



RESOURCE AND PATIENT MANAGEMENT SYSTEM

Laboratory Reference

(BLR, LAB, LR)

User Manual Addendum

Version 5.2 Patch 1047
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1.0 Introduction

This document provides the addition to the RPMS Lab Package that were brought about by Indian Health Service (IHS) Lab Patch LR*5.2*1047.

Laboratory users may use the added capability to *turn on* the **Abnormal** flag for the positive results. The **Abnormal Qualitative** flag will display on the **Laboratory Reports** as **A** for **Abnormal**.

2.0 IHS Lab Version & Patch Report

The **Lab Version & Patch Report** option was added to the **BLR IHS Lab Main Support Menu (BLRMENU)**. The report allows the laboratorian to display the site's Lab version number and latest patch.

2.1 LVP IHS Lab Version & Patch Report

The **LVP** option is available on the **BLRMENU** as shown in Figure 2-1.

```

LR   Laboratory DHCP Menu ...
     IHS Lab Main Support Menu

LS   Link Transaction Processor Status
7421 Will restart the 7421 label routine if turned off.
INQ  Inquire into the IHS LAB Transaction Log
FLD  Search Transactions for PCC LINK DISABLE Error
RSN  Requeue by Sequence Number
RST  Requeue Transaction by Sort Template
CPT  Enter/edit IHS Lab CPT File
FAL  Find ALL PCC Link Errors from Lab
STP  Stop/restart Lab to PCC Transaction Processor
MSTR Enter/edit BLR MASTER CONTROL FILE
POV  Purpose of Visit Compliance Report
6249 Display File 62.49 HL7 Segments
BZY  IHS Taskman Busy Device Rpt
CCCD Create Creatinine Clearance Delta Check
CDVC Edit BLR COLL DT PCC VISIT CREATION Parameter
CGFR Create CKD-EPI Equation Delta Check
CLR  Clear BLR errors from error log
CUM  IHS CUMULATIVE MENU ...
DADD Add Completed Date to Accession Tests
EAPE Edit BLR EMERGENCY ALERT Parameter
EDCC BLR CC DATA Parameter Edit
     Press 'RETURN' to continue, '^' to stop:
EMGP Edit LAB HIGH URGENCY NOTIFICATION Mail Group
ERRT Error Trap Reporting
ETP  LA7 Message Queue Error Messages to Purgeable
IHSM IHS Lab Microbiology Report
ILUM IHS LOINC/UCUM MENU ...
LABT Determine if Required RPMS Lab Options Tasked
LOI  IHS Lab Package LOINC Percentage Report
LRAS Accession IHS Lab Microbiology Report
LROS Order/test status by Order Number
LTRR Laboratory Test (#60) File's Reference Ranges
LVP IHS Lab Version & Patch Report
MACC Mark Multiple Accessions as Not Performed
MILO Micro Interim Report by Location
MMR  Lab Description Abbreviation Report
NLO  Lab Tests Without LOINC Entries Report
ORDO 'Open Lab Orders' Reports ...
ORPH Remove Orphans from # 68
ORPR BROWSER REPORT ON ORPHANS FROM # 68
PAMG Edit IHS Lab Parameters and/or Mail Groups ...
PDOC Patient Reminder Document
POCA Edit BLR AGE DETAIL Parameter
PURA Purge VA Alerts
     Press 'RETURN' to continue, '^' to stop:
RBE  Clear ALL BLR Errors from Error Log

```

```
REFL  Reference Lab Main Menu ...
REPL  Replace Lab Order/Test Status ...
SF60  IHS Search File 60
SHDR  State Health Dept Report
TCCR  Test Creatinine Clearance Logic
TGFR  Test CKD-EPI Equation Logic
      Count Accessioned Tests Using Lab Data File ...
      IHS Lab Ask-At-Order ...
```

Figure 2-1: Full display of BLR MENU and LVP Option

2.2 IHS Lab Version & Patch Report for LR*5.2*1047

When the **LVP** option is selected, the report will look similar to the following (Figure 2-2):

```
DEMO HOSPITAL
Date:08/13/20          IHS LAB Package
Time:10:15 AM
Current VERSION & PATCH Report
-----
-----
                          IHS Lab Version 5.2
                          Latest IHS Lab Patch: LR*5.2*1047
                          Latest IHS Lab Patch Install Date/Time: JUL 09, 2020 6:39 PM
```

Figure 2-2: IHS Lab Version & Patch Report

3.0 LS Link Transaction Processor Status

The **Link Transaction Processor Status** option was added to the **BLR IHS Lab Main Support Menu (BLRMENU)**. 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.

3.1 LS Option Link Transaction Processor Status

The **LS** option is available on the **BLRMENU** as shown in Figure 3-1.

```

LR      Laboratory DHCP Menu ...
IHS Lab Main Support Menu

LS      Link Transaction Processor Status
7421    Will restart the 7421 label routine if turned off.
INQ     Inquire into the IHS LAB Transaction Log
CPT     Enter/edit IHS Lab CPT File
STP     Stop/restart Lab to PCC Transaction Processor
PAMG    Edit IHS Lab Parameters and/or Mail Groups ...
LVP     IHS Lab Version & Patch Report

```

Figure 3-1: Shorten display of BLR Menu – LS Option for PCC LINKER

3.2 Monitoring the Link Transaction Processor Status

Installation of Laboratory patches often requires the processor to be turned off. To ensure the PCC Linker was turned *on* post installation of the patch, laboratorians should check the PCC Linker using the **LS Link Transaction Processor Status**.

The **Currently processing day** field should match the current date.

The **LS** option is available on the **BLRMENU**.

```

DEMO HOSPITAL
Processor Status
AUG 17, 2020@10:40:05

Currently processing day AUG 17, 2020

          Event          Entry #      ===== IHS Lab Transaction =====
                          in Queue      Sequence #   Date       Time
-----
Last Entry Assigned      28         193         79,770     08/17/2020  10:03
Last Entry Processed     28         193         79,770     08/17/2020  10:03

```

Figure 3-2: Processor Status example

3.3 Link Transaction Processor Status: HALTED

Installation of Laboratory patches often requires the processor to be turned off. Occasionally, the PCC Linker will not be turned back *on* after the patch is installed.

The **Processor Status** displays **Halted by user** when the PCC Linker is not restarted. Figure 3-3 provides an example of the Processor Status showing Halted by user; notice the **Currently Processing Day** does not match the **Current Date**.

```

DEMO HOSPITAL
Processor Status
AUG 17, 2020@12:18:30

Currently processing day AUG 17, 2020

-----
                Event          Entry #      ===== IHS Lab Transaction =====
                               in Queue      Sequence #   Date       Time
-----
Last Entry Assigned          10           1           2,358      08/17/2020   23:02
Last Entry Processed         10           1           2,358      08/17/2020   23:02
-- Halted by user

```

Figure 3-3: Example of HALTED Lab Processor

3.4 Restart Lab to PCC Transaction Processor

Laboratories can restart the PCC Linker using the **STP Stop/restart Lab to PCC Transaction Processor**.

To restart the PCC Linker:

1. Select the **STP** option.
2. Type your Institution name at the “BLR MASTER CONTROL SITE” prompt.
3. Type **NO** at the “STOP PROCESSOR” prompt.

An example of restarting the PCC Linker is shown in Figure 3-4.

```

LR   Laboratory DHCP Menu ...
IHS Lab Main Support Menu

LS   Link Transaction Processor Status
7421 Will restart the 7421 label routine if turned off.
INQ  Inquire into the IHS LAB Transaction Log
CPT  Enter/edit IHS Lab CPT File
STP  Stop/restart Lab to PCC Transaction Processor
PAMG Edit IHS Lab Parameters and/or Mail Groups ...
LVP  IHS Lab Version & Patch Report
POCA Edit BLR AGE DETAIL Parameter

Select IHS Lab Main Support Menu Option: STP  Stop/restart Lab to
PCC Transaction Processor

```



```
Select BLR MASTER CONTROL SITE: DEMO HOSPITAL
STOP PROCESSOR: YES// NO
```

Figure 3-4: Shorten display of BLR Menu – Restart PCC Linker

It is recommended to check the status of the Link Transaction Processor Status again after restarting the PCC Linker.

4.0 LABORATORY TEST With Qualitative Resulting

With the installation of LR*5.2*1047, the atomic laboratory tests with qualitative resulting will have the ability to **turn on** the Abnormal flag for the positive results. The **Abnormal Qualitative** flag will display on the **Laboratory Reports** as **A** for **Abnormal**.

Note: The Qualitative flag **A** is a separate flag from the Critical Abnormal flag **A***.

All laboratory tests which will have results entered must have a data name defined. The data name creation provides the type of response allowable when entering a result for a laboratory test. The **LAB DATA** file is where results are stored in the laboratory package for report retrieval.

The data name creation using the set of codes can be incorporated when resulting a qualitative lab result, such as **POSITIVE**, **REACTIVE**, or **DETECTED**, and these qualitative results can be flagged as **A** for an Abnormal result.

The ability to **turn on** the Abnormal flag, values need to be added to the **Qualitative Values** field in LABORATORY TEST file (#60) and Site/Specimen.

The Site/Specimen contains the specimen source, reference ranges, critical ranges, units, LOINC, and the Qualitative Value fields.

Determine which lab tests to add Qualitative Values, then proceed with the following steps.

Note: Lab Tests using Data Names with a setup of Numeric does not apply. The lab tests with Data Names with a setup of numeric have other flags: L, H, L*, H*.

Outlined Steps:

Inquire the LABORATORY TEST file (#60), capture the name of the data name.

FILEMAN Inquire or Enter/Edit

- LABORATORY TEST file (#60)
- Lab Test Name
 - DATA NAME

Review the Data Name to see how the lab test can be resulted.

RPMS Lab Package

- LABORATORY DHCP MENU
 - Supervisor Menu...

- Lab Liaison Menu
 - Modify an existing Data Name
 - Select CHEM, HEM, TOX, RIA, SER. SUB-FIELD:

Add values to the Qualitative Values field.

FILEMAN Enter/Edit

- LABORATORY TEST file (#60)
- Lab Test Name
 - Select Site/Specimen
 - Site/Specimen
 - Reference low:
 - Reference high:
 - Critical low:
 - Critical high:
 - Units:
 - LOINC code:
 - Select QUALITATIVE VLAUES:
 - Site/Specimen (add to another if needed)

To confirm all data posted on EHR correctly, it is important to TEST by:

Order, Accession & Result using RPMS Lab Package

- LABORATORY DHCP MENU
 - Multipurpose Accessioning (ORDER & ACCESSION)
 - EM Enter/verify/modify data (manual) (RESULT)

Review Lab Data

- Interim Report (RPMS Lab Package)
- Electronic Health Record (Lab Tab)

4.1 INQUIRE to File 60

Inquire to the LABORATORY TEST file (#60), capture the *name* of the data name within the file, and write down the Data Name.

FILEMAN Enter/Edit or Inquire

- LABORATORY TEST file (#60)
- Lab Test Name

– DATA NAME: _____

4.1.1 Example: Laboratory Test and Data Name

In Figure 4-1, the atomic lab test name is **RSV SCREEN (POCT)** and the data name is **Rapid RSV Screen**.

```

VA FileMan Version 22.0

      Enter or Edit File Entries
      Print File Entries
      Search File Entries
      Modify File Attributes
      Inquire to File Entries

Select VA FileMan Option: INquire to File Entries

OUTPUT FROM WHAT FILE: LABORATORY TEST//
Select LABORATORY TEST NAME: RSV SCREEN (POCT)
ANOTHER ONE:
STANDARD CAPTIONED OUTPUT? Yes// (Yes)
Include COMPUTED fields: (N/Y/R/B): NO// BOTH Computed Fields and Record
Number
(IEN)
DISPLAY AUDIT TRAIL? No// NO

LABTEST IEN: 952                                NAME: RSV SCREEN (POCT)
TYPE: BOTH
SUBSCRIPT: CHEM, HEM, TOX, SER, RIA, ETC.
LOCATION (DATA NAME): CH;324;1                    UNIQUE ACCESSION #: YES
UNIQUE COLLECTION SAMPLE: NO                     FIELD: DD(63.04,324,
HIGHEST URGENCY ALLOWED: ROUTINE                 REQUIRED TEST: YES
PRINT NAME: RSV Scn                               DATA NAME: Rapid RSV Screen
SITE/SPECIMEN: NASOPHARYNGEAL                   REFERENCE HIGH: "Negative"
LOINC CODE: 33045-6
COLLECTION SAMPLE: SWAB (Rapid RSV)
CONTAINER (c): RSV Swab
INSTITUTION: 2020 DEMO HOSPITAL                   ACCESSION AREA: POCT
SITE NOTES DATE: AUG 05, 2020
NOTE: REVIEWED FOR INTERNAL TESTING. KR AUG2020
INPUT TRANSFORM (c): NEG:Negative;POS:Positive;EQU:Equivocal;
DATA TYPE (c): SET

Select LABORATORY TEST NAME:

```

Figure 4-1: Inquire to Laboratory Test

4.2 REVIEW Data Name

Review the Data Name configuration by using the **Modify an existing data name** option to see how the lab test can be resulted. The **Modify an existing data name** option is within the **Lab Liaison** menu.

RPMS Lab Package

- LABORATORY DHCP MENU...

- Supervisor Menu...
 - Lab Liaison Menu
 - Modify an existing Data Name
 - Select CHEM, HEM, TOX, RIA, SER. SUB-FIELD: _____

It is important to understand how the Data Name was configured for the lab test in regard to the resulting. Is the Data Name using Set of Codes, Numeric, or Free Text?

Note: Data Names with a setup of Numeric does not apply. Do not modify the data name.

4.2.1 Example: Data Name Display

In Figure 4-2, the data name was created with a Set of Codes and the positive qualitative value can be resulted with **POS**.

```

LR      Laboratory DHCP Menu ...
Supervisor menu ...
Lab liaison menu ...

ANT      Add a new internal name for an antibiotic
BCF      Lab Bar Code Label Formatter
BCZ      Lab Zebra Label Utility
DATA     Add a new data name
HDR      Recover/Transmit Lab HDR Result Messages
MOD    Modify an existing data name
SMGR     Lab Shipping Management Menu ...

Select Lab liaison menu Option: MOD  Modify an existing data name

This option allows modifying an existing data name.

Select CHEM, HEM, TOX, RIA, SER, etc. SUB-FIELD: Rapid RSV Screen

Data Name: Rapid RSV Screen      Subfield #: 324      Type: SET OF CODES
NEG - Negative
POS - Positive
EQU - Equivocal

Do you wish to modify this data name? No//      (No)

```

Figure 4-2: Data Name review

4.3 LAB TEST: Site/Specimen – Qualitative Value

The **Site/Specimen** field in the **LABORATORY TEST** file (#60) designates the type of specimen(s) for which reference ranges, units, LOINC, and QUALITATIVE VALUES will be established.

FILEMAN Enter/Edit

- LABORATORY TEST file (#60)

- Test NAME
 - Select SITE/SPECIMEN:
 - SITE/SPECIMEN: **NASOPHARYGEAL**
 - Reference low:
 - Reference high:
 - Critical low:
 - Critical high:
 - Units:
 - LOINC code:
 - Select QUALITATIVE VLAUES: _____
 - Select SITE/SPECIMEN:
 - SITE/SPECIMEN: **NASAL**
 - Reference low:
 - Reference high:
 - Critical low:
 - Critical high:
 - Units:
 - LOINC code:
 - Select QUALITATIVE VLAUES: _____

The **Qualitative Values** field is a multiple, which means it can hold many values. The values to add to the Qualitative Values field should correlate with the data name creation using Set of Codes. The **positive** qualitative values for resulting include: **P** and **POS** for **positive**, **D** for **detected** and **R** for **reactive**.

It is required to include a tilde character (~) when adding to the Qualitative Values field.

Table 4-1: Qualitative results, codes, and values

“Positive” Qualitative Result	Data Name – Set of Codes	Add to Qualitative Values Field
Positive	P: POSITIVE POS: POSITIVE POSITIVE: POSITIVE	P~A POS~A POSITIVE~A
Detected	D: DETECTED DETECTED: DETECTED	D~A DETECTED~A

"Positive" Qualitative Result	Data Name – Set of Codes	Add to Qualitative Values Field
Reactive	R: REACTIVE REACTIVE: REACTIVE	R~A REACTIVE~A

Note: If lab test has multiple Site/Specimens, each specimen type would require the Qualitative Values entries to trigger the abnormal flag.

4.3.1 Example: Adding to the Qualitative Value Field

Figure 4-3 shows that **P~A** and **POS~A** were added to the **Qualitative Values** field.

```

Select SITE/SPECIMEN: NASOPHARYNGEAL
  Select QUALITATIVE VALUES: P~A
  Are you adding 'P~A' as a new QUALITATIVE VALUES (the 1ST for this SITE/SPECIMEN)?
No// YES
  Select QUALITATIVE VALUES: POS~A
  Are you adding 'POS~A' as a new QUALITATIVE VALUES (the 2ND for this
SITE/SPECIMEN)? No// YES
  Select QUALITATIVE VALUES:
Select SITE/SPECIMEN:
VA FileMan Version 22.0

      Enter or Edit File Entries
      Print File Entries
      Search File Entries
      Modify File Attributes

Select VA FileMan Option: ENTer or Edit File Entries

INPUT TO WHAT FILE: V LAB// 60  LABORATORY TEST  (3388 entries)
EDIT WHICH FIELD: ALL//

Select LABORATORY TEST NAME: RSV SCREEN (POCT)
NAME: RSV SCREEN (POCT)//
TEST COST:
Select SYNONYM:
TYPE: BOTH//
SUBSCRIPT: CHEM, HEM, TOX, SER, RIA, ETC.//
LOCATION (DATA NAME): CH;324;1//  (No Editing)
Select INSTITUTION: 2020 DEMO HOSPITAL//
  INSTITUTION: 2020 DEMO HOSPITAL//
  ACCESSION AREA: POCT//
UNIQUE ACCESSION #: NO//
UNIQUE COLLECTION SAMPLE: NO//
LAB COLLECTION SAMPLE:
REQUIRED TEST: YES//
PROCEDURE (SNOMED):
*QUICK INDEX:
EXTRA LABELS:
HIGHEST URGENCY ALLOWED: ROUTINE//
FORCED URGENCY:
PRINT NAME: RSV Scn//
Reserved:
PRINT CODE:
PRETTY PRINT ENTRY:

```

```

PRETTY PRINT ROUTINE:
PRINT ORDER:
NATIONAL VA LAB CODE:
RESULT NLT CODE:
CATALOG ITEM:
EDIT CODE:
*BATCH DATA CODE:
EXECUTE ON DATA REVIEW:
Select SITE/SPECIMEN: NASOPHARYNGEAL//
  SITE/SPECIMEN: NASOPHARYNGEAL//
REFERENCE LOW:
REFERENCE HIGH: "Negative"//
CRITICAL LOW:
CRITICAL HIGH:
INTERPRETATION:
  No existing text
  Edit? NO//
UNITS:
TYPE OF DELTA CHECK:
DELTA VALUE:
DEFAULT VALUE:
THERAPEUTIC LOW:
THERAPEUTIC HIGH:
Select *AMIS/RCS 14-4:
USE FOR REFERENCE TESTING:
CPT CODE:
PANEL (CPT):
Select FOREIGN COMPUTER SYSTEM:
LOINC CODE: 33045-6//
Select SPECIMEN CPT:
Select QUALITATIVE VALUES: P~A
  Are you adding 'P~A' as a new QUALITATIVE VALUES (the 1ST for this SITE/SPECIMEN)?
No// Y (Yes)
Select QUALITATIVE VALUES: POS~A
  Are you adding 'POS~A' as a new QUALITATIVE VALUES (the 2ND for this
SITE/SPECIMEN)? No// Y (Yes)
  Select QUALITATIVE VALUES: ?
    Answer with QUALITATIVE VALUES
    Choose from:
    POS~A
    P~A
      You may enter a new QUALITATIVE VALUES, if you wish
      Answer must be 1-40 characters in length.

  Select QUALITATIVE VALUES:
Select SITE/SPECIMEN:
GENERAL PROCESSING INST.:
  No existing text
  Edit? NO//
Select LAB TEST:
Select COLLECTION SAMPLE: SWAB (Rapid RSV)//
  COLLECTION SAMPLE: SWAB (Rapid RSV)//
  FORM NAME/NUMBER: ^
Select COLLECTION SAMPLE:
GENERAL WARD INSTRUCTIONS:
  No existing text
  Edit? NO//
REQUIRED COMMENT:
DATA NAME: Rapid RSV Screen//
CULTURE ID PREFIX:
Select VERIFY WKLD CODE:
Select ACCESSION WKLD CODE:
*ASK AMIS/CAP CODES:

```



```

COMBINE TEST DURING ORDER:
CIS TEST CODE:
Select SITE NOTES DATE: AUG 5,2020// NOW   AUG 20, 2020
  Are you adding 'AUG 20, 2020' as a new SITE NOTES DATE (the 3RD for this LABOR
ATORY TEST)? No// Y   (Yes)
TEXT:
  No existing text
  Edit? NO// YES

==[ WRAP ]==[ INSERT ]===== < TEXT >===== [ <PF1>H=Help ]=====
ADDED QUALITATIVE VALUES UNDER SITE/SPECIMEN. KR AUG 2020

DEFAULT SITE/SPECIMEN CPT:
HCPCS CODE:
AMA COMPLIANT/BILLABLE PANEL:
IHS PCC DISPLAY FLAG:
IHS LOINC:
IHS SEX RESTRICTION:

Select LABORATORY TEST NAME:

```

Figure 4-3: Adding Qualitative Value field

4.4 Expect To See: Abnormal Flag Using Manual Entry

When manually entering the result using menu option **EM Enter/verify/modify data (manual)** for a positive qualitative result, typically end-users type **P** or **POS** for the result. See Figure 4-4.

Other qualitative positive lab results that are manually entered, such as **D** for **Detected** or **R** for **Reactive**, need to be added to the **Qualitative Values** field to allow the **A** for **Abnormal** to flag for those lab results.

4.4.1 Example: "A" for Abnormal Displays During Manual Entry

This example displays how the **A** for **Abnormal** will populate when resulting with **P** or **POS** as the result using **EM Enter/verify/modify data (manual)** option.

```

DEMO,ALISTER LANE  HRCN: 124625      LOC: LAB HOS
Pat Info:          Sex: MALE      Age: 40yr as of Aug 19
Provider: RADON,NICHOLAS M JR      Voice pager:
Phone:             Digital pager:

ACCESSION:                POC 20 71

RSV SCREEN (POCT) //P
Select COMMENT:
OR
RSV SCREEN (POCT) //POS
Select COMMENT:

DEMO,ALISTER LANE  HRCN: 124625      LOC: LAB HOS
Pat Info:          Sex: MALE      Age: 40yr as of Aug 19
Provider: RADON,NICHOLAS M JR      Voice pager:
Phone:             Digital pager:

ACCESSION:                POC 20 71
                        08/19 1930d
RSV SCREEN (POCT)        Positive A
SELECT ('E' to Edit, 'C' for Comments, 'W' Workload):
Approve for release by entering your initials: **
LAST IN WORK LIST
    
```

Manual Entry Result "P" or "POS" for 'positive' result

Notice "A" flag

Figure 4-4: Manually entering lab result

4.5 Expect To See: “A” for Abnormal on EHR LAB Report

Figure 4-5 displays the A for Abnormal flag on the Electronic Health Record Lab Report.

Electronic Health Record Laboratory Result

Most Recent				Most Recent Lab Results	
Oldest Previous << <		Next >> Newest		Ed i	
Test	Result	Flag	Units	Ref Range	Ref Range
RSV SCREEN (POCT)	Positive	A			Ref. Negative

Figure 4-5: Example of Electronic Health Record Lab Results

4.6 IHS LAB CPT CODE Review

To capture the CPT DATA to pass from the Laboratory Package to the Patient Care Component (PCC), an entry must exist in the **IHS LAB CPT CODE** file for each billable lab test associated with the lab order. The entry must identify the associated panel or test.

4.6.1 Example: IHS LAB CPT CODE File

Figure 4-6 displays the lab test **RSV SCREEN (POCT)** was added to the **IHS LAB CPT CODE** file with its appropriate CPT Code and Modifier.

```

VA FileMan Version 22.0

      Enter or Edit File Entries
      Print File Entries
      Search File Entries
      Modify File Attributes
      Inquire to File Entries

Select VA FileMan Option: ENter or Edit File Entries

INPUT TO WHAT FILE: LABORATORY TEST// IHS LAB CPT
   1  IHS LAB CPT ACTION CODE           (10 entries)
   2  IHS LAB CPT CODE                   (1368 entries)
   3  IHS LAB CPT REVIEW CODE           (13 entries)
CHOOSE 1-3: 2  IHS LAB CPT CODE         (1368 entries)
EDIT WHICH FIELD: ALL//

Select IHS LAB CPT CODE NAME: RSV POCT
NAME: RSV POCT//
LAB SECTION: POCT//
CREATE DATE: AUG 20,2020@10:49:11//
DATE/TIME ACTIVE: AUG 20,2020@10:49:12//
DATE/TIME INACTIVE:
PANEL/TEST: RSV SCREEN (POCT)//
INACTIVE FLAG:
Select CPT CODE: 87807//
   CPT CODE: 87807//
   LAB LIST COST:
   REVIEW CODE:
   ACTION CODE:
   Select MODIFIER: QW//
   Select QUALIFIER:
Select CPT CODE:
DESCRIPTION:
   No existing text
   Edit? NO//

Select IHS LAB CPT CODE NAME:

```

Figure 4-6: IHS LAB CPT CODE file

5.0 Laboratory Test – Order and Result

To confirm that all results posted on EHR correctly with all information relating to units, reference ranges, and Abnormal flag, the best practice is to test the Lab Test by ordering and resulting before adding to the EHR Lab Menu *and when changes are made* to the Laboratory Test file (#60). The following provides the outline of how to order, accession, and result within the RPMS Lab Package.

RPMS Lab Package: ORDER & ACCESSION using Multipurpose Accessioning

- LABORATORY DHCP MENU...
 - Accessioning menu ...
 - Select LABORATORY TEST NAME
 - Select PATIENT NAME
 - Select PATIENT LOCATION
 - Select PROVIDER
 - Select NATURE OF ORDER/CHANGE
 - Add COLLECTION DATE/TIME: **NOW**
 - Select SNOMED CODE or Add CLINICAL INDICATION
 - Capture/write down accession number to be resultd

RPMS Lab Package: RESULT/ VERIFY using Enter/verify/modify data (manual)

- LABORATORY DHCP MENU...
 - EM Enter/verify/modify data (manual)
 - Verify by: 1// Accession Number
 - Select ACCESSION _____ (type Accession number)
 - ENTER RESULTS
 - Approve for release by entering your initials: **

RPMS Lab Package: REVIEW RESULTS using INTERIM REPORT & EHR LAB TAB

- LABORATORY DHCP MENU...
 - RESULTS MENU...
 - INTERIM REPORT
 - Select PATIENT NAME
 - DATE TO START WITH: **Today**
 - DATE TO END: **T-7**

- PRINT or DISPLAY results
- ELECTRONIC HEALTH RECORD
 - PATIENT NAME
 - LAB TAB review results

5.1 RPMS Lab Package: ORDER & ACCESSION

Multipurpose accessioning is a menu under the Laboratory Menu that can be used to order and accession a test within the RPMS Laboratory Package. Figure 5-1 is a typical script for a Multipurpose Accessioning session.

5.1.1 Example: Multipurpose Accessioning

```
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 ...
10     Microbiology menu ...
11     Supervisor menu ...
BLR    IHS Lab Main Support Menu ...

Select Laboratory DHCP Menu Option: 2  Accessioning menu

RSM    Reprint Shipping Manifest
        Accessioning tests ordered by provider order entry
        Accessioning, standard (Microbiology)
        Add tests to a given accession.
        Bypass normal data entry
        Delete entire order or individual tests
        Delete test from an accession
        Fast lab test order (IMMEDIATE COLLECT)
        Fast lab test order (ROUTINE)
        Fast lab test order (SEND PATIENT)
        Inquiry to LAB TEST file
        Lab add test(s) to an existing order
        Lab orders by collection type
        Lookup accession
        Manually accession QC, Environmental, etc.
        Merge Accessions
        Multipurpose accessioning
        Order/test status

Select Accessioning menu Option: MULTipurpose accessioning

WANT TO ENTER COLLECTION TIMES? YES//
Select ACCESSION TEST GROUP:
Select one or more tests from which you will be generating your entries.
Select LABORATORY TEST NAME: RSV SCREEN (POCT)
Is SWAB (Rapid RSV)   RSV Swab the correct sample to collect?Y//
Same specimen/source for the rest of the order? No//   (No)
Select LABORATORY TEST NAME:
```

```

Select Patient Name: DEMO, ALISTER LANE
DEMO,ALISTER LANE          <A>    M 05-20-1980 XXX-XX-4693    TST 124625

    Select one of the following:

        LC          LAB COLLECT(INPATIENTS-MORN. DRAW)
        SP          SEND PATIENT
        WC          WARD/CLINIC COLLECT
        I           Immed COLLECT

Specimen collected how ? : SP//    SEND PATIENT
PATIENT LOCATION: LAB
PROVIDER:          PROVIDER,DEMO M JR
LAB Order number: 643
Other tests? N//
Nature of Order/Change: POLICY//    I

You have just selected the following tests for DEMO,ALISTER LANE 124625
    entry no. Test                               Sample
    1          RSV SCREEN (POCT)                 SWAB (Rapid RSV)  NASOPHARYNGEAL

All satisfactory? Yes//

LAB Order number: 554

Collection Date @Time: NOW (AUG 19, 2020@13:01:49)
~For Test: RSV SCREEN (POCT)  SWAB (Rapid RSV)  NASOPHARYNGEAL

BLR SNOMED SELECT          Apr 14, 2020 13:02:08          Page:    1 of    1
Select an appropriate SNOMED code from the Patient's 16 Problems.

    SNOMED          SNOMED DESCRIPTION              ICD
    1) 418928016    Well woman health examination                    ZZZ.999
    2) 418926017    Well man health examination                      ZZZ.999
    3) 2472274014   Well child visit                                  ZZZ.999
    4) 674991000124 Stress fracture of right radius                    ZZZ.999
    5) 642100011911 Compression fracture of thoracic vertebra, nontrau ZZZ.999
    6) 650100011911 Compression fracture of lumbosacral vertebra, nont ZZZ.999
    7) 318474013    Closed compression fracture sacrum              ZZZ.999
    8) 420087013    Burst fracture of thoracic vertebra              ZZZ.999
    9) 420098014    Burst fracture of lumbar vertebra                ZZZ.999
    10) 301485011   Asthma                                           J45.909
    11) 406636013   Anemia                                           D64.9
    12) 208625010   Mammographic breast mass                        R92.8
    13) 41990019    Headache                                         ZZZ.999
    14) 197761014   Type 2 diabetes mellitus                         E11.9
    15) 95910010    Joint pain                                       M25.50
    16) 398001015   Sore throat symptom                              J02.9

S Select SNOMED Number or Other Action
Select Action: NEXT SCREEN// S Select SNOMED Number or Other Action

ACCESSION:  POC 20 71 <5420000071>
RSV SCREEN (POCT)          SWAB (Rapid RSV)  NASOPHARYNGEAL

Select Patient Name:

```

Figure 5-1: Example of Multipurpose Accessioning

5.2 RPMS Lab Package: RESULT

Verifying the laboratory accession is resulting the laboratory accession. The following script provides steps to VERIFY a lab test within the RPMS Laboratory Package.

5.2.1 Example: Resulting the Laboratory Test

```
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 ...
10     Microbiology menu ...
11     Supervisor menu ...
BLR    IHS Lab Main Support Menu ...

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

EA     Enter/verify data (auto instrument)
EL     Enter/verify data (Load list)
EM     Enter/verify/modify data (manual)
EW     Enter/verify data (Work list)
GA     Group verify (EA, EL, EW)
MP     Misc. Processing Menu ...
       Fast Bypass Data Entry/Verify
       Lookup accession
       Order/test status
       Print a load/work list
       Std/QC/Reps Manual Workload count
       Unload Load/Work List

Select Process data in lab menu Option: EM  Enter/verify/modify data (manual)

Do you want to review the data before and after you edit? YES//
Do you wish to see all previously verified results? NO//

      Select one of the following:

          1          Accession Number
          2          Unique Identifier (UID)

Verify by: 1//  Accession Number
Select Accession: POC 71
POCT (AUG 19, 2020) 71
Select Referring Laboratory: 2020 DEMO HOSPITAL//

DEMO,ALISTER LANE          124625  LOC:LAB HOS

Sample: SWAB (Rapid RSV)
Specimen: NASOPHARYNGEAL
1  RSV SCREEN (POCT)

DEMO,ALISTER LANE  HRCN: 124625          LOC: LAB HOS
Pat Info:          Sex: MALE          Age: 40yr as of Aug 19, 2020
Provider: PROVIDER,DEMO M JR          Voice pager:
```

```

Phone:                               Digital pager:
ACCESSION:                           POC 20 71
                                       08/19 1930d
RSV SCREEN (POCT) //P Positive
Select COMMENT:

DEMO,ALISTER LANE  HRCN: 124625      LOC: LAB HOS
Pat Info:          Sex: MALE        Age: 40yr as of Aug 19, 2020
Provider: PROVIDER,DEMO M JR        Voice pager:
Phone:             Digital pager:

ACCESSION:                           POC 20 71
                                       08/19 1930d
RSV SCREEN (POCT)                     Positive A    << NOTE abnormal flag
SELECT ('E' to Edit, 'C' for Comments, 'W' Workload):
Approve for release by entering your initials: **
LAST IN WORK LIST

```

Figure 5-2: Example of verifying laboratory results

5.3 Laboratory Results

After verifying/resulting the lab tests, the laboratory results will be available on the **INTERIM REPORT** and the Electronic Health Record Lab tab. Review the results.

5.3.1 Example Lab Report: Interim Report

```

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 ...
10     Microbiology menu ...
11     Supervisor menu ...
BLR    IHS Lab Main Support Menu ...

Select Laboratory DHCP Menu Option: 5  Results menu

      Interim report
      Interim report by provider
      Interim report for chosen tests
      Interim report for selected tests as ordered
      Interim reports by location (manual queue)
      Interim reports for 1 location (manual queue)
      Interim reports for 1 provider (manual queue)
      Order/test status
      Print a full patient summary
      Review by order number

Select Results menu Option: INTERIM
1      Interim report
2      Interim report by provider
3      Interim report for chosen tests
CHOOSE 1-7: 1  Interim report

```



```
Select Patient Name:
  DEMO,ALISTER LANE          <A>    M 05-20-1980 XXX-XX-4693   TST 124625
Date to START with: TODAY//  (AUG 19, 2020)
Date to END with: T-7//     (AUG 12, 2020)
Print address page? NO//
DEVICE: HOME//
```

Figure 5-3: Example of INTERIM REPORT Lab Results (1)

```

                                CLINICAL LABORATORY REPORT
Printed at:                                     page 1

                                DR. RUBY SLIPPERS, LABORATORY DIRECTOR
                                5600 Fishers Ln, Rockville MD 20857

DEMO,ALISTER LANE                               Date/Time Printed: 08/20/20@14:30
  HRCN:124625   SEX:M  DOB:May 20, 1980  CURRENT AGE:40   LOC:LAB HOS
Accession [UID]: POC 20 72 [5420000072]
  Provider: RADON,NICHOLAS M JR                 Lab Arrival Date/Time:08/20/20@14:29
  Specimen:THROAT                               Spec Collect Date/Time:08/20/20@14:29

Test name      Result  Flg units      Res      Ref.  range      Site  Result Dt/Time
STREP A        POSITIVE  A              A        Ref:  NEG      [2906] 08/20/20@14:29
=====
KEY: A=Abnormal  L=Abnormal Low  H=Abnormal High  *=Critical  TR=Therapeutic

Accession [UID]: POC 20 71 [5420000071]
  Provider: RADON,NICHOLAS M JR                 Lab Arrival Date/Time:08/19/20@19:30
  Specimen:NASOPHARYNGEAL                     Spec Collect Date/Time:08/19/20@19:30

Test name      Result  Flg units      Res      Ref.  range      Site  Result Dt/Time
RSV Scn        Positive  A              A        Ref:  Negative  [2906] 08/19/20@19:35
=====
KEY: A=Abnormal  L=Abnormal Low  H=Abnormal High  *=Critical  TR=Therapeutic
```

Figure 5-4: Example of INTERIM REPORT Lab Results (2)

5.3.2 Example Lab Report: Electronic Health Record

Electronic Health Record: All Test by Date View

```
All Tests by Date [From: Feb 18,2020 to Aug 19,2020]

Provider: RADON,NICHOLAS M JR   Accession: POC 20 71
Specimen: NASOPHARYNGEAL.      Spec Collect Date/Time: 08/19/2020 7:30 PM
                               Lab Arrival Date/Time: 08/19/2020 7:30 PM

Test name      Result      Res      Ref.  range      Site  Result Dt/Time
RSV SCREEN (POCI)  Positive  Flg Units  "Negative"  [2906] 08/19/20 19:35
                               A

Performing Lab Site(s):
[2906] 2020 DEMO HOSPITAL      90001 1ST AVE WASHINGTON, NM 87100

KEY: A=Abnormal  L=Abnormal Low  H=Abnormal High  *=Critical value  TR=Therapeutic Range
```

Figure 5-5: Example of INTERIM REPORT Lab Results

6.0 LAB DATA – LOINC, CPT & ABNORMAL Flag

Confirming all laboratory data passes to Patient Care Component (PCC), Laboratorians should review the data using the **INQ Inquire into the IHS LAB Transaction Log**. The **INQ** menu option is on the **BLR IHS Lab Main Support Menu**, and the **BLR Menu** is located on the **Laboratory DHCP Menu**.

In order for the PCC to accept CPT DATA that is passed from the Laboratory Package, an entry must exist in the IHS LAB CPT CODE file for each billable lab test associated with the lab order. The entry must identify the associated panel or test.

In order for the PCC to accept LOINC DATA that is passed from the Laboratory Package, an entry must exist in the Site/Specimen for the result-able laboratory test that contains the result.

Main entries in the IHS LAB TRANSACTION LOG LIST to review include: PANEL/TEST POINTER, STATUS FLAG, RESULT, and **RESULT N/A FLAG** fields. The **RESULT N/A FLAG** field will display the flag of the lab test result; examples to look for include: L, L*, H, H*, A, A*.

Follow the steps below to review laboratory data using INQ:

LR Laboratory DHCP Menu ...

BLR IHS Lab Main Support Menu

INQ Inquire into the IHS LAB Transaction Log

1. INQ Inquire into the IHS LAB Transaction Log (Example: Panel).
2. Select IHS LAB TRANSACTION LOG SEQUENCE NUMBER:

CH 0414 7

1 CH 0414 7 211 (*This is the Panel Test*)

2 CH 0414 7 212 (*This is the First Atomic Test in the Panel*)

3 CH 0414 7 213 (*This is the Second Atomic Test in the Pane*)

INQ Inquire into the IHS LAB Transaction Log. (Example: Atomic)

Select IHS LAB TRANSACTION LOG SEQUENCE NUMBER: POC 20 71

POC 20 71 (*Atomic Test*)

6.1 Example: INQ Inquire into the IHS LAB Transaction Log

This example displays the lab data for the resulted accession number **POC 20 71**. Review the Status Flag as **Resulted**, Billing CPT- **87807 & QW**, LOINC-**33045**, Result-**POS**, and N/A Flag as **A**.

```

LR      Laboratory DHCP Menu ...
      IHS Lab Main Support Menu

LS      Link Transaction Processor Status
7421    Will restart the 7421 label routine if turned off.
INQ    Inquire into the IHS LAB Transaction Log
CPT      Enter/edit IHS Lab CPT File
STP      Stop/restart Lab to PCC Transaction Processor
PAMG     Edit IHS Lab Parameters and/or Mail Groups ...
LVP      IHS Lab Version & Patch Report

Select IHS LAB TRANSACTION LOG SEQUENCE NUMBER: POC 20 71 9714

DEVICE:   Virtual
IHS LAB TRANSACTION LOG LIST                AUG 20,2020 17:39    PAGE 1
-----
SEQUENCE NUMBER: 9719                      LRFILE: 2
PATIENT POINTER VALUE: 11189                PANEL/TEST POINTER: RSV SCREEN (POCT)
LAB MODULE: GENERAL                         DUZ(2): 2906
I/O CATEGORY: OUT PATIENT                   STATUS FLAG: RESULTED
ENTRY DATE/TIME: AUG 20, 2020@17:42:51
ASSOCIATED V FILE: V LAB                    IEN OF V FILE ENTRY: 4277595
CLINIC STOP CODE POINTER: LABORATORY SERVICES
CPT LAB CODE POINTER: RSV POCT              BILLING CPT STRING: 87807||||QW|
CLINICAL INDICATOR: 121589010              ORDER DATE: AUG 20, 2020@17:42:38
ORDER SEQUENCE NUMBER: 3                    ORDER NUMBER: 646
ORDERING PROVIDER POINTER: PROVIDER,DEMO M JR
ORDERING LOCATION POINTER: LAB OIT (HOSP)
COLLECTION DATE/TIME: AUG 20, 2020@17:42:38
ACCESSION NUMBER: POC 20 73
COLLECTION SAMPLE POINTER: SWAB (Rapid RSV)
COMPLETE DATE: AUG 20, 2020@17:42:57      LOINC CODE: 33045
PROVIDER NARRATIVE: Diabetes mellitus
SNOMED: 121589010                          ICD: E11.9
RESULT: POS                                  RESULT N/A FLAG: A
SITE/SPECIMEN POINTER: NASOPHARYNGEAL
VERIFIER POINTER: DEMO, LAB TECH            REFERENCE HIGH: Negative

Select IHS LAB TRANSACTION LOG SEQUENCE NUMBER:

```

Figure 6-1: IHS Lab Transaction Log List display

7.0 QUALITATIVE Alert and Mail Group

The **BLR QUALITATIVE ALERT** parameter menu option was added to the **BLR IHS Lab Main Support Menu (BLRMENU)**. When the **BLR QUALITATIVE ALERT** is set to **YES**, an alert to members of the **LAB QUALITATIVE ALERT Mail Group** will receive an alert for lab tests with a result that matches the **File 60 Site/Specimen ABNORMAL FLAG** entry.

Figure 7-1 is an example of the Qualitative Alert that displays within **RPMS LABORATORY PACKAGE**.

```

Accession POC 20 77 Qualitative Alert
Accession POC 20 76 Qualitative Alert
Accession POC 20 75 Qualitative Alert
Accession POC 20 74 Qualitative Alert
Accession POC 20 71 Qualitative Alert
Enter "VA to jump to VIEW ALERTS option

```

Figure 7-1: IHS Lab Transaction Log

7.1 Access BLR QUALITATIVE ALERT Parameter Menu

To access the **BLR QUALITATIVE ALERT** parameter, the following menu options must be selected.

- LR Laboratory DHCP Menu ...
- BLR IHS Lab Main Support Menu
- PAMG Edit IHS Lab Parameters and/or Mail Groups ...
- #1 Edit RPMS Lab Parameters ...
- #7 Edit BLR QUALITATIVE ALERT parameter
- BLR QUALITATIVE ALERT (YES/NO)?

7.1.1 Example: BLR Qualitative Alert Menu

Figure 7-2 provides the step to turn on the Qualitative Alert.

```

LR   Laboratory DHCP Menu ...
BLR  IHS Lab Main Support Menu

LS   Link Transaction Processor Status
7421 Will restart the 7421 label routine if turned off.
INQ  Inquire into the IHS LAB Transaction Log
CPT  Enter/edit IHS Lab CPT File
STP  Stop/restart Lab to PCC Transaction Processor
PAMG Edit IHS Lab Parameters and/or Mail Groups ...
LVP  IHS Lab Version & Patch Report
POCA Edit BLR AGE DETAIL Parameter

Select IHS Lab Main Support Menu Option:

```

```

PAMG Edit IHS Lab Parameters and/or Mail Groups ...

DEMO HOSPITAL
Date:04/13/20                RPMS Lab                Time:1:59 PM
                             Parameters/Mail Groups        BLRPAMGE
-----
  1  Edit RPMS Lab Parameters ...
  2  RPMS Lab Parameter's Description ...
  3  Edit RPMS Lab Mail Groups ...
  4  Mail Group's Description ...

Select:  (1-4): 1

DEMO HOSPITAL
Date:04/13/20                RPMS Lab                Time:1:59 PM
Parameters                    BLRPAMGE
-----
  1  Edit BLR CC DATA parameter
  2  Edit BLR AGE DETAIL parameter
  3  Edit BLR EMERGENCY ALERT parameter
  4  Edit BLR COLL DT PCC VISIT CREATION parameter
  5  Edit BLR DOB ONLY parameter
  6  Edit BLR LAB RESULTS CHANGED NOTIFY parameter
  7  Edit BLR QUALITATIVE ALERT parameter
  8  Edit BLR DAYS TO ACCESSION parameter
  9  Edit BLR PT CONFIRM parameter

Select:  (1-9): 7

DEMO HOSPITAL
Date:04/13/20                IHS Laboratory        Time:2:38 PM
                             BLR QUALITATIVE ALERT Parameter    BLREMER
Modify Value
-----
BLR QUALITATIVE ALERT (YES/NO)? NO// YES

BLR QUALITATIVE ALERT Parameter is currently YES

Press RETURN Key:

```

Figure 7-2: Turning ON the Qualitative Alert Parameter

7.2 Access LAB QUALITATIVE ALERT Mail Group

To access the BLR QUALITATIVE ALERT parameter, the following menu options must be selected.

- LR Laboratory DHCP Menu ...
- BLR IHS Lab Main Support Menu
- PAMG Edit IHS Lab Parameters and/or Mail Groups ...
- #3 Edit RPMS Lab Mail Groups ...
- #3 Edit LAB QUALITATIVE ALERT Mail Group
 - (1) Add User to Mail Group

- (2) Delete User From Mail Group
- (3) List Users on Mail Group

7.2.1 Example: Qualitative Alert Mail Group

This example provides the step to access the Qualitative Alert mail group.

```

LR      Laboratory DHCP Menu ...
BLR    IHS Lab Main Support Menu

LS      Link Transaction Processor Status
7421    Will restart the 7421 label routine if turned off.
INQ     Inquire into the IHS LAB Transaction Log
CPT     Enter/edit IHS Lab CPT File
STP     Stop/restart Lab to PCC Transaction Processor
PAMG  Edit IHS Lab Parameters and/or Mail Groups ...
LVP     IHS Lab Version & Patch Report
POCA    Edit BLR AGE DETAIL Parameter

Select IHS Lab Main Support Menu Option:

PAMG  Edit IHS Lab Parameters and/or Mail Groups ...

DEMO HOSPITAL
Date:04/13/20                RPMS Lab                Time:1:59 PM
                               Parameters/Mail Groups          BLRPAMGE
-----
1      Edit RPMS Lab Parameters ...
2      RPMS Lab Parameter's Description ...
3      Edit RPMS Lab Mail Groups ...
4      Mail Group's Description ...

Select:  (1-4): 3

DEMO HOSPITAL
Date:04/13/20                RPMS Lab                Time:1:59 PM
                               Mail Groups                    BLRPAMGE
-----
1      Edit LAB HIGH URGENCY NOTIFICATION Mail Group
2      Edit LAB RESULTS CHANGED Mail Group
3      Edit LAB QUALITATIVE ALERT Mail Group
4      Edit LAB EMERGENCY ROOM NOTIFICATION Mail Group
5      Edit LMI Mail Group
6      Edit BLR ERROR OVERFLOW WARNING Mail Group
7      Edit BLR LAB PATIENT MERGE Mail Group
8      Edit BLRLINK Mail Group
9      Edit LAB MESSAGING Mail Group
10     Edit BLR APPLICATION PLUGIN WARNING Mail Group
11     Edit LAB Mail Group
12     Edit LAB TECHS Mail Group

Select:  (1-12):3

DEMO HOSPITAL
Date:04/13/20                IHS Laboratory                Time:2:38 PM
                               LAB QUALITATIVE ALERT          BLREMEMERA
Mail Group Modifications
MAIN MENU
-----

```

```
1) Add User to Mail Group                2) Delete User From Mail Group
3) List Users on Mail Group

-----
Select:  (1-3):1
Select NEW PERSON:
-----
Select:  (1-3):2
Select one of the users below to delete:

      1 DEMO,LAB TECH BETTY

Enter Number:
-----
Select:  (1-3):3

DUZ      Name
-----
2916     DEMO,LAB TECH BETTY
         1 Members

      Press RETURN Key:

-----
1) Add User to Mail Group                2) Delete User From Mail Group
3) List Users on Mail Group
```

Figure 7-3: Mail Group Modifications

8.0 Abnormal and Critical Results Report

The supervisory report of the Abnormal and Critical Flagged Results can be generated for the positive qualitative lab values onto a specialized report. This specialized report includes the patient's name and medical number, location, abnormal result, test name, specimen source, and accession number associated with that value.

Note: The Abnormal and Critical Results report can be used to capture for all abnormal and critical lab results that include H, L, H*, L* A, and A* flags.

8.1 Generate: Search for Abnormal & Critical Results Report

The menu selection for the specialized report for **SEARCH FOR ABNORMAL AND CRITICAL FLAGGED TESTS** is available on the Supervisor menu; the following menu options must be selected to generate the special report.

- LR Laboratory DHCP Menu ...
- Supervisor menu ...
- Supervisor reports ...
- Search for abnormal and critical flagged tests

```
LR   Laboratory DHCP Menu ...
     Supervisor menu ...

     PURR   PURGE OLD ORDERS & ACCESSIONS Reports ...
           Add/edit QC name &/or edit test means
           Inquiry to LAB TEST file
           Lab interface menu ...
           Lab liaison menu ...
           Lab statistics menu ...
           Purge old orders & accessions
           Supervisor reports ...

Select Supervisor menu Option: SUPERvisor reports

     Audit of deleted/edited comments
     Changes in verified lab data
     Count accessioned tests
     Search for abnormal and critical flagged tests
     Search for critical value flagged tests
     Search for high/low values of a test
     Summary list (extended supervisors')
     Summary list (supervisors')
     Supervisor's report

Select Supervisor reports Option: SEARCH
  1   Search for abnormal and critical flagged tests
  2   Search for critical value flagged tests
  3   Search for high/low values of a test
CHOOSE 1-3: 1 Search for abnormal and critical flagged tests
Date to START with: TODAY// (MAR 01, 2020)
```



```
Date to END with: T-1// -1 (AUG 19, 2020)

Select one of the following:

      Y          YES
      N          NO
Do you want to select accession areas (YES or NO) : NO// YES
Select ACCESSION AREA: POC POCT
Select ACCESSION AREA:

Select one of the following:

      P          PATIENT
      L          LOCATION

Sort by PATIENT or by LOCATION: P// PATIENT
Select PATIENT NAME: All//
Select LOCATION: All//
DEVICE: HOME//
```

Figure 8-1: Generate report for abnormal and critical value flagged tests

8.2 Example Report: Search for Abnormal & Critical Results

An example of the specialized report displays in Figure 8-2.

DR. RUBY SLIPPERS, LABORATORY DIRECTOR 5600 Fishers Ln, Rockville MD 20857					
SPECIAL REPORT: Search for Abnormal and Critical Results 08/20/2020 14:37Pg 1					
For date range: 03/01/2020 to 08/20/2020					
DEMO, BIRD NASOPHARYNGEAL RSV SCR POS	222232	LAB HOS	POC 20 65	08/17/2020 13:10	
	A	Ref. Range: none-	"NEGATIVE"	Critical: none-	none
DEMO, BARRY A NASOPHARYNGEAL COVID19 P COMMENT(S): RESULTED	222232	LAB HOS	POC 20 69	08/18/2020 12:39	ON POC BUTTON
	A	Ref. Range: none-	Negative	Critical: none-	none
DEMO, ADDIE M NASOPHARYNGEAL RSV SCR POS	123400	LAB HOS	POC 20 57	08/05/2020 16:59	
	A	Ref. Range: none-	"NEGATIVE"	Critical: none-	none
DEMO, ALISTER LANE NASOPHARYNGEAL RSV SCR POS	124625	LAB HOS	POC 20 71	08/19/2020 19:30	
	A	Ref. Range: none-	"Negative"	Critical: none-	none
DEMO, ALBERT LANE THROAT CQM STR POS	124628	LAB HOS	POC 20 72	08/20/2020 14:29	
	A	Ref. Range: none-	"NEG"	Critical: none-	none
DEMO, ALICE NASOPHARYNGEAL RSV SCR POS	124229	LAB HOS	POC 20 52	07/29/2020 08:56	
	A	Ref. Range: none-	"NEGATIVE"	Critical: none-	none
DEMO, ALLISON NASOPHARYNGEAL RSV SCR POS	124255	LAB HOS	POC 20 55	08/03/2020 14:09	
	A	Ref. Range: none-	"NEGATIVE"	Critical: none-	none
DEMO, ALLISON NASOPHARYNGEAL RSV SCR POS	124255	LAB HOS	POC 20 63	08/11/2020 06:58	
	A	Ref. Range: none-	"NEGATIVE"	Critical: none-	none
DEMO, AMENDMENT ONE URINE _URINE	124221	INPATIENT ICU	POC 20 59	08/05/2020 19:45	
	50 mg/dL	H*	Ref. Range: none-	"NEG"	Critical: none-1
DR. RUBY SLIPPERS, LABORATORY DIRECTOR 5600 Fishers Ln, Rockville MD 20857					
SPECIAL REPORT: Search for Abnormal and Critical Results 08/20/2020 14:37Pg 2					
For date range: 03/01/2020 to 08/20/2020					
DEMO, ANNIE NASOPHARYNGEAL RSV SCR POS	111876	LAB HOS	POC 20 56	08/05/2020 16:56	
	A	Ref. Range: none-	"NEGATIVE"	Critical: none-	none
DEMO, ASHLEY THROAT CQM STR POS	114649	LAB HOS	POC 20 51	07/27/2020 17:41	
	A	Ref. Range: none-	"NEG"	Critical: none-	none
TEST, PATIENTONE BLOOD _HGB (c)	34 g/dL	H	Ref. Range: 12.0-	17.0	Critical: none-
_WBC (c)	34 10 ³ /uL	H	Ref. Range: 4-	12	Critical: none-
_EVEROL	43 ng/mL	H	Ref. Range: 2.0-	8.0	Critical: none-
TEST, PATIENTONE BLOOD _EVEROL	56 ng/mL	H	Ref. Range: 2.0-	8.0	Critical: none-
END OF SPECIAL REPORT					

Figure 8-2: Special Report for Abnormal and Critical Results example

Appendix A Laboratory Patch Check List

The following is a laboratory patch check list:

Step	Description	Complete
1. Lab Patch installed	Check Latest Lab Patch installed: LVP IHS Lab Patch Report. See Section 2.0	<input type="checkbox"/>
2. Lab Linker	Check Lab Linker: LS Link Transaction Processor Status. See Section 3.0	<input type="checkbox"/>
3. Laboratory Test	Review Lab Test(s) that report values, such as Positive, Detected or Reactive, and determine which Lab Tests to turn on the abnormal qualitative flag. See Section 4.0	<input type="checkbox"/>
4. Data Name	Inquire FM 60 and capture Data Name. See Section 4.1	<input type="checkbox"/>
5. Lab Liaison	Review Data Name setup. See Section 4.2	<input type="checkbox"/>
6. Site/Specimen	Access Lab Test file and Site/Specimen for Qualitative Value field. See Section 4.3	<input type="checkbox"/>
7. CPT Code	Review IHS LAB CPT CODE file. See Section 4.6	<input type="checkbox"/>
8. TEST changes	Order/Accession/Result and Review lab results. See Section 5.0	<input type="checkbox"/>
9. Review DATA	Review INQ Inquire into the IHS LAB Transaction Log, look for ABNORMAL FLAG and LOINC CODE, etc. See Section 6.0	<input type="checkbox"/>
10. Alert & Mail	BLR Qualitative Alert and Email Group Setup. See Section 7.0	<input type="checkbox"/>
11. Special Report	Search for Abnormal & Critical Results Report. See Section 8.0	<input type="checkbox"/>

Appendix B Rules of Behavior

The Resource and Patient Management (RPMS) system is a United States Department of Health and Human Services (HHS), Indian Health Service (IHS) information system that is **FOR OFFICIAL USE ONLY**. The RPMS system is subject to monitoring; therefore, no expectation of privacy shall be assumed. Individuals found performing unauthorized activities are subject to disciplinary action including criminal prosecution.

All users (Contractors and IHS Employees) of RPMS will be provided a copy of the Rules of Behavior (ROB) and must acknowledge that they have received and read them prior to being granted access to a RPMS system, in accordance IHS policy.

- For a listing of general ROB for all users, see the most recent edition of *IHS General User Security Handbook* (SOP 06-11a).
- For a listing of system administrators/managers rules, see the most recent edition of the *IHS Technical and Managerial Handbook* (SOP 06-11b).

Both documents are available at this IHS Web site:

<https://home.ihs.gov/security/index.cfm><http://security.ihs.gov/>.

<p>Note: Users must be logged on to the IHS D1 Intranet to access these documents.</p>

The ROB listed in the following sections are specific to RPMS.

B.1 All RPMS Users

In addition to these rules, each application may include additional ROB that may be defined within the documentation of that application (e.g., Dental, Pharmacy).

B.1.1 Access

RPMS users shall

- Only use data for which you have been granted authorization.
- Only give information to personnel who have access authority and have a need to know.
- Always verify a caller's identification and job purpose with your supervisor or the entity provided as employer before providing any type of information system access, sensitive information, or nonpublic agency information.
- Be aware that personal use of information resources is authorized on a limited basis within the provisions *Indian Health Manual* Part 8, "Information Resources Management," Chapter 6, "Limited Personal Use of Information Technology Resources."

RPMS users shall not

- Retrieve information for someone who does not have authority to access the information.
- Access, research, or change any user account, file, directory, table, or record not required to perform their *official* duties.
- Store sensitive files on a PC hard drive, or portable devices or media, if access to the PC or files cannot be physically or technically limited.
- Exceed their authorized access limits in RPMS by changing information or searching databases beyond the responsibilities of their jobs or by divulging information to anyone not authorized to know that information.

B.1.2 Information Accessibility

RPMS shall restrict access to information based on the type and identity of the user. However, regardless of the type of user, access shall be restricted to the minimum level necessary to perform the job.

RPMS users shall

- Access only those documents they created and those other documents to which they have a valid need-to-know and to which they have specifically granted access through an RPMS application based on their menus (job roles), keys, and FileMan access codes. Some users may be afforded additional privileges based on the functions they perform, such as system administrator or application administrator.
- Acquire a written preauthorization in accordance with IHS policies and procedures prior to interconnection to or transferring data from RPMS.

B.1.3 Accountability

RPMS users shall

- Behave in an ethical, technically proficient, informed, and trustworthy manner.
- Log out of the system whenever they leave the vicinity of their personal computers (PCs).
- Be alert to threats and vulnerabilities in the security of the system.
- Report all security incidents to their local Information System Security Officer (ISSO)
- Differentiate tasks and functions to ensure that no one person has sole access to or control over important resources.
- Protect all sensitive data entrusted to them as part of their government employment.

- Abide by all Department and Agency policies and procedures and guidelines related to ethics, conduct, behavior, and information technology (IT) information processes.

B.1.4 Confidentiality

RPMS users shall

- Be aware of the sensitivity of electronic and hard copy information and protect it accordingly.
- Store hard copy reports/storage media containing confidential information in a locked room or cabinet.
- Erase sensitive data on storage media prior to reusing or disposing of the media.
- Protect all RPMS terminals from public viewing at all times.
- Abide by all Health Insurance Portability and Accountability Act (HIPAA) regulations to ensure patient confidentiality.

RPMS users shall not

- Allow confidential information to remain on the PC screen when someone who is not authorized to that data is in the vicinity.
- Store sensitive files on a portable device or media without encrypting.

B.1.5 Integrity

RPMS users shall

- Protect their systems against viruses and similar malicious programs.
- Observe all software license agreements.
- Follow industry standard procedures for maintaining and managing RPMS hardware, operating system software, application software, and/or database software and database tables.
- Comply with all copyright regulations and license agreements associated with RPMS software.

RPMS users shall not

- Violate federal copyright laws.
- Install or use unauthorized software within the system libraries or folders.
- Use freeware, shareware, or public domain software on/with the system without their manager's written permission and without scanning it for viruses first.

B.1.6 System Logon

RPMS users shall

- Have a unique User Identification/Account name and password.
- Be granted access based on authenticating the account name and password entered.
- Be locked out of an account after five successive failed login attempts within a specified time period (e.g., one hour).

B.1.7 Passwords

RPMS users shall

- Change passwords a minimum of every 90 days.
- Create passwords with a minimum of eight characters.
- If the system allows, use a combination of alpha-numeric characters for passwords, with at least one uppercase letter, one lower case letter, and one number. It is recommended, if possible, that a special character also be used in the password.
- Change vendor-supplied passwords immediately.
- Protect passwords by committing them to memory or store them in a safe place (do not store passwords in login scripts or batch files).
- Change passwords immediately if password has been seen, guessed, or otherwise compromised, and report the compromise or suspected compromise to their ISSO.
- Keep user identifications (IDs) and passwords confidential.

RPMS users shall not

- Use common words found in any dictionary as a password.
- Use obvious readable passwords or passwords that incorporate personal data elements (e.g., user's name, date of birth, address, telephone number, or social security number; names of children or spouses; favorite band, sports team, or automobile; or other personal attributes).
- Share passwords/IDs with anyone or accept the use of another's password/ID, even if offered.
- Reuse passwords. A new password must contain no more than five characters per eight characters from the previous password.
- Post passwords.
- Keep a password list in an obvious place, such as under keyboards, in desk drawers, or in any other location where it might be disclosed.
- Give a password out over the phone.

B.1.8 Backups

RPMS users shall

- Plan for contingencies such as physical disasters, loss of processing, and disclosure of information by preparing alternate work strategies and system recovery mechanisms.
- Make backups of systems and files on a regular, defined basis.
- If possible, store backups away from the system in a secure environment.

B.1.9 Reporting

RPMS users shall

- Contact and inform their ISSO that they have identified an IT security incident and begin the reporting process by providing an IT Incident Reporting Form regarding this incident.
- Report security incidents as detailed in the *IHS Incident Handling Guide* (SOP 05-03).

RPMS users shall not

- Assume that someone else has already reported an incident. The risk of an incident going unreported far outweighs the possibility that an incident gets reported more than once.

B.1.10 Session Timeouts

RPMS system implements system-based timeouts that back users out of a prompt after no more than 5 minutes of inactivity.

RPMS users shall

- Utilize a screen saver with password protection set to suspend operations at no greater than 10 minutes of inactivity. This will prevent inappropriate access and viewing of any material displayed on the screen after some period of inactivity.

B.1.11 Hardware

RPMS users shall

- Avoid placing system equipment near obvious environmental hazards (e.g., water pipes).
- Keep an inventory of all system equipment.
- Keep records of maintenance/repairs performed on system equipment.

RPMS users shall not

- Eat or drink near system equipment.

B.1.12 Awareness

RPMS users shall

- Participate in organization-wide security training as required.
- Read and adhere to security information pertaining to system hardware and software.
- Take the annual information security awareness.
- Read all applicable RPMS manuals for the applications used in their jobs.

B.1.13 Remote Access

Each subscriber organization establishes its own policies for determining which employees may work at home or in other remote workplace locations. Any remote work arrangement should include policies that

- Are in writing.
- Provide authentication of the remote user through the use of ID and password or other acceptable technical means.
- Outline the work requirements and the security safeguards and procedures the employee is expected to follow.
- Ensure adequate storage of files, removal, and nonrecovery of temporary files created in processing sensitive data, virus protection, and intrusion detection, and provide physical security for government equipment and sensitive data.
- Establish mechanisms to back up data created and/or stored at alternate work locations.

Remote RPMS users shall

- Remotely access RPMS through a virtual private network (VPN) whenever possible. Use of direct dial in access must be justified and approved in writing and its use secured in accordance with industry best practices or government procedures.

Remote RPMS users shall not

- Disable any encryption established for network, internet, and Web browser communications.

B.2 RPMS Developers

RPMS developers shall

- Always be mindful of protecting the confidentiality, availability, and integrity of RPMS when writing or revising code.

- Always follow the IHS RPMS Programming Standards and Conventions (SAC) when developing for RPMS.
- Only access information or code within the namespaces for which they have been assigned as part of their duties.
- Remember that all RPMS code is the property of the U.S. Government, not the developer.
- Not access live production systems without obtaining appropriate written access and shall only retain that access for the shortest period possible to accomplish the task that requires the access.
- Observe separation of duties policies and procedures to the fullest extent possible.
- Document or comment all changes to any RPMS software at the time the change or update is made. Documentation shall include the programmer's initials, date of change, and reason for the change.
- Use checksums or other integrity mechanism when releasing their certified applications to assure the integrity of the routines within their RPMS applications.
- Follow industry best standards for systems they are assigned to develop or maintain and abide by all Department and Agency policies and procedures.
- Document and implement security processes whenever available.

RPMS developers shall not

- Write any code that adversely impacts RPMS, such as backdoor access, "Easter eggs," time bombs, or any other malicious code or make inappropriate comments within the code, manuals, or help frames.
- Grant any user or system administrator access to RPMS unless proper documentation is provided.
- Release any sensitive agency or patient information.

B.3 Privileged Users

Personnel who have significant access to processes and data in RPMS, such as, system security administrators, systems administrators, and database administrators, have added responsibilities to ensure the secure operation of RPMS.

Privileged RPMS users shall

- Verify that any user requesting access to any RPMS system has completed the appropriate access request forms.
- Ensure that government personnel and contractor personnel understand and comply with license requirements. End users, supervisors, and functional managers are ultimately responsible for this compliance.
- Advise the system owner on matters concerning information technology security.

- Assist the system owner in developing security plans, risk assessments, and supporting documentation for the certification and accreditation process.
- Ensure that any changes to RPMS that affect contingency and disaster recovery plans are conveyed to the person responsible for maintaining continuity of operations plans.
- Ensure that adequate physical and administrative safeguards are operational within their areas of responsibility and that access to information and data is restricted to authorized personnel on a need-to-know basis.
- Verify that users have received appropriate security training before allowing access to RPMS.
- Implement applicable security access procedures and mechanisms, incorporate appropriate levels of system auditing, and review audit logs.
- Document and investigate known or suspected security incidents or violations and report them to the ISSO, Chief Information Security Officer (CISO), and systems owner.
- Protect the supervisor, superuser, or system administrator passwords.
- Avoid instances where the same individual has responsibility for several functions (i.e., transaction entry and transaction approval).
- Watch for unscheduled, unusual, and unauthorized programs.
- Help train system users on the appropriate use and security of the system.
- Establish protective controls to ensure the accountability, integrity, confidentiality, and availability of the system.
- Replace passwords when a compromise is suspected. Delete user accounts as quickly as possible from the time that the user is no longer authorized system. Passwords forgotten by their owner should be replaced, not reissued.
- Terminate user accounts when a user transfers or has been terminated. If the user has authority to grant authorizations to others, review these other authorizations. Retrieve any devices used to gain access to the system or equipment. Cancel logon IDs and passwords and delete or reassign related active and backup files.
- Use a suspend program to prevent an unauthorized user from logging on with the current user's ID if the system is left on and unattended.
- Verify the identity of the user when resetting passwords. This can be done either in person or having the user answer a question that can be compared to one in the administrator's database.
- Shall follow industry best standards for systems they are assigned to and abide by all Department and Agency policies and procedures.

Privileged RPMS users shall not

- Access any files, records, systems, etc., that are not explicitly needed to perform their duties
- Grant any user or system administrator access to RPMS unless proper documentation is provided.
- Release any sensitive agency or patient information.

Glossary

FileMan

The database management system for the VA's VistA system and IHS' RPMS system.

IHS

Indian Health Service. An Operating Division (OPDIV) within the U.S. Department of Health and Human Services (HHS).

LOINC

Logical Observation Identifiers Names and Codes (LOINC) is a database and universal standard for identifying medical laboratory observations.

Menu

A list of choices for computing activity. A menu is a type of option designed to identify a series of items (other options) for presentation to the user for selection.

Option

An RPMS menu selection to perform a desired action.

Parameter

A name in a function or subroutine definition that is replaced by, or bound to, the corresponding actual argument when the function or subroutine is called.

RPMS

Resource and Patient Management System. A suite of software applications used at IHS facilities to support administrative, clerical, and clinical functions.

Acronym List

Acronym	Term Meaning
CPT	Current Procedural Terminology
EHR	Electronic Health Record
IHS	Indian Health Service
PCC	Patient Care Component
POC	Point of Care
ROB	Rules of Behavior
RPMS	Resource and Patient Management System

Contact Information

If you have any questions or comments regarding this distribution, please contact the IHS IT Service Desk.

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