RESOURCE AND PATIENT MANAGEMENT SYSTEM

Referred Care Information System

(BMC)

Installation Guide and Release Notes

Version 4 Patch 15
November 2023

Office of Information Technology
Division of Information Technology

Table of Contents

1.0   Contents of Distribution

File	Description
IHSReferredCare.PatientReferral.vor	Object File for Referral tab (EHR)
IHSReferredCare.Referral.vor	Object File for RCIS tab (EHR)
IHSReferredCare.PatientReferral.dll	DLL file (EHR) Version: 3.0.2.3
IHSReferredCare.Referral.dll	DLL file (EHR) Version: 3.0.2.3
bmc_0400.15k	KIDS build for BMC Version 4.0 Patch 15 (RPMS)
bmc_0400.15i.pdf	Install Guide for RPMS-RCIS and Referred-RCIS tabs (EHR) components
bmc_0400.15o.pdf	Addendum to RCIS User Manual

2.0   Required Resources

1. REFERRED CARE INFO SYSTEM (BMC) v4.0 patch 13

2. VA FileMan (DI) v22 or higher

3. VA Kernel v8 or higher

4. IHS ICD/CPT Lookup & Grouper (AICD) v4.0

5. IHS Patient Registration (AG) v7.1 patch 15

6. IHS Dictionaries (Pointers) (AUPN) v99.1 patch 29

7. Taxonomy Package V 5.1 patch 5

8. IHS Dictionaries (Pointers) (AUT) v98.1 patch 31

9. Lexicon (LEX) v2.0 patch 1003

10. Order entry (OR) v3.0 Patch 190

11. IHS Standard Terminology (BSTS) v1.0

12. If using PCC:

    IHS PCC SUITE (BJPC) v2.0 patch 10

13. If using EHR:

    EHR (BGO) v1.1 patch 13

3.0   RPMS RCIS

3.1   Installation Notes

Prefix: **BMC**
Current Version: **Version 4.0 Patch 15**

3.1.1   General Information

1. Make a copy of this distribution for off-line storage.

2. Print all notes/readme files.

3. Create a successful backup of the RPMS database.

4. It is recommended that the terminal output during the Installation be captured using an auxport printer attached to the Terminal where the installation is being performed OR that it be captured using a host file. This will ensure a printed audit trail if any problems should arise.

5. Ensure no processes other than the installer are utilizing the BMC files during the install process.

6. This patch contains changes to support the Social Security Number Fraud Prevention Act of 2017 and the Social Security Number Reduction Act.

7. This application uses the AUPN DISPLAY PPN parameter functionality and is defaulted to OFF until Patient Preferred Name (PPN) is available across the enterprise.

> **Note**: While this parameter is turned off, the Patient Preferred Name will not display in this application. 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.

> **Note**: This release is cumulative from Patch 13, Version 4.0 patch 13 is required.

8. Description of Changes:

    a. 82837 Added CHS PO Type to Search/Sort/Print screens to the General Retrieval Report

      b. 73949 Added cell phone number to referral letters

      c. 75608 Added the site specific text to Secondary referral letters

      d. 76176 Auto update new FY and auto assign previous FY referral numbers

      e. 77891 Implement PPN on screen banners

      f. 82840 Close Inpatient Referrals when denied in CHS. A new parameter was added to control this feature

      g. 86488 Include Referral updates with as a new index for date last modified for CCDA (BMC side)

      h. 85111 SSN Removal from reports

- General Ret Selection criteria

- Referral at an Outside Facility (Call In's)

- Referral Review Report by Time Period

- Referral Review Report by Facility/Time Period

- Secondary Referral Report

- Print Case Review Comments (By Date/Facility)

      i. 75139 Updated API for CCDA to include TX date and time

      j. 73357 GUI-Change Vendor/Provider field to read-only instead of text boxes

      k. 73362 GUI-Add Case notes

      l. 73364 GUI-Add provisional DX

      m. 75814 GUI-Control characters causing error in RCIS GUI

      n. 75976 GUI-Referral Status display

      o. 76156 GUI-Displaying incorrect eligibility status

      p. 77890 GUI-PPN Application banner in GUI

9. Typical time for the installation is 5 minutes.

3.2　Installation Instructions

1. This is a KIDS Install. Use the Installation options on the KIDS menu.

2. Load the Distribution into KIDS using option 1 on the KIDS Installation menu. The distribution was released in a file named bmc_0400.15k.

3. Verify the load using option 2 on the KIDS Installation menu.

4. Consider using options 3 and 4 on the KIDS Installation menu to print and compare the Transport.

5. Install the distribution using option 6 on the Installation menu.

6. For results, read the generated MailMan message, or use the KIDS "Install File Print" option to view/print the "BMC*4.0*15" entry.

7. The post-install routine, BMC4P15, will deliver a patch installation mail message to local users that hold the BMCZMENU, XUMGR, XUPROG, or XUPROGMODE security key.

3.3   Example of installation

```
KIDS 8.0

Select KIDS OPTION: ?
     Answer with KIDS OPTION NUMBER, or NAME
   Choose from:
   1          LOAD A DISTRIBUTION
   2          VERIFY CHECKSUMS IN TRANSPORT GLOBAL
   3          PRINT TRANSPORT GLOBAL
   4          COMPARE TRANSPORT GLOBAL TO CURRENT SYSTEM
   5          BACKUP A TRANSPORT GLOBAL
   6          INSTALL PACKAGE(S)
   7          RESTART INSTALL OF PACKAGE(S)
   8          UNLOAD A DISTRIBUTION

Select KIDS OPTION: LOAD A DISTRIBUTION
Enter a Host File: C:\pub\bmc\patch 15\BUILD\ibuild\bmc_0400.15k

KIDS Distribution saved on May 17, 2023@09:51:33
Comment: RCIS V4 Patch 15

This Distribution contains Transport Globals for the following Package(s):

     BMC*4.0*15
OK to continue with Load? NO// YES

Distribution OK!

Want to Continue with Load? YES//
Loading Distribution...

Build BMC*4.0*15 has an Environmental Check Routine
Want to RUN the Environment Check Routine? YES// NO
   BMC*4.0*15
Use INSTALL NAME: BMC*4.0*15 to install this Distribution.




KIDS 8.0

Select KIDS OPTION: inSTALL PACKAGE(S)
Select INSTALL NAME:   BMC*4.0*15    Loaded from Distribution   5/19/23@12:25
:26
     => RCIS V4 Patch 15  ;Created on May 17, 2023@09:51:33

This Distribution was loaded on May 19, 2023@12:25:26 with header of
   RCIS V4 Patch 15  ;Created on May 17, 2023@09:51:33
   It consisted of the following Install(s):
```

```
     BMC*4.0*15
Checking Install for Package BMC*4.0*15
Will first run the Environment Check Routine, BMC4E




                            Hello, DEMO USER

           Checking Environment for REFERRED CARE INFO SYSTEM V 4.0.

                  Need at least BMC*4.0*13.....BMC*4.0*13 Present
                    Need at least DI v 22.0.....DI v 22.0 Present
                      Need at least XU v 8.0.....XU v 8.0 Present
                   Need at least AICD v 4.0.....AICD v 4.0 Present
                   Need at least AG*7.1*15.....AG*7.1*15 Present
               Need at least AUPN*99.1*29.....AUPN*99.1*29 Present
                   Need at least ATX*5.1*5.....ATX*5.1*5 Present
                Need at least AUT*98.1*31.....AUT*98.1*31 Present
              Need at least LEX*2.0*1003.....LEX*2.0*1003 Present
                 Need at least OR*3.0*190.....OR*3.0*190 Present
                 Need at least BSTS v 1.0.....BSTS v 2.0 Present


Is the Facility using PCC? YES
                 Need at least BJPC*2.0*10.....BJPC*2.0*10 Present

Is the Facility using EHR? YES
                 Need at least BGO*1.1*13.....BGO*1.1*13 Present

                            ENVIRONMENT OK.

     In this distribution:

         Changes include
           1. General Retrieval Report
              a. Added CHS PO Type to Search/Sort/Print screens
           2. Added cell phone number to referral letters
           3. Added site specific text to Secondary Referral letters
           4. Auto update new FY and auto assign previous FY Referral
              numbers
           5. Implement PNN on screen banners
           6. Close Inpatient Referrals when denied in CHS
           7. Added index on field: Date Last Modified
           8. SSN Removal from reports
              a. General Ret Selection criteria
              b. Referral at an Outside Facility (Call In's)
              c. Referral Review Report by Time Period
              d. Referral Review Report by Facility/Time Period
              e. Secondary Referral Report
              d. Print Case Review Comments (By Date/Facility)
           9. Updated API for CCDA to include TX date and time


Enter RETURN to continue or '^' to exit:

     A standard message will be produced by this update.

     If you run interactively, results will be displayed on your screen,
     as well as in the mail message and the entry in the INSTALL file.
     If you queue to TaskMan, please read the mail message for results of
     this update, and remember not to Q to the HOME device.
```

```
Enter RETURN to continue or '^' to exit:

Install Questions for BMC*4.0*15

Incoming Files:
   90001     RCIS REFERRAL
Note:  You already have the 'RCIS REFERRAL' File.


   90001.03  RCIS COMMENTS
Note:  You already have the 'RCIS COMMENTS' File.


   90001.31  RCIS SITE PARAMETER
Note:  You already have the 'RCIS SITE PARAMETER' File.


   90001.81  RCIS REPORT LISTER ITEMS
Note:  You already have the 'RCIS REPORT LISTER ITEMS' File.

Want KIDS to Rebuild Menu Trees Upon Completion of Install? NO//

Want KIDS to INHIBIT LOGONs during the install? NO//

 Install Started for BMC*4.0*15 :
             May 19, 2023@12:25:50

Build Distribution Date: May 17, 2023

 Installing Routines:     25            50            75
             May 19, 2023@12:25:50

 Running Pre-Install Routine: PRE^BMC4P15      25            50

Saving current DD AUDIT settings for files in BMC 4.0 Patch 15
and turning DD AUDIT to 'Y'.
 File        90001 - RCIS REFERRAL              - DD audit was 'N'
                                                    Set to 'Y'
 File     90001.03 - RCIS COMMENTS             - DD audit was 'N'
                                                    Set to 'Y'
 File     90001.31 - RCIS SITE PARAMETER       - DD audit was 'N'
                                                    Set to 'Y'
 File     90001.81 - RCIS REPORT LISTER ITEMS   - DD audit was ''
                                                    Set to 'Y'
DD AUDIT settings saved in ^XTMP(.

 Installing Data Dictionaries:     25            50            75
             May 19, 2023@12:25:50


 Installing PACKAGE COMPONENTS:

 Installing FORM      25            50            75
             May 19, 2023@12:25:50

 Installing OPTION    25            50            75
             May 19, 2023@12:25:50
 Running Post-Install Routine: POST^BMC4P15      25            50

Restoring DD AUDIT settings for files in BMC 4.0 Patch 15.
 File        90001 - RCIS REFERRAL                - DD AUDIT Set to 'N'
```

```
 File     90001.03 - RCIS COMMENTS                  - DD AUDIT Set to 'N'
 File     90001.31 - RCIS SITE PARAMETER            - DD AUDIT Set to 'N'
 File     90001.81 - RCIS REPORT LISTER ITEMS       - DD AUDIT Set to ''
DD AUDIT settings restored.           25              50              75


CHS PO Type item added to General Retrieval items . . .

Reindexing DATE LAST MODIFIED................................................
............................................................................

Begin updating Business Office Menu Option change to Referral Notes Option.
END updating option.

BEGIN Delivering MailMan message to select users.

END Delivering MailMan message to select users.

 Updating Routine file...
 Updating KIDS files...
 BMC*4.0*15 Installed.
               May 19, 2023@12:26:46

 NO Install Message sent
Install Completed
```

Figure 3-1: Example Installation

4.0   Referred-RCIS tabs (EHR)

4.1   Installation Notes

Prefix: **BMC**
Current Version: **4.0 Patch 15**

4.1.1   Before You Begin

All EHR and Resource and Patient Management System (RPMS) users should be logged off the system during the installation process.

Installation will require administrator access to the VueCentric System Management Utility (VcManager).

> **Note**: If you have already installed the RCIS components in EHR at your site and are now installing a patch or updated version, refer to Section 4.2.1 in this manual for instructions. If you are installing the RCIS component in EHR for the first time at your site, refer to Section 4.2.2 of this manual for full installation instructions.

4.2   Installation Instructions

4.2.1   EHR-Referred Care Component – Existing Install

The EHR installation procedure includes these two stages:

1. Adding two dll files to the lib folder on the EHR network share:

    a. IHSReferredCare.PatientReferral.dll

    b. IHSReferredCare.Referral.dll

2. Importing two .vor files to VueCentric Object Registry:

    a. IHSReferredCare.PatientReferral.vor

    b. IHSReferredCare.Referral.vor

> **Note**: For Citrix and Terminal Server setups, ensure that the shared files on the server are updated. Desktop setups will need the local files updated on each workstation.

4.2.1.1　Stage 1–DLL Files

Copy the two .dll files into the EHR lib folder on the main EHR network share:

- IHSReferredCare.PatientReferral.dll
- IHSReferredCare.Referral.dll

> **Note**: Verify that the .dll files are placed in the same folder as defined in the VueCentric Site Parameters for the Default object source path.

4.2.1.2　Stage 2–VOR Files

1. Open VcManager.exe located in EHR\bin or EHR\utl folder.

Figure 4-1: VcManager Screen

2. Select the **Object Registry** tab.

3. For each of the following, select the object name and click on the **Delete** button in the right-pane. This is to remove the objects from the previous install.

   a. **IHSReferredCare.PatientReferral**

   b. **IHSReferredCare.Referral**

4. Click on the **Refresh All** button to confirm that the 2 objects have been removed.

5. Go to **File | Import**.

6. Select the new **IHSReferredCare.PatientReferral.vor** file and click open to import. Then click on the **Apply** button to confirm the changes.
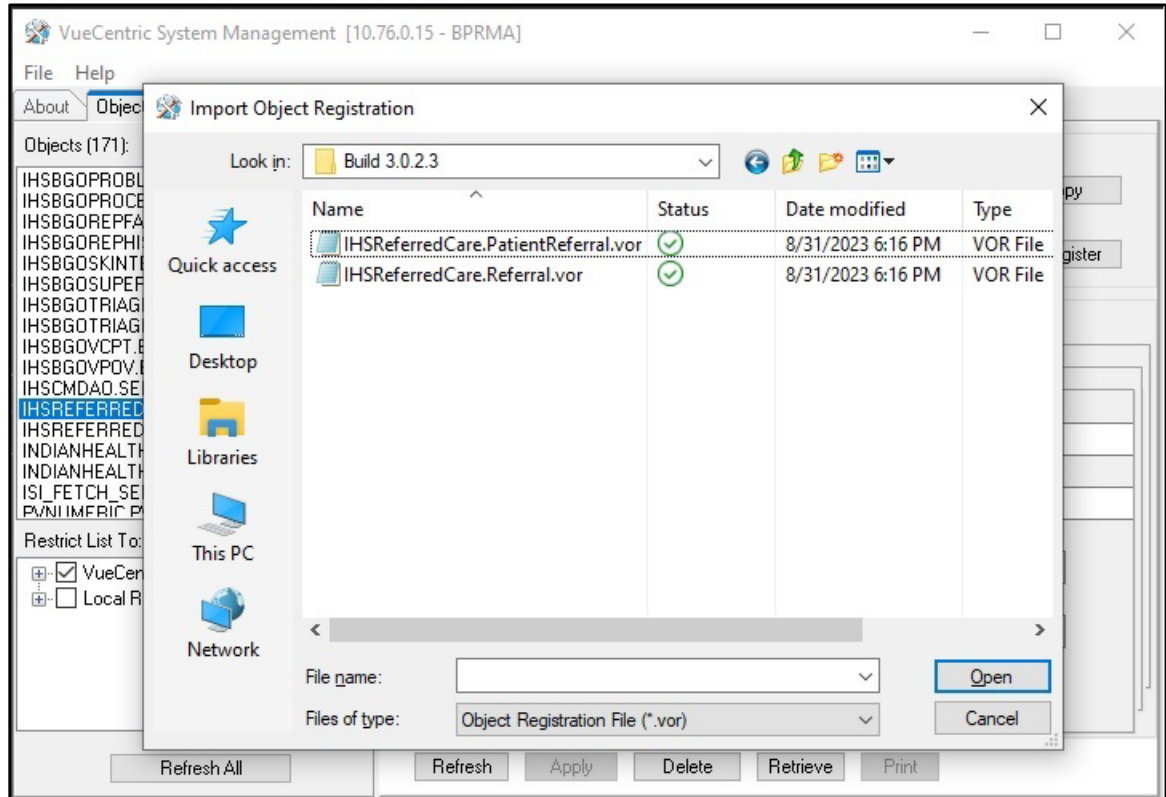
Figure 4-2: Select Import Object screen

7. To verify that no Checksum errors occur, click on the **Retrieve** button.

8. The Select Target Folder will display if the import steps were completed successfully. You can then click the **Cancel** button to close the window.
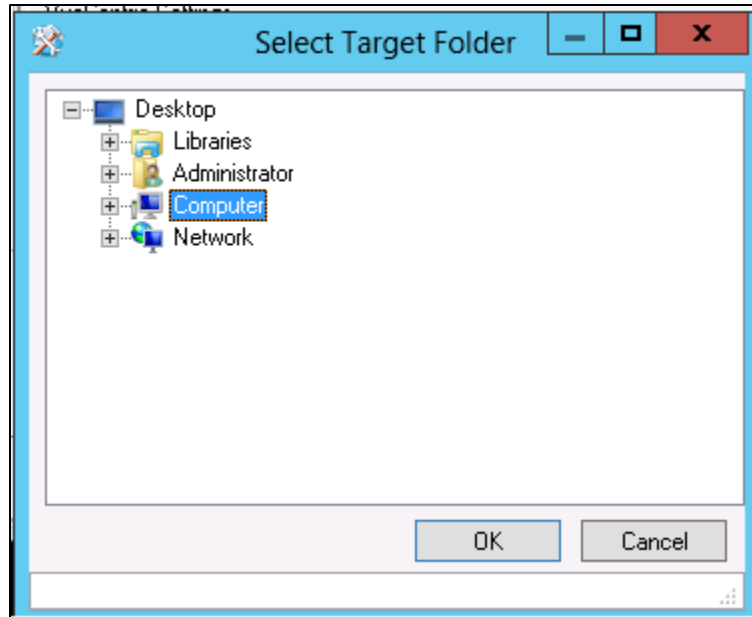
Figure 4-3: Select Target Folder screen

9. Repeat steps 5-8 with the **IHSReferredCare.Referral** file.

4.2.1.3 Fixing Checksum Error

If you see a 'File checksum invalid' error message in a pop-up alert after performing the steps in the previous section, then follow the steps below to correct the error.
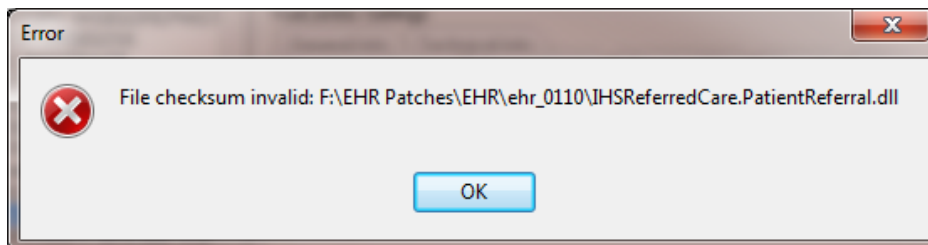
Figure 4-4: File Checksum Invalid error message

1. Close and restart the VcManager.

2. Select the **Object Registry** tab.
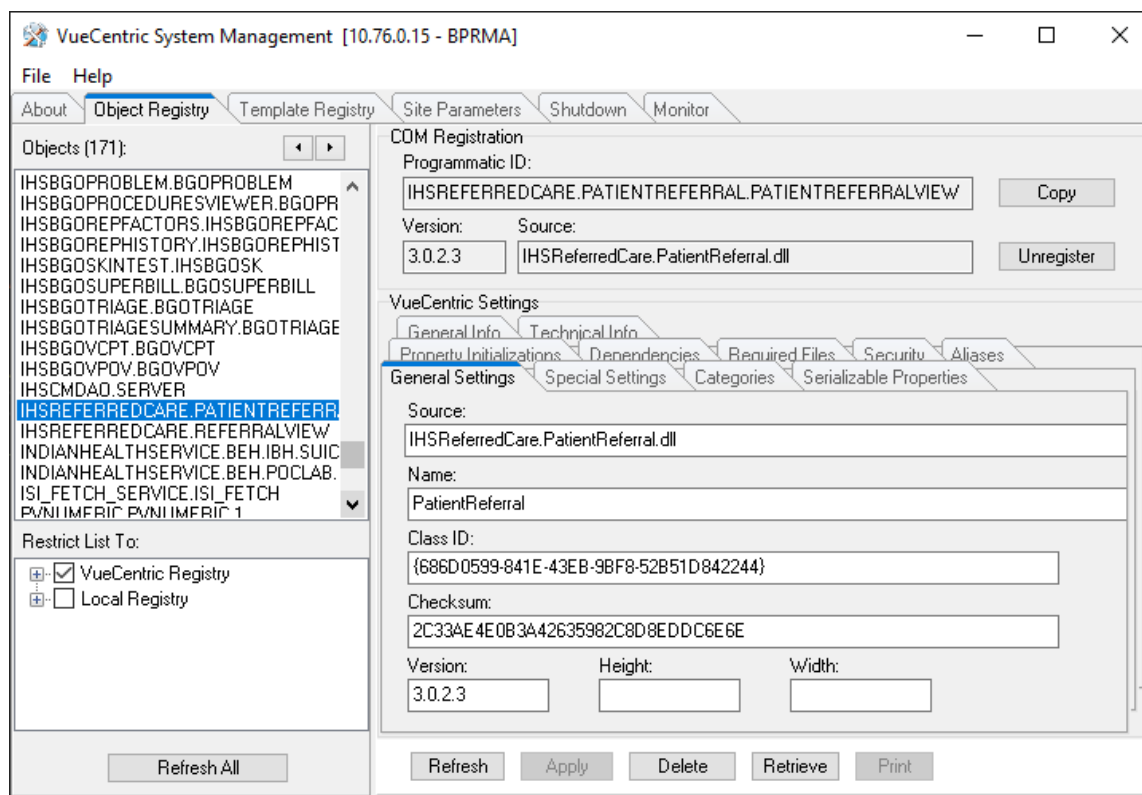
Figure 4-5: Object Loaded view in VCManager

3. Go to **File | Import**.

4. Select the **IHSReferredCare.PatientReferral.vor** file and click open to import.

5. Click on the **Copy** button once. Verify that the Checksum value updates when you click the **Copy** button. If the Checksum field becomes empty, repeat the steps in this section.

6. Click **Apply** to save the information.

7. Repeat the steps 3-6 for the **IHSReferredCare.Referral.vor** file.

8. Close the VcManager application when complete.

4.2.2   EHR-Referred Care Component – First Time Install

The EHR installation procedure includes these three stages:

1. Adding two dll files to the lib folder on the EHR network share:

    a.   IHSReferredCare.PatientReferral.dll

    b.   IHSReferredCare.Referral.dll

2. Importing two .vor files to VueCentric Object Registry:

        a.   IHSReferredCare.PatientReferral.vor

        b.   IHSReferredCare.Referral.vor

3.   Modifying Provider template to add two referral components.

> **Note**: For Citrix and Terminal Server setups, ensure that the shared files on the server are updated. Desktop setups will need the local files updated on each workstation.

4.2.2.1   Stage 1–DLL Files

Copy the two .dll files into the EHR lib folder on the main EHR network share:

– IHSReferredCare.PatientReferral.dll

– IHSReferredCare. Referral.dll

> **Note**: Verify that the .dll files are placed in the same folder as defined in the VueCentric Site Parameters for the Default object source path.

4.2.2.2   Stage 2–VOR Files

1.   Open VcManager.exe located in EHR\bin or EHR\utl folder.
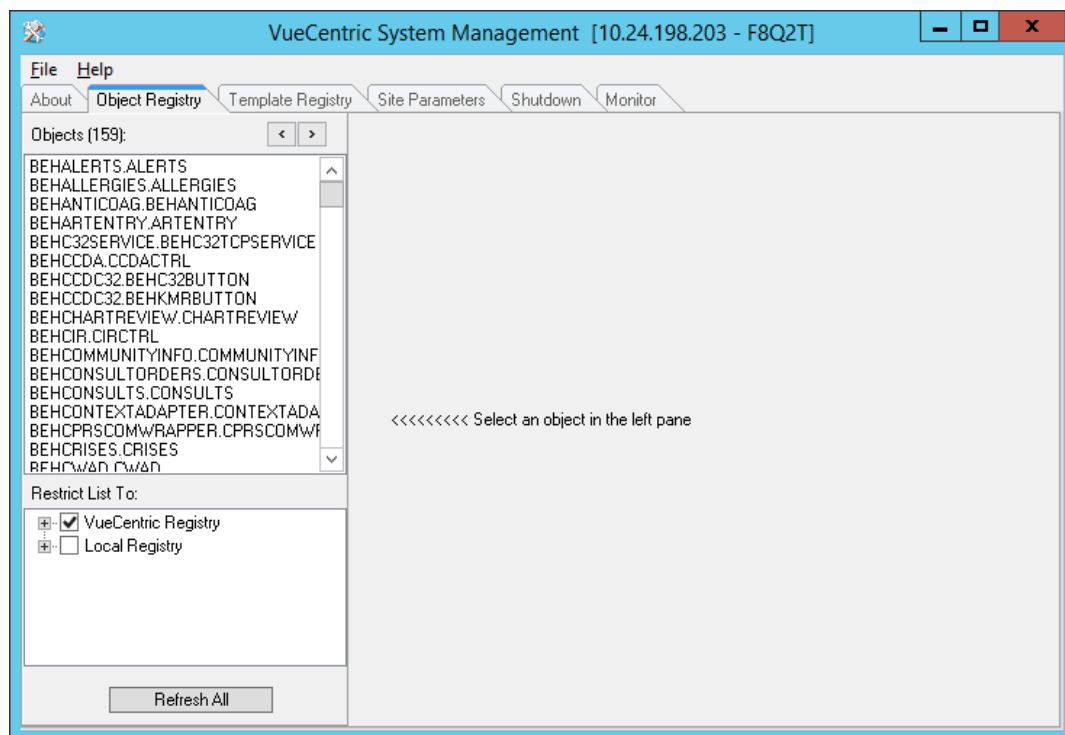
Figure 4-6: VcManager Screen

2. Select the **Object Registry** tab.

3. Go to **File | Import**.

4. Select **IHSReferredCare.PatientReferral.vor** and click open to import.
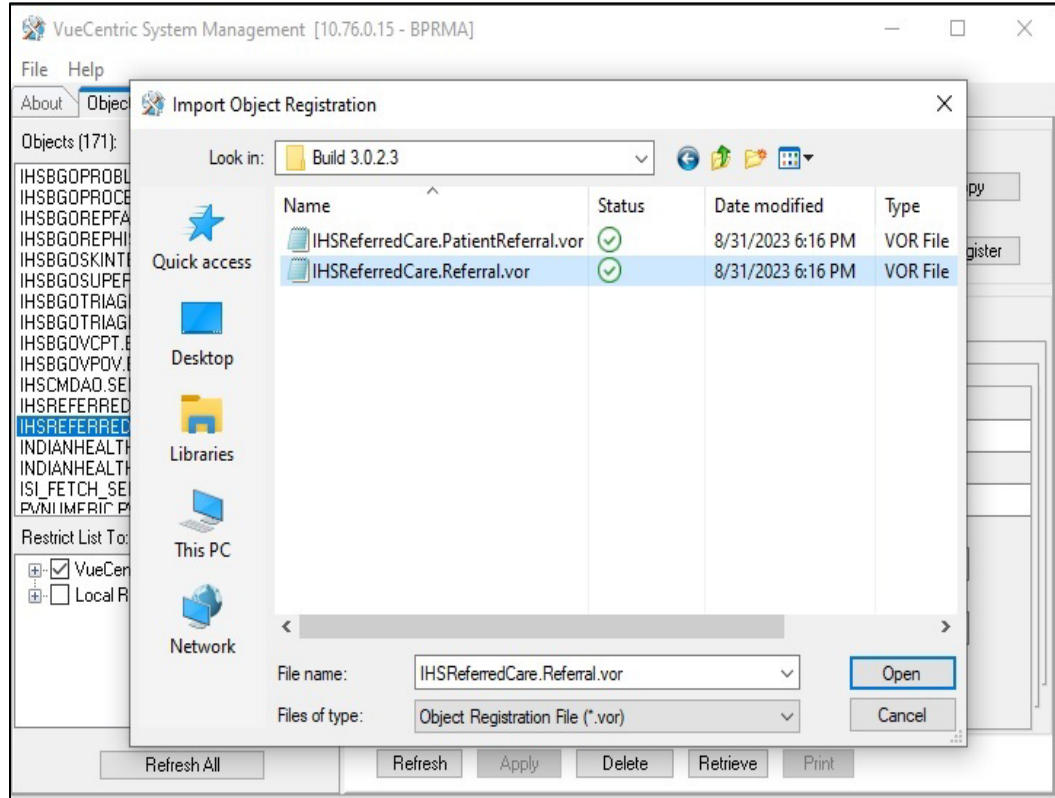
Figure 4-7: Select Import Object screen

5. Click **Apply** to save the information.
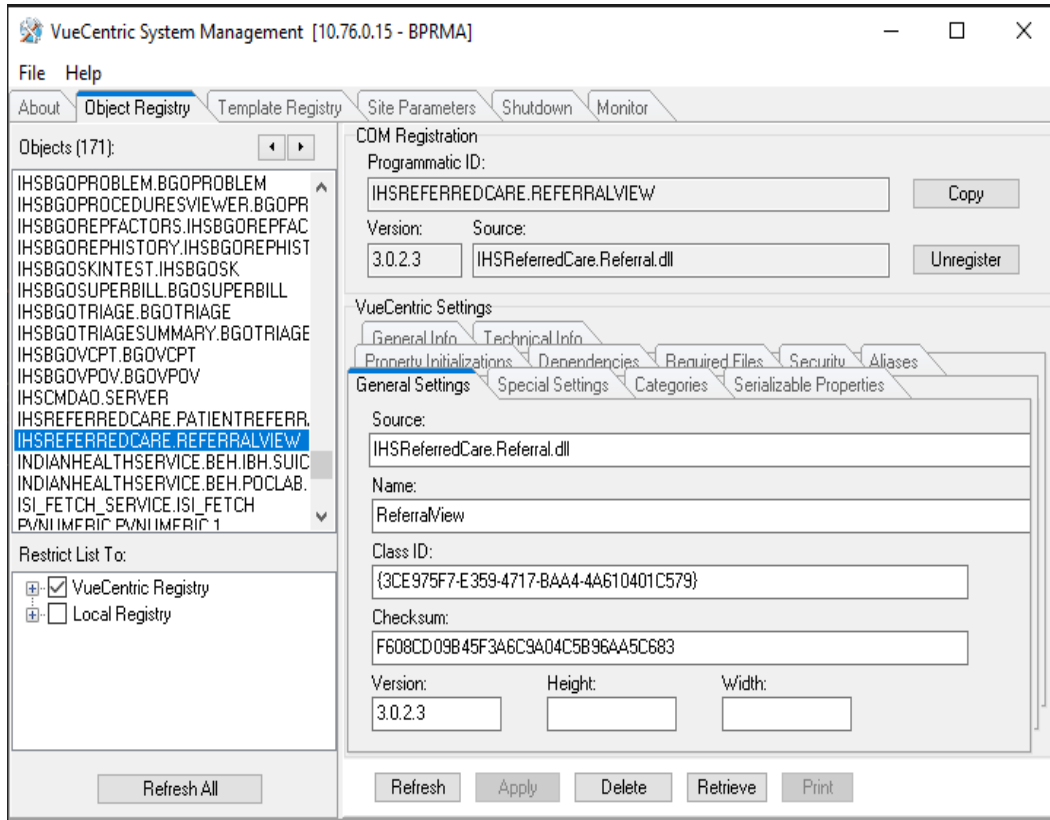
Figure 4-8: Object Loaded view in VcManager

6. Repeat the Import (Steps 3–5) for the **IHSReferredCare.Referral.vor** file.

7. Close the VcManager application when complete.

4.2.2.3   Stage 3–Provider Template

1. Open the EHR application and log in.

2. Right-click the header to display a context menu.

3. Select **Design Mode** option.
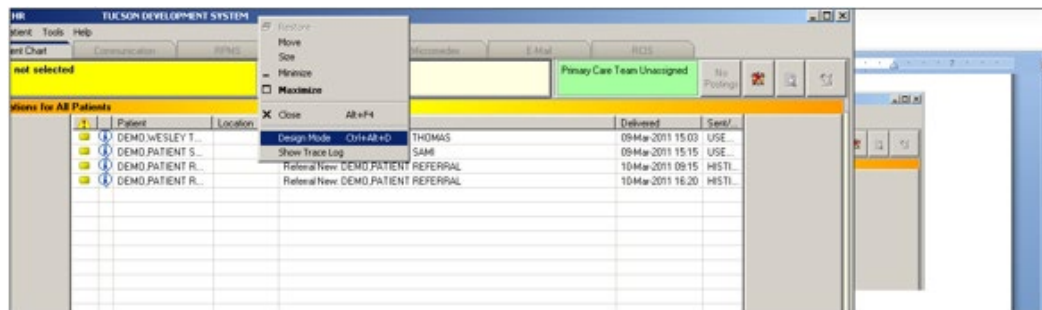
Figure 4-9: **Design Mode** option

4. Select the **Layout Manager** from the **Design** menu.

5. Highlight **Tabbed Notebook** and click **Properties**.
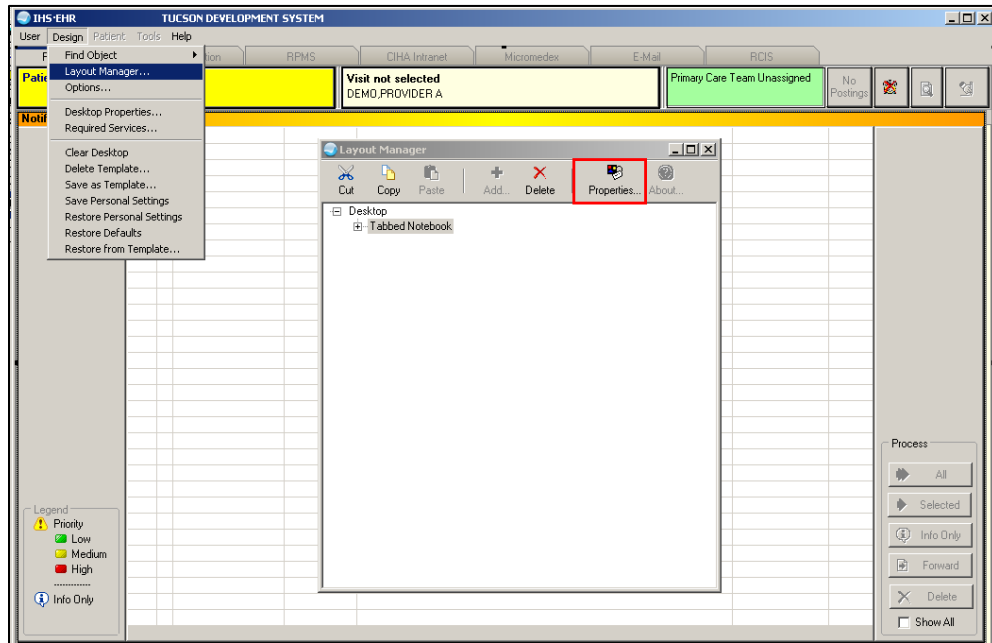
Figure 4-10: **Design menu**: **Layout Manager**

6. Select the **Tab Editor** and add a new tab named **RCIS**. Click **OK**.
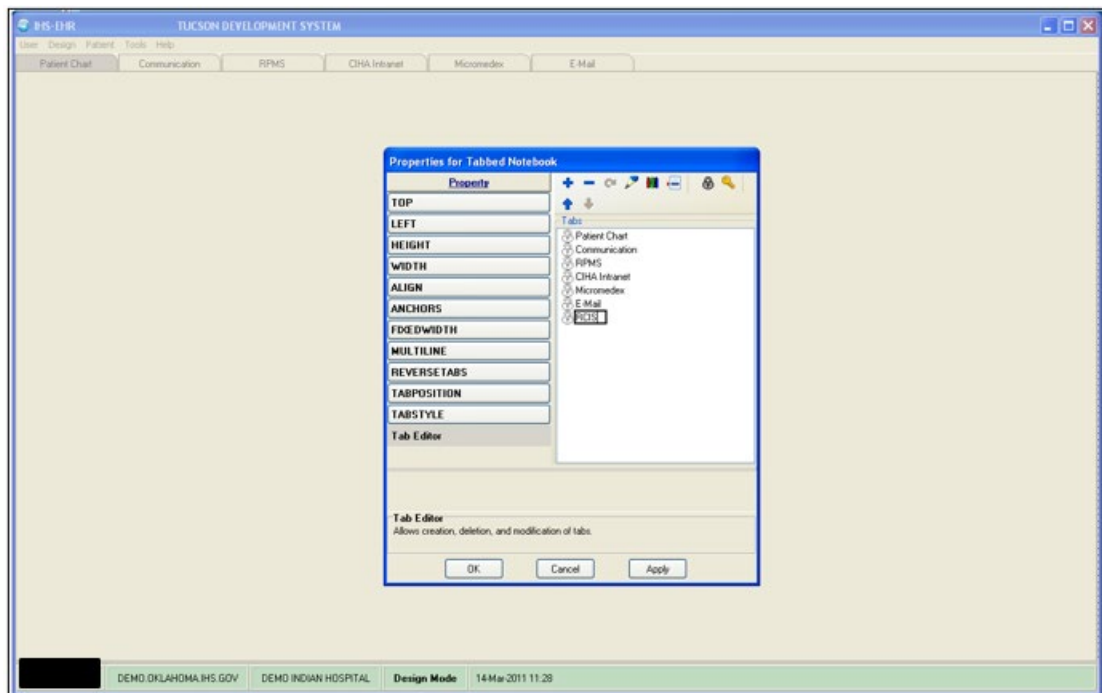
Figure 4-11: EHR Designer Mode - Create new RCIS tab

7. To add an object to the new RCIS tab, click **Add (+)** and expand the **Type |
Object** list.

8. Select the **ReferralView** object from the list and click **Add**.
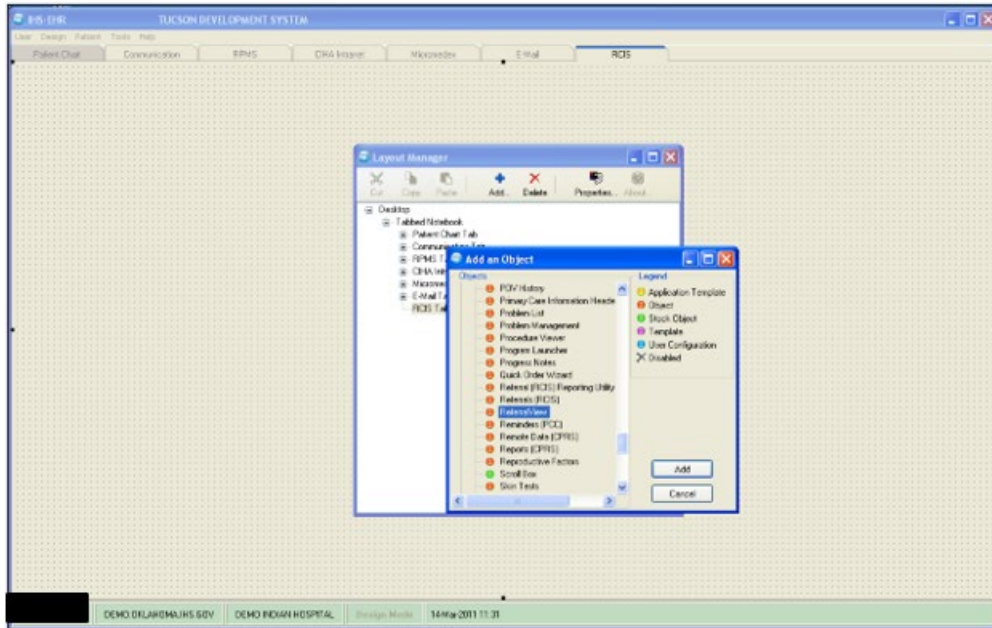
Figure 4-12: EHR Designer Mode - Add ReferralView object to **RCIS** tab

9. Open the properties for **ReferralView** and select **Align–All** to expand the
component inside the **RCIS** tab.
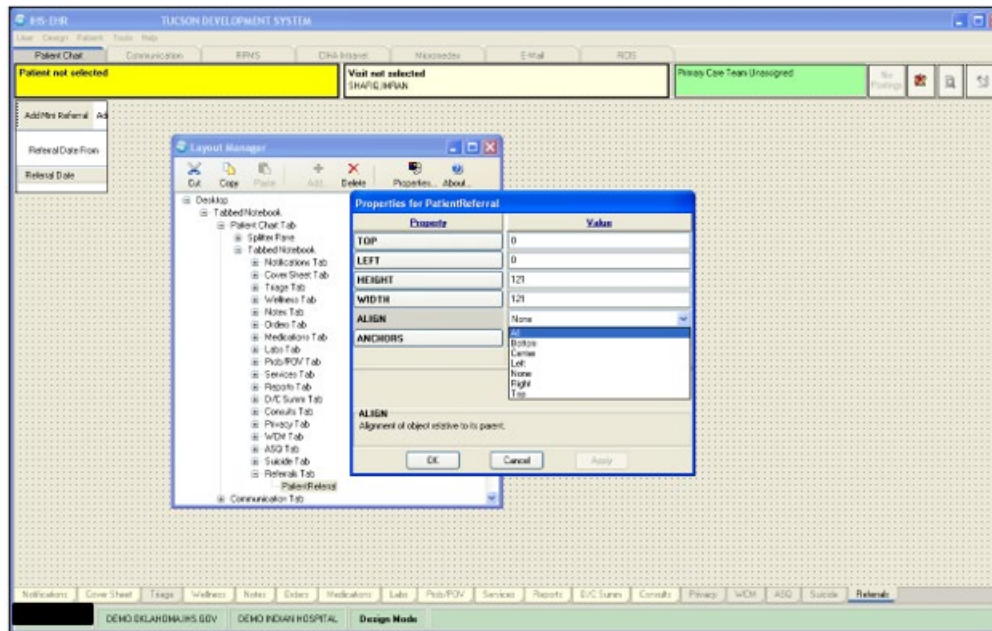
Figure 4-13: EHR Designer Mode - Align Setting in Object Properties

10. Select the **Layout Manager** from the **Design** menu again to add another new tab under the **Patient Chart** tab.

11. Open the properties for the Tabbed Notebook located under **Patient Chart**.
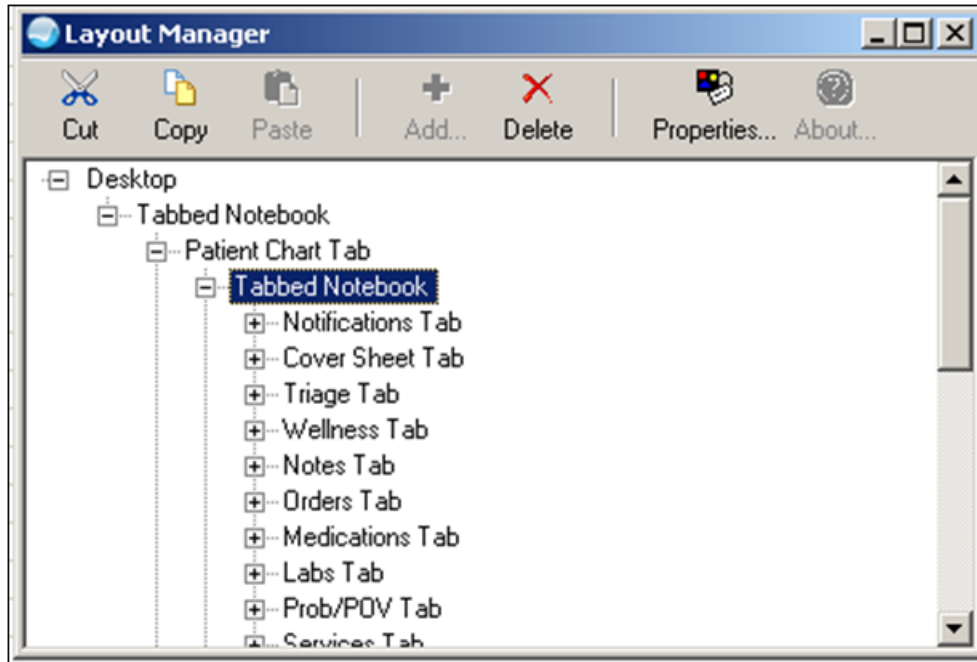
Figure 4-14: EHR Designer Mode - Layout Manager Close-up

12. Use the Tab Editor to add a new tab named **Referrals** and click **OK**.
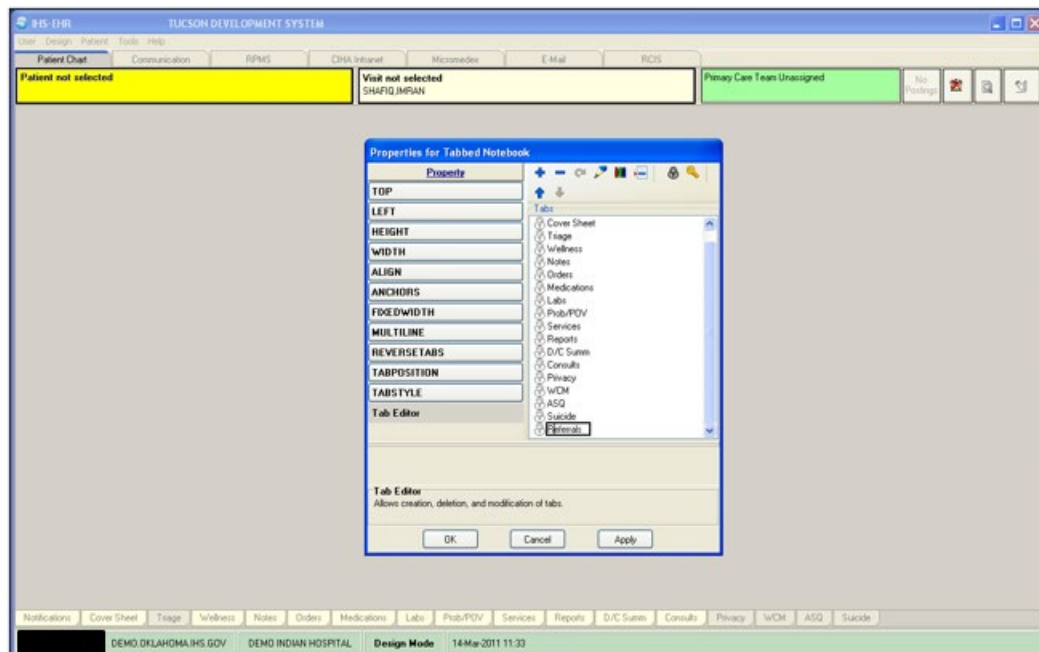

Figure 4-15: EHR Designer Mode - Add tab to Patient Chart

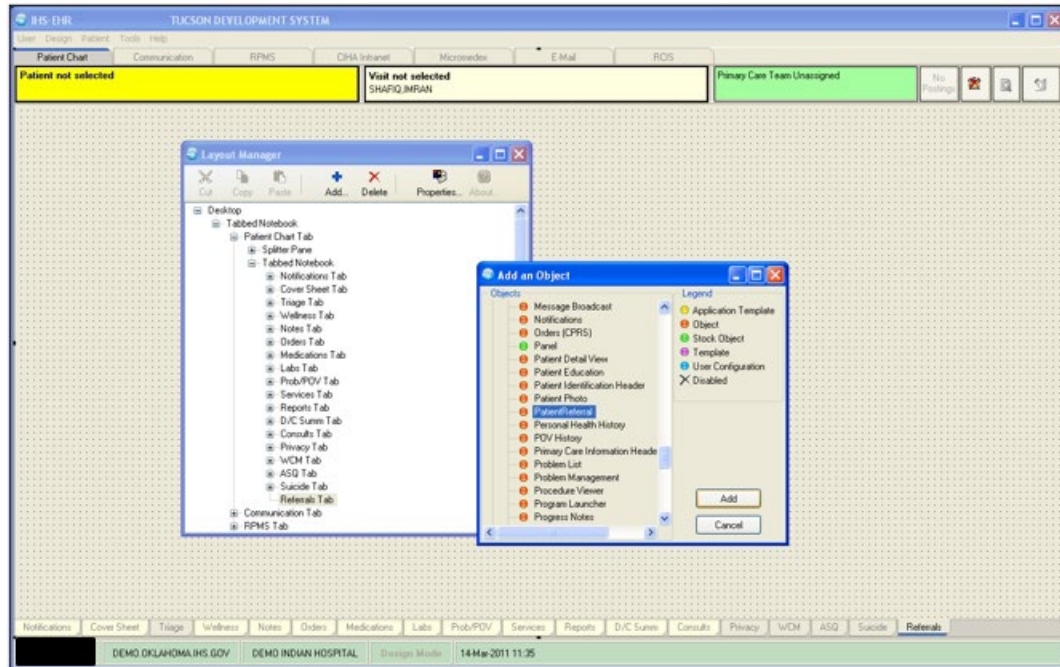13. Add an Object to the new **Referrals** tab and select the **PatientReferral** object (see Steps 7–8).

Figure 4-16: EHR Design Mode - Add PatientReferral object to Referrals tab

14. Select **Align–All in the PatientReferral** properties to expand the component inside the **Referrals** tab (See Figure 4-13).

15. Save the design to the Provider template. The Provider template is generally titled **%Provider**.
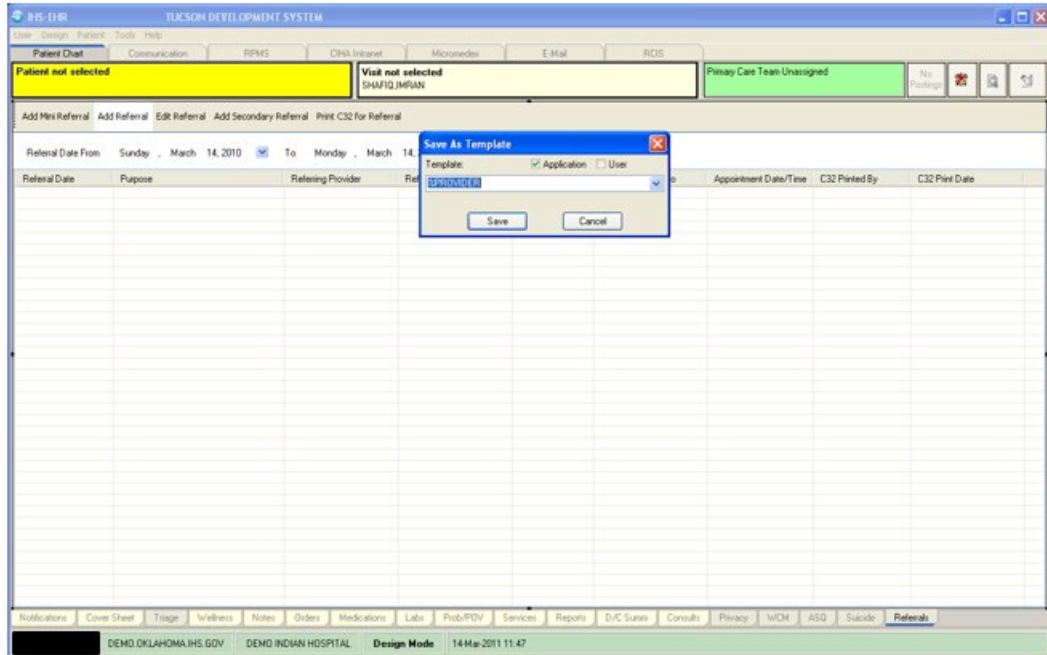
Figure 4-17: EHR Designer Mode - Save As screen for Provider template

4.3   Installation Verification

1. Log in to EHR as a Provider.

2. The **RCIS** tab should show referrals authored by the currently logged-in provider (see below).
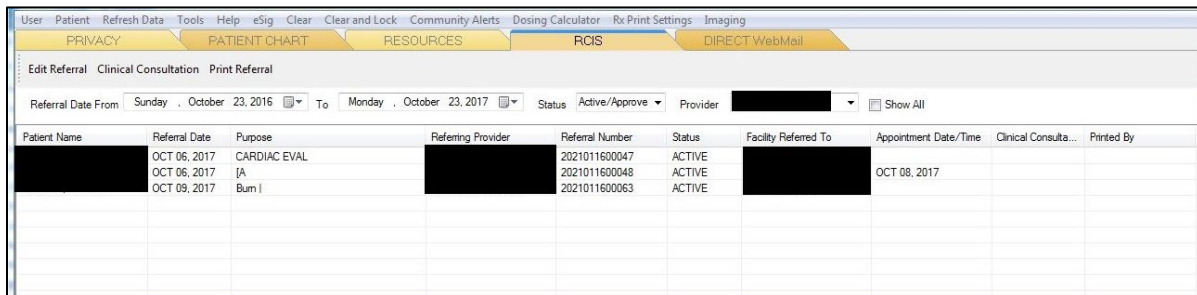

Figure 4-18: **RCIS** tab window

3. Go to the **Patient Chart** tab.

4. Select a patient.

5. The **Referrals** tab under Patient Chart should display the referrals for the patient as shown below.

Figure 4-19: Referrals tab under Patient Chart

Contact Information

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

Phone: (888) 830-7280 (toll free)

Web: https://www.ihs.gov/itsupport/

Email: itsupport@ihs.gov