RESOURCE AND PATIENT MANAGEMENT SYSTEM

Referred Care Information Systems (RCIS)

(BMC)

Installation Guide and Release Notes

Version 4 Patch 17
August 2025

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: 3.0.2.6
IHSReferredCare.Referral.dll	DLL file (EHR) Version: 3.0.2.6
bmc_0400.17k	KIDS build for BMC Version 4.0 Patch 17 (RPMS)
bmc_0400.17i.pdf	Install Guide for RPMS-RCIS and Referred-RCIS tabs (EHR) components
bmc_0400.17o.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 (XU) 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 v5.1 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 17**

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.

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

6. Description of Changes:

    a. 111288-GUI: Fix removal of Problem pointer after edit of referral

    b. 111572-R&S-GUI: Add SNOMED as part of the duplicate check when entering a new Referral

    c. 112599-R&S-GUI: Referral Letter

       • Change Purchase to Purchased

       • Fix printing Consult in PRF option

    d. 112597-R&S-GUI: Add Standard Medical Priorities to pre-defined templates

    e. 113040-R&S: Fix RRRF Report

    f. 114002-R&S: Update Appointment:

       • Change to use Physical Address

       • Fix the Signature

    g. 115699-R&S: Remove MPRI default on Prior year referral templates

    h. 115700-R&S: Prior Year Referral Option fix change label

       i.   115701-R&S: Remove SNOMED requirement if not saving referral

7. Typical time for the installation is 10 minutes.

3.2   Installation Instructions

1. If Patch 16 has not been installed save RCIS Referral File using %GO

    a. Example:

       D ^%GO

       Global output

       Device: C:\PUB\BMCREF.P16.GO

       Parameters? "WNS" =>

       Description (^ for self-loading): RCIS REFERRAL FILE PRIOR TO PATCH 16 INSTALL

       All Globals? No => No

       Global ^BMCREF

       Global ^

       1 global selected from 2279 available globals.

       BMCREF

       1 global written

       PRECERT 128d22>

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

3. Load the Distribution into KIDS using option 1 on the KIDS Installation menu. The distribution was released in a file named bmc_0400.17k

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

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

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

7. For results, read the generated MailMan message, or use the KIDS "Install File Print" option to view/print the "BMC*4.0*17" entry.

8. The post-install routine, BMC4P17, 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_0400.17k

KIDS Distribution saved on May 07, 2025@12:40:04
Comment: RCIS V4 Patch 17

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

     BMC*4.0*17
OK to continue with Load? NO// YES

Distribution OK!

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

Build BMC*4.0*17 has an Environmental Check Routine
Want to RUN the Environment Check Routine? YES// YES
   BMC*4.0*17
Will first run the Environment Check Routine, BMC4E


                         Hello, JANE DOE

          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? y  YES
                 Need at least BJPC*2.0*10.....BJPC*2.0*10 Present

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

```
                         ENVIRONMENT OK.
     In this distribution:

          Changes include
            1. 111288-GUI: Fix removal of Problem pointer after edit of
               referral
            2. 111572-R&S-GUI: Add SNOMED as part of the duplicate
               check when entering a new Referral
            3. 112599-R&S-GUI: Referral Letter
               a. Change Purchase to Purchased
               b. Fix printing Consult in PRF option
            4. 112597-R&S-GUI: Add Standard Medical Priorities to
               pre-defined templates
            5. 113040-R&S: Fix RRRF Report
            6. 114002-R&S: Update Appointment:
               a. Change to use Physical Address
               b. Fix the Signature
            7. 115699-R&S: Remove MPRI default on Prior year referral
               templates
            8. 115700-R&S: Prior Year Referral Option fix change label
            9. 115701-R&S: Remove SNOMED requirement if not saving referral


Enter RETURN to continue or '^' to exit:
Use INSTALL NAME: BMC*4.0*17 to install this Distribution.


KIDS 8.0

Select KIDS OPTION: inSTALL PACKAGE(S)
Select INSTALL NAME:    BMC*4.0*17    Loaded from Distribution    5/7/25@10:09:39
      => RCIS V4 Patch 17  ;Created on May 07, 2025@12:40:04
This Distribution was loaded on May 07, 2025@10:09:39 with header of
   RCIS V4 Patch 17  ;Created on May 07, 2025@12:40:04
   It consisted of the following Install(s):
     BMC*4.0*17
Checking Install for Package BMC*4.0*17
Will first run the Environment Check Routine, BMC4E



                         Hello, JANE DOE

         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. 111288-GUI: Fix removal of Problem pointer after edit of
              referral
           2. 111572-R&S-GUI: Add SNOMED as part of the duplicate
              check when entering a new Referral
           3. 112599-R&S-GUI: Referral Letter
              a. Change Purchase to Purchased
              b. Fix printing Consult in PRF option
           4. 112597-R&S-GUI: Add Standard Medical Priorities to
              pre-defined templates
           5. 113040-R&S: Fix RRRF Report
           6. 114002-R&S: Update Appointment:
              a. Change to use Physical Address
              b. Fix the Signature
           7. 115699-R&S: Remove MPRI default on Prior year referral
              templates
           8. 115700-R&S: Prior Year Referral Option fix change label
           9. 115701-R&S: Remove SNOMED requirement if not saving referral

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*17

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.

   90001.33  RCIS OUTPUT FORM DEFINITION  (including data)
Note:  You already have the 'RCIS OUTPUT FORM DEFINITION' File.
I will MERGE your data with mine.

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

   90001.84  RCIS MEDICAL PRIORITIES  (including data)

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*17 :
              May 07, 2025@10:10:12
```

```
Build Distribution Date: May 07, 2025

 Installing Routines:      25              50              75
              May 07, 2025@10:10:12

 Running Pre-Install Routine: PRE^BMC4P17        25              50

Saving current DD AUDIT settings for files in BMC 4.0 Patch 17
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 07, 2025@10:10:12

 Installing Data:
              May 07, 2025@10:10:12

 Installing PACKAGE COMPONENTS:

 Installing PRINT TEMPLATE:      25              50

 Installing INPUT TEMPLATE:      25              50

 Installing FORM       25              50              75

 Installing OPTION     25              50              75
              May 07, 2025@10:10:12

 Running Post-Install Routine: POST^BMC4P17        25              50

Restoring DD AUDIT settings for files in BMC 4.0 Patch 17.
 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

BEGIN Delivering MailMan message to select users.

END Delivering MailMan message to select users.


 Updating Routine file...
 Updating KIDS files...
 BMC*4.0*17 Installed.
              May 07, 2025@10:10:13

 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 17**

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.
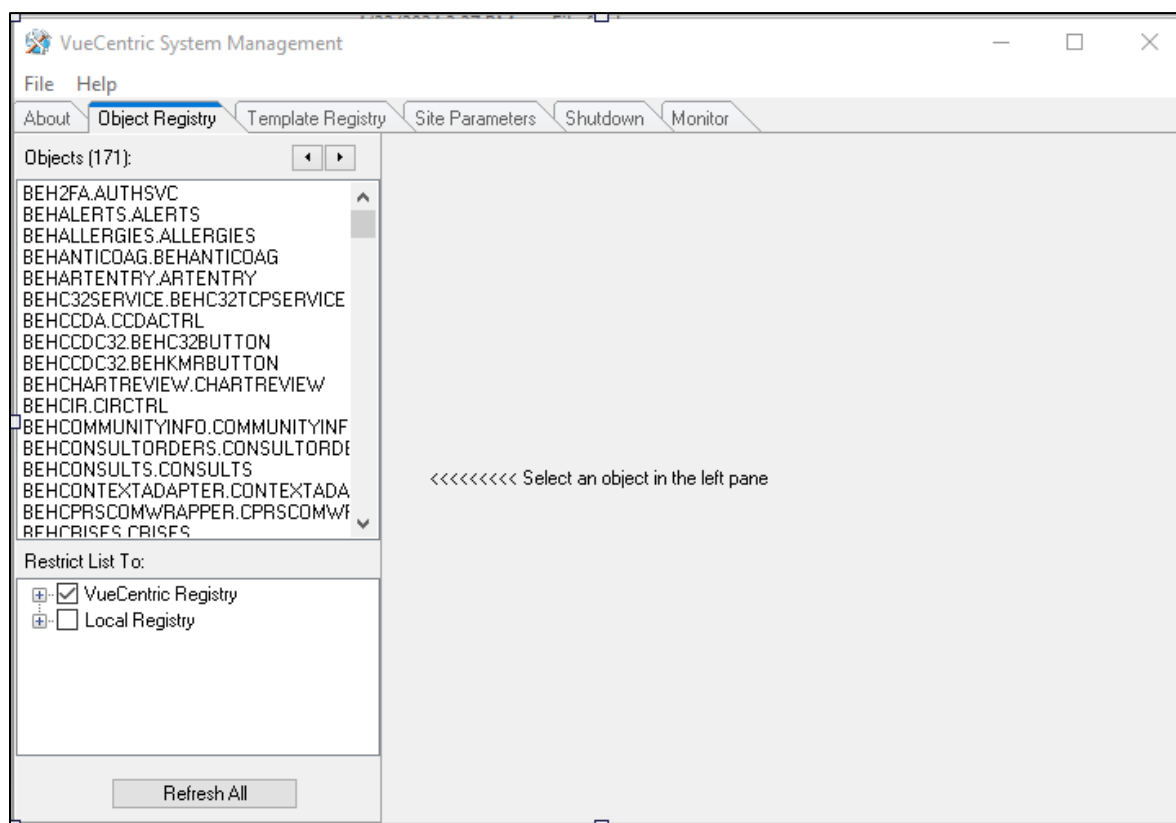
Figure 4-1: VcManager Screen

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.
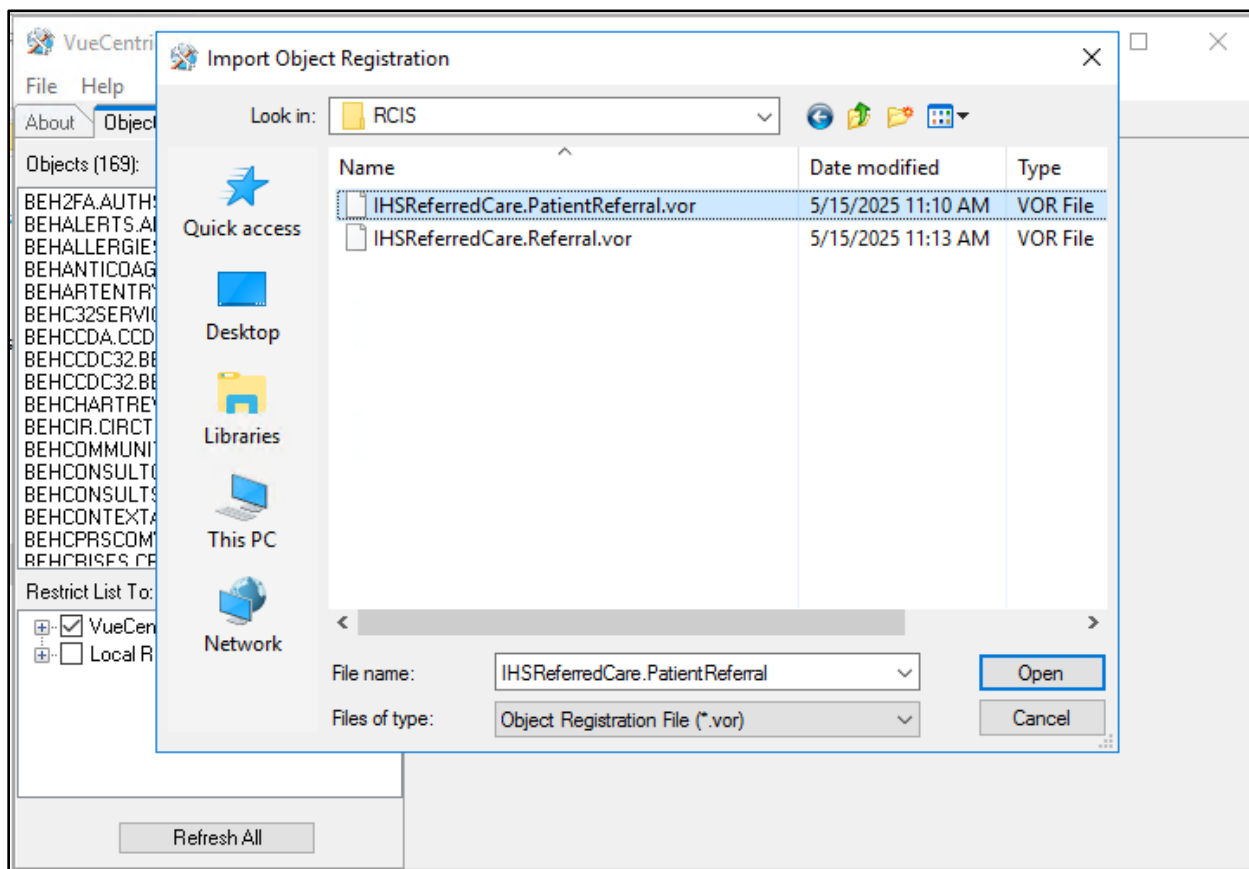
Figure 4-2: Select Import Object screen

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.
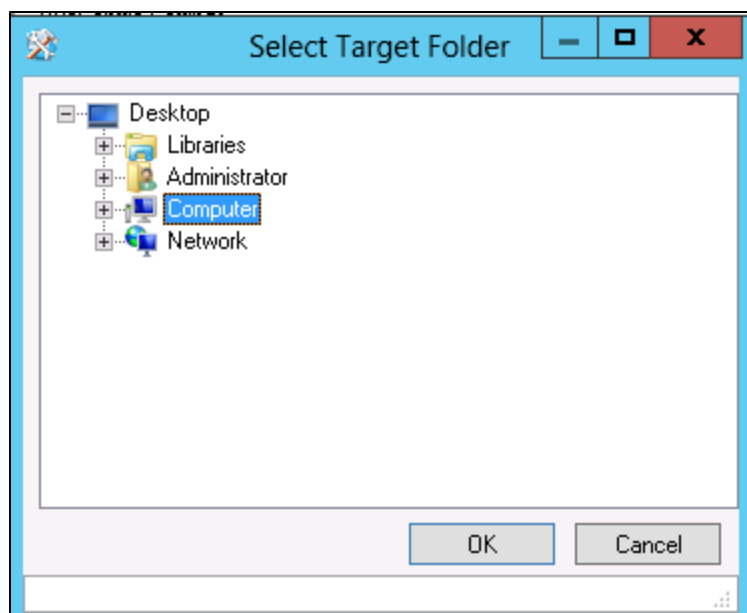
Figure 4-3: Select Target Folder screen

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.
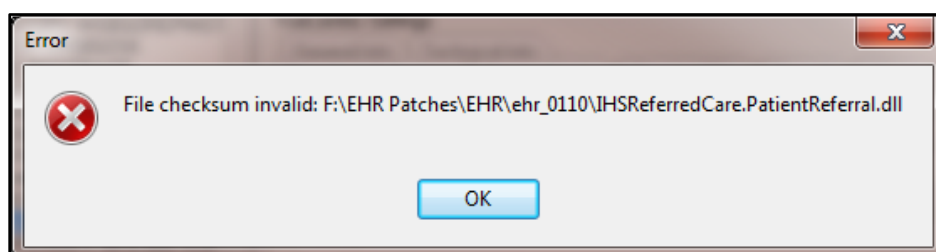
Figure 4-4: File Checksum Invalid error message

1.　Close and restart the VcManager.

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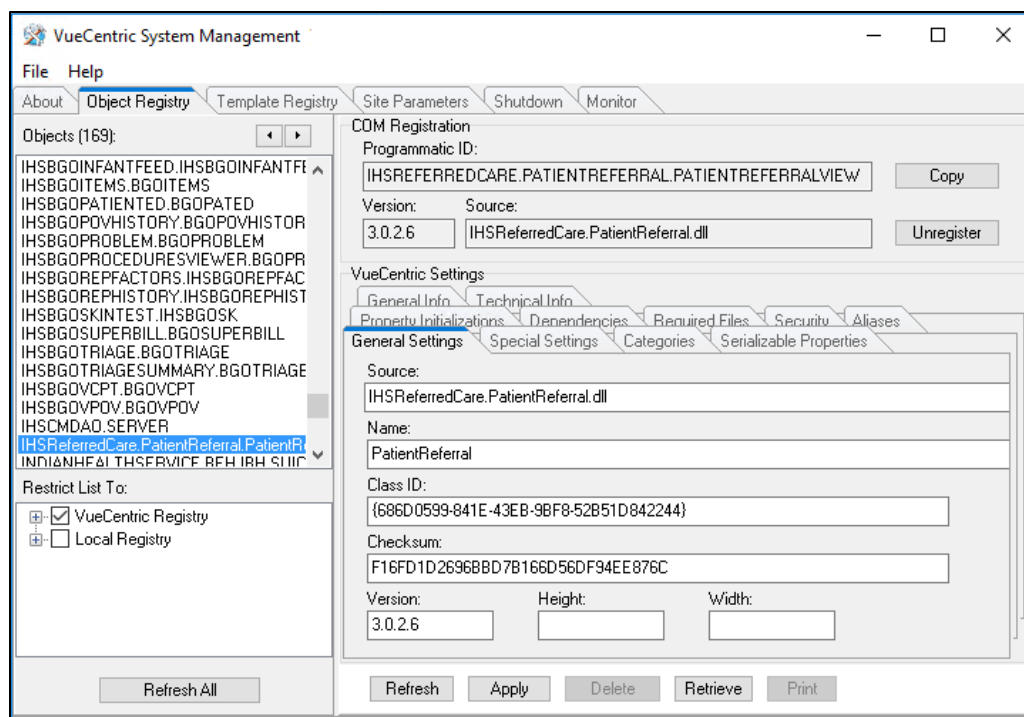
Figure 4-5: Object Loaded view in VCManager

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.
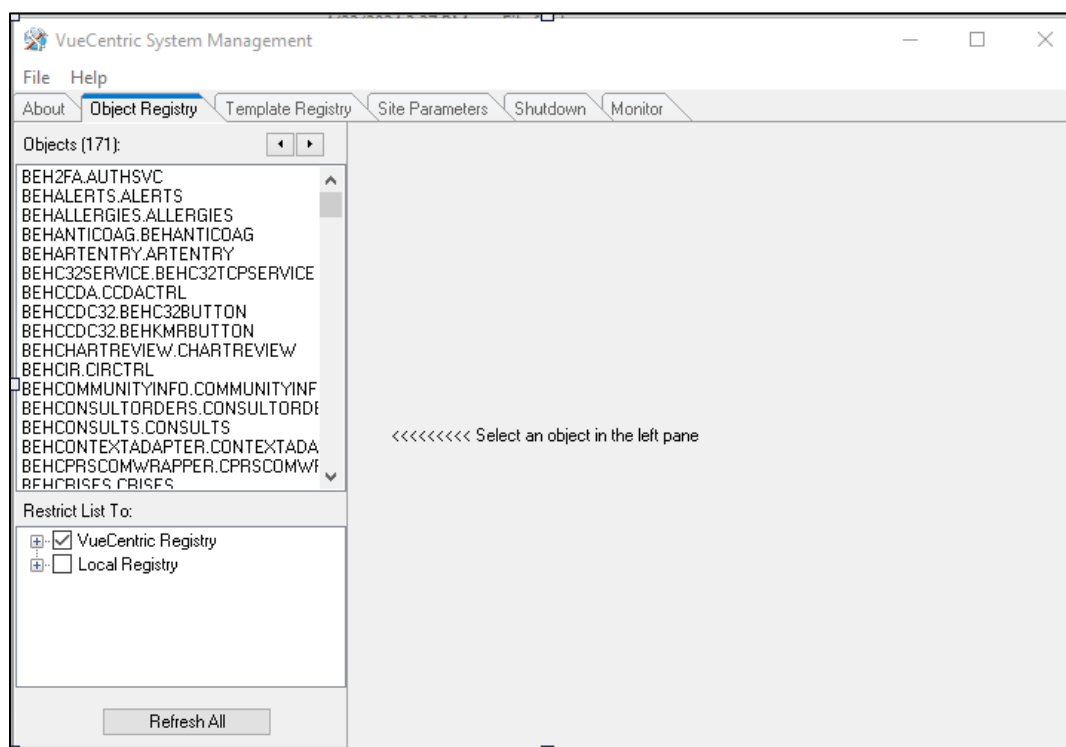
Figure 4-6: VcManager Screen

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

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

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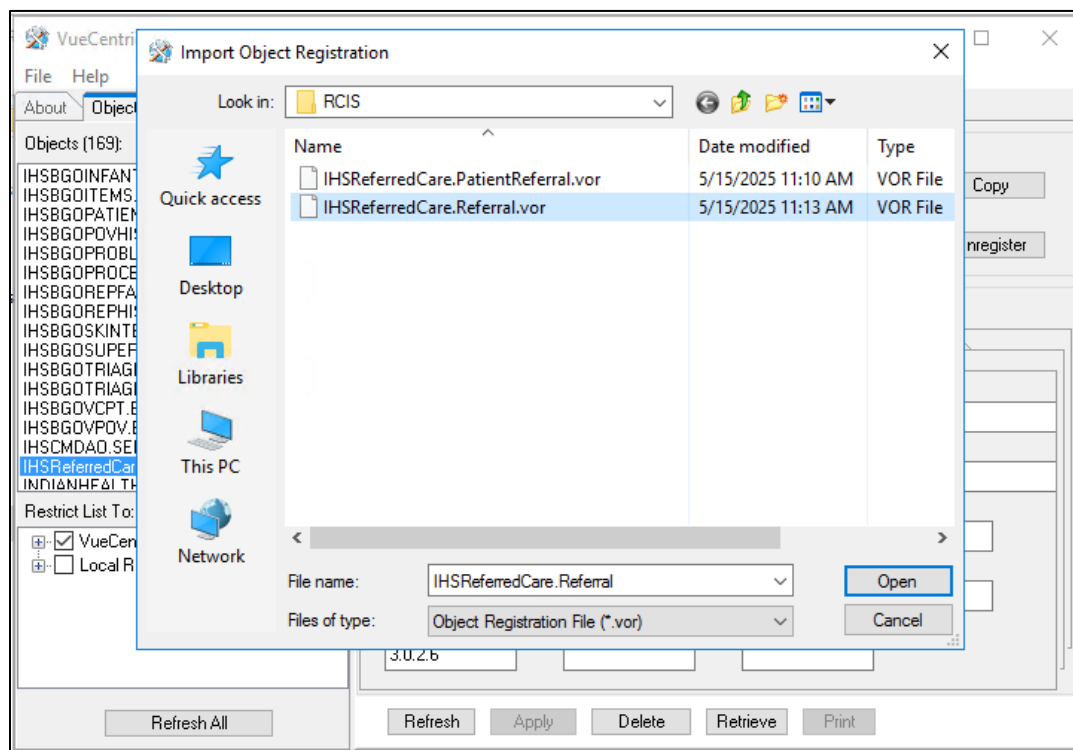
Figure 4-7: Select Import Object screen

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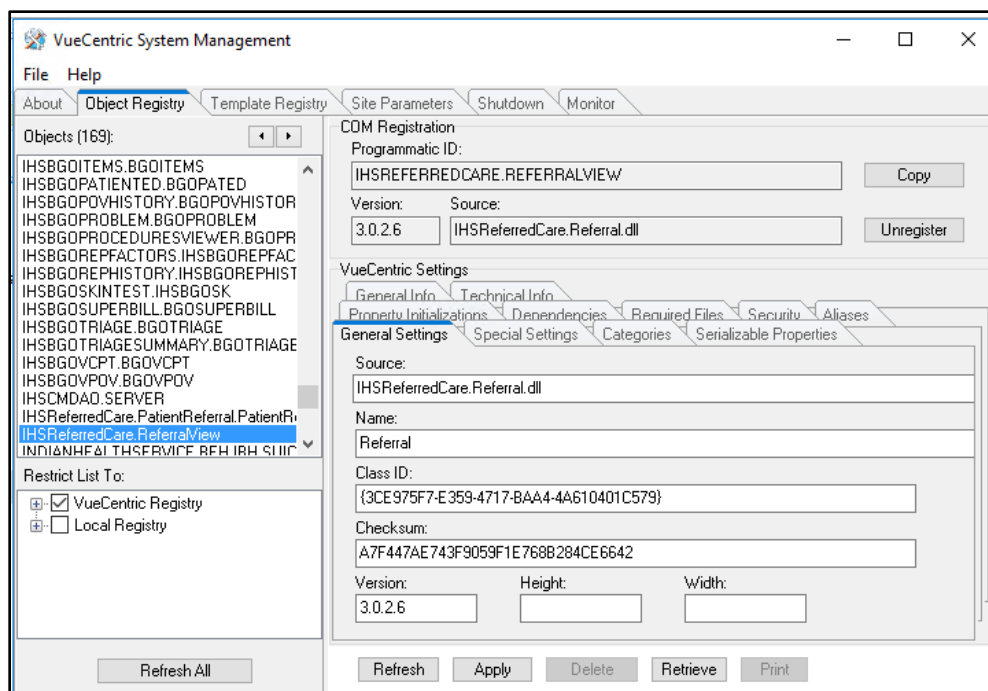
Figure 4-8: Object Loaded view in VcManager

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**.
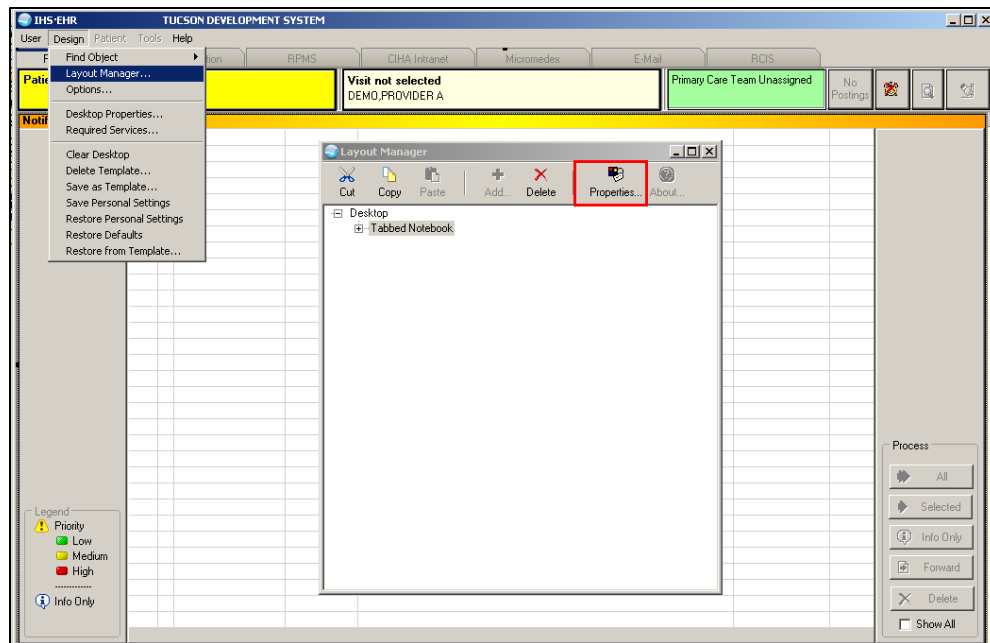
Figure 4-10: **Design menu**: **Layout Manager**

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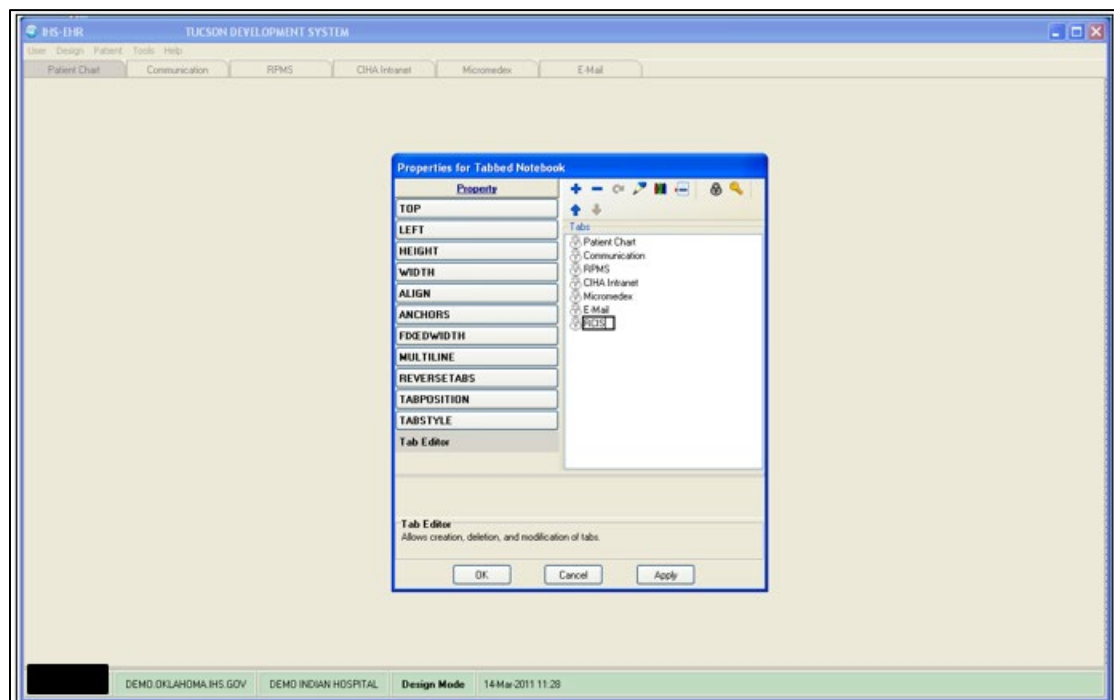
Figure 4-11: EHR Designer Mode - Create new RCIS tab

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**.
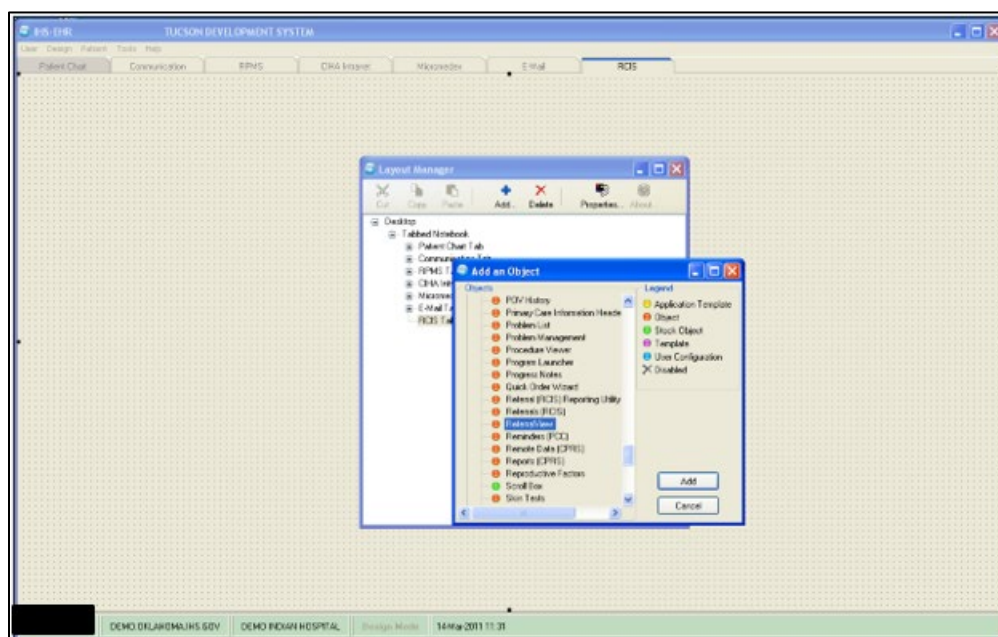
Figure 4-12: EHR Designer Mode - Add ReferralView object to **RCIS** tab

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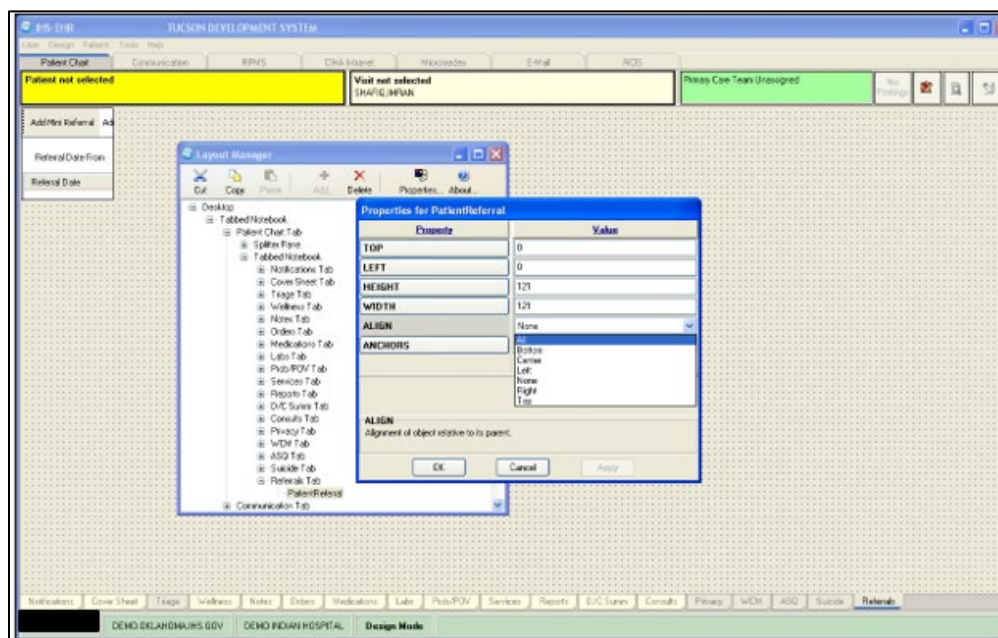
Figure 4-13: EHR Designer Mode - Align Setting in Object Properties

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**.
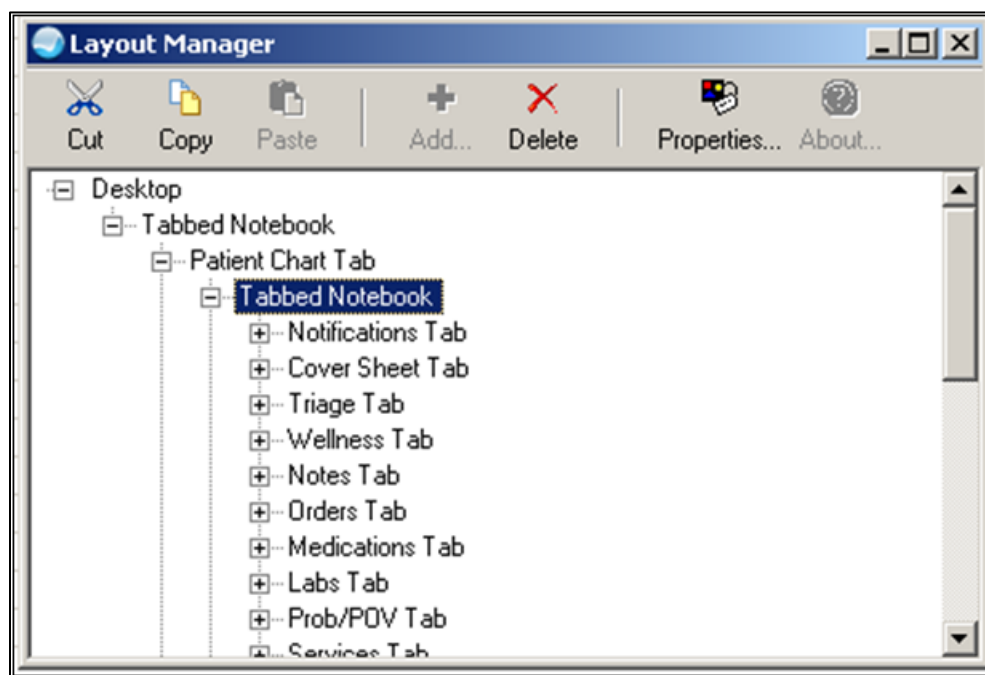
Figure 4-14: EHR Designer Mode - Layout Manager Close-up

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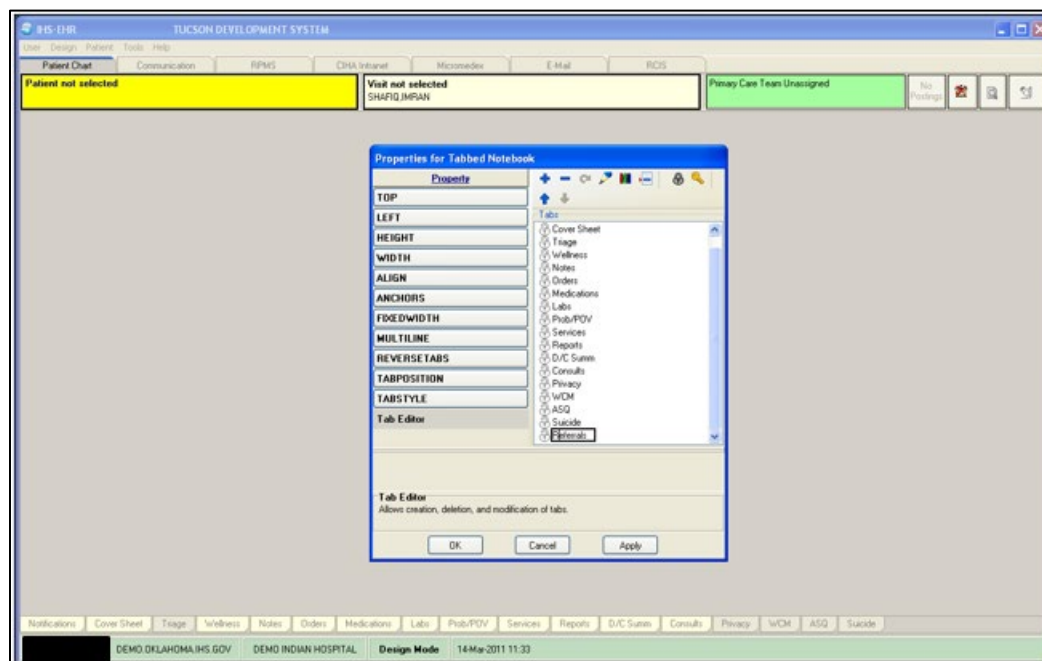

Figure 4-15: EHR Designer Mode - Add tab to Patient Chart

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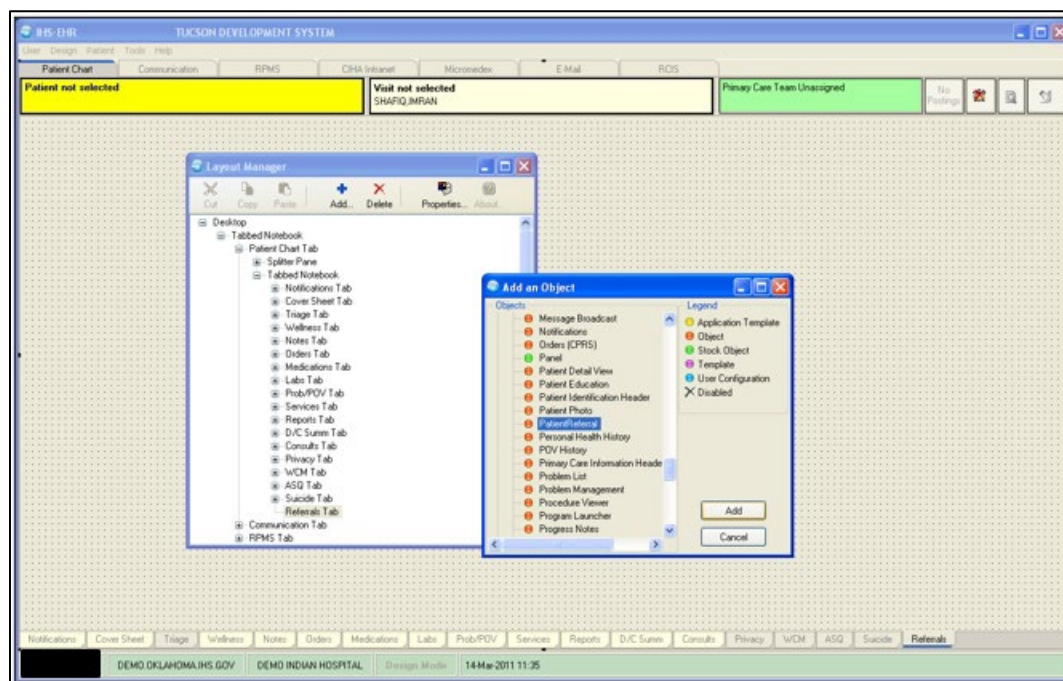

Figure 4-16: EHR Design Mode - Add PatientReferral object to Referrals tab

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**.
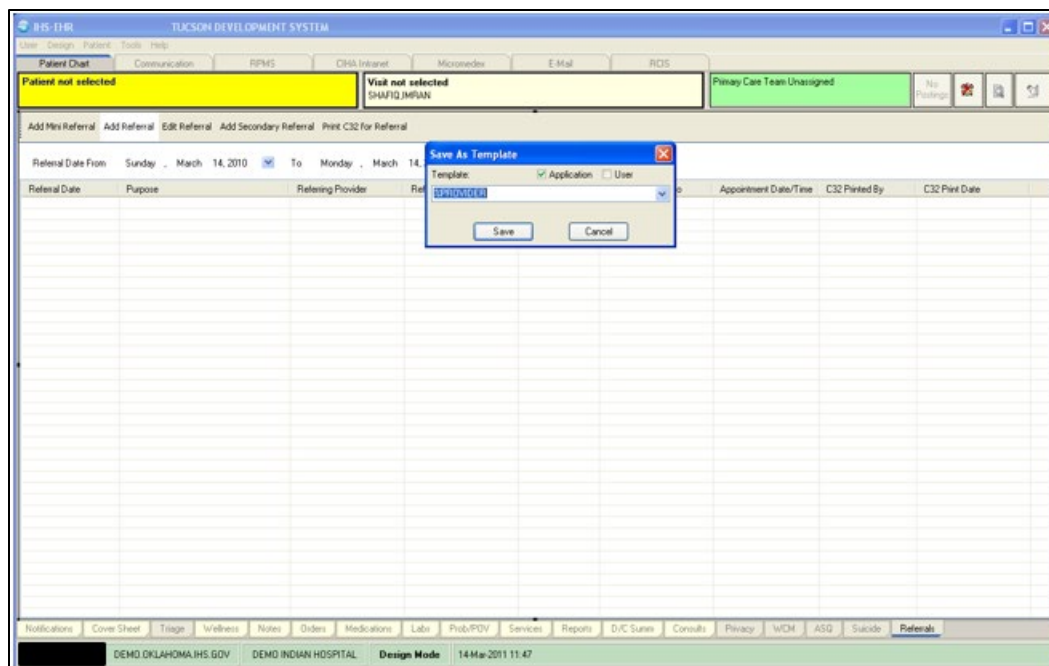
Figure 4-17: EHR Designer Mode - Save As screen for Provider template

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).
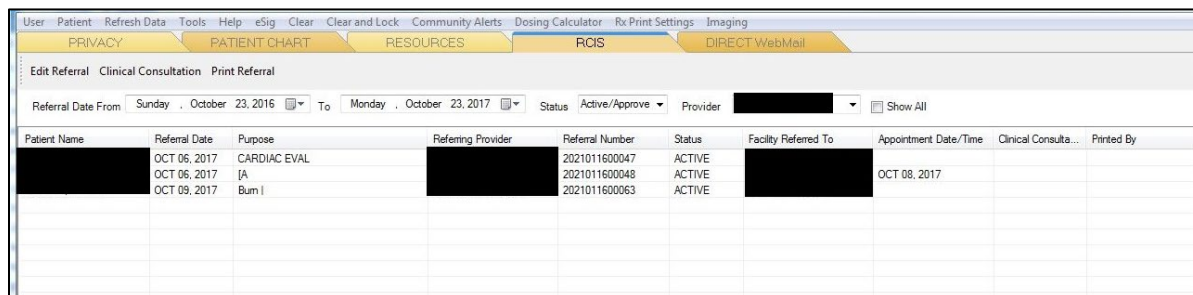

Figure 4-18: **RCIS** tab window

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