RESOURCE AND PATIENT MANAGEMENT SYSTEM

Radiology

(RA)

Configuration and User Guide

Version 5.0 Patch 1013
October 2025

Office of Information Technology
Division of Information Technology

Table of Contents

Revision History

Version	Date	Author	Section	Page Number	Summary of Change
1.0	January 2004	N/A	N/A	N/A	Version 5.0 Release
2.0	September 2020	Leslie White	20.0	144–153	RA v5.0 P1008 (CHIT Phase 2) Release Addendum
3.0	October 2022	Leslie White	21.0	155-181	RA v5.0 p1009 Release Addendum
4.0	March 2024	Lee Redlegs	22.0	TBD	RA v5.0 p1010 Release Addendum
5.0	June 2024	Lee Redlegs	23.0	TBD	RA v5.0 p1011 Release Addendum
6.0	October 2025	Lee Redlegs	25.0	TBD	RA v5.0 p1013 Release Addendum

Preface

The purpose of this guide is to:

- Provide guidance for base set up and configuration of the RPMS Radiology Package.
- Provide direction on how to set up menus of Radiology procedures to be ordered in EHR.
- Provide general instruction on how to use the Radiology Package for recording exams and reporting procedures.
- Provide a general overview of interface configuration of modality worklists, PACS systems, and reporting interfaces.
- Provide an overview of the linkage between the Radiology and Women's Health Package.
- Provide updates from recent RAD/NUC MED releases RA*5.0*1008 and RA*5.0*1009.
- Provide updates from recent RAD/NUC MED releases RA*5.0*1010
- Provide updates from recent RAD/NUC MED releases RA*5.0*1011

1.0 System Set Up Overview

Before the RPMS Radiology/Nuclear Medicine Package may be used, significant set up and configuration must be performed for both the package and the users of the system. An overview of those system set up requirements is provided in this section. The individual performing the set up configuration must have a working knowledge of Radiology and VA FileMan access. In addition, they should read this section before beginning as set up and configuration should be performed in the order specified in this section.

Listed below are the general areas of set up required for the RPMS Radiology package. The complexity of set up varies from site to site. This outline should be considered to include the minimum areas to be addressed for Day One.

Table 1-1: System set up-Radiology Requirements

Radiology Requirements
Maintenance Files print
Users • FileMan Access Code–RrM • Security Keys–RA OVERALL (maybe RA VERIFY, RA ALLOC, and RA MGR) • Rad/Nuc Med Classification–Clerk, Technologist, Staff • Electronic Signature–Signature Block Title • Edit User Characteristics–Screen Editor
Providers–Provider Key and active RPMS access and verify code
System Definition • Camera/Equip/Rm Entry/Edit–Equipment or Rooms used for Rad/Nuc Med • Location Parameter Set- up–General Radiology, CT, US, MRI, etc. • Division Parameter Set-up–Parameters used at your facility
Menus–add RA SITEMENAGER to RA OVERALL • Define Default Devices for Radiology Locations–Where requisitions should print • Confirm Rad/Nuc Med Version 5.0 through patch 1004 has been installed.

Radiology Requirements
Utility Files Maintenance • Complication Type Entry/Edit–Table to include Contrast reaction or other complication • Diagnostic Code Enter/Edit–Table to include coded interpretations including BIRAD codes • Examination Status Entry/Edit–Required data items required to move exam from waiting to complete • Film Type Entry/Edit–Film Sizes and types • Label/Header/Footer Formatter–Tool to customize Radiology Report Header • Procedure Enter/Edit–Option to enter or modify procedures performed by Rad/Nuc Med Dept. • Procedure Message Enter/Edit–Option to enter special messages seen by ordering provider. • Procedure Modifier Entry–Option to customize modifiers for procedures, e.g. Left, Right, Upright, etc. • Common Procedure Enter/Edit–Order entry menu in RPMS • Reason Edit–Table of reasons why exams are canceled or put on hold.
EHR • EHR Quick Orders • EHR Menus Imaging Reports Local on Reports Tab

2.0 Software

At the time of this manual review, the release status of RPMS Radiology is v5.0, through p1009. Release RA 1008 contains changes required to meet the 2015 Certified Edition for the Indian Health Service RPMS/EHR. Please reference Section 20.0 for a full explanation and list of additions to the RPMS RAD/NUC MED Total System.

To confirm the software version that you have installed at your facility, use the Kernel Installation & Distribution System Utility Menu to determine the history of Version and Patch installation. Note that you should have v4.0,v4.5, and v5.0 of Radiology/Nuclear Medicine Versions installed. If you do not, please contact your area support staff to obtain a supplemental file that contains IHS modifications to the VA software. You will also notice that while you see RA p 1002 and p1001, you will not see p1003, p1004 and p1007 in the listings of patch installations. That is because these were compilations of VA patches which are listed in Figure 2-1.

> **Note:** RA p1007 (VA patches) and BRA p1007 were released in October 2017 and RA p1008 was released in September 2020. RA p1009 was released in October 2022.

```
Core Applications ...
          Device Management ...
   FM     VA FileMan ...
          Manage Mailman ...
          Menu Management ...
          Programmer Options ...
          Operations Management ...
          Spool Management ...
          Information Security Officer Menu ...
          Taskman Management ...
          User Management ...
   EHR    RPMS-EHR Configuration Master Menu ...
   GIS    GIS Interface Menu ...
   KIDS   Kernel Installation & Distribution System ...
   TRNG   Cimarron Medical Informatics Training Menu ...
          Application Utilities ...
          Capacity Management ...


Select Systems Manager Menu Option: programmer Options


   KIDS   Kernel Installation & Distribution System ...
   PG     Programmer mode
          Delete Unreferenced Options
          Error Processing ...
          Global Block Count
          List Global
          Routine Tools ...


Select Programmer Options Option: KIDS  Kernel Installation & Distribution
System
```

```
          Edits and Distribution ...
          Utilities ...
          Installation ...
          Patch Monitor Main Menu ...

Select Kernel Installation & Distribution System Option: UTILITies


          Build File Print
          Install File Print
          Convert Loaded Package for Redistribution
          Display Patches for a Package
          Purge Build or Install Files
          Rollup Patches into a Build
          Update Routine File
          Verify a Build
          Verify Package Integrity


elect Utilities Option: DISPlay Patches for a Package
Select PACKAGE NAME: RAD/NUC ??

Select PACKAGE NAME: RAD
     1   RADIATION SAFETY       RS
     2   RADIOLOGY/NUCLEAR MEDICINE       RA
CHOOSE 1-2:

CHOOSE 1-2: 2  RADIOLOGY/NUCLEAR MEDICINE     RA
Select VERSION: 5.0// ?
 Answer with VERSION
 Do you want the entire 66-Entry VERSION List? Y  (Yes)
   Choose from:
   1        10-17-84
   1.01        11-06-84
   1.02        11-06-84
   1.03        11-14-84
   1.05        11-21-84
   1.07        12-03-84
   1.08        12-04-84
   1.09        12-04-84
   1.1        12-05-84
   1.11        12-18-84
   1.15        01-12-85
   1.2        01-21-85
   1.25        02-01-85
   1.3        02-05-85
   1.31        02-24-85
   1.32        03-01-85
   1.33        03-05-85
   1.34        03-07-85
   1.35        03-11-85
   1.4        03-26-85
   1.41        03-26-85
   1.5        04-08-85
   1.51        04-12-85
   2        05-17-85
   2.01        05-31-85
   2.02        06-12-85
   2.03        06-24-85
   2.04        07-03-85
```

```
   2.05        07-08-85
   2.06        07-11-85
   2.08        09-30-85
   2.09        11-08-85
   2.1        05-28-86
   2.9        09-14-88
   2.91        10-21-88
   2.92        11-10-88
   2.93        01-26-89
   2.94        02-21-89
   2.95        02-27-89
   2.96        03-06-89
   3        05-25-89
   3.01        08-14-89
   3.71        02-22-91
   3.72        03-07-91
   3.73        03-14-91
   3.74        03-19-91
   3.75        04-03-91
   3.76        05-01-91
   3.77        05-20-91
   3.78        05-31-91
   3.79        06-16-91
   3.81        07-17-91
   3.82        07-31-91
   3.83        08-14-91
   3.84        08-28-91
   3.85        10-11-91
   3.86        11-13-91
   3.87        11-20-91
   3.88        12-17-91
   3.89        02-03-92
   4.5        12-12-95
   3.70        06-28-90
   3.80        07-02-91
   4.0        11-20-97
   5.0        04-01-04

Select VERSION: 5.0//
Select VERSION: 5.0//        04-01-04
Do you want to see the Descriptions? NO//
DEVICE: HOME//   VIRTUAL TERMINAL

PACKAGE: RADIOLOGY/NUCLEAR MEDICINE     Dec 23, 2013 7:37 am          PAGE
1
PATCH #             INSTALLED                     INSTALLED BY
-------------------------------------------------------------------------
--
VERSION: 5.0        JUL 08, 2004                  DEMO,USER 1

   1                JUL 08, 2004                  DEMO,USER 1
   2                JUL 08, 2004                  DEMO,USER 1
   6                JUL 08, 2004                  DEMO,USER 1
   4                JUL 08, 2004                  DEMO,USER 1
   7                JUL 08, 2004                  DEMO,USER 1
   3                JUL 08, 2004                  DEMO,USER 1
   11               JUL 08, 2004                  DEMO,USER 1
   5                JUL 08, 2004                  DEMO,USER 1
   14               JUL 08, 2004                  DEMO,USER 1
   13               JUL 08, 2004                  DEMO,USER 1
   8                JUL 08, 2004                  DEMO,USER 1
   12               JUL 08, 2004                  DEMO,USER 1
```

```
   9                JUL 08, 2004                  DEMO,USER 1
   16               JUL 08, 2004                  DEMO,USER 1
   10               JUL 08, 2004                  DEMO,USER 1
   15               JUL 08, 2004                  DEMO,USER 1
   19               JUL 08, 2004                  DEMO,USER 1
   20               JUL 08, 2004                  DEMO,USER 1
   17               JUL 08, 2004                  DEMO,USER 1
   24               JUL 08, 2004                  DEMO,USER 1
   22               JUL 08, 2004                  DEMO,USER 1
   21               JUL 08, 2004                  DEMO,USER 1
   18               JUL 08, 2004                  DEMO,USER 1
   23               JUL 08, 2004                  DEMO,USER 1
   26               JUL 08, 2004                  DEMO,USER 1
   28               JUL 08, 2004                  DEMO,USER 1
   32               JUL 08, 2004                  DEMO,USER 1
   29               JUL 08, 2004                  DEMO,USER 1
   27               JUL 08, 2004                  DEMO,USER 1
   25               JUL 08, 2004                  DEMO,USER 1
   31               JUL 08, 2004                  DEMO,USER 1
   35               JUL 08, 2004                  DEMO,USER 1
   40               JUL 08, 2004                  DEMO,USER 1
   36               JUL 08, 2004                  DEMO,USER 1
   34               JUL 08, 2004                  DEMO,USER 1
   37               JUL 08, 2004                  DEMO,USER 1
   42               JUL 08, 2004                  DEMO,USER 1
   43               JUL 08, 2004                  DEMO,USER 1
   1001             MAY 24, 2005                  DEMO,USER 3
   1002             DEC 13, 2011@16:28:18         DEMO,USER 2
   38               AUG 12, 2013@18:51:35         DEMO,USER 3
   44               AUG 12, 2013@18:51:35         DEMO,USER 3
   46               AUG 12, 2013@18:51:35         DEMO,USER 3
   50               AUG 12, 2013@18:51:35         DEMO,USER 3
   48               AUG 12, 2013@18:51:35         DEMO,USER 3
   33               AUG 12, 2013@18:51:35         DEMO,USER 3
   55               AUG 12, 2013@18:51:35         DEMO,USER 3
   51               AUG 12, 2013@18:51:35         DEMO,USER 3
   54               AUG 12, 2013@18:51:35         DEMO,USER 3
   45               AUG 12, 2013@18:51:36         DEMO,USER 3
   60               AUG 12, 2013@18:51:36         DEMO,USER 3
   59               AUG 12, 2013@18:51:36         DEMO,USER 3
   41               AUG 12, 2013@18:51:36         DEMO,USER 3
   63               AUG 12, 2013@18:51:36         DEMO,USER 3
   62               AUG 12, 2013@18:51:36         DEMO,USER 3
   66               AUG 12, 2013@18:51:36         DEMO,USER 3
   57               AUG 12, 2013@18:51:36         DEMO,USER 3
   69               AUG 12, 2013@18:51:36         DEMO,USER 3
   68               AUG 12, 2013@18:51:36         DEMO,USER 3
   67               AUG 12, 2013@18:51:38         DEMO,USER 3
   64               AUG 12, 2013@18:51:38         DEMO,USER 3
   72               AUG 12, 2013@18:51:38         DEMO,USER 3
   49               AUG 12, 2013@18:51:38         DEMO,USER 3
   76               AUG 12, 2013@18:51:38         DEMO,USER 3
   71               AUG 12, 2013@18:51:38         DEMO,USER 3
   74               AUG 12, 2013@18:51:38         DEMO,USER 3
   79               AUG 12, 2013@18:51:39         DEMO,USER 3
   82               AUG 12, 2013@18:51:39         DEMO,USER 3
   77               AUG 12, 2013@18:51:39         DEMO,USER 3
   75               AUG 12, 2013@18:51:39         DEMO,USER 3
   81               AUG 12, 2013@18:51:39         DEMO,USER 3
   83               AUG 12, 2013@18:51:39         DEMO,USER 3
   80               AUG 12, 2013@18:51:39         DEMO,USER 3
   85               AUG 12, 2013@18:51:39         DEMO,USER 3
```

```
   87              AUG 12, 2013@18:51:39         DEMO,USER 3
   86              AUG 12, 2013@18:51:39         DEMO,USER 3
   84              AUG 12, 2013@18:51:40         DEMO,USER 3
   92              AUG 12, 2013@18:51:40         DEMO,USER 3
   56              AUG 12, 2013@18:51:40         DEMO,USER 3
   65              AUG 12, 2013@18:51:40         DEMO,USER 3
   91              AUG 12, 2013@18:51:40         DEMO,USER 3
   98              AUG 12, 2013@18:51:40         DEMO,USER 3
   70              AUG 12, 2013@18:51:40         DEMO,USER 3
   96              AUG 12, 2013@18:51:40         DEMO,USER 3
   95              AUG 12, 2013@18:51:40         DEMO,USER 3
   93              AUG 12, 2013@18:51:41         DEMO,USER 3
   97              AUG 12, 2013@18:51:41         DEMO,USER 3
   94              AUG 12, 2013@18:51:53         DEMO,USER 3
   99              AUG 12, 2013@18:51:53         DEMO,USER 3
   100             AUG 12, 2013@18:51:53         DEMO,USER 3
   90              AUG 12, 2013@18:51:55         DEMO,USER 3
   104             AUG 12, 2013@18:54:25         DEMO,USER 3
   47              AUG 12, 2013@18:54:26         DEMO,USER 3
   1006            MAY 14, 2018@14:54:10         DEMO,USER 4
   105             JUN 12, 2018@15:57:11         DEMO,USER 4
   101             JUN 12, 2018@15:57:11         DEMO,USER 4
   106             JUN 12, 2018@15:57:11         DEMO,USER 4
   103             JUN 12, 2018@15:57:11         DEMO,USER 4
   108             JUN 12, 2018@15:57:12         DEMO,USER 4
   107             JUN 12, 2018@15:57:12         DEMO,USER 4
   111             JUN 12, 2018@15:57:12         DEMO,USER 4
   112             JUN 12, 2018@15:57:12         DEMO,USER 4
   115             JUN 12, 2018@15:57:13         DEMO,USER 4
   114             JUN 12, 2018@15:57:13         DEMO,USER 4
   110             JUN 12, 2018@15:57:13         DEMO,USER 4
   116             JUN 12, 2018@15:57:13         DEMO,USER 4
   117             JUN 12, 2018@15:57:14         DEMO,USER 4
   122             JUN 12, 2018@15:57:14         DEMO,USER 4
   121             JUN 12, 2018@15:57:14         DEMO,USER 4
   123             JUN 12, 2018@15:57:14         DEMO,USER 4
   126             JUN 12, 2018@15:57:15         DEMO,USER 4
   125             JUN 12, 2018@15:57:15         DEMO,USER 4
   1008            SEP 02, 2020@09:51:19         DEMO,USER 5
   131             APR 28, 2022@10:48:53         DEMO,USER
   129             APR 28, 2022@10:48:53         DEMO,USER
   127             APR 28, 2022@10:48:53         DEMO,USER
   134             APR 28, 2022@10:48:53         DEMO,USER
   133             APR 28, 2022@10:48:53         DEMO,USER
   130             APR 28, 2022@10:48:53         DEMO,USER
   140             APR 28, 2022@10:48:53         DEMO,USER
   138             APR 28, 2022@10:48:53         DEMO,USER
   119             APR 28, 2022@10:48:53         DEMO,USER
   136             APR 28, 2022@10:48:53         DEMO,USER
   141             APR 28, 2022@10:48:53         DEMO,USER
   137             APR 28, 2022@10:48:53         DEMO,USER
   132             APR 28, 2022@10:48:53         DEMO,USER
   135             APR 28, 2022@10:48:53         DEMO,USER
   143             APR 28, 2022@10:48:53         DEMO,USER
   147             APR 28, 2022@10:48:53         DEMO,USER
   145             APR 28, 2022@10:48:53         DEMO,USER
   144             APR 28, 2022@10:48:53         DEMO,USER
   149             APR 28, 2022@10:48:53         DEMO,USER
   151             APR 28, 2022@10:48:53         DEMO,USER
   124             APR 28, 2022@10:48:53         DEMO,USER
   150             APR 28, 2022@10:48:53         DEMO,USER
   148             APR 28, 2022@10:48:53         DEMO,USER
```

```
   153              APR 28, 2022@10:48:53          DEMO,USER
   154              APR 28, 2022@10:48:53          DEMO,USER
   156              APR 28, 2022@10:48:53          DEMO,USER
   159              APR 28, 2022@10:48:53          DEMO,USER
   155              APR 28, 2022@10:48:53          DEMO,USER
   158              APR 28, 2022@10:48:53          DEMO,USER
   157              APR 28, 2022@10:48:53          DEMO,USER
   163              APR 28, 2022@10:48:53          DEMO,USER
   162              APR 28, 2022@10:48:53          DEMO,USER
   161              APR 28, 2022@10:48:53          DEMO,USER
   167              APR 28, 2022@10:48:53          DEMO,USER
   168              APR 28, 2022@10:48:53          DEMO,USER
   166              APR 28, 2022@10:48:53          DEMO,USER
   171              APR 28, 2022@10:48:53          DEMO,USER
   165              APR 28, 2022@10:48:53          DEMO,USER
   172              APR 28, 2022@10:48:53          DEMO,USER
   169              APR 28, 2022@10:48:53          DEMO,USER
   160              APR 28, 2022@10:48:53          DEMO,USER
   173              APR 28, 2022@10:48:53          DEMO,USER
   1009             JUL 08, 2022@12:13:31          DEMO,USER
```

Figure 2-1: Installation History for Radiology

Next, check to be sure that the IHS modifications released in BRA patches have been installed by following the same menu path. You should have BRA p1003 and p1007 as shown in Figure 2-2.

```
PACKAGE: IHS MODS TO VA RADIOLOGY     Sep 10, 2020 9:48 am            PAGE 1
PATCH #             INSTALLED                      INSTALLED BY

VERSION: 5.0

   1003             MAY 14, 2018@14:23:13          DEMO,USER 4
   1007             JUN 12, 2018@15:57:44          DEMO,USER 4
```

Figure 2-2: Displaying patch levels for IHS Radiology patches

You may note that BRA p1004 is not listed. You may choose the **Install File Print** option to confirm that patch has been installed as shown below:

```
Build File Print
          Install File Print
          Convert Loaded Package for Redistribution
          Display Patches for a Package
          Purge Build or Install Files
          Rollup Patches into a Build
          Update Routine File
          Verify a Build
          Verify Package Integrity

Select Utilities Option: INStall File Print
```

```
Select INSTALL NAME: BRA
     1   BRA*5.0*1003       Install Completed     Install Completed
8/12/13@18:
53:37
     => BRA 5.0 Patch 1003  ;Created on Oct 19, 2011@21:38:26
     2   BRA*5.0*1004       Install Completed     Install Completed
8/12/13@18:
55:17
     => IHS Mods to VA Radiology Patch 1004  ;Created on Jun 01,
2012@11:03:13
CHOOSE 1-2: 2  BRA*5.0*1004     Install Completed     Install Completed
8/12/13
@18:55:17
     => IHS Mods to VA Radiology Patch 1004  ;Created on Jun 01,
2012@11:03:13
DEVICE: HOME//   VIRTUAL TERMINAL

PACKAGE: BRA*5.0*1004     Dec 23, 2013 8:03 am                        PAGE
1
                                             COMPLETED           ELAPSED
------------------------------------------------------------------------------
STATUS: Install Completed                 DATE LOADED: AUG 12,
2013@18:55:02
INSTALLED BY: DEMO,USER 3
NATIONAL PACKAGE:

INSTALL STARTED: AUG 12, 2013@18:55:17       18:55:17

ROUTINES:                                    18:55:17

INPUT TEMPLATE                               18:55:17

INSTALL QUESTION PROMPT
ANSWER

XPI1   Want KIDS to INHIBIT LOGONs during the install                NO
XPZ1   Want to DISABLE Scheduled Options, Menu Options, and Protocols NO
MESSAGES:
```

Figure 2-3: Install File Print for Radiology

3.0 Menus

The RA OVERALL or Main Radiology Menu is distributed as follows. Users with the RA OVERALL key will see the following menu options:

```
Welcome, you are signed on with the following parameters:

                                   Printer Defaults
 Version  : 5.0                    ----------------
 Division : DEMO INDIAN HOSPITAL   Flash Card  : None
 Location : RADIOLOGY                            No cards
 Img. Type: GENERAL RADIOLOGY      Jacket Label: None
 User     : DEMO,USER 3
                                   Report      : None
--------------------------------------------------------------------------------
--

          Exam Entry/Edit Menu ...
          Films Reporting Menu ...
          Management Reports Menu ...
          Outside Films Registry Menu ...
          Patient Profile Menu ...
          Radiology/Nuclear Med Order Entry Menu ...
          Supervisor Menu ...
          Switch Locations
          Update Patient Record
          User Utility Menu ...
```

Figure 3-1: Radiology/Nuclear Medicine Main Menu

It is recommended that the **RA SITEMANAGER** menu option from the **IRM Menu**, which is locked with the RA MGR key, be added to the menu. The addition of this menu option allows access to the **Device Specifications for Imaging Locations** menu option, which can be used to define where Radiology requisitions are automatically printed. Note that you cannot define the Device Specifications until the Radiology Imaging Locations are defined.

```
IRM     IRM Menu ...
           Exam Entry/Edit Menu ...
           Films Reporting Menu ...
           Management Reports Menu ...
           Outside Films Registry Menu ...
           Patient Profile Menu ...
           Radiology/Nuclear Med Order Entry Menu ...
           Supervisor Menu ...
           Switch Locations
           Update Patient Record
           User Utility Menu ...
```

Figure 3-2: Radiology Menu with IRM Menu attached

3.1 Device Specification for Imaging Locations

Within the menu option for assigning default printer devices, the Radiology Supervisor or Manager can set default Printer Assignments. These are the default flash card/exam label, jacket label, request, request cancellation, radiopharmaceutical dosage ticket, and report printers. Once these printer names have been assigned to an Imaging Location, the module will automatically route output to the appropriate printer without having to ask the user.

```
IRM     IRM Menu ...
Device Specifications for Imaging Locations
Select IRM Menu Option: DEVice Specifications for Imaging Locations

Do you want to see a 'help' message on printer assignment? No//   (No)

Select Imaging Location: RADIOLOGY
         ...OK? Yes//   (Yes)
                                (GENERAL RADIOLOGY-8907)

Default Printers:
-----------------
FLASH CARD PRINTER NAME:
JACKET LABEL PRINTER NAME:
REQUEST PRINTER NAME: X-RAY//
REPORT PRINTER NAME:
CANCELLED REQUEST PRINTER:
```

Figure 3-3: Setting Device Specification for Request Printer

Note: If you have more than one imaging location within an imaging type, the **Ask Imaging Location** Division parameter must be set to YES to print cancelled requests on the request cancellation printer.

Most IHS facilities no longer print exam labels, flash cards, or reports. Therefore, no default printer should be specified for these types of output and when setting up division parameters, the fields for **Print Jacket Labels**, **Flash Cards**, **Exam Labels**, etc., should all be set to **NO**.

4.0 Ordering Providers for Radiology

In order for a provider to be entered as an ordering provider in Radiology, they must have three attributes:

1. They must have the provider key. (Be sure they were set up as a provider in RPMS using the **Add/Edit Provider** option.)
2. They must be authorized to write Med orders (also indicated in the **Add/Edit Provider** option).
3. They must have an active RPMS access and verify code.

A decision must be made at each site on how best to handle orders from outside providers. While outside providers may never access EHR nor the RPMS system, it is recommended that they be set up just like any other provider so that they may be identified as the individual requesting the exam. Note that an outside provider may not place an order in EHR so the only way that provider may be identified as being the requesting provider is to use the "back door" option in RPMS to Request an exam.

5.0 Security Keys

RA OVERALL

This is the key to the main **Radiology** menu and should be given to all Radiology staff.

RA VERIFY

This key allows users to verify reports. The key must be given to any staff who will be entering or verifying reports for outside radiologists. Any staff who will be verifying reports will also need to have a valid Electronic Signature Code.

RA MGR

This key gives user access to supervisor-type functions. Those functions are the following:

- Editing completed exams
- Adding an exam to a visit that is older than yesterday
- During execution of the status tracking function the user will be shown all non-completed exams, not just those associated with the user's current division
- Updating the exam status of an exam that is complete
- Deleting exams
- Deleting reports
- Unverifying reports

RA ALLOC

The RA ALLOC key is reserved for the Radiology Supervisor, Manager or those who work with multiple imaging locations and/or division. This key overrides location access security entered for each Radiology/Nuclear Medicine user through Personnel Classification. Owners of the RA ALLOC have expanded access to Imaging Locations, Imaging Types, and Divisions.

In the case of most workload reports, this means they will be able to select from a list of all Divisions and Imaging types to include on the report.

In the case of various edit and ordering functions, it means they will be able to select from all locations within the Imaging Type to which they are currently signed on through the "Select sign-on location:" prompt.

6.0 FileMan Access

As a general rule, ensure that each member of the Radiology staff has been assigned RrM as FileMan Access codes. They may have other codes as well because of other duties, but this code assignment will ensure that they can perform their Radiology functions without issue.

```
NAME: STUDENT,ONE                                              Page 1 of 5
_____________________________________________________________________________
   NAME... STUDENT,ONE                              INITIAL: STU01
    TITLE: RADIOLOGY TECHNOLOGIST                 NICK NAME:
      SSN: XXXXX0001                                   DOB:
   DEGREE:                                        MAIL CODE:
  DISUSER:                                  TERMINATION DATE:
  Termination Reason:

           PRIMARY MENU OPTION: CMI TRAINING
 Select SECONDARY MENU OPTIONS:
Want to edit ACCESS CODE (Y/N):       FILE MANAGER ACCESS CODE: RrM
Want to edit VERIFY CODE (Y/N):

               Select DIVISION: DEMO INDIAN HOSPITAL
               SERVICE/SECTION: MEDICAL
_____________________________________________________________________________
Exit     Save     Next Page     Refresh

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

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

Figure 6-1: Assigning FileMan access for Radiology staff

7.0 Radiology Supervisor's Menu

After the external menus, security keys, and user management set up has been completed, the rest of the Radiology setup may be accomplished from the Radiology/Nuclear Medicine Supervisor's Menu. A diagram of that menu structure is shown in Figure 7-1 below.

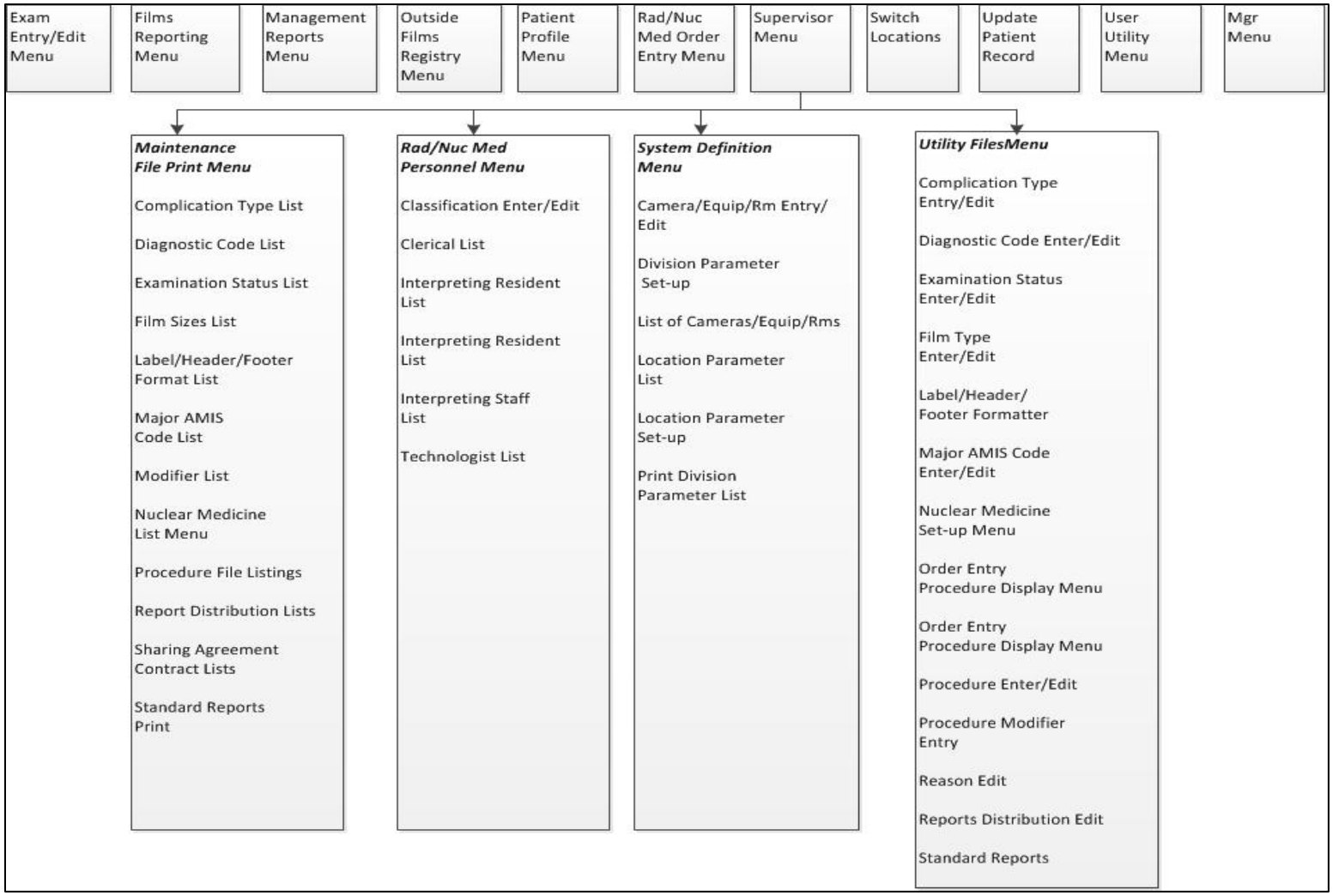


Figure 7-1: Supervisor Menu Overview diagram

7.1 Radiology Package Users

Upon entering a Radiology/Nuclear Medicine menu, the user is prompted to select a Sign-On Imaging Location. The set of locations the user is privileged to access is controlled by the radiology supervisor or IRM through the Classification Enter/Edit option. Most options are screened by a combination of imaging type, division, and location.

Besides being set up as Providers in RPMS using the **Add/Edit Provider** option, users of the Radiology package require additional setup which determines the functions and imaging types they will be allowed to use.

The **Rad/Nuc Med Classification Menu** may be accessed as follows:

```
RAD  Rad/Nuc Med Total System Menu ...
      Supervisor Menu ...
      Rad/Nuc Med Personnel Menu ...
```

Figure 7-2: Radiology/Nuclear Medicine Personnel Menu

The **Classification Enter/Edit** menu option may be used to identify the functions and imaging locations allowed for each member of the Radiology staff, while the other four options in the **Rad/Nuc Med Classification Menu** may be used to list the staff who fall under the classification of Clerk, Resident, Staff, or Technologist.

```
          Classification
               Enter/Edit Clerical List
               Interpreting Resident List
               Interpreting Staff List
               Technologist List
```

Figure 7-3: Radiology Personnel Classification

When assigning classifications to staff, the following general guidelines may be used:

- **Clerk**–Assigned to an individual who performs clerical entry in the Radiology/Nuclear Medicine Package. They cannot be listed as a technologist when editing an exam.
- **Technologist**–Assigned to all Radiology staff who perform exams.
- **Resident**–Not normally used in IHS–refers to a Radiology Resident.
- **Staff**–Reserved for interpreting Radiologists or those who will need to verify reports for interpreting Radiologist.

The setup for a typical Technologist is shown below.

> **Note**: This would be a typical setup for a technologist at a site where reports are read by an outside Radiologist and may need to be edited or verified by a member of the Radiology staff.

If the Technologist in the example below had the RA ALLOC key, he/she would not have required identification of the RAD/NUC MED LOCATION ACCESS. If he/she actually had responsibility for several imaging types, e.g., CT SCAN, MAMMOGRAPHY, and ULTRASOUND in addition to RADIOLOGY, and *did not* have the RA ALLOC key, then the additional Locations would have had to be added to this classification profile.

```
XRA > Supervisor Menu > Rad/Nuc Med Personnel Menu > Classification Enter/Edit

Select Rad/Nuc Med Personnel Menu Option: CLASSification Enter/Edit

Select Personnel: DEMO,USER 3 K

Select RAD/NUC MED CLASSIFICATION: t  (T   technologist)
  Are you adding 'technologist' as
    a new RAD/NUC MED CLASSIFICATION (the 1ST for this NEW PERSON)? No// Y
  (Yes)
Select RAD/NUC MED CLASSIFICATION: c  (C   clerk)
  Are you adding 'clerk' as a new RAD/NUC MED CLASSIFICATION (the 2ND for this N
EW PERSON)? No// Y  (Yes)
Select RAD/NUC MED CLASSIFICATION: s  (S   staff)
  Are you adding 'staff' as a new RAD/NUC MED CLASSIFICATION (the 3RD for this N
EW PERSON)? No// Y  (Yes)
Select RAD/NUC MED CLASSIFICATION:
Select RAD/NUC MED LOCATION ACCESS: POTEAU IM// ?
    Answer with RAD/NUC MED LOCATION ACCESS
   Choose from:
   MEDICAL IMAGING
   POTEAU IM
   MCALESTER IM
   HUGO IM
   IDABEL IM

RAD/NUC MED INACTIVE DATE:
STAFF REVIEW REQUIRED:
ALLOW VERIFYING OF OTHERS: Y  YES
```

Figure 7-4: Classification of radiology staff

> **Note:** In this example, there are five Imaging Locations defined. At small sites, which may or may not perform Radiology services on site, there will be a single imaging location.

7.1.1 Electronic Signature Code Edit

As indicated above in Classification Enter/Edit, staff may be designated who will be verifying reports for either outside or internal Radiologists as needed. Such staff will need an electronic signature code and will need to clearly identify their Signature Block Title. Failure to do so will result in reports displaying that the reports were verified by Staff Physician.

To set the electronic signature and the Signature Block Title, each user may access the **Electronic Signature code Edit** option from **TBOX** as shown in Figure 7-5.

```
At any Select Menu Option prompt > TBOX > Edit User Characteristics

IHS Radiology/Nuclear Med Order Entry Menu ...
      REG Exam Entry/Edit Menu ...
          Films Reporting Menu ...
          Management Reports Menu ...
          Outside Films Registry Menu ...
          Patient Profile Menu ...
          Supervisor Menu ...
          Switch Locations
          Update Patient Record
          User Utility Menu ...

Select Rad/Nuc Med Total System Menu Option: TBOX  User's Toolbox

          Electronic Signature code Edit

Select User's Toolbox Option: ELECTROnic Signature code Edit
This option is designed to permit you to enter or change your Initials,
Signature Block Information, Office Phone number, and Voice and
Digital Pagers numbers.
In addition, you are permitted to enter a new Electronic Signature Code
or to change an existing code.

INITIAL: DKU//
SIGNATURE BLOCK PRINTED NAME: DEMO K USER//
SIGNATURE BLOCK TITLE: CONTRACT RADIOLOGIST
OFFICE PHONE:
VOICE PAGER:
DIGITAL PAGER:

Your typing will not show.
ENTER NEW SIGNATURE CODE:
RE-ENTER SIGNATURE CODE FOR VERIFICATION:
DONE
```

Figure 7-5: Setting up Electronic Signature Code and Signature Block Title

Note: Signature code must be 6–20 characters in length with no control or lowercase characters.

7.2 System Definition

In order to run the radiology module, you must have at least one radiology division and one radiology location defined in the database.

Use the **Division Parameter Set-up** menu option to either initialize your division and location parameters or to update them if they are already defined.

Radiology Division

The Radiology module is designed to handle multiple divisions within a medical center. While most IHS facilities only have one division, there are a number that are multi-divisional. As a result, it is possible to structure the system for more than one division. This may be an important feature to utilize to keep PCC visit and billing data organized in multi-divisional service units. Additional divisions may be initialized after the initial set up as if new services are added at additional facilities.

However, single division medical centers will not notice this in the everyday execution of the module. Only in the initial setup will there be any reference to 'division' for these single division sites.

Each division will have its own set of parameters defining such division-wide criteria as, should the exam 'requested date' be asked and are impressions required on reports.

Radiology Location

Within a specific division, there may be a number of physical locations where a radiology procedure can be performed. For example, a division may have its main radiology department on the second floor, and it may also have a satellite location on the first floor at an outpatient clinic area. In addition, more than one type of radiology service may be offered within a facility, e.g., general radiology and mammography. Each of these imaging types may be set up as its own imaging location.

The module is designed to handle multiple locations within a division. Each location will have its own set of parameters defining such location-specific criteria as printer devices for flash cards and jacket labels.

Prerequisites for Initialization

If you are setting up the system for the first time, then you will not be able to answer many of the location parameter prompts. These parameters are pointer fields to files that you will need to build as part of the initialization process (day-one files).

However, the important thing at this point is to enter at least one division and one location under that division.

The other steps required as a prerequisite to the initialization process are the following:

1. The Site Manager should add the **RA OVERALL** menu option to the **AKMOCORE** menu option for access to the module.

2. The Site Manager should give the radiology coordinator access to the **RA OVERALL** menu.

3. The Radiology Coordinator and the Site Manager should have all the RA keys.

After these actions are taken, the initialization of the module can be accomplished entirely within the Radiology module itself.

When the Radiology package is installed at a site, the Rad/Nuc Med Division will normally be defined. If it is not, VA FileMan may be used to edit the Rad/Nuc Med Division file to add and specify the Facility at which the Radiology/Nuclear Medicine Package will be used as well as the parameters in place at that division. If all security keys have been given and the individual configuring the Radiology Package is encountering the XQUIT screen when accessing the package, please submit a Help ticket to IHS IT Support at itsupport@ihs.gov.

Within the **System Definition Menu**, there are three options for system set up as well as three options to list or print existing entries for the Division and Imaging Locations. There may be one to multiple Divisions and one or more Imaging Locations depending upon whether the facility operates on a stand-alone basis or in a multi-divisional environment where Radiology services are provided at more than one facility.

```
RAD    Rad/Nuc Med Total System Menu ...
Supervisor Menu ...
System Definition Menu ...
          Camera/Equip/Rm Entry/Edit
          Division Parameter Set-up
          List of Cameras/Equip/Rms
          Location Parameter List
          Location Parameter Set-up
          Print Division Parameter List
```

Figure 7-6: System Definition Menu

It is helpful to do system configuration in the order of the menu.

7.2.1 Camera/Equipment/Room

The entries in this file are used by the technologist to indicate with which camera/equipment/room the exam was performed. Even if no exams are performed on site, an Outside Location should be defined. Only cameras/equipment/rooms associated with the location where the exam was performed are valid choices when editing an exam. At facilities with numerous modalities, this may be a quality assurance tool to identify which equipment was used for an exam if a problem is later identified with that equipment.

If Radiology services are provided at a small health care facility where only one room and one X-ray machine is in use, you may choose to create only that one room when using the **Camera/Equip/Rm Entry/Edit** option.

If multiple locations and modalities are used, the **Camera/Equipment/Room** file may be populated with unique identifiers to make selection easier for the technologists that work with that modality at a particular site; e.g., S1-XRAY, T2-XRAY, S1-CT, T2-CT, MM-Mobile Mammography.

In the example in Figure 7-7, a new Modality of R1 with a synonym of GE ADVANX has been added to the existing list of rooms and equipment in use at multiple facilities.

```
Select Supervisor Menu Option: SYStem Definition Menu


          Camera/Equip/Rm Entry/Edit
          Division Parameter Set-up
          List of Cameras/Equip/Rms
          Location Parameter List
          Location Parameter Set-up
          Print Division Parameter List


Select System Definition Menu Option: CAmera/Equip/Rm Entry/Edit
Select Camera/Equip/Room: ?
 Answer with CAMERA/EQUIP/RM, or DESCRIPTION
 Do you want the entire 14-Entry CAMERA/EQUIP/RM List? Y  (Yes)
   Choose from:
   BB         BROKEN BOW
   CT ROOM         CTX
   H         HUGO
   I-MAMMO         MAMMOGRAPHY
   I-ROOM 1         GENERAL RADIOLOGY
   I-U/S         ULTRASOUND
   MAMMO         MAMMOGRAPHY
   MC         MCALESTER
   OB/US         OB ULTRASOUND
   PORTABLE         PORTABLE X-RAY MACHINE
   POT         POTEAU
   R2         GE MPV MICRO
   U/S         ULTRASOUND

        You may enter a new CAMERA/EQUIP/RM, if you wish
```

```
        Enter a name for this camera/equip/rm, between 1 and 30 characters
in
        length.

Select Camera/Equip/Room: R1       GE ADVANX
CAMERA/EQUIP/RM: R1//
DESCRIPTION: GE ADVANX//
```

Figure 7-7: Camera/Equipment/Rm Entry/Edit

7.2.2 Imaging Location(s)

The **Location Parameter Set-Up** function allows the user doing the configuration to define location parameters. Using this option actually creates an entry in file 44, the **Hospital Location** file. Do not use the Scheduling Package to set up Radiology Locations and do not use Radiology Locations to schedule appointments. If appointments are scheduled for Radiology services, use the Scheduling Package to create clinics that are clearly differentiated from the Radiology Locations by names such as X-Ray Appt, US Appt, CT Appt.

When Locations are set up within the Radiology package, they must be associated with an Imaging Type. Imaging Types available include:

```
   ANGIO/NEURO/INTERVENTIONAL
   CARDIOLOGY STUDIES (NUC MED)
   CT SCAN
   GENERAL RADIOLOGY
   MAGNETIC RESONANCE IMAGING
   MAMMOGRAPHY
   NUCLEAR MEDICINE
   ULTRASOUND
   VASCULAR LAB
```

Figure 7-8: Imaging Types

Most small facilities will have only one Location with an Imaging Type of GENERAL RADIOLOGY. Larger facilities offering multiple services may choose to set up Locations for CT, US, MRI, and/or MAMMOGRAPHY.

> **Note**: If a facility offers more than one modality and wishes to use VISTA Imaging functionality, they must set up locations associated with each type of imaging that are offered.

When setting up a Location, the user will normally specify the Camera/Equipment/Room associated with that location. In the case of a small facility offering limited X-Ray with one machine, they will create one location with an Imaging Type of General Radiology and a Camera/Equipment/Room of X-Ray or whatever they chose to call their Camera/Equipment/Room.

Larger facilities offering one or more Rad/Nuc Med services at more than one Facility will need to set up one Location for each modality offered at each facility. Additional Locations may be added as new equipment and services are offered. As those additional Locations are added, they must be added to the appropriate Division using the **Division Parameter Set-up** option.

In Figure 7-9, a new Imaging Location for Mammography is defined.

You will notice that several additional steps will be required before this new location is ready for use:

1. A default printer must be assigned under the Device Specifications for Imaging Locations to print order requisitions.
2. Unless staff have been assigned the RA ALLOC key, those individuals using the Mammography Location must have this Imaging Location added to their Rad/Nuc Med Classification access.
3. This new Imaging Location must be assigned to the appropriate Division under Division Set up.

> **Note**: Because a Camera/Equipment/Rm was not set up for Mammograms prior to this step, the user is prompted to create the new Camera/Equipment/Rm as the Location is defined.

```
Rad/Nuc Med Total System Menu
Supervisor Menu
System Definition Menu
Location Parameter Set-up
Select Location: ?
    Answer with IMAGING LOCATIONS, or TYPE OF IMAGING:
   RADIOLOGY                    (GENERAL RADIOLOGY-8907)


     You may enter a new IMAGING LOCATIONS, if you wish
     Select the appropriate location.
     Entry must be an active "Clinic" type with a valid imaging Stop Code
     in the Hospital Location file.
 Answer with HOSPITAL LOCATION NAME
 Do you want the entire HOSPITAL LOCATION List? N  (No)
Select Location: MAMMOGRAPHY
  Are you adding 'MAMMOGRAPHY' as a new HOSPITAL LOCATION? No// Y  (Yes)
   HOSPITAL LOCATION TYPE: CL  CLINIC
   HOSPITAL LOCATION TYPE EXTENSION: CLINIC//
  Are you adding 'MAMMOGRAPHY' as a new IMAGING LOCATIONS (the 2ND)? No// Y
  (Yes)
   IMAGING LOCATIONS TYPE OF IMAGING: MAMMOGRAPHY

** Caution: You are activating a new Imaging Type.  **
   This means you will have to assign procedures to
   this imaging type.  Workload reports will be printed
   separately for this Imaging Type.
```

```
Are you sure? YES


 *   Since you have added a new Imaging Location, remember to assign     *
 *   it to a Rad/Nuc Med division through Division Parameter Set-up.     *

Imaging Location: MAMMOGRAPHY

Flash Card Parameters:
----------------------
HOW MANY FLASH CARDS PER VISIT: 0
DEFAULT FLASH CARD FORMAT:

No default flash card printer has been assigned. Contact IRM.

Jacket Label Parameters:
------------------------
HOW MANY JACKET LBLS PER VISIT: 0
DEFAULT JACKET LABEL FORMAT:

No default jacket label printer has been assigned. Contact IRM.

Exam Label Parameters:
----------------------
HOW MANY EXAM LABELS PER EXAM: 1// 0
DEFAULT EXAM LABEL FORMAT:

Exam label printer is always the same as the flash card printer.

Order Entry Parameters:
-----------------------

No default request printer has been assigned. Contact IRM.

Report Parameters:
------------------
DEFAULT REPORT HEADER FORMAT: REPORT HEADER
DEFAULT REPORT FOOTER FORMAT: REPORT FOOTER
REPORT LEFT MARGIN: 10//
REPORT RIGHT MARGIN: 70//
PRINT DX CODES IN REPORT?: Y  yes
VOICE DICTATION AUTO-PRINT:

No default report printer has been assigned. Contact IRM.

Cameras/Equip/Rooms Used by this Location:
------------------------------------------
Select CAMERA/EQUIP/RM: MAM
  Are you adding 'MAM' as a new CAMERA/EQUIP/RM (the 9TH)? No//   (No) ??
Select CAMERA/EQUIP/RM: MAM
  Are you adding 'MAM' as a new CAMERA/EQUIP/RM (the 9TH)? No// Y  (Yes)
   CAMERA/EQUIP/RM DESCRIPTION: MAMMOGRAM
  Are you adding 'MAM' as a new CAMERAS/EQUIP/RMS (the 1ST for this IMAGING LOCA
TIONS)? No// Y  (Yes)
Select CAMERA/EQUIP/RM:


Default CPT Modifiers used by this Location:
--------------------------------------------
   +---------------------------------------------------------------+
   | Your entry cannot be compared with a CPT CODE, so be very sure |
   | that this is the Default CPT Modifier that you want to stuff   |
```

```
   | into every registered exam from this imaging location.         |
   +----------------------------------------------------------------+
Select DEFAULT CPT MODIFIERS(LOC):


Recipients of the 'Stat' Alert for this Location:
-------------------------------------------------
Select STAT REQUEST ALERT RECIPIENTS:


ALLOW 'RELEASED/NOT VERIFIED': no//   no
INACTIVE:
TYPE OF IMAGING: MAMMOGRAPHY//
CREDIT METHOD: 0//   Regular Credit

Imaging Location file #79.1 entry MAMMOGRAPHY has a missing
or invalid DSS ID.  The Radiology/Nuclear Medicine ADPAC should
use the Location Parameter Set-up [RA SYSLOC] option to enter
a valid imaging DSS Code for this imaging location.

Imaging Location file #79.1 entry MAMMOGRAPHY is not assigned
to a Rad/Nuc Med Division. If Imaging exams are to be registered
in this imaging location, or if there are incomplete exams
already registered to this location, the Radiology/Nuclear
Med ADPAC should use the Division Parameter Set-up [RA SYSDIV]
option to assign this imaging location to the appropriate
Rad/Nuc Med Division.
```

Figure 7-9: Location Parameter Set up for Mammography

It is to be expected that the user will see the message in Figure 7-10 when the Location set up is complete. DSS ID is used to identify an Imaging Stop Code but is not used by IHS. Do not create entries in the Imaging Stop Code file and do not populate the DSS ID field in the Location file.

```
Imaging Location file #79.1 entry MAMMOGRAPHY has a missing
or invalid DSS ID.  The Radiology/Nuclear Medicine ADPAC should
use the Location Parameter Set-up [RA SYSLOC] option to enter
a valid imaging DSS Code for this imaging location.
```

Figure 7-10: Imaging Location Error

> **Note**: Location Set up is not complete until each location is associated with a Division.

7.2.3 Division

The **Division Parameter Set-Up** function allows the user to define division parameters for the facility defined as the Rad/Nuc Med Division during the package installation. It also allows the user to create additional divisions if Radiology services are offered at more than one facility in a service unit.

The following diagram illustrates the multi-division, multi-location within a division concept:

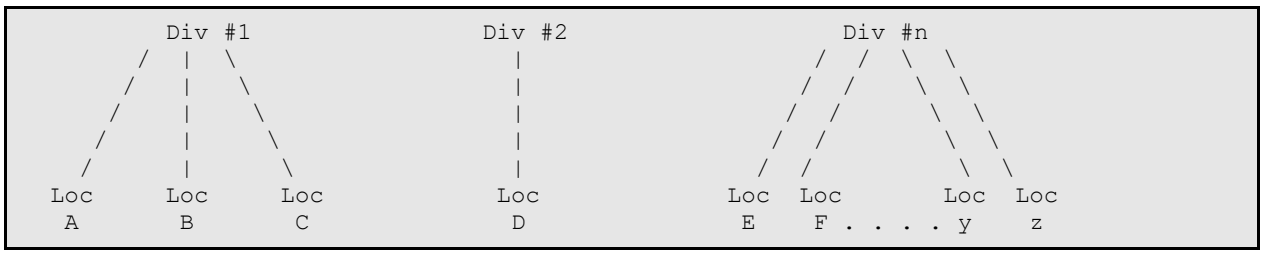


Figure 7-11: Location within Division diagram

Note: A location can only be associated with one division.

Each division will have its own set of parameters defining division-wide criteria such as:

- Should the exam 'requested date' be asked
- Should exam labels be printed, jacket labels
- Should pregnancy status be defaulted to UNKNOWN
- Can pregnancy status be edited on a completed exam
- Should LOINC and SNOMED codes be used (under review for RA p1005 for MU2)
- Should exams be passed to PCC at the status of examined

It also permits linking Locations to that division. Until Locations have been assigned to a Division, the Radiology/Nuclear Medicine Package may not be used for those Imaging Locations.

Text to be displayed during ordering may be entered for Contrast Reaction and Clinical History Messages.

In Figure 7-12, the Division Parameters are defined for Demo Indian Hospital.

```
Select System Definition Menu Option: division Parameter Set-up
Select Division: ?
    Answer with RAD/NUC MED DIVISION:
   DEMO INDIAN HOSPITAL


     You may enter a new RAD/NUC MED DIVISION, if you wish
     Enter the name of the division.
 Answer with INSTITUTION NAME
 Do you want the entire INSTITUTION List? n  (No)
Select Division: DEMO INDIAN HOSPITAL       OKLAHOMA       TAHLEQUAH       01
                              NM            8907
         ...OK? Yes//   (Yes)
```

```
Division-wide Order Entry Parameters:
-------------------------------------
ASK 'IMAGING LOCATION': YES// ??
        This division 'parameter' can be set to 'Yes' to indicate that the
        User should be asked when requesting an exam, which 'Imaging
        Location' the request should be forwarded to.  It is recommended that
        this field be set to 'Yes' to facilitate sorting of requests by
        imaging location for various reports.  Answering 'Yes' to this
        questions causes the 'SUBMIT REQUEST TO:'prompt to appear after a
        request is created.

     Choose from:
       y        YES
       n        NO
TRACK REQUEST STATUS CHANGES: YES//
CLINICAL HISTORY MESSAGE: *** CLINICAL HISTORY REQUIRED ***

Note:  This is the field that passes to the modality and PACS with
 some interfaces.
Exam Entry/Edit Parameters:
---------------------------
DETAILED PROCEDURE REQUIRED: yes//
ASK 'CAMERA/EQUIP/RM': yes//
AUTO USER CODE FILING: yes//
TRACK EXAM STATUS CHANGES: yes//
ASK EXAM STATUS TIME: yes//
TIME LIMIT FOR FUTURE EXAMS: ??
        This is the maximum number of hours in the future that a user may
        Register a patient for an exam.  If this prompt is bypassed, the user
        may not register a patient at a future date.

Note:  It may be advantageous to pre-register patients in some cases,
        like a special mammography unit that is at the clinic one day a month
        where appointments are scheduled closely together. However, if a
        patient fails to appear as scheduled, that request should be
        cancelled so that the ordering provider knows the patient failed to
        keep her appointment..


Films Reporting Parameters:
---------------------------
ALLOW STANDARD REPORTS: yes//
ALLOW BATCHING OF REPORTS: no//
ALLOW COPYING OF REPORTS: no//
IMPRESSION REQUIRED ON REPORTS: yes//
ALLOW VERIFYING BY RESIDENTS: no//
ALLOW RPTS ON CANCELLED CASES?: no//
WARNING ON RPTS NOT YET VERIF?: yes//
AUTO E-MAIL TO REQ. PHYS?:
ALLOW E-SIG ON COTS HL7 RPTS: no// ??
        Entering 'Y' will turn on a feature that automatically adds the
  Electronic Signature Block printed name of the Verifying Physician
  that signed the report being transmitted to Rad/Nuc Med via an HL7
  interface to a COTS voice reporting system.  This parameter is only
  checked for COTS HL7 interfaces that use the Generate/Process Routine
  'RAHLTCPB' in the subscriber protocol.

Note:  This is a very specific interface and may not be used by your
   interfaced reporting system.

INTERPRETING STAFF REQ'D?: YES//
```

```
Miscellaneous Division Parameters:
----------------------------------
PRINT FLASH CARD FOR EACH EXAM: no//
PRINT JACKET LBLS W/EACH VISIT: no//
SEND PCC AT EXAMINED: YES// ??
        This prompt permits Radiology customers with the option to pass exam
        data to PCC when an exam reaches the EXAMINED status, or when a
        report is verified.

Note:  It is highly recommended that this parameter be set to YES whether or not
reports are entered.

PREGNANCY DEFAULT TO UNKNOWN: NO
PREGNANCY EDIT AT VERIFIED: Y  YES
CONTRAST REACTION MESSAGE: CAUTION!! -- CONTRAST REACTION !!
           Replace
RPHARM DOSE WARNING MESSAGE:
  No existing text
  Edit? NO//

HL7 Applications Associated with this Division:
-----------------------------------------------
Select HL7 RECEIVING APPLICATION: ??
        You may enter a new HL7 RECEIVING APPLICATIONS, if you wish
        Pointer to the HL7 APPLICATIONS file (#771).

        If the Radiology HL7 Subscriber protocols (file #101) have been
        setup to use ROUTING LOGIC, then HL7 RECEIVING APPLICATIONS should
        be defined. This DIVISION will then send HL7 messages to the HL7
        RECEIVING APPLICATIONS defined only.

        If no HL7 RECEIVING APPLICATIONS are set when ROUTING LOGIC is being
        used, no HL7 messages will be created for this DIVISION.

        If ROUTING LOGIC is not being used and no HL7 RECEIVING APPLICATIONS
        are set, then messages will be sent to all Radiology Subscriber
        protocols, as normal.

        If in doubt, do not put entries in this field. These are very
        specific interface types.


   Choose from:
   RA-CLIENT-IMG        ACTIVE
   RA-CLIENT-TCP        ACTIVE
   RA-PSCRIBE-TCP        ACTIVE
   RA-SCIMAGE-TCP        ACTIVE
   RA-SERVER-IMG        ACTIVE
   RA-TALKLINK-TCP        ACTIVE
   RA-VOICE-SERVER        ACTIVE

Imaging Locations Associated with this Division:
------------------------------------------------
Select IMAGING LOCATION: RADIOLOGY// MAMMOGRAPHY
         ...OK? Yes//   (Yes)
                                (MAMMOGRAPHY-)
  Are you adding 'MAMMOGRAPHY' as a new IMAGING LOCATIONS (the 2ND for this RAD/
NUC MED DIVISION)? No// Y  (Yes)
Select IMAGING LOCATION:

Division Parameters have been set!
```

```
Imaging Location file #79.1 entry RADIOLOGY has a missing
or invalid DSS ID.  The Radiology/Nuclear Medicine ADPAC should
use the Location Parameter Set-up [RA SYSLOC] option to enter
a valid imaging DSS Code for this imaging location.

Imaging Location file #79.1 entry MAMMOGRAPHY has a missing
or invalid DSS ID.  The Radiology/Nuclear Medicine ADPAC should
use the Location Parameter Set-up [RA SYSLOC] option to enter
a valid imaging DSS Code for this imaging location.
```

Figure 7-12: Division Parameter Setup

Note that it is to be expected that the user will see the message in Figure 7-13 when the Division parameter setup is complete. DSS ID is used to identify an Imaging Stop Code but is not used by IHS.

Do not create entries in the Imaging Stop Code file and do not populate the **DSS ID** field in the **Location** file.

```
Imaging Location file #79.1 entry RADIOLOGY has a missing
or invalid DSS ID.  The Radiology/Nuclear Medicine ADPAC should
use the Location Parameter Set-up [RA SYSLOC] option to enter
a valid imaging DSS Code for this imaging location.
```

Figure 7-13: Invalid DSS Code for imaging location message

7.3 Maintenance Files Print Menu

This menu allows the user to obtain a list of the entries that have been configured under the **Utility Files Maintenance Menu**. Access the **Maintenance Files Print Menu** as shown in Figure 7-14. Review the existing entries with the Radiology Supervisor/Manager to determine which entries need to be inactivated and any new entries that need to be created.

```
RAD    Rad/Nuc Med Total System Menu ...
Supervisor Menu ...
Maintenance Files Print Menu ...
```

Figure 7-14: Maintenance Files Print Menu

Utility files that may be printed include the following. It is recommended that only those files bolded be printed and updated via the Utility Files Maintenance.

```
      Complication Type List
      Diagnostic Code List
      Examination Status List
      Film Sizes List
      Label/Header/Footer Format List
      Major AMIS Code List
      Modifier List
      Nuclear Medicine List Menu ...
      Procedure File Listings ...
             HIST   Display Rad/NM Procedure Contrast Media History
```

```
            Active Procedure List (Long)
            Active Procedure List (Short)
            Alpha Listing of Active Procedures
            Barcoded Procedure List
            Inactive Procedure List (Long)
            Invalid CPT/Stop Code List
            List of Inactive Procedures (Short)
            List of Procedures with Contrast
            Parent Procedure List
            Procedure Message List
            Series of Procedures List
      Report Distribution Lists
      Sharing Agreement/Contract List
      Standard Reports Print
```

Figure 7-13: Utility Files

7.3.1 Print Procedure List Using VA FileMan

All of the procedure listings are designed for 132-column format. Use VA FileMan to print the procedure list as follows:

```
Select VA FileMan Option: PRINT File Entries

OUTPUT FROM WHAT FILE: RAD/NUC MED PROCEDURES//
SORT BY: NAME//
START WITH NAME: FIRST//
FIRST PRINT FIELD: NAME;L25
THEN PRINT FIELD: TYPE OF PRO;L8;"TYPE"CEDURE
THEN PRINT FIELD: AMIS CODES    (multiple)
  THEN PRINT AMIS CODES SUB-FIELD: AMIS;L12
     1   AMIS CODE
     2   AMIS WEIGHT MULTIPLIER
CHOOSE 1-2: 1  AMIS CODE
  THEN PRINT AMIS CODES SUB-FIELD:
THEN PRINT FIELD: CPT;L6 CODE
THEN PRINT FIELD: INACTIVATION DATE;L5;"I/A"
THEN PRINT FIELD:
Heading (S/C): RAD/NUC MED PROCEDURES LIST  Replace
STORE PRINT LOGIC IN TEMPLATE:
DEVICE:   <== printer
RAD/NUC MED PROCEDURES LIST                    SEP 19,2013  10:27    PAGE 1
                                                   CPT
NAME                        TYPE      AMIS CODE     CODE    I/A
------------------------------------------------------------------------------
'BILIARY STENT PLACEMENT'  DETAILED  INTERVENTION  75982   DEC  7,1993
'CAROTID U/S               DETAILED  ULTRASOUND,E  93880   DEC  1,1993
'DRAGER VIEW MANDIBLE'     DETAILED  SKULL,INC.SI  70100   MAY 14,1998
'DUCTOGRAM MULTIPLE DUCTS  DETAILED  OTHER         76088   MAY 14,1998
'DUCTOGRAM SINGLE DUCT'    DETAILED  OTHER         76086   MAY 14,1998
'FETAL BIOPHYSICAL PROFIL  DETAILED  ULTRASOUND,E  76818   MAY 14,1998
'FETUS POST DEMISE'        DETAILED  OTHER         76499   MAY 14,1998
'UPPER EXTREMITY DUPLEX'   DETAILED  ULTRASOUND,E  93950   DEC  1,1993
ABD U/S                    DETAILED                76700   AUG 22,1993
ABDOMEN  MIN 2 VIEWS + CH  BROAD                           AUG  2,1992
ABDOMEN 1 VIEW             DETAILED  ABDOMEN-KUB   74000
ABDOMEN 2 VIEWS            DETAILED  ABDOMEN-KUB   74010   MAY 14,1998
ABDOMEN 3 OR MORE VIEWS    DETAILED  OBSTRUCTIVE   74020
ABDOMEN FLAT & UPRIGHT     DETAILED  ABDOMEN-KUB   74010
ABDOMEN FOR FETAL AGE 1 V  DETAILED  ABDOMEN-KUB   74720   MAY 14,1998
```

```
ABDOMEN FOR FETAL AGE MUL  DETAILED  ABDOMEN-KUB   74725   MAY 14,1998
ABDOMEN MIN 3 VIEWS+CHEST  SERIES    CHEST-SINGLE
                                     OBSTRUCTIVE   74022   MAY 14,1998
ABDOMEN,COMPLETE           DETAILED                76700
ABDOMEN-KUB                BROAD     ABDOMEN-KUB   74000
ACROMIOCLAVICULAR J BILAT  DETAILED  SKELETAL-BON  73050
ACUTE ABDOMEN              SERIES    ABDOMEN-KUB
                                     CHEST-SINGLE  74022
ANGIO ADRENAL BILAT SELEC  DETAILED  ANGIOGRAM,CA  75734   NOV 29,1993
ANGIO ADRENAL BILAT SELEC  DETAILED  ANGIOGRAM,CA  75733   NOV 29,1993
ANGIO ADRENAL UNILAT SELE  DETAILED  ANGIOGRAM,CA  75732   NOV 29,1993
ANGIO ADRENAL UNILAT SELE  DETAILED  ANGIOGRAM,CA  75731   NOV 29,1993
ANGIO AORTOFEM CATH W/SER  DETAILED  ANGIOGRAM,CA  75631   NOV 29,1993
ANGIO AORTOFEMORAL CATH W  DETAILED  ANGIOGRAM,CA  75630   NOV 13,1986
ANGIO BRACHIAL RETROGRADE  DETAILED  ANGIOGRAM,CA  75659   NOV 29,1993
ANGIO BRACHIAL RETROGRADE  DETAILED  ANGIOGRAM,CA  75658   NOV 29,1993
ANGIO CAROTID CEREBRAL BI  DETAILED  ANGIOGRAM,CA  75673   NOV 29,1993
ANGIO CAROTID CEREBRAL BI  DETAILED  ANGIOGRAM,CA  75672   MAY 14,1998
ANGIO CAROTID CEREBRAL BI  DETAILED  ANGIOGRAM,CA  75671   NOV 29,1993
ANGIO CAROTID CEREBRAL SE  DETAILED  ANGIOGRAM,CA  75661   NOV 29,1993
ANGIO CAROTID CEREBRAL SE  DETAILED  ANGIOGRAM,CA  75660   NOV 29,1993
```

Figure 7-15: Print Entries in Rad/Nuc Med Procedure file using VA FileMan

It is recommended to review and update the following Utility files.

7.4 Utility File Definitions

The **Utility Files Maintenance Menu** provides the Radiology Supervisor or Manager with a number of menu options to customize the Radiology Package to meet their site's needs. These files are the so-called Day One files. When the system is first loaded, many of these files will have data. However, the coordinator must review this data to ensure that the data meets the site's needs and to modify or add file entries accordingly.

All of the files are 'day-one' files. That is, these files need to be initialized before the module is placed into production mode. They may subsequently be updated as new procedures or services are offered or discontinued. Begin by printing the existing entries in the Utility Files using the **Maintenance Files Print** menu in Section 7.3.

7.4.1 Complication Type Entry/Edit

This option allows the manager to enter/edit complication types that may be associated with an exam. When editing an exam, a user can specify a complication using the **Case Number Edit** option or **Edit Exam by Patient** option. However, if a complication has not been defined in this table, it may not be entered at the time an exam is edited.

The most commonly used complication type is a contrast material reaction complication. In the case of this complication, the patient's record in the Allergy Tracking System will be automatically updated to indicate the patient has had a contrast material reaction. As a result, every time the patient is registered for a procedure that may involve contrast material, the receptionist will be warned and should then take the appropriate action.

When the system is initialized, two complications are loaded into the module: Contrast Material Reaction and No Complication. Other site-specific entries can be added using this option. In the example in Figure 7-16, a new Complication Type is entered for Morbid Obesity.

```
Select Utility Files Maintenance Menu Option: COMPLICATION Type Entry/Edit

Select COMPLICATION TYPES: ?
    Answer with COMPLICATION TYPES
   Choose from:
   CONTRAST REACTION
   NO COMPLICATION

         You may enter a new COMPLICATION TYPES, if you wish
         Enter a type of complication, between 3 and 30 characters in
length,
         that may be associated with an exam.

Select COMPLICATION TYPES: MORBID OBESITY
  Are you adding 'MORBID OBESITY' as
    a new COMPLICATION TYPES (the 3RD)? No// Y  (Yes)
COMPLICATION: MORBID OBESITY//
CONTRAST MEDIUM REACTION?: NO  NO
```

Figure 7-16: Adding a new compilation

7.4.2 Diagnostic Code Enter/Edit

This option allows the manager to enter and edit report diagnostic codes. Diagnostic codes may be entered at the time a report is entered to provide an overall impression of the exam.

Diagnostic Codes are important for three reasons:

1. The Abnormal Report may be run periodically for any abnormal diagnostic codes.
2. BiRad Codes entered as Diagnostic Codes trigger the link to Women's Health.
3. Diagnostic Codes flagged as Abnormal will trigger an Abnormal Notification in EHR for the ordering provider.

The following is the list of diagnostic codes that most likely were loaded as part of the initialization process:

```
Normal
Minor Abnormality
```

```
Major Abnormality, No Attn. Needed
Abnormality, Attn. Needed
Major Abnormality, Physician Aware
Undictated Films Not Returned, 3 Days
Unsatisfactory/Incomplete Exam
POSSIBLE MALIGNANCY, FOLLOW-UP NEEDED
MAJOR ABNORMALITY, URGENT ATTN. NEEDED
MAM - NEGATIVE
MAM - BENIGN FINDING, NEGATIVE
MAM - PROBABLY BENIGN FINDING, SHORT INTERVAL F/U SUGGESTED
MAM - SUSPICIOUS ABNORMALITY, BIOPSY SHOULD BE CONSIDERED
MAM - HIGHLY SUGGESTIVE OF MALIG, ACTION SHOULD BE TAKEN
MAM - ASSESSMENT IS INCOMPLETE
MAM - NOT INDICATED
```

Figure 7-17: Diagnostic codes

As part of the initialization process, these entries can be deleted. However, once the system is in production, you should not delete any entries. The names of entries should also not be changed, once in production, as this could affect their meaning.

Existing entries may be edited to determine whether they will appear on the abnormal report and whether they will trigger an Abnormal notification for the ordering provider. In Figure 7-18, the Diagnostic Code, MAJOR ABNORMALITY, URGENT ATTN NEEDED is shown.

```
Select Utility Files Maintenance Menu Option: DIAGnostic Code Enter/Edit

Select DIAGNOSTIC CODES: MAJOR
     1   MAJOR ABNORMALITY, NO ATTN. NEEDED
     2   MAJOR ABNORMALITY, URGENT ATTN. NEEDED
CHOOSE 1-2: 2  MAJOR ABNORMALITY, URGENT ATTN. NEEDED
DESCRIPTION:
PRINT ON ABNORMAL REPORT: YES//
GENERATE ABNORMAL ALERT?: YES//
INACTIVE:
```

Figure 7-18: Editing Diagnostic Code

7.4.3 Examination Status

In order to ensure the functionality of the Radiology Package, this is probably the most important utility file to configure correctly. If a data element is required but not entered by staff during the processing of an exam, the exam will get hung up and fail to complete.

For each Imaging Type in use at a facility, the examination status change requirements must be set in order to move an exam from one status to the next in the normal process. This option may also be used to indicate if exams in each status should be included in various Radiology reports. In the example provided below, only four examination statuses are defined:

- Waiting for Exam

- Examined
- Transcribed
- Complete

This would be typical for a facility that has a Transcriptionist and on-site Radiologist who interprets images. At many facilities where reports are provided by an outside entity, only three statuses may be used: Waiting for Exam, Examined, and Complete.

If other Imaging Types are in use at a facility—Mammography, Ultrasound, CT, MRI—the examination statuses must be defined for each separate Imaging Type. The examination statuses must be duplicated by specifying the Imaging Type and then defining the requirements for each examination status for that Imaging Type.

When the examination status changes have been defined, an inconsistency report should be reviewed to be sure that if a data element is required but that data element is not asked for, or a data element is required in order to be complete but is not asked for at an earlier step in the examination status. In Figure 7-19, Examination Statuses are defined for General Radiology.

> **Note**: If Examination Statuses have not been previously set, it may be helpful to begin with the Status of COMPLETE and work back down to WAITING FOR EXAM.

```
Select Utility Files Menu Option:  Examination Status Enter/Edit

Select an Imaging Type: generAL RADIOLOGY

Select an Examination Status: ?
 Answer with EXAMINATION STATUS
 Do you want the entire EXAMINATION STATUS List? y  (Yes)
   Choose from:
   CALLED FOR EXAM                Imaging Type: GENERAL RADIOLOGY
                                  Order:
   CANCELLED                      Imaging Type: GENERAL RADIOLOGY
                                  Order: 0
   COMPLETE                       Imaging Type: GENERAL RADIOLOGY
                                  Order: 9
   DICTATED                       Imaging Type: GENERAL RADIOLOGY
                                  Order:
   EXAMINED                       Imaging Type: GENERAL RADIOLOGY
                                  Order: 2
   PROBLEM DRAFT                  Imaging Type: GENERAL RADIOLOGY
                                  Order:
   TRANSCRIBED                    Imaging Type: GENERAL RADIOLOGY
                                  Order: 3
   WAITING FOR EXAM               Imaging Type: GENERAL RADIOLOGY
                                  Order: 1

         You may enter a new EXAMINATION STATUS, if you wish
         Enter a name for an exam status, between 3 and 30 non-numeric
         characters, to the current exam status being defined.

Select an Examination Status: waitinG FOR EXAM  Imaging Type: GENERAL RADIOLOGY
```

```
                                  Order: 1
         ...OK? Yes//   (Yes)


     * Reminder * WAITING FOR EXAM does NOT need data entered for
       the 'ASK' and 'REQUIRED' fields.  Registration automatically
       sets cases to this status since its ORDER number is 1.

Name of Current Exam Status: WAITING FOR EXAM//
Order in sequence of status progression: 1//
Should this Status appear in Status Tracking ?: YES
         //
User Key needed to move an exam to this status:
Default next status for exam: EXAMINED//
Can an exam be cancelled while in this status ?: YES
         //
Generate exam alert for requesting physician ?: NO
         //
Generate Examined HL7 Message:

     Status Change Requirements
     --------------------------
     Please indicate which of the following is required
     in order to place an exam into the 'WAITING FOR EXAM' status:

Technologist Required ?: NO//
Resident Or Staff Required ?: NO//
Detailed Procedure required ?: NO//
Film Entry Required ?: NO//
Diagnostic Code Required ?: NO//
Camera/Equip/Rm Required ?: NO//
Procedure Modifiers required ?: NO//
CPT Modifiers required ?: NO//

   WARNING: You must use the reporting feature of the system as
            a prerequisite for the following requirements:
Report Entered required ?: NO//
Impression required ?: NO//
Verified Report required ?: NO//

     Status Tracking Functions
     -------------------------
     Please indicate which of the following should be asked when
     changing an exam's status to 'WAITING FOR EXAM' while using
     the 'status tracking' feature:

Ask for Technologist ?: NO//
Ask For Interpreting Physician ?: NO//
Ask for Procedure ?: NO//
Ask For Film Data ?: NO//
Ask For Diagnostic Code ?: NO//
Ask For Camera/Equip/Rm ?: NO//
Ask for Procedure Modifiers ?: NO//
Ask for CPT Modifiers ?: NO//
Ask for User Code ?: NO//
Ask Medications & Dosages ?: NO//
Ask Medication Admin Dt/Time & Person ?: NO//

     Management Report Criteria
     --------------------------
     Please indicate which of the following workload reports should
     include exams with the 'WAITING FOR EXAM' status:
```

```
Clinic Report should include exams of this status ?: NO
         //
PTF Bedsection Report should include exams of this status ?: NO
         //
Service Report (Workload) should include exams of this status ?: YES
         //
Sharing/Contract Report (Workload) should include exams of this status ?: NO
         //
Ward Report (Workload) should include exams of this status ?: NO
         //
Film Usage Report (Workload) should include exams of this status ?: NO
         //
Technologist Report (Workload) should include exams of this status ?: NO
         //
AMIS Report (Workload) should include exams of this status ?: NO
         //
Detailed Procedure Report (Workload) should include exams of this status ?: NO
         //
Camera/Equip/Rm Report should include exams of this status ?: NO
         //
Physician Report should include exams of this status ?: NO
         //
Resident Report should include exams of this status ?: NO
         //
Staff Report should include exams of this status ?: NO
         //
Delinquent Status Report should include exams of this status ?: YES
         //

Select an Examination Status: exaMINED  Imaging Type: GENERAL RADIOLOGY
                                    Order: 2
         ...OK? Yes//   (Yes)

Name of Current Exam Status: EXAMINED//
Order in sequence of status progression: 2//
Should this Status appear in Status Tracking ?: YES
         //
User Key needed to move an exam to this status:
Default next status for exam: TRANSCRIBED//
Can an exam be cancelled while in this status ?: NO
         //
Generate exam alert for requesting physician ?: NO
         //
Generate Examined HL7 Message: YES//

     Status Change Requirements
     --------------------------
     Please indicate which of the following is required
     in order to place an exam into the 'EXAMINED' status:

Technologist Required ?: YES//
Resident Or Staff Required ?: NO//
Detailed Procedure required ?: YES//
Film Entry Required ?: YES//
Diagnostic Code Required ?: NO//
Camera/Equip/Rm Required ?: YES//
Procedure Modifiers required ?: NO//   NO
CPT Modifiers required ?: NO//   NO

   WARNING: You must use the reporting feature of the system as
            a prerequisite for the following requirements:
```

```
Report Entered required ?: NO//
Impression required ?: NO//
Verified Report required ?: NO//

     Status Tracking Functions
     -------------------------
     Please indicate which of the following should be asked when
     changing an exam's status to 'EXAMINED' while using
     the 'status tracking' feature:

Ask for Technologist ?: YES//
Ask For Interpreting Physician ?: NO//
Ask for Procedure ?: YES//
Ask For Film Data ?: YES//
Ask For Diagnostic Code ?: NO//
Ask For Camera/Equip/Rm ?: YES//
Ask for Procedure Modifiers ?: NO//   NO
Ask for CPT Modifiers ?: NO//   NO
Ask for User Code ?: NO//
Ask Medications & Dosages ?: NO//   NO
Ask Medication Admin Dt/Time & Person ?: NO//   NO

     Management Report Criteria
     --------------------------
     Please indicate which of the following workload reports should
     include exams with the 'EXAMINED' status:

Clinic Report should include exams of this status ?: YES
         //
PTF Bedsection Report should include exams of this status ?: NO
         //
Service Report (Workload) should include exams of this status ?: YES
         //
Sharing/Contract Report (Workload) should include exams of this status ?: NO
         //
Ward Report (Workload) should include exams of this status ?: YES
         //
Film Usage Report (Workload) should include exams of this status ?: YES
         //
Technologist Report (Workload) should include exams of this status ?: YES
         //
AMIS Report (Workload) should include exams of this status ?: YES
         //
Detailed Procedure Report (Workload) should include exams of this status ?: YES
         //
Camera/Equip/Rm Report should include exams of this status ?: YES
         //
Physician Report should include exams of this status ?: YES
         //
Resident Report should include exams of this status ?: NO
         //
Staff Report should include exams of this status ?: YES
         //
Delinquent Status Report should include exams of this status ?: YES
         //


Select an Examination Status: tranSCRIBED  Imaging Type: GENERAL RADIOLOGY
                                    Order: 3
         ...OK? Yes//   (Yes)

Name of Current Exam Status: TRANSCRIBED//
```

```
Order in sequence of status progression: 3//
Should this Status appear in Status Tracking ?: YES
         //
User Key needed to move an exam to this status:
Default next status for exam: COMPLETE//
Can an exam be cancelled while in this status ?: NO
         //
Generate exam alert for requesting physician ?: NO
         //
Generate Examined HL7 Message:

     Status Change Requirements
     --------------------------
     Please indicate which of the following is required
     in order to place an exam into the 'TRANSCRIBED' status:

Technologist Required ?: YES//
Resident Or Staff Required ?: YES//
Detailed Procedure required ?: YES//
Film Entry Required ?: YES//
Diagnostic Code Required ?: NO//
Camera/Equip/Rm Required ?: YES//
Procedure Modifiers required ?: NO//
CPT Modifiers required ?: NO//

   WARNING: You must use the reporting feature of the system as
            a prerequisite for the following requirements:
Report Entered required ?: YES//
Impression required ?: NO//
Verified Report required ?: YES//

     Status Tracking Functions
     -------------------------
     Please indicate which of the following should be asked when
     changing an exam's status to 'TRANSCRIBED' while using
     the 'status tracking' feature:

Ask for Technologist ?: YES//
Ask For Interpreting Physician ?: YES//
Ask for Procedure ?: YES//
Ask For Film Data ?: YES//
Ask For Diagnostic Code ?: NO//
Ask For Camera/Equip/Rm ?: YES//
Ask for Procedure Modifiers ?: NO//
Ask for CPT Modifiers ?: NO//
Ask for User Code ?: NO//
Ask Medications & Dosages ?: NO//
Ask Medication Admin Dt/Time & Person ?: NO//

     Management Report Criteria
     --------------------------
     Please indicate which of the following workload reports should
     include exams with the 'TRANSCRIBED' status:

Clinic Report should include exams of this status ?: YES
         //
PTF Bedsection Report should include exams of this status ?: NO
         //
Service Report (Workload) should include exams of this status ?: NO
         //
Sharing/Contract Report (Workload) should include exams of this status ?: NO
         //
```

```
Ward Report (Workload) should include exams of this status ?: YES
         //
Film Usage Report (Workload) should include exams of this status ?: YES
         //
Technologist Report (Workload) should include exams of this status ?: YES
         //
AMIS Report (Workload) should include exams of this status ?: YES
         //
Detailed Procedure Report (Workload) should include exams of this status ?: YES
         //
Camera/Equip/Rm Report should include exams of this status ?: YES
         //
Physician Report should include exams of this status ?: YES
         //
Resident Report should include exams of this status ?: NO
         //
Staff Report should include exams of this status ?: YES
         //
Delinquent Status Report should include exams of this status ?: YES
         //

Select an Examination Status: COMPLETE

Name of Current Exam Status: COMPLETE//
Order in sequence of status progression: 9//
Should this Status appear in Status Tracking ?: NO
         //
User Key needed to move an exam to this status:
Default next status for exam:
Can an exam be cancelled while in this status ?: NO
         //
Generate exam alert for requesting physician ?: YES
         //
Generate Examined HL7 Message:

     Status Change Requirements
     --------------------------
     Please indicate which of the following is required
     in order to place an exam into the 'COMPLETE' status:

Technologist Required ?: YES//
Resident Or Staff Required ?: YES//
Detailed Procedure required ?: YES//
Film Entry Required ?: YES//
Diagnostic Code Required ?: NO//
Camera/Equip/Rm Required ?: YES//
Procedure Modifiers required ?: NO//   NO
CPT Modifiers required ?: NO//   NO

   WARNING: You must use the reporting feature of the system as
            a prerequisite for the following requirements:
Report Entered required ?: YES//
Impression required ?: YES//
Verified Report required ?: YES//

     Status Tracking Functions
     -------------------------
     Please indicate which of the following should be asked when
     changing an exam's status to 'COMPLETE' while using
     the 'status tracking' feature:

Ask for Technologist ?: YES//
```

```
Ask For Interpreting Physician ?: YES//
Ask for Procedure ?: YES//
Ask For Film Data ?: YES//
Ask For Diagnostic Code ?: NO//
Ask For Camera/Equip/Rm ?: YES//
Ask for Procedure Modifiers ?: NO//   NO
Ask for CPT Modifiers ?: NO//   NO
Ask for User Code ?: NO//
Ask Medications & Dosages ?: NO//   NO
Ask Medication Admin Dt/Time & Person ?: NO//   NO

     Management Report Criteria
     --------------------------
     Please indicate which of the following workload reports should
     include exams with the 'COMPLETE' status:

Clinic Report should include exams of this status ?: YES
         //
PTF Bedsection Report should include exams of this status ?: NO
         //
Service Report (Workload) should include exams of this status ?: YES
         //
Sharing/Contract Report (Workload) should include exams of this status ?: NO
         //
Ward Report (Workload) should include exams of this status ?: YES
         //
Film Usage Report (Workload) should include exams of this status ?: YES
         //
Technologist Report (Workload) should include exams of this status ?: YES
         //
AMIS Report (Workload) should include exams of this status ?: YES
         //
Detailed Procedure Report (Workload) should include exams of this status ?: YES
         //
Camera/Equip/Rm Report should include exams of this status ?: YES
         //
Physician Report should include exams of this status ?: YES
         //
Resident Report should include exams of this status ?: NO
         //
Staff Report should include exams of this status ?: YES
         //
Delinquent Status Report should include exams of this status ?: NO
         //



           Checking order numbers
 _________ and Default Next Status used for status progression _________
           within : GENERAL RADIOLOGY

     Required order numbers are in place.


 _________ Checking Exam Status names _________
           within : GENERAL RADIOLOGY

     Exam Status names check complete
Enter RETURN to continue or '^' to exit:

                 Data Inconsistency Report For Exam Statuses
```

```
DEVICE: HOME//

                                                          Page: 1
                                                          Date: Nov 04, 2008

                  Data Inconsistency Report For Exam Statuses
==========================================================================

 ________ Checking verified report required and impression required ________
           within : GENERAL RADIOLOGY

     'Verified Report required ?' was set to 'yes'; but
     'Impression required ?' was not set to 'yes' at this and lower status(es) :

                           Verified Rpt req'd        Impression Required
     CANCELLED                      N                            N
     WAITING FOR EXAM               N                            N
     EXAMINED                       N                            N
     TRANSCRIBED                    Y                            N
     COMPLETE                       Y                            Y

                                                       Page: 2
                                                       Date: Nov 04, 2008

                  Data Inconsistency Report For Exam Statuses
==========================================================================


     If verified report is required at a particular status,
     then the impression should also be required at the same or lower status.

           Checking order numbers
 _________ and Default Next Status used for status progression _________
           within : GENERAL RADIOLOGY

     Required order numbers are in place.


 _________ Checking Exam Status names _________
           within : GENERAL RADIOLOGY

                                                    Page: 3
                                                    Date: Nov 04, 2008

                  Data Inconsistency Report For Exam Statuses
==========================================================================

     Exam Status names check complete
```

Figure 7-19: Setting up Examination Status requirements

7.4.4 Films Type Entry/Edit

This option allows the manager to edit existing film types and enter new film types. These film types will be the choices the technologist can select from during the **Case No. Exam Edit** or **Edit Exam by Patient** options to indicate which films were used during the procedure.

Most sites have moved to digital imaging or are moving in that direction. For those sites, it is recommended that a film type of Digital be added. Some sites have chosen to add two separate Digital film types based on the size of the cartridge.

For those sites that track "re-takes", film types of Wasted may be created so that the Wasted Film Report may be run.

In Figure 7-20, Digital Film type is created as well as a corresponding Wasted-Digital Film. Note that R may be used instead of W to indicate a Retake.

```
Select Utility Files Maintenance Menu Option: film Type Entry/Edit
Select FILM SIZES: DIGITAL
  Are you adding 'DIGITAL' as a new FILM SIZES (the 20TH)? No// Y  (Yes)
FILM: DIGITAL//
IS THIS A 'CINE' FILM SIZE?: N  NO
FLUORO ONLY?: N  NO
INACTIVATION DATE:
WASTED FILM?:

Select FILM SIZES: W-DIGITAL
  Are you adding 'W-DIGITAL' as a new FILM SIZES (the 21ST)? No// Y  (Yes)
FILM: W-DIGITAL//
IS THIS A 'CINE' FILM SIZE?: N  NO
FLUORO ONLY?: N  NO
INACTIVATION DATE:
WASTED FILM?: Y  YES
ANALOGOUS UNWASTED FILM SIZE: DIGITAL
```

Figure 7-20: Creating a Film Type and a Wasted Film Type

7.4.5 Major AMIS Code Entry/Edit

This menu option allows the coordinator to add new AMIS codes and edit existing AMIS codes.

When the system is first installed, all necessary entries and data associated with each entry will be part of the module.

AMIS Codes are workload codes used by the VA but they are not used within IHS so the user may encounter the following message when accessing this menu option. They must answer the question with a response of **YES** in order to proceed.

IHS continues to use AMIS codes as there are several reports based on AMIS codes.

```
Select Utility Files Maintenance Menu Option: major AMIS Code Entry/Edit
         +---------------------------------------------------------+
         | New entries and modifications to existing entries are    |
         | prohibited without approval from Radiology Service VACO. |
         +---------------------------------------------------------+

          Do you have approval from Radiology Service VACO to
```

```
          add/change any AMIS codes and weight? No// YES
```

Figure 7-21: Editing AMIS codes

The most common reason needed to access the AMIS Code file is to remove Retired from the names of some of the AMIS Codes or to add an AMIS Code of Mammography or DEXA if they do not already exist on your system.

7.4.6 Label/Header/Footer Formatter

Although Labels are seldom printed by IHS sites using the Radiology package, this option should be exercised to customize the display of the header information on Radiology reports. If a report must be printed to send to an outside provider, it can only be printed from the Radiology Package. EHR imaging reports generated from the RPMS Radiology package have no identifying information on them and are not suitable for printing.

The manager may select from the following fields when laying out the report header and footer. And it is highly recommended that the format of the header be laid out on paper before altering the settings for the fields and their labels in this option.

Listed below are the field choices. If you do not have the entries for Chart Number (IHS), please submit a ticket to IHS IT Support (itsupport@ihs.gov) in order to get a supplemental file. The fields that are bolded are most commonly used on the Report Header for IHS sites.

- AGE OF PATIENT
- ATTENDING PHYSICIAN AT ORDER
- ATTENDING PHYSICIAN CURRENT
- CASE NUMBER
- CASE NUMBER BARCODE
- CASE#
- CATEGORY (OUTP/INP)
- **CHART# OF PATIENT (IHS)**
- CURRENT DATE/TIME
- CURRENT PATIENT LOCATION
- **DATE OF BIRTH**
- **DATE OF BIRTH (AGE yrs)**
- DATE OF EXAM
- DATE ONLY

- DATE REPORT ENTERED
- **DATE REPORTED**
- **DIAGNOSTIC CODE**
- EXAM MODIFIERS
- **FREE TEXT**
- HOSPITAL DIVISION(INSTITUTION)
- IHS AGE OF PATIENT
- IHS AGE OF PATIENT AT EXAM
- IMAGING LOCATION
- LAST TIME THIS EXAM PERFORMED
- LAST VISIT FOR ANY EXAM
- **LONG CASE NUMBER**
- LONG CASE NUMBER BARCODE
- **NAME OF PATIENT**
- NAME OF PATIENT (FIRST LAST)
- **PAGE NUMBER**
- PATIENT ADDRESS LINE 1
- PATIENT ADDRESS LINE 2
- PATIENT ADDRESS LINE 3
- PRIMARY PHYSICIAN AT ORDER
- PRIMARY PHYSICIAN CURRENT
- **PROCEDURE**
- PROCEDURE BARCODE, 30 CHARS
- PROCEDURE BARCODE, 60 CHARS
- REPORT STATUS
- **REQUEST ENTERED BY**
- REQUEST ENTERED DATE/TIME
- REQUESTING AREA
- REQUESTING LOCATION
- **REQUESTING PHYSICIAN**

- RESIDENT
- RESIDENT SIGNATURE
- RESIDENT SIGNATURE NAME
- SERVICE
- **SEX OF PATIENT**
- SSN OF PATIENT
- SSN OF PATIENT BARCODE
- SSN OF PATIENT BARCODE-NO DASH
- **STAFF RADIOLOGIST**
- STAFF SIGNATURE
- STAFF SIGNATURE NAME
- **TECHNOLOGIST**
- UPDATED PATIENT LOCATION
- USUAL PATIENT CATEGORY
- VERIFIED DATE
- VERIFYING ELECTRONIC SIGNATURE
- **VERIFYING RADIOLOGIST**
- VERIFYING SIGNATURE
- VERIFYING SIGNATURE BLOCK
- VERIFYING SIGNATURE NAME
- **VERIFYING SIGNATURE TITLE**

The actual creation of the Report Header and Footer is much like creating an EHR Order Menu where rows and columns must be specified for the various fields. Duplicate entries for items like "FREE TEXT" can be entered more than once by using quotation marks for each entry after the initial one.

When the layout is complete, a sample header is printed to the screen so that the manager can determine if any adjustments are required.

In the sample report footer below, only two fields have been defined, **Date Report Entered** and **Page Number**.

```
  FIELD                         ROW COL  TITLE
                                                          TEXT
------------------------------------------------------------------------
--
```

```
       FORMAT NAME: REPORT FOOTER
  DATE REPORT ENTERED            1   3  Date Reported:

  PAGE NUMBER                    1  70
```

Figure 7-22: Format for Report Footer

```
Select Utility Files Maintenance Menu Option: label/Header/Footer Formatter

     >>> Exam Label/Report Header/Report Footer/Flash Card Formatter <<<

Select LBL/HDR/FTR FORMATS FORMAT NAME: report fOOTER
FORMAT NAME: REPORT FOOTER//
Select FIELD: DATE REPORT ENTERED//
  FIELD: DATE REPORT ENTERED//
  ROW: 1//
  COLUMN: 3//
  TITLE (OPTIONAL): Date Reported://
Select FIELD:
NUMBER OF ROWS IN FORMAT: 1//

     ...format 'REPORT FOOTER' has been compiled.

<<<<<<--------------------------Column No.------------------------------
>>>>>>

0-------1---------2---------3---------4---------5--------6---------7-------
-8
1       0         0         0         0         0        0         0
0

  Date Reported:Jan 11,1985  09:33                                  Page 1
```

Figure 7-23: Creating Report Footer

In the Report Header below, the following fields have been defined:

```
                  *** DEMO INDIAN MEDICAL CENTER ***
                      5670 EAST TUCSON BOULEVARD
                        TUCSON, ARIZONA 56789
                       TELEPHONE: (520)765-8970

  Name:   DEMO PATIENT                              DOB: 09-01-19XX (36 yrs)
  Chart#: 00-00-00                                  Sex: MALE
  Requesting Loc: DENTAL                      Physician: DEMO,PROVIDER
  Entered request: USER,DEMO
                                             Technician: DEMO,TECH
  Case#: 081194-234                         Radiologist: DEMO,RADIOLOGIST
  Procedure: 1A - SKULL                        Verifier: DEMO,USER A
------------------------------------------------------------------------------
```

Figure 7-24: Sample Report Header

```
  FIELD                       ROW COL  TITLE
                                                TEXT
-------------------------------------------------------------------------------

       FORMAT NAME: REPORT HEADER
```

```
FREE TEXT                      4  20             *** DEMO INDIAN MEDICAL CEN
FREE TEXT                      5  24             5670 EAST TUCSON BOULEVARD
FREE TEXT                      6  26             TUCSON, ARIZONA 56789
FREE TEXT                      7  25             TELEPHONE: (520)765-8970
NAME OF PATIENT                9   3  Name:
DATE OF EXAM                   9   3  Date of exam  :

DATE OF BIRTH (AGE yrs)        9  53  DOB:
CHART# OF PATIENT (IHS)       10   3  Chart#:
SEX OF PATIENT                10  53  Sex:
REQUESTING LOCATION           11   3  Requesting Loc:

REQUESTING PHYSICIAN          11  47  Physician:
REQUEST ENTERED BY            12   3  Entered request

TECHNOLOGIST                  13  46  Technician:
LONG CASE NUMBER              14   3  Case#:
STAFF RADIOLOGIST             14  45  Radiologist:

PROCEDURE                     15   3  Procedure:
VERIFYING RADIOLOGIST         15  48  Verifier:
FREE TEXT                     16   1             ---------------------------
```

Figure 7-25: Layout for Sample Report Header

For multi-divisional facilities with Radiology offered at more than one division, it may be advisable to create a report header for each facility and then link the correct report header to the Division in the Location Parameter Set up.

7.4.7 Order Entry Procedure Display Menu

7.4.7.1 Common Procedure Enter/Edit

A Common Procedure List is nothing more than a numbered list of the top 40 procedures available for ordering for each Imaging Type in RPMS. When placing an order directly in RPMS, the procedure may be selected from the numbered list, entered by CPT code, or e selected by name, e.g., WRIST. While it is not required that a Common Procedure List be created, it simplifies the ordering process at small sites with limited procedures or when orders are not always placed via EHR.

Before creating a Common Procedure List, it may be of value to use the **Display Common Procedure List** menu option to see what already is in place.

This menu option may be used to add and or remove procedures from the display used to enter requests. If you have inherited an old common procedure list, it may be helpful to just remove all Procedures from the list and then rebuild the list with the order of items desired. Note that you cannot mix imaging types on single Common Procedure List. Also, you may add procedures by CPT or HCPCS code rather than procedure name.

In the example shown in Figure 7-26, three mammogram procedures are added to the Common Procedure list for Mammography.

```
Select Order Entry Procedure Display Menu Option: common Procedure
Enter/Edit

Select one of the following imaging types:
   GENERAL RADIOLOGY
   MAMMOGRAPHY

Select IMAGING TYPE: maMMOGRAPHY

Select RAD/NUC MED COMMON PROCEDURE: ?
 Answer with RAD/NUC MED COMMON PROCEDURE
 Do you want the entire RAD/NUC MED COMMON PROCEDURE List? N  (No)
   Choose from:


     You may enter a new RAD/NUC MED COMMON PROCEDURE, if you wish
     Enter a procedure name.
     Only active procedures may be selected.

 Are you adding 'MAMMOGRAM G0202' as
    a new RAD/NUC MED COMMON PROCEDURE? No// Y  (Yes)
PROCEDURE: MAMMOGRAM G0202//
INACTIVATE FROM LIST:
SEQUENCE NUMBER: 1//

Select RAD/NUC MED COMMON PROCEDURE: G0204( )


Attempting FILEMAN lookup...    Diagnosticmammographydigital
       DIAGNOSTIC MAMMOGRAPHY, PRODUCING DIRECT DIGITAL IMAGE, BILATERAL,
ALL VIEWS  MAMMOGRAM G0204                                    (MAM  Detailed)
CPT:G0204
  Are you adding 'MAMMOGRAM G0204' as
    a new RAD/NUC MED COMMON PROCEDURE? No// Y  (Yes)
PROCEDURE: MAMMOGRAM G0204//
INACTIVATE FROM LIST:
SEQUENCE NUMBER: 2//

Select RAD/NUC MED COMMON PROCEDURE: G0406( )


Attempting FILEMAN lookup...    Diagnosticmammographydigital
       DIAGNOSTIC MAMMOGRAPHY, PRODUCING DIRECT DIGITAL IMAGE, UNILATERAL,
ALL VIEWS  MAMMOGRAM G0206                                    (MAM  Detailed)
CPT:G0206
  Are you adding 'MAMMOGRAM G0206' as
    a new RAD/NUC MED COMMON PROCEDURE? No// Y  (Yes)
PROCEDURE: MAMMOGRAM G0206//
INACTIVATE FROM LIST:
SEQUENCE NUMBER: 3//
```

Figure 7-26: Adding three new procedures to the Common Procedure List for Mammography

7.4.7.2 Create OE/RR Protocol from Common Procedure

This option is not used in IHS. Orderable items are created for Radiology Procedures in the EHR Clinical Coordinator's Order Menu Management Menu.

7.4.7.3 Display Common Procedure List

This option may be used to display one or more Common Procedure Lists. In Figure 7-27, the common procedure list for General Radiology is displayed.

```
       COMMON RADIOLOGY/NUCLEAR MEDICINE PROCEDURES (GENERAL RADIOLOGY)
       ---------------------------------------------------------------
 1) CHEST 2 VIEWS PA&LAT                21) TIBIA & FIBULA 2 VIEWS
 2) CHEST SINGLE VIEW                   22) KNEE 3 VIEWS
 3) RIBS UNILAT+CHEST 3 OR MORE VIEW    23) FEMUR 2 VIEWS
 4) RIBS BILAT+CHEST 4 OR MORE VIEWS    24) SPINE CERVICAL MIN 2 VIEWS
 5) ABDOMEN 1 VIEW                      25) SPINE THORACIC AP&LAT&SWIM VIEWS
 6) ABDOMEN FLAT & UPRIGHT              26) SPINE LUMBOSACRAL MIN 2 VIEWS
 7) ACUTE ABDOMEN                       27) SPINE SACRUM & COCCYX MIN 2 VIEW
 8) SHOULDER 2 OR MORE VIEWS            28) SPINE SCOLIOSIS EXAM MIN 2 VIEWS
 9) CLAVICLE                            29) PELVIS 1 VIEW
 10) ACROMIOCLAVICULAR J BILAT          30) HIP 2 OR MORE VIEWS
 11) FINGER(S) 2 OR MORE VIEWS          31) SKULL LESS THAN 4 VIEWS
 12) HAND 3 OR MORE VIEWS               32) NECK SOFT TISSUE
 13) WRIST 3 OR MORE VIEWS              33) SINUSES MIN 2 VIEWS
 14) FOREARM 2 VIEWS                    34) SINUSES 3 OR MORE VIEWS
 15) ELBOW 3 OR MORE VIEWS              35) FACIAL BONES, MINIMUM 3 VIEWS
 16) HUMERUS 2 OR MORE VIEWS            36) NASAL BONES MIN 3 VIEWS
 17) TOE(S) 2 OR MORE VIEWS             37) MANDIBLE 4 OR MORE VIEWS
 18) FOOT 3 OR MORE VIEWS               38) ORBIT MIN 4 VIEWS
 19) CALCANEOUS 2 VIEWS                 39) BONE AGE STUDY
 20) ANKLE 3 OR MORE VIEWS              40) ECHOGRAM OTHER UNLISTED
```

Figure 7-27: Common Procedures List for General Radiology

7.4.8 Procedure Edit Menu

7.4.8.1 Procedure Modifier Entry

Modifiers are words that can be used to better describe a procedure; the most common modifiers are LEFT and RIGHT. But very specific modifiers may be entered for billing purposes, e.g., FA for Left Hand, thumb, F1 for Left Hand, second digit; F2 for Left Hand, third digit, etc. While a modifier may be in the Procedure Modifier list, it may not be used for additional imaging types until those Imaging Types have been added to the Modifier. In Figure 7-28, Bilateral was already defined as a modifier, but the Imaging Type of MAMMOGRAPHY was added so that modifier could be used with that modality. Multiple imaging types may be added for each modifier.

```
Supervisor's Menu
Utility Files Maintenance Menu
Procedure Edit Menu
Procedure Modifier Entry


Select Procedure Modifier: BILATERAL EXAM (RAD)
Select TYPE OF IMAGING: GENERAL RADIOLOGY// MAMMOGRAPHY
Select TYPE OF IMAGING: ?
Answer with TYPE OF IMAGING
```

```
Choose from:
1 GENERAL RADIOLOGY
2 MAMMOGRAPHY

Note that this modifier may now be used both for General Radiology and
Mammography
```

Figure 7-28: Adding an Imaging Type to a Procedure Modifier

7.4.8.2 Procedure Message Entry/Edit

When ordering a procedure, there may be certain patient preparation requirements that should be conveyed to the ordering provider. These requirements can be defined in Procedure Messages which can then be attached to the Procedures during the Procedure Enter/Edit process.

For example, a new Procedure Message is created in Figure 7-29 below.

It may subsequently be entered on the appropriate procedure when it is defined and will also display when the EHR quick order is created.

```
Select RAD/NUC MED PROCEDURE MESSAGE TEXT: ?

        You may enter a new RAD/NUC MED PROCEDURE MESSAGE, if you wish
        Message can be 3-240 characters in length. It cannot be preceded
with
        punctuation.


Select RAD/NUC MED PROCEDURE MESSAGE TEXT: SPECIAL PREPARATION IS REQUIRED
FOR THIS PROCEDURE. PLEASE CONTACT THE RADIOLOGY DEPT FOR DIRECTIONS.
```

Figure 7-29: Creating a Procedure Message

7.4.8.3 Procedure Enter/Edit

This function allows the package coordinator to enter new procedures into the system and to edit existing procedures. Procedures must be defined correctly in the Radiology/Nuclear Medicine Procedure file before they can be used to create quick orders for EHR menus.

Entries in this procedure file are the allowable choices the user will be able to choose from at the “Procedure” prompt either while ordering, registering a patient for an exam, or editing an exam.

If the procedure has an inactivation date of less than the current date, then the procedure is not a valid choice and will not appear on the list of valid/active procedures when displayed to the user.

If you are interfacing with a PACS or modality/worklist server, be careful about using a forward slash (/) or ampersand (**&**) in procedure names as these are HL7 encoding characters and may cause incorrect parsing of an HL7 order or exam message.

There are four types of procedures:

1. Detailed: Procedure is associated with one or more AMIS codes and must have a CPT or HCPCS code assigned to it.

2. Series: Procedure is associated with more than one AMIS code and must have a CPT code assigned to it.

3. Broad: Procedure is mainly used by the receptionist when scheduling a patient for an exam. It is used when he/she is not exactly sure which detailed or series procedure will be performed. However, before the exam can be considered complete, the Procedure must be changed to detailed or series.

   If the division parameter requiring a detailed or series procedure upon initial exam registration is set to Yes, then the receptionist will not be allowed to select a broad procedure.

   Note: Since the 2014 Meaningful Use, it has been recommended and trained to use only Detailed, Series, or Parent procedures as defined in the RAD/NUC MED Procedure File.

4. Parent: Procedure is a "placeholder" used for ordering one or more related procedures that are always reported together. It does not have a CPT code and is broken down into its descendant procedures which must be registered and edited. Parent procedures must have one or more descendant procedures, but a single report may be filed against all descendant procedures defined under a parent. Parent procedures are a convenient mechanism to generate multiple CPT codes for exams that are always performed in tandem, i.e., Digital Screening Mammogram and CAD.

When editing or creating new procedures, always continue on to run the validity check on CPT and stop codes. CPT codes are updated by the American Medical Association and IHS on an annual basis, but those updates do not automatically transfer into the Radiology/Nuclear Medicine procedure file. If a CPT code is no longer active, the original procedure must have an inactivation date assigned and a new procedure must be created with the new CPT code.

In Figure 7-30, a detailed procedure is edited for an ABDOMEN KUB with a procedure message. Note that modality is a required field for some modality worklist servers. You may need to confirm the modality code that you need to use with your interface.

```
Select Procedure Edit Menu Option:   Procedure Enter/Edit

Select RAD/NUC MED PROCEDURES NAME: ABDOMEN
     1   ABDOMEN  MIN 2 VIEWS + CHEST (ACUTE)       (RAD  Inactive)
     2   ABDOMEN 1 VIEW                             (RAD  Detailed) CPT:74000
     3   ABDOMEN 2 VIEWS                            (RAD  Inactive) CPT:74010
     4   ABDOMEN 3 OR MORE VIEWS                    (RAD  Detailed) CPT:74020
     5   ABDOMEN FLAT & UPRIGHT                     (RAD  Detailed) CPT:74010ress
<RETURN> to see more, '^' to exit this list, OR
CHOOSE 1-5:
     6   ABDOMEN FOR FETAL AGE 1 VIEW               (RAD  Inactive) CPT:74720
     7   ABDOMEN FOR FETAL AGE MULT VIEWS           (RAD  Inactive) CPT:74725
     8   ABDOMEN MIN 3 VIEWS+CHEST                  (RAD  Inactive) CPT:74022
     9   ABDOMEN,COMPLETE                           (RAD  Detailed) CPT:76700
     10  ABDOMEN-KUB                                (RAD  Broad   ) CPT:74000
Press <RETURN> to see more, '^' to exit this list, OR
CHOOSE 1-10: 9  ABDOMEN,COMPLETE                    (RAD  Detailed) CPT:76700
NAME: ABDOMEN,COMPLETE//
TYPE OF IMAGING: GENERAL RADIOLOGY//
TYPE OF PROCEDURE: DETAILED//
CONTRAST MEDIA USED: NO//   No
Select MODALITY: ??
        You may enter a new MODALITY, if you wish
   Choose from:
   AS        Angioscopy
   BI        Biomagnetic Imaging
   CD        Color Flow Doppler
   CF        Cinefluorography    (Retired)
   CP        Culposcopy
   CR        Computed Radiography
   CS        Cystoscopy
   CT        Computed Tomography
   DD        Duplex Doppler
   DF        Digital Fluoroscopy    (Retired)
   DG        Diaphanography
   DM        Digital Microscopy
   DS        Digital Subtraction Angiography    (Retired)
   DX        Digital Radiography
   EC        Echocardiography
   ES        Endoscopy
   FA        Fluorescein Angiography
   FS        Fundoscopy
   IO        Intra-oral Radiology    (Retired)
   LP        Laparoscopy
   LS        Laser Surface Scan
   MA        Magnetic Resonance Angiography
   MG        Mammography    (Retired)
   MR        Magnetic Resonance
   MS        Magnetic Resonance Spectroscopy
   NM        Nuclear Medicine
   OT        Other
   PT        Positron Emission Tomography (PET)
   RF        Radio Fluoroscopy
   RG        Radiographic Imaging (conventional film/screen)
   ST        Single-Photon Emission Computed Tomography (SPECT)
   TG        Thermography
   US        Ultrasound
   VF        Videofluorography    (Retired)
   VL        Visable Light
   XA        X-Ray Angiography
```

```
Select MODALITY: DX       Digital Radiography
  Are you adding 'DX' as a new MODALITY (the 1ST for this RAD/NUC MED PROCEDURES)?
No// Y  (Yes)
Select MODALITY:
HEALTH SUMMARY WITH REQUEST:
Select SYNONYM:
PROMPT FOR MEDS:
Select DEFAULT MEDICATION:
Select AMIS CODE: ABDOMEN-KUB
  AMIS WEIGHT MULTIPLIER: 1
  BILATERAL?:
Select AMIS CODE:
CPT CODE// 76700 (no editing)
Select DEFAULT CPT MODIFIERS(PROC):
STAFF REVIEW REQUIRED: NO//
RAD/NM PHYS APPROVAL REQUIRED: NO//
REQUIRED FLASH CARD PRINTER:
REQUIRED FLASH CARD FORMAT:
Select FILM TYPE: DIGITAL
  Are you adding 'DIGITAL' as a new FILMS NEEDED (the 1ST for this RAD/NUC MED
PROCEDURES)? No// Y  (Yes)
  NORMAL AMOUNT NEEDED FOR EXAM: 1
Select FILM TYPE:
Select MESSAGE: SP
     1   SPECIAL PREPARATION IS REQUIRED FOR THIS PROCEDURE. PLEASE CONTACT THE
RADIOLOGY DEPT FOR DIRECTIONS.
     2   SPECIAL PREPARATION REQUIRED - PLEASE CONTACT RADIOLOGY DEPARTMENT
CHOOSE 1-2: 1  SPECIAL PREPARATION IS REQUIRED FOR THIS PROCEDURE. PLEASE CONTACT
THE RADIOLOGY DEPT FOR DIRECTIONS.
  Are you adding 'SPECIAL PREPARATION IS REQUIRED FOR THIS PROCEDURE. PLEASE CONTACT
THE RADIOLOGY DEPT FOR DIRECTIONS.' as
    a new MESSAGE (the 1ST for this RAD/NUC MED PROCEDURES)? No// Y  (Yes)
Select MESSAGE:
EDUCATIONAL DESCRIPTION:
  No existing text
  Edit? NO//
INACTIVATION DATE:
Select RAD/NUC MED PROCEDURES NAME:

Want to run a validity check on CPT and stop codes? NO//YES
```

Figure 7-30: Editing a procedure

In order to create parent procedures, all descendant procedures must first be defined under **Procedure Enter/Edit** and they must all have the same imaging type. Once that has been confirmed, the parent procedure may be created. A common parent procedure that may be requested is a CT of a chest, abdomen, and pelvis, a CAP procedure. A parent procedure does not require a CPT code. Therefore, a parent procedure may be created using the two descendants, CT Chest (Thorax) without contrast, CPT 71250, and CT Abdomen and Pelvis without contrast, CPT 74176.

```
Select Procedure Edit Menu Option: proce
    1    Procedure Enter/Edit
    2    Procedure Message Entry/Edit
    3    Procedure Modifier Entry
CHOOSE 1-3: 1  Procedure Enter/Edit
```

```
Select RAD/NUC MED PROCEDURES NAME: CT CHEST, ABDOMEN, PELVIS WO CONTRAST(
ABDOMEN/ABDOMENFLANKBACK/ABDOMENVENOUS CONTRAST PELVIS/PELVISACRAL/PELVISHIP THORAX/
THORAXLUMBAR )

The following words were not used in this search:
     CT
     WO

Attempting FILEMAN lookup...
  Are you adding 'CT CHEST, ABDOMEN, PELVIS WO CONTRAST' as
    a new RAD/NUC MED PROCEDURES (the 748TH)? No// Y  (Yes)
   RAD/NUC MED PROCEDURES TYPE OF PROCEDURE: PA  PARENT
NAME: CT CHEST, ABDOMEN, PELVIS WO CONTRAST  Replace
TYPE OF IMAGING: CT SCAN
TYPE OF PROCEDURE: PARENT//
SINGLE REPORT: Y  YES
HEALTH SUMMARY WITH REQUEST:
Select SYNONYM: CAP
  Are you adding 'CAP' as a new SYNONYM (the 1ST for this RAD/NUC MED PROCEDURES
)? No// Y  (Yes)
Select SYNONYM:
RAD/NM PHYS APPROVAL REQUIRED: NO//   NO
Select MESSAGE:

Select DESCENDENTS: 71250    CT THORAX W/O DYE
       COMPUTED TOMOGRAPHY, THORAX; WITHOUT CONTRAST MATERIAL  CT THORAX W/O CONT
(CT   Detailed) CPT:71250
  Are you adding 'CT THORAX W/O CONT' as a new DESCENDENTS (the 1ST for this RAD/NUC
MED PROCEDURES)? No// Y  (Yes)
Select DESCENDENTS: CT ABDOMEN( ABDOMEN/ABDOMENFLANKBACK/ABDOMENVENOUS )

The following word was not used in this search:
     CT
.....................................................................
.....................................................
Attempting FILEMAN lookup... AND PELVIS WO CONTRAST    (CT   Detailed) CPT:74176
  Are you adding 'CT ABDOMEN AND PELVIS WO CONTRAST' as
    a new DESCENDENTS (the 2ND for this RAD/NUC MED PROCEDURES)? No// Y  (Yes)
Select DESCENDENTS:
EDUCATIONAL DESCRIPTION:
  No existing text
  Edit? NO//
INACTIVATION DATE:
```

Figure 7-31: Creating a Parent Procedure

7.4.9 Reason Edit

This option allows managers to modify or add reasons that can be selected by users who are cancelling and or holding Imaging orders. When canceling an exam, the user will normally see the following in Figure 7-32:

```
RAD- Exam Entry/Edit Menu ... Cancel an Exam

Select Exam Entry/Edit Menu Option: CANCEL an Exam

Enter Case Number: 082713-2

Choice Case No.         Procedure               Name                    Pt ID
```

```
------ ---------------  ---------              -----------------       ------
 1     082713-2         ANKLE 3 OR MORE VIEWS     GUMP,BJ                 876

Do you wish to cancel this exam now? NO// Y
      ...exam status backed down to 'CANCELLED'
      STATUS CHANGE DATE/TIME: SEP 30,2013@09:17//
      TECHNOLOGIST COMMENT:
    REASON FOR CANCELLATION: ??
        This is the reason this exam was cancelled.


   Choose from:
   1            ANESTHESIA CONSULT NEEDED                  Synonym: ANES
   6            CONFLICT OF EXAMINATIONS                   Synonym: CON
   7            DUPLICATE REQUESTS                         Synonym: DUP
   8            INADEQUATE CLINICAL HISTORY                Synonym: INAD
   13           PATIENT CONSENT DENIED                     Synonym: PCD
   14           PATIENT EXPIRED                            Synonym: EXP
   17           REQUESTING PHYSICIAN CANCELLED             Synonym: REQ
   19           WRONG EXAM REQUESTED                       Synonym: WRN
   20           EXAM CANCELLED                             Synonym: CAN
   21           EXAM DELETED                               Synonym: DEL
   22           CALLED-WARD DID NOT SEND                   Synonym:
   23           RESCHEDULED                                Synonym: RSCH
   24           DID NOT KEEP APPT                          Synonym: DNKA
   25           PATIENT NOT PROPERLY PREP'D                Synonym: NOPREP
   26           PATIENT CANCELLED EXAM                     Synonym: PTCAN
   27           RADIOLOGIST CANCELLED EXAM                 Synonym: RADCAN
   28           EQUIPMENT FAILURE                          Synonym: EQ
   29           WRONG PATIENT REQ'D                        Synonym: WRGPT

    REASON FOR CANCELLATION: 24  DID NOT KEEP APPT         Synonym: DNKA
          ...cancellation complete.

Do you want to cancel the request associated with this exam? No//   (No)

HOLD DESCRIPTION:
  No existing text
  Edit? NO//
          ...request status updated to hold.
```

Figure 7-32: Entering a reason for cancelling an exam

The list of reasons may be supplemented as shown in Figure 7-33. Be sure to list the reason before attempting to create a new entry.

```
Supervisor Menu
Utility Files Maintenance Menu
Reason Edit


Select RAD/NUC MED REASON: DUPLICATE REQUESTS              Synonym: DUP
REASON: DUPLICATE REQUESTS//
TYPE OF REASON: CANCEL REQUEST//
SYNONYM: DUP//
NATURE OF ORDER ACTIVITY: type a caret (^) to bypass entry
```

Figure 7-33: Adding a new reason to the Reason List

Note: Type a caret (^) to bypass the "Nature of Order Activity" prompt.

8.0 Building Radiology Quick Orders and Menus

The menus that providers see when ordering Radiology procedures in EHR are site-configured. Radiology procedures are made into Quick Orders and then those quick orders are "hung" on menus. It is highly recommended that whoever builds the Radiology Order Menus confer with Provider staff for the most logical and easy format for the providers to use. A sample menu is shown in Figure 8-1. Note that besides the actual orderable procedures, there are also text headers which help to organize the orderable items into logical groupings.

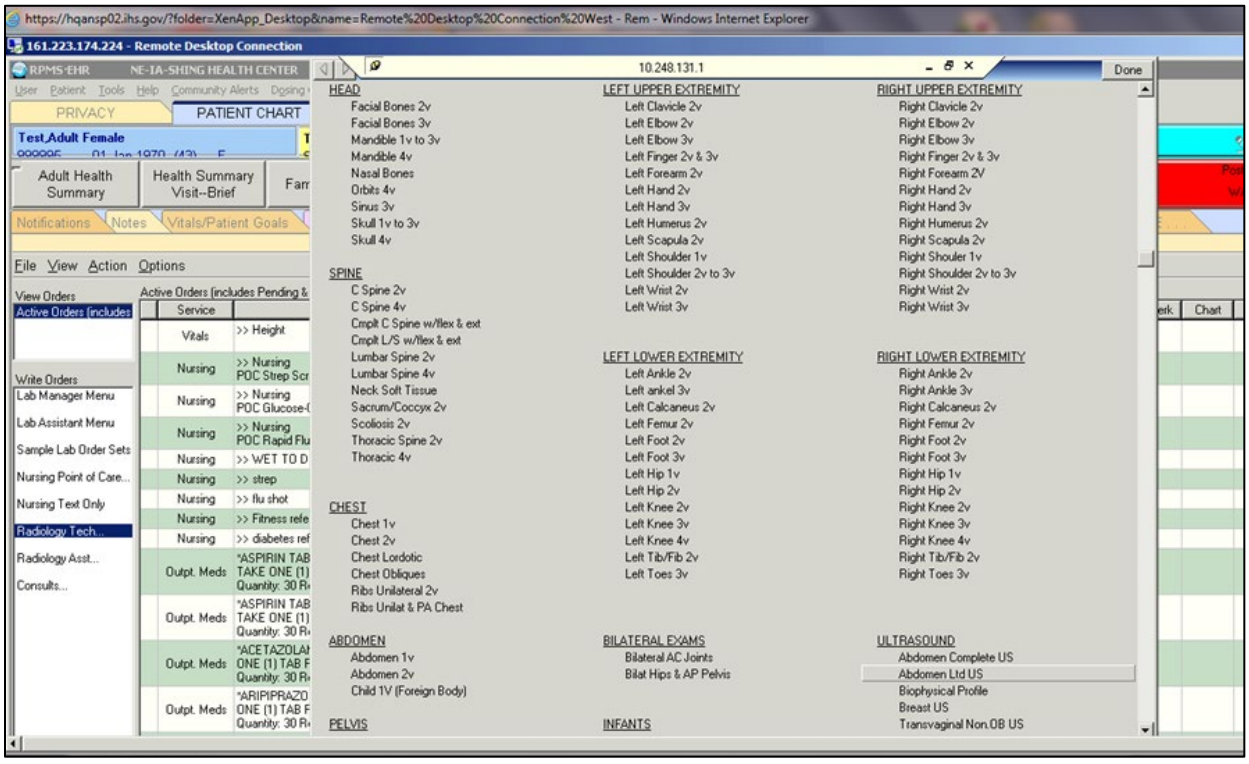


Figure 8-1: Sample EHR Order Menu for Radiology

No attempt should be made to build quick orders or EHR menus until the Radiology Package has been configured.

8.1 Quick Orders

The term quick order refers to the orderable items that have been created for use in the EHR. They fall into several categories–Nursing, Lab, Pharmacy, Immunizations, Imaging, etc. Radiology procedures cannot be assigned directly to an EHR order menu but must first be made into quick orders.

The menu path to build Radiology quick orders and menus may have different mnemonics on different RPMS systems, but both options may be found on the **CPRS Configuration (Clin Coord)** menu. If "jumping" is allowed on your RPMS system, you may use the convention of using a caret (^) followed by the menu mnemonic to go directly to the Quick Order option, e.g., **^QO**.

A typical menu path is displayed in Figure 8-2:

```
Select IHS Kernel Option: EHR  EHR Main Menu


   APT    Appointment Management
   BED    Bed Control ...
   CON    Consult Management ...
   CPRS   CPRS Manager Menu ...
   EHR    RPMS-EHR Configuration Master Menu ...
   HS     Health Summary Maintenance ...
   IMM    Immunization Menu ...
   MTIU   TIU Menu for Medical Records ...
   REG    Patient registration ...
   REM    Reminder Managers Menu ...
   TIU    TIU Menu for Clinicians ...


Select EHR Main Menu Option: CPRS  CPRS Manager Menu


   CL     Clinician Menu ...
   NM     Nurse Menu ...
   WC     Ward Clerk Menu ...
   PE     CPRS Configuration (Clin Coord) ...
   IR     CPRS Configuration (IRM) ...


Select CPRS Manager Menu Option: PE  CPRS Configuration (Clin Coord)


   AL     Allocate OE/RR Security Keys
   KK     Check for Multiple Keys
   DC     Edit DC Reasons
   GP     GUI Parameters ...
   GA     GUI Access - Tabs, RPL
   MI     Miscellaneous Parameters
   NO     Notification Mgmt Menu ...
   OC     Order Checking Mgmt Menu ...
   MM     Order Menu Management ...
   LI     Patient List Mgmt Menu ...
   FP     Print Formats
   PR     Print/Report Parameters ...
   RE     Release/Cancel Delayed Orders
   US     Unsigned orders search
   EX     Set Unsigned Orders View on Exit
   NA     Search orders by Nature or Status
   CM     Care Management Menu ...
   DO     Event Delayed Orders Menu ...
   LO     Lapsed Orders search
   PM     Performance Monitor Report
```

```
Select CPRS Configuration (Clin Coord) Option: MM  Order Menu Management


   OI     Manage orderable items ...
   PM     Enter/edit prompts
   GO     Enter/edit generic orders
   QO     Enter/edit quick orders
   QU     Edit personal quick orders by user
   ST     Enter/edit order sets
   AC     Enter/edit actions
   MN     Enter/edit order menus
   AO     Assign Primary Order Menu
   CP     Convert protocols
   SR     Search/replace components
   LM     List Primary Order Menus
   DS     Disable/Enable order dialogs
   CS     Review Quick Orders for Inactive ICD9 Codes
   MR     Medication Quick Order Report
   CV     Convert IV Inpatient QO to Infusion QO
```

Figure 8-2: Menu path to create ENR Quick Order

```
Select Order Menu Management Option: QO  Enter/edit quick orders
```

Figure 8-3: QO Enter/edit quick orders menu option

In Figure 8-4, a quick order is created for a Left Hand 1 or 2 views, CPT 73120.

```
Select Order Menu Management Option:  Enter/edit quick orders
Select QUICK ORDER NAME: RAZ HAND 1 OR 2 VIEWS LEFT
  Are you adding 'RAZ HAND 1 OR 2 VIEWS LEFT' as
    a new ORDER DIALOG? No// Y  (Yes)<< Note the convention of using RAZ for
Radiology quick orders.
TYPE OF QUICK ORDER: IMAGING  << Use Imaging, Not Radiology.
NAME: RAZ HAND 1 OR 2 VIEWS LEFT Replace
DISPLAY TEXT: Hand 1 or 2 Views, Left << This is the text that displays on the EHR
Order screen.
VERIFY ORDER: YES

DESCRIPTION:
  No existing text
  Edit? NO//
ENTRY ACTION:

Note that a Common Procedure List will be displayed ONLY if it has been built in the
Radiology Package.  A Common Procedure List is not required as Procedures may be
entered by CPT code or by Name as well as by the procedure number on the common
procedure list.

Common General Radiology Procedures:
  1 ABDOMEN 1 VIEW                        21 HAND 3 OR MORE VIEWS
  2 ABDOMEN 3 OR MORE VIEWS               22 HIP 2 OR MORE VIEWS
  3 ANKLE 3 OR MORE VIEWS                 23 KNEE 3 VIEWS
  4 CALCANEOUS 2 VIEWS                    24 KNEES BILATERAL STANDING
  5 CHEST 2 VIEWS PA&LAT                  25 OB TRANSVAGINAL US
  6 CLAVICLE                              26 OB ULTRASOUND <14 WKS
  7 ECHOGRAM ABDOMEN COMPLETE             27 PELVIS 1 VIEW
  8 ECHOGRAM BREAST B-SCAN &/OR REAL TIM 28 RIBS UNILAT 2 VIEWS
  9 ECHOGRAM PELVIC COMPLETE              29 SHOULDER 2 OR MORE VIEWS
```

```
 10 ECHOGRAM RETROPERITONEAL COMPLETE    30 SPINE CERVICAL MIN 2 VIEWS
 11 ECHOGRAM THYROID B-SCAN &/OR REAL TI 31 SPINE CERVICAL MIN 4 VIEWS
 12 ECHOGRAPHY, TRANSVAGINAL             32 SPINE LUMBOSACRAL MIN 2 VIEWS
 13 ELBOW 2 VIEWS                        33 SPINE LUMBOSACRAL MIN 4 VIEWS
 14 ELBOW 3 OR MORE VIEWS                34 SPINE SI JOINTS 1 OR 2 VIEWS
 15 FACIAL BONES, LESS THAN 3 VIEWS      35 SPINE STANDING SCOLIOSIS
 16 FACIAL BONES, MINIMUM 3 VIEWS        36 SPINE THORACIC 2 VIEWS
 17 FEMUR 2 VIEWS                        37 TIBIA & FIBULA 2 VIEWS
 18 FINGER(S) 2 OR MORE VIEWS            38 TM JOINTS BILAT O&C MOUTH
 19 FOOT 3 OR MORE VIEWS                 39 TOE(S) 2 OR MORE VIEWS
 20 HAND 1 OR 2 VIEWS                    40 WRIST 3 OR MORE VIEWS
Radiology Procedure: 20   HAND 1 OR 2 VIEWS
Procedure Modifier: LEFT  << Modifiers are not required for quick orders but often
help to ensure that the provider does not forget to specify details of the exam.  In
addition, it is helpful in arranging quick orders on the menu.
Another Procedure Modifier:
History and Reason for Exam:
  No existing text
  Edit? No//   (No)
Category: OUTPATIENT << This field is not required but the provider must then
specify the appropriate Category when ordering if it is not defined in the quick
order.
Is this patient scheduled for pre-op? NO//
Date Desired: TODAY// << Not required but if not defaulted, provider must enter.
Mode of Transport: AMBULATORY << Not required but if not specified, provider must
enter.
Is patient on isolation procedures? NO << Not required but if not specified,
provider must enter.
Urgency: ROUTINE// << Not required but if not specified, provider must enter.


------------------------------------------------------------------------------
         Radiology Procedure: HAND 1 OR 2 VIEWS
         Procedure Modifiers: LEFT
                    Category: OUTPATIENT
                Date Desired: TODAY
          Mode of Transport: AMBULATORY
        Isolation Procedures: NO
                     Urgency: ROUTINE
           Submit request to: RADIOLOGY
------------------------------------------------------------------------------

(P)lace, (E)dit, or (C)ancel this quick order? PLACE//
Auto-accept this order? NO//
```

Figure 8-4: Creating an EHR quick order

If more than one imaging type has been configured for a Radiology Department, the individual defining the quick order will have to specify the Imaging Type for that quick order as in the examples below for CT (Figure 8-5) and Ultrasound (Figure 8-6) procedures.

In the example for a CT Head/Brain without Contrast below, note that a Common Procedure List is not available for CT and that the Procedure has been entered by CPT Code. Also, note that several of the fields, **Category**, **Date Desired**, **Mode of Transport**, and **Isolation Procedures** have all been left without entries. The provider ordering this exam would then have to supply this information when placing an order. To save the provider time during order entry, it is recommended that as many fields as possible be pre-populated when creating quick orders.

```
Select QUICK ORDER NAME: RAZ CT HEAD/BRAIN W/CONTRAST
  Are you adding 'RAZ CT HEAD/BRAIN W/CONTRAST' as
    a new ORDER DIALOG? No// Y  (Yes)
TYPE OF QUICK ORDER: IM
     1   IMAGING
     2   IMM  IMMUNIZATIONS
CHOOSE 1-2: 1  IMAGING
NAME: RAZ CT HEAD/BRAIN W/CONTRAST  Replace
DISPLAY TEXT: CT Head/Brain w/Contrast
VERIFY ORDER:
DESCRIPTION:
  1>
ENTRY ACTION:


Select one of the following imaging types:
   CT SCAN
   MAGNETIC RESONANCE IMAGING
   GENERAL RADIOLOGY
   ULTRASOUND

Select IMAGING TYPE: ct SCAN
CT Scan Procedure: 70460 CT HEAD/BRAIN W/ CONTRAST      CT HEAD/BRAIN W/ CONTRAST
Procedure Modifier:
Reason for Study:
Clinical History:
  1>
Category:
Is this patient scheduled for pre-op? NO//
Date Desired:
Mode of Transport:
Is patient on isolation procedures?
Urgency: ROUTINE//

-------------------------------------------------------------------------------
           CT Scan Procedure: CT HEAD/BRAIN W/ CONTRAST
                     Urgency: ROUTINE
           Submit request to: CT SCAN
-------------------------------------------------------------------------------

(P)lace, (E)dit, or (C)ancel this quick order? PLACE//
Auto-accept this order? NO//
```

Figure 8-5: Creating a quick order for a CT procedure

The example in Figure 8-6 shows creation of a quick order for an Ultrasound procedure, again with many of the field left blank, requiring provider entry of those fields during the ordering process.

```
Select QUICK ORDER NAME: RAZ US RETROPERITONEAL RT W/IMAGE LMT
  Are you adding 'RAZ US RETROPERITONEAL RT W/IMAGE LMT' as
    a new ORDER DIALOG? No// Y  (Yes)
TYPE OF QUICK ORDER: IMAGING
NAME: RAZ US RETROPERITONEAL RT W/IMAGE LMT  Replace
DISPLAY TEXT: US Retroperitoneal RT w/Image Lmtd
VERIFY ORDER:
DESCRIPTION:
  1>
ENTRY ACTION:

Select one of the following imaging types:
   CT SCAN
   MAGNETIC RESONANCE IMAGING
   GENERAL RADIOLOGY
   ULTRASOUND

Select IMAGING TYPE: ULTRASOUND
Ultrasound Procedure: 76775 US RETROPERITONEAL LIMITED      US RETROPERITONEAL
LIMITED
Procedure Modifier:
Reason for Study:
Clinical History:
  1>
Category:
Is this patient scheduled for pre-op? NO//
Date Desired:
Mode of Transport:
Is patient on isolation procedures?
Urgency: ROUTINE//

-------------------------------------------------------------------------------
        Ultrasound Procedure: US RETROPERITONEAL LIMITED
                     Urgency: ROUTINE
           Submit request to: ULTRASOUND
-------------------------------------------------------------------------------

(P)lace, (E)dit, or (C)ancel this quick order? PLACE//
Auto-accept this order? NO//
```

Figure 8-6: Creating a quick order for an Ultrasound Procedure

8.2 Creating an EHR Order Menu ↓for Radiology

The menu that is displayed in Figure 8-1 was created after the Radiology Quick Orders were created. Sites that have more than one Division or more than one Imaging Type may choose to create more than one menu to match their Divisions or Imaging Types.

The menu path to access the **MN Enter/edit order menus** option is also accessed from the **CPRS Configuration (Clin Coord)** menu for Order Menu Management. The convention used to create Radiology menus is to use the prefix RAZM on any Radiology or Imaging Type of menu. It is highly recommended that a prototype of the menu or menus be laid out before accessing this menu option. Remember that the menu that will be viewed consists of both text and headers that are used to organize the quick orders and well as menu items which are the quick orders.

```
   OI     Manage orderable items ...
   PM     Enter/edit prompts
   GO     Enter/edit generic orders
   QO     Enter/edit quick orders
   QU     Edit personal quick orders by user
   ST     Enter/edit order sets
   AC     Enter/edit actions
   MN     Enter/edit order menus
   AO     Assign Primary Order Menu
   CP     Convert protocols
   SR     Search/replace components
   LM     List Primary Order Menus
   DS     Disable/Enable order dialogs
   CS     Review Quick Orders for Inactive ICD9 Codes
   MR     Medication Quick Order Report
   CV     Convert IV Inpatient QO to Infusion QO


Select Order Menu Management Option: MN  Enter/edit order menu
Select ORDER MENU: RAZM RADIOLOGY MENU
Are you adding 'RAZM RADIOLOGY MENU' as a new ORDER DIALOG? No// Y
Do you wish to copy an existing menu? YES// NO
DISPLAY TEXT: RADIOLOGY MENU
DESCRIPTION:
   No existing text
   Edit? NO//
COLUMN WIDTH: ??

This is the width, in characters, for each column in a menu.  For example,to have 3
columns on an 80 character device, enter a width of 26.
COLUMN WIDTH: 26
MNEMONIC WIDTH: ??

This field allows the width of item mnemonics to be varied; the default value is 5.
The mnemonic width determines the indentation of menu items under the text header.
MNEMONIC WIDTH: 2
PATH SWITCH: ??
This switch allows the user, when traversing back UP the tree of menus and items, to
select a new path back down the tree.  In other words, the menu is redisplayed when
returning to that menu's level in the tree and processing back down the tree is
possible from that point.  If nothing is selected from the menu, the path continues
back up the tree.
Choose from:
       YES
       NO
ENTRY ACTION:
This is MUMPS code that will be executed when accessing the menu.

EXIT ACTION:

This is MUMPS code that will be executed upon completion of processing the dialog;
it is currently used only with dialog-type entries.
```

Figure 8-7: Creating a new Menu for Radiology

When the initial dialogue for creating a menu has been completed, a blank menu template is displayed on the screen as below. Options for creating and managing the menu are listed below the blank menu screen.

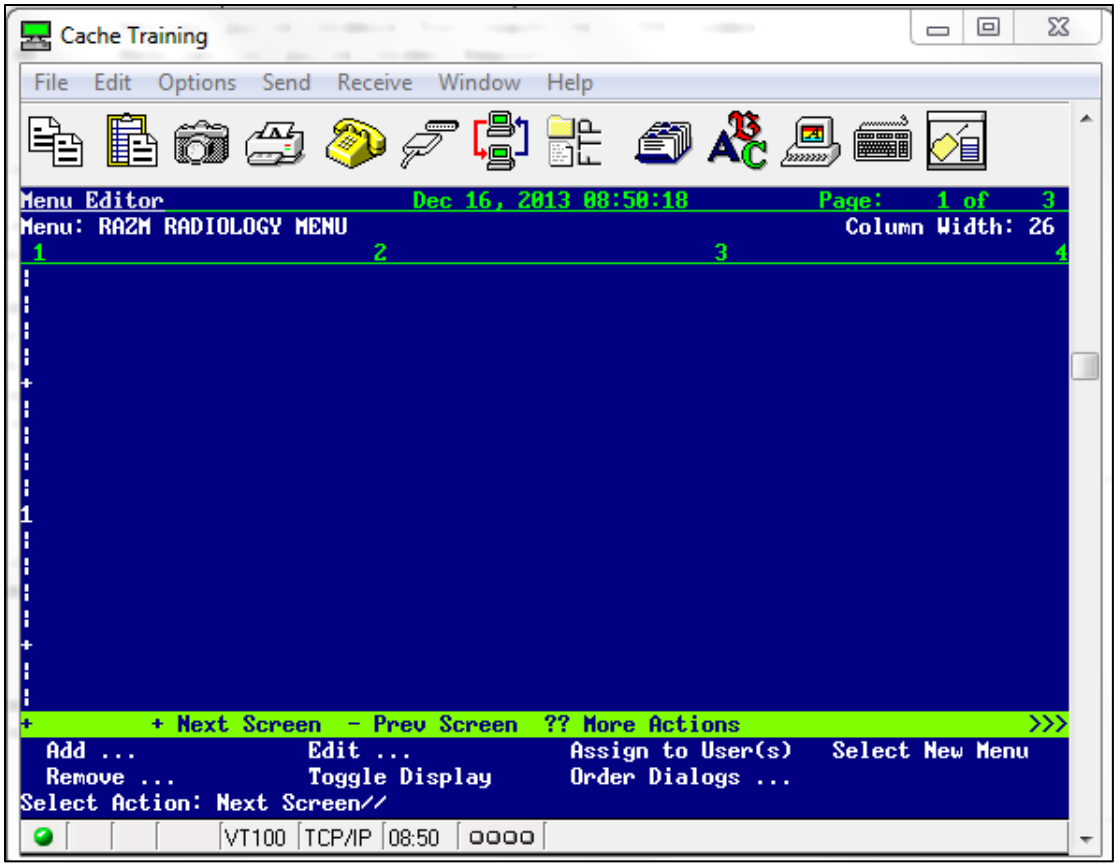


Figure 8-8: Blank menu template for Radiology

Add permits the user to add either a text header or a menu item (orderable item.) In either case, the user must specify the Row Number and Column where they wish the text or the orderable item to appear. Note that the left-hand margin of the Menu Editor shows |, +, and numbers (**1**,**2**,**3**, etc.). The first + represents Row 5, each | increments by one until the number 1 is reached which represents Row 10. Then each | after 1 increment as 1, so the lines represent Rows 11, 12, 13, and 14 until the next + is reached which represents Row 15. This pattern is repeated, and menu items or text headers may be added to create a menu as long as the user desires.

Remove allows the user to remove either menu items or text headers which they no longer wish to display on the order menu. The user must identify which item they wish to remove and whether they wish to retain the current spacing in that column or allow shifting up of the menu items to prevent a gap in the menu.

Edit allows the user to edit either a text header or a menu item.

Toggle Display allows the user to see the quick orders on the menu instead of the Display text for the orderable items.

Assign to User(s) allows the user to identify which persons or categories of division, institution, etc., will be allowed to see and use this order menu. Typically, the menu would be assigned to a Division.

```
+         + Next Screen  - Prev Screen  ?? More Actions
>>>
  Add ...             Edit ...            Assign to User(s)   Select New
Menu
  Remove ...          Toggle Display      Order Dialogs ...
Select Action: Next Screen// ass   Assign to User(s)

Add New Orders may be set for the following:

     1   User          USR    [choose from NEW PERSON]
     4   Location      LOC    [choose from HOSPITAL LOCATION]
     5   Service       SRV    [choose from SERVICE/SECTION]
     6   Division      DIV    [DEMO INDIAN HOSPITAL]
     7   System        SYS    [DEMO.OKLAHOMA.IHS.GOV]
     9   Package       PKG    [ORDER ENTRY/RESULTS REPORTING]

Enter selection:
```

Figure 8-9: Assigning EHR Order Menu to User(s)

When building a menu, some users prefer working across the columns and others prefer completing all entries in a column before moving to the next column. If it is determined during the menu building process that the column width must be changed or the mnemonic width should be altered, those changes may be implemented by choosing the **Edit** option and then selecting **Menu**.

In the dialogue displayed in Figure 8-10, the first text header is added for **HEAD**. By indicating that it is a HEADER, the text will be underlined on the menu.

```
  Add ...             Edit ...            Assign to User(s)   Select New
Menu
  Remove ...          Toggle Display      Order Dialogs ...
Select Action: Next Screen// A
     1   Add ...
     2   Assign to User(s)
CHOOSE 1-2: 1
    Menu Items               Text or Header            Row

Add: T   Text or Header
DISPLAY TEXT: HEAD
ROW: 1
COLUMN: 1
HEADER: YES

DISPLAY TEXT
```

Figure 8-10: Creating a Text Header

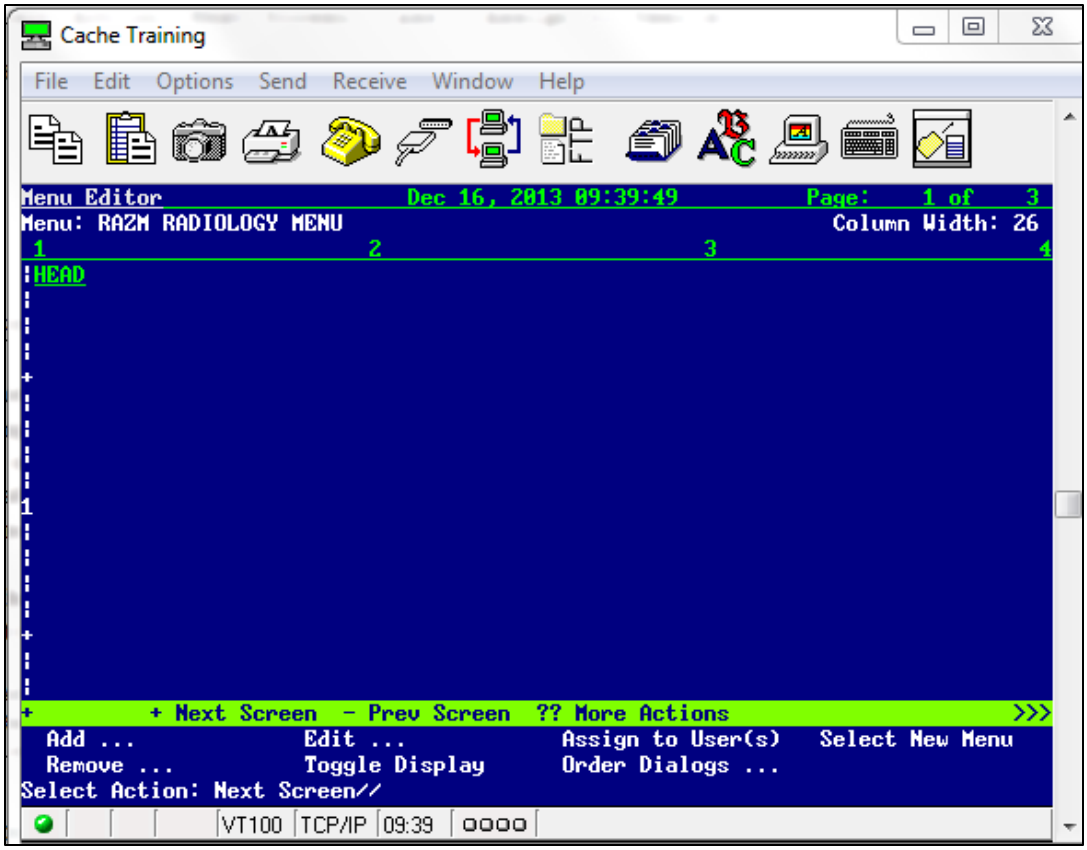


Figure 8-11: Displaying the Text Header on the Menu

This process can be repeated to add the Headers for LEFT UPPER EXTREMITY and RIGHT UPPER EXTREMITY.

```
  Add ...              Edit ...             Assign to User(s)    Select New
Menu
  Remove ...           Toggle Display       Order Dialogs ...
Select Action: Next Screen// A
     1   Add ...
     2   Assign to User(s)
CHOOSE 1-2: 1
    Menu Items                Text or Header            Row

Add: T   Text or Header
DISPLAY TEXT: LEFT UPPER EXTREMITY
ROW: 1
COLUMN: 1
HEADER: YES

DISPLAY TEXT


  Add ...              Edit ...             Assign to User(s)    Select New
Menu
  Remove ...           Toggle Display       Order Dialogs ...
Select Action: Next Screen// A
     1   Add ...
```

```
     2   Assign to User(s)
CHOOSE 1-2: 1
    Menu Items                Text or Header            Row

Add: T   Text or Header
DISPLAY TEXT: RIGHT UPPER EXTREMITY
ROW: 1
COLUMN: 1
HEADER: YES

DISPLAY TEXT
```

Figure 8-12: Adding Additional Text Headers

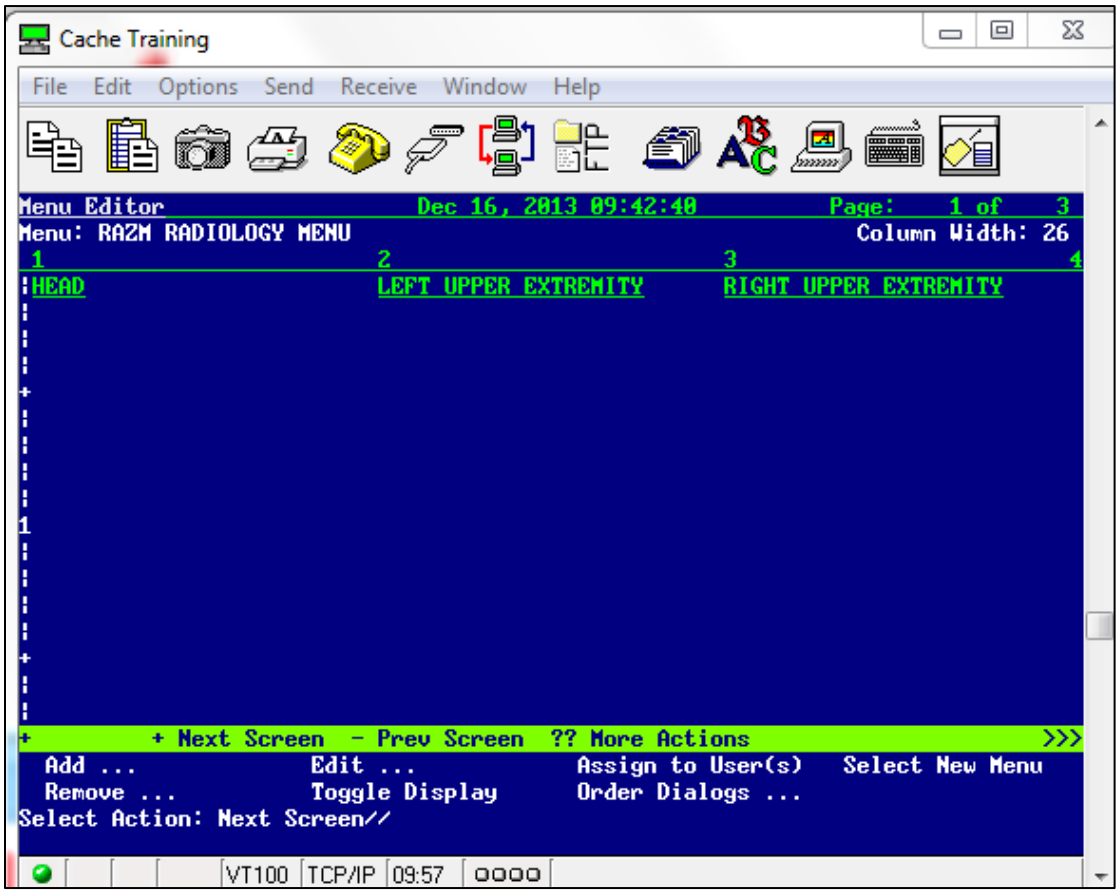


Figure 8-13: Displaying three columns with text headers

Next proceed to adding orderable items. Note that the headers occupy the first line so the first menu item can only be added to line 2. Unlike text and headers which will always return to the menu between entries, menu items may be added one after another as shown in Figure 8-14.

```
  Add ...              Edit ...             Assign to User(s)   Select New Menu
  Remove ...           Toggle Display       Order Dialogs ...
Select Action: Next Screen// A
     1   Add ...
     2   Assign to User(s)
```

```
CHOOSE 1-2:1
    Menu Items                Text or Header            Row

Add: M  Menu Items
ITEM: RAZ FAC
     1   RAZ FACIAL BONES 2 V
     2   RAZ FACIAL BONES 3 V
CHOOSE 1-2: 1  RAZ FACIAL BONES 2 V
ROW: 2
COLUMN: 1
DISPLAY TEXT:
MNEMONIC:

ITEM: RAZ FACIAL BONES 3 V
ROW: 3
COLUMN: 1
DISPLAY TEXT:
MNEMONIC:

ITEM: RAZ MANDIBLE
   1.RAZ MANDIBLE
   2.RAZ MANDIBLE >4V
CHOOSE 1-2: 1  RAZ MANDIBLE
ROW: 4
COLUMN: 1
DISPLAY TEXT:
MNEMONIC:

ITEM: RAZ MANDIBLE
     1   RAZ MANDIBLE
     2   RAZ MANDIBLE >4V
CHOOSE 1-2: 2  RAZ MANDIBLE >4V
ROW: 5
COLUMN: 1
DISPLAY TEXT:
MNEMONIC:

ITEM: RAZ NASAL BONES
ROW: 6
COLUMN: 1
DISPLAY TEXT:
MNEMONIC:

ITEM: RAZ ORBITS
ROW: 7
COLUMN: 1
DISPLAY TEXT:
MNEMONIC:

ITEM:
```

Figure 8-14: Adding Menu Items

Figure 8-15 displays the resulting menu.

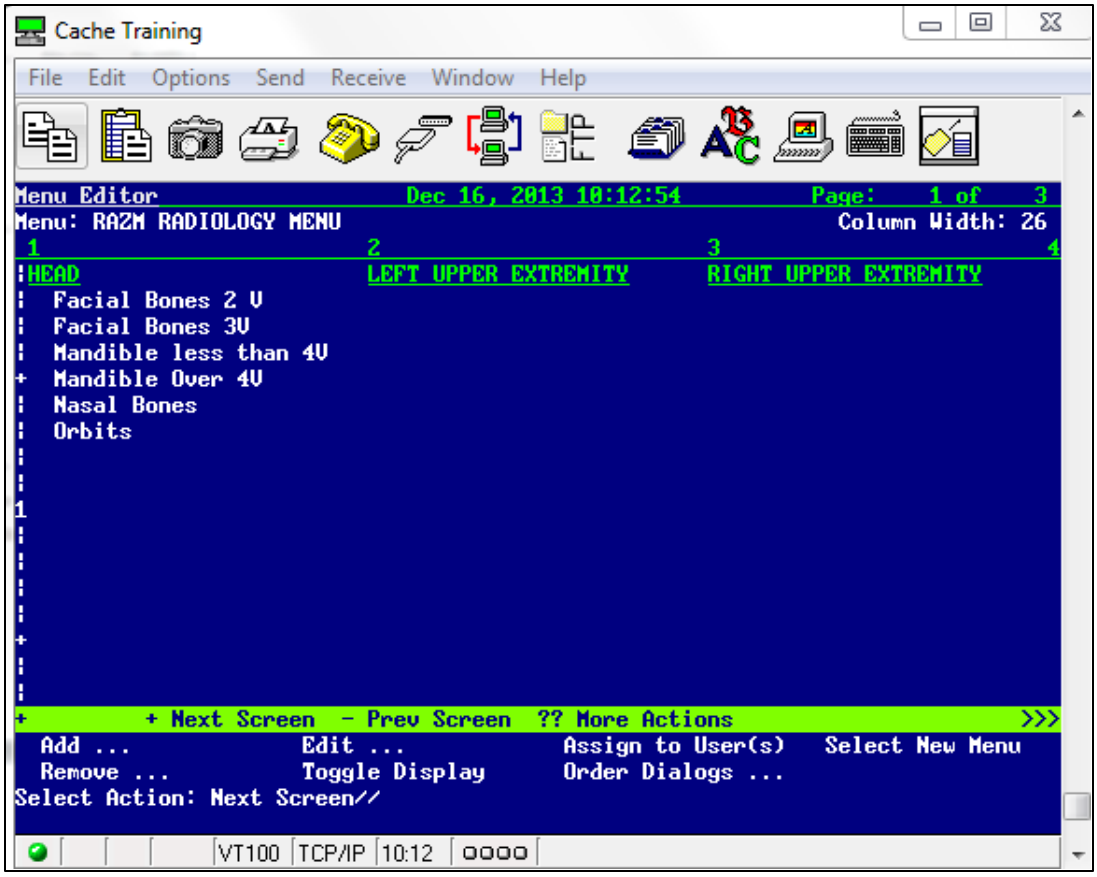


Figure 8-15: Partially built menu with text headers and some menu items

When you review the menu after adding a number of menu items, you may decide to alter the display of one or more menu items. For example, there is a discrepancy in the display of Facial Bones between 2 V and 3V. In Figure 8-16, the user can alter the display of the Facial Bones 2 V to Facial Bones 2V to be consistent by choosing the **Edit** option.

```
  Add ...              Edit ...             Assign to User(s)    Select New Menu
  Remove ...           Toggle Display       Order Dialogs ...
Select Action: Next Screen// E

    Items or Text              Menu                        Row and Column

Edit: I   Items or Text

Select Item(s): Faci
     1   Facial Bones 2 V
     2   Facial Bones 3V
CHOOSE 1-2: 1   Facial Bones 2 V
ITEM: RAZ FACIAL BONES 2 V//
```

```
DISPLAY TEXT: Facial Bones 2V << Note:  This is an alternative Display text that
differs from that entered when the quick order was built.
MNEMONIC:
ROW: 2//
COLUMN: 1//
Edit this quick order? YES// NO
```

Figure 8-16: Changing the Display Text for a Menu Item

When the Menu is displayed again, the new display text is in place.

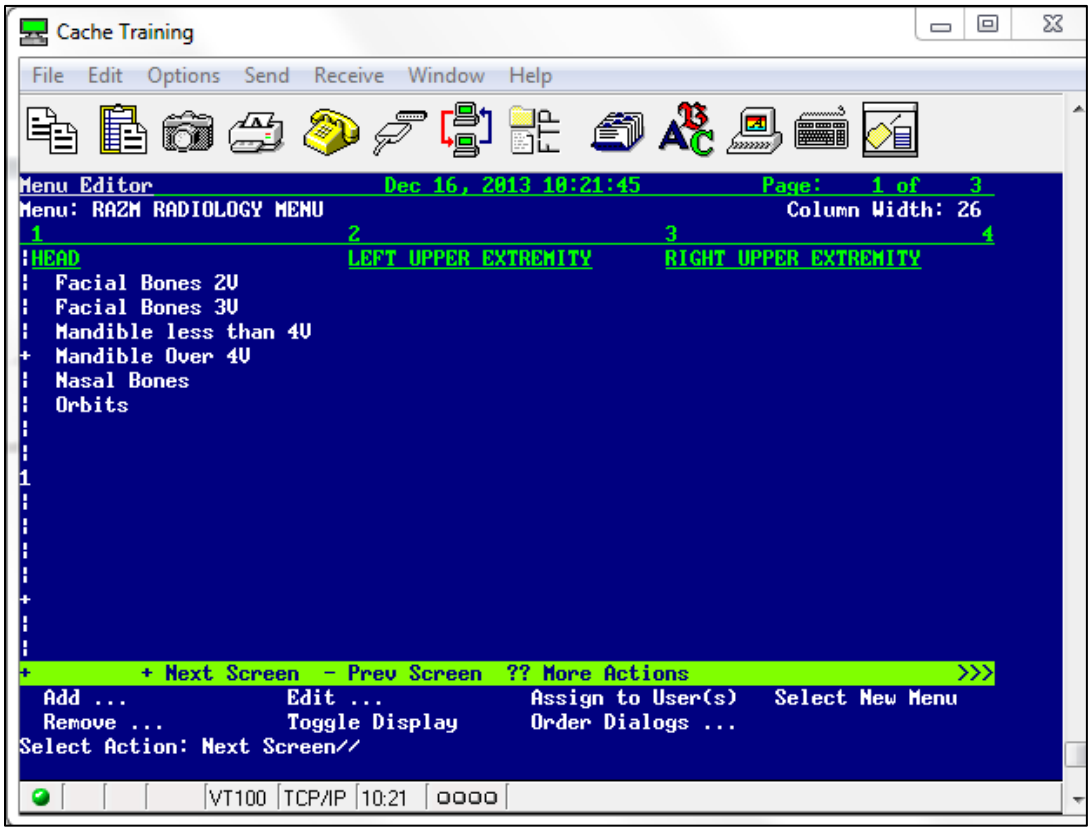


Figure 8-17: EHR Order menu with corrected item display

If you wish to see the quick orders associated with the menu items, you may choose the **Toggle Display** option. This is useful to see which quick order has been associated with a selectable menu item.

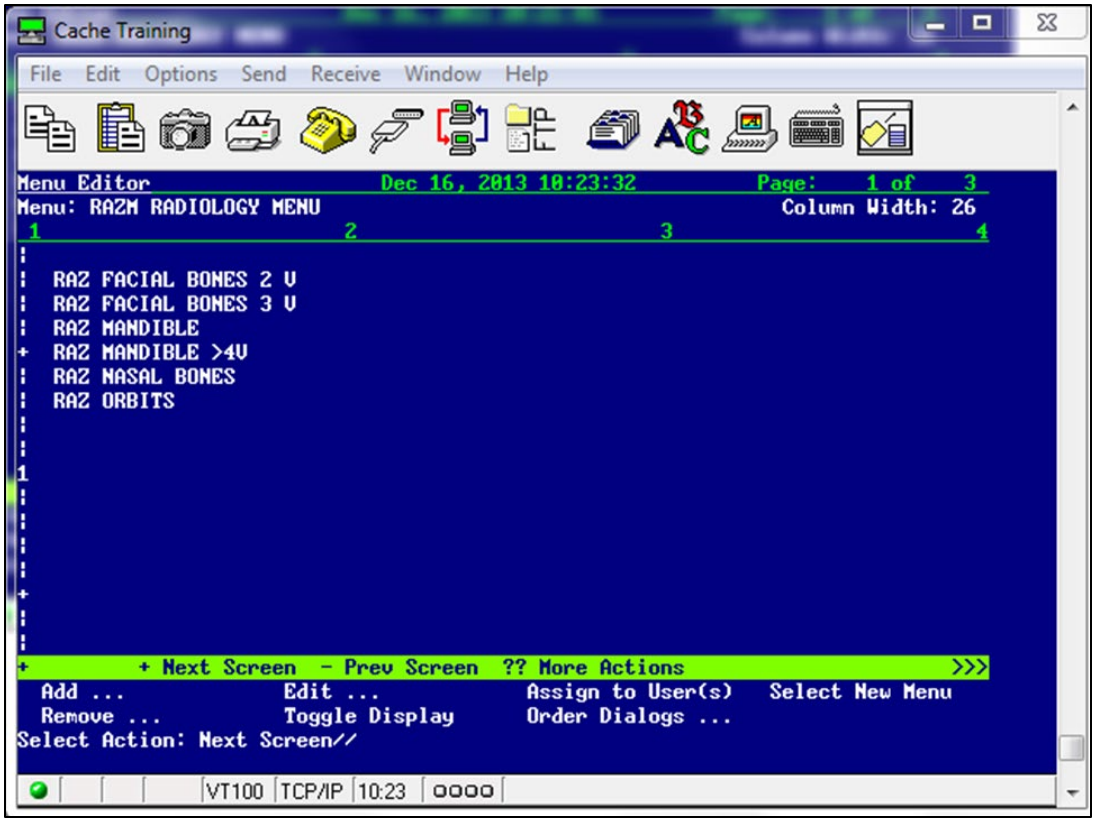


Figure 8-18: Menu with Toggle to show quick orders for menu items

When adding items to the menu, you may encounter messages indicating that another item is already in the position you have specified for the new item. You may choose to ignore that message and insert an item that may have been skipped to maintain your desired order.

If you wish to insert an item into the menu, type **YES** at the "Do you want to shift items in this column down?" prompt.

```
Add: M   Menu Items
ITEM: RAZ S
     1   RAZ SINUSES >3V
     2   RAZ SINUSES MIN 2V
CHOOSE 1-2: 2  RAZ SINUSES MIN 2V
ROW: 7
COLUMN: 1
There is another item in this position already!
Do you want to shift items in this column down? YES//
```

Figure 8-19: Inserting Menu Item and shifting existing items down

Normally EHR menus are maintained by the Clinical Application Coordinator (CAC) at a facility, but some Radiology Supervisors prefer to maintain their own menus. More extensive directions on menu management may be found in EHR documentation for CACs: https://www.ihs.gov/EHR/index.cfm?module=cac.

9.0 Radiology Workflow

Figure 9-1 displays the Radiology workflow expected for a site using EHR and an onsite Radiology transcriptionist and Radiologist. This may also be the workflow at a site that has on-site Radiology, but reports are provided by an outside Radiology provider without an interface. Reports may be manually entered (copied and pasted) and verified by Radiology staff.

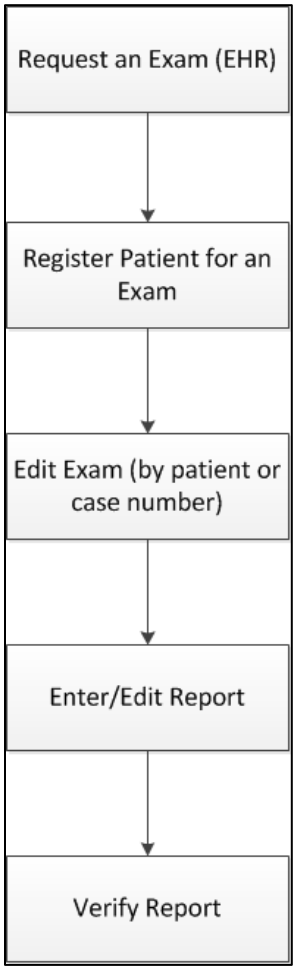


Figure 9-1: Radiology Workflow at a site with Transcriptionist and Radiologist

The second workflow (Figure 9-2) is different for a site that has a Reports interface. Reports are not only uploaded to the reports module in RPMS, but are also automatically verified. In this scenario, it is critical that all mandatory fields, such as pregnancy status, technologist, room/camera, and films are entered as set in the examination status file. If any mandatory fields are skipped during the Edit Exam process, the procedure will not have a Complete status.

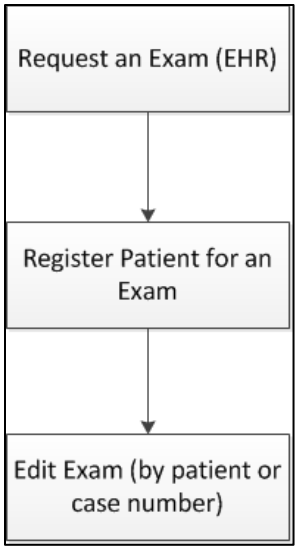


Figure 9-2: Workflow for site with a reports interface

The third scenario (Figure 9-3) may be for a site that offers limited or no Radiology services on site, and getshard copy reports back from an outside Radiology service.

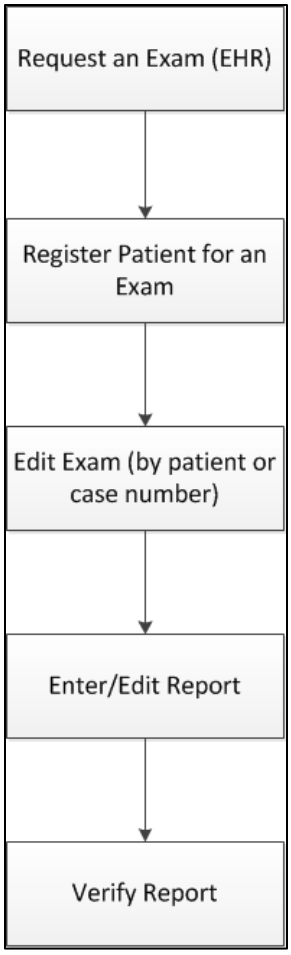


Figure 9-3: Workflow for site with limited or no radiology service on site

There may be slight alterations to these scenarios depending on whether VISTA Imaging is used. The goal in all cases is to demonstrate that an order has been placed in EHR from the requesting provider and that order has moved from a status of Pending to Complete. There is an advantage to providers at sites that have reporting capabilities or are using VISTA Imaging in that both reports and/or images may be viewed on the reports tab in EHR.

10.0 Radiology/Nuclear Med Order Entry Menu

10.1 Requesting an Exam in RPMS

As noted in Section 9.0,the goal is to enable providers to order all exams in EHR. However, that may not always be possible. Such as being an order from an outside provider or an order that cannot be found when a patient presents for an exam.

Note that when an order is placed via the **RPMS** menu, the **Nature of Order** will default to **SVC Correction**.

Further, if this patient had been a female of child-bearing age, the individual placing the order would have been prompted to enter the patient's pregnancy status of Y–Yes, N–No, or U–Unknown.

```
RAD    Rad/Nuc Med Total System Menu ...
Radiology/Nuclear Med Order Entry Menu ...
Request an Exam

Select Radiology/Nuclear Med Order Entry Menu Option: request an Exam

Select PATIENT NAME:
  DEMO,PATIENT SJ                       F 08-10-19XX XXX-XX-0983    WW 999984

Patient Location:    MAMMOGRAPHY


Case #    Last 5 Procedures/New Orders Exam Date   Status of Exam  Imaging Loc.
------    ---------------------------- ---------   --------------  ------------
          HIP 2 OR MORE VIEWS          DEC  6,2013 COMPLETE        RADIOLOGY
          CHEST 2 VIEWS PA&LAT         DEC  6,2013 COMPLETE        RADIOLOGY
          ANKLE 3 OR MORE VIEWS        AUG 28,2003 COMPLETE        RADIOLOGY
          UROGRAM INTRAVENOUS          SEP  2,2001 COMPLETE        RADIOLOGY
8         UROGRAM INTRAVENOUS          SEP  2,2001 CANCELLED       RADIOLOGY
          CHEST SINGLE VIEW                        Ord 12/18/13    RADIOLOGY

Press <RETURN> key to continue.
Copy a previous order's ICD codes? NO//

Select one of the following imaging types:
   GENERAL RADIOLOGY
   MAMMOGRAPHY


           COMMON RADIOLOGY/NUCLEAR MEDICINE PROCEDURES (MAMMOGRAPHY)
           ----------------------------------------------------------
 1) MAMMOGRAM G0202                         3) MAMMOGRAM G0206
 2) MAMMOGRAM G0204
Select Procedure (1-3) or enter '?' for help: 2


Processing procedure: MAMMOGRAM G0204

Select PROCEDURE MODIFIERS:
DATE DESIRED (Not guaranteed): T  (DEC 29, 2013)
REASON FOR STUDY: ANNUAL
```

```
   ***CLINICAL HISTORY REQUIRED***

Enter RETURN to continue or '^' to exit:

Ordering ICD-9 Diagnosis:

------------------------------------------------------------------------------
          Patient: DEMO,PATIENT SJ       Pregnant at time of order entry:
        Procedure: MAMMOGRAM G0204
  Proc. Modifiers:
         Category: OUTPATIENT                   Mode of Transport: AMBULATORY
     Desired Date: Dec 29, 2013               Isolation Procedures: NO
  Request Urgency: ROUTINE                    Scheduled for Pre-op: NO
 Request Location: MAMMOGRAPHY                Nature of order:  SVC CORRECTION
 Reason for Study: ANNUAL

Clinical History:
ANNUAL EXAM

------------------------------------------------------------------------------
Do you want to change any of the above? NO//

     ...request submitted to: MAMMOGRAPH
```

Figure 10-1: Requesting a Radiology Exam in RPMS

10.2 Requesting an Exam in EHR

> **Note**: Providers may not place orders for Radiology exams in EHR without the ORES security key.

The provider may have already seen a patient and started an EHR visit, and as part of that visit followed the procedure below for placing a Radiology order.

Alternatively, the provider may choose to create a new visit or choose a pre-existing visit for placing the Radiology order.

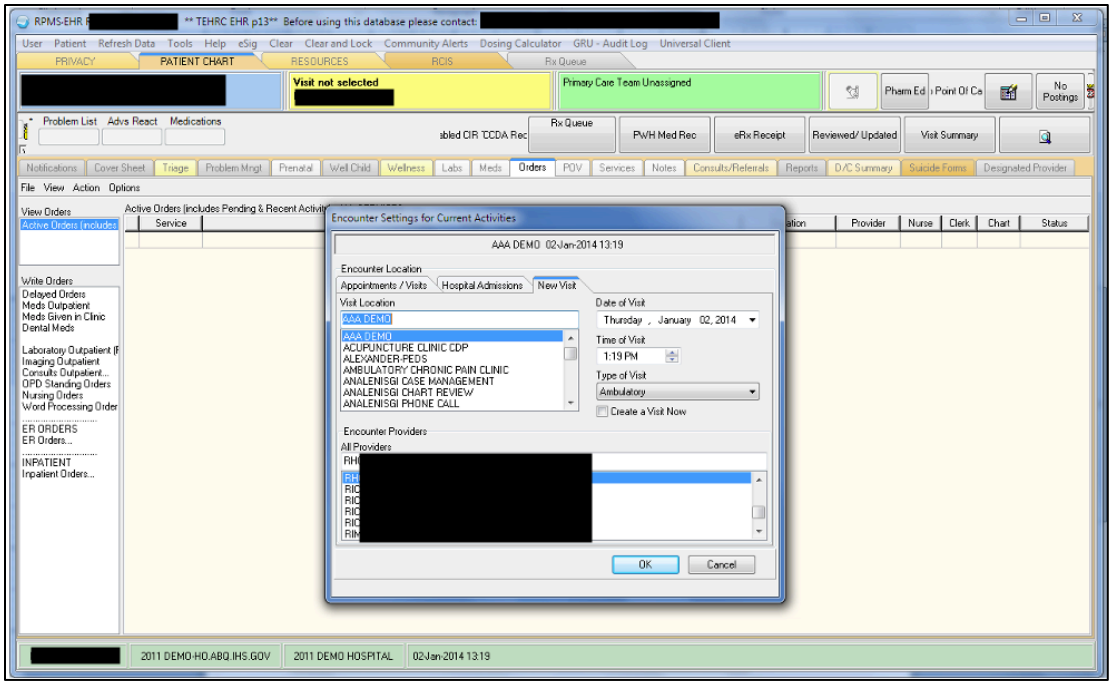


Figure 10-2: Creating a Visit

Once the visit has been created, the provider may select the **Order** tab and select the menu that has been defined for Radiology/Nuclear Medicine procedures. In Figure 10-3, the provider may select from several types of imaging.

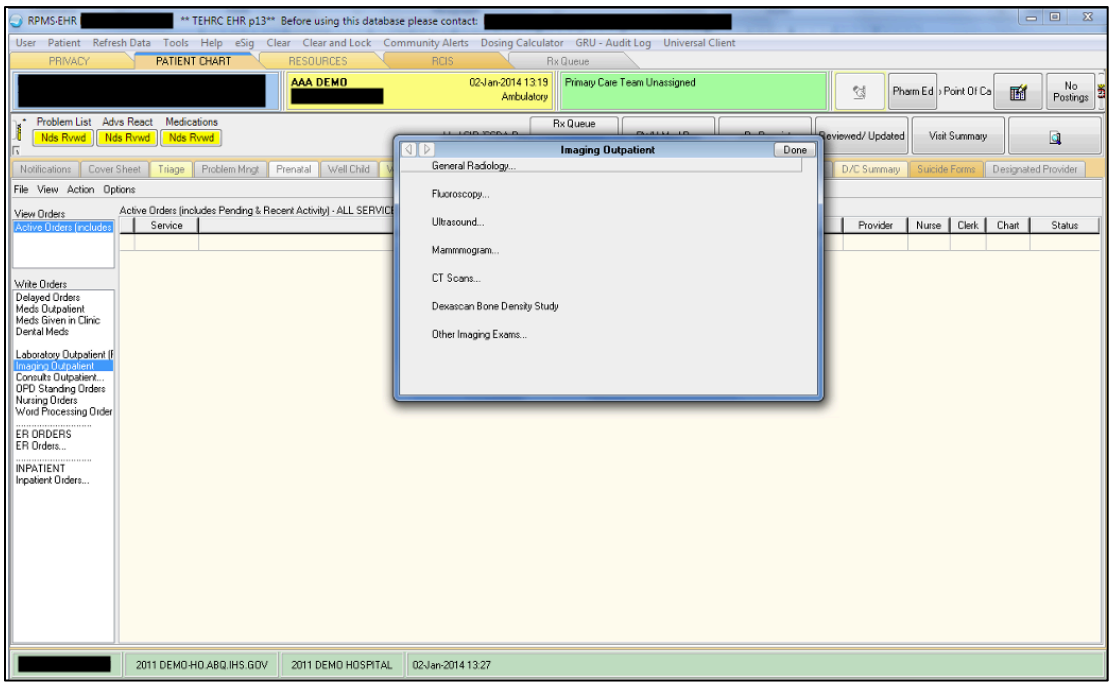


Figure 10-3: Selecting an Imaging type for order

After selecting the Imaging Type, the provider may choose a procedure listed as available under that menu.

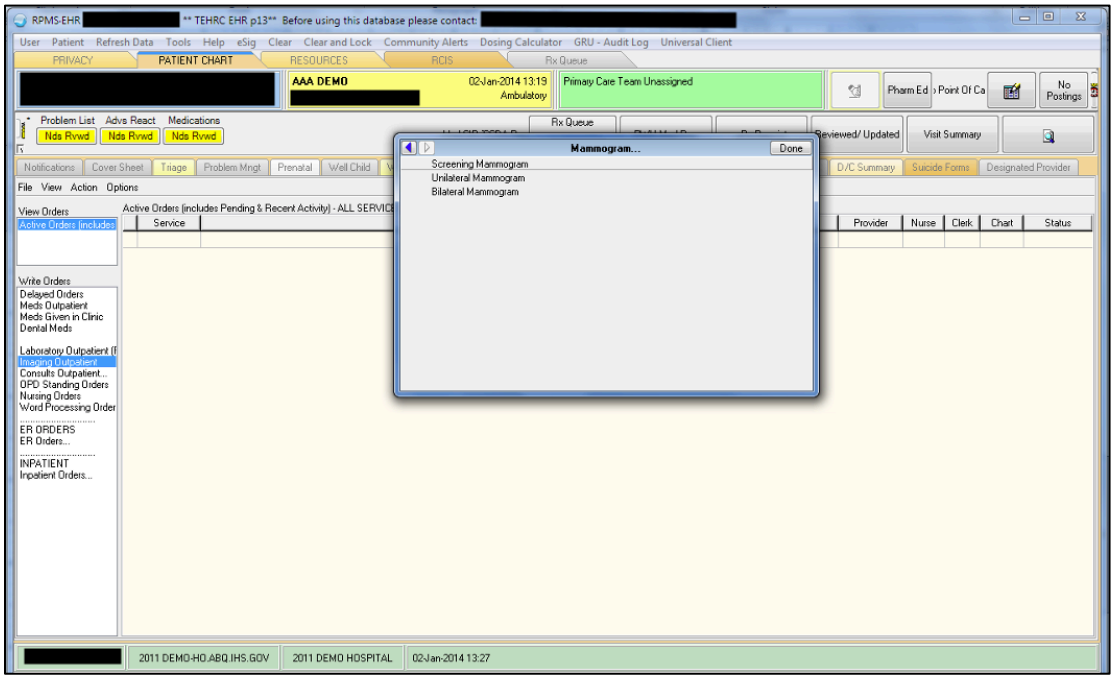


Figure 10-4: Selecting a procedure from the menu

After selecting the procedure, the provider must enter both the **Reason for the Exam** and the **Clinical History**. One or more procedure modifiers may be used and if the patient is a female of childbearing age, pregnancy status entered. The desired date of the exam must also be entered. If the quick orders have been configured completely, most of the fields will be pre-filled.

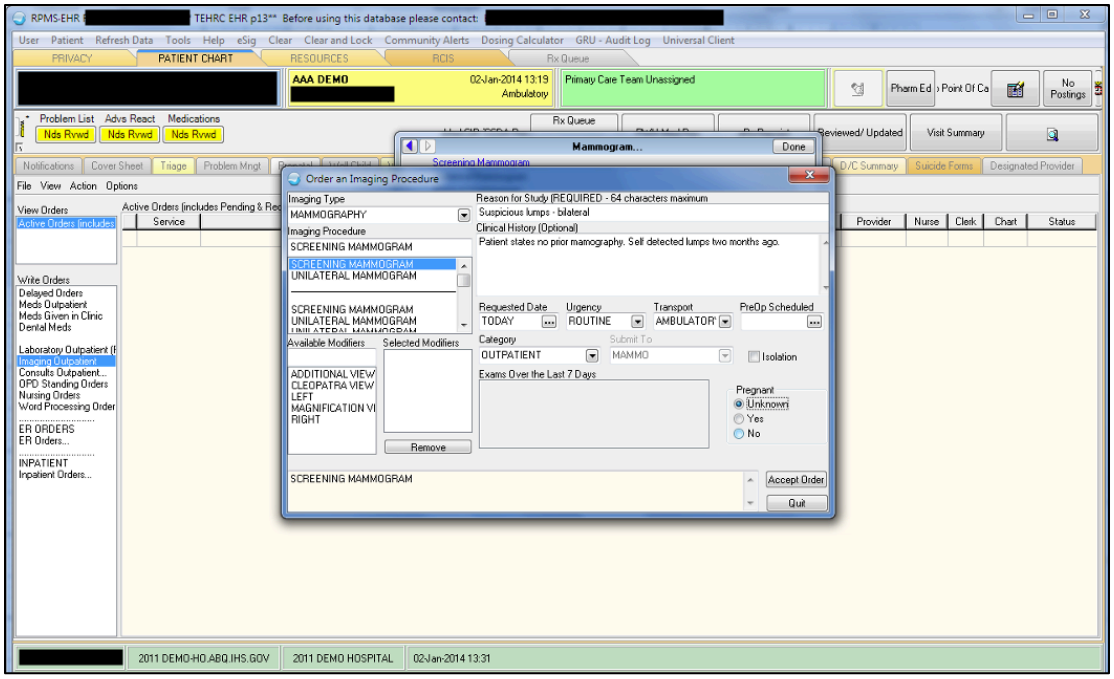


Figure 10-5: Completing order details

When the required fields have been completed, the provider may click **Accept Order** and then **Done** to close the menu.

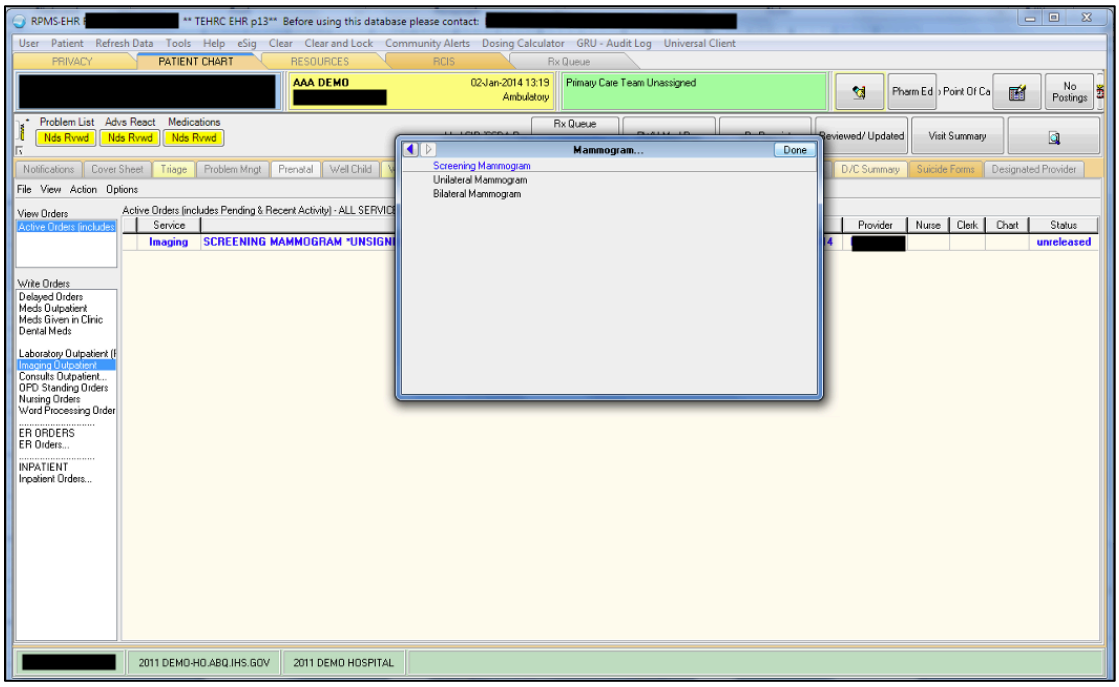


Figure 10-6: Closing the order menu box and unsigned order on order tab in EHR

The order **Status** is unreleased and cannot be accessed by staff in the Radiology department until the provider signs the order electronically.

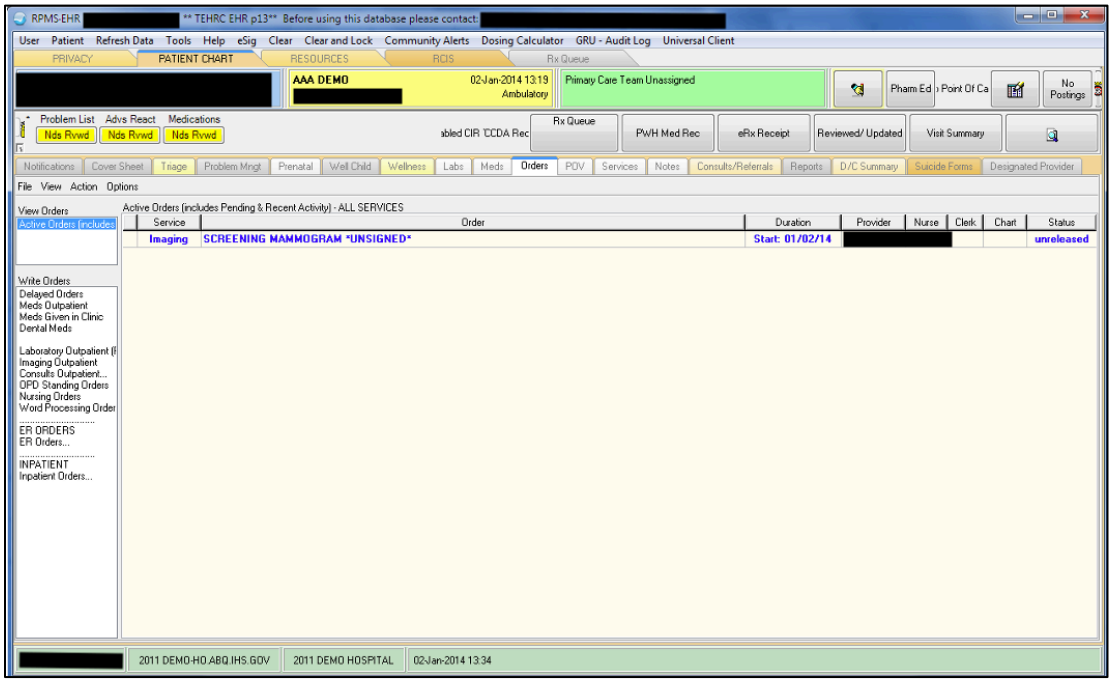


Figure 10-7: Unsigned order

To sign an electronic order, the provider must highlight the order to be signed and then right click on the other to be signed or click on the toolbar icon of a hand holding a pencil (). If the provider right-clicks on the order, one of the options is **Sign Selected**.

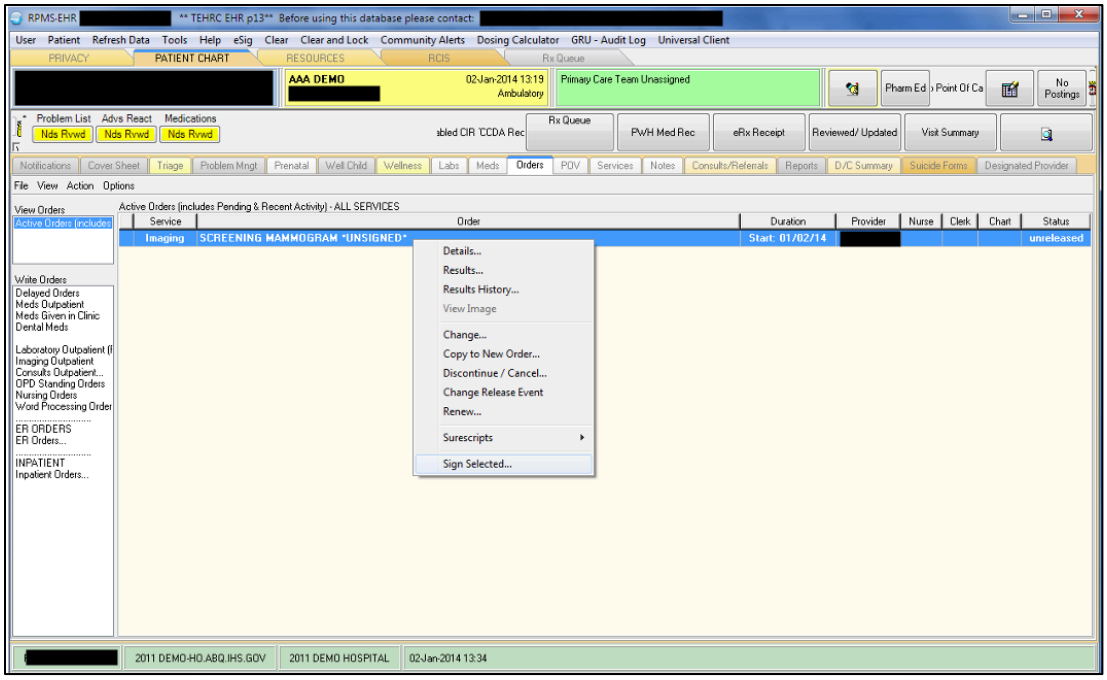


Figure 10-8: Highlighted order with option to sign

Finally, the provider to enter his/her electronic signature code and click **Sign**. When completed, the status of the order goes from unreleased to pending. The order is now available for Radiology staff to act.

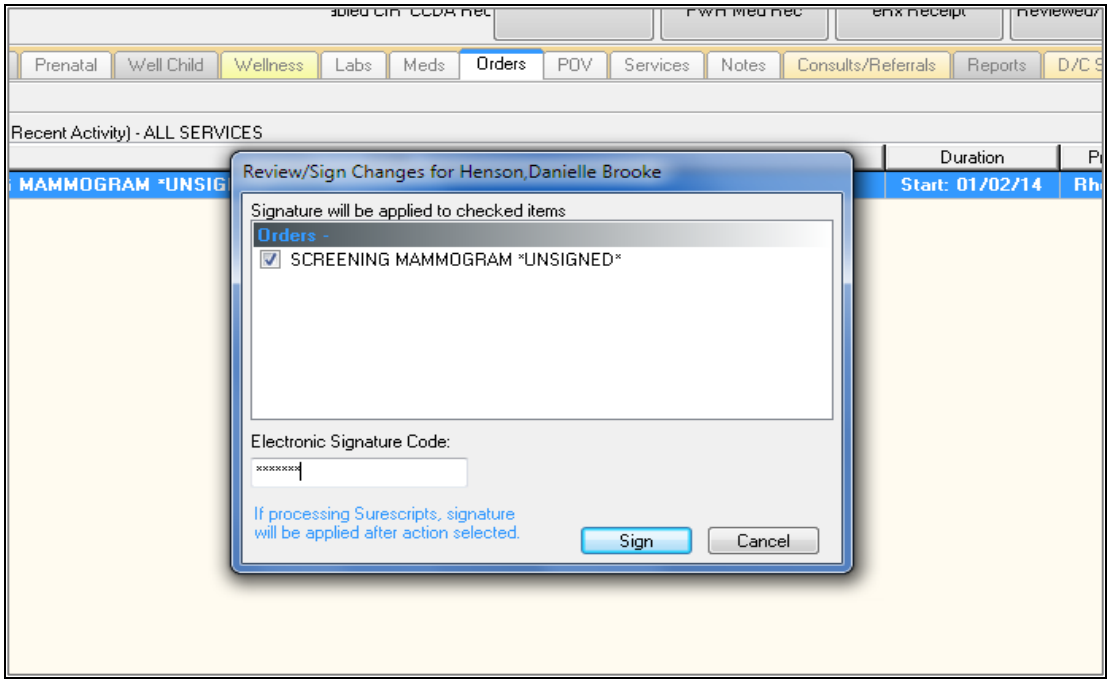


Figure 10-9: Electronically signing the order

10.3 Cancel a Request

A request can be cancelled by the ordering provider for varying reasons by the Radiology department. A request may be cancelled as follows:

```
RAD    Rad/Nuc Med Total System Menu ...
Radiology/Nuclear Med Order Entry Menu ...
Cancel a Request

Select Radiology/Nuclear Med Order Entry Menu Option: CANCEL a Request

Select PATIENT NAME:
  DEMO,PATIENT SJ                       F 08-10-19XX XXX-XX-0983    WW 999984

               **** Requested Exams for DEMO,PATIENT SJ     ****   2  Requests
    St  Urgency  Procedure / (Img. Loc.)    Desired     Requester    Req'g Loc
    --  -------  -------------------------  ----------  -----------  -----------
 1  p   ROUTINE  MAMMOGRAM G0204            12/29/2013  PROVIDER,DO  MAMMOGRAPHY
                 (MAMMOGRAPHY)
 2  p   ROUTINE  CHEST SINGLE VIEW          12/18/2013  PROVIDER,DO  RADIOLOGY W
                 (RADIOLOGY)

Select Request(s) 1-2 to Cancel or '^' to Exit:  Exit// 1

Select CANCEL REASON: ?
 Answer with RAD/NUC MED REASON, or NUMBER, or SYNONYM
 Do you want the entire RAD/NUC MED REASON List? Y  (Yes)
   Choose from:
   1            ANESTHESIA CONSULT NEEDED                    Synonym: ANES
   6            CONFLICT OF EXAMINATIONS                     Synonym: CON
   7            DUPLICATE REQUESTS                           Synonym: DUP
   8            INADEQUATE CLINICAL HISTORY                  Synonym: INAD
   13           PATIENT CONSENT DENIED                       Synonym: PCD
   14           PATIENT EXPIRED                              Synonym: EXP
   17           REQUESTING PHYSICIAN CANCELLED               Synonym: REQ
   19           WRONG EXAM REQUESTED                         Synonym: WRN
   20           EXAM CANCELLED                               Synonym: CAN
   21           EXAM DELETED                                 Synonym: DEL
   22           CALLED-WARD DID NOT SEND                     Synonym:
   23           RESCHEDULED                                  Synonym: RSCH
   24           DID NOT KEEP APPT                            Synonym: DNKA
   25           PATIENT NOT PROPERLY PREP'D                  Synonym: NOPREP
   26           PATIENT CANCELLED EXAM                       Synonym: PTCAN
   27           RADIOLOGIST CANCELLED EXAM                   Synonym: RADCAN
   28           EQUIPMENT FAILURE                            Synonym: EQ
   29           WRONG PATIENT REQ'D                          Synonym: WRGPT

Select CANCEL REASON: PCD  PATIENT CONSENT DENIED           Synonym: PCD
   ...will now 'CANCEL' selected request(s)...
          ...MAMMOGRAM G0204 cancelled...

   Task 5539893: cancellation queued to print on device
```

Figure 10-10: Cancel a request for an exam

10.4 Detailed Request Display

A detailed request display may be selected if a copy of a Requisition is needed or in troubleshooting to determine what action was taken by what staff member.

```
RAD    Rad/Nuc Med Total System Menu ...
Radiology/Nuclear Med Order Entry Menu ...
Detailed Request Display

Select Radiology/Nuclear Med Order Entry Menu Option: DETAILED Request Display

Select PATIENT NAME:
  DEMO,PATIENT SJ                       F 08-10-19XX XXX-XX-0983    WW 999984



Select Rad/Nuc Med Location: All//

Another one (Select/De-Select):

Imaging Location(s) included:   MAMMOGRAPHY   RADIOLOGY   Unknown


               **** Requested Exams for DEMO PATIENT ****   9  Requests
    St  Urgency  Procedure / (Img. Loc.)    Desired     Requester    Req'g Loc
    --  -------  -------------------------  ----------  -----------  -----------
 1  dc  ROUTINE  MAMMOGRAM G0204            12/29/2013  PROVIDOR,D   MAMMOGRAPHY
                 (MAMMOGRAPHY)
 2  p   ROUTINE  CHEST SINGLE VIEW          12/18/2013  PROVIDOR,D   RADIOLOGY W
                 (RADIOLOGY)
 3  c   ROUTINE  CHEST 2 VIEWS PA&LAT       12/06/2013  PROVIDOR,D   63 RADIOLOG
                 (RADIOLOGY)
 4  c   ROUTINE  HIP 2 OR MORE VIEWS        12/06/2013  PROVIDOR,D   63 RADIOLOG
                 (RADIOLOGY)
 5  c   ROUTINE  ANKLE 3 OR MORE VIEWS      08/28/2003  PROVIDOR,MO  01 GENERAL
                 (RADIOLOGY)
 6  c   ROUTINE  UROGRAM INTRAVENOUS        09/02/2001  PROVIDOR,DI  30 EMERGENC
                 (UNKNOWN)
 7  dc  ROUTINE  UROGRAM INTRAVENOUS        09/02/2001  PROVIDOR,G   30 EMERGENC
                 (UNKNOWN)
 8  c   ROUTINE  ABDOMEN 1 VIEW             09/01/2001  PROVIDOR,G   30 EMERGENC
                 (UNKNOWN)

                      **** Detailed Display ****

Name: DEMO,PATIENT SJ    (999984)         Date of Birth: AUG 10,19XX
------------------------------------------------------------------------------
Requested : MAMMOGRAM G0204                       (MAM Detailed G0204)

Current Status:       DISCONTINUED (dc)
Requester:            DEMO,USER 3
 Tel/Page/Dig Page: Unknown
Patient Location:     MAMMOGRAPHY
Entered:              Dec 29, 2013 11:24 am  by DEMO,USER 3
Pregnant at time of order entry: UNKNOWN
Desired Date:         Dec 29, 2013
Cancelled:            Dec 29, 2013 11:25 am  by DEMO,USER 3
Transport:            AMBULATORY
Reason for Study: ANNUAL
```

```
Clinical History:     ANNUAL EXAM

Reason Cancelled:     PATIENT CONSENT DENIED
Request Submitted to: MAMMOGRAPHY

Do you wish to display request status tracking log? NO//
```

Figure 10-11: Detailed Request Display

10.5 Print Selected Requests by Patient

This option may be used to see the history of Radiology orders and exams for a patient.

The Status column (St) displays the following entries:

- p (pending)
- c (complete)
- h (on hold)
- dc (cancelled)

```
RAD    Rad/Nuc Med Total System Menu ...
Radiology/Nuclear Med Order Entry Menu ...
Print Selected Requests by Patient

Select Radiology/Nuclear Med Order Entry Menu Option: Print Selected Requests by
Patient

Select PATIENT NAME:
  DEMO,PT                          <A>   M 12-21-19XX              CH T99996

               **** Requested Exams for DEMO,BOGUS ****           9  Requests
    St  Urgency  Procedure / (Img. Loc.)    Desired     Requester    Req'g Loc
    --  -------  -------------------------  ----------  -----------  -----------
 1  p   ROUTINE  CLAVICLE                  08/16/2007  PROVIDER,TR  EMERGENCY R
                 (UNKNOWN)
 2  p   ROUTINE  CHEST 2 VIEWS PA&LAT      12/27/2006  DOC,DEMO E   EMERGENCY R
                 (UNKNOWN)
 3  p   ROUTINE  CT LUMBAR SPINE W/O CONT  2/27/2006  DOC,DEMO E   EMERGENCY R
                 (UNKNOWN)
 4  p   ROUTINE  US ECHO 2D W/ OR W/O M-MO /27/2006  DOC,DEMO E   EMERGENCY R
                 (UNKNOWN)
 5  dc  ROUTINE  CHEST SINGLE VIEW         11/14/2006  PROVIDER,F   EMERGENCY R
                 (UNKNOWN)
 6  p   ROUTINE  CHEST 2 VIEWS PA&LAT      11/08/2006  PROVIDER,E   OUTPATIENT
                 (UNKNOWN)
 7  dc  ROUTINE  CHEST 2 VIEWS PA&LAT      06/08/2006  PROVIDER,D   OUTPATIENT
                 (UNKNOWN)
 8  p   ROUTINE  CHEST 2 VIEWS PA&LAT      02/24/2006  DEMO,PRV     OUTPATIENT
                 (UNKNOWN)

Select Request(s) 1-8 to Print or '^' to Exit:  Continue// 1

Do you wish to generate a Health Summary Report? No//   NO
```

```
DEVICE: HOME//   Virtual

 >>Rad/Nuc Med Consultation for UNKNOWN<<          AUG 16,2007  11:21 Page 1
================================================================================
Name         : DEMO,PT                        Urgency    : ROUTINE
Pt ID Num    : T99996                         Transport  : AMBULATORY
Date of Birth: DEC 21,19XX                    Patient Loc: EMERGENCY ROOM
Age          : XX                             Phone Ext  :
Sex          : MALE
================================================================================

Requested:        CLAVICLE                          (RAD Detailed 73000)
Procedure Modifiers:  LEFT
Request Status:       PENDING (p)

Requester:            PROVIDER,T A DO
 Tel/Page/Dig Page: 580-326-7561 /  /
Attend Phy Current:   UNKNOWN
Prim Phy Current:     UNKNOWN
Date/Time Ordered:    Aug 16, 2007 11:20 am  by DEMO,USER 3 K
Date Desired:         Aug 16, 2007


 >>Rad/Nuc Med Consultation for UNKNOWN<<          AUG 16,2007  11:21 Page 2
================================================================================
Name         : DEMO,PT                        Urgency    : ROUTINE
Pt ID Num    : T99996                         Transport  : AMBULATORY
Date of Birth: DEC 21,19XX                    Patient Loc: EMERGENCY ROOM
Age          : XX                             Phone Ext  :
Sex          : MALE
================================================================================

Clinical History:
    FELL OFF HORSE

--------------------------------------------------------------------------------
Date Performed: _____________________     Case No.: _____________________
Technologist Initials: _________________
                                          Number/Size Films: _____________
Interpreting Phys. Initials: ___________            _____________


 >>Rad/Nuc Med Consultation for UNKNOWN<<          AUG 16,2007  11:22 Page 3
================================================================================
Name         : DEMO,PT                        Urgency    : ROUTINE
Pt ID Num    : T99996                         Transport  : AMBULATORY
Date of Birth: DEC 21,19XX                    Patient Loc: EMERGENCY ROOM
Age          : XX                             Phone Ext  :
Sex          : MALE
================================================================================
Comments:

--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------

================================================================================

 >>Rad/Nuc Med Consultation for UNKNOWN<<          AUG 16,2007  11:22 Page 4
================================================================================
```

```
Name         : DEMO,PT                          Urgency    : ROUTINE
Pt ID Num    : T99996                           Transport  : AMBULATORY
Date of Birth: DEC 21,19XX                      Patient Loc: EMERGENCY ROOM
Age          : XX                               Phone Ext  :
Sex          : MALE
================================================================================

Case #    Last 5 Procedures/New Orders Exam Date   Status of Exam  Imaging Loc.
-----    ---------------------------- ---------   --------------  ------------
          ABDOMEN MIN 3 VIEWS+CHEST                Ord 2/3/06
          CHEST 2 VIEWS PA&LAT                     Ord 2/24/06
          CHEST 2 VIEWS PA&LAT                     Ord 11/8/06
          CHEST 2 VIEWS PA&LAT                     Ord 12/27/06
          CT LUMBAR SPINE W/O CONT                 Ord 12/27/06
          US ECHO 2D W/ OR W/O M-MODE              Ord 12/27/06
          CLAVICLE                                 Ord 8/16/07

     No registered exams filed for this patient.

================================================================================
```

Figure 10-12: Print Selected Request by Patient

10.6 Print Rad/Nuc Med Requests by Date

In order to determine the workload for the day, a request to print the Radiology Requests is required. A request may be as follows:

```
RAD    Rad/Nuc Med Total System Menu ...
Radiology/Nuclear Med Order Entry Menu ...
Print Rad/Nuc Med Requests by Date

Select Radiology/Nuclear Med Order Entry Menu Option:  Print Rad/Nuc Med Requests by
Date

Request Status Selection
------------------------
  Choose one of the following:
          Discontinued
          Complete
          Hold
          Pending
          Request Active
          Scheduled
          All Current Orders

  Select Status: Pending//


Date Criteria Selection
-----------------------

     Select one of the following:

          E         ENTRY DATE OF REQUEST
          D         DESIRED DATE FOR EXAM

Date criteria to use for choosing requests to print: E// DESIRED DATE FOR EXAM

**** Date Range Selection ****
```

```
   Beginning DATE : T  (AUG 16, 2007)

   Ending    DATE : T  (AUG 16, 2007)

Print HEALTH SUMMARY for each patient? NO


DEVICE: HOME//   Virtual

 >>Rad/Nuc Med Consultation for UNKNOWN<<           AUG 16,2007  11:22 Page 1
===============================================================================
Name          : DEMO,PT                        Urgency    : ROUTINE
Pt ID Num     : T99996                         Transport  : AMBULATORY
Date of Birth: DEC 21,19XX                     Patient Loc: EMERGENCY ROOM
Age           : XX                             Phone Ext  :
Sex           : MALE
===============================================================================

Requested:        CLAVICLE                            (RAD Detailed 73000)
Procedure Modifiers:  LEFT
Request Status:       PENDING (p)

Requester:            PROVIDER,T A DO
 Tel/Page/Dig Page: 580-326-7561 /  /
Attend Phy Current:   UNKNOWN
Prim Phy Current:     UNKNOWN
Date/Time Ordered:    Aug 16, 2007 11:20 am  by DEMO,USER 3 K
Date Desired:         Aug 16, 2007


 >>Rad/Nuc Med Consultation for UNKNOWN<<           AUG 16,2007  11:22 Page 2
===============================================================================
Name          : DEMO,PT                         Urgency    : ROUTINE
Pt ID Num     : T99996                         Transport  : AMBULATORY
Date of Birth: DEC 21,19XX                     Patient Loc: EMERGENCY ROOM
Age           : XX                             Phone Ext  :
Sex           : MALE
===============================================================================

Clinical History:
    FELL OFF HORSE

-------------------------------------------------------------------------------
Date Performed: _____________________      Case No.: _____________________
Technologist Initials: _________________
                                           Number/Size Films: _____________
Interpreting Phys. Initials: ___________                      _____________
                                                              _____________


 >>Rad/Nuc Med Consultation for UNKNOWN<<           AUG 16,2007  11:22 Page 3
===============================================================================
Name          : DEMO,PT                        Urgency    : ROUTINE
Pt ID Num     : T99996                         Transport  : AMBULATORY
Date of Birth: DEC 21,19XX                     Patient Loc: EMERGENCY ROOM
Age           : XX                             Phone Ext  :
Sex           : MALE
===============================================================================
Comments:

-------------------------------------------------------------------------------
```

```
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------

================================================================================


 >>Rad/Nuc Med Consultation for UNKNOWN<<           AUG 16,2007  11:22 Page 4
================================================================================
Name          : DEMO,PT                        Urgency    : ROUTINE
Pt ID Num     : T99996                         Transport  : AMBULATORY
Date of Birth: DEC 21,19XX                     Patient Loc: EMERGENCY ROOM
Age           : XX                             Phone Ext  :
Sex           : MALE
================================================================================

Case #    Last 5 Procedures/New Orders Exam Date   Status of Exam  Imaging Loc.
------    ---------------------------- ---------   --------------  ------------
          ABDOMEN MIN 3 VIEWS+CHEST                Ord 2/3/06
          CHEST 2 VIEWS PA&LAT                     Ord 2/24/06
          CHEST 2 VIEWS PA&LAT                     Ord 11/8/06
          CHEST 2 VIEWS PA&LAT                     Ord 12/27/06
          CT LUMBAR SPINE W/O CONT                 Ord 12/27/06
          US ECHO 2D W/ OR W/O M-MODE              Ord 12/27/06
          CLAVICLE                                 Ord 8/16/07

     No registered exams filed for this patient.
```

Figure 10-13: Print Rad/Nuc Med Requests by Date

11.0 Exam Entry/Edit Menu

11.1 Register Patient for Exams

All exams to be processed through the Radiology department must begin with registering the patient for the exam. This is distinct from Patient Registration in that it creates an entry in the Radiology/Nuclear Medicine Patient file. This indicates that the patient is present, and the exam will be performed. Depending on how the Location Parameters have been set, some sites may choose to register patients in advance of their exams to prevent a backlog of scheduled procedures.

At small sites that do not have radiology services on site, this option may be deferred until a report comes back from the performing site indicating that a patient was present for the exam.

Note that the Case Number is created at the time a patient is registered for an exam. While case numbers may appear on the screen as a numeric value (5, 35, 234, etc.), case numbers are unique numbers identified by the date of service and the case number. For example, a case displaying as 5 when a patient is registered is actually case 122913-5 if the date is 12/29/13.

Many interfaces for modality worklists are triggered by the Register Patient for an Exam step.

```
RAD    Rad/Nuc Med Total System Menu ...
Exam Entry/Edit Menu ...
Register Patient for Exams
```

> **Note**: You can either start at this point by entirely skipping the Request an Exam option or proceed with processing an exam that has already been requested.

Exam Not Already Requested

```
Select Exam Entry/Edit Menu Option: REG  Register Patient for Exams


Select Patient: DEMO,PA
   1    DEMO,PATIENT B              <CA>   F 01-28-19XX 000005555     CH 999999
   2    DEMO,PATIENT PRIVATE        <CWAD> F 12-31-19XX 000003175P    CH 999996
CHOOSE 1-2: 1
  DEMO,PATIENT B                    <CA>   F 01-28-19XX 000005555    CH 999999
         ...OK? Yes//   (Yes)

           ***********    Patient Demographics   ***********

  Name         : DEMO,PATIENT B
  Pt ID        : 999999
  Date of Birth: JAN 28,19XX (XX)
  Veteran      : Yes                  Eligibility : Unknown
```

```
  Sex          : FEMALE
  Other Allergies:
       'V' denotes verified allergy   'N' denotes non-verified allergy

  CODEINE(V)                            CIPROFLOXACIN(V)
  METHOTREXATE(V)                       CHOCOLATE(V)
  METFORMIN HYDROCHLORIDE(V)            AZITHROMYCIN(V)
  TAPE,PAPER(V)                         TAPE,COTTON(V)
  OTHER ALLERGY/ADVERSE REACTION(V)     ASPIRIN(V)
  TETANUS TOXOID(V)                     PENICILLIN(V)
  PAXIL(V)                              ALPHAGAN 0.2% OPH SOLN(V)
  FIBERGLASS(V)

Case #    Last 5 Procedures/New Orders Exam Date   Status of Exam  Imaging Loc.
------    ---------------------------- ---------   --------------  ------------
1904      KNEE 3 VIEWS                 NOV 26,2006 CANCELLED       MEDICAL IMAG


Case #    Last 5 Procedures/New Orders Exam Date   Status of Exam  Imaging Loc.
------    ---------------------------- ---------   --------------  ------------
2449      SPINE LUMBOSACRAL MIN 4 VIEW NOV  8,2006 CANCELLED       MEDICAL IMAG
9804      U/S ECHO DOPPLER             SEP 15,2006 WAITING FOR     MEDICAL IMAG
286       ECHOGRAM ABDOMEN LTD         FEB 13,2006 EXAMINED        IDABEL IM
          ANKLE 2 VIEWS                SEP 12,2005 COMPLETE        MEDICAL IMAG
          CHEST 2 VIEWS PA&LAT                     Ord 3/4/03
          CT ABDOMEN W/CONT                        Ord 12/12/03
          CHEST SINGLE VIEW                        Ord 3/23/05
          'FETAL BIOPHYSICAL PROFILE U             Ord 5/19/06
          ELBOW 3 OR MORE VIEWS                    Ord 12/21/06

Imaging Exam Date/Time: NOW//   (AUG 16, 2007@11:25)

                **** Requested Exams for DEMO,PATIENT BOGUS ****   5  Requests
    St  Urgency  Procedure / (Img. Loc.)    Desired     Requester    Req'g Loc
    --  -------  -----------------------  ----------  -----------  -----------
 1  p   ROUTINE  ELBOW 3 OR MORE VIEWS      12/21/2006  PROVIDER,BR  GOODMAN
                 (UNKNOWN)
 2  p   ROUTINE  'FETAL BIOPHYSICAL PROFIL  05/19/2006  DOCTOR,A     EMERGENCY R
                 (UNKNOWN)
 3  p   ROUTINE  CHEST SINGLE VIEW          03/23/2005  DOCTOR,P Y   MED/SURG
                 (UNKNOWN)
 4  p   ROUTINE  CT ABDOMEN W/CONT          12/12/2003  PROVIDER,A   INPATIENT
                 (UNKNOWN)
 5  h   ROUTINE  HAND 3 OR MORE VIEWS       04/02/2003  PROVIDER,M   POTEAU
                 (UNKNOWN)

(Use  Pn  to replace request 'n' with a Printset procedure.)
Select Request(s) 1-5 or '^' to Exit:  Exit//

  Do you want to Request an Exam for DEMO,PATIENT BOGUS? No// If you answer yes at
this point, you will be prompted to select requesting provider, requesting location,
procedure, and other items that are normally provided if an exam is electronically
ordered.
```

Figure 11-1: Registering a patient for an exam that has not already been requested

Registering a Patient with an Electronically Requested Exam

```
Select Patient: DEMO,P
   1    DEMO,PATIENT BOGUS          <CA>   F 01-28-19XX 000005555    CH 999999
   2    DEMO,PATIENT PRIVATE        <CWAD> F 12-31-19XX 000003175P   CH 999996
```

```
CHOOSE 1-2: 2
  DEMO,PATIENT PRIVATE              <CWAD> F 12-31-19XX 000003175P    CH 999996
         ...OK? Yes//   (Yes)

           ***********    Patient Demographics   ***********

  Name         : DEMO,PATIENT PRIVATE
  Pt ID        : 999996
  Date of Birth: DEC 31,19XX (XX)
  Veteran      : No                    Eligibility : Unknown
  Sex          : FEMALE
  Other Allergies:
       'V' denotes verified allergy   'N' denotes non-verified allergy

  AZITHROMYCIN(V)                       METFORMIN HYDROCHLORIDE(V)
  CHOCOLATE(V)                          CHLOSTEROL(V)
  SUGAR SNACKS(V)                       IBUPROFEN(V)
  ASPIRIN(V)                            CIPROFLOXACIN(V)
  METHOTREXATE(V)                       SULFAMETHOXAZOLE/TRIMETHOPRIM(V)
  MILK(V)                               SHRIMP(V)
  STRAWBERRIES(V)                       AMOXICILLIN 125 MG/5 CC(V)

Case #    Last 5 Procedures/New Orders Exam Date   Status of Exam  Imaging Loc.
------    ---------------------------- ---------   --------------  ------------
          CLAVICLE                                 Ord 12/10/04

Case #    Last 5 Procedures/New Orders Exam Date   Status of Exam  Imaging Loc.
------    ---------------------------- ---------   --------------  ------------

     No registered exams filed for this patient.


Imaging Exam Date/Time: NOW//   (AUG 16, 2007@11:25)

                **** Requested Exams for DEMO,PATIENT PRIVATE ****  1 Requests
    St  Urgency  Procedure / (Img. Loc.)    Desired     Requester    Req'g Loc
    --  -------  -------------------------  ----------  -----------  -----------
 1  p   ROUTINE  CLAVICLE                   12/10/2004  PROVIDER,ST  OPD-FAMILY
                 (UNKNOWN)

(Use  Pn  to replace request 'n' with a Printset procedure.)
Select Request(s) 1-1 or '^' to Exit:  Exit// 1

     Procedure: CLAVICLE

   ...will now register DEMO,PATIENT PRIVATE with the next case number...  (AUG
16, 2007@11:25)

    Case Number: 8977
    ----------------
    PROCEDURE: CLAVICLE//                              (RAD  Detailed) CPT:73000

    Select PROCEDURE MODIFIERS: BILATERAL EXAM
  Are you adding 'BILATERAL EXAM' as
    a new PROCEDURE MODIFIERS (the 1ST for this EXAMINATIONS)? No// Y  (Yes)
    Select PROCEDURE MODIFIERS:
    CATEGORY OF EXAM: OUTPATIENT//   OUTPATIENT
    PRINCIPAL CLINIC: OPD-FAMILY PRACTICE//
      TECHNOLOGIST COMMENT:
```

Figure 11-2: Registering a patient with an electronically requested exam

11.2 Edit Exam by Patient

After an exam has been performed, the next step is to edit the exam, either by case number or by patient. This indicates that the exam has been performed and in the cases of interfaces should perform several functions:

- Clear the exam from the modality worklist.
- Send an examined message to the PACS or VISTA Imaging workstation.
- In the case of a small site which performs no on-site Radiology, this step may be deferred until a report is received back from the referral site.
- When editing an exam, it is important to enter all required fields. A message confirming a successful update of an exam that has been edited will display (Figure 11-3).

```
  ...will now designate exam status as 'EXAMINED'... for case no. 8977
STATUS CHANGE DATE/TIME: AUG 16,2007@11:27//
          ...exam status successfully updated.
```

Figure 11-3: Successful update of an exam that has been edited

If the Division Parameters have been set to pass Radiology procedures to PCC at examined, the exam should be viewable in PCC at this point.

```
RAD    Rad/Nuc Med Total System Menu ...
Exam Entry/Edit Menu ...
Edit Exam by Patient

Select Exam Entry/Edit Menu Option: EDIT Exam by Patient

Select Patient:    DEMO,PATIENT PRIVATE
                        **** Edit Exams By Patient ****

Patient's Name: DEMO,PATIENT PRIVATE  999996           Run Date: AUG
16,2007

   Case No.  Procedure                 Exam Date  Status of Exam   Imaging
Loc
   --------  -------------             ---------  ---------------- --------
---
1     8977   CLAVICLE                  08/16/07   WAITING FOR EXAM MEDICAL
IMA
Type a '^' to STOP, or
CHOOSE FROM 1-1: 1

Case No.:8977  Procedure:CLAVICLE                    Date:AUG 16,2007
11:25
                        (RAD  Detailed) CPT:73000
  LAST MENSTRUAL PERIOD:
  PRIMARY MEANS OF BIRTH CONTROL:
  LAST NEGATIVE HCG TEST:
    PROCEDURE: CLAVICLE//
    Select PROCEDURE MODIFIERS: BILATERAL EXAM//
    Select CPT MODIFIERS:
    CATEGORY OF EXAM: OUTPATIENT//
```

```
    PRINCIPAL CLINIC: OPD-FAMILY PRACTICE//
    REQUESTING PHYSICIAN: PROVIDER,S A MD//
    Select TECHNOLOGIST: DEMO,TECH L RTCT       HLC          859HLC
RADIO
LOGY TECHNOLOGIST
    Select TECHNOLOGIST:
    TECHNOLOGIST COMMENT:
    COMPLICATION: NO COMPLICATION//
    PRIMARY CAMERA/EQUIP/RM: r1       GE ADVANX
    Select FILM SIZE: 8x10//
      FILM SIZE: 8x10//
      AMOUNT(#films or cine ft): 2//
      NUMBER OF REPEATS: 0
    Select FILM SIZE:
    CLINICAL HISTORY FOR EXAM:
  1>PAIN
EDIT Option:
   ...will now designate exam status as 'EXAMINED'... for case no. 8977
STATUS CHANGE DATE/TIME: AUG 16,2007@11:27//
          ...exam status successfully updated.
```

Figure 11-4: Edit Exam by Patient

11.3 Case No. Exam Edit

The **Case No. Exam Edit** option offers the same functionality as **Edit Exam by Patient**. It is critical to enter all required fields to ensure that the exam status was successfully updated. If the Division Parameters have been set to pass Radiology procedures to PCC at examined, the exam should be viewable in PCC at this point.

```
RAD    Rad/Nuc Med Total System Menu ...
Exam Entry/Edit Menu ...
Case No. Exam Edit

Select Exam Entry/Edit Menu Option: case No. Exam Edit

Enter Case Number: 080704-729

Choice Case No.         Procedure                 Name
Pt ID
------ ---------------  ---------                 -----------------       -
-----
 1     080704-729       CHEST 2 VIEWS PA&LAT      DEMO,PATIENT MI  999987
                        (RAD  Detailed) CPT:71020
    PROCEDURE: CHEST 2 VIEWS PA&LAT//
    CONTRAST MEDIA USED: NO//   NO
    Select PROCEDURE MODIFIERS:
    Select CPT MODIFIERS:
    CATEGORY OF EXAM: OUTPATIENT//
    PRINCIPAL CLINIC: 30 EMERGENCY MEDICINE//
    REQUESTING PHYSICIAN: PROVIDER,R E//
    Select TECHNOLOGIST: student,one  STUDENT,ONE
    Select TECHNOLOGIST:
    TECHNOLOGIST COMMENT:
    COMPLICATION: NO COMPLICATION//

    PRIMARY CAMERA/EQUIP/RM: 1       RADIOLOGY - ROOM 1
    Select FILM SIZE: DIGITAL
```

```
      AMOUNT(#films or cine ft): 2
    Select FILM SIZE: W-DIGITAL
      AMOUNT(#films or cine ft): 1
    Select FILM SIZE:
   ...will now designate exam status as 'EXAMINED'... for case no. 729
STATUS CHANGE DATE/TIME: DEC 29,2013@13:27//
          ...exam status successfully updated.
```

Figure 11-5: Case No. Exam Edit option

11.4 Cancel an Exam

The **Cancel an Exam** option differs from the **Cancel a Request** option in that the patient has already been registered for the exam and a case number has been generated. Note that when canceling an exam, the user will be asked if they also wish to cancel the request for an exam. If the patient will subsequently be having the exam and it must be deferred for some reason, do not cancel the request.

Note that exams to be cancelled may be entered by case number, patient name, or patient chart number.

```
RAD    Rad/Nuc Med Total System Menu ...
Exam Entry/Edit Menu ...
Cancel an Exam

Select Exam Entry/Edit Menu Option: cancel an Exam

Enter Case Number: DEMO,PATIENT A        F 04-07-19XX XXX-XX-8134    DH
999985
                         **** Case Lookup by Patient ****

Patient's Name: DEMO,PATIENT A  999985             Run Date: DEC 29,2013

   Case No.  Procedure                   Exam Date  Status of Exam
Imaging Loc
   --------  -------------               ---------  ---------------- ------
-----
1     746    ACUTE ABDOMEN               08/07/04   WAITING FOR EXAM
RADIOLOGY
2     837    HIP 2 OR MORE VIEWS         02/20/04   COMPLETE
RADIOLOGY
3     799    SPINE CERVICAL MIN 2 VIEWS  03/21/03   COMPLETE
RADIOLOGY
4     433    CHEST 2 VIEWS PA&LAT        02/05/03   COMPLETE
RADIOLOGY
5     470    SHOULDER 2 OR MORE VIEWS    11/10/01   COMPLETE
RADIOLOGY
6     52     PELVIC U/S                  04/23/01   COMPLETE
RADIOLOGY
7     430    ABDOMEN FLAT & UPRIGHT      04/21/01   COMPLETE
RADIOLOGY
8     459    FINGER(S) 2 OR MORE VIEWS   12/09/00   COMPLETE
RADIOLOGY
9     504    ABDOMEN FLAT & UPRIGHT      10/07/00   COMPLETE
RADIOLOGY
10    749    ABDOMEN FLAT & UPRIGHT      05/04/00   CANCELLED
RADIOLOGY
```

```
11    696    PELVIC U/S                  04/14/00   COMPLETE
RADIOLOGY
12    613    PELVIC U/S                  03/16/00   COMPLETE
RADIOLOGY
13    497    PELVIC U/S                  03/15/00   COMPLETE
RADIOLOGY
14    474    ECHOGRAM ABDOMEN LTD        03/15/00   COMPLETE
RADIOLOGY
Type a '^' to STOP, or


Do you wish to cancel this exam now? NO// Y
      ...exam status backed down to 'CANCELLED'
      STATUS CHANGE DATE/TIME: DEC 29,2013@13:09//
      TECHNOLOGIST COMMENT: PT TRANSPORTED OUT
    REASON FOR CANCELLATION: ?
     This field points to the 'RAD/NUC MED REASON' file to indicate the
reason
     the exam was cancelled.
     Type of Reason must equal CANCEL REQUEST or GENERAL REQUEST.
 Answer with RAD/NUC MED REASON, or NUMBER, or SYNONYM
 Do you want the entire RAD/NUC MED REASON List? Y  (Yes)
   Choose from:
   1            ANESTHESIA CONSULT NEEDED                    Synonym: ANES
   6            CONFLICT OF EXAMINATIONS                     Synonym: CON
   7            DUPLICATE REQUESTS                           Synonym: DUP
   8            INADEQUATE CLINICAL HISTORY                  Synonym: INAD
   13           PATIENT CONSENT DENIED                       Synonym: PCD
   14           PATIENT EXPIRED                              Synonym: EXP
   17           REQUESTING PHYSICIAN CANCELLED               Synonym: REQ
   19           WRONG EXAM REQUESTED                         Synonym: WRN
   20           EXAM CANCELLED                               Synonym: CAN
   21           EXAM DELETED                                 Synonym: DEL
   22           CALLED-WARD DID NOT SEND                     Synonym:
   23           RESCHEDULED                                  Synonym: RSCH
   24           DID NOT KEEP APPT                            Synonym: DNKA
   25           PATIENT NOT PROPERLY PREP'D                  Synonym: NOPREP
   26           PATIENT CANCELLED EXAM                       Synonym: PTCAN
   27           RADIOLOGIST CANCELLED EXAM                   Synonym: RADCAN
   28           EQUIPMENT FAILURE                            Synonym: EQ
   29           WRONG PATIENT REQ'D                          Synonym: WRGPT

    REASON FOR CANCELLATION: 27  RADIOLOGIST CANCELLED EXAM  Synonym:
RADCAN
          ...cancellation complete.

Do you want to cancel the request associated with this exam? No// Y  (Yes)

                    * Updating Women's Health Database *

          ...request status updated to discontinued.
```

Figure 11-6: Cancel an exam

11.5 Switch Locations

When working at a site that offers multiple imaging types, it may be useful to switch Imaging Locations to check on exams or perform tasks for a different Imaging Location. That can easily be accomplished by using the option Switch Locations.

```
RAD    Rad/Nuc Med Total System Menu ...
Exam Entry/Edit Menu ...
Switch Locations

Select Exam Entry/Edit Menu Option: switch Locations
Please select a sign-on Imaging Location: MAMMOGRAPHY// raDIOLOGY
(G
ENERAL RADIOLOGY-8907)
Default Flash Card Printer: HOME//   VIRTUAL TERMINAL

Default Jacket Label Printer: HOME//   VIRTUAL TERMINAL

Default Report Printer: HOME//   VIRTUAL TERMINAL


-------------------------------------------------------------------------
----
Welcome, you are signed on with the following parameters:

                                  Printer Defaults
 Version  : 5.0                   ----------------
 Division : DEMO INDIAN HOSPITAL  Flash Card  : None
 Location : RADIOLOGY                           No cards
 Img. Type: GENERAL RADIOLOGY     Jacket Label: None
 User     : DEMO,USER 3
                                  Report      : None
```

Figure 11-7: Switch Locations

11.6 Exam Status Display

It is useful during the course of a day to check on the progress and status of exams. This option allows a supervisor or other staff to quickly review to see if exams have all been accounted for during the course of the day.

```
RAD    Rad/Nuc Med Total System Menu ...
Exam Entry/Edit Menu ...
Exam Status Display

Select Exam Entry/Edit Menu Option: exam Status Display

     Current Division: DEMO INDIAN HOSPITAL
     Current Imaging Type: GENERAL RADIOLOGY


 Exam Status Tracking Module          Division: DEMO INDIAN HOSPITAL
 Date    : 12/29/13  11:58 AM         Status  : WAITING FOR EXAM
 Locations: RADIOLOGY

 Case #   Date      Patient               Procedure
Equip/Rm
 ------   ----      -------               ---------                      ---
-----
 826      07/30/04  122218-DEMO,PATIENT A NECK SOFT TISSUE              2
 828      07/30/04  103144-DEMO,PATIENT B FOOT 3 OR MORE VIEWS          4
 478      08/05/04  181649-DEMO,PATIENT C CT LUMBAR SPINE W/O CONT
 606      08/06/04  119429-DEMO,PATIENT D CT HEAD W/O CONT
 729      08/07/04  143987-DEMO,PATIENT E CHEST 2 VIEWS PA&LAT
```

```
 733      08/07/04  103740-DEMO,PATIENT F CHEST 2 VIEWS PA&LAT
 746      08/07/04  118985-DEMO,PATIENT G ACUTE ABDOMEN



 Exam Status Tracking Module           Division: DEMO INDIAN HOSPITAL
 Date    : 12/29/13  11:58 AM          Status  : EXAMINED
 Locations: RADIOLOGY

 Case #   Date      Patient                Procedure
Equip/Rm
 ------   ----      -------                ---------                      ---
-----
 745      08/07/04  106761-DEMO,.PATIENT H HAND 3 OR MORE VIEWS          2
 7        08/23/13  876-DEMO,BA            MAMMOGRAM BILATERAL           2
 1        12/06/13  213321-DEMO,PATIENT I  CLAVICLE                      1


 Exam Status Tracking Module           Division: DEMO INDIAN HOSPITAL
 Date    : 12/29/13  11:58 AM          Status  : TRANSCRIBED
 Locations: RADIOLOGY

 Case #   Date      Patient               Procedure
Equip/Rm
 ------   ----      -------               ---------                      ---
-----
 893      07/31/04  107070-DEMO,PATIENT M CHEST 2 VIEWS PA&LAT          2
 895      07/31/04  184421-DEMO,PATIENT N CHEST 2 VIEWS PA&LAT          2
 382      08/04/04  127957-DEMO,PATIENT O CT ABDOMEN W/CONT             ct
 384      08/04/04  124291-DEMO,PATIENT P CT ABDOMEN W/CONT             ct


Enter Status, (N)ext status, (C)ontinue, '^' to Stop: CONTINUE// ^
```

Figure 11-8: Exam Status Display

12.0 Films Reporting Menu

12.1 Report Entry/Edit

If reports are to be entered into the Radiology/Nuclear Medicine Package in any non-interfaced mode, they must be entered either via the Report Entry/Edit option or via the Outside Report Entry/Edit option. It may be helpful to switch the RPMS screen editor from Line Editor to Screen Editor for those who will be entering reports. Also, unless the transcriptionist is very skilled at using the RPMS editors, he/she may find it easier to create the report in notepad, word pad, WORD, or some other kind of editor before copying and pasting the report into the RPMS Radiology report fields.

When entering reports, it is critical that the user monitor the text displayed at the end of report entry to ensure that the mandatory fields have been entered and the exam status is successfully updated to either Transcribed or Complete depending upon examination status parameters.

```
RAD    Rad/Nuc Med Total System Menu ...
FILMS Reporting Menu
Report Entry/Edit

Select Rad/Nuc Med Division: All// CHOCTAW NATION HOSPITAL       OKLAHOMA TRIBE/
638       TALIHINA       01    OK            556001

Another one (Select/De-Select):

Enter Case Number: DEMO

   1    DEMO,PATIENT BOGUS           <CA>   F 01-28-1965 444335555    CH 999999
   2    DEMO,PATIENT PRIVATE         <CWAD> F 12-31-1975 662123175P    CH 999996
CHOOSE 1-2: 2
  DEMO,PATIENT PRIVATE              <CWAD> F 12-31-19XX 000003175P    CH 999996
                         **** Case Lookup by Patient ****

Patient's Name: DEMO,PATIENT PRIVATE  999996           Run Date: AUG 17,2007

   Case No.  Procedure                   Exam Date  Status of Report Imaging Loc
   --------  -------------               ---------  ---------------- -----------
1     8977   CLAVICLE                    08/16/07   None             MEDICAL IMA
Type a '^' to STOP, or
CHOOSE FROM 1-1: 1
------------------------------------------------------------------------------
 Name     : DEMO,PATIENT PRIVATE        Pt ID       : 999996
 Case No. : 8977  Exm. St: EXAMINED     Procedure   : CLAVICLE
 Exam Date: AUG 16,2007  11:25          Technologist: DEMO,TECH L RTCT
                                        Req Phys    : PROVIDER,STEPHEN A MD
------------------------------------------------------------------------------
   ...report not entered for this exam...
         ...will now initialize report entry...
  PRIMARY INTERPRETING STAFF: DEMO  TECHNICIAN K
------------------------------------------------------------------------------
Select 'Standard' Report to Copy: RGT
 Are you sure you want the 'RGT' standard report? No// Y

Do you want to add another standard to this report? No//
```

```
-------------------------------------------------------------------------------
REPORTED DATE: T  (AUG 17, 2007)
-------------------------------------------------------------------------------
CLINICAL HISTORY:
PAIN

ADDITIONAL CLINICAL HISTORY:
  1>PREVIOUS ABNORMAL FILMS FROM 2 MONTHS AGO
  2>
EDIT Option:
-------------------------------------------------------------------------------..
REPORT TEXT:
  1>RIGHT GREAT TOE:
EDIT Option:
-------------------------------------------------------------------------------
IMPRESSION TEXT:
  1>THIS IS REQUIRED FOR A REPORT TO PASS TO PCC.
  2>
EDIT Option:
-------------------------------------------------------------------------------

     Select one of the following:

          V         VERIFIED
          PD        PROBLEM DRAFT
          D         DRAFT

REPORT STATUS: D// RAFT
PRIMARY DIAGNOSTIC CODE:
   ...will now designate exam status as 'TRANSCRIBED'... for case no. 8977
STATUS CHANGE DATE/TIME: AUG 17,2007@14:23//
          ...exam status successfully updated.

Do you wish to print this report? No//
```

Figure 12-1: Report Entry/Edit

12.2 On-Line Verifying of Reports

This option allows the interpreting physician to verify reports online. To use this option, an Electronic Signature Code is required, and the user must also be assigned the RA VERIFY security key. An interpreting staff physician may verify reports associated with his/her name. If the division parameter ALLOW VERIFYING OF OTHERS is set to **YES**, the physician may also verify reports associated with other interpreting physicians.

Once verified, the legal signature may be printed in the footer of the report, provided the package coordinator has added this field to the footer.

```
RAD    Rad/Nuc Med Total System Menu ...
FILMS Reporting Menu
Report Entry/Edit

Select Films Reporting Menu Option: ON-Line Verifying of Reports


Enter your Current Signature Code:    SIGNATURE VERIFIED
```

```
Select Interpreting Physician: DEMO,USER 3 K//        DKR            COMPUTE
R SPECIALIST
There is only one report (DRAFT) to choose from.
Do you wish to review this one report? YES//

     Select one of the following:

          P         PAGE AT A TIME
          E         ENTIRE REPORT


DEMO,PATIENT PRIVATE (999996)            Case No.        : 081607-8977 @11:25
CLAVICLE                                 Transcriptionist: DEMO,USER 3 K
Req. Phys : PROVIDER,STEPHEN A MD        Pre-verified    : NO
Staff Phys: DEMO,USER 3 (P)
================================================================================
    CLAVICLE                                          (RAD  Detailed) CPT:73000
     Proc Modifiers : BILATERAL EXAM

   Clinical History:
  PAIN

   Additional Clinical History:
  PREVIOUS ABNORMAL FILMS FROM 2 MONTHS AGO

   Report:                                    Status: DRAFT
  RIGHT GREAT TOE:

   Impression:
  THIS IS REQUIRED FOR A REPORT TO PASS TO PCC.

================================================================================

  Type '?' for action list, 'Enter' to continue//

     Select one of the following:

          V         VERIFIED
          PD        PROBLEM DRAFT
          D         DRAFT

REPORT STATUS: D// VERIFIED
PRIMARY DIAGNOSTIC CODE:
     Status update queued!
```

Figure 12-2: On-line Verifying of Report

12.3 Outside Report Entry/Edit

This option allows the user to log an outside interpreted report, without having to verify it. The report entered from this option is automatically given the electronically filed report status.

```
RAD    Rad/Nuc Med Total System Menu ...
FILMS Reporting Menu
Outside Report Entry/Edit
```

```
Select Films Reporting Menu Option: outside Report Entry/Edit
   +---------------------------------------------------------+
   |                                                         |
   |  This option is for entering canned text for            |
   |  outside work:  interpreted report done outside,        |
   |  and images made outside this facility.                 |
   |                                                         |
   |  For a printset, the canned text must apply to all      |
   |  cases within the printset.                             |
   |                                                         |
   +---------------------------------------------------------+

Select Imaging Type: All//

Another one (Select/De-Select):


Enter Case Number: 729
-------------------------------------------------------------------------------
 Name     : DEMO,PATIENT B              Pt ID       : 999997
 Case No. : 729   Exm. St: EXAMINED     Procedure   : CHEST 2 VIEWS PA&LAT
 Exam Date: AUG  7,2004  17:58          Technologist: STUDENT,ONE
 Req Phys : PROVIDER,A E
-------------------------------------------------------------------------------
   ...report not entered for this exam...
          ...will now initialize report entry...
-------------------------------------------------------------------------------
Select 'Standard' Report to Copy:
REPORTED DATE: T  (DEC 29, 2013)
CLINICAL HISTORY:
Pt with high blood sugar


     ++++++++++++++++++++++++++++++++++++++++++++++++++
        Required:  REPORT TEXT and/or IMPRESSION TEXT
     ++++++++++++++++++++++++++++++++++++++++++++++++++
REPORT TEXT:
==[ WRAP ]==[ INSERT ]=============< REPORT TEXT >===========[ <PF1>H=Help ]====
This is where the report text can be copied and pasted or transcribed
from a hard copy report.




<=======T=======T=======T=======T=======T=======T=======T=======T=======T>======

IMPRESSION TEXT:

==[ WRAP ]==[ INSERT ]===========< IMPRESSION TEXT >=========[ <PF1>H=Help ]====
The Impression field is a separate field within the report and must be
entered separately.  It is usually a simple statement of exam overall
impression. However, the impression is usually required to pass an exam
to PCC.



<=======T=======T=======T=======T=======T=======T=======T=======T=======T>======

PRIMARY DIAGNOSTIC CODE:

     Report status is stored as "Electronically Filed".
   ...will now designate exam status as 'COMPLETE'... for case no. 729
```

```
STATUS CHANGE DATE/TIME: DEC 29,2013@14:18//
          ...exam status successfully updated.
   ...will now designate request status as 'COMPLETE'...
          ...request status successfully updated.

Do you wish to print this report? No//YES
```

Figure 12-3: Outside Report Entry/Edit

This is how the report using the Outside Report Entry/Edit appears:

```
Select Films Reporting Menu Option: select Report to Print by Patient

Select Patient: 999997
  DEMO,PATIENT B                  F 01-03-19XX XXX-XX-8011    DH 999997
                         **** Patient's Exams ****

Patient's Name: DEMO,PATIENT B  999997           Run Date: DEC 29,2013

   Case No.  Procedure                   Exam Date  Status of Report Imaging Loc
   --------  -------------               ---------  ---------------- -----------
1     742    CT HEAD W/O CONT            08/07/04                    RADIOLOGY
2     729    CHEST 2 VIEWS PA&LAT        08/07/04   ELECTRONICALLY F RADIOLOGY
Type a '^' to STOP, or
CHOOSE FROM 1-2: 2

Select a device: HOME//   VIRTUAL TERMINAL    Right Margin: 80//
                    *** DEMO INDIAN MEDICAL CENTER ***
                        5670 EAST TUCSON BOULEVARD
                          TUCSON, ARIZONA 56789
                         TELEPHONE: (520)765-8970

  Name:   DEMO,PATIENT B                          DOB: 01-03-19XX   (XX)
  Chart#: 999997                                   Sex: FEMALE
  Requesting Loc: 30 EMERGENCY MEDICIN        Physician: PROVIDER,A E
  Entered request: USER,DEMO K               Technician: STUDENT,ONE
  Case#: 080704-729                         Radiologist:
  Procedure: CHEST 2 VIEWS PA&LAT              Verifier:
------------------------------------------------------------------------------


(Case 729 COMPLETE)  CHEST 2 VIEWS PA&LAT             (RAD  Detailed) CPT:71020
     Clinical History:
     Pt with high blood sugar

     Report:
     This is where the report text can be copied and pasted or transcribed from
     A hard copy report.

     Impression:
     The Impression field is a separate field within the report and must be
     entered separately.  It is usually a simple statement of exam overall
     impression. However, the impression is usually required to pass an exam to
     PCC.


VERIFIED BY:
```

```
                          **********************
                          *ELECTRONICALLY FILED*
                          **********************
```

Figure 12-4: Report entered via Outside Report Entry/Edit

12.4 Verify Report Only

This function allows the user to verify a report without having to access the **Report Enter/Edit** option. This function is often used when a report has been edited, but the report status has not been updated to reflect the verified status. It does not differ substantially from the option for **On-line Verifying of Reports** option.

```
RAD    Rad/Nuc Med Total System Menu ...
FILMS Reporting Menu
Verify report Only
```

Figure 12-5: Verify report Only option

12.5 Select Report to Print by Patient

```
This option may be used to print a hard copy report suitable for faxing be medical
records to an outside provider or medical facility.

RAD    Rad/Nuc Med Total System Menu ...
FILMS Reporting Menu
Select Report to Print by Patient

Select Films Reporting Menu Option: select Report to Print by Patient

Select Patient:    DEMO,PATIENT A         F 04-07-19XX XXX-XX-8134    DH 118
                        **** Patient's Exams ****

Patient's Name: DEMO,PATIENT A  999985             Run Date: DEC 29,2013

   Case No.  Procedure                   Exam Date  Status of Report Imaging Loc
   --------  -------------               ---------  ---------------- -----------
1     746    ACUTE ABDOMEN               08/07/04    (Exam Dc'd)     RADIOLOGY
2     837    HIP 2 OR MORE VIEWS         02/20/04   VERIFIED         RADIOLOGY
3     799    SPINE CERVICAL MIN 2 VIEWS  03/21/03   VERIFIED         RADIOLOGY
4     433    CHEST 2 VIEWS PA&LAT        02/05/03   VERIFIED         RADIOLOGY
5     470    SHOULDER 2 OR MORE VIEWS    11/10/01   VERIFIED         RADIOLOGY
6     52     PELVIC U/S                  04/23/01   VERIFIED         RADIOLOGY
7     430    ABDOMEN FLAT & UPRIGHT      04/21/01   VERIFIED         RADIOLOGY
8     459    FINGER(S) 2 OR MORE VIEWS   12/09/00   VERIFIED         RADIOLOGY
9     504    ABDOMEN FLAT & UPRIGHT      10/07/00   VERIFIED         RADIOLOGY
10    749    ABDOMEN FLAT & UPRIGHT      05/04/00    (Exam Dc'd)     RADIOLOGY
11    696    PELVIC U/S                  04/14/00   VERIFIED         RADIOLOGY
12    613    PELVIC U/S                  03/16/00   VERIFIED         RADIOLOGY
13    497    PELVIC U/S                  03/15/00   VERIFIED         RADIOLOGY
14    474    ECHOGRAM ABDOMEN LTD        03/15/00   VERIFIED         RADIOLOGY
Type a '^' to STOP, or


Select a device: HOME//   VIRTUAL TERMINAL    Right Margin: 80//
```

```
                  *** DEMO INDIAN MEDICAL CENTER ***
                      5670 EAST TUCSON BOULEVARD
                        TUCSON, ARIZONA 56789
                       TELEPHONE: (520)765-8970

  Name:   DEMO,PATIENT A                          DOB: 04-07-19XX   (XX)
  Chart#: 999985                                      Sex: FEMALE
  Requesting Loc: 30 EMERGENCY MEDICIN        Physician: DIGOXIN,CARDIAC A
  Entered request: DEMO,USER
                                             Technician: DEMO,TECH S
  Case#: 022004-837                         Radiologist: DEMO,RADIOLOGIST
  Procedure: HIP 2 OR MORE VIEWS               Verifier: TECH,JJ
------------------------------------------------------------------------------

Pregnancy Screen: Patient is unable to answer or is unsure

(Case 837 COMPLETE)  HIP 2 OR MORE VIEWS              (RAD  Detailed) CPT:73510
     Proc Modifiers : RIGHT
     Clinical History:

     feels out of place painful

     Report:
     The exam demonstrates the osseous and joint structures to be intact and
     without evidence of fractures, dislocations or significant degenerative
     changes identified.

     Impression:
     Unremarkable radiographic evaluation of the right hip.

Primary Interpreting Staff:
  DEMO STAFF, Radiologist

VERIFIED BY:
  JJ TECH, Radiologist

/JFP


  Date Reported:FEB 23,2004  13:26                                    Page 1
```

Figure 12-6: Select Report to Print by Patient

12.6 Display a Rad/Nuc Med Report

This option allows the user to display a VERIFIED radiology or nuclear medicine report at the terminal.

```
RAD    Rad/Nuc Med Total System Menu ...
FILMS Reporting Menu
Display a Rad/Nuc Med Report

Select Films Reporting Menu Option: DISPLay a Rad/Nuc Med Report
```

```
Select Patient:    DEMO,PATIENT PRIVATE
                        **** Patient's Exams ****

Patient's Name: DEMO,PATIENT PRIVATE  999996           Run Date: AUG 17,2007

   Case No.  Procedure                    Exam Date  Status of Report Imaging Loc
   --------  -------------                ---------  ---------------- -----------
1     8977   CLAVICLE                     08/16/07   VERIFIED         MEDICAL IMA
Type a '^' to STOP, or

DEMO,PATIENT PRIVATE (999996)             Case No.        : 081607-8977 @11:25
CLAVICLE                                  Transcriptionist: DEMO,USER 3 K
Req. Phys : PROVIDER,STEPHEN A MD         Pre-verified    : NO
Staff Phys: DEMO,USER 3 (P)
================================================================================
    CLAVICLE                                              (RAD  Detailed) CPT:73000
     Proc Modifiers : BILATERAL EXAM
   Clinical History:
  PAIN

   Additional Clinical History:
  PREVIOUS ABNORMAL FILMS FROM 2 MONTHS AGO

   Report:                                     Status: VERIFIED
  RIGHT GREAT TOE:

   Impression:
  THIS IS REQUIRED FOR A REPORT TO PASS TO PCC.


  Enter 'Top' or 'Continue':   Continue//
```

Figure 12-7: Display a Rad/Nuc Med Report

13.0 Radiology and PCC

If Radiology/Nuclear Medicine has been entered as a Package in the PCC Master Control file and is set to pass data to PCC, examination data should appear in the visit vile. Note that Radiology CPT codes may not be searched for in VGEN or QMan because they are embedded in the V Radiology entry and are not in the V CPT Code file.

```
SITE: DEMO INDIAN HOSPITAL              TYPE OF LINK: TIME REQUIRED
  DEFAULT HEALTH SUMMARY TYPE: ADULT REGULAR
  TYPE OF VISIT: IHS                    Beginning FISCAL YEAR Month: OCTOBER
  PASS PAPS TO WH FROM V LAB?: YES      DIRECTORY FOR EPI DM: C:/EXPORT/
  EHR/CHART AUDIT START DATE: SEP 01, 2008
PACKAGE: LAB SERVICE                    PASS DATA TO PCC ?: YES
  PACKAGE FLAG: 1
PACKAGE: RADIOLOGY/NUCLEAR MEDICINE     PASS DATA TO PCC ?: YES
```

Figure 13-1: PCC Master Control File with entry for Radiology/Nuclear Medicine

In PCC, Radiology/Nuclear Medicine procedures are stored in the V RADIOLOGY file. When doing a PCC Visit Display, procedures passed from the Radiology/Nuclear Medicine Package will display under the RADIOLOGY section as shown in Figure 13-2.

```
PCC VISIT DISPLAY             Dec 29, 2013 14:37:52          Page:    1 of    2
+
USER LAST UPDATE:       DEMO,USER 3
OLD/UNUSED UNIQUE VIS: 5059010002569406
DATE/TIME LAST MODIFI: AUG 22, 2013@14:13:15
NDW UNIQUE VISIT ID (: 102320002569406
VISIT ID:              3JQ2-WWX

=============== RADIOLOGYs ===============
RADIOLOGY PROCEDURE:   CHEST 2 VIEWS PA&LAT
CPT CODE:              71020
IMPRESSION:            TEST IMPRESSION
EVENT DATE&TIME:       AUG 22, 2013@14:10
ORDERING PROVIDER:     DEMO,USER 3
CLINIC:                RADIOLOGY
DATE/TIME ENTERED:     AUG 22, 2013@14:11:47
ENTERED BY:            DEMO,USER 3
DATE/TIME LAST MODIFI: AUG 22, 2013@14:11:47
LAST MODIFIED BY:      DEMO,USER 3
V FILE IEN:            196208
```

Figure 13-2: PCC Visit Display with a V Radiology Entry

In addition, Radiology Nuclear Medicine procedures will display on the Health Summary along with the Impression if entered.

```
--------------- MOST RECENT RADIOLOGY STUDIES (max 5 years) ---------------


CHEST 2 VIEWS PA&LAT        (08/22/13)
```

```
   IMPRESSION:  TEST IMPRESSION

MAMMOGRAM BILATERAL         (08/23/13)
   IMPRESSION:  NO IMPRESSION.

DIGITAL SCREENING MAMMOGRAM (08/23/13)
   IMPRESSION:  NO IMPRESSION.
```

Figure 13-3: Health Summary Display of Radiology procedures

14.0 Outside Films Registry Menu

With the advent of digital imaging, the need to send or request hard copy films from other facilities is reduced. However, a tracking system is in place for those sites that still use “wet films.”

14.1 Add Films to Registry

The process for tracking films either leaving a facility or that have been requested and received at your facility begin with making an entry in the Outside Films Registry.

```
Rad/Nuc Med Total System Menu Option
Outside Films Registry Menu
Add Films to Registry

Select Outside Films Registry Menu Option: ADD Films to Registry

Select Patient:    DEMO,PATIENT PRIVATE
                                    <CWAD> F 12-31-19XX 000003175P    CH 999996
Select OUTSIDE FILMS REGISTER DATE: T-2   AUG 15, 2007
  Are you adding 'AUG 15, 2007' as
    a new OUTSIDE FILMS REGISTER DATE (the 1ST for this RAD/NUC MED PATIENT)? No
// Y  (Yes)
   OUTSIDE FILMS REGISTER DATE REMARKS: ??
        This field contains a brief comment (2-240 characters) about the outside
        films.  It is used mainly to identify what type the outside film is.
        (ie. Chest Films)

   OUTSIDE FILMS REGISTER DATE REMARKS: Requested films of left tibia taken at DEMO
INDIAN HOSPITAL 6 months ago.
  NEEDED BACK DATE: t+15  (SEP 01, 2007)
  SOURCE OF FILMS: DEMO INDIAN HOSPITAL
  REMARKS: Requested films of left tibia taken at DEMO INDIAN HOSPITAL 6 months ago.
```

Figure 14-1: Add Films to Outside Registry

14.2 Outside Films Profile

Reports for films documented in the Outside Films Registry may be tracked for either a patient as shown in Figure 14-2 or by date as shown in Section 14.3, Figure 14-3.

```
Rad/Nuc Med Total System Menu Option
Outside Films Registry Menu
Outside Films Profile

Select Outside Films Registry Menu Option: OUTSIDE Films Profile

Select Patient:    DEMO,PATIENT PRIVATE
                                    <CWAD> F 12-31-19XX 000003175P    CH 999996

DEVICE: HOME//   Virtual
Patient: DEMO,PATIENT PRIVATE  999996                 Run Date: AUG 17,2007

               *****  Outside Films Profile  *****
------------------------------------------------------------------------------
```

```
Registered: 08/15/07          Returned : still on file      'OK' Needed: No
Source    : DEMO INDIAN HOSPITAL
Remarks   : Requested films of left tibia 6 months ago.
--------------------------------------------------------------------------------
```

Figure 14-2: Outside Films Profile

14.3 Delinquent Outside Film Report for Outpatients

This report may be run on a periodic basis to determine which films from your facility have still not been returned or which films you have not returned to the originating facility.

```
Rad/Nuc Med Total System Menu Option
Outside Films Registry Menu
Delinquent Outside Film Report for Outpatients

Select Outside Films Registry Menu Option: delinquent Outside Film Report for Ou
tpatients
All Films with 'Needed Back' Dates Less Than: T  (DEC 29, 2013)
DEVICE:   VIRTUAL TERMINAL    Right Margin: 80//
IMAGING SERVICE DELINQUENT OUTSIDE FILM REPORT FOR OUTPATIENTS
                                              DEC 29,2013  17:03    PAGE 1
PATIENT                                    PT ID            NEEDED BACK
--------------------------------------------------------------------------------

*** NO RECORDS TO PRINT ***
```

Figure 14-3: Delinquent Outside Film Report

15.0 Patient Profile Menu

The **Patient Profile Menu** is a tool that a Radiology Supervisor can use for troubleshooting. Not only can the record of exams and the status of those exams be tracked for an individual patient, but the list of options exercised by which staff member can also be displayed. Also, the times that the different options were exercised can be displayed if needed.

15.1 Profile of Rad/Nuc Med Exams

```
Rad/Nuc Med Total System Menu ...
Patient Profile Menu
Profile of Rad/Nuc Med Exams


Select Patient Profile Menu Option: profile of Rad/Nuc Med Exams

Select Patient:    DEMO,PATIENT PRIVATE
                       **** Registered Exams Quick Profile ****

Patient's Name: DEMO,PATIENT PRIVATE  999996           Run Date: AUG 17,2007

   Case No.  Procedure                   Exam Date  Status of Exam   Imaging Loc
   --------  -------------               ---------  ---------------- -----------
1     8977   CLAVICLE                    08/16/07   EXAMINED         MEDICAL IMA
Type a '^' to STOP, or
================================================================================
  Name        : DEMO,PATIENT PRIVATE    999996
  Division    : CHOCTAW NATION HOSPI    Category     : OUTPATIENT
  Location    : MEDICAL IMAGING         Ward         :
  Exam Date   : AUG 16,2007  11:25      Service      :
  Case No.    : 8977                    Bedsection   :
                                        Clinic       : OPD-FAMILY PRACTICE
--------------------------------------------------------------------------------
  Registered    : CLAVICLE                           (RAD  Detailed) CPT:73000
  Requesting Phy: PROVIDER,STEPHEN A M  Exam Status  : EXAMINED
  Int'g Resident:                       Report Status: NO REPORT
  Pre-Verified  : NO                    Cam/Equip/Rm : R1
  Int'g Staff   :                       Diagnosis    :
  Technologist  : DEMO,TECH L RTCT   Complication : NO COMPLICATION
                                        Films        : 8x10 - 2
---------------------------------Modifiers--------------------------------
  Proc Modifiers: BILATERAL EXAM

  CPT Modifiers : None
================================================================================

                          *** Imaging Personnel ***
--------------------------------------------------------------------------------
Primary Int'g Resident:
Primary Int'g Staff   :
Pre-Verifier:
Verifier    :

Secondary Interpreting Resident         Secondary Interpreting Staff
-------------------------------         ----------------------------
None                                    None
```

```
Technologist(s)                          Transcriptionist
---------------                          ----------------
DEMO,TECH L RTCT                      No Report

Do you wish to display activity log? No// y

                       *** Exam Activity Log ***
  Date/Time              Action                              Computer User
   Technologist comment
  ---------------------  ------                              -------------
  AUG 16,2007  11:26     EXAM ENTRY                          DEMO,USER 3 K
  AUG 16,2007  11:27     EDIT BY PATIENT                     DEMO,USER 3 K



                       *** Exam Status Tracking Log ***
                                                 Elapsed Time  Cumulative Time
  Status                 Date/Time                (DD:HH:MM)      (DD:HH:MM)
  ------                 ---------               ------------  ---------------
  WAITING FOR EXAM       AUG 16,2007  11:26       00:00:01        00:00:01
  EXAMINED               AUG 16,2007  11:27
================================================================================
```

Figure 15-1: Profile of Rad/Nuc Med Exams

15.2 Display Patient Demographics

The **Display Patient Demographics** option can be used to display the patient's basic demographic information as well as allergies and their Radiology exam history.

```
Rad/Nuc Med Total System Menu ...
Patient Profile Menu
Display Patient Demographics

Select Patient Profile Menu Option: display Patient Demographics
Select PATIENT NAME:
               ***********    Patient Demographics   ***********

  Name         : DEMO,PATIENT PRIVATE   Address:  899 STREET ST
  Pt ID        : 999996
  Date of Birth: DEC 31,19XX
  Age          : XX                                TOWN, OK 74571
  Veteran      : No
  Eligibility  : Unknown
  Exam Category: OUTPATIENT
  Sex          : FEMALE
  Phone Number : 555-555-7000
  Narrative    : PATIENT DEAF

  Contrast Medium Reaction: Yes
  Other Allergies:
       'V' denotes verified allergy   'N' denotes non-verified allergy

  AZITHROMYCIN(V)                       METFORMIN HYDROCHLORIDE(V)
  CHOCOLATE(V)                          CHLOSTEROL(V)

  Other Allergies:
       'V' denotes verified allergy   'N' denotes non-verified allergy
```

```
  SUGAR SNACKS(V)                          IBUPROFEN(V)
  ASPIRIN(V)                               CIPROFLOXACIN(V)
  METHOTREXATE(V)                          SULFAMETHOXAZOLE/TRIMETHOPRIM(V)
  MILK(V)                                  SHRIMP(V)
  STRAWBERRIES(V)                          AMOXICILLIN 125 MG/5 CC(V)
  RADIOLOGICAL/CONTRAST MEDIA(N)

Case #    Last 5 Procedures/New Orders Exam Date   Status of Exam  Imaging Loc.
------    ---------------------------- ---------   --------------  ------------
8977      CLAVICLE                     AUG 16,2007 EXAMINED        MEDICAL IMAG
```

Figure 15-2: Display Patient Demographics

16.0 Management Reports Menu

The **Management Report Menu** is broken into five general categories. Examples of all of the reports will not be shown in this section as some of the reports are for VA usage only and others are designed for 132-column format. Note that all reports may be run by Division and/or Imaging Location.

```
          Daily Management Reports ...
          Functional Area Workload Reports ...
          Personnel Workload Reports ...
          Special Reports ...
          Timeliness Reports ...
```

Figure 16-1: Management Reports Main Menu

16.1 Daily Management Reports

16.1.1 Abnormal Exam Report

The **Abnormal Exam report** can be generated only if Diagnostic Codes are entered into Reports. If Diagnostic Codes have not been identified to print on the Abnormal Report and/or no Diagnostic Codes have been entered when reports were entered, there will be nothing to report on the Abnormal Exam Report.

```
Rad/Nuc Med Total System Menu ...
Management Reports Menu ...
Daily Management Reports ...
Abnormal Exam Report

Select Daily Management Reports Option: ABNORMAL Exam Report

          ABNORMAL EXAM REPORT


Select Rad/Nuc Med Division: All//

Another one (Select/De-Select):


****Select Diagnostic Codes: All//****

Another one (Select/De-Select):

Print only those exams not yet printed? Yes// NO

**** Date Range Selection ****

   Beginning DATE : 1/1/2007  (JAN 01, 2007)

   Ending    DATE : T  (AUG 17, 2007)


DEVICE: HOME//   Virtual
```

```
                  <<<< ABNORMAL DIAGNOSTIC REPORT >>>>  Print Date: 8/17/07
            (P=Primary Dx, S=Secondary Dx / '*' represents reprint)

Patient Name                              Ward/Clinic     Requesting Physician
                    Procedure                                 Exam Date
================================================================================
                      Division: CHOCTAW NATION HOSPITAL
                  Imaging Type: GENERAL RADIOLOGY

                                ***********************
                                *  No Abnormal Exams  *
                                ***********************
```

Figure 16-2: Abnormal Exam Report

16.1.2 Complication Report

The **Complication Report** is generated based on complications entered by staff when exams are edited. If no complications are entered at the time an exam is edited, there will be no complications to report.

```
Rad/Nuc Med Total System Menu ...
Management Reports Menu ...
Daily Management Reports ...
Complication Report

Select Daily Management Reports Option:  Complication Report


Select Imaging Type: All//

Another one (Select/De-Select):


**** Date Range Selection ****

   Beginning DATE : 1/1/12  (JAN 01, 2012)

   Ending    DATE : 12/31/12  (DEC 31, 2012)

DEVICE: HOME//   VIRTUAL TERMINAL    Right Margin: 80//

          >>> Complications Report <<<
    Division: DEMO INDIAN HOSPITAL                              Page: 1
Imaging Type: GENERAL RADIOLOGY                                 Date: Dec 31, 2013
      Period: JAN 1,2012 to DEC 31,2012.
--------------------------------------------------------------------------------
Name/Pt-Id                        Date/Time      Procedure/Complication
         Personnel
--------------------------------------------------------------------------------
Complications: 0   Exams: 0   % Complications: 0
Contrast Media Complications: 0   C.M. Exams: 0   % C.M. Comp.: 0

          >>> Complications Report <<<
    Division: DEMO INDIAN HOSPITAL                              Page: 2
Imaging Type: MAMMOGRAPHY                                       Date: Dec 31, 2013
      Period: JAN 1,2012 to DEC 31,2012.
--------------------------------------------------------------------------------
Name/Pt-Id                        Date/Time      Procedure/Complication
```

```
         Personnel
Complications: 0   Exams: 0   % Complications: 0
Contrast Media Complications: 0   C.M. Exams: 0   % C.M. Comp.: 0

     Division: DEMO INDIAN HOSPITAL
Complications: 0   Exams: 0   % Complications: 0
Contrast Media Complications: 0   C.M. Exams: 0   % C.M. Comp.: 0
```

Figure 16-3: Complication Report

16.1.3 Daily Log Report

The **Daily Log Report** is an important tool to review periodically throughout the day to ensure that work is completed, and no exams remain in a status of **Waiting for Exam** or **Examined** if reports have been entered.

```
Rad/Nuc Med Total System Menu ...
Management Reports Menu ...
Daily Management Reports ...
Daily Log Report

Select Daily Management Reports Option: DAILY Log Report

Select Rad/Nuc Med Division: All// CHOCTAW NATION HOSPITAL       OKLAHOMA TRIBE/
638       TALIHINA       01    OK            556001

Another one (Select/De-Select):


Select Log Date: T-1//  (AUG 16, 2007)

DEVICE: HOME//   Virtual

                  Daily Log Report For: Aug 16, 2007          Page: 1
Division         : CHOCTAW NATION HOSPITAL                    Date: Aug 17, 2007
Imaging Location : MEDICAL IMAGING (GENERAL RADIOLOGY)
Name                     Pt ID        Ward/Clinic           Procedure
        Exam Status             Case #     Time               Reported
------------------------------------------------------------------------------
DEMO,PATIENT PRIVATE     999996       OPD-FAMILY PRACTICE   CLAVICLE
        COMPLETE                8977       11:25 AM           Yes
        Imaging Location Total 'MEDICAL IMAGING': 1
        Imaging Type Total 'GENERAL RADIOLOGY': 1
        Division Total 'CHOCTAW NATION HOSPITAL': 1
```

Figure 16-4: Daily Log Report

16.1.4 Delinquent Status Report

The **Delinquent Status Report** looks for exams that fall into the defined examination statuses designated for the report. Note that in Figure 16-5, a status of Complete incorrectly displays on the Delinquent Status Report.

```
Rad/Nuc Med Total System Menu ...
Management Reports Menu ...
Daily Management Reports ...
```

```
Delinquent Status Report

Select Daily Management Reports Option: DELIinquent Status Report

Select Rad/Nuc Med Division: All// HUGO


                           Delinquent Status Report

              The entries printed for this report will be based only
               on exams that are in one of the following statuses:

          GENERAL RADIOLOGY
          -----------------
               WAITING FOR EXAM
               TRANSCRIBED
               DICTATED
               COMPLETE

**** Date Range Selection ****

   Beginning DATE : 8/1/2006  (AUG 01, 2006)

   Ending    DATE : 8/31/2006  (AUG 31, 2006)

     Select one of the following:

          I         INPATIENT
          O         OUTPATIENT
          B         BOTH

Report to include: BOTH

     Now that you have selected BOTH do you want to sort by
     Patient or Date ?

     Select one of the following:

          P         PATIENT
          D         DATE

Enter response: DATE

DEVICE: HOME//   Virtual

                           Delinquent Status Report
Division: HUGO HL CT                                          Page: 1
Imaging Type: GENERAL RADIOLOGY                               Date: Aug 17, 2007
================================================================================
Patient Name          Case #    Pt ID        Date      Ward/Clinic      Rpt Stat
 Procedure             Exam Status  Rpt Text  Interp. Phys.    Tech
================================================================================
xxxxxxxx,xxxxx xxxxx  8875      ??           08/24/06  OUTPATIENT       No Rpt
 HAND 3 OR MORE VIEWS  WAITING FOR  No        Unknown          Unknown
--------------------------------------------------------------------------------
XXXXXX,XXX XXX        8884      84304        08/24/06  HUGO RAD         No Rpt
 TIBIA & FIBULA 2 VIE  WAITING FOR  No        Unknown          Unknown
--------------------------------------------------------------------------------
XXXX,XXXXXXX XXXXX    7648      98819        08/28/06  HUGO RAD         No Rpt
 KNEE 2 VIEWS          WAITING FOR  No        Unknown          Unknown
--------------------------------------------------------------------------------
XXXX,XXXXXXX XXXXX    7808      98819        08/28/06  OUTPATIENT       No Rpt
```

```
 KNEE 2 VIEWS          WAITING FOR  No        Unknown          Unknown
-------------------------------------------------------------------------------
XXXXXX,XXX XXX        7858      84304        08/28/06  HUGO RAD         No Rpt
 TIBIA & FIBULA 2 VIE  WAITING FOR  No        Unknown          Unknown
-------------------------------------------------------------------------------
XXXXX,XXXXXX XXXX     8713      53915        08/29/06  OUTPATIENT       No Rpt
 FINGER(S) 2 OR MORE   WAITING FOR  No        Unknown          Unknown
-------------------------------------------------------------------------------
XXXXXX,XXXXX XXXXXX   8845      50870        08/29/06  HUGO RAD         No Rpt
 CHEST 2 VIEWS PA&LAT  WAITING FOR  No        Unknown          Unknown
-------------------------------------------------------------------------------
XXXXXXX,XXXXX XXX XX  8766      20428        08/29/06  HUGO RAD         No Rpt
 CHEST 2 VIEWS PA&LAT  WAITING FOR  No        Unknown          Unknown
-------------------------------------------------------------------------------

 Imaging Type Total 'GENERAL RADIOLOGY': 10

 Division Total 'HUGO HL CT': 10
```

Figure 16-5: Delinquent Status Report

16.1.5 Examination Statistics

Most Radiology departments are required to report numbers of exams performed on a weekly, monthly, or annual basis. This report does not show which exams were done but provides a sub-total by date as well as total for the time frame specified. You may notice a discrepancy between the exam count and visit count. That may in most cases be attributed to patients who had more than one exam per visit or who had bilateral exams.

```
Rad/Nuc Med Total System Menu ...
Management Reports Menu ...
Daily Management Reports ...
Examination Statistics

Select Daily Management Reports Option:  Examination Statistics

     Select one of the following:

          L         Location
          I         Imaging Type
          D         Division
          T         Totals Only

Enter Report Detail Needed: Location// Division

Select Rad/Nuc Med Division: All//

Another one (Select/De-Select):

**** Date Range Selection ****

   Beginning DATE : 8/1/2006  (AUG 01, 2006)

   Ending    DATE : 8/31/2006  (AUG 31, 2006)


DEVICE: HOME//   Virtual
```

```
                  >>>>> EXAMINATION STATISTICS <<<<<               Page: 1

Division: CHOCTAW NATION HOSPITAL       Location:
Run Date: Aug 17, 2007                  Imaging Type:
                  For Period: Aug 01, 2006 to Aug 31, 2006.

                          COMPLETE -------------EXAM CATEGORY--------------
DATE         VISITS  EXAMS    EXAMS    CON    EMP    INP    OUT    RES    SHA
-------------------------------------------------------------------------------
Aug 01, 2006    102    127      105      0      0      8    119      0      0
Aug 02, 2006     71     85       71      0      0      9     76      0      0
Aug 03, 2006     79     85       70      0      0      6     79      0      0
Aug 04, 2006     57     89       64      0      0      3     86      0      0
Aug 05, 2006     24     30       25      0      0      2     28      0      0
Aug 06, 2006     16     22       19      0      0      1     21      0      0
Aug 07, 2006     70    108       79      0      0      6    101      1      0
Aug 08, 2006     76     92       75      0      0      2     90      0      0
Aug 09, 2006     83     93       78      0      0      4     89      0      0
Aug 10, 2006     72     82       62      0      0      2     80      0      0
Aug 11, 2006     56     72       48      0      0      5     67      0      0
Aug 12, 2006     14     15       14      0      0      0     15      0      0
Aug 13, 2006     29     40       38      0      0      2     38      0      0
Aug 14, 2006     83    111       89      0      0      3    107      1      0
Aug 15, 2006     75     87       78      0      0      1     86      0      0
Aug 16, 2006     69     81       68      0      0      1     80      0      0
Aug 17, 2006     82    115       98      0      0      2    113      0      0
Aug 18, 2006     73    103       66      0      0      2    101      0      0
Aug 19, 2006     28     37       34      0      0      0     37      0      0
Aug 20, 2006     27     31       29      0      0      1     30      0      0
Aug 21, 2006     90    103       80      0      0      4     99      0      0
Aug 22, 2006     50     61       34      0      0      5     56      0      0
Aug 23, 2006     58     67       46      0      0      4     63      0      0
Aug 24, 2006     76     86       65      0      0      1     85      0      0
Aug 25, 2006     41     57       39      0      0      2     55      0      0
Aug 26, 2006     16     23       20      0      0      1     22      0      0
Aug 27, 2006     34     46       37      0      0      7     39      0      0
Aug 28, 2006     92    113       87      0      0      5    108      0      0
Aug 29, 2006     88    112       88      0      0      3    109      0      0
Aug 30, 2006     79     99       67      0      0      5     94      0      0
Aug 31, 2006     81     92       72      0      0      7     85      0      0
             ------ ------   ------ ------ ------ ------ ------ ------ ------
TOTAL          1891   2364     1845      0      0    104   2258      2      0
```

Figure 16-6: Examination Statistics

16.1.6 Incomplete Exam Report

This option allows the supervisor to generate a list of all exams that have not been completed. This report is similar to the Delinquent Status report, but unlike that report, this one lists any exam that is not in the complete status.

```
Rad/Nuc Med Total System Menu ...
Management Reports Menu ...
Daily Management Reports ...
Incomplete Exam Report

Select Daily Management Reports Option: INComplete Exam Report
```

```
Select Rad/Nuc Med Division: All// CHOCTAW NATION HOSPITAL       OKLAHOMA TRIBE/638
TALIHINA       01    OK            556001


                              Incomplete Exam Report

**** Date Range Selection ****

   Beginning DATE : 8/1/2006  (AUG 01, 2006)

   Ending    DATE : 8/31/2006  (AUG 31, 2006)

     Select one of the following:

          I         INPATIENT
          O         OUTPATIENT
          B         BOTH

Report to include: BOTH

     Now that you have selected BOTH do you want to sort by
     Patient or Date ?

     Select one of the following:

          P         PATIENT
          D         DATE

Enter response: DATE


DEVICE: HOME//   Virtual

                              Incomplete Exam Report
Division: CHOCTAW NATION HOSPITAL                              Page: 1
Imaging Type: GENERAL RADIOLOGY                                Date: Aug 17, 2007
================================================================================
Patient Name          Case #    Pt ID        Date      Ward/Clinic   Rpt Stat
 Procedure             Exam Status  Rpt Text  Interp. Phys.    Tech
================================================================================
XXXXXXX,XXXXXX        7586      75725        08/03/06  MED/SURG        No Rpt
 CT ABDOMEN W&W/O CON  EXAMINED     No        Unknown          DEMO,TECH L
--------------------------------------------------------------------------------
XXXXXXX,XXXXXX        7588      75725        08/03/06  MED/SURG        No Rpt
 CT PELVIS W&W/O CONT  EXAMINED     No        Unknown          DEMO,TECH L
--------------------------------------------------------------------------------
XXXXXXX,XXXXXX XXXXX  6866      69753        08/07/06  MED/SURG        No Rpt
 CT ABDOMEN W&W/O CON  EXAMINED     No        Unknown          DEMO,TECH L
--------------------------------------------------------------------------------
XXXXXXX,XXXXXX XXXXX  6871      69753        08/07/06  MED/SURG        No Rpt
 CT PELVIS W&W/O CONT  EXAMINED     No        Unknown          DEMO,TECH L
--------------------------------------------------------------------------------
XXXXXXX,XXXXXX XXXXX  8121      69753        08/11/06  MED/SURG        No Rpt
 CHEST 2 VIEWS PA&LAT  EXAMINED     No        Unknown          DEMO,TECH H
--------------------------------------------------------------------------------
```

Figure 16-7: Incomplete Exam Report

16.1.7 Unverified Reports

This option allows the user to generate a report that contains the total number of unverified reports for the division and imaging types chosen by the user. The user may select only those divisions and imaging types to which he/she has access.

For each division and imaging type combination, the output is divided into two sections. The first section shows the total number of unverified reports for each interpreting staff physician. The second section shows the total number of unverified reports for each interpreting resident physician.

If there are no unverified reports for the division and imaging type combination, then the message **No Unverified Reports** displays instead of the two sections mentioned above.

```
Rad/Nuc Med Total System Menu ...
Management Reports Menu ...
Daily Management Reports ...
Unverified Reports

Select Daily Management Reports Option: UNVERified Reports

Select Rad/Nuc Med Division: All//

Another one (Select/De-Select):


     Select one of the following:

          b         Brief
          d         Detailed
          e         Exam Date, Itemized List
          s         Staff, Itemized List

Note that the Brief and Detailed Report will print on standard 80-column paper. The
Exam Date and Staff, Itemized List are formatted for 132-column output devices.

Enter response: b//   Brief

(The date range refers to DATE REPORT ENTERED)

**** Date Range Selection ****

   Beginning DATE : 1/1  (JAN 01, 2013)

   Ending    DATE : t  (DEC 31, 2013)

Default cut-off limits (in hours) for aging of reports are :

                                  24   48   96

Do you want to enter different cut-off limits? N// O


DEVICE: HOME//   VIRTUAL TERMINAL    Right Margin: 80//

                    >>>>> Unverified Reports (brief) <<<<<            Page: 1
```

```
Division: DEMO INDIAN HOSPITAL            Report Date Range: Jan 01, 2013
Imaging Type: GENERAL RADIOLOGY                              Dec 31, 2013@23:59
Run Date: DEC 31,2013  14:21                Total Unverified Reports: 0


                          ***************************
                          *  No Unverified Reports  *
                          ***************************
```

Figure 16-8: Unverified Reports

16.2 Functional Area Workload Reports

Functional Area Workload Reports allow a Radiology Manager to assess the source of their workload by clinic or location.

16.2.1 Clinic Report

```
Rad/Nuc Med Total System Menu ...
Management Reports Menu ...
Functional Area Workload Reports ...
Clinic Report

Select Management Reports Menu Option: FUNCTional Area Workload Reports


          Clinic Report

   Clinic Workload Report:
   -----------------------

Do you wish only the summary report? No// YES

Select Rad/Nuc Med Division: All//

Another one (Select/De-Select):

Do you wish to include all Clinics? Yes//   YES

**** Date Range Selection ****

   Beginning DATE : 8/1/2006  (AUG 01, 2006)

   Ending    DATE : 8/31/2006  (AUG 31, 2006)

             The entries printed for this report will be based only
              on exams that are in one of the following statuses:


          GENERAL RADIOLOGY
          -----------------
               EXAMINED
               TRANSCRIBED
               DICTATED
               COMPLETE


DEVICE: HOME//   Virtual
```

```
     >>> Clinic Workload Report <<<                                  Page: 1

    Division: CHOCTAW NATION HOSPITAL
Imaging Type: GENERAL RADIOLOGY                    For period: Aug 01, 2006 to: AUG
31,2006                RUN Date:  Aug 31, 2006


                               -------Examinations------
                                                          % of          % of
Clinic                        Inpt   Opt   Res Other  Total  Exams   WWU   WWU
-------------------------------------------------------------------------------
          (Imaging Type Summary)
BB-DEMO DOC, PAC                 0     1     0     0      1    0.0     2    0.0
CT                               0     1     0     0      1    0.0     8    0.1
EMERGENCY ROOM                   0  1017     0     0   1017   47.7  3879   43.6
FP-SISK                          0     3     0     0      3    0.1    24    0.3
IDABEL - DR. PROVIDER IM         0     1     0     0      1    0.0     2    0.0
IDABEL - DR.PROVIDER II          0     3     0     0      3    0.1     7    0.1
```

Figure 16-9: Clinic Report

16.2.2 Ward Report

Ward Reports allow a Radiology Supervisor to track their Workload by Ward.

```
Rad/Nuc Med Total System Menu ...
Management Reports Menu ...
Functional Area Workload Reports ...
Ward Report

   Ward Workload Report:
   ---------------------

Do you wish only the summary report? No// YES

Select Rad/Nuc Med Division: All//

Another one (Select/De-Select):


Do you wish to include all Wards? Yes//   YES

**** Date Range Selection ****

   Beginning DATE : 8/1/2006  (AUG 01, 2006)

   Ending    DATE : 8/31/2006  (AUG 31, 2006)

             The entries printed for this report will be based only
              on exams that are in one of the following statuses:


          GENERAL RADIOLOGY
          -----------------
               TRANSCRIBED
               DICTATED
               COMPLETE
```

```
DEVICE: HOME//   Virtual

     >>> Ward Workload Report <<<                                  Page: 1

    Division: CHOCTAW NATION HOSPITAL
Imaging Type: GENERAL RADIOLOGY                    For period: Aug 01, 2006 to
    Run Date: AUG 17,2007  14:48                               Aug 31, 2006

                               -------Examinations------
                                                          % of          % of
Ward                          Inpt   Opt   Res Other  Total  Exams   WWU   WWU
-------------------------------------------------------------------------------
          (Imaging Type Summary)
MED/SURG                       68     0     0     0     68   85.0   325   92.6
OB/GYN                         12     0     0     0     12   15.0    26    7.4
-------------------------------------------------------------------------------

Imaging Type Total:            80     0     0     0     80          351
```

Figure 16-10: Ward Report

16.3 Personnel Workload Reports

Personnel Workload Reports allow the management staff to monitor the number of procedures ordered by their provider staff or the number of procedures performed by their technologists.

16.3.1 Physician Report

```
Rad/Nuc Med Total System Menu ...
Management Reports Menu ...
Personnel Workload Reports ...
Physician Report

Select Personnel Workload Reports Option: PHYSician Report

Requesting M.D. Workload Report:
--------------------------------

Do you wish only the summary report? NO// YES

Select Rad/Nuc Med Division: All//

Another one (Select/De-Select):

Do you wish to include all Requesting M.D.s? Yes//   YES

**** Date Range Selection ****

   Beginning DATE : 8/1/2006  (AUG 01, 2006)

   Ending    DATE : 8/31/2006  (AUG 31, 2006)

             The entries printed for this report will be based only
              on exams that are in one of the following statuses:


          GENERAL RADIOLOGY
```

```
          -----------------
               EXAMINED
               TRANSCRIBED
               DICTATED
               COMPLETE


DEVICE: HOME//   Virtual

          >>> Requesting M.D. Workload Report <<<                    Page: 1

    Division: CHOCTAW NATION HOSPITAL
Imaging Type: GENERAL RADIOLOGY                    For period: AUG  1,2006 to
    Run Date: AUG 17,2007  14:50                                   AUG 31,2006

                                          Examinations    Percent
  Requesting M.D.                        In    Out  Total   Exams
-------------------------------------------------------------------------------
          (Imaging Type Summary)
PROVIDER,JOHN N PA-C                      0     18     18    0.8
PROVIDER,JEAN W,DO                      0     14     14    0.6
PROVIDER,JOHN MD                         0      3      3    0.1
PROVIDER,JEAN D DO                         1     82     83    3.7
PROVIDER,JOHN E MD        N               0      1      1    0.0
PROVIDER,JANE PA-C                    0     42     42    1.9
PROVIDER,JOHN C MD                       0      8      8    0.4
PROVIDER,JOHN E DO                       0    140    140    6.3
PROVIDER,JOHN D MD                         1      0      1    0.0
PROVIDER,JOHN P MD                       0     20     20    0.9
PROVIDER,JOHN Y MD                        53      5     58    2.6
PROVIDER,JANE C MD                       6      4     10    0.4
PROVIDER,JOHN C MD                       0      2      2    0.1
DOE,JOHN E MD                           0     10     10    0.4
PROVIDER,JOHN J DO                       0     21     21    0.9
PROVIDER,JOHN DO                           0     40     40    1.8
PROVIDER,JANE A ARNP-C                     0      2      2    0.1
PROVIDER,JANE S MD                         0      4      4    0.2
PROVIDER,JEAN K MD                       0     22     22    1.0
PROVIDER,JOHN S MD                       1      5      6    0.3
DOE,JANE L PA-C                   0      1      1    0.0
PROVIDER,JOHN B PA-C                       0      2      2    0.1
PROVIDER,JANE ARNP                         0      2      2    0.1
PROVIDER,JANE D MD                       1     11     12    0.5
PROVIDER,JANE PA                        0     12     12    0.5
PROVIDER,JOHN L D                          0      7      7    0.3
DOE,JOHN P MD                           0      1      1    0.0
PROVIDER,JANE J MD                         1      3      4    0.2
PROVIDER,JOHN P PA-C                       0     82     82    3.7
PROVIDER,JANE R PA-C                       0     70     70    3.1
PROVIDER,JANE G ARNP                       0    185    185    8.3
PROVIDER,JOHN H MD                         4     19     23    1.0
PROVIDER,JOHN MD                         0      3      3    0.1
PROVIDER,JANE A DO                         0     24     24    1.1
PROVIDER,JEAN L DPM                        2     42     44    2.0
PROVIDER,JANE C MD                         0    114    114    5.1
PROVIDER,JOHN PA-C                         0    131    131    5.9
PROVIDER,JOHN P DPM                        3     38     41    1.8
PROVIDER,JOHN S DO             N           0      2      2    0.1
PROVIDER,JEAN F MD                         1    102    103    4.6
PROVIDER,JOHN M MD                  0     33     33    1.5
PROVIDER,JOHN DOE PA-                 0      1      1    0.0
PROVIDER,JEAN MD                           3     21     24    1.1
```

```
PROVIDER,JOHN R DO                          0     23     23    1.0
PROVIDER,JOHN O,MD                          0      1      1    0.0
PEBENITO,JANE P,MD                          3     16     19    0.9
PROVIDER,JANE P DO                          0      1      1    0.0
PROVIDER,JANE CNM                           0      7      7    0.3
PROVIDER,JOHN K DO                          0    186    186    8.4
PROVIDER,JANE D ARNP                        0     22     22    1.0
PROVIDER,JOHN A MD                          3     54     57    2.6
PROVIDER,JANE C PNP                         0     32     32    1.4
PROVIDER,JANE F ARNP                        0     14     14    0.6
PROVIDER,JANE J CNM                         0     11     11    0.5
PROVIDER,JANE                               0      1      1    0.0
PROVIDER,JOHN P DO                          5     38     43    1.9
PROVIDER,JOHN O MD                          0     10     10    0.4
PROVIDER,JANE DOE PA-C                      0     22     22    1.0
PROVIDER,JOHN C OD                          0      2      2    0.1
PROVIDER,JEAN MD                            0      8      8    0.4
PROVIDER,JANE PA-C                          0     21     21    0.9
PROVIDER,JOHN E MD                          0    207    207    9.3
PROVIDER,JEAN J PA                          0     12     12    0.5
PROVIDER,JEAN A CNM                         0     10     10    0.4
PROVIDER,JOHN M MD                          0     22     22    1.0
PROVIDER,JEAN MD     N                      5     61     66    3.0
-------------------------------------------------------------------------------

  Imaging Type Total                       93   2130   2223
```

Figure 16-11: Physician Report

16.3.2 Technologist Report

```
Rad/Nuc Med Total System Menu ...
Management Reports Menu ...
Personnel Workload Reports ...
Technologist Report

Select Personnel Workload Reports Option: TECHNologist Report

Technologist Workload Report:
-----------------------------

Do you wish only the summary report? NO// YES

Select Rad/Nuc Med Division: All//

Another one (Select/De-Select):

Do you wish to include all Technologists? Yes//   YES

**** Date Range Selection ****

   Beginning DATE : 8/1/2006  (AUG 01, 2006)

   Ending    DATE : 8/31/2006  (AUG 31, 2006)

             The entries printed for this report will be based only
              on exams that are in one of the following statuses:


          GENERAL RADIOLOGY
```

```
          -----------------
               EXAMINED
               TRANSCRIBED
               DICTATED
               COMPLETE


DEVICE: HOME//   Virtual

          >>> Technologist Workload Report <<<                       Page: 1

    Division: CHOCTAW NATION HOSPITAL
Imaging Type: GENERAL RADIOLOGY                    For period: AUG  1,2006 to
    Run Date: AUG 17,2007  14:51                               AUG 31,2006

                                          Examinations    Percent     Percent
  Technologist                          In    Out  Total   Exams  WWU   WWU
-------------------------------------------------------------------------------
          (Imaging Type Summary)
DEMO,TECH RTMCT                          4     94     98    4.4    371    4.0
DEMO,TECH M                             20    297    317   14.2   1179   12.6
DEMO,TECH S RT                          11    410    421   18.9   1027   11.0
DEMO,TECH L RTCT                        16    292    308   13.8   2318   24.7
DEMO,TECH GL                            11    226    237   10.6    565    6.0
DEMO,TECH TM                             4     84     88    3.9    348    3.7
DEMO,TECH JW RT                         11    170    181    8.1    573    6.1
DEMO,TECH RRW RT                         0      2      2    0.1      4    0.0
DEMO,TECH SM RT                          2     44     46    2.1    129    1.4
DEMO,TECH BG RT                          2    155    157    7.0    599    6.4
DEMO,TECH SA RT                          0     11     11    0.5     29    0.3
DEMO,TECH M RT                          13    191    204    9.1   1448   15.5
DEMO,TECH K RT                           0    161    161    7.2    780    8.3
-------------------------------------------------------------------------------

  Imaging Type Total                     94   2137   2231          9370


  NOTE: Since a procedure can be performed by more than one technologist,
        the total number of exams and weighted work units by division and
        imaging type is likely to be higher than the other workload reports.
```

Figure 16-12: Technologist Report

16.4 Special Reports

The special reports menu offers the most options for determining the number and types of procedures performed by Division or by Imaging Location. In addition, the Status Time Report provides turnaround time statistics for individual exams.

```
          AMIS Code Dump by Patient
          AMIS Report
          Camera/Equip/Rm Report
          Cost Distribution Report
          Detailed Procedure Report
          Film Usage Report
          Procedure Scaled wRVU/CPT Report
          Procedure wRVU/CPT Report
```

```
          Procedure/CPT Statistics Report
          Status Time Report
          Wasted Film Report
```

Figure 16-13: Special Reports Menu

16.4.1 Detailed Procedure Report

```
Rad/Nuc Med Total System Menu ...
Management Reports Menu ...
Special Reports ...
Detailed Procedure Report

Select Special Reports Option: DETAIled Procedure Report

Select Rad/Nuc Med Division: All// CHOCTAW NATION HOSPITAL       OKLAHOMA TRIB
E/638       TALIHINA       01    OK          556001

Another one (Select/De-Select):

**** Date Range Selection ****

   Beginning DATE : 8/1/2006  (AUG 01, 2006)

   Ending    DATE : 8/31/2006  (AUG 31, 2006)

              The entries printed for this report will be based only
               on exams that are in one of the following statuses:


          GENERAL RADIOLOGY
          -----------------
               EXAMINED
               TRANSCRIBED
               DICTATED
               COMPLETE


DEVICE: HOME//   Virtual

         >>>>> Detailed Procedure Workload Report <<<<<               Page: 1

     Division: CHOCTAW NATION HOSPITAL
 Imaging Type: GENERAL RADIOLOGY                    For period: AUG  1,2006 to
     Run Date: AUG 17,2007  14:53                               AUG 31,2006

                                      Examinations    Percent       Percent
  Procedure                         In    Out  Total   Exams   WWU    WWU
-------------------------------------------------------------------------------
     Amis: 1   SKULL,INC.SINUS,MASTOID,JAW,ETC
  C-ARM HAND                         0      2      2   18.2      6   18.2
  FACIAL BONES, LESS THAN 3 VIEW     0      1      1    9.1      3    9.1
  NASAL BONES MIN 3 VIEWS            0      2      2   18.2      6   18.2
  SINUSES 3 OR MORE VIEWS            0      3      3   27.3      9   27.3
  SINUSES MIN 2 VIEWS                0      2      2   18.2      6   18.2
  SKULL 4 OR MORE VIEWS              0      1      1    9.1      3    9.1

  AMIS CATEGORY TOTALS               0     11     11           33
```

```
     Amis: 2   CHEST-SINGLE VIEW
  ABDOMEN MIN 3 VIEWS+CHEST            0     65     65   32.0     65   32.0
  ACUTE ABDOMEN                        0     12     12    5.9     12    5.9
  CHEST APICAL LORDOTIC                0      1      1    0.5      1    0.5
  CHEST SINGLE VIEW                   15     95    110   54.2    110   54.2
  LATERAL DECUB CHEST VIEW             0      1      1    0.5      1    0.5
  LORDOTIC VIEW CHEST                  0      1      1    0.5      1    0.5
  RIBS UNILAT+CHEST 3 OR MORE VI       0     13     13    6.4     13    6.4

  AMIS CATEGORY TOTALS                15    188    203          203


     Amis: 3   CHEST MULTIPLE VIEW
  CHEST 2 VIEWS PA&LAT                12    203    215  100.0    430  100.0

  AMIS CATEGORY TOTALS                12    203    215          430


Note:  Numerous pages of report not shown in order to display summary.

         >>>>> Detailed Procedure Workload Report <<<<<              Page: 23

     Division: CHOCTAW NATION HOSPITAL
 Imaging Type: GENERAL RADIOLOGY                    For period: AUG  1,2006 to
     Run Date: AUG 17,2007  14:53                               AUG 31,2006

                                    Examinations    Percent       Percent
  Amis Category                    In    Out  Total   Exams   WWU    WWU
-------------------------------------------------------------------------------
          (Division Summary)
 1-SKULL,INC.SINUS,MASTOID,JAW,ET   0     11     11    0.5     33    0.4
 2-CHEST-SINGLE VIEW               15    188    203    8.8    203    2.2
 3-CHEST MULTIPLE VIEW             12    203    215    9.3    430    4.6
 5-ABDOMEN-KUB                      4     35     39    1.7     78    0.8
 6-OBSTRUCTIVE SERIES               7     68     75    3.2    225    2.4
 7-SKELETAL-SPINE & SACROILIAC      0    104    104    4.5    312    3.3
 8-SKELETAL-BONE & JOINTS          10    731    741   32.0   1482   15.9
 9-GASTROINTESTINAL                 0     33     33    1.4    198    2.1
10-GENITOURINARY                    0     10     10    0.4     60    0.6
12-CHOLANGIOGRAM                    4      3      7    0.3     70    0.7
19-VENOGRAM                         0      2      2    0.1     30    0.3
21-COMPUTED TOMOGRAGHY             28    446    474   20.5   3792   40.6
23-ULTRASOUND,ECHOENCEPHALOGRAM    13    194    207    8.9   1449   15.5
24-OTHER                            0    196    196    8.5    980   10.5
25-EXAMS IN OPER.SUITE AT SURGERY   4     10     14    0.6     89    1.0
26-PORTABLE (BEDSIDE) EXAMINATION   2     85     87    3.8    123    1.3
  -SERIES OF AMIS CODES             0     94     94          383    4.1
```

Figure 16-14: Detailed Procedure Report

16.4.2 Procedure/CPT Statistics Report

```
Rad/Nuc Med Total System Menu ...
Management Reports Menu ...
Special Reports
Procedure/CPT Statistics Report

Select Special Reports Option: PROCEdure/CPT Statistics Report

Do you want to count CPT Modifiers separately? NO//
```

```
Select Rad/Nuc Med Division: All// CHO  CTAW NATION HOSPITAL       OKLAHOMA TRIB
E/638       TALIHINA       01    OK          556001

Another one (Select/De-Select):

Do you wish to include cancelled cases? Yes// NO

Do you wish to include all Procedures? Yes//   YES

**** Date Range Selection ****

   Beginning DATE : 8/1/2006  (AUG 01, 2006)

   Ending    DATE : 8/31/2006  (AUG 31, 2006)

     Select one of the following:

          I         INPATIENT
          O         OUTPATIENT
          B         BOTH

Report to include: BOTH//


DEVICE: HOME//   Virtual

           >>>>> PROCEDURE/CPT STATISTICS REPORT (INPATIENT) <<<<<    Page: 1

    Division: CHOCTAW NATION HOSPITAL
Imaging Type: GENERAL RADIOLOGY                     For period: 08/01/06 to
    Run Date: AUG 17,2007  14:54                                 08/31/06
    # of Procedures selected: All                   Cancelled Exams: excluded

CPT    PROCEDURE                              # DONE  (%)    $UNIT     $TOTAL  (%)
================================================================================
70450  CT HEAD W/O CONT                           4    4     0.00       0.00    0
71010  CHEST SINGLE VIEW                         15   16     0.00       0.00    0
71020  CHEST 2 VIEWS PA&LAT                      12   13     0.00       0.00    0
71260  CT THORAX W/CONT                           3    3     0.00       0.00    0
72192  CT PELVIS W/O CONT                         2    2     0.00       0.00    0
72193  CT PELVIS W/CONT                           1    1     0.00       0.00    0
72194  CT PELVIS W&W/O CONT                       6    6     0.00       0.00    0
73030  SHOULDER 2 OR MORE VIEWS                   4    4     0.00       0.00    0
73130  HAND 3 OR MORE VIEWS                       1    1     0.00       0.00    0
73500  HIP 1 VIEW                                 1    1     0.00       0.00    0
73610  ANKLE 3 OR MORE VIEWS                      1    1     0.00       0.00    0
73630  FOOT 3 OR MORE VIEWS                       2    2     0.00       0.00    0
73650  CALCANEOUS 2 VIEWS                         1    1     0.00       0.00    0
73700  CT LOWER EXTREMITY W/O CONT                1    1     0.00       0.00    0
73701  CT LOWER EXTREMITY W/CONT                  1    1     0.00       0.00    0
74000  ABDOMEN 1 VIEW                             1    1     0.00       0.00    0
74000  ABDOMEN-KUB                                3    3     0.00       0.00    0
74020  FLAT AND UPRIGHT ABDOMEN                   7    8     0.00       0.00    0
74150  CT ABDOMEN W/O CONT                        3    3     0.00       0.00    0
74160  CT ABDOMEN W/CONT                          1    1     0.00       0.00    0
74170  CT ABDOMEN W&W/O CONT                      6    6     0.00       0.00    0
76000  C-ARM CHOLANGIOGRAM                        4    4     0.00       0.00    0
76700  ECHOGRAM ABDOMEN COMPLETE                  6    6     0.00       0.00    0
76705  ECHOGRAM ABDOMEN LTD                       3    3     0.00       0.00    0
76770  ECHOGRAM RETROPERITONEAL COMPLETE          4    4     0.00       0.00    0
            Total for this imaging type -->      93                     0.00
```

```
          >>>>> PROCEDURE/CPT STATISTICS REPORT (OUTPATIENT) <<<<<   Page: 4

    Division: CHOCTAW NATION HOSPITAL
Imaging Type: GENERAL RADIOLOGY                    For period: 08/01/06 to
    Run Date: AUG 17,2007  14:54                               08/31/06
    # of Procedures selected: All                 Cancelled Exams: excluded

CPT    PROCEDURE                              # DONE  (%)    $UNIT     $TOTAL  (%)
================================================================================
70140  FACIAL BONES, LESS THAN 3 VIEWS            1    0     0.00       0.00    0
70160  NASAL BONES MIN 3 VIEWS                    2    0     0.00       0.00    0
70210  SINUSES MIN 2 VIEWS                        2    0     0.00       0.00    0
70220  SINUSES 3 OR MORE VIEWS                    3    0     0.00       0.00    0
70260  SKULL 4 OR MORE VIEWS                      1    0     0.00       0.00    0
70450  CT HEAD W/O CONT                          94    4     0.00       0.00    0
70460  CT HEAD W/IV CONT                          1    0     0.00       0.00    0
70470  CT HEAD W&WO CONT                         19    1     0.00       0.00    0
70480  CT ORBIT SELLA P FOS OR TEMP BONE W/O      3    0     0.00       0.00    0
70486  CT MAXILLOFACIAL W/O CONT                 16    1     0.00       0.00    0
70490  CT NECK SOFT TISSUE W/O CONT               1    0     0.00       0.00    0
70491  CT NECK SOFT TISSUE W/CONT                 3    0     0.00       0.00    0
71010  CHEST SINGLE VIEW                         95    4     0.00       0.00    0
71010  LORDOTIC VIEW CHEST                        1    0     0.00       0.00    0
71020  CHEST 2 VIEWS PA&LAT                     203    9     0.00       0.00    0
71021  CHEST APICAL LORDOTIC                      1    0     0.00       0.00    0
71035  LATERAL DECUB CHEST VIEW                   1    0     0.00       0.00    0
71100  RIBS UNILAT 2 VIEWS                        1    0     0.00       0.00    0
71101  RIBS UNILAT+CHEST 3 OR MORE VIEWS         13    1     0.00       0.00    0
71110  RIBS BILAT 3 OR MORE VIEWS                 2    0     0.00       0.00    0
71250  CT THORAX W/O CONT                         5    0     0.00       0.00    0
71260  CT THORAX W/CONT                          24    1     0.00       0.00    0
71270  CT THORAX W&W/O CONT                       1    0     0.00       0.00    0
72020  SPINE SINGLE VIEW                          1    0     0.00       0.00    0
72020  LUMBAR SPINE SINGLE VIEW                   1    0     0.00       0.00    0
72040  SPINE CERVICAL MIN 2 VIEWS                22    1     0.00       0.00    0
72050  SPINE CERVICAL MIN 4 VIEWS                 9    0     0.00       0.00    0
72070  SPINE THORACIC 2 VIEWS                    27    1     0.00       0.00    0
72100  SPINE LUMBOSACRAL MIN 2 VIEWS             22    1     0.00       0.00    0
72110  SPINE LUMBOSACRAL MIN 4 VIEWS             19    1     0.00       0.00    0
72125  CT CERVICAL SPINE W/O CONT                29    1     0.00       0.00    0
```

Figure 16-15: Procedure /CPT Statistics Report

16.4.3 Film Usage Report

The film usage report is of less value at the current time because of the availability of detailed reports from most modalities.

```
Rad/Nuc Med Total System Menu ...
Management Reports Menu ...
Special Reports ...
Film Usage Report

Select Special Reports Option: FILM Usage Report

Film Usage Report
-----------------
```

```
Do you wish only the summary report? NO// YES

Select Rad/Nuc Med Division: All// CHOC  TAW NATION HOSPITAL       OKLAHOMA TRIB
E/638       TALIHINA       01    OK          556001

Another one (Select/De-Select):

Do you wish to include all Films? Yes//   YES

**** Date Range Selection ****

   Beginning DATE : 8/1/2006  (AUG 01, 2006)

   Ending    DATE : 8/31/2006  (AUG 31, 2006)

             The entries printed for this report will be based only
              on exams that are in one of the following statuses:


          GENERAL RADIOLOGY
          -----------------
               EXAMINED
               TRANSCRIBED
               DICTATED
               COMPLETE


DEVICE: HOME//   Virtual

        >>>>> Film Usage Report <<<<<                              Page: 1

    Division: CHOCTAW NATION HOSPITAL
Imaging Type: GENERAL RADIOLOGY                    For period: AUG  1,2006 to
    Run Date: AUG 17,2007  14:54                               AUG 31,2006

                                      Number    Number    Films     Percentage
                                        of        of       per       Films
  Film Size                           Films*    Exams     Exam      Used
-------------------------------------------------------------------------------
          (Imaging Type Summary)
10x12                                  1189       562       2.1      22.2
10x12 mam                                98        22       4.5       1.8
11x14 (30x35cm)                         353       138       2.6       6.6
14x14                                    66        31       2.1       1.2
14x17 (35x43cm)                         613       246       2.5      11.5
14x17 Chest Kodak InSight               720       383       1.9      13.5
14x17 ct                               1490       425       3.5      27.9
8x10                                    413       212       1.9       7.7
8x10 Mam                                407       112       3.6       7.6
NO FILMS STANDBY TIME                     1         1       1.0       0.0

  Imaging Type Total                   5350      2132       2.5
-------------------------------------------------------------------------------
```

```
* Cine data not included in imaging type totals.
  Percentages calculated on film data only.

   # of Films selected: ALL
```

Figure 16-16: Film Usage Report

16.4.4 Status Time Report

```
Rad/Nuc Med Total System Menu ...
Management Reports Menu ...
Special Reports ...
Status Time Report

Select Special Reports Option: STAtus Time Report

Select Rad/Nuc Med Division: All// CHOC  TAW NATION HOSPITAL       OKLAHOMA TRIB
E/638       TALIHINA       01    OK          556001

Another one (Select/De-Select):

Select all requesting locations? Y/N: Y

Select IMAGING TYPE: GENE  RAL RADIOLOGY

Select all procedures? Y/N: Y

**** Date Range Selection ****

   Beginning DATE : 8/1/2006  (AUG 01, 2006)

   Ending    DATE : 8/31/2006  (AUG 31, 2006)

Do you wish to print detailed reports? No//


DEVICE: HOME//   Virtual

                    ** Status Tracking Statistics Report **            Page:   1
                       Division Summary Procedure Detail

  Run Date: 08/17/07                    For Period: 08/01/06 - 08/31/06
  Division: CHOCTAW NATION HOSPITAL     Imaging Type: GENERAL RADIOLOGY
  Requesting Location:ALL               Procedure:ALL

                    ** Status Tracking Statistics Report **            Page:   2
                       Division Summary Procedure Detail

  Run Date: 08/17/07                    For Period: 08/01/06 - 08/31/06
  Division: CHOCTAW NATION HOSPITAL     Imaging Type: GENERAL RADIOLOGY
  Requesting Location:ALL               Procedure:ALL

          From: WAITING FOR EXAM
          To  : EXAMINED

                                 Minimum     Maximum     Average
                                  Time        Time        Time     Number of
    Procedure (CPT)            (DD:HH:MM)  (DD:HH:MM)  (DD:HH:MM)  Procedures
    ---------------            ----------  ----------  ----------  ----------
```

```
SINUSES MIN 2 VIEWS(70210)      00:00:00    00:00:47    00:00:23          2
SINUSES 3 OR MORE VIEWS(70220)  00:00:10    00:00:27    00:00:18          2
SKULL 4 OR MORE VIEWS(70260)    00:00:25    00:01:25    00:01:25          1
CT HEAD W/O CONT(70450)         00:00:06    33:15:10    00:22:04         94
CT HEAD W&WO CONT(70470)        00:00:44    02:23:55    00:13:39         19
CT ORBIT SELLA P FOS OR T(70480)00:00:49    00:21:57    00:08:17          3
CT MAXILLOFACIAL W/O CONT(70486)00:00:20    37:05:59    03:03:59         13
                               ----------  ----------  ----------  ----------
    Overall:                   00:00:00    16:04:14    00:11:49       1844

                   ** Status Tracking Statistics Report **            Page:  21
                      Division Summary Procedure Detail

  Run Date: 08/17/07                    For Period: 08/01/06 - 08/31/06
  Division: CHOCTAW NATION HOSPITAL     Imaging Type: GENERAL RADIOLOGY
  Requesting Location:ALL               Procedure:ALL

          From: EXAMINED
          To  : COMPLETE

                                 Minimum     Maximum     Average
                                   Time        Time        Time     Number of
    Procedure (CPT)             (DD:HH:MM)  (DD:HH:MM)  (DD:HH:MM)  Procedures
    ---------------             ----------  ----------  ----------  ----------

CT HEAD W/O CONT(70450)          74:18:23    74:18:23    74:18:23          1
CT MAXILLOFACIAL W/O CONT(70486)38:18:55    38:18:55    38:18:55          1
CHEST 2 VIEWS PA&LAT(71020)      66:00:11    74:12:05    71:13:07          7
RIBS UNILAT+CHEST 3 OR MO(71101)73:18:01    73:18:01    73:18:01          1
SPINE THORACIC 2 VIEWS(72070)    73:02:17    73:02:17    73:02:17          1
SPINE LUMBOSACRAL MIN 2 V(72100)73:02:17    73:02:17    73:02:17          1
                                ----------  ----------  ----------  ----------
    Overall:                    38:18:51    75:23:38    66:20:40         86

                   ** Status Tracking Statistics Report **            Page:  25
                           Division Summary Overall

  Run Date: 08/17/07                    For Period: 08/01/06 - 08/31/06
  Division: CHOCTAW NATION HOSPITAL     Imaging Type: GENERAL RADIOLOGY
  Requesting Location:ALL               Procedure:ALL

                                 Minimum     Maximum     Average
                                   Time        Time        Time     Number of
                                (DD:HH:MM)  (DD:HH:MM)  (DD:HH:MM)  Procedures
                                ----------  ----------  ----------  ----------

    From: WAITING FOR EXAM
    To  : COMPLETE               64:19:42    64:19:42    64:19:42          1

    From: WAITING FOR EXAM
    To  : EXAMINED               00:00:00    16:04:14    00:11:49       1844

    From: EXAMINED
    To  : COMPLETE               38:18:51    75:23:38    66:20:
```

Figure 16-17: Status Time Report

16.5 Timeliness Reports

The **Timeliness Reports** are quality assurance reports on the timeliness of processing Radiology procedures and reports. They are divided into three main categories:

```
          Outpatient Procedure Wait Time ...
          Verification Timeliness ...
          Radiology Timeliness Performance Reports ...
```

Figure 16-18: Radiology Timeliness Performance Reports

Only one report will be demonstrated in Figure 16-19, the Verification Timeliness Summary Report.

```
Rad/Nuc Med Total System Menu ...
Management Reports Menu ...
Timeliness Reports ...
Verification Timeliness ...

Summary/Detail Report

Radiology Verification Timeliness Report

Enter Report Type

     Select one of the following:

          S         Summary
          D         Detail
          B         Both

Select Report Type: S// Summary

    The begin date for Summary and Both must be at least 10 days before today.

Enter starting date:  1/1/2003  (JAN 01, 2003)

    The ending date for Summary and Both must be at least 10 days before today.

Enter ending date:  (1/1/2003 - 4/2/2003): 1/31/2003  (JAN 31, 2003)

Select Primary Interpreting Staff Physician (Optional):

Select Imaging Type: All//

Another one (Select/De-Select):

Send summary report to local mail group "G.RAD PERFORMANCE INDICATOR"? Yes// NO

     No OUTLOOK mail group(s) have been entered yet.

DEVICE: HOME//

                     Summary Verification Timeliness Report           Page: 1

Facility: DEMO INDIAN HOSPITAL           Station: 8907      VISN:
Division: DEMO INDIAN HOSPITAL
Exam Date Range: 1/1/03 - 1/31/03
Imaging Type(s): GENERAL RADIOLOGY, MAMMOGRAPHY
```

```
Run Date/Time: 12/31/13 2:49 pm

Total number of reports expected for procedures performed during specified
date range: 1897

Hrs     >0    >24    >48   >72   >96  >120  >144  >168  >192  >216  >240 PENDING
From   -24    -48    -72   -96  -120  -144  -168  -192  -216  -240  Hrs
Ex Dt  Hrs    Hrs    Hrs   Hrs   Hrs   Hrs   Hrs   Hrs   Hrs   Hrs

#Tr      9    316    520   455   259   192    99    25     5     5     8       4
%Tr    0.5   16.7   27.4  24.0  13.7  10.1   5.2   1.3   0.3   0.3   0.4     0.2

#Vr      1    126    385   403   474   304    82    91    13     3    11       4
%Vr    0.1    6.6   20.3  21.2  25.0  16.0   4.3   4.8   0.7   0.2   0.6     0.2

                      Summary Performance Indicator Report            Page: 2

     * Columns represent # of hours elapsed from exam date/time through
       date/time report entered or date/time report was verified.
       e.g. ">0-24 Hrs" column represents those exams that had a report
       transcribed and/or verified within 0-24 hours from the exam date/time.

     * Columns following the initial elapsed time column ">0-24 Hrs" begin
       at .0001 after the starting hour (e.g. ">24-48 Hrs" = starts at 24.001
       through the 48th hour.)

     * PENDING means there's no data for DATE REPORT ENTERED or VERIFIED DATE.
       So, if the expected report is missing one of these fields, or is missing
       data for fields .01 through 17 from file #74, RAD/NUC MED REPORTS, or
       is a Stub Report that was entered by the Imaging package when images
       were captured before a report was entered, then the expected report
       would be counted in the PENDING column.

     * A printset, i.e., a set of multiple exams that share the same report,
       will be expected to have 1 report.

     * Cancelled and "No Credit" cases are excluded from this report.
```

Figure 16-19: Verification Timeliness Report

17.0 Supervisor Menu

There are some options in the Supervisor's Menu which should be used sparingly and only in special cases.

17.1 Delete a Report

This option allows the Supervisor to delete a report that has been entered in error.

17.2 Exam Deletion

Deletion of an exam is prohibited if the exam has an associated report or image. The report and the image must be deleted first using the VISTA workstation before the exam can be deleted.

Once the examination is DELETED, the user will be prompted to answer with a YES or NO to cancel the request associated with this exam. If YES, the request will also be cancelled, and the request status updated to CANCELLED. If NO, the request status will be updated to HOLD and may be selected for registration at a future date.

17.3 Override a Single Exam's Status to Complete

This menu option allows the Radiology Supervisor or designated staff to override the status of any exam to complete. The only exceptions to this function are exams which are already complete or those which have been cancelled.

The option probably should not be used by any Radiology service, but it is a useful tool for a small site that performs no Radiology on site. When a completed report comes back from a Radiology referral, the patient may be registered for that exam and the exam subsequently either edited or immediately overridden to complete.

17.4 Restore a Deleted Report

If a report has been deleted in error, this option can be used to restore the deleted report to its case, only if another report was not linked to the case in the interim (time between the report deletion and restoration.) The restored report is re-assigned the report status it had prior to the Deleted report status. However, the status of the exam is not automatically updated.

17.5 Unverify a Report for Amendment

This option allows the supervisor to unverify a report. It is typically used if a second read is provided by another Radiologist or if the original Radiologist wishes to alter or append to an existing report. This option should not be given to other users. As the report is unverified, a copy of it is saved for medical/legal purposes, and the report can be amended using any option that allows report entry or edit function. After the amended report is re-verified, displays and printouts of the report will always have a notation at the top to call attention to the fact that it has been amended.

18.0 Passing Mammograms to Women's Health

While it is recognized that the Women's Health package is being phased out, some facilities that perform mammograms on site still use the Women's Health package for mammogram tracking.

In order to use the existing functionality to pass mammograms to Women's Health, several steps must be taken:

1. Diagnostic Codes must be entered for all mammogram reports. The recommendation is to use American College of Radiologist (ACR) BI-RAD codes. These should have been loaded with Radiology/Nuclear Medicine V 5.0 patch 1003. You can confirm their presence by using the following Radiology/Nuclear Medicine Package menu path.

```
Supervisor Menu
Utility Files Maintenance Menu
Diagnostic Codes Enter/Edit
```

Figure 18-1: Menu path to create/edit diagnostic codes in Radiology/Nuclear Medicine

   1–NEGATIVE

   2–BENIGN FINDINGS

   3–PROBABLY BENIGN–SHORT INTERVAL FOLLOW-UP

   4–SUSPICIOUS ABNORMALITY, SUGGEST BIOPSY

   5–HIGHLY SUGGESTIVE OF MALIGNANCY

   0–ASSESSMENT INCOMPLETE

2. Diagnostic Codes must be linked to a Women's Health diagnosis. The menu path to complete that linkage is in the **Women's Health** menu.

```
Women's Health
Manager's Functions
File Maintenance Menu
Edit Diagnostic Code Translation File
```

Figure 18-2: Menu path to linking Radiology diagnostic codes to Women's Health diagnosis

For each of the Women's Health Result/Diagnosis for a Mammogram Result, enter the corresponding Radiology Diagnostic Code. In Figure 18-3 below, a linkage has been created for **Prbly Benign, Short Int F/U**.

```
   * * *  WOMEN'S HEALTH: EDIT BW DIAGNOSTIC CODE TRANSLATION FILE  * * *

    Select RESULT/DIAGNOSIS: Prbly Benign, Short Int F/U       4
```

```
 Are you adding 'Prbly Benign, Short Int F/U' as
   a new BW DIAGNOSTIC CODE TRANSLATION (the 2ND)? No// Y  (Yes)
WOMEN'S HEALTH DIAGNOSIS: Prbly Benign, Short Int F/U
       //
RADIOLOGY DIAGNOSTIC CODE: MAM -
    1   MAM - ASSESSMENT IS INCOMPLETE
    2   MAM - BENIGN FINDING, NEGATIVE
    3   MAM - HIGHLY SUGGESTIVE OF MALIG, ACTION SHOULD BE TAKEN
    4   MAM - NEGATIVE
    5   MAM - NOT INDICATED
Press <RETURN> to see more, '^' to exit this list, OR
CHOOSE 1-5: <ENTER>
    6   MAM - PROBABLY BENIGN FINDING, SHORT INTERVAL F/U SUGGESTED
    7   MAM - SUSPICIOUS ABNORMALITY, BIOPSY SHOULD BE CONSIDERED
CHOOSE 1-7: 6
```

Figure 18-3: Linking Radiology diagnostic codes to Women's Health diagnoses

Set up the Women's Health site parameters to update with Mammograms from Radiology. Note that this screen is on Page 2 of the site parameters.

```
Women's Health
Manager's Functions
Edit Site Parameters


  * * *  EDIT SITE PARAMETERS FOR CIMARRON HOSPITAL  * * *
_____________________________________________________________________________
 CDC.......:
              CDC Export: NO             FIPS County Code:
     Current MDE Version: 4.1            FIPS Program Code:
 Bethesda 1991 Start Date: JAN 1,1991    CDC Tribal Pgm Abbreviation:
 Bethesda 2001 Start Date: OCT 1,2002    Date CDC Funding Began:
 Default Specimen Type: CONVENTIONAL SMEAR

 HFS......:  Host File Path: /usr/spool/uucppublic

 RADIOLOGY:  Import Mammograms from Radiology: YES
             Status Given to Imported Mammograms: OPEN

 PCC......:  Run PCC Link in Diagnostic Mode: YES       (PAGE 2 OF 5)
_____________________________________________________________________________
```

Figure 18-4: Editing Women's Health site parameters to import mammograms from Radiology

3. Adjust the Women's Health Site Parameters to ***not*** pass mammograms from Women's Health to PCC for On-Site Procedures. This is important to avoid creating duplicate entries for mammograms in PCC. Note that the options for mammograms are on pages 4 and 5 of the site parameters.

```
Women's Health
Manager's Functions
Edit Site Parameters

          * * *  EDIT SITE PARAMETERS FOR DEMO INDIAN HOSPITAL  * * *
_____________________________________________________________________________
__
```

```
    Procedure Type            Active       Pass to PCC            DAYS
DELINQ
    --------------------      ------       -------------------     --------
--
    Mammogram Dx Unilat       YES          OFF-SITE ONLY             30
    Mammogram Screening       YES          OFF-SITE ONLY             30
    Mastectomy                YES          BOTH ON- & OFF-SITE       30
    Needle Biopsy             YES          BOTH ON- & OFF-SITE       30
    Open Biopsy               YES          BOTH ON- & OFF-SITE       30
    PAP Smear                 YES          BOTH ON- & OFF-SITE       30
    Pregnancy Test            YES          BOTH ON- & OFF-SITE       30
    STD Evaluation            YES          BOTH ON- & OFF-SITE       30
    Stereotactic Biopsy       YES          BOTH ON- & OFF-SITE       30
                                                        (PAGE 5 OF 5)
_______________________________________________________________________________
```

Figure 18-5: Switching Site parameters for Women's Health to pass Mammograms for Off-Site Only

4. Test with a Demo,Patient who is on the Women's Health Register by entering a screening mammogram with a Diagnostic Code in Radiology. When editing the exam for the patient, you should see a message, "Now updating Women's Health database." When the report is verified, you should be able to see a screening mammogram with a diagnosis under that patient's profile in Women's Health. If the patient is not on the Women's Health Register, the default Case Manager in Women's Health should receive a RPMS MailMan bulletin notifying that an entry could not be made for a mammogram in Woman's Health because the patient was not on the Register.

19.0 Interfacing

Radiology/Nuclear Medicine Interfaces can take many forms and numerous vendors are available. The four basic kinds of interfaces available include:

1. PACS interface–images are electronically passed to and stored on a server.
2. Modality Worklist interface–orders from RPMS electronically populate a Worklist on one or more desired modalities.
3. Report interface–reports electronically post back to the Radiology/Nuclear Medicine Report and are electronically verified.
4. Scanned interface–reports are scanned using the VISTA Scanning software and can be linked to the Radiology case number for provider review in EHR.

Any one of these interfaces can be used in conjunction with one or more of the others. All except the Scanning interface use HL7 language for coding in order to meet the Digital Imaging and Communications in Medicine (DICOM) standards.

An example of an HL7 order message is shown in Figure 19-1. This would be an example of an order message that would be sent from RPMS to a Modality Worklist or to a PACS server or to a VISTA workstation.

```
MSH|^~\&|RPMS_RAD|TESTHOSPITAL|GE_PACS|TEST|20070821000555-
0600|ORM^O01|IHS-2615209|P|2.3||AL|ER||
PID|1|48150|556001054321|556013015896~556016001622|DEMO^PATIENT^L^^^|MAXWEL
L^SMART^^^^|19780418|F||PO BOX 555^^QUINTON^OK ^74555||918-555-
3858||||440555906
PV1|1|O|EMERGENCY ROOM^MEDICAL IMAGING^TEST HOSPITAL||||||
ORC|SC|11022|082007-11022||CM||20070820235200-0600|||1509^
SMART^MAXWELL^E^DO^^|||EMERGENCY ROOM^MEDICAL IMAGING
OBR|1|11022|082007-11022|175^ABDOMEN MIN 3 VIEWS+CHEST^C4||
|||1509^SMART^MAXWELL^E^DO^^||||GENERAL RADIOLOGY||^^^ 20070820235200-
0600^^ROUTINE|||ABDOMEN PAIN RM-2 ||
```

Figure 19-1: HL7 Order Message

An order message consists of segments (MSH, PID, PV1, ORC, OBR) and fields. The data elements included between each series of | | in a segment.

Segments are defined as follows:

- MSH The Message Header which identifies where this message originated and what its destination will be.
- PID–The Patient ID segment which contains the name, chart number, date of birth, sex, ordering provider, and other details of patient demographics.
- PV1–The Visit segment which identifies whether this is an inpatient or outpatient visit and the visit location.

- ORC/OBR–the Order segments contain the details of the exam requested, the requesting provider, the date and time requested, and the reason for the exam.

An HL7 result message returns much the same information except the fields in the MSH are reversed in that the external reports interface or PACS system is returning information to RPMS. The report information is contained in OBX segments which are mapped to the desired fields in the Radiology/Nuclear Medicine Reports file.

```
MSH|^~\&|HL7INTERFACE|HL7 SYSTEM|RPMS_RAD|ZZZZ|
20070821065517|ORU^R01|DIARIS_070821065517062||1.0|| |NE|NE
PID|1||556001054321||DEMO^PATIENT^A^^^||19800810|M|||||CR
OBR|1|17823|081807-17823|82^SPINE CERVICAL MIN 2 VIEWS^C4| | | | |556001||
|1198^SMART^MAXWELL^E^MD^^| | |20070821|GENERAL RADIOLOGY |FI|
|^^^20070818190500-0600^^ROUTINE|| ||MVC NECK PAIN BACK PAIN EXAM 7 |876^
^20070819|876^ ^2007| 0819|UNKNOWN^ ^20070820| | | | |CR|
OBX|1|FT| &GDT^ ||Referring Physician:  SMART  (Interface Hospital -
Nowhere, USA |||||||
OBX|2|FT| &GDT^ ||X-Ray No:  51032_CNH [UID: TA20070818192925 ]|||||||
OBX|3|FT| &GDT^ ||Date of Exam:  8/18/2007 (Received on: 8/18/2007 7:29:25
PM)|||||||
OBX|4|FT| &GDT^ ||Reason for Exam: MVA LOW BACK PAIN/WORK/ER; |||||||
```

Figure 19-2: HL7 Report Message

Examples of potential workflows are shown in the following diagrams:

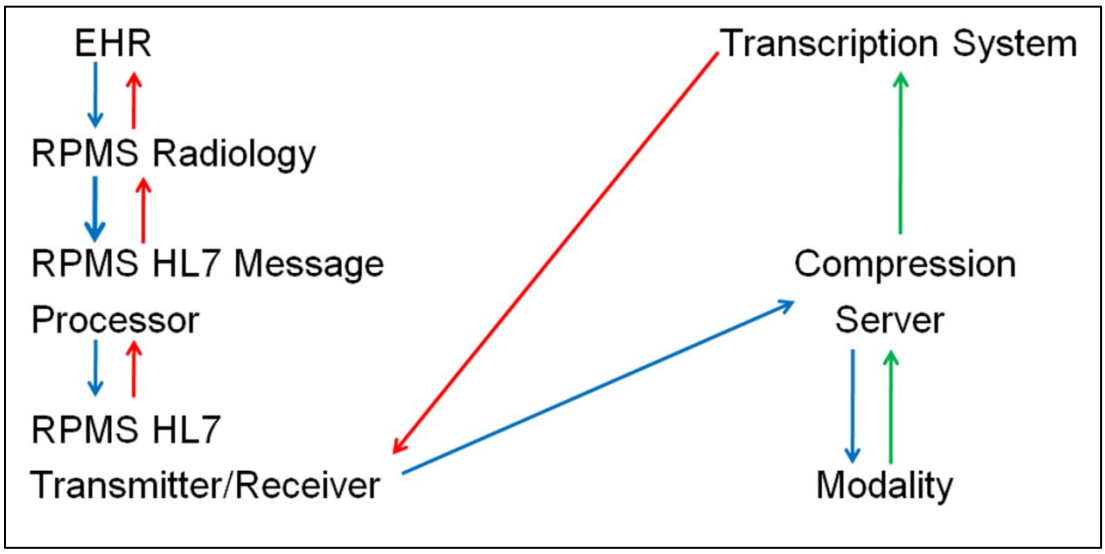


Figure 19-3: Example of a report using the generic interface in RPMS as the interface

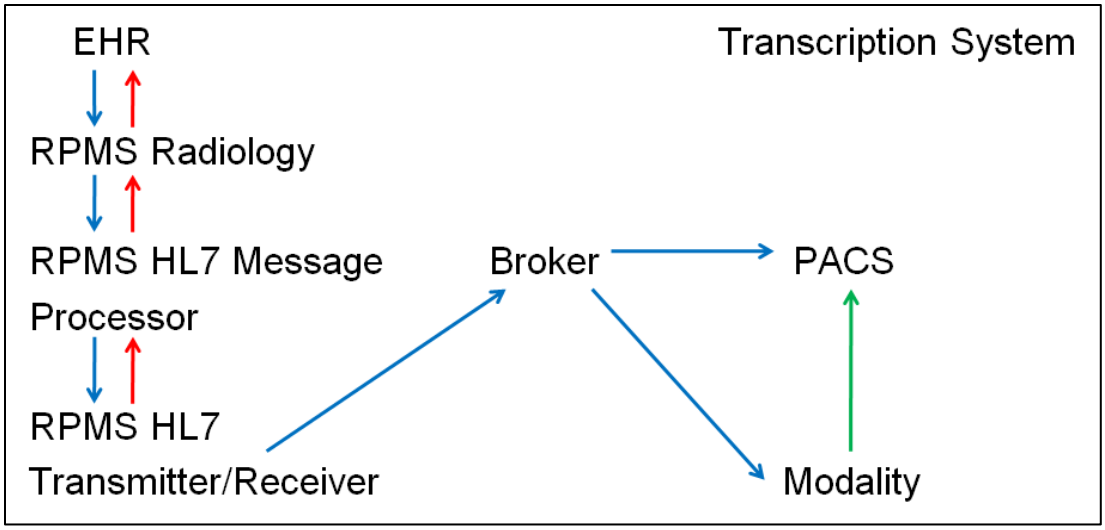


Figure 19-4: Example of a PACS interface with a modality worklist without a Reports interface

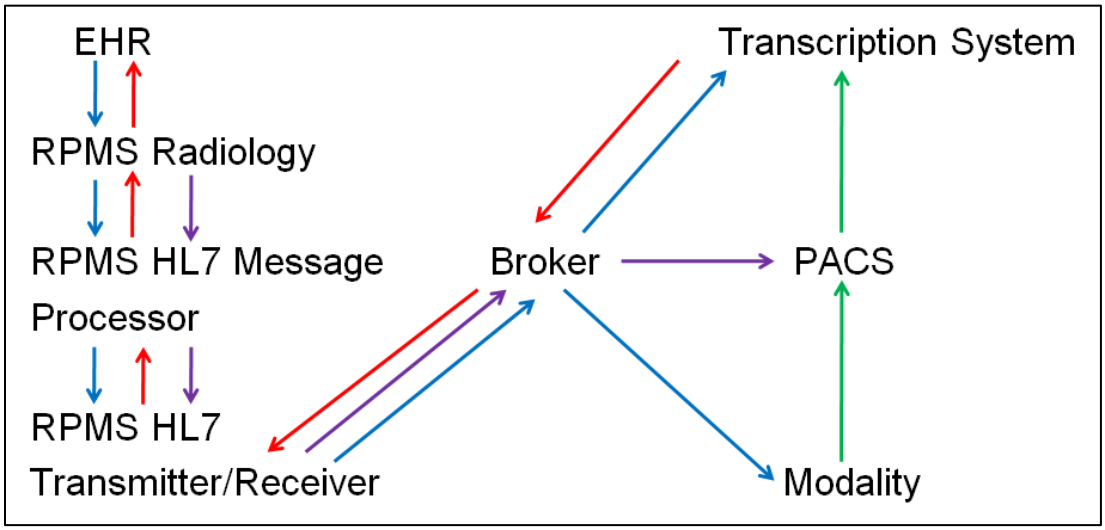


Figure 19-5: Example of a PACS, modality worklist, and Reports interface

Because of the large number of vendors and complexity of interfaces, it is highly recommended that any sites desiring any kind of interface begin the discussion with their area office IT staff. Complex interfaces can be extremely resource intensive and may not be practical for small sites offering limited or no Radiology services on site.

It is most likely that small sites may be able to meet Meaningful Use Stage 2 requirements by using the Radiology/Nuclear Medicine Package in a limited mode with VISTA scanning capability to link outside scanned reports to the Radiology exam originally requested in EHR.

More extensive documentation can be found on VISTA imaging at the following link: https://www.ihs.gov/ehr/ftpfiles/?fld=VistA+Imaging&parent=.

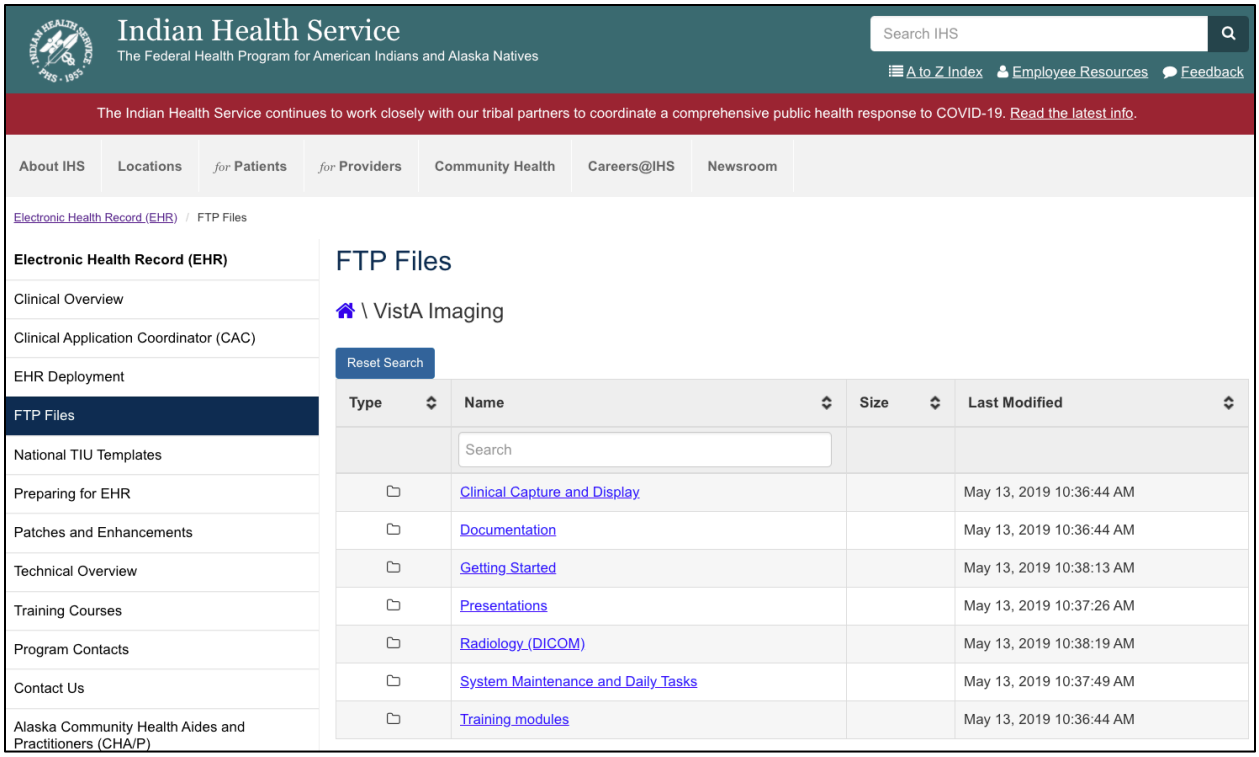


Figure 19-6: IHS FTP website–VistA Imaging

20.0 September 2020 RA_5.0_1008 Release Addendum

20.1 Introduction

This addendum lists the new additions to the RPMS Radiology module as developed for the 2020 RPMS Radiology release, RA*5.0*1008. The following modifications were required for the 2015 Certified Health EHR edition specifically for the Indian Health Service RPMS/EHR Consolidated Clinical Document Architecture (CCDA), Transition of Care (TOC), and the Personal Health Record (PHR) certification criterion.

For RPMS RAD/NUC MED sites that manually enter and verify reports or have an existing HL7 interface for report transmission and verification, the verifying Radiologist or Staff associated with an interpreting site is the mechanism for sending the interpreting site for display in the CCDA, TOC, and PHR. The entered interpretation or RAD/NUC MED REPORT Impression is also exported with a verified report.

> **Note**: RPMS RAD/NUC MED sites that do not enter or interface RAD/NUC MED REPORT entries with a verifying Radiologist or Staff and/or Impression entry will not see the following detailed information in the patient CCDA, TOC, or PHR.

If radiology reports are not entered, verified, and/or a site scans in reports via VistA Imaging Capture using a different RPMS RAD/NUC MED exam complete option, the interpreting site and impression information will not be captured for display in the CCDA, TOC, and PHR.

Additional information and screenshots are provided.

20.2 Modifications

20.2.1 New Security Keys: RAZRIS

A new security key should be assigned to the Imaging Supervisor and RPMS Radiology Information System (RIS) consultant. The key assignment enables view and add/edit for existing or new Radiology Interpreting Site Add/Edit file entries. This new option is located in the **Rad/Nuc Med Personnel Menu**.

```
Rad/Nuc Med Total System Menu
Supervisor Menu ...
Rad/Nuc Med Personnel Menu ...
Radiology Interpreting Site Add/Edit
```

Figure 20-1: RPMS menu path to linking Radiology to the Radiology Interpreting Site Add/Edit

```
Classification Enter/Edit
Clerical List
      Interpreting Resident List
      Interpreting Staff List
      Radiology Interpreting Site Add/Edit
      Technologist List
```

Figure 20-2: RPMS Radiology Interpreting Site Add/Edit option with the RAZRIS security key

20.2.2 New Radiology Interpreting Site Option

```
Classification Enter/Edit
Clerical List
      Interpreting Resident List
      Interpreting Staff List
      Radiology Interpreting Site Add/Edit
      Technologist List
```

Figure 20-3: Radiology Interpreting Site Add/Edit requires the RAZRIS security key

This menu option allows the addition of new and existing imaging interpreting sites and includes a field association for new and existing Staff. Radiology or imaging interpreting sites may be local to the Indian Health Service (e.g., 2021 DEMO HOSPITAL) or an external vendor (e.g., RadREAD) or both. Each Radiology Interpreting Site will require an entry into this menu option.

These entries are not associated with the VA FileMan **Institution** File.

```
Select Rad/Nuc Med Personnel Menu Option: RADiology Interpreting Site Add/Edit
Radiology Interpreting Site: 2021 DEMO HOSPITAL
  Are you adding '2021 DEMO HOSPITAL' as
    a new RAD/NUC MED INTERPRETING SITE (the 10TH)? No// Y  (Yes)
STREET ADDRESS: 2021 ABC STREET
CITY: ALBUQUERQUE
STATE: NM  NEW MEXICO     NM
ZIP: 87106
PHONE NUMBER: 5051111234
Select PERSONNEL NAME: DEMO,PERSON  DEMO,PERSON IT  LRW
  Are you adding 'DEMO,PERSON' as
    a new PERSONNEL NAME (the 1ST for this RAD/NUC MED INTERPRETING SITE)? No// Y
  (Yes)
```

Figure 20-4: Example addition of an RPMS RAD/NUC MED Radiology Interpreting Site

Figure 20-4 includes the association or pointer to an existing Radiologist or Staff and the example is for an external vendor.

> **Reminder**: The Radiology Interpreting Site can have file additions for both local (IHS) and external radiologists or tele radiology vendors. At this time, it is assumed that Staff do not read for both an IHS site (local) and external vendor (outside of IHS).

There should be a one-to-one match with a radiologist Staff classification and a Radiology Interpreting Site. If a Staff is not associated with a Radiology Interpreting Site, the imaging **Interpreting Site** will ***not*** display in the CCDA, TOC, or patient PHR.

Staff who lack the RAZRIS security key but can access the **Rad/Nuc Med Personnel** menu will be able to add staff radiologists to a field Radiology Interpreting Site. This has been added to the **Classification Enter/Edit** option (Figure 20-5).

If a staff deletion for an interpreting site is required from **Classification Enter/Edit**, use the new **Radiology Interpreting Site** menu option and associated field for **PERSONNEL NAME**.

```
Select Rad/Nuc Med Personnel Menu Option: CLASSification Enter/Edit

Select Personnel:    DEMO,STAFF IT     LRW
Select RAD/NUC MED CLASSIFICATION: staff//
Select RAD/NUC MED LOCATION ACCESS: RADIOLOGY DEPARTMENT
         //
RAD/NUC MED INACTIVE DATE:
STAFF REVIEW REQUIRED:
ALLOW VERIFYING OF OTHERS: YES//
Radiology Interpreting Site: 2021 DEMO HOSPITAL//   << pulled in from the Radiology
Interpreting Site entry.  Or – RPMS RAD/NUC MED personnel missing the RAZRIS
Security Key can add existing or new Radiologist Staff.
```

Figure 20-5: Example review and addition of an RPMS RAD/NUC MED Staff and Classification Enter/Edit. Local Radiology Interpreting Site.

> **Note**: As a reminder for the RPMS RAD/NUC MED Classification of Imaging Personnel and the assignment of classifications (Section 7.1), the following general guidelines may be used.

In particular, for the Staff designation:

Clerk–Assigned to an individual who performs clerical entry in the Radiology/Nuclear Medicine Package. They cannot be listed as a technologist when editing an exam.

Technologist–Assigned to all Radiology staff who perform exams.

Resident–Not normally used in IHS–refers to a Radiology Resident.

Staff–Reserved for interpreting Radiologists or those who will need to verify reports for interpreting Radiologist. Local staff=the Indian Health Service, and external staff =an external, third party teleradiology vendor.

> **Reminder:** If RPMS radiology personnel are not holders of the RAZRIS key, they can still add the Radiology Interpreting Site for Staff through the Classification Enter/Edit option in this menu. Associate existing or added Staff to an existing Radiology Interpreting Site entry.

Figure 20-6 shows an example of an RPMS RAD/NUC MED Staff and Classification Enter/Edit and entry of an offsite Radiologist vendor.

```
Select Rad/Nuc Med Personnel Menu Option:  Classification Enter/Edit

Select Personnel:    DEMO,PERSONNEL P     spr
Select RAD/NUC MED CLASSIFICATION: staff//
Select RAD/NUC MED LOCATION ACCESS: RADIOLOGY DEPARTMENT
         //
RAD/NUC MED INACTIVE DATE:
STAFF REVIEW REQUIRED: no//
ALLOW VERIFYING OF OTHERS:
Radiology Interpreting Site: RadREAD  << RPMS RAD/NUC MED personnel missing the
RAZRIS Security Key can add existing or new Radiologist Staff.
```

Figure 20-6: Classification Enter/Edit example

20.2.3 Radiology Report Impression

20.2.3.1 Information Sharing For Impression Capture

Figure 20-7 shows an example of the RPMS RAD/NUC MED Patient Profile with Exam Status and Report Status Display.

```
================================================================  Name        :
DEMO,LOUIS    138425
  Division    : 2021 DEMO HOSPITAL      Category     : OUTPATIENT
  Location    : RADIOLOGY DEPARTMENT    Ward         :
  Exam Date   : AUG  5,2020  12:17      Service      :
  Case No.    : 71                      Bedsection   :
                                        Clinic       : DEMO CLINIC
--------------------------------------------------------------------------------
  Registered    : ANKLE 3 OR MORE VIEWS               (RAD  Detailed) CPT:73610
  Requesting Phy: DEMO,DOCTOR  IT BS M  Exam Status  : COMPLETE
  Int'g Resident:                       Report Status: VERIFIED
  Pre-Verified  : NO                    Cam/Equip/Rm : EXAM ROOM 1
  Int'g Staff   :STAFF,DEMO             Diagnosis    :
```

Figure 20-7: Example Patient Profile, Exam Status, and Report Status display

Local RPMS RAD/NUC MED system business rules may indicate that the Impression is required for (report) verification and (exam) completion. If this is the case, an Impression must be entered. Local rules also define whether V RADIOLOGY information is sent to the PCC at the examined status (no Impression) or complete status (Impression).

Figure 20-8 is an example of a manual report entry on an RPMS testing system.

```
Enter Case Number:    082020-90
------------------------------------------------------------------------------
 Name     : DEMO,LOUIS                  Pt ID       : 138425
 Case No. : 90    Exm. St: EXAMINED     Procedure   : X-RAY ABDOMEN 1 VIEW(7401
 Tech.Comment: TEST
 Exam Date: AUG 20,2020  13:50          Technologist: DEMO,PERSON
 Req Phys    : DEMO,DOCTOR   IT BS MT
------------------------------------------------------------------------------
  PRIMARY INTERPRETING STAFF: DEMO, STAFF//

INTERPRETING IMAGING LOCATION: RADIOLOGY DEPARTMENT
         //
------------------------------------------------------------------------------
Select 'Standard' Report to Copy:    ABDOMEN,NORMAL

Report already exists.  This will over-write it.
Are you sure you want the 'ABDOMEN,NORMAL' standard report? No// Y

Do you want to add another standard to this report? No// NO
------------------------------------------------------------------------------
REPORTED DATE: AUG 31,2020// N  (AUG 31, 2020)
------------------------------------------------------------------------------
CLINICAL HISTORY:
DEMO
ADDITIONAL CLINICAL HISTORY:
  No existing text
  Edit? NO//
------------------------------------------------------------------------------..
REPORT TEXT:
The visualized bony structures are normal.  The bowel gas pattern is
unremarkable.  No unusual opacities are projected over the renal or
gallbladder areas.  There is no evidence of organomegaly or soft tissue
mass effect.

  Edit? NO//
------------------------------------------------------------------------------..
IMPRESSION TEXT:
NORMAL STUDY.

  Edit? NO//
------------------------------------------------------------------------------
     Select one of the following:

          V         VERIFIED
          PD        PROBLEM DRAFT
          D         DRAFT

REPORT STATUS: D// VERIFIED
```

Figure 20-8: Example of the RPMS RAD/NUC MED Report Entry/Edit for Impression

20.2.4 Additional Information and Example for Interpreting Site and/or Impression with CCDA/TOC and PHR

20.2.4.1 LOINC and CPT Information

Imaging Procedures required for electronic Clinical Quality Measure reporting and 2015 CEHRT certification testing will have a LOINC terminology code associated with them. Subsequently, IHS end users will observe a LOINC term in the CCDA and TOC. If a LOINC term is mapped to the imaging procedure, the LOINC short name is pulled into the CCDA, TOC, and the PHR, versus the RAD/NUC MED PROCEDURE File name.

Example: Chest XR 2V [36643-5]

Not all RPMS RAD/NUC MED procedures will have LOINC codes mapped to them. In particular, new procedure files added to the RPMS RAD/NUC MED Total System due to recent, annual CPT code updates.

LOINC entries for RPMS RAD/NUC MED are not entered via the RAD/NUC MED PROCEDURE file and are not a required entry by IHS imaging sites. LOINC terms are pre-mapped by BQRM application releases and will be populated into the V RADIOLOGY file.

If RAD/NUC MED procedures do not have LOINC terms mapped, the terminology code utilized for the CCDA and TOC is the CPT code. The displayed procedure name will be pulled from the CPT file Short Description field versus the local RAD/NUC MED PROCEDURE file name.

Example: X-RAY EXAM OF FOOT [73630]

Note that the LOINC or CPT terminology codes do not display in the Personal Health Record imaging procedure example (Figure 20-14).

20.2.4.2 CCDA, TOC, and PHR Examples

Note:	Each patient example is from a sanitized RPMS testing system.

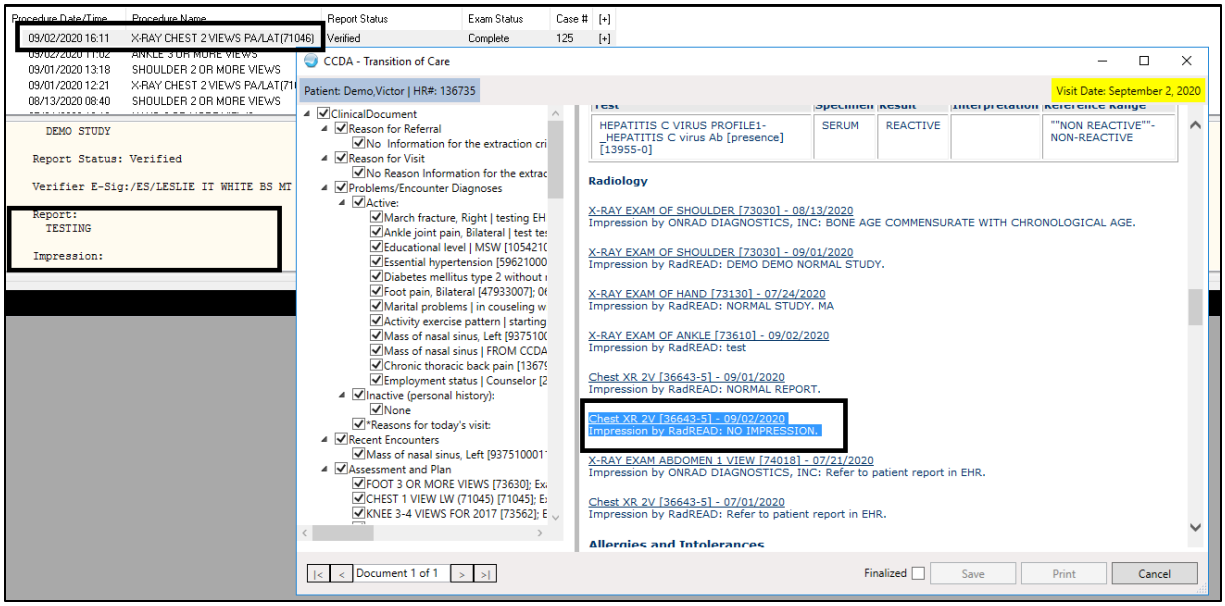


Figure 20-9: Example of the RPMS RAD/NUC MED Report Entry/Edit missing an Impression

NO IMPRESSION will display in the CCDA, TOC, and PHR. Local interpreting site rules and examination status updates should be reviewed to confirm if an Impression is required for local Imaging Reports and Exam status updates.

Figure 20-10 shows an Example of the RPMS RAD/NUC MED Report Entry/Edit with an Impression entered in the RPMS RAD/NUC MED REPORT and included in the V RADIOLOGY file. The Radiology Interpreting Site (RadREAD) is also present.

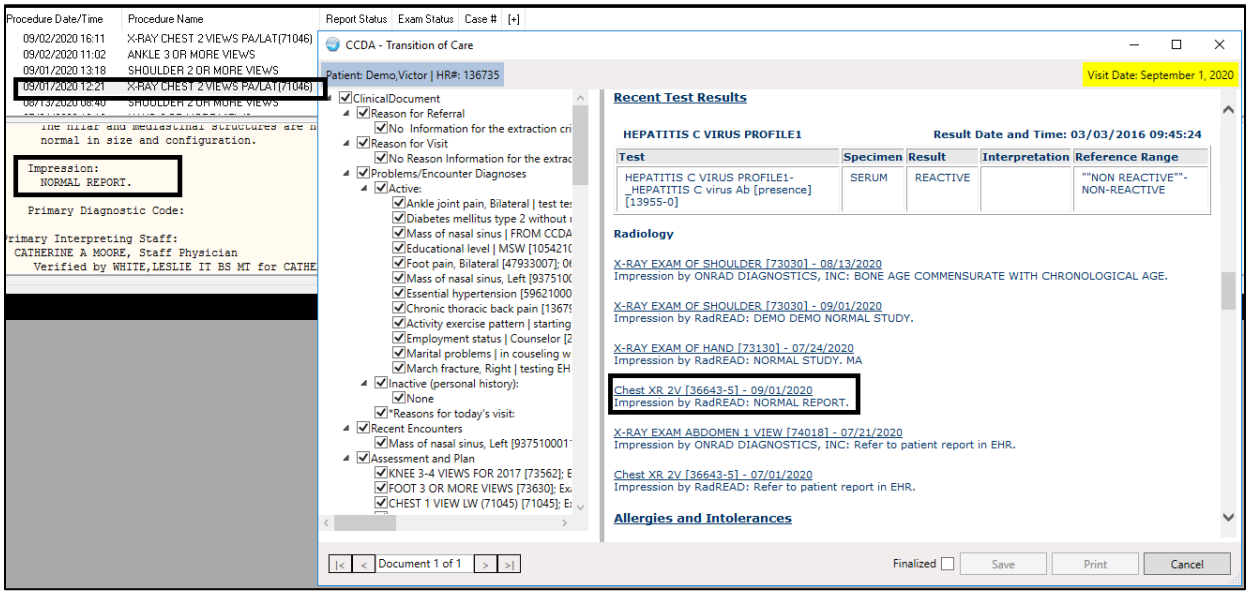


Figure 20-10: Example of the RPMS RAD/NUC MED Report Entry/Edit with an Impression

Figure 20-11 shows an example of the RPMS RAD/NUC MED Report Entry/Edit with an Impression entered in the RPMS RAD/NUC MED REPORT and captured in the V RADIOLOGY file. If an Impression entry exceeds the 240-character limit allowed for the Impression field in V RADIOLOGY file the ***MORE* (SEE EXAM)** will display as shown in in Figure 20-11.

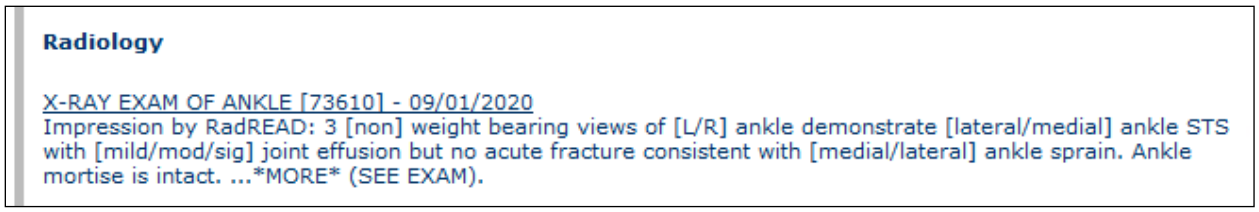


Figure 20-11: Example of the RPMS RAD/NUC MED Report Entry/Edit with an Impression

Printing a full report is recommended from the patient record as needed.

See Figure 20-12 for an example of the RPMS RAD/NUC MED Report Entry/Edit with an Impression entered in the RPMS RAD/NUC MED REPORT and included in the V RADIOLOGY file. Note that the interpreting radiologist or staff is not associated or pointing to a Radiology Interpreting Site and the Site is absent.

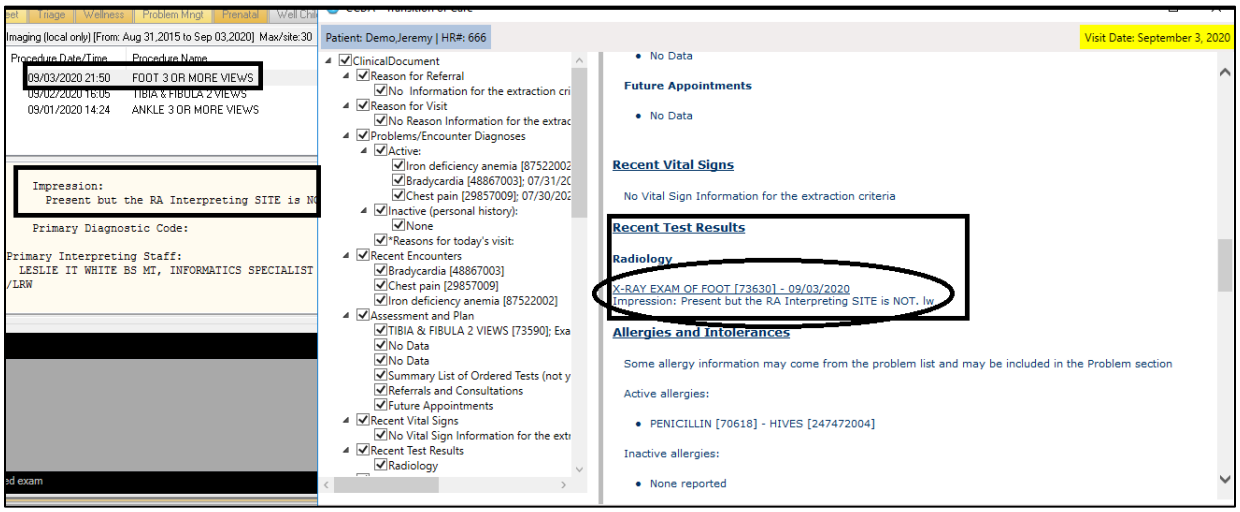


Figure 20-12: Example of the RPMS RAD/NUC MED Report Entry/Edit with an Impression

See Figure 20-13 for an example of the RPMS RAD/NUC MED Report Entry/Edit with an Impression entered in the RPMS RAD/NUC MED REPORT and included in the V RADIOLOGY file. The Interpreting Site was also mapped.

However, there may have been an issue with corrupt data or missing pointers in the RAD/NUC MED files. See the **Recent Test Results** in the TOC.

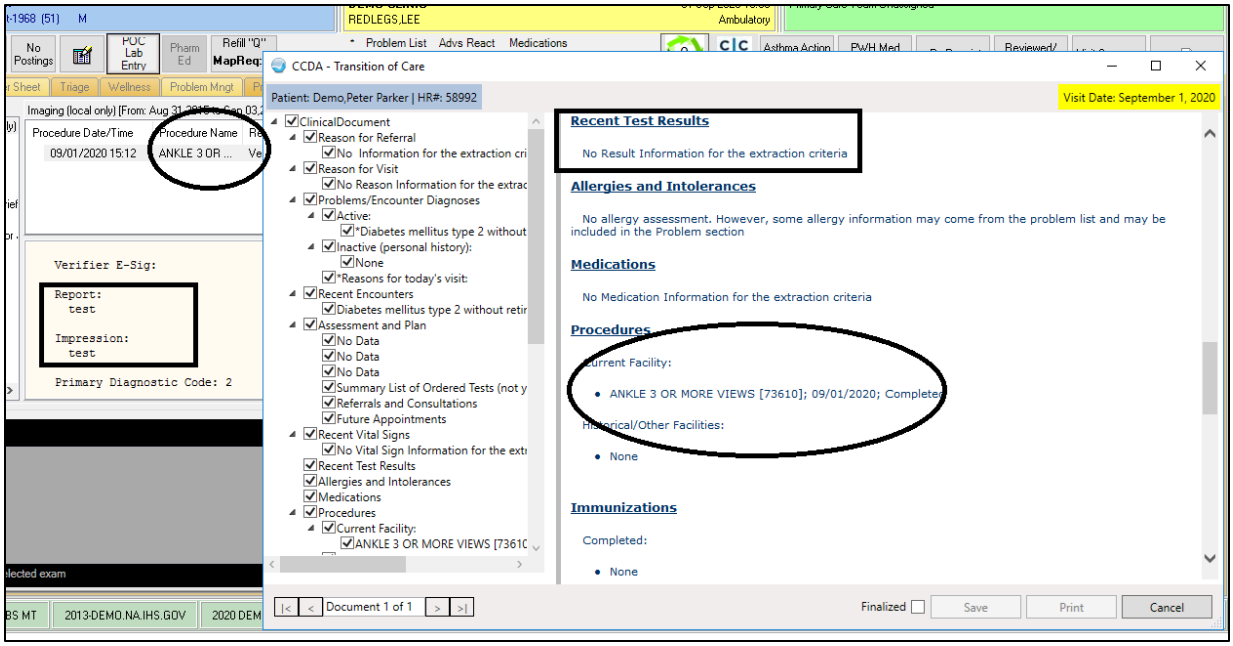


Figure 20-13: Example of the RPMS RAD/NUC MED Report Entry/Edit with an Impression entered in the RPMS RAD/NUC MED REPORT and included in the V RADIOLOGY file

Contact the IHS IT Support at itsupport@ihs.gov for RPMS Imaging Support if there are questions or errors.

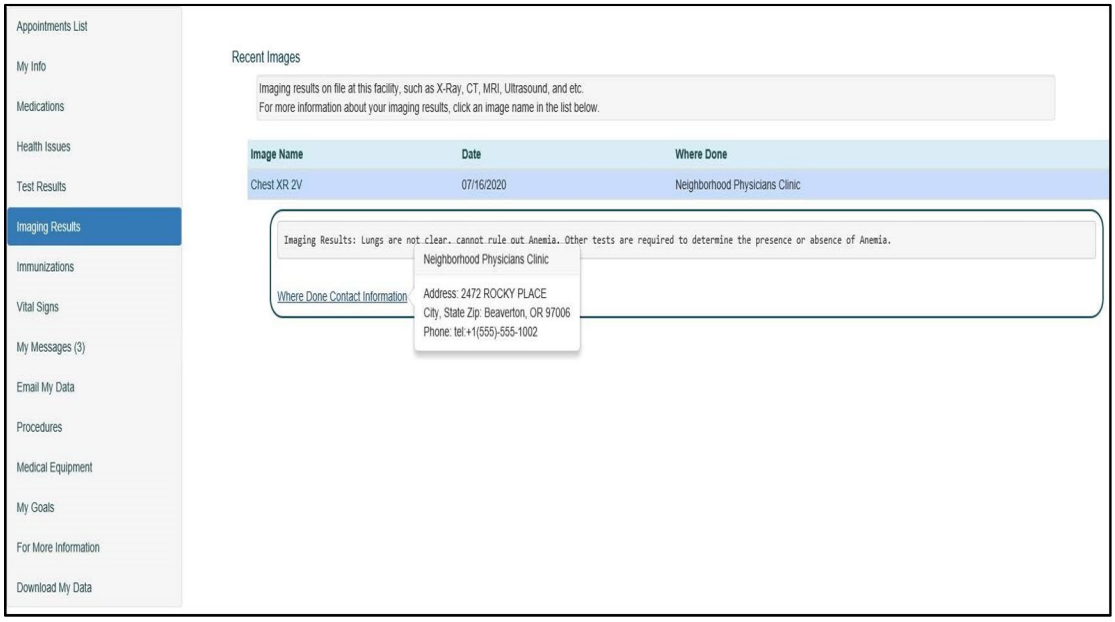


Figure 20-14: RPMS/EHR Personal Health Record example with Radiology Interpreting Site Address (Address + Phone number) and Impression.

20.2.5 Normal and Abnormal Recent Test Results and Imaging Display in the CCDA/TOC and PHR

The Diagnostic Codes do not display but are used to extract imaging test results for Normal Imaging result reports and Abnormal Imaging test result reports. This is not a 2015 CEHRT certification criterion requirement but was made in consultation with IHS CCDA SMEs.

> **Note**: Imaging reports must be verified. Local imaging policy for the RPMS RAD/NUC MED diagnostic code reports/alerts should be reviewed with the imaging department and medical staff if not currently configured or mapped.

Verified reports lacking an Abnormal Diagnostic Code will display for three months from the Exam Date.

Verified reports with an Abnormal Diagnostic Code for the following will be captured in the CCDA/TOC and PHR for 13 months from the Exam Date:

- BI-RAD 3
- BI-RAD 4
- BI-RAD 5
- MAJOR ABNORMALITY

The use and incorporation of the RPMS RAD/NUC MED Diagnostic Codes is a local decision and inclusion in the RPMS RAD/NUC MED REPORT and provider Alerts are defined and configured locally.

Contact the IHS IT Support at itsupport@ihs.gov for RA_5.0_1008 use and configuration questions.

21.0 October 2022 RA_5.0_1009 Release Addendum

21.1 Introduction

This addendum lists new features and updated options to the RPMS Radiology module as developed for the 2022 RPMS Radiology release, RA*5.0*1009. The following modifications are not required for the ONC Certified Health IT Update for the Indian Health Service RPMS/EHR.

Note:	This patch contains changes to support the Social Security Number Fraud Prevention Act of 2017 and the Social Security Number Reduction Act.

Note:	All patient examples or screen shots are from an OIT scrubbed, sanitized RPMS test data base and are NOT real patients or patient identifiers.

21.2 Modifications

21.2.1 Repeat Analysis

Repeat Analysis field added back into RPMS RAD/NUC MED when Casing or Editing patient imaging exams. This field has been added back per the Indian Health Policy for Imaging and capture of repeat procedures/exposure. The field will present as NUMBER OF REPEATS.

```
Select Exam Entry/Edit Menu Option:  Case No. Exam Edit

Enter Case Number: 233

Choice Case No.          Procedure                  Name                  Pt ID
------ ---------------   ---------                  -----------------     ------
 1     091322-233        X-RAY ABDOMEN 1 VIEW(7401 DEMO,KARLA KAY         135272
                         (RAD  Detailed) CPT:74018
    PROCEDURE: X-RAY ABDOMEN 1 VIEW(74018)//
    CONTRAST MEDIA USED: NO//
    Select PROCEDURE MODIFIERS: RIGHT//

      FY (COMPUTED RADIOGRAPHY X-RAY) (active)
      26 (PROFESSIONAL COMPONENT) (active)
    Select CPT MODIFIERS: 26//
    CATEGORY OF EXAM: OUTPATIENT//
    PRINCIPAL CLINIC: RADIOLOGY DEPARTMENT//
    REQUESTING PHYSICIAN: REDLEGS,LEE//
    Select TECHNOLOGIST: WHITE,LESLIE IT BS MT
         //
    TECHNOLOGIST COMMENT: TEST//
    PREGNANT AT TIME OF ORDER ENTRY: NO
    PREGNANCY SCREEN: Patient answered no//
    COMPLICATION: NO COMPLICATION//
    PRIMARY CAMERA/EQUIP/RM: EXAM ROOM 1//
    Select FILM SIZE: DIGITAL//
      FILM SIZE: DIGITAL//
      AMOUNT(#films or cine ft): 1//
      NUMBER OF REPEATS: 1//
    Select FILM SIZE:
     ...exam status remains 'EXAMINED'.
```

Figure 21-1: displaying the NUMBER OF REPEATS

21.2.2 Tracking and reporting for Number of Repeats

```
Classification Enter/Edit
Clerical List
      Interpreting Resident List
      Interpreting Staff List
      Radiology Interpreting Site Add/Edit
      Technologist List
```

Figure 21-2: Radiology Interpreting Site Add/Edit requires the RAZRIS security key

For tracking and reporting in imaging quality assurance reports, the option to review the number of repeat exposures is tracked under ‘EXAM ROSTER AND FILMS BY TECHNOLOGIST’.

Menu path is typically the following:

RAD/NUC MED TOTAL SYSTEM > MANAGEMENT REPORTS MENU> SPECIAL REPORTS> EXAM ROSTER AND FILMS BY TECH

If the option is not available on the local menu, this is the option to add to the menu or as a secondary menu.

'Exam Roster and Films by Tech' Option name: RA IHS EXAM ROSTER BY TECH

```
Select Rad/Nuc Med Total System Menu Option: ^EXAM ROSTER and Films by Tech

                  ----------------------------------------
                  | ***  FILM USAGE BY TECHNOLOGIST  *** |
                  ----------------------------------------

**** Date Range Selection ****

   Beginning DATE : T  (SEP 13, 2022)

   Ending    DATE : T  (SEP 13, 2022)

Include ALL technologists in this report? Y// ES

Include ALL procedures in this report? Y// ES

Do you wish to display each exam and film size? Y// ES


DEVICE: HOME//   Virtual
             ***  FILM USAGE BY TECHNOLOGIST AND PROCEDURE  ***      Page: 1

 Division: 2021 DEMO HOSPITAL (INST)               For period: SEP 13,2022 to
 Run Date: SEP 13,2022  15:42                                  SEP 13,2022
-------------------------------------------------------------------------------
Chart#    Patient              Date-Case#  Films: Size          Total    Retakes
-------------------------------------------------------------------------------

    TECHNOLOGIST: WHITE,LESLIE IT BS    PROCEDURE: TIBIA & FIBULA 2 VIEWS
    ---------------------------------- ----------------------------------
855555    DEMO,JOE             091322-231  14x17 (35x43cm)          2
                               091322-231  DIGITAL                  1          1
                                                                   ----------
                                        Totals for this procedure:     3          1
*******************************************************************************
TECHNOLOGIST:  WHITE,LESLIE IT BS MT   Total Films and Retakes:     3          1
*******************************************************************************

Enter RETURN to continue or '^' to exit:
```

Figure 21-3: Number of retakes for imaging technologist in the designated date range

21.2.3 Pregnancy, reproductive structured information

Due to redundancy of pregnancy questions presented during registration and in particular case/exam edits (i.e., Ultrasound), a local imaging site now has the ability to set whether these questions are presented or not. This is set at the modality or imaging location parameter.

- Yes, Yes–to see the prompt and REQUIRED entries. (Figure 21-4)
- Yes, No–to see the field prompts but NOT required. (Figure 21-5)
- No–the field prompts DO NOT present. (Figure 21-6)

Menu path is typically the following:

RAD/NUC MED TOTAL SYSTEM >SUPERVISOR MENU>LOCATION PARAMETER SET-UP

```
Select System Definition Menu Option:  Location Parameter Set-up
Select Location:    RADIOLOGY DEPARTMENT  (GENERAL RADIOLOGY-8993)

Imaging Location: RADIOLOGY DEPARTMENT

IHS Additional Reproductive Status
----------------------------------
Prompt for Reproductive Hx (LMP, HCG, Birth Control): YES
          //
Should the LMP, Date of Last HCG and Primary Birth Control
be required to be responded to?

Require LMP, HCG and BC responses: YES//
```

Figure 21-4: Entries for prompting and required

```
                        **** Edit Exams By Patient ****

Patient's Name: DEMO,ANNIE  111876                      Run Date: SEP
21,2022

   Case No.  Procedure      Exam Date  Status of Exam   Imaging Loc
   --------  -------------  ---------  ---------------- -----------
1     231    US ABDOMEN COMPLETE         09/21/22   WAITING FOR EXAM
ULTRASOUND
Case No.:231   Procedure:US ABDOMEN COMPLETE             Date:SEP 21,2022
15:41
                        (US   Detailed) CPT:76700
  LAST MENSTRUAL PERIOD: ??   (double question mark indicates required)
     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 CURRENT YEAR.  Two digit year
assumes no more than 20 years in the future, or 80 years in the past. Enter
the date of FIRST day of the patient's last menstrual period.
LAST MENSTRUAL PERIOD: T-30  (AUG 22, 2022)
PRIMARY MEANS OF BIRTH CONTROL: ?? (double question mark indicates
required)
Choose from:
       n        NOT SEXUALLY ACTIVE
       p        PILLS
       t        TUBAL LIGATION
       v        VASECTOMY
       d        DIAPHRAM
       i        IUD
       c        CONDOM
       f        FOAM
       g        GEL
       h        HYSTERECTOMY
       m        POST MENSTRUAL
       b        BC IMPLANT
       j        BC IM INJECTION
       r        RHYTHM
       s        SEXUALLY ACTIVE, NO BC
       u        UNK
  PRIMARY MEANS OF BIRTH CONTROL:U   UNK
  LAST NEGATIVE HCG TEST: ??  (double question mark indicates   required)
     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 CURRENT YEAR.  Two digit
year assumes no more than 20 years in the future, or 80 years in the past.
You may omit the precise day, as:  JAN, 1957
     ENTER THE DATE OF THE LAST NEGATIVE HCG TEST.
  LAST NEGATIVE HCG TEST: t  (SEP 21, 2022)
    PROCEDURE: US ABDOMEN COMPLETE//
    CONTRAST MEDIA USED: NO//   NO
    Select PROCEDURE MODIFIERS:
    Select CPT MODIFIERS:
CATEGORY OF EXAM: OUTPATIENT//
PRINCIPAL CLINIC: DEMO CLINIC//
```

Figure 21-5: Demonstrating the REQUIRED field entries

```
IHS Additional Reproductive Status
----------------------------------
Prompt for Reproductive Hx (LMP, HCG, Birth Control): YES
        //
Should the LMP, Date of Last HCG and Primary Birth Control
be required to be responded to?

Require LMP, HCG and BC responses: NO//
```

Figure 21-6: Entries for prompting but NOT required

```
Select Exam Entry/Edit Menu Option:  Case No. Exam Edit

Enter Case Number: 233

Choice Case No.          Procedure                 Name                  Pt ID
------ ---------------   ---------                 ------------------    ------
 1     091322-233        X-RAY ABDOMEN 1 VIEW(7401 DEMO,KARLA KAY        135272
                         (RAD  Detailed) CPT:74018
  LAST MENSTRUAL PERIOD:
  PRIMARY MEANS OF BIRTH CONTROL:
  LAST NEGATIVE HCG TEST:
    PROCEDURE: X-RAY ABDOMEN 1 VIEW(74018)//
    CONTRAST MEDIA USED: NO//
    Select PROCEDURE MODIFIERS: RIGHT//

      FY (COMPUTED RADIOGRAPHY X-RAY) (active)
      26 (PROFESSIONAL COMPONENT) (active)
    Select CPT MODIFIERS: 26//
    CATEGORY OF EXAM: OUTPATIENT//
    PRINCIPAL CLINIC: RADIOLOGY DEPARTMENT//
    REQUESTING PHYSICIAN: REDLEGS,LEE//
    Select TECHNOLOGIST: WHITE,LESLIE IT BS MT
        //
    TECHNOLOGIST COMMENT: TEST//
    PREGNANT AT TIME OF ORDER ENTRY: NO
    PREGNANCY SCREEN: Patient answered no//
    COMPLICATION: NO COMPLICATION//
    PRIMARY CAMERA/EQUIP/RM: EXAM ROOM 1//
    Select FILM SIZE: DIGITAL//
      FILM SIZE: DIGITAL//
      AMOUNT(#films or cine ft): 1//
      NUMBER OF REPEATS: 1//
    Select FILM SIZE:
```

Figure 21-7: Demonstrating prompts but field entries are NOT required

```
IHS Additional Reproductive Status
----------------------------------
Prompt for Reproductive Hx (LMP, HCG, Birth Control): NO
        // 
```

Figure 21-8: Displaying the entries for NO–prompts will not display.

```
Enter Case Number: 233

Choice Case No.          Procedure                Name                 Pt ID
------ ----------------  ---------                -----------------    ------
 1     091322-233        X-RAY ABDOMEN 1 VIEW(7401 DEMO,KARLA KAY       135272
                         (RAD  Detailed) CPT:74018
    PROCEDURE: X-RAY ABDOMEN 1 VIEW(74018)//
    CONTRAST MEDIA USED: NO//
    Select PROCEDURE MODIFIERS: RIGHT//

      FY (COMPUTED RADIOGRAPHY X-RAY) (active)
      26 (PROFESSIONAL COMPONENT) (active)
    Select CPT MODIFIERS: 26//
    CATEGORY OF EXAM: OUTPATIENT//
    PRINCIPAL CLINIC: RADIOLOGY DEPARTMENT//
    REQUESTING PHYSICIAN: REDLEGS,LEE//
    Select TECHNOLOGIST: WHITE,LESLIE IT BS MT
         //
    TECHNOLOGIST COMMENT: TEST//
    PREGNANT AT TIME OF ORDER ENTRY: NO
    PREGNANCY SCREEN: Patient answered no//
    COMPLICATION: NO COMPLICATION//
    PRIMARY CAMERA/EQUIP/RM: EXAM ROOM 1//
    Select FILM SIZE: DIGITAL//
      FILM SIZE: DIGITAL//
      AMOUNT(#films or cine ft): 1//
      NUMBER OF REPEATS: 1//
    Select FILM SIZE:
```

Figure 21-9: Demonstrating that the female patient reproductive histories do not present

Note: For Supervisory quality assurance or performance improvement tracking and imaging staff entries for LMP, Birth Control and Last hCG test, entries can be viewed in the RPMS RAD/NUC MED Total System > Patient Profile Menu >Detailed Request Display (Figure 21-10).

```
Name: DEMO,ANNIE    (111876)  Date of Birth: AUG  7,1990
Requested : US ABDOMEN COMPLETE      (US Detailed 76700)
Registered:   231 US ABDOMEN COMPLETE(US Detailed 76700)
Current Status:       ACTIVE
Requester:            WHITE,LESLIE IT BS MT
Tel/Page/Dig Page: 3015091469
Patient Location:     DEMO CLINIC
Entered:           Sep 21, 2022 3:42 pm  by Demo, User IT BS M
Pregnant at time of order entry: NO
Pregnancy Screen: Patient is unable to answer or is unsure
Pregnancy Screen Comment: TESTING
LMP:                  AUG 22, 2022
Primary Means of Birth Control: UNK
Last HCG Test:        SEP 21, 2022
```

Figure 21-10: demonstrating LMP, Birth Control and hCG entries

21.2.4 Discontinuation of older, pending imaging orders

The ability to manually queue the discontinuation of older, pending (unregistered) RPMS RAD/NUC MED orders and mark as Discontinued is a new enhancement for RPMS Imaging.

The RAZRIS security key is required. Staff will not see the new option without the security key assignment.

Care should be when stepping through the RPMS prompts within the RAD/NUC MED Supervisor menu. The default is TWO years but can be changed as needed for local imaging practice and policy (Figure 21-11).

> **Note:** With 1st review of this new option, a site may elect to run this out at a longer time period (5 years vs 2 years) for a test drive. Recommend a comparison by printing the RAD/NUC MED Pending, hold logs for a specific date range; review several patients in EHR to confirm pending order status, run the MARK orders for DISCONTINUATION making sure to mind the default (change). The patient exam orders on either the Pending or Hold logs will have been removed from the same report when rerun. To view in EHR, staff will need to change the 'VIEW' in the orders tab to look for Discontinued for Imaging. The OE/RR order is here–but discontinued and cannot be registered (Figure 21-12).

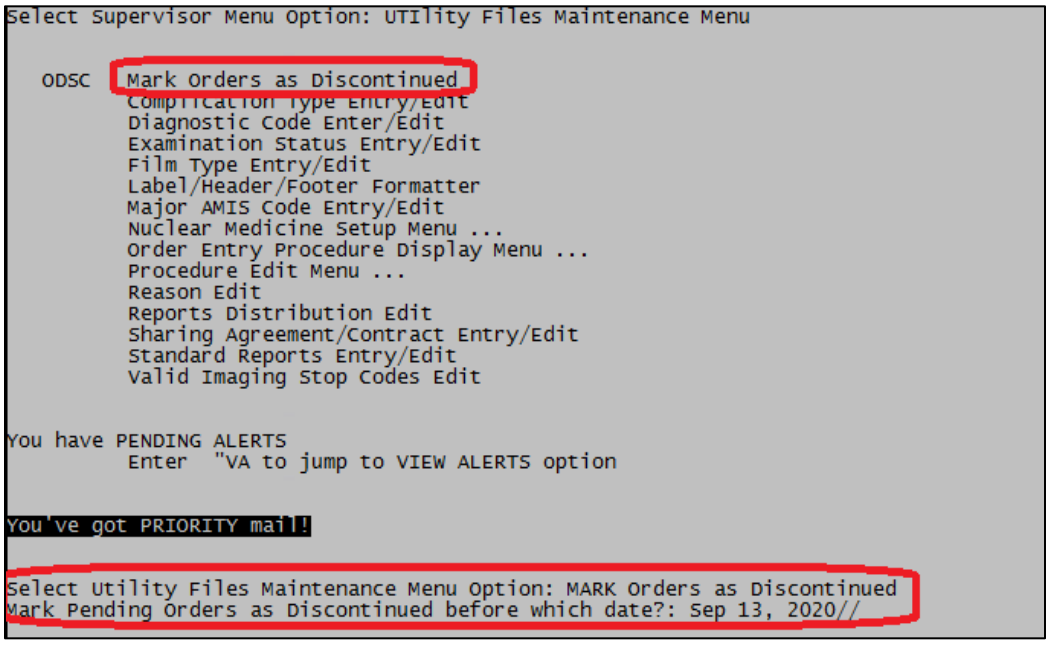


Figure 21-11: Displaying the new option and focus on two year default //

When selecting the option 'Mark Orders as Discontinued', the default for two years from *current* date displays. If staff enter through it the default //, the option is performed and there is no turning back. Please be sure of how far back the imaging department elects to discontinue orders before proceeding.

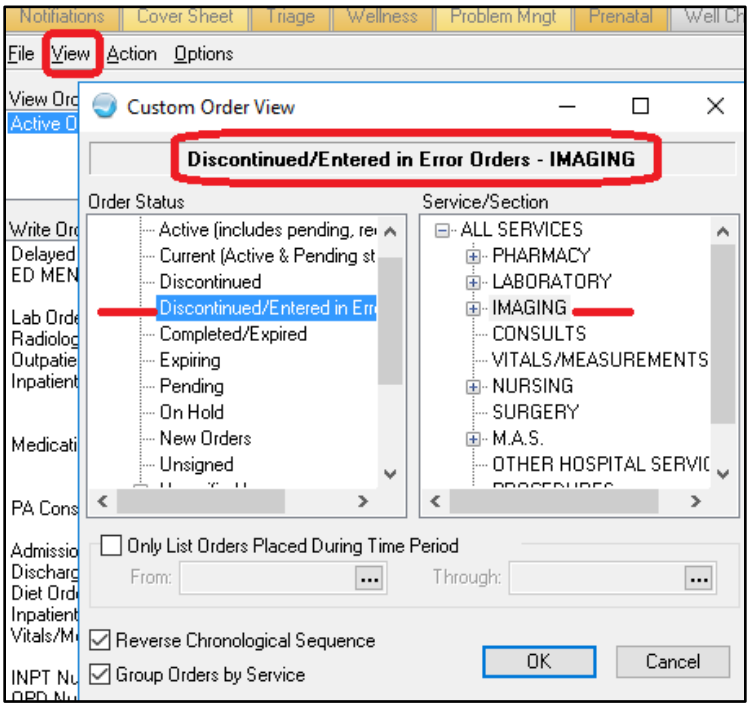


Figure 21-12: Discontinued VIEW path in EHR Orders

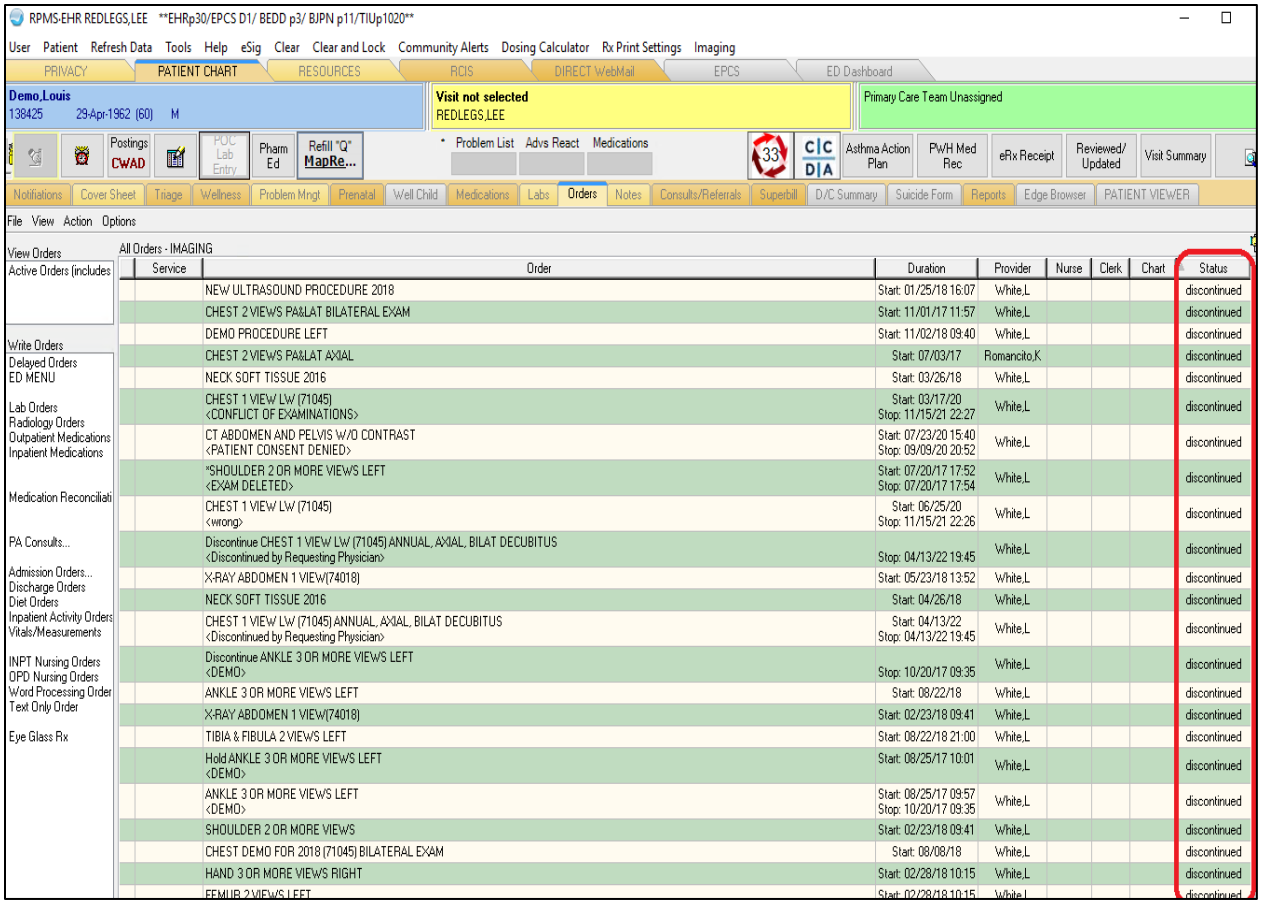


Figure 21-13: Discontinued order view in EHR Orders

21.2.5 Mass Override & Override to Complete

The ‘MASS OVERRIDE TO COMPLETE’ has been modified to function similarly as the ‘OVERRIDE A SINGLE EXAM’S STATUS TO COMPLETE’. This is a VHA RA change. Reminder that the RA MGR security key is required to perform this operation in the RAD/NUC MED Total System’s Supervisory menu.

For the ‘OVERRIDE A SINGLE EXAM’S STATUS TO COMPLETE’, IHS OIT has addressed the break in notification delivery to the ordering provider in EHR. IHS facilities that do not have on site imaging departments can now confirm that exam ‘Complete’ notifications are delivered when using this option. Smaller sites are likely scanning in the Radiologist’s report into VistA Imaging but use ‘OVERRIDE’ to close out the exam.

21.2.6 Printing of selected Requests

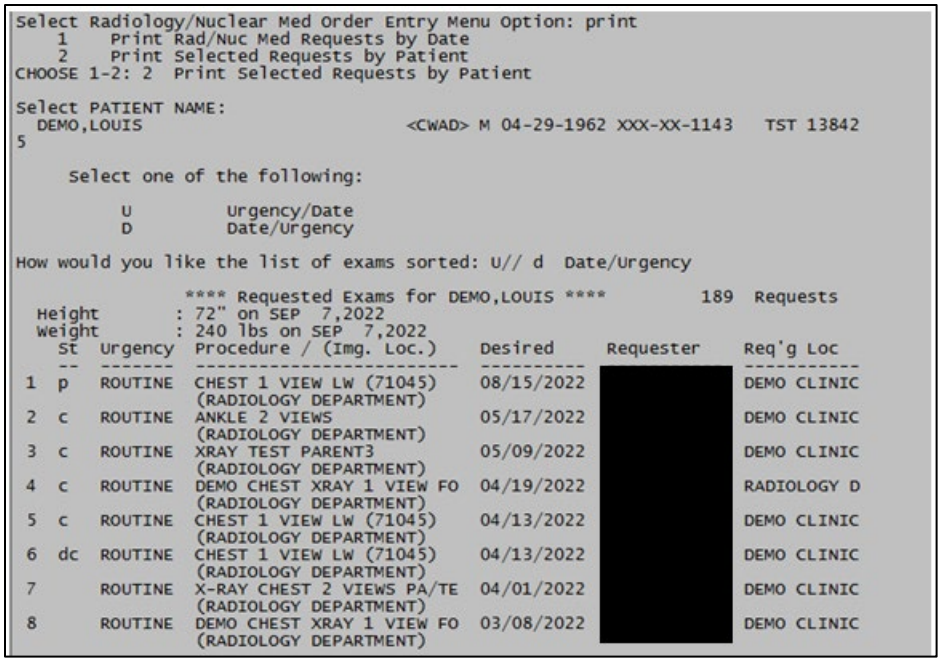
The RPMS RAD/NUC MED Total System > Radiology/Nuclear Med Order Entry Menu option > Print RAD/NUC MED Requests by Patient now includes a toggle to view or print selected requests of patients by either exam Urgency or Desired Date.

```
Select Rad/Nuc Med Total System Menu Option: RADiology/Nuclear Med Order Entry M
enu


   UHR    Update a Hold Request
          Cancel a Request
          Detailed Request Display
          Hold a Request
          Log of Scheduled Requests by Procedure
          Pending/Hold Rad/Nuc Med Request Log
          Print Rad/Nuc Med Requests by Date
          Print Selected Requests by Patient
          Rad/Nuc Med Procedure Information Look-Up
          Request an Exam
          Schedule a Request
          Ward/Clinic Scheduled Request Log


                 **** Requested Exams for DEMO,LOUIS ****         189  Requests
 Height          : 72" on SEP  7,2022
 Weight          : 240 lbs on SEP  7,2022
    St  Urgency  Procedure / (Img. Loc.)    Desired     Requester    Req'g Loc
    --  -------  -------------------------  ----------  -----------  -----------
1       STAT     CHEST 1 VIEW LW (71045)    01/10/2022  WHITE,LESLI  DEMO CLINIC
                 (RADIOLOGY DEPARTMENT)
2       STAT     SPINE CERVICAL MIN 4 VIEW  12/15/2017  WHITE,LESLI  DEMO CLINIC
                 (RADIOLOGY DEPARTMENT)
3   p   ROUTINE  CHEST 1 VIEW LW (71045)    08/15/2022  WHITE,LESLI  DEMO CLINIC
                 (RADIOLOGY DEPARTMENT)
4   c   ROUTINE  ANKLE 2 VIEWS              05/17/2022  WHITE,LESLI  DEMO CLINIC
                 (RADIOLOGY DEPARTMENT)
5   c   ROUTINE  XRAY TEST PARENT3          05/09/2022  WHITE,LESLI  DEMO CLINIC
                 (RADIOLOGY DEPARTMENT)
6   c   ROUTINE  DEMO CHEST XRAY 1 VIEW FO  04/19/2022  WHITE,LESLI  RADIOLOGY D
                 (RADIOLOGY DEPARTMENT)
7   c   ROUTINE  CHEST 1 VIEW LW (71045)    04/13/2022  WHITE,LESLI  DEMO CLINIC
                 (RADIOLOGY DEPARTMENT)
8   dc  ROUTINE  CHEST 1 VIEW LW (71045)    04/13/2022  WHITE,LESLI  DEMO CLINIC
                 (RADIOLOGY DEPARTMENT)
```

Figure 21-14: Urgency at the top of the ‘Print Selected Requests by Patient’ before date



```
Select Radiology/Nuclear Med Order Entry Menu Option: print
    1    Print Rad/Nuc Med Requests by Date
    2    Print Selected Requests by Patient
CHOOSE 1-2: 2  Print Selected Requests by Patient

Select PATIENT NAME:
  DEMO,LOUIS                        <CWAD> M 04-29-1962 XXX-XX-1143   TST 13842
5

     Select one of the following:

          U         Urgency/Date
          D         Date/Urgency

How would you like the list of exams sorted: U// d  Date/Urgency

                 **** Requested Exams for DEMO,LOUIS ****         189  Requests
  Height       : 72" on SEP  7,2022
  Weight       : 240 lbs on SEP  7,2022
    St  Urgency  Procedure / (Img. Loc.)    Desired     Requester    Req'g Loc
    --  -------  -------------------------  ----------  -----------  -----------
 1  p   ROUTINE  CHEST 1 VIEW LW (71045)    08/15/2022  [redacted]   DEMO CLINIC
                 (RADIOLOGY DEPARTMENT)
 2  c   ROUTINE  ANKLE 2 VIEWS              05/17/2022               DEMO CLINIC
                 (RADIOLOGY DEPARTMENT)
 3  c   ROUTINE  XRAY TEST PARENT3          05/09/2022               DEMO CLINIC
                 (RADIOLOGY DEPARTMENT)
 4  c   ROUTINE  DEMO CHEST XRAY 1 VIEW FO  04/19/2022               RADIOLOGY D
                 (RADIOLOGY DEPARTMENT)
 5  c   ROUTINE  CHEST 1 VIEW LW (71045)    04/13/2022               DEMO CLINIC
                 (RADIOLOGY DEPARTMENT)
 6  dc  ROUTINE  CHEST 1 VIEW LW (71045)    04/13/2022               DEMO CLINIC
                 (RADIOLOGY DEPARTMENT)
 7      ROUTINE  X-RAY CHEST 2 VIEWS PA/TE  04/01/2022               DEMO CLINIC
                 (RADIOLOGY DEPARTMENT)
 8      ROUTINE  DEMO CHEST XRAY 1 VIEW FO  03/08/2022               DEMO CLINIC
                 (RADIOLOGY DEPARTMENT)
```

Figure 21-15: DATE at the top of the 'Print Selected Requests by Patient' before urgency

21.2.7 Patient Profile of RAD/NUC MED Exams-DOB

The patient date of birth (DOB) displays after the patient's medical record number in the view of a patient's profile for each RAD/NUC MED exam (Figure 21-16).

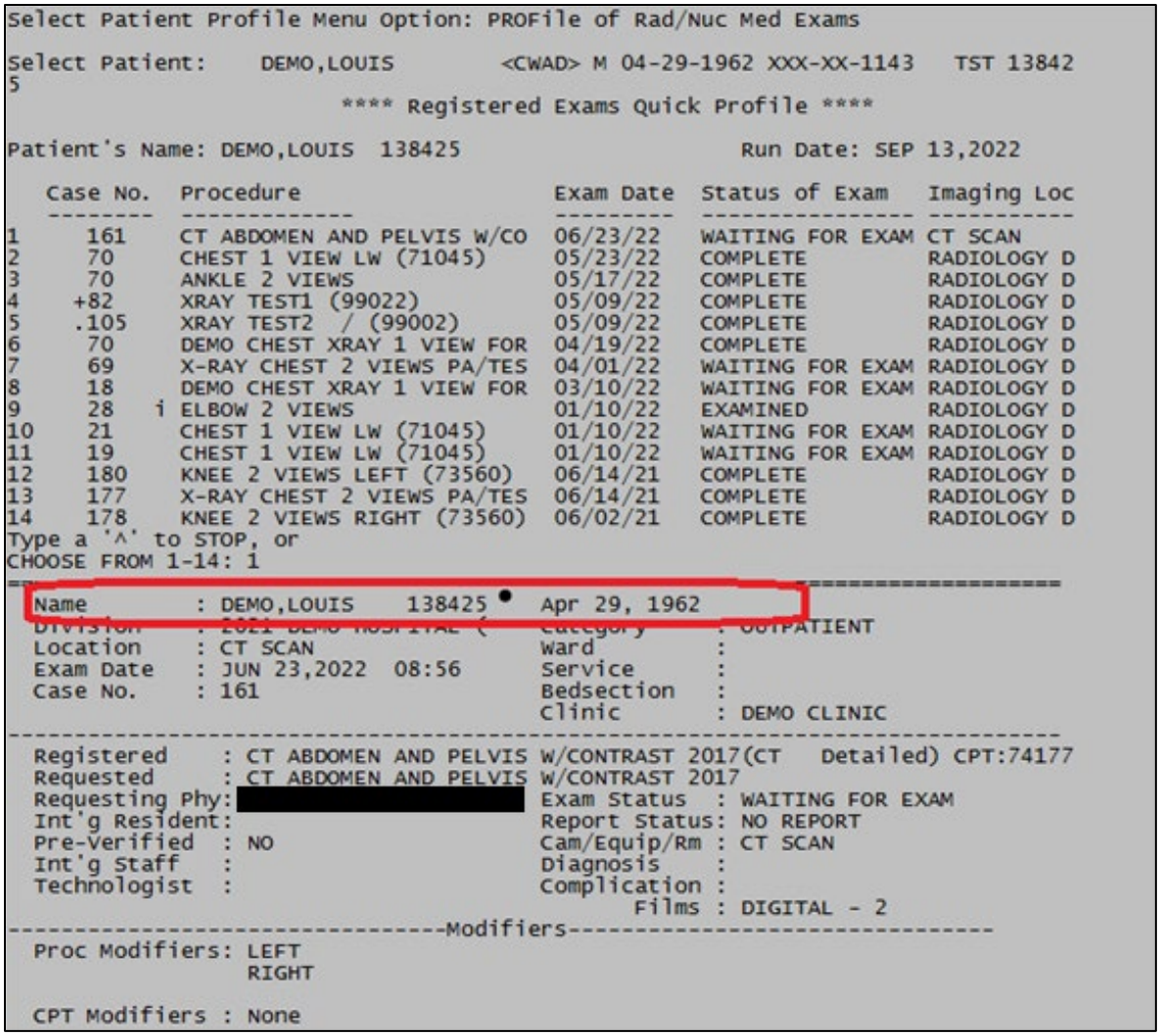


Figure 21-16: Demonstrating the addition of a patient's DOB in the patient's examination profile

21.2.8 Vital Entries Captured from Patient Visit-EHR

Vital entries for **height (HT) and weight (WT)** entered during an EHR patient encounter are now displayed on the RPMS RAD/NUC MED order request. In addition, Vital Ht/Wt are displayed in additional patient information display options within the RPMS RAD/NUC MED Total System.

> **Note:** At this time the RPMS RAD/NUC MED displays for height and weight are in US units vs Metric units.

> **Note:** EHR entries with metric entries using centimeters and kilograms units are converted to inches and pounds in the RPMS RAD/NUC MED Total System. (Figure 21-18.)

If height and weight vitals are **not** updated during the most recent or current visit encounter, historical entries are displayed in RPMS RAD//NUC MED Total System.

Figure 21-17 and Figure 21-18 for historical (US units) and recent (Metric) updates.

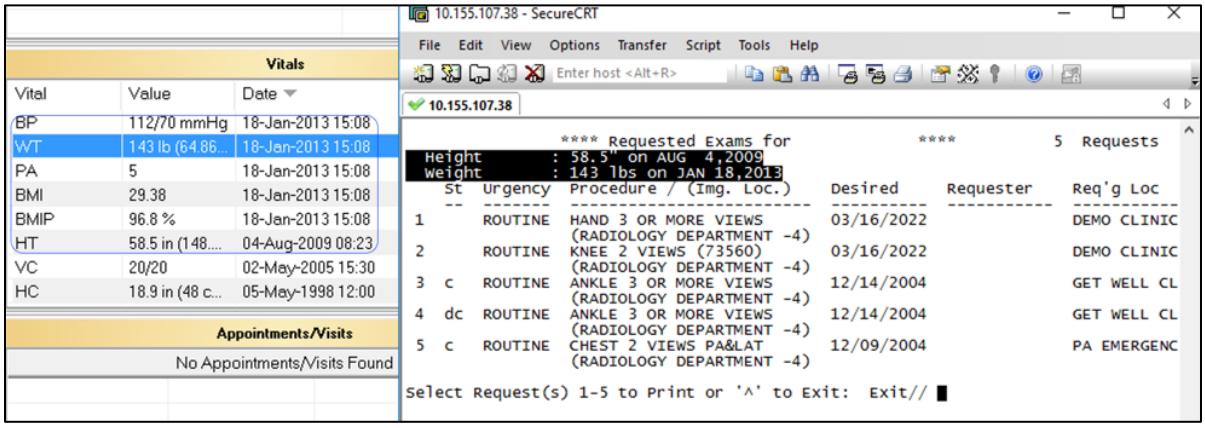


Figure 21-17: Displaying height and weight in inches and pounds. Historical 2009 and 2013

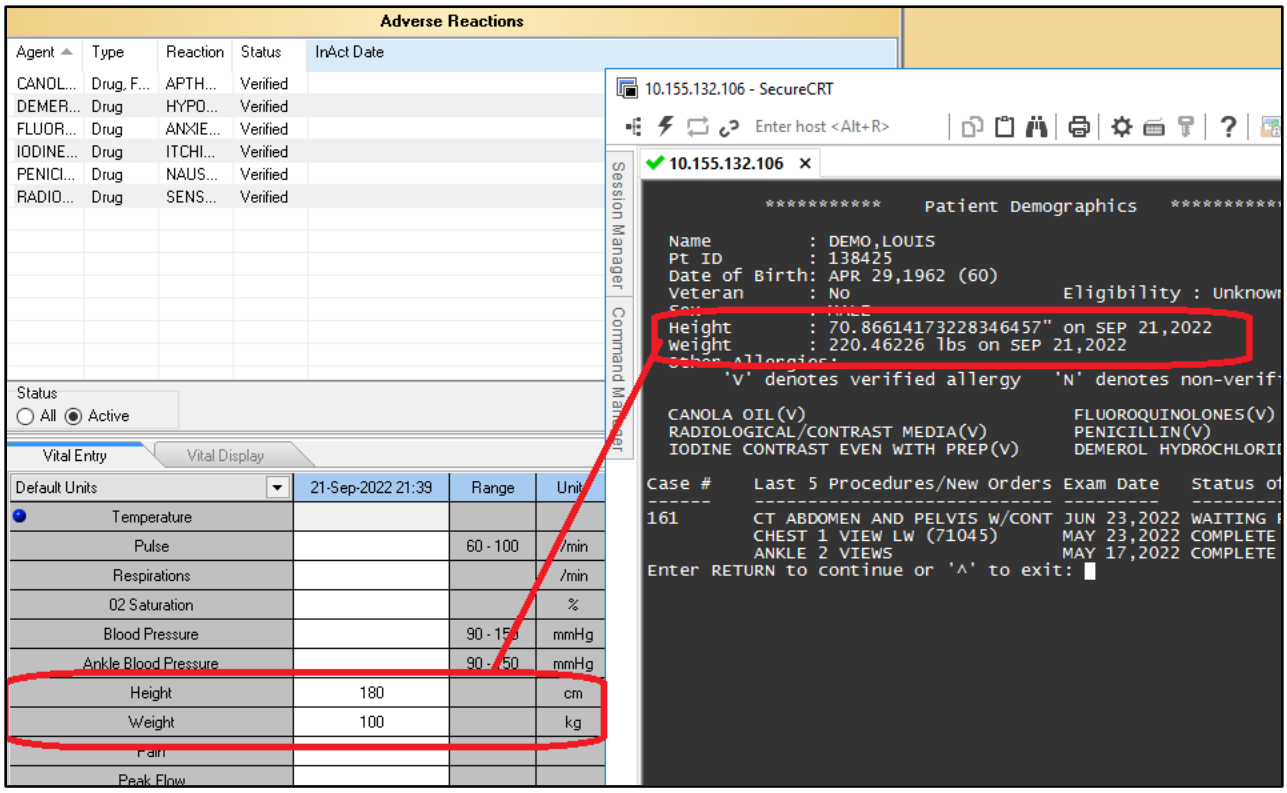
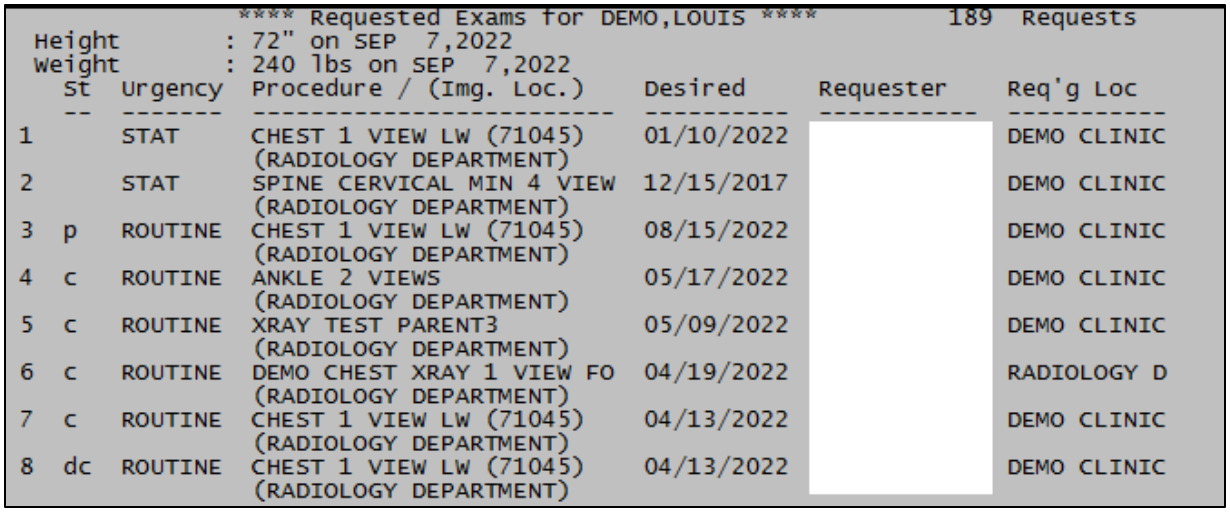


Figure 21-18: EHR entry of height and weight entered via Metric System converted to inches and pounds in RPMS

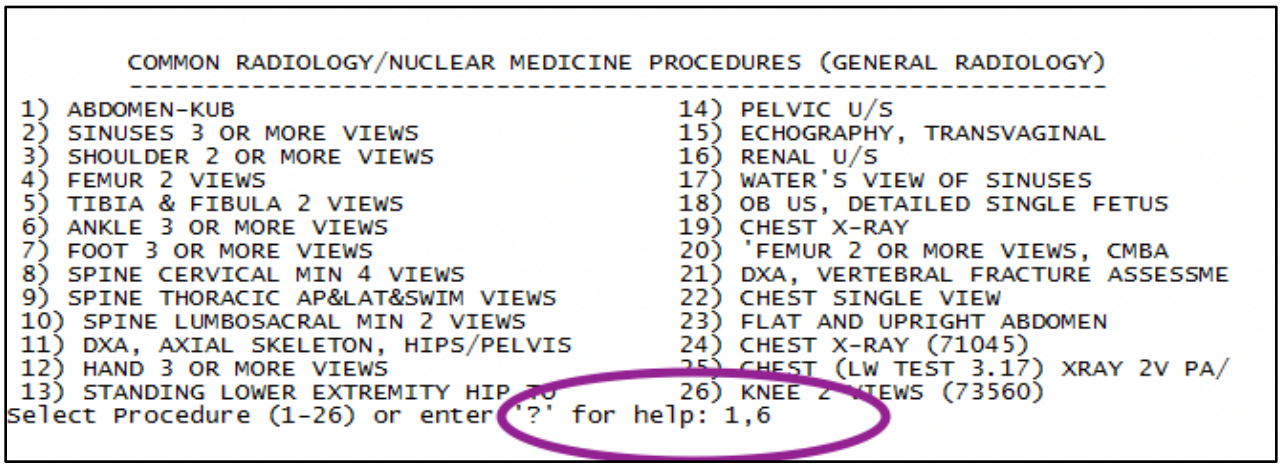


```
              **** Requested Exams for DEMO,LOUIS ****          189  Requests
 Height       : 72" on SEP  7,2022
 Weight       : 240 lbs on SEP  7,2022
   St  Urgency  Procedure / (Img. Loc.)     Desired     Requester    Req'g Loc
   --  -------  -------------------------   ----------  -----------  -----------
1      STAT     CHEST 1 VIEW LW (71045)     01/10/2022               DEMO CLINIC
                (RADIOLOGY DEPARTMENT)
2      STAT     SPINE CERVICAL MIN 4 VIEW   12/15/2017               DEMO CLINIC
                (RADIOLOGY DEPARTMENT)
3  p   ROUTINE  CHEST 1 VIEW LW (71045)     08/15/2022               DEMO CLINIC
                (RADIOLOGY DEPARTMENT)
4  c   ROUTINE  ANKLE 2 VIEWS               05/17/2022               DEMO CLINIC
                (RADIOLOGY DEPARTMENT)
5  c   ROUTINE  XRAY TEST PARENT3           05/09/2022               DEMO CLINIC
                (RADIOLOGY DEPARTMENT)
6  c   ROUTINE  DEMO CHEST XRAY 1 VIEW FO   04/19/2022               RADIOLOGY D
                (RADIOLOGY DEPARTMENT)
7  c   ROUTINE  CHEST 1 VIEW LW (71045)     04/13/2022               DEMO CLINIC
                (RADIOLOGY DEPARTMENT)
8  dc  ROUTINE  CHEST 1 VIEW LW (71045)     04/13/2022               DEMO CLINIC
                (RADIOLOGY DEPARTMENT)
```

Figure 21-19: Example for Height and Weight (US Units) as displayed with the date and time the vitals were taken. RPMS RAD/NUC MED Total System >Patient Profile Menu >Exam Profile (selected sort)

21.2.9 Multiple RPMS Imaging Selections

An address, fix ensures that when multiple procedures are selected in RPMS from the RAD/NUC MED Common Procedure Lists (order menus), there is not an RPMS Syntax error and multiples can be selected and registered (Figure 21-20).



```
        COMMON RADIOLOGY/NUCLEAR MEDICINE PROCEDURES (GENERAL RADIOLOGY)
        ---------------------------------------------------------------
 1) ABDOMEN-KUB                              14) PELVIC U/S
 2) SINUSES 3 OR MORE VIEWS                  15) ECHOGRAPHY, TRANSVAGINAL
 3) SHOULDER 2 OR MORE VIEWS                 16) RENAL U/S
 4) FEMUR 2 VIEWS                            17) WATER'S VIEW OF SINUSES
 5) TIBIA & FIBULA 2 VIEWS                   18) OB US, DETAILED SINGLE FETUS
 6) ANKLE 3 OR MORE VIEWS                    19) CHEST X-RAY
 7) FOOT 3 OR MORE VIEWS                     20) 'FEMUR 2 OR MORE VIEWS, CMBA
 8) SPINE CERVICAL MIN 4 VIEWS               21) DXA, VERTEBRAL FRACTURE ASSESSME
 9) SPINE THORACIC AP&LAT&SWIM VIEWS         22) CHEST SINGLE VIEW
 10) SPINE LUMBOSACRAL MIN 2 VIEWS           23) FLAT AND UPRIGHT ABDOMEN
 11) DXA, AXIAL SKELETON, HIPS/PELVIS        24) CHEST X-RAY (71045)
 12) HAND 3 OR MORE VIEWS                    25) CHEST (LW TEST 3.17) XRAY 2V PA/
 13) STANDING LOWER EXTREMITY HIP TO         26) KNEE 2 VIEWS (73560)
Select Procedure (1-26) or enter '?' for help: 1,6
```

Figure 21-20: Demonstrating successful multiple selections without error

21.3 Incomplete, Daily Delinquent Reports

An artifact from RA*5.0*1007 has been fixed for this release. The patient medical record number, or health record number (HRN) is again displayed in both RAD/NUC MED Total System > Management Reports Menu > Daily Management Reports for both the Delinquent Status Report and Incomplete Exam Report (Figure 21-21).

```
                  Daily Log Report For: Sep 21, 2022
Division         : 2021 DEMO HOSPITAL (INST)                  Date: Sep 22, 2022
Imaging Location : ULTRASOUND (ULTRASOUND)
Name                      Pt ID        Ward/Clinic           Procedure
        Exam Status             Case #     Time         Reported
-----------------------------------------------------------------
DEMO,ANNIE                111876       DEMO CLINIC           US ABDOMEN COMPLETE
        WAITING FOR EXAM        231        3:41 PM          No
```

Figure 21-21: Demonstrating display of the patient identifier (pt ID) for HRN

21.3.1 Modality Code in HL7 ORM message string

The addition or capture of the RAD/NUC MED Procedure Modality code is captured and passed in the RPMS HL7 outbound order message (ORM) OBR-24.

If the Modality Code field has been defined in the RPMS RAD/NUC MED Procedure file (Figure 21-22).

```
OBR|092122-231|6779078.8458-1^092122-231^L|76700^US EXAM ABDOM
COMPLETE^C4^498^USABDOMEN COMPLETE^99RAP|
|202209211541|""|""|||""||2935^WHITE^LESLIE^IT^BS^MT||DEMO
CLINIC||7^ULTRASOUND^2906^2021 DEMO HOSPITAL
(INST)|US^ULTRASOUND|202209211542250700||US||^^^^^R||^DEMO|||202209211541-
0700
```

Figure 21-22: HL7 OBR segment with modality of Ultrasound (US) in OBR-24

21.3.2 Change in Procedure/Edit template

Incorporated in the RA*5.0*1009 release are numerous VA RA releases one of which is RA*5.0*127. The RA*5.0*127 patch is a Radiology application patch. It contains Data Definition and routine updates needed for managing the association of in the RAD/NUC MED PROCEDURES file (# 71). IHS will see a minimal impact in the RAD/NUC MED Procedure file template in the Procedure enter/edit option.

Highlighted below are the additional prompts and fields for navigation and entry. Figure 21-23 and Figure 21-24 new procedure entries to the RIS.

```
Are you adding XRAY CHEST 1V (71045) as a new Radiology Procedure? YES//
YES
TYPE OF PROCEDURE: D  DETAILED
NAME: XRAY CHEST 1V (71045)  Replace
TYPE OF IMAGING: GENERAL RADIOLOGY
TYPE OF PROCEDURE: DETAILED//
CONTRAST MEDIA USED: NO//   NO
Select MODALITY: CR       Computed Radiography
  Are you adding 'CR' as a new MODALITY (the 1ST for this NEW RAD PROCEDURE
WORK
UP)? No// Y  (Yes)
Select MODALITY:
HEALTH SUMMARY WITH REQUEST:
Select SYNONYM:
```

```
PROMPT FOR MEDS:
Select DEFAULT MEDICATION:
Select AMIS CODE: CHEST-SINGLE VIEW
  Are you adding 'CHEST-SINGLE VIEW' as a new AMIS CODES (the 1ST for this
NEW RAD PROCEDURE WORKUP)? No// Y  (Yes)
  AMIS WEIGHT MULTIPLIER: 1
  BILATERAL?:
Select AMIS CODE:
CPT CODE: 71045    X-RAY EXAM CHEST 1 VIEW
       RADIOLOGIC EXAMINATION, CHEST; SINGLE VIEW
Note: If an erroneous CPT Code is accepted it cannot be changed; the
procedure must be inactivated.

Are you adding '71045' as the CPT Code for the new Rad/Nuc Med Procedure
'XRAY CHEST 1V (71045)'? NO// Y
Select DEFAULT CPT MODIFIERS(PROC):
STAFF REVIEW REQUIRED: NO//   NO
RAD/NM PHYS APPROVAL REQUIRED: NO//   NO
REQUIRED FLASH CARD PRINTER:
REQUIRED FLASH CARD FORMAT:
Select FILM TYPE: DIGITAL
  Are you adding 'DIGITAL' as a new FILMS NEEDED (the 1ST for this NEW RAD
PROCE
DURE WORKUP)? No// Y  (Yes)
Select FILM TYPE:
Select MESSAGE: ^FILM TYPE??
Select MESSAGE: ^FILMS NEEDED
Select FILM TYPE:    DIGITAL
  FILM TYPE: DIGITAL//
EDUCATIONAL DESCRIPTION:
  1>
INACTIVATION DATE:
This entry will not be submitted for NTRT processing.
Are you sure you are entering XRAY CHEST 1V (71045) as a new procedure?
YES//YES     (new prompt, if Y default is taken)

The CPT code is needed to match to an entry within the MASTER
RADIOLOGY PROCEDURE file.

The CPT code for this procedure is 71045.
     Select one of the following:

          1         NONE LISTED

Select the number of the Master Procedure that best matches
or enter a number followed by 'C' for the long name. e.g. 1C: 1  NONE
LISTED
Temporary new procedure entry has been moved to the permanent
RAD/NUC MED PROCEDURE file.
Updating ORDERABLE ITEMS file
Deleting temporary entry in file 71.11
```

Figure 21-23: Procedure Enter/Edit of new file

Are you sure you are entering XRAY CHEST 1V (71045) as a new procedure? **YES**//

```
This entry will not be submitted for NTRT processing.
Are you sure you are entering XRAY CHEST 1V (#2) as a new procedure? YES//
NO    (new prompt, if 'NO' is entered)
```

```
Temporary new procedure entry has been moved to the permanent
RAD/NUC MED PROCEDURE file.
Updating ORDERABLE ITEMS file

Deleting temporary entry in file 71.11
```

Figure 21-24: Procedure Enter/Edit of new file

Are you sure you are entering XRAY CHEST 1V (71045) as a new procedure? **NO**//

Answering **Yes** or **No** does not have an impact on the file use. The intent of the development for the VA in RA*5.0*127 was for confirmation of existing procedures in the Master Radiology Procedure File as part of the VA New Term Rapid Turnaround (NTRT) process. This is not applicable to IHS.

21.3.3 Procedure Modifiers in V RADIOLOGY

Entered Procedure Modifiers are now passed from the RAD/NUC MED Total System to the Patient Care Component (PCC) (Figure 21-25).

```
=============== RADIOLOGYs ===============
RADIOLOGY PROCEDURE:   XRAY CHEST 1V (#2)
CPT CODE:              71045
MODIFIER:              FY
MODIFIER 2:            26
ACCESSION #:           092322-234
PROCEDURE MODIFIER:    BILATERAL EXAM
PROCEDURE MODIFIER 2:  CLEOPATRA VIEW
IMPRESSION:            NO IMPRESSION.
EVENT DATE&TIME:       SEP 23, 2022@14:53
ORDERING PROVIDER:     WHITE,LESLIE IT BS MT
CLINIC:                GENERAL
DATE/TIME ENTERED:     SEP 23, 2022@14:54:28
ENTERED BY:            WHITE,LESLIE IT BS MT
DATE/TIME LAST MODIFI: SEP 23, 2022@14:54:28
LAST MODIFIED BY:      WHITE,LESLIE IT BS MT
V FILE IEN:            47921
```

Figure 21-25: Procedure Modifiers in the V RADIOLOGY visit file in PCC.

21.3.4 Accession Numbers in V RADIOLOGY

RPMS RAD/NUC MED procedure case or accession numbers are passed in the V RADIOLOGY file to PCC.

```
=============== RADIOLOGYs ===============
RADIOLOGY PROCEDURE:   XRAY CHEST 1V (#2)
CPT CODE:              71045
MODIFIER:              FY
MODIFIER 2:            26
ACCESSION #:           092322-234
PROCEDURE MODIFIER:    BILATERAL EXAM
PROCEDURE MODIFIER 2:  CLEOPATRA VIEW
IMPRESSION:            NO IMPRESSION.
EVENT DATE&TIME:       SEP 23, 2022@14:53
```

```
ORDERING PROVIDER:     WHITE,LESLIE IT BS MT
CLINIC:                GENERAL
DATE/TIME ENTERED:     SEP 23, 2022@14:54:28
```

Figure 21-26: Accession # in the V RADIOLOGY visit file in PCC.

21.3.5 Principle Clinic updates in PCC

An issue reported when RAD/NUC MED exams are re-edited/re-cased, including a Principle Clinic change, the modified clinic not passing to the PCC has been addressed. Examples below show the patient Visit File with an initial CLINIC of General. After editing the Case Exam's Principal Clinic to Radiology, the update passes successfully to PCC.

```
Patient Name:          DEMO,LOUIS
Chart #:               138425
Date of Birth:         APR 29, 1962
Sex:                   M
Visit IEN:             2122894
=============== VISIT FILE ===============
VISIT/ADMIT DATE&TIME: SEP 23, 2022@12:00
DATE VISIT CREATED:    SEP 23, 2022
TYPE:                  IHS
THIRD PARTY BILLED:    VISIT IN REVIEW STATUS
PATIENT NAME:          DEMO,LOUIS
LOC. OF ENCOUNTER:     2021 DEMO HOSPITAL (INST)
SERVICE CATEGORY:      AMBULATORY
CLINIC:                GENERAL
DEPENDENT ENTRY COUNT: 1
DATE LAST MODIFIED:    SEP 23, 2022
CREATED BY USER:       WHITE,LESLIE IT BS MT
OPTION USED TO CREATE: RA EDITPT
USER LAST UPDATE:      WHITE,LESLIE IT BS MT
OLD/UNUSED UNIQUE VIS: 6064010002122894
DATE/TIME LAST MODIFI: SEP 23, 2022@14:54:28
```

Figure 21-27: Principal Clinic 'GENERAL'

```
Patient Name:          DEMO,LOUIS
Chart #:               138425
Date of Birth:         APR 29, 1962
Sex:                   M
Visit IEN:             2122894

=============== VISIT FILE ===============
VISIT/ADMIT DATE&TIME: SEP 23, 2022@12:00
DATE VISIT CREATED:    SEP 23, 2022
TYPE:                  IHS
THIRD PARTY BILLED:    VISIT IN REVIEW STATUS
PATIENT NAME:          DEMO,LOUIS
LOC. OF ENCOUNTER:     2021 DEMO HOSPITAL (INST)
SERVICE CATEGORY:      AMBULATORY
CLINIC:                RADIOLOGY
DEPENDENT ENTRY COUNT: 1
DATE LAST MODIFIED:    SEP 23, 2022
CREATED BY USER:       WHITE,LESLIE IT BS MT
OPTION USED TO CREATE: RA EDITPT
```

```
USER LAST UPDATE:      WHITE,LESLIE IT BS MT
OLD/UNUSED UNIQUE VIS: 6064010002122894
DATE/TIME LAST MODIFI: SEP 23, 2022@15:31:48
```

Figure 21-28: Principal Clinic 'RADIOLOGY' post edit.

21.3.6 Pending/Hold Request Log and SNN removal

The Pending/Hold Rad/Nuc Med Request Log has been updated to include patient HRN. The patient SSN is no longer displayed.

```
                        LOG OF PENDING REQUESTS
              Includes requests scheduled from 1/1/22 to 9/23/22
IMAGING LOCATION: RADIOLOGY DEPARTMENT  Run Date: SEP23,2022  15:42
PATIENT NAME        HRN    PROCEDURE                DATE DESIRED  DATE ORDERED
 ORDERING PROVIDER
PT LOC
================================================================
DEMO,BRUCE         115596 DEMO CHEST XRAY 1 VIEW   MAY 02, 2022
MAY 02, 2022
  DEMO,LESLIE IT BS                                                    EAST
GENMED

DEMO,BRIAN         126950 ANKLE 3 OR MORE VIEWS     MAY 11, 2022
MAY 11, 2022
  DEMO,LISA                                                          DEMO
CLINIC
```

Figure 21-29: Pending/Hold Request Long and SSN replacement with HRN

21.3.7 wRVU Report by CPT, Imaging Type removed

The Diagnostic Codes do not display but are used to extract imaging test results for Normal Imaging result reports and Abnormal Imaging test result reports. This is not a 2015 CEHRT certification criterion requirement but was made in consultation with IHS CCDA SMEs.

Included in the RA*5.0*1009 release is VA RA*5.0*158. In p158, two personnel workload reports have been marked ‘Out of Order’. These include RAD/NUC MED Management, Personnel Workload Reports for Physician wRVU Report by CPT and by Imaging Type. Example below for Figure 21-30:

```
Select Management Reports Menu Option: PERsonnel Workload Reports
          Physician CPT Report by Imaging Type
          Physician Report
          Physician wRVU Report by CPT
             **> Out of order:  Not used in IHS
          Physician wRVU Report by Imaging Type
             **> Out of order:  Not used in IHS
          Radiopharmaceutical Administration Report
```

```
          Resident Report
          Staff Report
          Technologist Report
          Transcription Report
```

Figure 21-30: Personal Workload Reports

IHS sites were likely not able to use the two wRVU option due to Syntax Error generation when selected.

21.3.8 Addition of Hold, Cancel Reasons

A number of VA RA releases include updates to the RAD/NUC MED 'REASON' file. Imaging personnel can modify and add reasons to this file for selection by users who are cancelling and holding Imaging orders.

New Hold, Cancel Reasons include COVID-19 indications. Some examples below:

Table 21-1: Hold Terms and Synonyms

Hold Term	Synonym
COVID-19 CONCERNS	Synonym: COVID-19
COVID-19 CONCERNS	Synonym: COVID
COVID-19 CLINICAL REVIEW	Synonym: COVID-19 CL
CALLED VETERAN FOR APPT	Synonym: CALL
LETTER SENT TO CALL VA	Synonym: LETTER
RESCHED CALL BY VETERAN	Synonym: RESCHED
MRI SAFETY REVIEW	Synonym: MRISAFETY
RADIOLOGIST REVIEW	Synonym: RADREV
COMMUNITY CARE APPT	Synonym: COMCARE
WAITING ON OUTSIDE IMAGES	Synonym: OUTIMAGE
FUTURE APPOINTMENT	Synonym: FUTUREAPT
NON RADIOLOGY CONSULT	Synonym: NONRADCON

22.0 March 2024 RA_5.0_1010 Release Addendum

22.1 Introduction

This addendum lists new features and updated options to the RPMS Radiology module as developed for the 2022 RPMS Radiology release, RA*5.0*1010. The following modifications are not required for the ONC Certified Health IT Update for the Indian Health Service RPMS/EHR.

> **Note**: This application uses the "AUPN DISPLAY PPN" parameter functionality and is defaulted to OFF until Patient Preferred Name (PPN) is available across the enterprise. While this parameter is turned off, the Patient Preferred Name will not display in this application **except as a result of the patient lookup function**. This allows the Patient Preferred Name display to be turned on at once without requiring a coordinated release of all applications. **Once all applications support the display of the PPN, instructions will be sent out on how to enable this parameter system-wide**.

Examples of where the PPN will be displayed, printed with RPMS RAD/NUC MED menu options:

- Select Radiology/Nuclear Med Order Entry Menu Option: Detailed Request Display
- Select Radiology/Nuclear Med Order Entry Menu Option: Log of Scheduled Requests by Procedure
- Select Radiology/Nuclear Med Order Entry Menu Option: Pending/Hold Rad/Nuc Med Request Log
- Select Radiology/Nuclear Med Order Entry Menu Option: Print Rad/Nuc Med Requests by Date and Patient
- Select Radiology/Nuclear Med Order Entry Menu Option: Request an Exam
- Select Radiology/Nuclear Med Order Entry Menu Option: Schedule a Request
- Select Radiology/Nuclear Med Order Entry Menu Option: Ward/Clinic Scheduled Request Log
- Select Patient Profile Menu Option: Display Patient Demographics
- Select Patient Profile Menu Option: Exam Profile
- Select Patient Profile Menu Option: Profile of Rad/Nuc Med Exams
- Select Exam Entry/Edit Menu Option: Register Patient for Exams

- Select Exam Entry/Edit Menu Option: Edit Exam by Patient
- Select Exam Entry/Edit Menu Option: View Exam by Case No.
- Select Films Reporting Menu Option: Display a Rad/Nuc Med Report"
- Select Films Reporting Menu Option: Select Report to Print by Patient

22.2 Modifications

22.2.1 EHR Reports Tab Imaging (Local Only) report wrapping

RA*5.0*1009 introduced an issue for some systems where the EHR reports tab imaging report would present in one continuous line. RA*5.0*1010 corrects this and makes the report file in correctly. Confirm the EHR report section wraps and the RPMS report printout wraps as well.

22.2.2 Display of the Patient Preferred Name in RPMS RAD/NUC MED

If preferred name is populated for a patient, the patient name should appear in this format: DEMO,DONNA SUE - UPPER* in the patient name areas in RPMS. With the asterisk being the preferred name. AUPN parameter must be active.

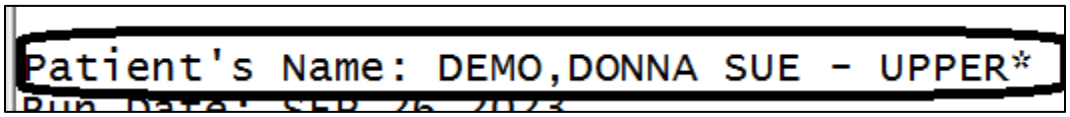


Figure 22-1: Demo patient's name

22.2.3 Default modality sending CR to vendor when undefined in OBR

When a procedure had no Modality code identified, RPMS was sending in the HL7 message CR as a default to the vendor. This has been corrected. If no modality is chosen, no code is sent. If another modality code (CT, etc), that code is sent in the OBR.

22.2.4 Remove error message when diagnosis segment comes in blank

If the Diagnosis segment in the HL7 message coming back from the vendor, this would produce an error in RPMS. This would produce an Invalid Diagnostic Code in the Rad/Nuc Med HL7 Voice Reporting Errors. This has been corrected and no error message will be produced if the diagnosis segment is blank.

22.2.5 Radiology/Imaging study report for PACS

An RA/Imaging study report, PATIENT RAD IMAGE REPORT, is a document that can be used for validation of moving images or for daily/weekly/monthly reports of what is being pushed to be validated by the radiology vendor reading the sites procedures.

- After software has been loaded, have your IT department add **BRA PATIENT RAD IMAGE REPORT** to your secondary menu.
- At any RPMS 'Select Option", keystroke **BRA PATIENT RAD IMAGE REPORT** or the **Synonym** created at the secondary menu and enter a date range.
- At DEVICE: HOME// enter HFS. At **HOST FILE NAME: D:\TMP\TMP.HFS//** Enter a location on your computer to save the report. Example: C:\TEMP\RDIRRPT.TXT
- If your site is on an AIX server, you will need to send the output to your local PUB and retrieve it from there. Please place a ticket to itsupport @ihs.gov if assistance is needed with setting this up as this may vary from site to site.

```
Select IHS Kernel <TEST ACCOUNT> Option: RDIR  Patient Radiology Image
StudiesRP
MS Image Study report:

Enter from date:  010121  (JAN 01, 2021)
Enter through date:  T  (JAN 16, 2024)
DEVICE: HOME// HFS  HOST FILE SERVER
HOST FILE NAME: G:\TMP\TMP.HFS//C:\TEMP\RDIRRPT.TXT  ADDRESS/PARAMETERS:
"WNS"//

.....................................................................
.....
.....................100.................................
Total Patient Entries: 134
```

Figure 22-2: Save output to local PUB

Go to the location you saved the report to and you should see something like this:

```
ACC_NUM^DOB^PAT_ID^LASTNAME, FIRSTNAME MIDDLEINIT^PATIENT
SEX^STUDY_DATE,STUDY_TIME^SUID^STUDY DESCRIPTION^NUMBER OF
IMAGES^MODALITY^MAGIEN
080921-131^Sep 10, 1952^890777^DEMO,GABRIEL ISAAC^M^08/09/2021 12:51^^KNEE
2 VIEWS^^CR^107963
100422-217^Sep 10, 1952^890777^DEMO,GABRIEL ISAAC^M^10/04/2022 16:04^^ANKLE
2 VIEWS^^CR^108006
121321-140^Apr 29, 1968^138425^DEMO,LOUIS^M^12/13/2021 20:54^^SHOULDER 2 OR
MORE VIEWS^^CR^107969
```

Figure 22-3: Saved report location example

Now you will need to export the .txt file into an Excel format:

- Launch MS Excel

- Selct FILE and then Open
- Select Browse and Select text as filter. In the lower right corner change it to Text Files (*.prn,*.txt;*.csv) and select the new TXT file to transfer
- Select the file
- The wizard comes up and should be delimited
- Select NEXT
- On Other tab–Deselect Tab and select Other and put in ^
- Select Finish and SAVE, PRINT

	A	B	C	D	E	F	G	H	I	J	K
1	ACC_NUM	DOB	PAT_ID	LASTNAME, FIRSTNAME MIDDLEINIT	PATIENT SEX	STUDY_DATE,STUDY_TIME	SUID	STUDY DESCRIPTION	NUMBER OF IMAGES	MODALITY	MAGIEN
2	080921-131	10-Sep-52	890777	DEMO,GABRIEL ISAAC	M	8/9/2021 12:51		KNEE 2 VIEWS		CR	107963
3	100422-217	10-Sep-52	890777	DEMO,GABRIEL ISAAC	M	10/4/2022 16:04		ANKLE 2 VIEWS		CR	108006
4	121321-140	29-Apr-68	138425	DEMO,LOUIS	M	12/13/2021 20:54		SHOULDER 2 OR MORE VIEWS		CR	107969

Figure 22-4: Example text file Excel export

22.2.6 Radiology report for Modality quality assurance

A report, PATIENT RAD EXAM REPORT, that will provide the ER staff with a list of POC ultrasounds and patient names during a designated date range to ensure they can perform the required QA in evaluating each other's POCUS read.

- After software has been loaded, have your IT department add **BRA PATIENT RAD EXAM REPORT** to your secondary menu.
- At any RPMS 'Select Option", keystroke **BRA PATIENT RAD EXAM REPORT** or the **Synonym** created at the secondary menu and enter a date range.
- At DEVICE: HOME// enter HFS. At **HOST FILE NAME:D:\TMP\TMP.HFS//** Enter a location on your computer to save the report. Example: C:\TEMP\RDERRPT.TXT
- If your site is on an AIX server, you will need to send the output to your local PUB and retrieve it from there. Please place a ticket to itsupport @ihs.gov if assistance is needed with setting this up, as this may vary from site to site.

```
Select IHS Kernel <TEST ACCOUNT> Option: RDER  Patient Radiology Exams
Rad/Nuc PATIENT RAD EXAM REPORT

Select Rad/Nuc Med Division: All//
Another one (Select/De-Select):

Select Imaging Type: All//
Another one (Select/De-Select):

Select Imaging Location: All//
Another one (Select/De-Select):
```

```
Select Procedures: All//

Another one (Select/De-Select):

**** Date Range Selection ****

   Beginning DATE : 010118  (JAN 01, 2018)
   Ending    DATE : T  (JAN 16, 2024)

DEVICE: HOME// HFS  HOST FILE SERVER
HOST FILE NAME: G:\TMP\TMP.HFS//C:\TEMP/RDERRPT.TXT  ADDRESS/PARAMETERS:
"WNS"//

Total: 274
```

Figure 22-5: Example PATIENT RAD EXAM REPORT

Go to the location you saved the report to and you should see something like this:

```
Name^ Pt ID^ Ward/Clinic Procedure^ Exam Status^ Case #^ Exam DT^
Requesting Provider^ Rad/Nuc Med Div^ Imaging Location
DEMO,LOUIS^138425^FOOT 2 VIEWS^EXAMINED^35^Feb 07,
2018@09:22^MOORE,LORI^2021 DEMO HOSPITAL (INST)^RADIOLOGY DEPARTMENT -4913
DEMO,LOUIS^138425^CT ABDOMEN AND PELVIS W/CONTRAST 2017^EXAMINED^39^Jun 13,
2018@15:46^WHITE,LESLIE^2021 DEMO HOSPITAL (INST)^CT SCAN
PAYA,ELIZABETH H^129112^RIBS BILAT+CHEST 4 OR MORE VIEWS^COMPLETE^67^Jun
19, 2018@11:20^ROZSNYAI,DUANE MD^2021 DEMO HOSPITAL (INST)^RADIOLOGY
DEPARTMENT -4913
PAYA,ELIZABETH H^129112^ECHOGRAM CHEST B-SCAN^COMPLETE^68^Jun 19,
2018@11:38^ROZSNYAI,DUANE MD^2021 DEMO HOSPITAL (INST)^RADIOLOGY DEPARTMENT
-4913
PAYA,ELIZABETH H^129112^ABDOMEN MIN 3 VIEWS+CHEST^COMPLETE^62^Sep 11,
2018@12:45^ROZSNYAI,DUANE MD^2021 DEMO HOSPITAL (INST)^RADIOLOGY DEPARTMENT
-4913
```

Figure 22-6: Example location of saved report

Now you will need to export the .txt file into an Excel format:

- Launch MS Excel
  - Select FILE and then Open
  - Select Browse and Select text as filter. In the lower right corner change it to Text Files (*.prn,*.txt;*.csv) and select the new TXT file to transfer
  - Select the file
  - The wizard comes up and should be delimited
  - Select NEXT
  - On Other tab–Deselect Tab and select Other and put in ^
  - Select Finish and SAVE, PRINT

	A	B	C	D	E	F	G	H	I
1	Name	Pt ID	Ward/Clinic Procedure	Exam Status	Case #	Exam DT	Requesting Provider	Rad/Nuc Med Div	Imaging Location
2	DEMO,LOUIS	138425	FOOT 2 VIEWS	EXAMINED	35	Feb 07, 2018@09:22	MOORE,LORI	2021 DEMO HOSPITAL (INST)	RADIOLOGY DEPARTMENT -4913
3	DEMO,LOUIS	138425	CT ABDOMEN AND PELVIS W/CONTRAST 2017	EXAMINED	39	Jun 13, 2018@15:46	WHITE,LESLIE	2021 DEMO HOSPITAL (INST)	CT SCAN
4	PAYA,ELIZABETH H	129112	RIBS BILAT+CHEST 4 OR MORE VIEWS	COMPLETE	67	Jun 19, 2018@11:20	ROZSNYAI,DUANE MD	2021 DEMO HOSPITAL (INST)	RADIOLOGY DEPARTMENT -4913
5	PAYA,ELIZABETH H	129112	ECHOGRAM CHEST B-SCAN	COMPLETE	68	Jun 19, 2018@11:38	ROZSNYAI,DUANE MD	2021 DEMO HOSPITAL (INST)	RADIOLOGY DEPARTMENT -4913
6	PAYA,ELIZABETH H	129112	ABDOMEN MIN 3 VIEWS+CHEST	COMPLETE	62	Sep 11, 2018@12:45	ROZSNYAI,DUANE MD	2021 DEMO HOSPITAL (INST)	RADIOLOGY DEPARTMENT -4913

Figure 22-7: Example text file Excel export

23.0 August 2024 RA_5.0_1011 Release Addendum

23.1 Introduction

This addendum lists new features and updated options to the RPMS Radiology module as developed for the 2024 RPMS Radiology release, RA*5.0*1011. The following modifications are not required for the ONC Certified Health IT Update for the Indian Health Service RPMS/EHR.

23.2 Modification

Report and Impression section missing in some of the Radiology reports when printing. This patch addresses the issue introduced in RA*5.0*1010, where the Report Text and Impression Text failed to print when using the "Select Report to Print by Patient" option in the Radiology package. Update of the BRARPT7 routine.

Confirm the following reports have Reports and Impressions:

Figure 23-1: Display a Rad/Nuc Med Report

Profile of Rad/Nuc Med Exams.

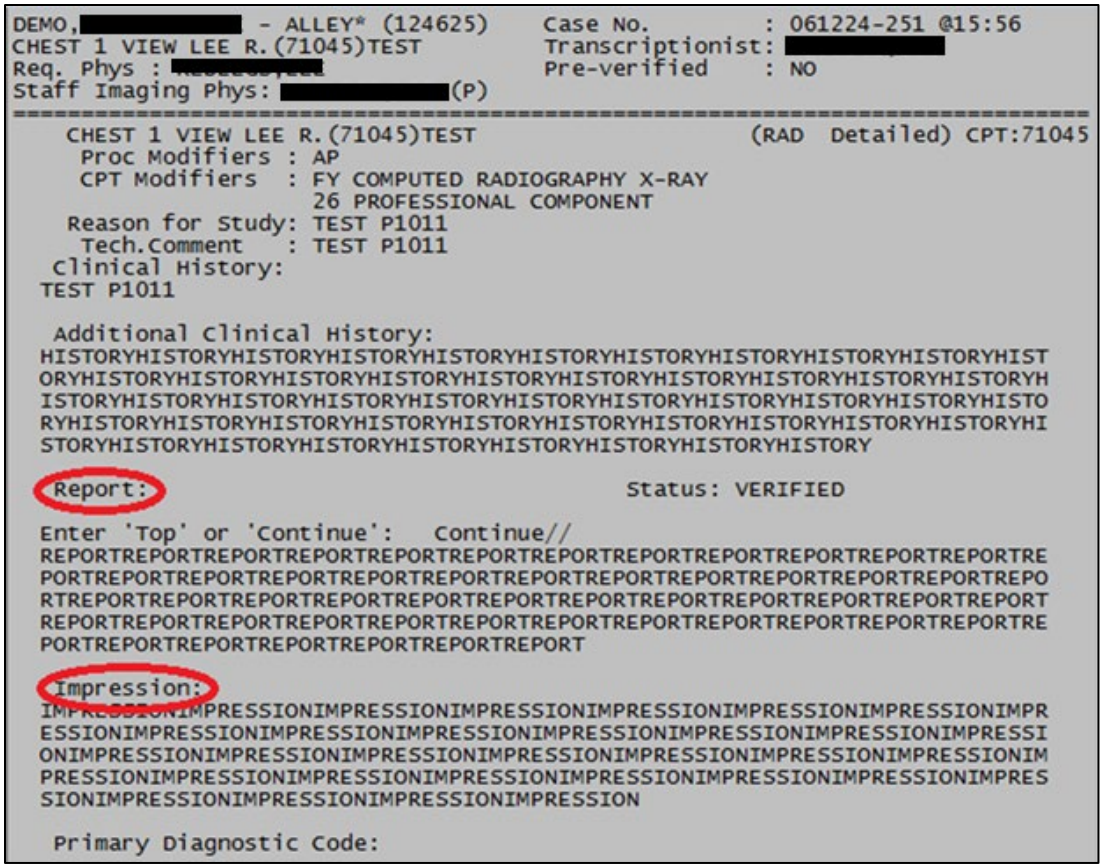
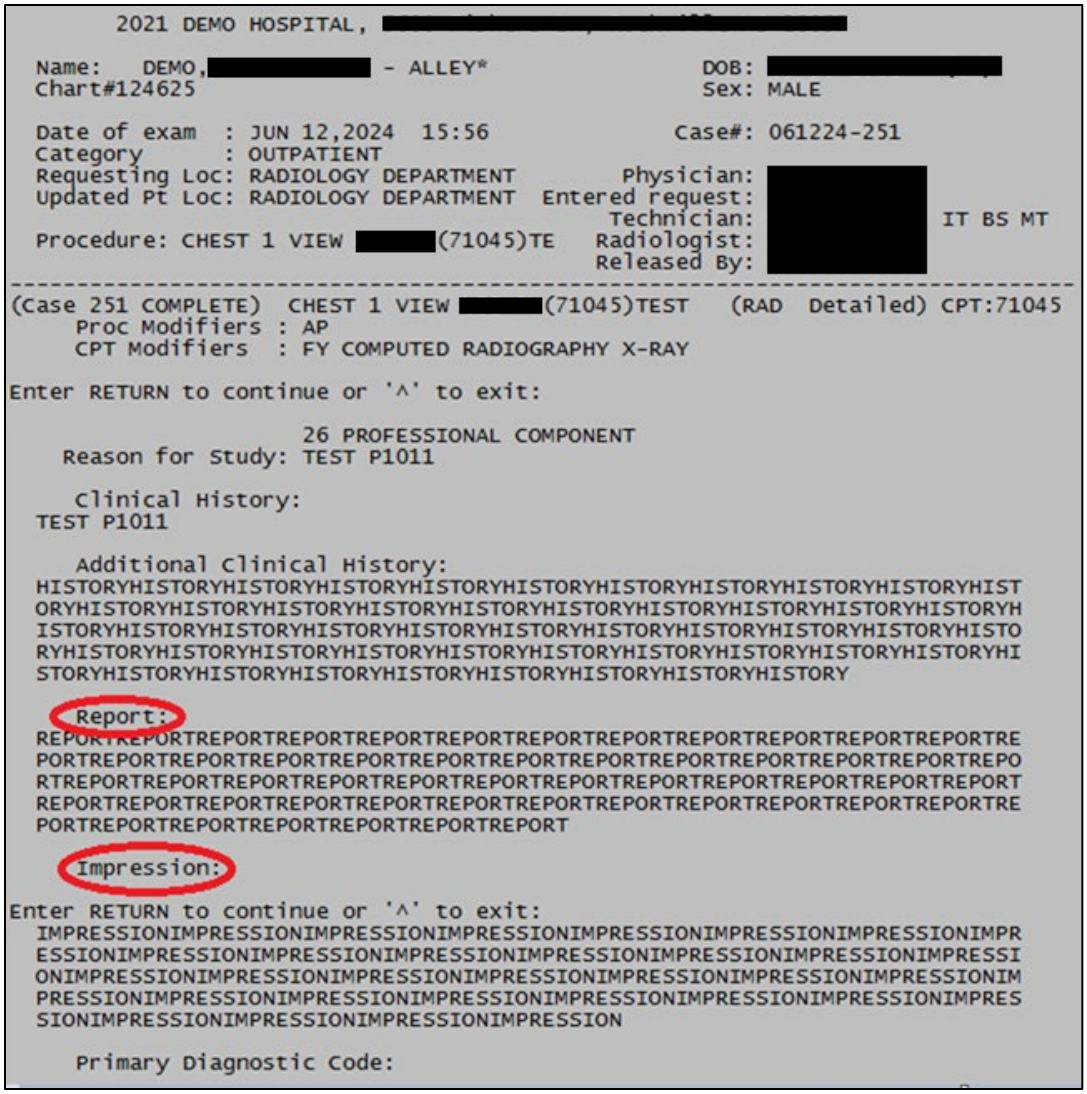


Figure 23-2: Select Report to Print by Patient



```
       2021 DEMO HOSPITAL, [redacted]

  Name:   DEMO,[redacted] - ALLEY*              DOB: [redacted]
  Chart#124625                                  Sex: MALE

  Date of exam  : JUN 12,2024  15:56           Case#: 061224-251
  Category      : OUTPATIENT
  Requesting Loc: RADIOLOGY DEPARTMENT       Physician: [redacted]
  Updated Pt Loc: RADIOLOGY DEPARTMENT  Entered request:
                                            Technician:                IT BS MT
  Procedure: CHEST 1 VIEW [redacted](71045)TE  Radiologist:
                                            Released By:
-------------------------------------------------------------------------------
(Case 251 COMPLETE)  CHEST 1 VIEW [redacted](71045)TEST   (RAD  Detailed) CPT:71045
     Proc Modifiers : AP
     CPT Modifiers  : FY COMPUTED RADIOGRAPHY X-RAY

Enter RETURN to continue or '^' to exit:

                    26 PROFESSIONAL COMPONENT
    Reason for Study: TEST P1011

     Clinical History:
  TEST P1011

     Additional Clinical History:
  HISTORYHISTORYHISTORYHISTORYHISTORYHISTORYHISTORYHISTORYHISTORYHISTORYHIST
  ORYHISTORYHISTORYHISTORYHISTORYHISTORYHISTORYHISTORYHISTORYHISTORYHISTORYH
  ISTORYHISTORYHISTORYHISTORYHISTORYHISTORYHISTORYHISTORYHISTORYHISTORYHISTO
  RYHISTORYHISTORYHISTORYHISTORYHISTORYHISTORYHISTORYHISTORYHISTORYHISTORYHI
  STORYHISTORYHISTORYHISTORYHISTORYHISTORYHISTORYHISTORYHISTORY

     Report:
  REPORTREPORTREPORTREPORTREPORTREPORTREPORTREPORTREPORTREPORTREPORTREPORTRE
  PORTREPORTREPORTREPORTREPORTREPORTREPORTREPORTREPORTREPORTREPORTREPORTREPO
  RTREPORTREPORTREPORTREPORTREPORTREPORTREPORTREPORTREPORTREPORTREPORTREPORT
  REPORTREPORTREPORTREPORTREPORTREPORTREPORTREPORTREPORTREPORTREPORTREPORTRE
  PORTREPORTREPORTREPORTREPORTREPORT

     Impression:

Enter RETURN to continue or '^' to exit:
  IMPRESSIONIMPRESSIONIMPRESSIONIMPRESSIONIMPRESSIONIMPRESSIONIMPRESSIONIMPR
  ESSIONIMPRESSIONIMPRESSIONIMPRESSIONIMPRESSIONIMPRESSIONIMPRESSIONIMPRESSI
  ONIMPRESSIONIMPRESSIONIMPRESSIONIMPRESSIONIMPRESSIONIMPRESSIONIMPRESSIONIM
  PRESSIONIMPRESSIONIMPRESSIONIMPRESSIONIMPRESSIONIMPRESSIONIMPRESSIONIMPRES
  SIONIMPRESSIONIMPRESSIONIMPRESSIONIMPRESSION

     Primary Diagnostic Code:
```

Figure 23-3: Print the Report from EHR to confirm REPORT and IMPRESSION are correct

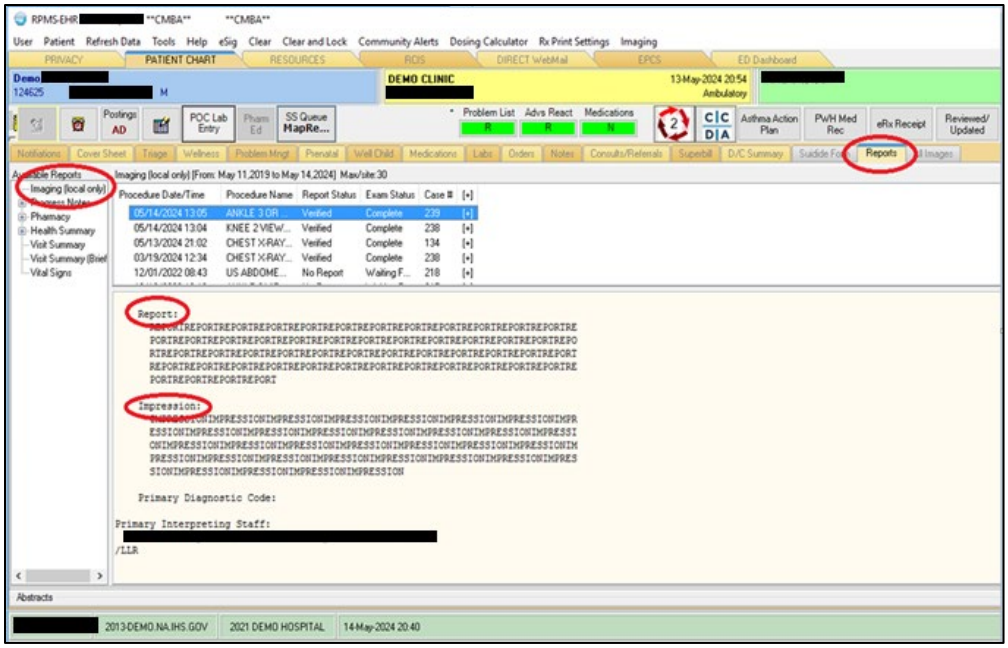


Figure 23-4: Confirm Report

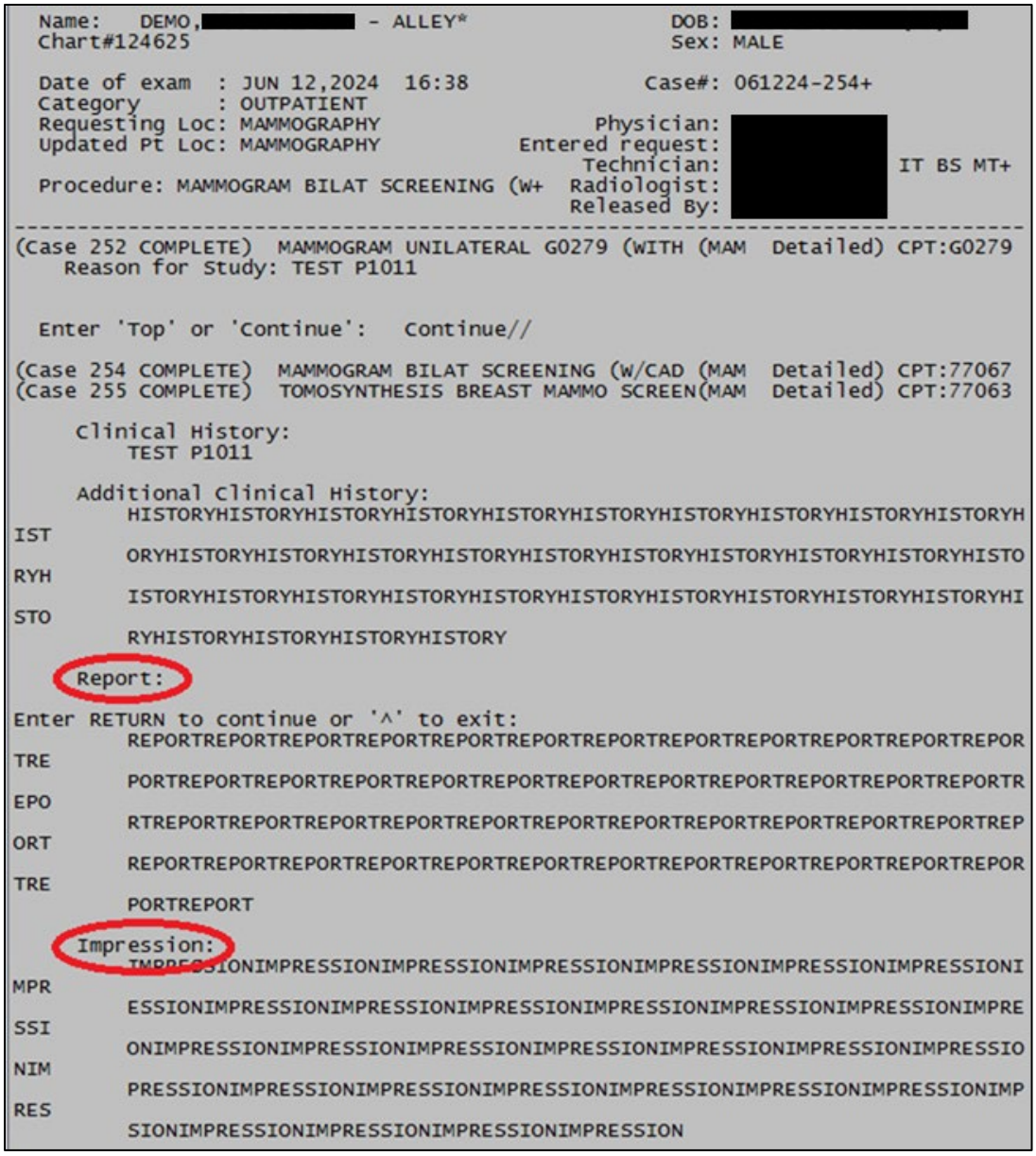


Figure 23-5: Confirm that the Report and Impression are present for Descendant exams for Parent procedures such as Mammogram Screenings

24.0 July 2025 RA_5.0_1012 Release Addendum

24.1 Introduction

This addendum lists new features and updated options to the RPMS Radiology module as developed for the 2025 RPMS Radiology release, RA*5.0*1012. The following modifications are not required for the ONC Certified Health IT Update for the Indian Health Service RPMS/EHR.

24.2 Modifications

Provides the ability to capture ICD-10 codes mapped to a Clinical Indication for Radiology/Nuclear Medicine procedures. This provides the site with the ability to have a Clinical Indication be required during a request for a radiology procedure. This can be set for an Imaging Type (examples: General Radiology, Ultrasound, Mammography, CT, etc.) and Patient Category (Inpatient, Outpatient, or Both).

The BEHOORPA CLINICAL INDICATOR parameter, when Enabled to YES, allows the Clinical Indicator box to appear when ordering in EHR Quick Order dialog.

```
Select General Parameter Tools <TEST ACCOUNT> Option:  Edit Parameter Values
                        --- Edit Parameter Values ---

Select PARAMETER DEFINITION NAME:   BEHOORPA CLINICAL INDICATOR   Enable Clinic
al Indicator Prompt

BEHOORPA CLINICAL INDICATOR may be set for the following:

     800 Division      DIV    [choose from INSTITUTION]
     900 System        SYS    [2013-DEMO.NA.IHS.GOV]

Enter selection:    System   2013-DEMO.NA.IHS.GOV

--- Setting BEHOORPA CLINICAL INDICATOR  for System: 2013-DEMO.NA.IHS.GOV ---
Select Package:    RADIOLOGY/NUCLEAR MEDICINE     RA

Package: RADIOLOGY/NUCLEAR MEDICINE//   RADIOLOGY/NUCLEAR MEDICINE     RA   RADI
EDICINE
Enabled: YES//
```

Figure 24-1: General Parameters, Edit Parameter Values for BEHOORPA CLINICAL INDICATOR

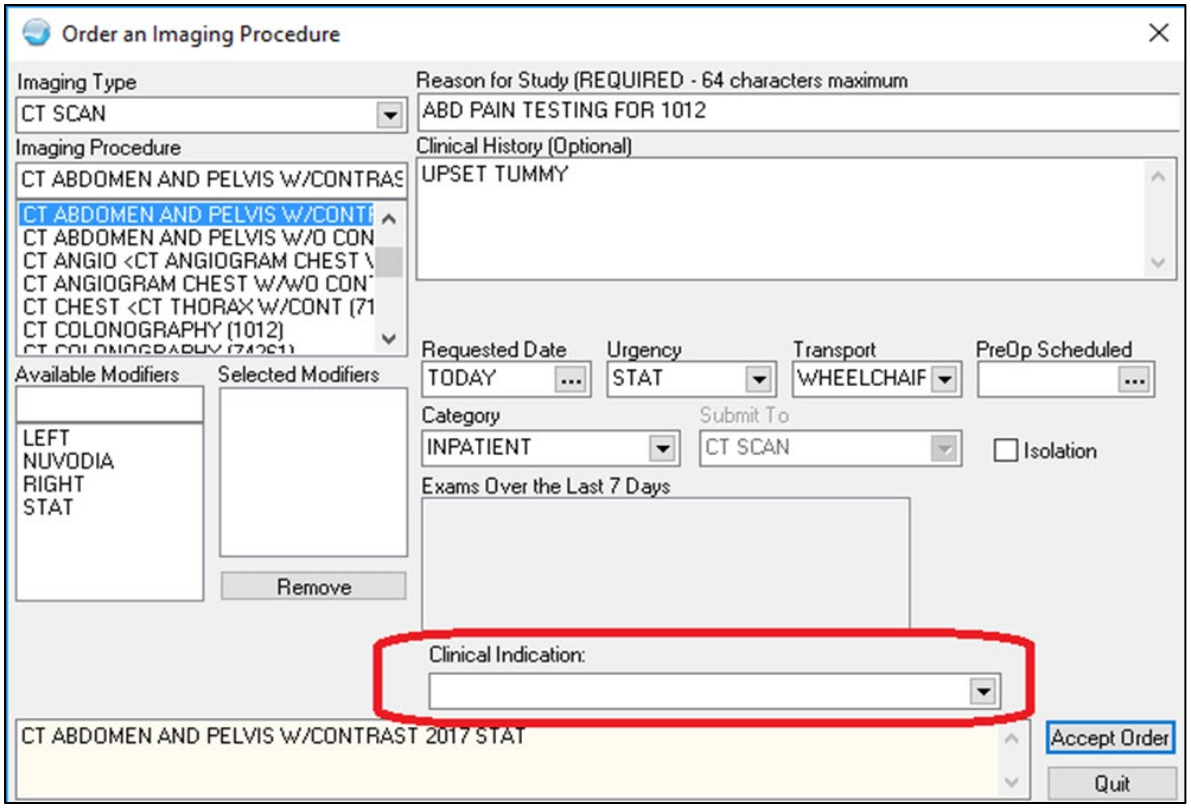


Figure 24-2: EHR Imaging Quick Order dialog with exposed Clinical Indication dialog

The BRA CLINICAL INDICATOR parameter allows the site to set which Imaging Types and which Patient Categories make the Clinical Indication required for an order. The site can choose which Imaging Types are **required** to have a mandatory Clinical Indication. The site can also choose to have none of them required. For the Patient Category the site will have a choice of Inpatient, Outpatient, or Both for selection.

Note:	The BRA CLINICAL INDICATOR Parameter is the setting that makes both the EHR and RPMS Imaging Requests mandatory. The BEHOORPA CLINICAL INDICATOR can be Enabled 'YES' but not the BRA CLINICAL INDICATOR. The EHR Imaging Quick Order dialog will still display Clinical Indication selection for all Imaging Types and can be ignored by the EHR requestor.

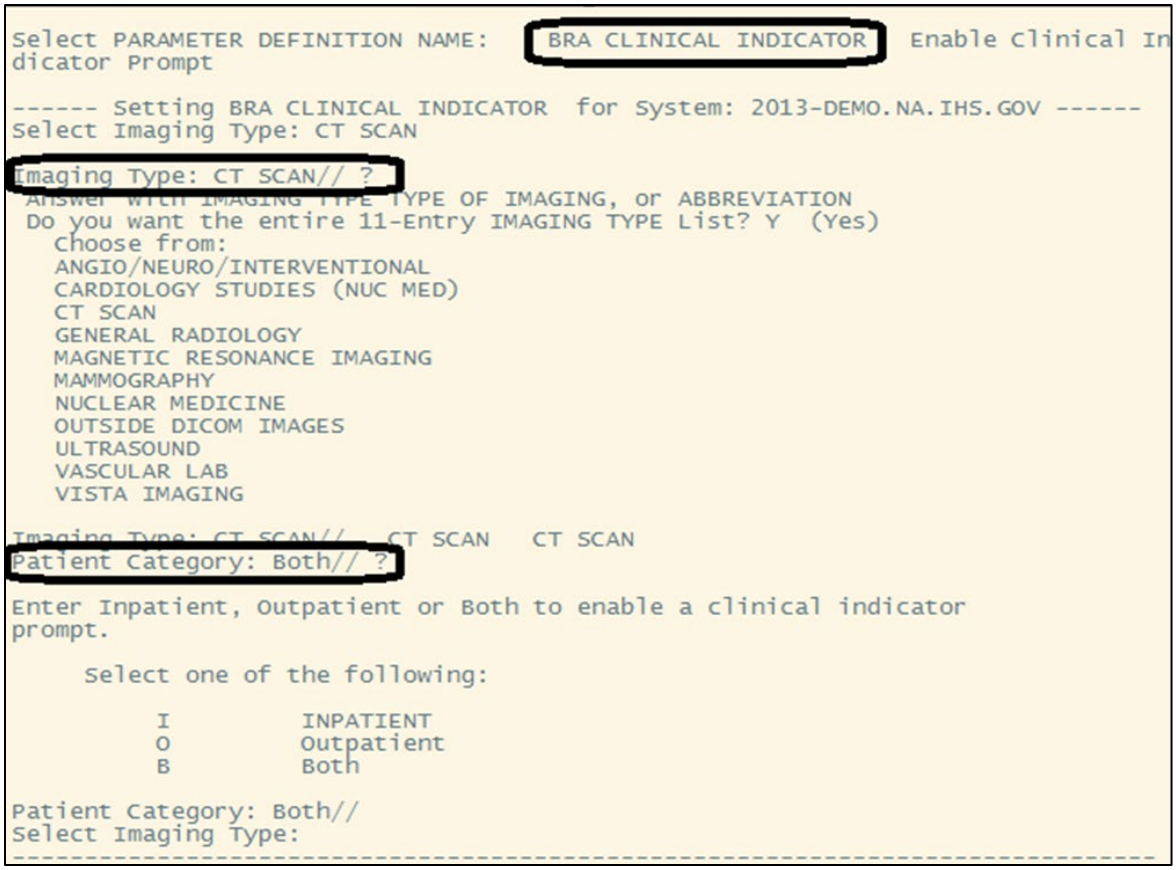


Figure 24-3: General Parameters, Edit Parameter Values for BRA CLINICAL INDICATOR

When an Imaging Type and Patient Category have been identified, this makes the Clinical Indicator required when the order Imaging Type and Patient Category matches it. An order or request cannot be completed without the selection of a Clinical Indication.

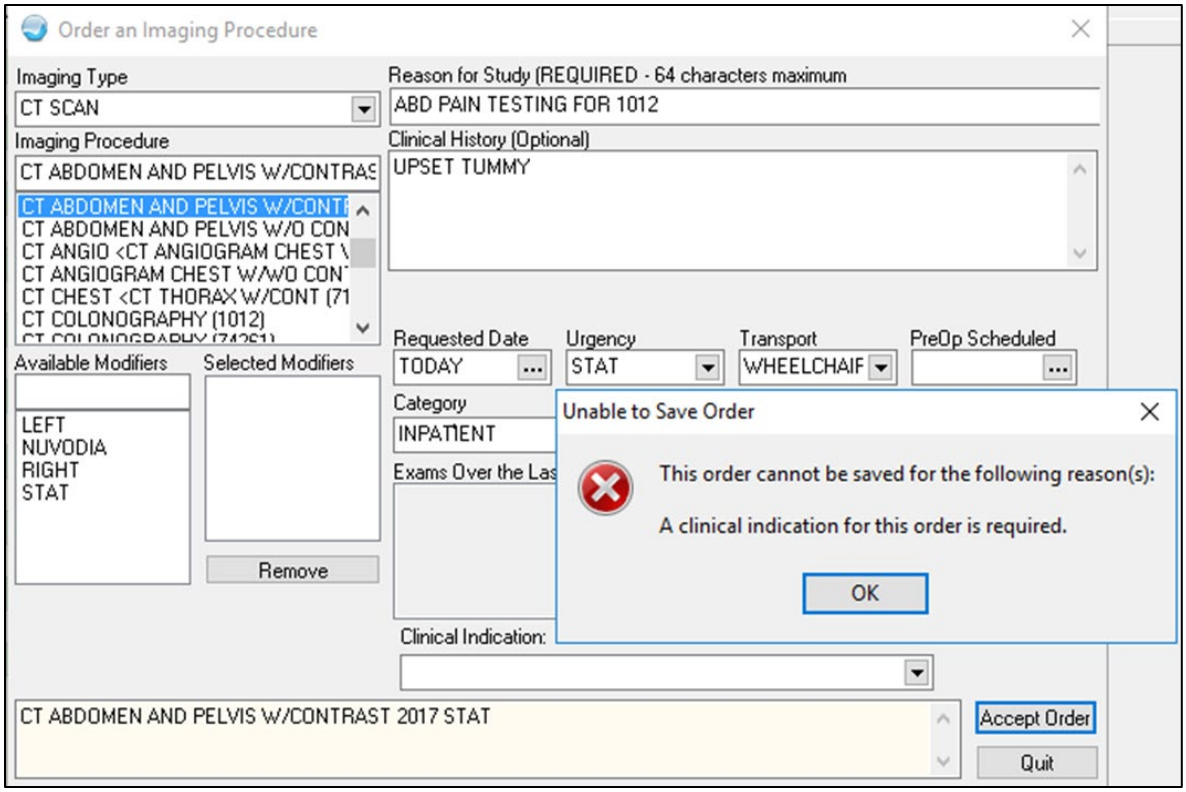


Figure 24-4: EHR Imaging Quick Order dialog with mandatory entry for Clinical Indication dialog

When the Clinical Indication is required, a user can utilize the drop-down box in the Clinical Indication window to view active entries in the Patient Problem List. A requesting provider can also keystroke a Clinical Indication and choices from the Patient Problem List will display. The use of 'Other…' to enter a Clinical Indication absent from the Patient Problem List can be searched, selected by use of the ellipses for SNOMED CT Lookup.

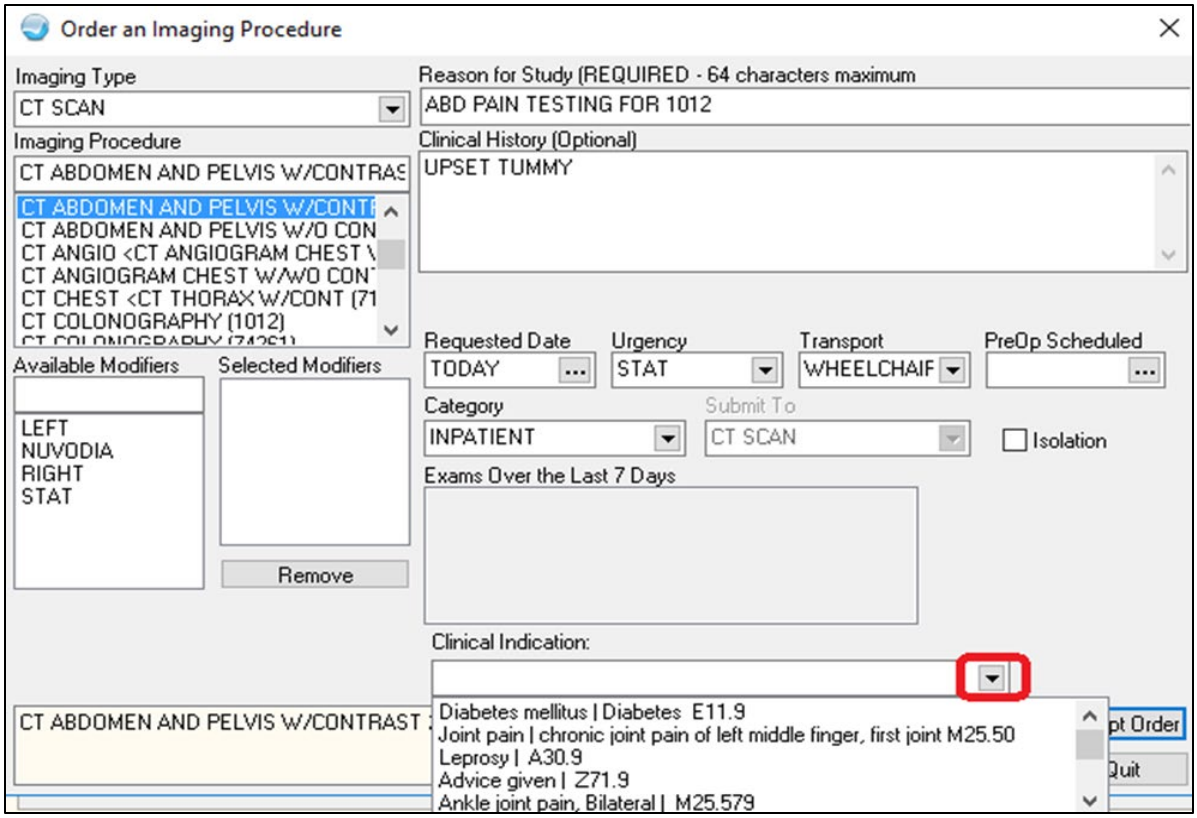


Figure 24-5: EHR Imaging Quick Order dialog with mandatory entry for Clinical Indication dialog, Patient Problem List entries

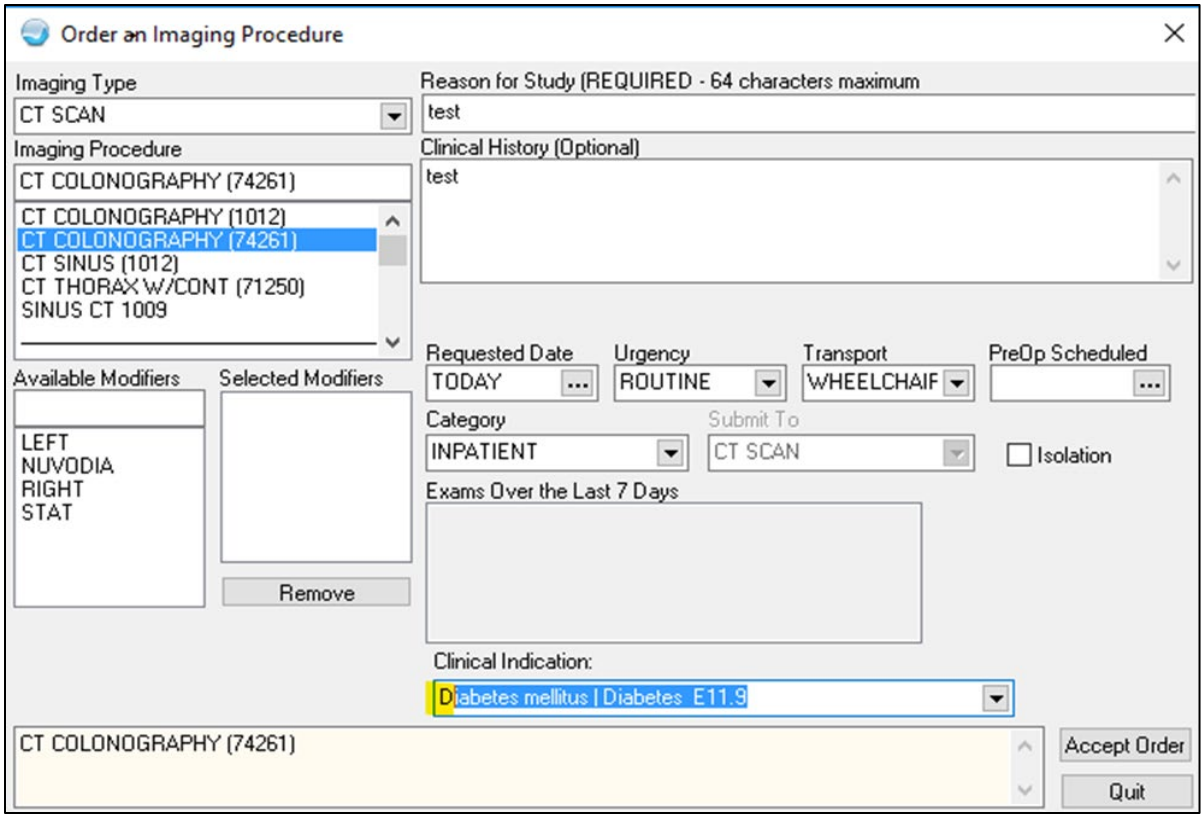


Figure 24-6: EHR Imaging Quick Order dialog with mandatory entry for Clinical Indication dialog, Patient Problem List entries and typing first alpha character of Clinical Indication

Patient orders that have an Imaging Type and Patient Category that makes the Clinical Indicator required, an order cannot be placed in RPMS without the selection of a Clinical Indication.

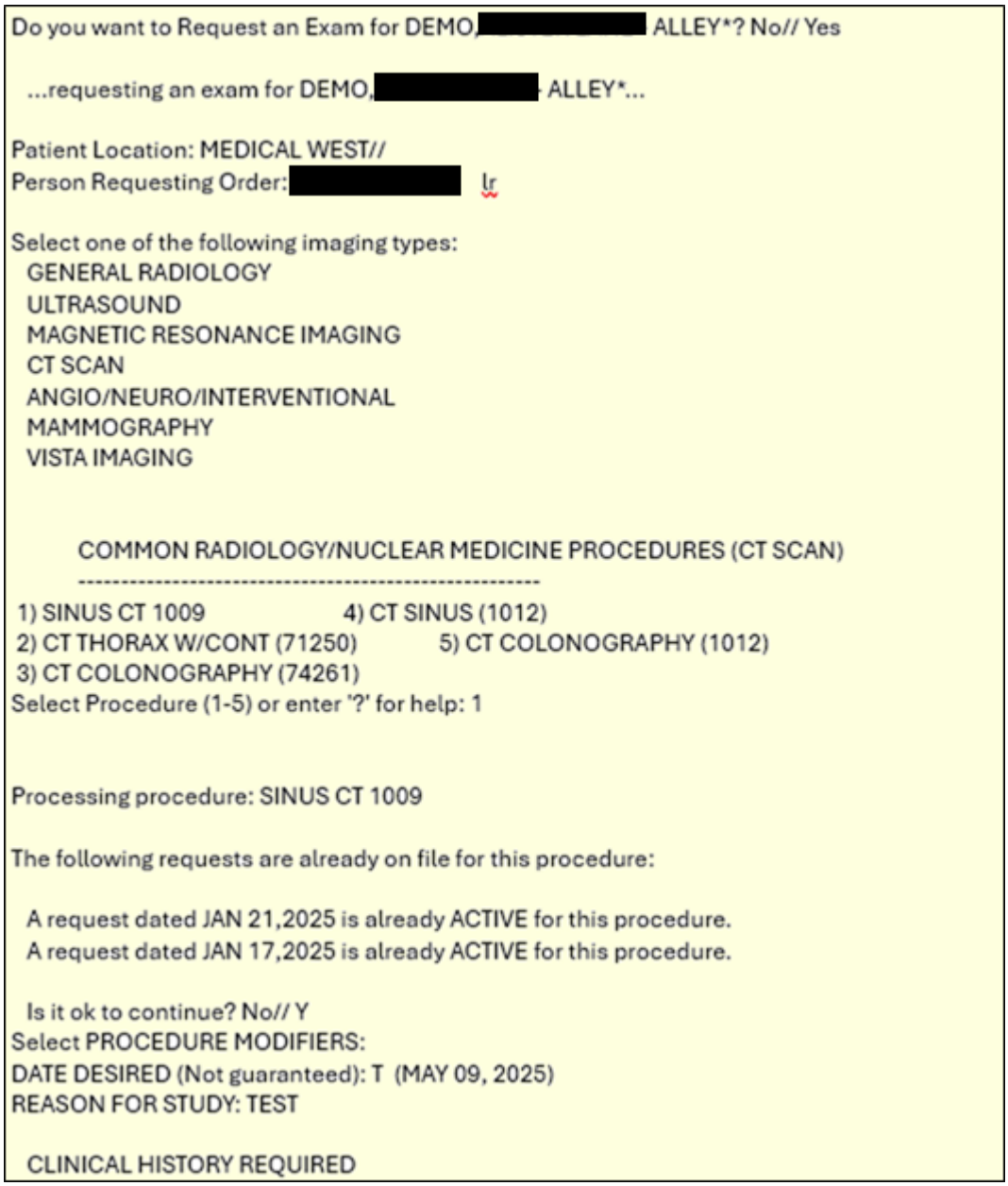


Figure 24-7: RPMS Display

A Patient's Problem List entries with SNOMED will appear:

```
BRA SNOMED SELECT              May 09, 2025 13:21:19          Page:    1 of    1
Select an appropriate code from the Patient's 15 Problems.

 SNOMED          SNOMED DESCRIPTION                                        ICD
  1) 202356017   Chart evaluation by healthcare professional              Z02.9
  2) 379661016   Malignant tumor of breast                                ZZZ.999
  3) 13287018    Immunosuppressive therapy for transplant                 ZZZ.999
  4) 2578952010  Advice given                                             Z71.9
  5) 31417013    Patient status determination, deceased                   R99.
  6) 391423019   March fracture                                           ZZZ.999
  7) 5393543012  Pain of joint of ankle                                   M25.579
  8) 51875014    Knee pain                                                ZZZ.999
  9) 39543013    Suicide while incarcerated                               ZZZ.999
 10) 134369019   Leprosy                                                  A30.9
 11) 286453013   Streptococcal sore throat with scarlatina                A38.9
 12) 41990019    Headache                                                 R51.9
 13) 121589010   Diabetes mellitus                                        E11.9
 14) 5393521016  Pain of joint                                            M25.50
 15) 5181179017  Sore throat                                              J02.9

          Enter ?? for more actions
S    Select SNOMED Number or Other Action
Select Action:Quit//
```

Figure 24-8: SNOMED List

Select one from the list by typing S and select the corresponding number for SNOMED, SNOMED Description, ICD-10 code:

```
            COMMON RADIOLOGY/NUCLEAR MEDICINE PROCEDURES (CT SCAN)
BRA SNOMED SELECT              May 12, 2025 15:13:46          Page:    1 of   13
Select an appropriate code from the 200 retrieved.

 SNOMED          SNOMED DESCRIPTION                                        ICD
  1) 72201014    Otitis                                                   H66.90
  2) 108597015   Otitis media                                             H66.90
  3) 6305018     Otitis externa                                           H60.90
  4) 1232668010  OM - Otitis media                                        H66.90
  5) 82051019    Aero-otitis media                                        ZZZ.999
  6) T1999086331 Left otitis media                                        H66.92
  7) 6257016     Acute otitis media                                       H66.90
  8) T1999005222 Hx of otitis media                                       Z86.69
  9) T1999086588 Right otitis media                                       H66.91
 10) T1999124120 Bilat otitis media                                       H66.93
 11) 1227489010  OE - Otitis externa                                      H60.90
 12) 133293016   Serous otitis media                                      H65.90
 13) 503929012   Mucoid otitis media                                      H65.30
 14) T1999086330 Left otitis externa                                      H60.92
 15) 2477507014  Viral otitis interna                                     H83.09
 16) 35608013    Chronic otitis media                                     H66.90
+         Enter ?? for more actions
S    Select SNOMED Number or Other Action
Select Action:Next Screen// S   Select SNOMED Number or Other Action
Enter a number (1-16): 2
```

Figure 24-9: SNOMED List Selection

Or ENTER and select YES and type a Clinical Indication description and select from the list returned by the SNOMED Terminology Service.

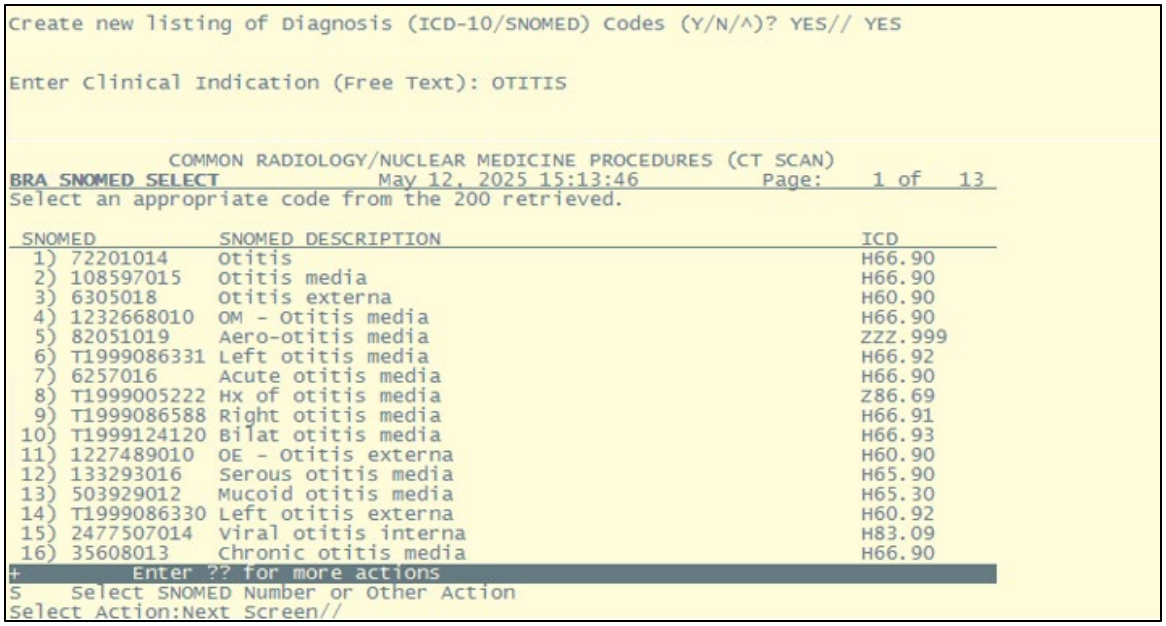
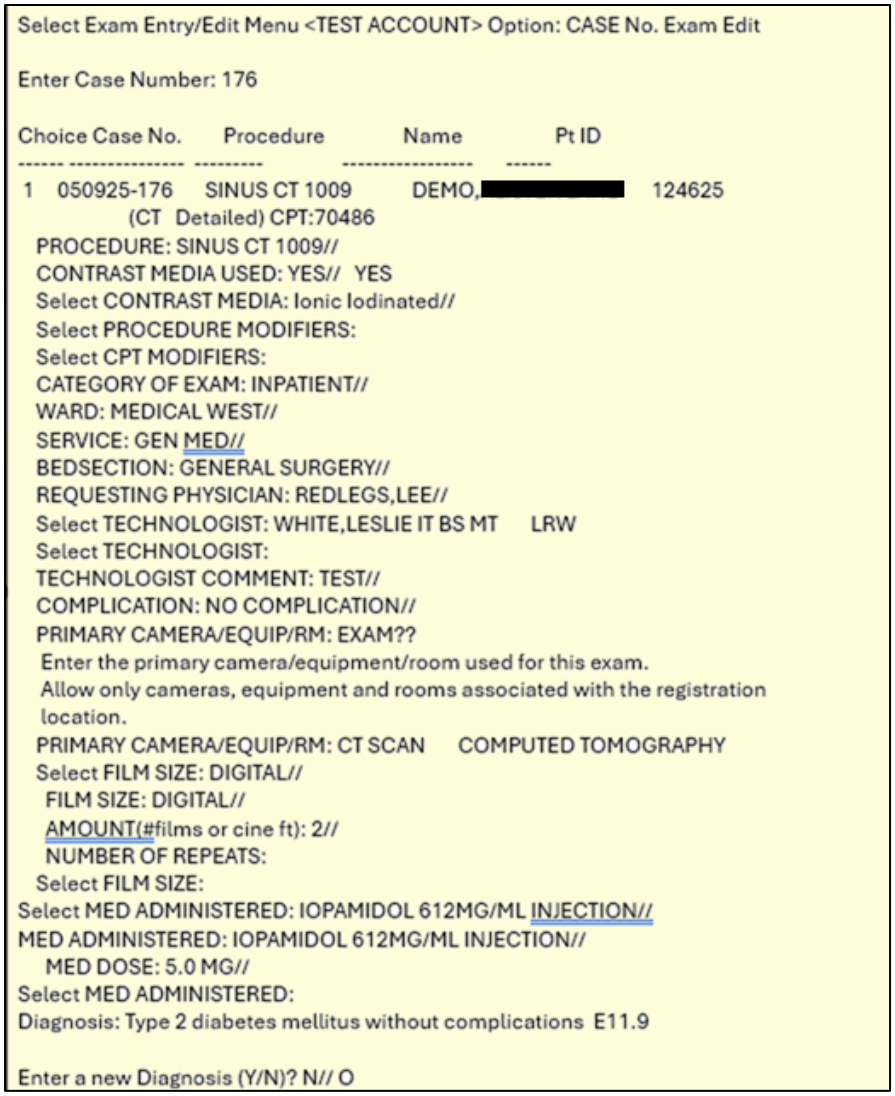


Figure 24-10: SNOMED List new listing of diagnosis

When Case/Editing an exam, you will have an opportunity to change the diagnosis at the final prompt. If no change is needed, just ENTER to advance forward:



```
Select Exam Entry/Edit Menu <TEST ACCOUNT> Option: CASE No. Exam Edit

Enter Case Number: 176

Choice Case No.      Procedure          Name              Pt ID
------ ---------- ---------          ----------------    ------
1   050925-176     SINUS CT 1009      DEMO,[redacted]     124625
              (CT  Detailed) CPT:70486
  PROCEDURE: SINUS CT 1009//
  CONTRAST MEDIA USED: YES//  YES
  Select CONTRAST MEDIA: Ionic Iodinated//
  Select PROCEDURE MODIFIERS:
  Select CPT MODIFIERS:
  CATEGORY OF EXAM: INPATIENT//
  WARD: MEDICAL WEST//
  SERVICE: GEN MED//
  BEDSECTION: GENERAL SURGERY//
  REQUESTING PHYSICIAN: REDLEGS,LEE//
  Select TECHNOLOGIST: WHITE,LESLIE IT BS MT     LRW
  Select TECHNOLOGIST:
  TECHNOLOGIST COMMENT: TEST//
  COMPLICATION: NO COMPLICATION//
  PRIMARY CAMERA/EQUIP/RM: EXAM??
   Enter the primary camera/equipment/room used for this exam.
   Allow only cameras, equipment and rooms associated with the registration
   location.
  PRIMARY CAMERA/EQUIP/RM: CT SCAN     COMPUTED TOMOGRAPHY
  Select FILM SIZE: DIGITAL//
    FILM SIZE: DIGITAL//
    AMOUNT(#films or cine ft): 2//
    NUMBER OF REPEATS:
  Select FILM SIZE:
Select MED ADMINISTERED: IOPAMIDOL 612MG/ML INJECTION//
MED ADMINISTERED: IOPAMIDOL 612MG/ML INJECTION//
    MED DOSE: 5.0 MG//
Select MED ADMINISTERED:
Diagnosis: Type 2 diabetes mellitus without complications  E11.9

Enter a new Diagnosis (Y/N)? N// O
```

Figure 24-11: Change of diagnosis if required

EHR Report, Imaging (local only) provides display performing Imaging Location name, address, phone number as defined in the RPMS Institution File.

21 CFR Part 900 requires Mammographic reports include the facility name and location (at a minimum, the city, State, ZIP code, and telephone number of the facility). This is now displayed in imaging reports pulled from the Reports tab, selecting Imaging (local only), selection of an exam.

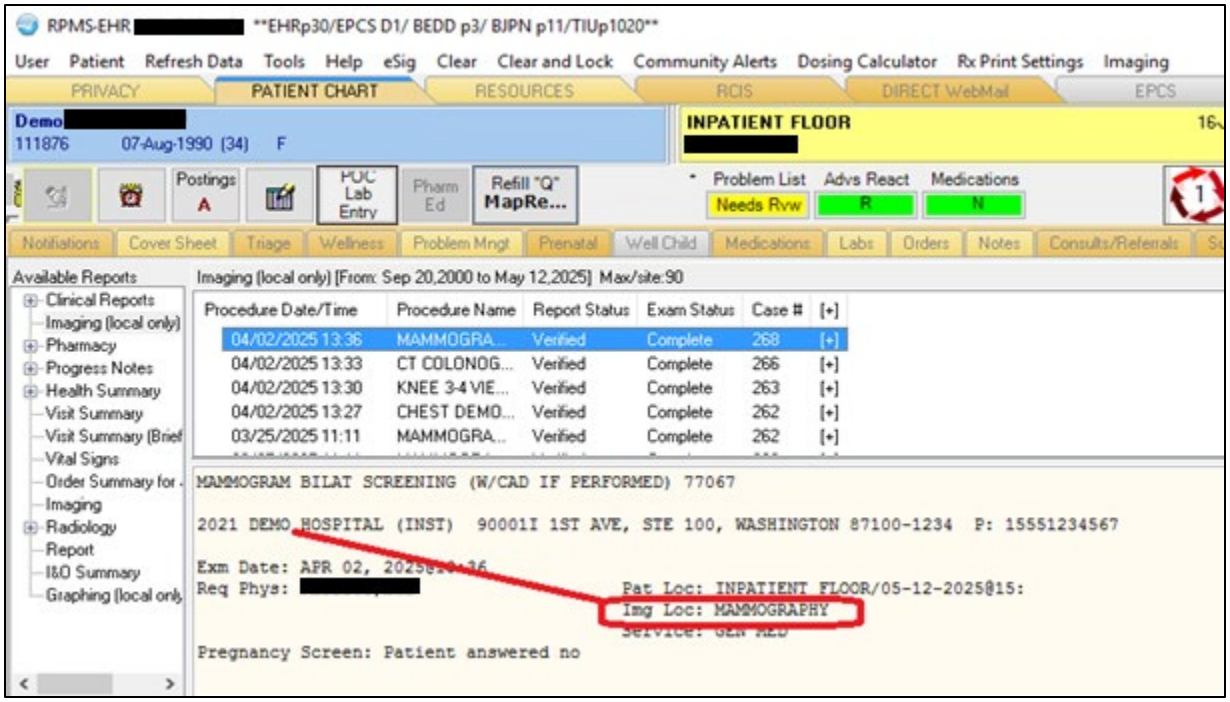


Figure 24-12: Facility name and address in report

Adding Exam Date/Time to HL7 2.4 ORM Messages. The HL7 ORM message has been updated to display both exam report date and time and the message date and time when re-sending prior imaging reports. The green highlight is the exam date the procedure was performed. The red highlight is the date for re-transmission.

```
OBR
1|021025-264|021025-264|74261^CT COLONOGRAPHY DX^C4^788^CT COLONOGRAPHY (74261)
^99RAP|202502101235-0700||20250516102842-0700|3042^[redacted]||021025-264|2
64|021025-264|CT_CT SCAN^5_CT SCAN^2906_2021 DEMO HOSPITAL (INST)|202505161029
-0700||F||||3042^[redacted]||3042^[redacted]
```

Figure 24-13: Examine date and the message date

25.0 October 2025 RA_5.0_1013 Release Addendum

25.1 Introduction

This addendum lists new features and updated options to the RPMS Radiology module as developed for the 2025 RPMS Radiology release, RA*5.0*1013. The following modifications are not required for the ONC Certified Health IT Update for the Indian Health Service RPMS/EHR.

25.2 Modifications

This modification is to reflect age range for the pregnancy prompts in Radiology to match EHR age updates when requesting imaging exams for female patients. EHR Order Dialog changed for female pregnancy prompt for an electronic Clinical Quality CMS Measure - age range is 8-64 years old.

When registering a Female patient within the age range of 8-64 years old, you will be prompted with PREGNANT AT TIME OF ORDER ENTRY and you will have to answer YES, NO, or Unknown.

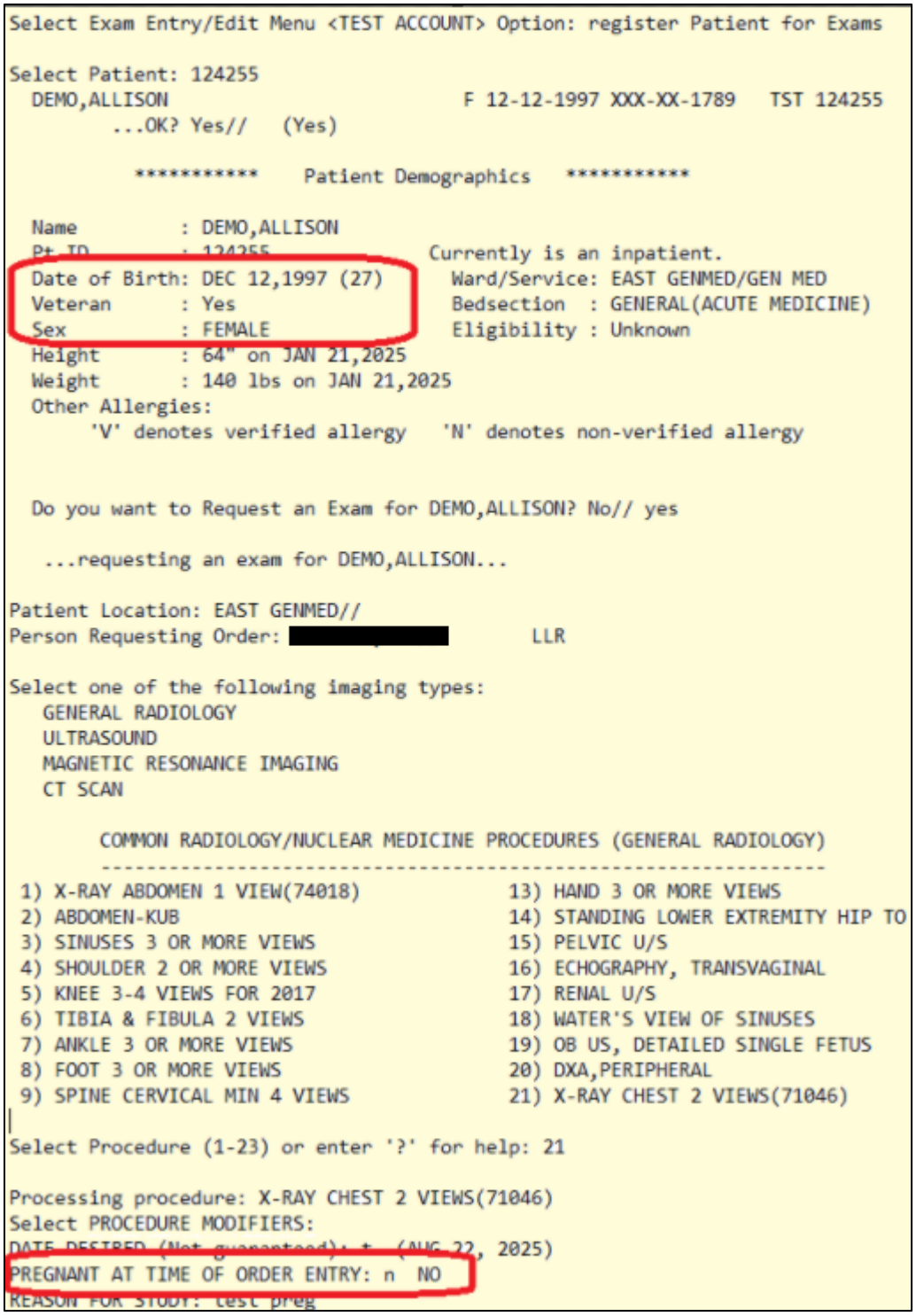


Figure 25-1: Pregnant at time of order entry

During case/editing of an imaging exam, the PREGNANT AT TIME OF ORDER ENTRY will display the previous answer captured during exam registration and advance to the field PREGNANCY SCREEN.

```
TECHNOLOGIST COMMENT: TEST PREG//
PREGNANT AT TIME OF ORDER ENTRY: NO
PREGNANCY SCREEN: Patient answered no//
```

Figure 25-2: Pregnant at time of order entry auto filled when casing

A new enhancement or feature provides the ability to auto download more recent imaging diagnostic codes into the RAD/NUC MED Total System. Versus manual entry, addition to the RPMS RAD/NUC MED Diagnostic Code files.

This modification allows sites to copy and paste diagnostic codes from teleradiology, vendor information reducing manual entry of imaging diagnostic codes into the radiology information system.

Assign BRA IMPORT DIAGNOSTIC CODES to the secondary menu of the user's RPMS account.

Review, copy the diagnostic codes that are currently in the system via RAD/NUC MED Supervisor > Utility > Diagnostic Codes for reference.

Proceed to the secondary menu: BRA IMPORT DIAGNOSTIC CODES

```
Select IHS Kernel <TEST ACCOUNT> Option: BRA IMPORT DIAGNOSTIC CODES
Import Diagnostic Code list
  e.g., 1001^SIGNIFICANT ABNORMALITY, ATTN NEEDED
where
  1st-'^' piece is the diagnostic code IEN in DIAGNOSTIC CODES file (#78.3)
  2nd-'^' piece is the DIAGNOSTIC CODE field (#78.3,1)
  3rd-'^' piece is the DESCRIPTION field (#78.3,2)
  4rd-'^' piece is the PRINT ON ABNORMAL REPORT  field (#78.3,3) value Y/N
  5th-'^' piece is the GENERATE ABNORMAL ALERT? field (#78.3,4) value y/n

Enter RETURN to continue or '^' to exit:
```

Figure 25-3: BRA IMPORT DIAGNOSTIC CODES delimited explained

Copy the teleradiology, vendor's diagnostic codes from the imaging vendor that is in a delimited format and paste in the Screen Editor text box and exit when completed.

> **Note**: Section 25.2.1 includes a comprehensive list in delimited format for import into the RAD/NUC MED imaging Diagnostic Code file.

```
============[ INSERT ]==========< Diagnostic Codes >=========[ <PF1>H=Help ]====
1000^NO ALERT REQUIRED^A DESCRIPTION^N^N
1001^SIGNIFICANT ABNORMALITY, ATTN NEEDED
1002^CRITICAL ABNORMALITY
1003^POSSIBLE MALIGNANCY
1100^BI-RADS CATEGORY 0 (Incomplete: Need Additional Imaging Evaluation)
1101^BI-RADS CATEGORY 1 (Negative)^DESCRIPTION^N^Y
1102^BI-RADS CATEGORY 2 (Benign)
1103^BI-RADS CATEGORY 3 (Probably Benign)
1104^BI-RADS CATEGORY 4 (Suspicious)
```

Figure 25-4: Pasting diagnostic code into screen editor box

Keystroke YES at “Are you ready to import the Diagnostic codes?”.

```
Are you ready to import the Diagnostic Codes? NO// YES
Import has been completed.
```

Figure 25-5: Finishing importing diagnostic codes

Confirm, via RAD/NUC MED Supervisor > Utility > Diagnostic Codes, that the Diagnostic Codes successfully imported and that existing codes were not modified.

```
Select VA FileMan <TEST ACCOUNT> Option: INQuire to File Entries

OUTPUT FROM WHAT FILE: VA PATIENT// DIAGNOSTIC CODES
                                          (65 entries)
Select DIAGNOSTIC CODES: ??

   Choose from:

   1000         NO ALERT REQUIRED
   1001         SIGNIFICANT ABNORMALITY, ATTN NEEDED
   1002         CRITICAL ABNORMALITY
   1003         POSSIBLE MALIGNANCY
   1100         BI-RADS CATEGORY 0 (Incomplete: Need Additional Imaging Evaluati
on)
   1101         BI-RADS CATEGORY 1 (Negative)
   1102         BI-RADS CATEGORY 2 (Benign)
   1103         BI-RADS CATEGORY 3 (Probably Benign)
   1104         BI-RADS CATEGORY 4 (Suspicious)
```

Figure 25-6: Confirming diagnostic codes in Fileman

Note: The delimited files may or may not have YES or NO entries for the following fields for Diagnostic Code file entries. These can be updated, entered as needed for the following:

```
PRINT ON ABNORMAL REPORT: ?
     Enter 'Y' for YES if this code should print on the Abnormal Exam Report.
     Choose from:
       Y        YES
       N        NO
GENERATE ABNORMAL ALERT?: ?
     Answering 'YES' indicates that whenever this diagnostic code is entered
     for a report an abnormal alert should be sent to the attending/requesting
     physician.
     Choose from:
       Y       YES
       N        NO
```

Figure 25-7: Field entries for report and alert in the Diagnostic Code File entry

25.2.1 Diagnostic Code files

Delimited entries for copy, paste import into the RAD/NUC MED imaging Diagnostic Code files.

```
1000^NO ALERT REQUIRED
1001^SIGNIFICANT ABNORMALITY, ATTN NEEDED
1002^CRITICAL ABNORMALITY
1003^POSSIBLE MALIGNANCY
1100^BI-RADS CATEGORY 0 (Incomplete: Need Additional Imaging Evaluation)
1101^BI-RADS CATEGORY 1 (Negative)
1102^BI-RADS CATEGORY 2 (Benign)
1103^BI-RADS CATEGORY 3 (Probably Benign)
1104^BI-RADS CATEGORY 4 (Suspicious)
1105^BI-RADS CATEGORY 5 (Highly Suggestive of Malignancy)
1106^BI-RADS CATEGORY 6 (Known Biopsy Proven Malignancy)
1200^ABDOMINAL AORTIC ANEURYSM NOT PRESENT
1201^ABDOMINAL AORTIC ANEURYSM PRESENT
1202^DOES NOT SATISFY SCREEN FOR AAA
1210^LUNGRADS 0: INCOMPLETE
1211^LUNGRADS 1: NEGATIVE
1212^LUNGRADS 2: BENIGN NODULE APPEARANCE
1213^LUNGRADS 3: PROBABLY BENIGN NODULE
1214^LUNGRADS 4A: SUSPICIOUS NODULE
1215^LUNGRADS 4B: SUSPICIOUS NODULE
1216^LUNGRADS 4X: SUSPICIOUS NODULE WITH ADDI
1217^LUNGRADS S: SIGNIFICANT INCIDENTAL FINDING
1218^LUNGRADS C: PRIOR LUNG CANCER
1300^INCIDENTAL LUNG NODULE(NONSCREENING)
1400^LI-RADS NC; NONCATEGORIZABLE DUE TO IMAGE OMISSION OR DEGRADATION
1410^LI-RADS NO OBS; NO OBSERVATIONS
1411^LI-RADS 1; DEFINITELY BENIGN
1412^LI-RADS 2; PROBABLY BENIGN
1413^LI-RADS 3; INTERMEDIATE PROBABILITY OF MALIGNANCY
1414^LI-RADS 4; PROBABLY HCC
1415^LI-RADS 5; DEFINITELY HCC
1416^LI-RADS TIV; TUMOR IN VEIN (TIV)
1417^LI-RADS M; PROBABLY OR DEFINITELY MALIGNANT, NOT NECESSARILY HCC
1421^LI-RADS TR NONEVALUABLE; TREATED, RESPONSE NOT EVALUABLE DUE IMAGE OMISSION OR
DEGRADATION
1422^LI-RADS TR NONVIABLE; TREATED, PROBABLY OR DEFINITELY NOT VIABLE
1423^LI-RADS TR EQUIVOCAL; TREATED, EQUIVOCALLY VIABLE
1424^LI-RADS TR VIABLE; TREATED, PROBABLY OR DEFINITELY VIABLE
```

```
1450^US LI-RADS 1A; NO/BENIGN OBSERVATION(S) -- NO/MINIMAL VISUALIZATION LIMITATIONS
1451^US LI-RADS 1B; NO/BENIGN OBSERVATION(S) -- MODERATE VISUALIZATION LIMITATIONS
1452^US LI-RADS 1C; NO/BENIGN OBSERVATION(S) -- SEVERE VISUALIZATION LIMITATIONS
1453^US LI-RADS 2A; OBSERVATION(S) <10mm (not benign) -- NO/MINIMAL VISUALIZATION
LIMITATIONS
1454^US LI-RADS 2B; OBSERVATION(S) <10mm (not benign) -- MODERATE VISUALIZATION
LIMITATIONS
1455^US LI-RADS 2C; OBSERVATION(S) <10mm (not benign) -- SEVERE VISUALIZATION
LIMITATIONS
1456^US LI-RADS 3A; OBSERVATION(S) >= 10mm (not benign) -- NO/MINIMAL VISUALIZATION
LIMITATIONS
1457^US LI-RADS 3B; OBSERVATION(S) >= 10mm (not benign) -- MODERATE VISUALIZATION
LIMITATIONS
1458^US LI-RADS 3C; OBSERVATION(S) >= 10mm (not benign) -- SEVERE VISUALIZATION
LIMITATIONS
1500^PI-RADS NC; NONCATEGORIZABLE DUE TO IMAGE OMISSION OR DEGRADATION
1511^PI-RADS 1; VERY LOW (CLINICALLY SIGNIFICANT CANCER HIGHLY UNLIKELY TO BE
PRESENT)
1512^PI-RADS 2; LOW (CLINICALLY SIGNIFICANT CANCER IS UNLIKELY TO BE PRESENT)
1513^PI-RADS 3; INTERMEDIATE (THE PRESENCE OF CLINICALLY SIGNIFICANT CANCER IS
EQUIVOCAL)
1514^PI-RADS 4; HIGH (CLINICALLY SIGNIFICANT CANCER IS LIKELY TO BE PRESENT)
1515^PI-RADS 5; VERY HIGH (CLINICALLY SIGNIFICANT CANCER HIGHLY LIKELY TO BE
PRESENT)
1600^TI-RADS NC; NONCATEGORIZABLE DUE TO IMAGE OMISSION OR DEGRADATION
1611^TI-RADS 1; BENIGN: NO FNA OR FOLLOW-UP
1612^TI-RADS 2; NOT SUSPICIOUS: NO FNA OR FOLLOW-UP
1613^TI-RADS 3; MILDLY SUSPICIOUS: FNA IF >= 2.5 cm, FOLLOW IF >= 1.5 cm
1614^TI-RADS 4; MODERATELY SUSPICIOUS: FNA IF >= 1.5 cm, FOLLOW IF >= 1 cm
1615^TI-RADS 5; HIGHLY SUSPICIOUS: FNA IF >= 1 cm, FOLLOW IF >= 0.5 cm
```

Figure 25-8: Displaying new Diagnostic Code additions for copy, paste import

This modification allows the HL7 Vendor configuration to be done by answering a few questions instead of the lengthy manual entries incorporated with the OIT supported HL7 interface. The enhancement automatically adds entries to the following VA FileMan files: HL 7 PARAMETERS (#771); HL LOGICAL LINK (#870); PROTOCOL (#101) and Protocol file SUBSCRIBER (Field #775) entries.

Assign BRA HL7 VENDOR SETUP to the secondary menu of the user's RPMS account.

Proceed to the secondary menu: BRA HL7 VENDOR SETUP

Collect the information in advance for the following six questions:

```
Vendor Name: //  Limit to five or six alpha characters
IP Address for Order Destination: // Teleradiology or PACS IP address
Port number for Order Destination: // Teleradiology or PACS IP Port #
Persistent: NO// Recommend YES
Port in RPMS that will listen for results (ORU messages): // RPMS Port # to
receive
HL7 Version: // 2.1, 2.3 or 2.4
```

Figure 25-9: HL7 Important Entry Questions

```
Select IHS Kernel <TEST ACCOUNT> Option: BRA HL7 VENDOR SETUP

Vendor Name: // VEND
IP Address for Order Destination: // 127.0.0.1
Port number for Order Destination: // 5080
Persistent: NO// YES
Port in RPMS that will listen for results (ORU messages): // 9080
HL7 Version: // 2.4

You Entered:

  Vendor Name: VEND
  IP Address for Order Destination: 127.0.0.1
  Port number for Order Destination: 5080
  Persistent: YES
  Port in RPMS that will listen for results (ORU messages): 9080
  HL7 Version: 2.4

Create new vendor setup? NO// YES

RA-VEND-TCP has been created in HL7 APPLICATION PARAMETER file (#771)

RA-VEND has been created in HL LOGICAL LINK file (#870)
VEND-RA has been created in HL LOGICAL LINK file (#870)

RA VEND ORM has been created in PROTOCOL file (#101)
RA VEND ORU has been created in PROTOCOL file (#101)
RA VEND TCP REPORT has been created in PROTOCOL file (#101)
RA VEND TCP SERVER RPT has been created in PROTOCOL file (#101)
```

Figure 25-10: Example of Vendor setup with BRA HL7 Vendor Setup

If the interface is ready to test imaging ORM and ORU messages between RPMS and teleradiologist or PACS, answer YES to 'Subscribe now?'.

If not, indicate NO.

```
Subscribe now? NO// YES

RA VEND ORM has been subscribed to protocol RA CANCEL 2.4
RA VEND ORM has been subscribed to protocol RA EXAMINED 2.4
RA VEND ORM has been subscribed to protocol RA REG 2.4
RA VEND ORU has been subscribed to protocol RA RPT 2.4
```

Figure 25-11: Setting up the subscribers

If NO is entered, the Subscriber entries for RA CANCEL, RA EXAMINED, RA REG and RA RPT can be manually entered when ready to activate the new interface for testing and 'go live'. Example below for RA REG 2.4 PROTOCOL File entry with Subscriber entries from File 101 for ORM.

```
Select PROTOCOL NAME: RA REG
     1   RA REG       Rad/Nuc Med exam registered
     2   RA REG 2.3       Rad/Nuc Med exam registered for HL7 v2.3 message
     3   RA REG 2.4       Rad/Nuc Med exam registered (v2.4 HL7)
CHOOSE 1-3: 3  RA REG 2.4     Rad/Nuc Med exam registered (v2.4 HL7)
Select SUBSCRIBERS: RA LRW ORM// ?
    Answer with SUBSCRIBERS
   Choose from:
   MAGD SEND ORM
   RA NUVODIA ORM
   RA ALARA ORM
   RA VEND ORM
   RA BELL ORM
   RA LRW ORM
        You may enter a new SUBSCRIBERS, if you wish
        Type must be Subscriber
```

Figure 25-12: Example of File 101 with review, addition of new vendor subscribers

An update prevents a bad accession number sent in the OBR segment from producing recurring errors. It ensures that ACK's are sent back to the caller to prevent the recurring errors.

Appendix A 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.

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

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

A.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).

A.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.

A.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.

A.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.

A.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.

A.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.

A.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).

A.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.

A.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.

A.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.

A.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.

A.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.

A.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.

A.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.

A.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.

A.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

AMIS Code

AMIS (Automated Management Information System) is a general system of computer programs used to process management reports for the Veteran's Administration.

Broker

A piece of commercial hardware that is used for formatting and routing HL7 orders, exams, images, and reports between RPMS and modalities, PACS systems, and Radiology reporting services.

CCDA

The CCDA application is an RPMS-based application that generates industry-standard Continuity of Care Documents (CCD) in Health Level 7 (HL7) CCDA format, following the July 2012 Draft Standard for Trial Use (DSTU) standard, further restricted by Meaningful Use 2 (MU2) requirements.

Diagnostic Code

One of a standard set of codes used for designating the normality or abnormality of an exam.

DICOM

Digital Imaging and Communications in Medicine

HL7

Health Level 7–a standard for the exchange of electronic information between disparate entities.

IHS

Indian Health Service

Modality

Radiology Equipment (CT/US/XRAY)

Modality Worklist

A list of procedures that may be performed on a particular piece of Radiology equipment. If a site has an interface with a Modality Worklist server, the worklist will be populated automatically when an order is registered in the Radiology Package.

OBR

Observation Request Segment used to transmit information in HL7 format.

OBX

Observation Result Segment used to transmit information in HL7 format.

PACS

Picture Archiving and Communication System

Personal Health Record (PHR)

Indian Health system patients can use PHR to view and manage personal, family, and community health information. Patients can track medicines, lab results, allergies, and more from the privacy of a personal computer.

Quick Order

One or more menu items to link a Radiology procedure to an orderable item in EHR.

RIS

Radiology Information System

RPMS

Resource and Patient Management System–The Clinical and Administrative Information System used by Indian Health Service.

TOC

Transition of Care Document generated in the RPMS/EHR for patient referral visits outside of an issuing IHS site and providing a summary of care.

VistaA Imaging

The VistA Imaging system integrates clinical images, scanned documents, and other non-textual data into the patient's electronic medical record.

wRVU

A standard unit of measurement used to establish value for common healthcare procedures

WWU

Weighted work units (WWUs). The AMIS Weight Multiplier field of the Rad/Nuc Med Procedures file contains a number (0–99) to indicate to the various workload report routines how many times to multiply the weighted work units associated with the AMIS code. The Weight for each AMIS code is stored in the Weight field of the Major Rad/Nuc Med AMIS Code file.

Acronym List

Term	Meaning
ACR	American College of Radiologist
AMIS	Automated Management Information System
CAC	Clinical Application Coordinator
CCD	Continuity of Care Documents
CCDA	Consolidated Clinical Document Architecture
CHIT	Certified Health Information Technology
CISO	Chief Information Security Officer
CPT	Current Procedural Terminology
DICOM	Digital Imaging and Communications in Medicine
DTSU	Draft Standard for Trial Use
HIPAA	Health Insurance Portability and Accountability Act
HL7	Health Level Seven
ID	Identification
IHS	Indian Health Service
ISSO	Information System Security Officer ()
IT	Information Technology
PACS	Picture Archiving and Communication System
PHR	Personal Health Record
ROB	Rules of Behavior
RPMS	Resource and Patient Management
SAC	Standards and Conventions
TOC	Transition of Care
VPN	Virtual Private Network

Contact Information

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

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