sep 97 16:32 10 Lines
From: POSTMASTER  in 'IN' basket.   Page 1  **NEW**
------------------------------------------------------------------------

An entry in PCC could not be created for the following lab
order because there is a filing error reported in PCC.

PATIENT NAME:  DEMO,PATIENT  PATIENT DFN:  29146  VISIT DATE: SEP
30,1997LAB SYSTEM ORDER NUMBER:  105272  ACCESSION NUMBER: CH 0930 14
LAB TEST:  GLUCOSE TX LOG IEN: 305520
PCC ERROR:  PCC Visit not created APCDFLG = 2

No results entered for this test were transferred into the PCC.
```

Other bulletins that are considered fatal and require investigation are listed below. The process of review, resolution, and refiling is the same regardless of the type of bulletin.

Update to IHS transaction log to the PCC ERROR field not done..REFILE. An update was not made for a particular sequence number. REFILE suggests that the necessary correction be made to the sequence's transaction and then refiled.

PCC ERROR FLAG field not nulled. An attempt was made to null out some fields and the attempt failed. Most of the time this operation is used when the V file number and the V file IEN are being removed from a transaction when results have been deleted.

Patient IEN is required. The PATIENT IEN field is not set.

No collection date. No collection date was entered for this transaction.

No institution entry. Data was processed for a patient that was seen at a site that is not defined in the Hospital Location file.

No entry in Provider file for the Ordering Provider. The ordering provider entered is not defined in the Person file(16) as a provider, or there is no entry in the Provider file(6) for this provider.

No entry in Provider file for the Encounter Provider. The encounter provider entered is not defined in the Person file(16) as a provider, or there is no entry in the Provider file(6) for this provider.

Visit not created – task terminated. The Visit entry could not be created. No further processing can occur for this entry.

Field _____ of file 9009022 is invalid. Generic reject message created when a specific reason for a PCC rejection is not determined.

Write to V LAB file rejected. Failed a V LAB field edit so update of this entry to the PCC is terminated.

Write to V Micro file rejected. Failed a V Micro field edit so update of this entry to the PCC is terminated.

Write to V Blood Bank rejected. Failed a V Blood Bank field edit so update of this entry to the PCC is terminated.

Field .06 of File 9009022 not a valid test in Dile 60. The test entered is not defined in the Laboratory Test file (60).

Field .06 of File 9009022 not a valid antibiotic IEN. An invalid antibiotic was entered in this field. Check entries in the antimicrobial susceptibility file (62.06).

Field .06 of File 9009022 not a valid antibody IEN. An invalid antibody was entered in this field. Check entries in the Function Field file (61.3).

Field_____ is required for PCC and cannot be null. No data was entered into a required field.

Appendix A: IHS Lab 1997 CPT Codes

```
IHS LAB CPT CODE LIST            APR 14,1997 12:52  PAGE 1
NAME            PANEL/TEST            CPT CODE   MODIFIER   QUALIFIER
--------------------------------------------------------------------
-
1,25 DIHYDROXYV   1,25-DIHYDROXYVIT D3   82652      .90
11-DEOXYCORTISO   11-DEOXYCORTISOL      82634     .90
17-HYDROXYCORTI   17-HYDROXYCORTICOSTE   83491      .90
17-HYDROXYPROGE   17-HYDROXYPROGESTERO   83498    .90
17-KETOGENIC ST   17-KETOGENIC STEROID   83582      .90
17-KETOSTEROIDS   17-KETOSTEROIDS,TOTA   83586      .90
5' NUCLEOTIDASE   5' NUCLEOTIDASE       83915     .90
ABO/RH TYPING     ABO/RH TYPING         86900
                               86901
ACETALDEHYDE      ACETALDEHYDE          82000     .90
ACETAMINOPHEN     ACETAMINOPHEN         82003
ACETONE           ACETONE               82009
ACETYLCHOLINE R   ACETYLCHOLINE RECEPT   84238      .90
ACID PHOSPHATAS   ACID PHOSPHATASE      84060
ACTH         ACTH             82024    .90
ADDIS COUNT       ADDIS COUNT           81099
ADENOVIRUS TITE   ADENOVIRUS TITER      86603     .90
AFB CULTURE       AFB CULTURE           87117
AFB CULTURE & S   AFB CULTURE & SMEAR    87117
           AFB SMEAR           87206
ALBUMIN           ALBUMIN               82040
MICROALBUMIN      ALBUMIN, MICRO        82044              QW
ALBUMIN/CREATIN   ALBUMIN/CREATININE R   82570
                               82042
ALDOLASE          ALDOLASE              82085     .90
ALDOSTERONE       ALDOSTERONE           82088     .90
ALK PHOSPHATASE   ALK PHOSPHATASE, HEA   84078      .90
ALKALINE PHOSPH   ALKALINE PHOSPHATASE   84075
ALPHA-1-ANTITRY   ALPHA-1-ANTITRYPSIN    82103      .90
ALPHA FETOPROTE   ALPHA-FETOPROTEIN     82105     .90
ALUMINUM          ALUMINUM              82108     .90
AMIKACIN          AMIKACIN              80150
AMINOLEVULINIC    AMINOLEVULINIC ACID    82135      .90
AMITRIPTYLINE     AMITRIPTYLINE         80152     .90
AMITRYPTILINE &   AMITRIPTYLINE & NORT   80152      .90
                               80182     .90
AMMONIA           AMMONIA               82140
AMOEBIC IHA ANT   AMOEBIC IHA ANTIBODY   86753      .90
AMOXAPINE         AMOXAPINE             80299     .90
AMPHETAMINE SCR   AMPHETAMINE SCREEN    80101     .90
AMPHETAMINES      AMPHETAMINES          82145     .90
AMPICILLIN        AMPICILLIN            80299
AMYLASE           AMYLASE               82150
ANA PANEL         ANA PANEL             86038
ANAEROBIC CULTU   ANAEROBIC CULTURE     87075
ANDROSTENEDIONE   ANDROSTENEDIONE       82157     .90
ANGIOTENSIN-1     ANGIOTENSIN-1         82164     .90
ANTIMITOCHONDRI   ANTI MITOCHONDRIAL A   86255      .90
```

```
ANTI SMOOTH MUS    ANTI SMOOTH MUSCLE    86255        .90
ANTI-DEOXYRIBON    ANTI-DEOXYRIBONUCLEA    86215
ANTI-DNA ANTIBO    ANTI-DNA ANTIBODY    86226        .90
ANTI-EPIDERMAL     ANTI-EPIDERMAL AB    86255        .90
ANTI-GLOM BASEM    ANTI-GLOM BASEMENT M    83520      .90
ANTI-HYALURONID    ANTI-HYALURONIDASE T    86849      .90
ANTI-MICROSOMAL    ANTI-MICROSOMAL ANTI    86376      .90
ANTI-MYOCARDIAL    ANTI-MYOCARDIAL AB    86255        .90
ANTI-PARIETAL C    ANTI-PARIETAL CELL A    86255      .90
ANTI-RETICULIN     ANTI-RETICULIN AB    86255        .90
ANTI-RNP           ANTI-RNP             86235        .90
ANTI-SKELETAL M    ANTI-SKELETAL MUSCLE    86255      .90
ANTI-STRIATED M    ANTI-STRIATED MUSCLE    86255      .90
ANTI-THYROGLOBU    ANTI-THYROGLOBULIN A    86800      .90
ANTI-THYROID AN    ANTI-THYROID ANTIBOD    86376      .90
ANTICENTROMERE     ANTICENTROMERE       86038        .90
ANTIDIURETIC HO    ANTIDIURETIC HOR     84588        .90
ANTIMONY           ANTIMONY             83015        .90
ANTISTREPTOLYSI    ANTISTREPTOLYSIN SC    86063       .90
ANTITHROMBIN II    ANTITHROMBIN III     85300
ARBOVIRUS CALIF    ARBOVIRUS CALIF TITE    86790      .90
ARBOVIRUS EEE T    ARBOVIRUS EEE TITER    86790       .90
ARBOVIRUS SLE T    ARBOVIRUS SLE TITER    86790       .90
ARBOVIRUS WEE T    ARBOVIRUS WEE TITER    86790       .90
ARSENIC            ARSENIC              82175        .90
ARTERIAL BLOOD     ARTERIAL BLOOD GASES    82803
ARYLSULFATASE A    ARYLSULFATASE A      84999        .90
ASO          ASO                  86060       .90
ASPERGILLUS AB     ASPERGILLUS AB IMMUN    86329      .90
ASPERGILLUS COM    ASPERGILLUS COMPLEME    86171      .90
BARBITURATE SCR    BARBITURATE SCREEN    80100        .90
BRABITURATES       BARBITURATES         82205        .90
BENCE JONE PROT    BENCE JONES PROTEIN    81099
BENZENE            BENZENE              82491        .90
BENZODIAZEPINE     BENZODIAZEPINE SCREE    80100      .90
BENZODIAZEPINES    BENZODIAZEPINES      80154        .90
BERYLLIUM          BERYLLIUM            83015        .90
BETA-2-MICROGLO    BETA 2-MICROGLOB     82232        .90
BILIRUBIN, DIRE    BILIRUBIN, DIRECT    82250
BILRUBIN, TOTAL    BILIRUBIN, TOTAL     82250
BILIRUBIN, TOTA    BILIRUBIN,TOTAL & DI    82251
BLASTOMYCES ANT    BLASTOMYCES AB       86612        .90
BLASTOMYCES COM    BLASTOMYCES COMPLEME    86171      .90
BLEEDING TIME      BLEEDING TIME        85002
BLOOD CULTURE      BLOOD CULTURE        87040
BONE MARROW        BONE MARROW          85097
BROMIDE            BROMIDE              84311        .90
BRUCELLA AGGLUT    BRUCELLA AGGLUTINATI    86622      .90
BRUCELLA BLOCKI    BRUCELLA BLOCKING AN    86622      .90
BUTALBITAL         BUTALBITAL           82205        .90
C REACTIVE PROT    C REACTIVE PROTEIN   86140        .90
C-1Q COMPLEMENT    C-1Q COMPLEMENT COMP    86160      .90
C-PEPTIDE          C-PEPTIDE            84681        .90
C1 ESTERASE INH    C1 ESTERASE INHIBIT.    86160      .90
CAFFEINE                             82491        .90
```

```
CALCITONIN          CALCITONIN           82308       .90
CALCIUM             CALCIUM              82310
CALCULUS            CALCULUS             82360       .90
CANDIDA IMMUNOD     CANDIDA IMMUNO DIFF    86628        .90
CANDIDA PRECIPI     CANDIDA PRECIPITIN   86403        .90
CANNABINOIDS        CANNABINOIDS         80100        .90
CARBAMAZEPINE       CARBAMAZEPINE        80156
CARDIAC ENZYMES     CARDIAC ENZYMES
CARDIAC ISOENZY     CARDIAC ISOENZYMES   83625
CAROTENE            CAROTENE             82380        .90
CATECHOLAMINES      CATECHOLAMINES       82384        .90
CATECHOLAMINES,     CATECHOLAMINES, FRAC   82384        .90
CBC            CBC                 85027
CBC & MORPHOLOG     CBC & MORPHOLOGY (NO    85027
                                       85008
CBC & MORPHOLOG     CBC & MORPHOLOGY (WI    85007
CBC PROFILE         CBC PROFILE          85025
CEA            CEA                 82378      .90
CEA-S          CEA-S, RIA          82378        .90
CERULOPLASMIN       CERULOPLASMIN        82390        .90
CHEM 11             CHEM 11              80011
CHEM 20             CHEM 20              80019
CHEM 7              CHEM 7            80007        09990
CHLAMYDIA TITER     CHLAMYDIA TITER      86631     .90
CHLORDIAZEPOXID     CHLORDIAZEPOXIDE     80154        .90
CHLORIDE            CHLORIDE             82435
CHLORPROMAZINE      CHLORPROMAZINE       84022        .90
CHLORPROPAMIDE      CHLORPROPAMIDE       84022        .90
CHOLESTEROL         CHOLESTEROL          82465
CHOLINESTERASE      CHOLINESTERASE       82480        .90
CHORIONIC GONAD     CHORIONIC GONADOTROP    84703        .90
CHROMIUM            CHROMIUM             82495        .90
CLONAZEPAM          CLONAZEPAM           80154        .90
CO2            CO2                 82374
CO2TOTAL            CO2T              82803
COBALT              COBALT            82190       .90
COCAINE             COCAINE              80100
COCCIDIOIDES AB     COCCIDIODES AB       86635        .90
COCCIDIOIDES PR     COCCIDIODES PRECIPIT    86635        .90
COCCIDIODES SCR     COCCIDIODES SCREEN   86635
COCCIDIODES CF      COCCIDIOIDES CF TITE    86635        .90
COCCIDIOIDES ID     COCCIDIOIDES IDCF TI    86635        .90
COCCIDIODES LPA     COCCIDIOIDES LPA TIT    86635        .90
COMPLEMENT C2       COMPLEMENT C2        86160        .90
COMPLEMENT C3       COMPLEMENT C3        86160        .90
COMPLEMENT C4       COMPLEMENT C4        86160        .90
COMPLEMENT C5       COMPLEMENT C5        86160        .90
COMPLEMENT C6       COMPLEMENT C6        86160        .90
COMPLEMENT CH50     COMPLEMENT CH50      86162        .90
COMPLEMENT TOTA     COMPLEMENT TOTAL     86162        .90
DIRECT/INDIRECT     COOMBS, DIRECT/INDIR    86880
                                       86850
COPPER              COPPER            82525       .90
CORTICOSTERONE      CORTICOSTERONE       82528        .90
CORTISOL            CORTISOL             82530        .90
```

```
COXSACKIE A 1-1    COXSACKIE A 1-10 TIT    86658
COXSACKIE B 1-6    COXSACKIE B 1-6         86658
CPK            CPK                 82550
CPK-MB             CPK-MB              82553
CK ISOENZYMES      CPK-MB/CPK          82552
CREATINE           CREATINE            82540       .90
CREATININE         CREATININE          82565
CREATININE CLEA    CREATININE CLEARANCE    82575
                                    81050
CRYPTOCOCCUS AN    CRYPTOCOCCUS ANTIGEN    86313       .90
CSF GLUCOSE        CSF GLUCOSE         82947
CSF PROTEIN        CSF PROTEIN         84155
CULTURE & SUSCE    CULTURE & SUSCEPTIBI    87072
CYANIDE            CYANIDE             82600       .90
CYCLOSPORINE       CYCLOSPORIN         80158       .90
CYTOMEGALOVIRUS    CYTOMEGALO IFA      86313       .90
CYTOMEGALOVIRUS    CYTOMEGALOVIRUS     86644       .90
                                    86645       .90
DARK FIELD MICR    DARK FIELD MICROSCOP    87164
DESIPRAMINE        DESIPRAMINE         80160       .90
DHEA           DHEA                82626       .90
DHEA-S             DHEA-S              82627     .90
DIAZEPAM           DIAZEPAM            80154       .90
DIBUCAINE NUMBE    DIBUCAINE NUMBER    82638       .90
MANUAL DIFFEREN    DIFF & RBC MORPHOLOG    85007
DIGITOXIN          DIGITOXIN           82640
DIGOXIN            DIGOXIN             80162
PHENYTOIN          DILANTIN            80185
DIPHENHYDRAMINE    DIPHENHYDRAMINE     80299       .90
DISOPYRAMIDE       DISOPYRAMIDE        80299       .90
CHLAMYDIA DNA P    DNA PROBE CHLAMYDIA     87179      .90
GC DNA PROBE       DNA PROBE GC        87179    .90
DOXEPIN            DOXEPIN             80166       .90
ECHO,14,18,20,2    ECHO,14,18,20,25,28     86658      .90
ECHO,2,3,4,7,8,    ECHO,2,3,4,7,8,11 TI    86658      .90
ECHO,6,9,16,30     ECHO,6,9,16,30 TITER    86658      .90
EPINEPHRINE        EPINEPHRINE         82384       .90
EPSTEIN BARR       EPSTEIN BARR        86663       .90
ERYTHROPOIETIN     ERYTHROPOIETIN      82668       .90
ESTRADIOL RECEP    ESTRADIOL RECEPTOR A    84233       .90
ESTRADIOL, 17-B    ESTRADIOL, 17-B     82670       .90
ESTRIOL            ESTRIOL             82677       .90
ESTROGEN           ESTROGEN            82670       .90
                                    82677     .90
                                    82679     .90
ESTRONE            ESTRONE             82679       .90
ALCOHOL            ETHANOL             82055
ETHOSUXIMIDE       ETHOSUXIMIDE        80168       .90
ETHOTOIN           ETHOTOIN            80299       .90
FACTOR II          FACTOR II           85210       .90
FACTOR XIII        FACTOR XIII         85290       .90
FATTY ACIDS, FR    FATTY ACIDS, FREE   82725       .90
FEBRILE AGGLUTI    FEBRILE AGGLUTININS     86000       .90
FECAL FAT          FECAL FAT           82705
FECAL LEUCOCYTE    FECAL LEUKOCYTES    87205
```

```
FERRITIN            FERRITIN              82728        .90
FIBRIN SPLIT PR     FIBRIN SPLIT PRODUCT   85362         .90
FIBRINOGEN          FIBRINOGEN            85384
FLUID BILIRUBIN     FLUID BILIRUBIN       82250
FLUORIDE            FLUORIDE              82735        .90
FLUPHENAZINE-PR     FLUPHENAZINE-PROLIXN   84022         .90
FOLATE              FOLATE             82746       .90
FREE T4             FREE T4               84439       .90
FSH             FSH               83001       .90
FTA-ABS             FTA-ABS               86781       .90
FUNGAL ANTIGEN      FUNGAL ANTIGEN        86606       .90
                                          86635      .90
                                          86698      .90
                                          86628      .90
                                          86612      .90
G-6-PD, QUANTIT     G-6-PD, QUANTITATIVE   82955         .90
GASTRIN             GASTRIN               82941       .90
GC CULTURE          GC CULTURE            87081
GENTAMICIN          GENTAMICIN            80170
GGT             GGT               82977
GLUCAGON            GLUCAGON              82943       .90
GLUCOSE             GLUCOSE               82947
GLUCOSE TOLERAN     GLUCOSE TOLERANCE TE   82951
                                       82952
GLUCOSE,OTHER       GLUCOSE, OTHER        82947
GLUTAMINE           GLUTAMINE             82975        .90
GRAM STAIN          GRAM STAIN            87205
GROWTH HORMONE      GROWTH HORMONE        83003        .90
GTT, 1 HR           GTT, 1 HR             82950
GTT, FASTING        GTT, FASTING          82947
H&H             H&H               85014
                                       85018
H. SIMPLEX I        H. SIMPLEX I          87140        .90
H. SIMPLEX II       H. SIMPLEX II         87140        .90
HALOPERIDOL         HALOPERIDOL           80299        .90
HCG             HCG               84703       .90
BETA HCG            HCG, QUANT            84702        .90
HDL             HDL               83718
HELPER T CELLS      HELPER T CELLS        88180        .90
                                       85048
HELPER/SUPPRESS     HELPER/SUPPRESSOR RA   85048
                                          86360       .90
HELPER/SUPPRESS     HELPER/SUPPRESSOR T    85048
                                          86360       .90
HEMATOCRIT          HEMATOCRIT            85014
HEMOGLOBIN          HEMOGLOBIN            85018
HEPATITIS A ANT     HEPATITIS A ANTIBODY   86296         .90
                                          86299       .90
HEPATITIS B COR     HEPATITIS B CORE ANT   86289         .90
HEPATITIS B PAN     HEPATITIS B PANEL     86291        .90
                                          86287      .90
                                          86289
                                          86295      .90
                                          86293      .90
HEPATITIS B SUR     HEPATITIS B SURFACE    86291         .90
```

```
HEPATITIS B SUR    HEPATITIS B SURFACE    86287         .90
HEPATITIS C        HEPATITIS C            86302       .90
HEPATITIS DIAGN    HEPATITIS DIAGNOSTIC   80059        .90
HEPATITIS E ANT    HEPATITIS E ANTIBODY   86295         .90
HEPATITIS E ANT    HEPATITIS E ANTIGEN    86293         .90
HETEROPHIL AB D    HETEROPHIL AB DIFFER   86310         .90
HEXOSAMINIDASE     HEXOSAMINIDASE         84999        .90
HGB ELECTROPHOR    HGB ELECTROPHORESIS    83020         .90
HISTOPLASMA AB     HISTOPLASMA AB         86698        .90
HISTOPLASMA COM    HISTOPLASMA COMPLEME   86171         .90
HISTOPLASMA PRE    HISTOPLASMA PRECIPIT   86406         .90
HIV SCREEN         HIV SCREEN             86701       .90
HLA-ABC TYPING     HLA-ABC TYPING         86813       .90
HOMOCYSTINE        HOMOCYSTINE            82131       .90
HOMOVANILLIC AC    HOMOVANILLIC ACID      83150        .90
HYDROXYPROLINE-    HYDROXYPROLINE-FREE    83500        .90
HYDROXYPROLINE-    HYDROXYPROLINE-TOTAL   83505        .90
IGA                IGA                    82784        .90
IGD                IGD                    82784        .90
IGG                IGG                    82784        .90
IGG SYNTHESIS R    IGG SYNTHESIS RATE     83883        .90
                                          82784        .90
IGM                IGM                    82784        .90
IMI+DES            IMI+DES                80101       .90
IMIPRAMINE         IMIPRAMINE             80174       .90
IMIPRAMINE & DE    IMIPRAMINE & DESIPRA   80101        .90
IMMUNE COMPLEX-    IMMUNE COMPLEX-C1Q     86332       .90
IMMUNOGLOBULINS    IMMUNOGLOBULINS        82784       .90
INDIA INK PREP     INDIA INK PREP         87210
INFLUENZA A, BA    INFLUENZA A,BANGKOK    86710        .90
INFLUENZA A,ENG    INFLUENZA A,ENGLAND    86710        .90
INFLUENZA A,PHI    INFLUENZA A,PHILLIPI   86710        .90
INFLUENZA B,SIN    INFLUENZA B,SINGAPOR   86710        .90
INFLUENZA C        INFLUENZA C            86710       .90
INFLUENZA TYPE     INFLUENZA TYPE A (TI   86710         .90
INFLUENZA TYPE     INFLUENZA TYPE B (TI   86710         .90
INSULIN            INSULIN                83525       .90
INSULIN ANTIBOD    INSULIN ANTIBODIES     86337       .90
INSULIN BINDING    INSULIN BINDING        86337       .90
INTRINSIC FACTO    INTRINSIC FACTOR AB    86340         .90
IODINE, INORGAN    IODINE, INORGANIC      82491        .90
IODINE,TOTAL       IODINE, TOTAL          82491    .90
IONIZED CALCIUM    IONIZED CALCIUM        82330        .90
IRON               IRON             83540
IRON STUDIES       IRON PROFILE           83540        .90
                                          83550       .90
IRON SATURATION    IRON SATURATION        83550        .90
ISOPROPANOL        ISOPROPANOL            84448       .90
KETONES            KETONES                82010       .90
KOH FUNGAL PREP    KOH FUNGAL PREP        87220
LACTIC ACID        LACTIC ACID            83605
LDH                LDH              83615
LDL CHOLESTEROL    LDL CHOLESTEROL        83721        .90
LE                 LE PREP            85544
LEAD               LEAD             83655       .90
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LECITHIN/SPHING   LECITHIN/SPHINGOMYEL    83661         .90
LEGIONELLA AB     LEGIONELLA AB        86713       .90
LEPTOSPIRA AGGL   LEPTOSPIRA AGGLT     86720       .90
LEUKOCYTE ALK P   LEUKOCYTE ALK PHOS S   85540
LH          LH                 83002      .90
LIDOCAINE         LIDOCAINE            80176       .90
LIPASE            LIPASE            83690
LIPID PROFILE     LIPID PROFILE        80061
                                     83721
LIPIDS, QUALITA   LIPIDS, QUALITATIVE    82705       .90
LIPIDS, TOTAL     LIPIDS, TOTAL        80061       .90
LITHIUM           LITHIUM              80178
LIVER FUNCTION    LIVER FUNCTION       82250
                                     84075
                                     84450
                                     84460
                                     82977
LSD          LSD                80101      .90
LYSOZYME          LYSOZYME             85549       .90
ELECTROLYTES      LYTES            80004
MAGNESIUM         MAGNESIUM            83735
MAPROTILINE-LUD   MAPROTILINE-LUDIOMIL   80299        .90
MEASLES-RUBEOLA   MEASLES-RUBEOLA TITE   86765        .90
MEPERIDINE        MEPERIDINE           83925       .90
MEPHOBARBITAL     MEPHOBARBITAL        82205       .90
MERCURY           MERCURY              83825       .90
METANEPHRINES,    METANEPHRINES, TOT   83835       .90
METHADONE         METHADONE            83840       .90
METHOTREXATE      METHOTREXATE         80299     .90
METHYLMALONIC A   METHYLMALONIC ACID   82131        .90
MHA-TP            MHA-TP             86781      .90
MICROHEMATOCRIT   MICROHEMATOCRIT      85013
MONO TEST         MONO TEST            86403
HETEROPHILE       MONO TEST            86308         .90
MORPHINE          MORPHINE             80101       .90
MS AFP            MS AFP             82105     .90
MUCOPOLYSACCHAR   MUCOPOLYSACCHARIDES    83866        .90
MUMPS         MUMPS              86735       .90
MUMPS SOLUBLE     MUMPS SOLUBLE        86735       .90
MUMPS VIRAL       MUMPS VIRAL          86735       .90
MYCOLOGY CULTUR   MYCOLOGY CULTURE     87102
MYELIN BASIC PR   MYELIN BASIC PROTEIN   83873        .90
MYOGLOBIN         MYOGLOBIN            83874       .90
PRIMIDONE         MYSOLINE             80188
NEONATAL BILIRU   NEONATAL BILIRUBIN   82251
NEWBORN METABOL   NEWBORN METABOLIC SC   84030        .90
                                     83020      .90
                                     82776      .90
                                     84437      .90
                                     82128      .90
NICKEL            NICKEL             83885      .90
NICOTINE          NICOTINE             83520       .90
NORTRIPTYLINE     NORTRIPTYLINE        80182       .90
FECAL OCCULT BL   OCCULT BLOOD         82270
OPIATE SCREEN     OPIATE SCREEN        80101       .90
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OPIATES            OPIATES              80102        .90
OSMOLALITY         OSMOLARITY           83930        .90
OVA & PARASITES    OVA & PARASITES      87177
OXALATE            OXALATE              83945        .90
OXYGEN SATURATI    OXYGEN SATURATION    82810
PARAINFLUENZA 1    PARAINFLUENZA 1      86790        .90
PARAINFLUENZA 2    PARAINFLUENZA 2      86790        .90
PARAINFLUENZA 3    PARAINFLUENZA 3      86790        .90
PARTIAL THROMBO    PARTIAL THROMBOPLAST  85730
PCO2          PCO2               82803
PENTOBARBITAL      PENTOBARBITAL        82205        .90
PEPSINOGEN         PEPSINOGEN           83519        .90
PEPSINOGEN 1       PEPSINOGEN 1         83519        .90
PH            PH                 82800
PHENOBARBITAL      PHENOBARBITAL        80184
PHENOL             PHENOL          82491      .90
PHENOTHIAZINE      PHENOTHIAZINE        80101        .90
PHENYLALANINE      PHENYLALANINE        84030        .90
PHOSPHOLIPIDS      PHOSPHOLIPIDS        84311        .90
PINWORM EXAM       PINWORM EXAM         87208
PLATELET AB        PLATELET AB          86022
PLATELET COUNT     PLATELET COUNT       85595
PLT (ESTM)         PLT (ESTM)           85585
PO2           PO2                82803
PO4           PO4                84100
POLIO VIRUS 1      POLIO VIRUS 1        86658        .90
POLIO VIRUS 2      POLIO VIRUS 2        86658        .90
POLIO VIRUS 3      POLIO VIRUS 3        86658        .90
POTASSIUM          POTASSIUM            84132
PREALBUMIN         PREALBUMIN           84134        .90
URINE PREGNANCY    PREGNANCY TEST       81025
PREGNANEDIOL       PREGNANEDIOL         84135        .90
PROCAINAMIDE       PROCAINAMIDE         80192
PROLACTIN          PROLACTIN            84146        .90
PROPRANOLOL        PROPRANOLOL          80299        .90
PROSTATE SPECIF    PROSTATE SPECIFIC AN  84153       .90
PROTEIN            PROTEIN,TOTAL        84155
PT PATIENT         PROTHROMBIN TIME     85610
PROTIME            PROTIME1             85610
PROTIME2           PROTIME2             85610
PROTRIPTYLINE      PROTRIPTYLINE        80299        .90
PT WITH MIX        PT WITH MIX          85611
PTH (C-TERMINAL    PTH (C-TERMINAL)     83970        .90
PTH (INTACT)       PTH (INTACT)         83970        .90
Q-FEVER (ACUTE)    Q-FEVER (ACUTE) TITE  86638       .90
QUINIDINE          QUINIDINE            80194
RA PRECIPITIN A    RA PRECIPITIN AB     86431        .90
RBC           RBC                85041
RENIN         RENIN              84244      .90
RESP SYNCITIAL     RESP SYNCTIAL VIRUS   86756       .90
RETICULOCYTES      RETICULOCYTES        85044
RHEUMATOID FACT    RHEUMATOID FACTOR    86430
RPR           RPR                86592
RUBELLA            RUBELLA SCREEN       86762
RUBELLA TITER      RUBELLA TITER        86762        .90
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RUBEOLA TITER      RUBEOLA                86765          .90
SALICYLATE         SALICYLATE             80196
SCLERODERMA AB     SCLERODERMA AB         86235          .90
ESR           SED RATE             85651
SELENIUM           SELENIUM               84255
SEMEN ANALYSIS     SEMEN ANALYSIS         89320          .90
SGOT          SGOT              84450
SGPT          SGPT              84460
SICKLE CELL PRE    SICKLE CELL PREP    85660
SODIUM             SODIUM            84295
SPECIFIC GRAVIT    SPECIFIC GRAVITY    84315
SPERM COUNT        SPERM COUNT         89310
STOOL CULTURE      STOOL CULTURE       87045
STREP B SCREEN     STREP B SCREEN         86588          .90
STREP A SCREEN     STREP SCREEN           86588
BETA STREP GROU    STREP SCREEN           86588
STREPTOZYME        STREPTOZYME            86317          .90
T LYMPHOCYTES      T LYMPHOCYTES          86359          .90
T-4 BINDING GLO    T-4 BINDING GLOBULIN     84442      .90
T3 UPTAKE          T3 UPTAKE              84479
TEGRETOL           TEGRETOL               80156
TEICHOIC ACID      TEICHOIC ACID AB       86331          .90
TESTOSTERONE       TESTOSTERONE           84403          .90
THALLIUM           THALLIUM               82190          .90
THEOPHYLLINE       THEOPHYLLINE           80198
THIOCYANATE        THIOCYANATE            84430          .90
THIORIDAZINE       THIORIDAZINE           84022          .90
THIORIDAZINE-ME    THIORIDAZINE-MELLARI     84022      .90
THROAT CULTURE     THROAT CULTURE         87060
THROMBIN TIME      THROMBIN TIME          85670
THYROGLOBULIN      THYROGLOBULIN          84432          .90
THYROID PROFILE    THYROID GROUP          80092          .90
                                         84480      .90
THYROXINE          THYROXINE              84436
TOBRAMYCIN         TOBRAMYCIN             80200
TOTAL IRON BIND    TOTAL IRON BINDING C    83550
TOXOPLASMA         TOXOPLASMA             86777
TRANSFERRIN        TRANSFERRIN            84466          .90
TRAZODONE          TRAZODONE              80154          .90
TRIGLYCERIDE       TRIGLYCERIDE           84478
TRIIODOTHYRONIN    TRIIODOTHYRONINE       84480
TRYPSIN            TRYPSIN                83519          .90
TSH           TSH               84443
TULAREMIA AGGLU    TULAREMIA AGGLUTINAT     86000      .90
TYPHUS AB TITER    TYPHUS AB TITER        86255          .90
UREA NITROGEN      UREA NITROGEN          84520
URIC ACID          URIC ACID              84550
URINALYSIS         URINALYSIS             81001
URINE 5HIAA        URINE 5HIAA            83497          .90
URINE CREATININ    URINE CREATININE       82570
URINE CULTURE      URINE CULTURE          87086
DIPSTICK UA        URINE DIPSTICK         81003
URINE DRUG SCRE    URINE DRUG SCREEN      80100          .90
URINE VOLUME ME    URINE VOLUME           81050
VALPROIC ACID      VALPROIC ACID          80164
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VANCOMYCIN          VANCOMYCIN            80202
VDRL            VDRL             86592
VIRAL CULTURE       VIRAL CULTURE         87252         .90
VITAMIN B-1         VITAMIN B-1           84425         .90
VITAMIN B12         VITAMIN B-12          82607
VITAMIN B-2         VITAMIN B-2           84252         .90
VITAMIN B-6         VITAMIN B-6           84207         .90
VITAMIN C           VITAMIN C             82180         .90
VITAMIN E           VITAMIN E             84446
VMA             VMA              84585       .90
WBC             WBC              85048
WHOLE BLOOD GLU     WHOLE BLOOD GLUCOSE     82962
WINTROBE ESR &      WINTROBE ESR & CBC    85027
                                  85651
WINTROBE            WINTROBE*             85651
XYLOSE ABSORPTI     XYLOSE ABSORPTION     84620         .90
ZINC            ZINC             84630       .90
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Appendix B: IHS Lab Transaction Log Field Definitions

BLRTXLOG (9009022)

Below is a typical transaction (a chloride ordered as part of a test panel – electrolytes) and an explanation of each of the fields displayed.

> **Note**: Other fields may be displayed depending upon the kind of test being processed. For a complete listing of the fields in the BLR Transaction Log, please review the data dictionary for file 9009022.

```
IHS LAB TRANSACTION LOG LIST                     SEP 30,1997  16:20    PAGE 1
-------------------------------------------------------------------------


SEQUENCE NUMBER: 35                         LRFILE: 2
  LRDFN: 5                                  PATIENT POINTER VALUE: 1
  PANEL/TEST POINTER: CHLORIDE              LAB MODULE: GENERAL
  DUZ(2): 4585                              I/O CATEGORY: IN PATIENT
  PARENT POINTER: 32                        STATUS FLAG: ACCESSIONED
  ENTRY DATE/TIME: SEP 29, 1997@13:05:12
  ASSOCIATED V FILE: V LAB                  IEN OF V FILE ENTRY: 70054
  CLINIC STOP CODE POINTER: PEDIATRIC CPT LAB CODE POINTER: ELECTROLYTES
  ORDER DATE: SEP 29, 1997@13:05:12    ORDER SEQUENCE NUMBER: 5
  ORDER NUMBER: 370                 ORDERING PROVIDER POINTER: BRIO,ALINA
  ORDERING PROVIDER NAME: BRIO,ALINA
  ORDERING LOCATION POINTER: SMITH PEDIATRIC
  ORDERING LOCATION NAME: SP          COLLECTION DATE/TIME: SEP 29, 1997
  ACCESSION NUMBER: CH 0929 5          UNITS: mEq/L
  SITE/SPECIMEN POINTER: BLOOD          VERIFIER POINTER: EVANS,F.J.
  VERIFIER NAME: EVANS,F.J.
```

.01 SEQUENCE NUMBER: A unique number assigned by the system to each panel and individual test at the time of order in the Laboratory package. This number is the same as the internal entry number for each entry.

.02   LRFILE: The number of the file that the Lab Data points to; e.g., File 2 VA Patient.

.03 LRDFN: The internal entry number of the lab data global.

.04 PATIENT POINTER VALUE: The IEN of the patient in File 2, VA Patient.

.05 PATIENT NAME: The patient's name (not displayed in the example).

.06 PANEL/TEST POINTER: This is a pointer to the test in the Laboratory Test file (60).

.07 PANEL/TEST NAME: This is the name of the test in the Laboratory Test file (60) (not displayed in the example).

.08 LAB MODULE: Reference to the subscript defined for this test in Laboratory Test file (60)   'CH' FOR GENERAL;

- 'MI' FOR MICROBIOLOGY;

- 'BB' FOR BLOOD BANK;

- 'AU' FOR AUTOPSY;

- 'CY' FOR CYTOPATHOLOGY;

- 'SP' FOR SURGICAL PATHOLOGY;

- 'OT' FOR OTHER

 .09   DUZ(2): The institution where the ordering person is logged in; e.g., 4585/Sells, 4587/San Xavier, 1546/AIH, etc.

.1 I/O CATEGORY: Identification of the patient location: 'I' for Inpatient, 'A' for Outpatient

101   PARENT POINTER: This is a pointer to the transaction sequence number of the panel test actually ordered; in this case, electrolytes.

102   STATUS FLAG: Defines current status of test in transaction:

- 'O' FOR ORDERED;

- 'A' FOR ACCESSIONED;

- 'R' FOR RESULTED;

- 'M' FOR MODIFIED;

- 'D' FOR DELETED;

- 'Z' FOR UNKNOWN

103   ENTRY DATE/TIME: Date and time entry is made in the transaction log.

104   ASSOCIATED V FILE: Pointer to PCC file where lab data will be stored—V LAB, V MICRO, or V BLOOD BANK.

105   IEN OF V FILE ENTRY: The internal entry number of this lab test in the associated V file.

106   PCC ERROR FLAG: Reason for rejection of a transaction passing to the PCC.

107   BILLABLE ITEM: This field determines if this entry is a billable event. 1 stands for yes; 0 stands for no (not displayed in the example).

108   LAB TEST LIST COST: The cost to the laboratory of performing this test. It must be a number between 0 and 9999 with 2 decimal digits. (Not displayed in the example since the parent, electrolytes, is the billable test).

109   CLINIC STOP NAME: Name of the Clinic Stop (not displayed in the example).

110   CPT LAB CODE POINTER: Pointer to the IHS Lab CPT Code file. (In this example, the parent, electrolytes, is the billable event.)

111   CPT CODE: CPT Code of test listed in the transaction. Not displayed in this case because the parent, electrolytes, is the billable test.

112   ENCOUNTER PROVIDER POINTER: Pointer to entry in the New Person file (#200) for the ordering provider (not displayed in this example).

113   ENCOUNTER PROVIDER NAME: Name of the ordering provider (not displayed in this example).

115   SOURCE OF DATA INPUT: This field holds a flag to tell the user if data came from the IHS Laboratory package or from an external source. If data is from the Laboratory package, the value will be "L" (not displayed in this transaction).

116   BILLING CPT STRING: The string of CPT codes, modifiers, and qualifiers that are associated with billing for this test (not displayed in this transaction since the billing is associated with the parent test, electrolytes).

201   ORDER DATE: The date and time the order was entered into the Laboratory package. It does not necessarily match the entry date and time (field 103).

1102   ORDER SEQUENCE NUMBER: The internal entry number of the order for this test in File 69 of the Laboratory package.

1103   ORDER NUMBER: The order number assigned by the Laboratory package at the time this test was ordered.

1104   ORDERING PROVIDER POINTER: A pointer to the New Person file (#200) for the provider who ordered the laboratory test.

1105   ORDERING PROVIDER NAME: The name of the ordering provider.

1106   ORDERING LOCATION POINTER: A pointer to the Hospital Location file (#44).

1107   ORDERING LOCATION NAME: The abbreviation for the ordering location.

1201   COLLECTION DATE/TIME: The date and time entered into the Laboratory package for the date and time the specimen was collected.

1202   ACCESSION NUMBER: The accession number assigned to this specimen by the Laboratory package.

1301   ORGANISM: If this is a Microbiology specimen, a pointer to the Etiology Field file (#61.2) for any organisms (bacteria, fungi, parasites, viruses) identified.

1302   ORGANISM NAME: If this is a Microbiology specimen, the name of the organism identified.

1303   ANTIBIOTIC: If this is a Microbiology specimen, a pointer to the Antimicrobial Susceptibility file (#62.06) for any antibiotics in the template defined for an organism.

1304   ANTIBIOTIC NAME: If this is a Microbiology specimen, the name of the antibiotic that is being reported.

1305   STAGE COUNTER: If this is an order for Ova and Parasites, a number that identifies how many stages of the organism are identified.

1306   STAGE NAME: If this is an order for Ova and Parasites, the stage of the parasite; e.g., trophozoite, cyst, etc.

1401   BB TEST: If this is a Blood Bank test, a pointer to the test in the Laboratory Test file (#60).

1402   BB TEST NAME: The name of the Blood Bank test as defined in the Laboratory Test file (#60).

1403   ANTIBODY: If this is a Blood Bank test with a positive Coombs, direct or indirect test, a pointer to an antibody in the Function Field file (#61.3).

1404   ANTIBODY NAME: The name of the antibody as defined in the Function Field file (#61.3).

2001   RESULT: The result of the test entered into the Laboratory package.

2002   RESULT N/A FLAG: The flag of H, L, or * set by the Laboratory package to identify a High, Low, or Critical laboratory result.

2003   UNITS: The units defined in the Laboratory Test file (#60) for reporting the results for the laboratory test in this transaction.

2004   SITE/SPECIMEN POINTER: A pointer to the Topography file (#61) for the specimen defined at the time of order for the test in this transaction.

2005   SITE/SPECIMEN NAME: The name of the site/specimen for the test in this transaction.

2006   VERIFIER POINTER: A pointer to the individual in the New Person file (#200) who verified the results of this test.

2007   VERIFIER NAME: The name of the person who verified the results of this test.

2007   REFERENCE LOW: The lower limit for the normal range for the test in this transaction as defined in the Laboratory Test file (#60).

2009   REFERENCE HIGH: The upper limit of the normal range for the test in this transaction as defined in the Laboratory Test file (#60).

3001   COMMENTS: A multiple field for comment type entries in the Laboratory package,primarily Microbiology comments related to smear/prep type results.

Technical Manual   **Error! No text of specified style in document.**
December 1997

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