

User Release Notes

for eRAD RIS
Version 2
Build 43

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1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 43 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.43.

Only features which can be visually demonstrated to the user will be outlined in this document.

2. Intended Audience

This document is created by the RIS Development team for the RadNet RIS management team.

3. Installing/Accessing the Application

The installation guide for the eRAD RIS client have been posted to the RadNet Wiki page at <http://mdbal01rdtweb/Wiki/>

Under the RIS menu click on the rRIS page. The credentials to access the page are:

Username: rRIS

Password: Summerside

Please note that Build 2.43 is considered a new core release of the application and will require a reinstallation of eRAD RIS. This is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)

If you experience difficulties accessing the application please do not hesitate to contact Darcy Noye with the PEI RIS Development Team.

4. New Access Strings and Configuration Settings 43

Setting Placeholder	Setting	Default	Purpose / Controls Access to
Access string / User Group Permission tables	Alert.AgeGreaterThan	Full	full access to this enables users to see the alert of the "AgeGreaterThan" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.CDS_01_HighBP	Full	full access to this enables users to see the alert
Access string / User Group Permission tables	Alert.CDS_02_HighCholesterol	Full	full access to this enables users to see the alert
Access string / User Group Permission tables	Alert.CDS_03_PossibleReaction	Full	full access to this enables users to see the alert
Access string / User Group Permission tables	Alert.CDS_04_TobaccoUser	Full	full access to this enables users to see the alert
Access string / User Group Permission tables	Alert.CDS_05_PneumoniaBooster	Full	full access to this enables users to see the alert
Access string / User Group Permission tables	Alert.ExpiredInsurance	Full	full access to this enables users to see the alert of the "ExpiredInsurance" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.HasAllergy	Full	full access to this enables users to see the alert of the "HasAllergy" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.HasProblem	Full	full access to this enables users to see the alert of the "HasProblem" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.InactiveCarrierAppliedToVisit	Full	full access to this enables users to see the alert of the "InactiveCarrierAppliedToVisit" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.IndicationAndMedication	Full	full access to this enables users to see the alert of the "IndicationAndMedication" type when it is evaluated

			to be true
Access string / User Group Permission tables	Alert.IndicationAndSevereContrastAllergy	Full	full access to this enables users to see the alert of the "IndicationAndSevereContrastAllergy" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.LabOrderWithEmptyValue	Full	full access to this enables users to see the alert of the "LabOrderWithEmptyValue" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.MRI65PlusHeartDiseaseLipitorAndLDL100Plus	Full	full access to this enables users to see the alert of the "MRI65PlusHeartDiseaseLipitorAndLDL100Plus" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.OnMedication	Full	full access to this enables users to see the alert of the "OnMedication" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.PatientBirthChanged	Full	full access to this enables users to see the alert of the "PatientBirthChanged" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.PatientDeceased	Full	full access to this enables users to see the alert of the "PatientDeceased" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.PatientDrugAllergyWhenArrivedOrStarted	Full	full access to this enables users to see the alert of the "PatientDrugAllergyWhenArrivedOrStarted" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.PatientFirstNameChanged	Full	full access to this enables users to see the alert of the "PatientFirstNameChanged" type when it is evaluated

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			to be true
Access string / User Group Permission tables	Alert.PatientLastNameChanged	Full	full access to this enables users to see the alert of the "PatientLastNameChanged" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.PatientMissingPhoneInfo	Full	full access to this enables users to see the alert of the "PatientMissingPhoneInfo" type when it is evaluated to be true
Access string / User Group Permission tables	Alert.ProcedureXAndHighBP	Full	full access to this enables users to see the alert of the "ProcedureXAndHighBP" type when it is evaluated to be true
	Clinical.AlertFramework	Full	Allows the user to see alerts, which by default should be set to full access. Added this to pass an MU test case which requires us to show we can configure alerts not to fire for a specific user group.
Access string / User Group Permission tables	Config.LookupEditor.AllergySeverity	Full	allows the user to see alerts, which by default should be enabled full for all users. Added this to pass an MU test case which requires us to show we can configure alerts not to fire for a specific user group.
Access string / User Group Permission tables	Clinical.Attachments	Full	Controls access to the standalone Attachments screen accessible in a worklist via Right Click / Attachments
Access string / User Group Permission tables	Clinical.BurnCD	None	Controls access to the "Burn CD" Image Request context menu, the "Burn CD" from the tech's Perform Exam screen and

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			the patient folder's Burn CD menu items
Access string / User Group Permission tables	Clinical.DataField.Patient.Notes	None	Controls if the user has access to change previous patient notes
Access string / User Group Permission tables	Clinical.DeleteDictationAndResetStatus.ExternalReportVerified	None	When a external report is verified, this permission will allow the verified report to be reverted back to exam done so it can be either re-verified or changed to a non-external report.
Access string / User Group Permission tables	Clinical.DiagnosisCodes	None	Controls access for users to enter ICD Codes in the MU Tab's MU Extra Info Screen.
Access string / User Group Permission tables	Clinical.InfoButton	Full	allows user access to the MU Info button feature accessabel in the MU tab's grids for Medications, Medical History or Lab Results via a Right Click / View Medline Plus Info.
Access string / User Group Permission tables	Clinical.Insurance.Override	None	controls access to override Eligiblity/Eligible API results
Access string / User Group Permission tables	Clinical.Insurance.Reverify	None	Controls access to the Reverify button in the Manage Insurance groupbox
Access string / User Group Permission tables	Clinical.Labwork.AddEdit	None	limits users ability to add or edit labwork
Access string / User Group Permission tables	Clinical.Labwork.Request	None	limits users ability to request labwork
Access string / User Group Permission tables	Clinical.PeerReview	None	Access to Peer Review context menu item and buttons
Access string / User Group Permission tables	Clinical.Schedule.AssignIcdCode	None	Controls whether ICD codes can be assigned during scheduling, ordering, registering
Access string / User	Clinical.Schedule.Calendar	None	Schedule Calendar control

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Group Permission tables	This is not a new access string but the default value has changed from full to none		
Access string / User Group Permission tables	Clinical.ViewEditCanChangeDiagIndications	None	In View/Edit, the indications defined by the radiologist can be edited
Access string / User Group Permission tables	Clinical.ViewEditCanChangeTechIndications	None	In View/Edit, the indications defined up to the technologist workflow can be edited
Access string / User Group Permission tables	Config.AllowMModalConfig This is not a new access string but the default value has changed from none to full	Full	Allows users access to turning on M*Modal workflow for themselves or other users if the current user has admin access
Access string / User Group Permission tables	Config.CreateMessage	None	Gives ability to create a new secure message for communication between Patient Portal and RIS
Access string / User Group Permission tables	Config.LookupEditor.AllergySeverity	None	lookup table access for Allergy Severity
Access string / User Group Permission tables	Config.LookupEditor.EligibleConfig	None	controls access in the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.HL7v3Vocabulary	None	controls access in the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.InsuranceServiceType	None	Controls access to the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.LabObservation	None	Controls access to the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.LabProvider	None	Controls access to the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.LegalAuthenticator	None	controls access in the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.LegalDocument	None	Controls access to lookup table legal document
Access string / User Group Permission tables	Config.LookupEditor.MedicalGroup	None	lookup table access for Medical Group
Access string / User Group Permission tables	Config.LookupEditor.MedicalGroupContactType	None	lookup table access for Medical Group Contact Type.
Access string / User	Config.LookupEditor.MessageGroup	None	Controls access to the

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Group Permission tables	p		Message Group lookup table
Access string / User Group Permission tables	Config.LookupEditor.ObservationResult	None	Controls access to the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.ReferringAddresses	None	limits users ability to view or edit the Lookup editor for Referring Addresses. To have access users will also need to have access to the Config.LookupEditor.Personnel item.
Access string / User Group Permission tables	Config.LookupEditor.SpecimenAction	None	Controls access to the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.SpecimenCondition	None	Controls access to the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.SpecimenQuality	None	Controls access to the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.SpecimenType	None	Controls access to the lookup table editor
Access string / User Group Permission tables	Config.LookupEditor.UMCommonLanguage	None	lookup table access for UM Common Language
Access string / User Group Permission tables	Config.LookupEditor.UMCoverage	None	lookup table access for UM Coverage
Access string / User Group Permission tables	Config.LookupEditor.UMResolution	None	lookup table access for UM Resolution
Access string / User Group Permission tables	Config.LookupEditor.UMStatus	None	lookup table access for UM Status
Access string / User Group Permission tables	Config.MessageInbox	None	Gives ability to access the Secure message inbox
Access string / User Group Permission tables	ContentEnum.Reschedule	None	Reschedule Studies
Access string / User Group Permission tables	Flag.EligibilityApproved	Full	Access to see the flag
Access string / User Group Permission tables	Flag.EligibilityDenied	Full	Access to see the flag
Access string / User Group Permission tables	Flag.EligibilityError	Full	Access to see the flag
Access string / User Group Permission tables	Flag.EligibilityInProgress	Full	Access to see the flag
Access string / User Group Permission tables	Flag.EligibilityWarnings	Full	Access to see the flag
Access string / User	Flag.Problem	Full	Access to see the Problem

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Group Permission tables			flag
Access string / User Group Permission tables	Flag.QA	Full	Access to see the QA flag
Access string / User Group Permission tables	MU.ExportAll	None	controls access for administrators to export all CCDA Data to the system config location MU_ExportALL_Path
Access string / User Group Permission tables	WL.DirectMessage	None	Gives ability to access the Direct message inbox
Access string / User Group Permission tables	WL.LabworkAdvisedWL	None	WL access for the LabworkAdvice context menu item.
Access string / User Group Permission tables	WL.LabworkRequestedWL	None	WL access for the Labwork Requested context menu item.
Access string / User Group Permission tables	WL.MT.PeerReviewPendingAction All	None	WL access to All Peer Reviews Pending QA under the Editor menu
Access string / User Group Permission tables	WL.Rad.PeerReviewPendingAction All	None	WL access to All Peer Reviews Pending QA under the Radiologist menu
Access string / User Group Permission tables	PowerScribe360.AllowAutofeed This access string has been removed	removed	This access string has been removed.
SystemConfig lookup	APIServerUrl		the URL for Webservice API services (ie: http://<your rRisService server><API Port>/API)
SystemConfig lookup	AuthorizationPrefix		A prefix that will be added to the new Authorization numbers that are assigned
SystemConfig lookup	CallbackDeclinedValue		The key in Follow Up Type system config table to be considered as 'Declined Callback Letter'
SystemConfig lookup	DDRemoveErroredFaxJobs	True	Determines if the Document Distribution Engine removes failed fax jobs after recording their status

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SystemConfig lookup	DefaultAgeofMinor	18	The maximum number that would define a patient as being a minor
SystemConfig lookup	EnableContrastBillingRelation	True	Enables billing and contrast code syncing in the tech window
SystemConfig lookup	EnforceCountySelection	False	To force user to select a county for signing
SystemConfig lookup	HeightRequiredOnSchedule	False	Height is required when scheduling the patient
SystemConfig lookup	Icd10EffectiveDate	07-16-2014	(value = DateTime mm-dd-yyyy) The date on which ICD10 is effective. ICD9 will be used prior to this date.
SystemConfig lookup	InsuranceEligibleAPIString		Verification account for billing.
SystemConfig lookup	InsuranceReVerifyInterval	10	(value = int in days) Determines how often we will reverify a patients insurance, before the study is preformed. Note: we will also re-verify on the day of service
SystemConfig lookup	InsuranceVerificationGroupNPI		NPI for server initiated insurance eligibility requests
SystemConfig lookup	MUExportAllPath		Path where the MU feature to export all patient CCDA will be stored (Ex: c:\temp\muexport)
SystemConfig lookup	PeerReviewScoreToStartRequiring Notes	2b	Determines the score at which we will start to require they enter notes. Possible values are - 1, 2a, 2b, 3a, 3b, 4a or 4b.
SystemConfig lookup	PeerReviewScoreToStartSendingToQa	2b	Determines the score at which we will start to mark them as pending Qa. Possible values are - 1, 2a, 2b, 3a, 3b, 4a or 4b

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SystemConfig lookup	RadarAPIURL	https://api.myradarcconnect.com/v1/	(value = URL) Determines the start of day to jump the calendar too.
SystemConfig lookup	RadMustProvideIcdCode	False	To force radiologist to provide diagnosis ICD code prior to signing.
SystemConfig lookup	TechMustProvideIcdCode	False	To force technologist to provide diagnosis ICD code prior to exam done.
SystemConfig lookup	UMRoutineReview	30	The maximum number of UM hours for a routine exam.
SystemConfig lookup	UMStatReview	4	The maximum number of UM hours for a STAT exam.
SystemConfig lookup	UMUrgentReview	10	The maximum number of UM hours for an urgent exam.
SystemConfig lookup	WeightRequiredOnSchedule	False	weight is required when scheduling the patient (value = True/False)
SystemConfig lookup	WeightUnitsAbbreviation	lbs	An abbreviation of the system's weight measurement unit (i.e. kg or lbs) Default is lbs.
SystemConfig lookup	WorklistDateRangeDays	10	Maximum number of days to filter date enabled worklists by.
rRISService.exe.config and rRISService64.exe.config	<p>Setting <serviceThrottling> has been increased.</p> <p>Before: <serviceThrottling maxConcurrentCalls="2000" maxConcurrentSessions="4000" maxConcurrentInstances="4000" > </></p> <p>After: <serviceThrottling maxConcurrentCalls="3000" maxConcurrentSessions="5000" maxConcurrentInstances="5000" > </></p>		<p>This increase was added for larger implementations.</p> <p>The changes can be found in the deploy folder > rRISService.exe.config file. Compare with your current file in your rRISService folder. This applies to the rRISService.exe.config and the rRISService64.exe.config files</p> <p>Manual edit required.</p>

rRISService.exe.config and rRISServicex64.exe.config	<p>Change to the <system.serviceModel> section of the rRISServices.exe.config and rRISServicex64.exe.config file</p> <p>Before: <binding name="netTCPBinding" maxReceivedMessageSize="5000000" maxBufferSize="5000000" maxBufferPoolSize="5000000"></p> <p>After: <binding name="netTCPBinding" maxReceivedMessageSize="5000000" maxBufferSize="5000000" maxBufferPoolSize="5000000" maxConnections="3000" listenBacklog="3000"></p>		<p>Changes are made under the <system.serviceModel> section of the file. Changes to be made in 2 places in the file</p> <p>The changes can be found in the deploy folder > rRISService.exe.config file. Compare with your current file in your rRISService folder. This applies to the rRISService.exe.config and the rRISServicex64.exe.config files</p> <p>Manual edit required.</p>
rRISService.exe.config and rRISServicex64.exe.config	<p>Change to the <system.serviceModel> section of the rRISServices.exe.config and rRISServicex64.exe.config file</p> <p>Before: <readerQuotas maxStringContentLength="1024000" maxArrayLength="1024000" /></p> <p>After: <readerQuotas maxStringContentLength="1024000" maxArrayLength="1024000" maxNameTableCharCount="32768" /></p>		<p>Changes are made under the <system.serviceModel> section of the file. Changes to be made in 2 places in the file</p> <p>The changes can be found in the deploy folder > rRISService.exe.config file. Compare with your current file in your rRISService folder. This applies to the rRISService.exe.config and the rRISServicex64.exe.config files</p> <p>Manual edit required.</p>
rRISService.exe.config and rRISServicex64.exe.config	<p><runtime> <gcServer enabled="true"/> </runtime></p>	true	<p>Added to the base rriservices.config file. Possible values are true and false.</p> <p>Manual edit required.</p>
rRISService.exe.config and rRISServicex64.exe.config	<p>Before: <serviceThrottling maxConcurrentCalls="2000" maxConcurrentSessions="4000" maxConcurrentInstances="4000" /></p> <p>After:</p>		<p>Changes are made under the <behaviors> section of the file.</p> <p>The changes can be found in the deploy folder > rRISService.exe.config file.</p>

	<pre><serviceThrottling maxConcurrentCalls="3000" maxConcurrentSessions="5000" maxConcurrentInstances="5000" /></pre>		Compare with your current file in your rRISService folder. This applies to the rRISService.exe.config and the rRISService64.exe.config files Manual edit required.
Applicationsettings.config	UsePerCallInstanceContextMode	False	Will use PerSession mode by default but if UsePerCallInstanceContextMode is True we use PerCall instead. PerCall = the service creates resources, processes the client call, and then destroys the resources. This provides greater scalability as the resources are released sooner, but each call may experience more latency PerSession = the service creates resources for a session which are then kept alive and re-used from one user call to the next. May provide less latency.
Applicationsettings.config	StartInsuranceEligibilityService	False	This is not completely implemented in this build and should remain as false.

5. New Features and Enhancements

Reporting – Peer Review (Phase 1)

In build 43 peer review options have been added to the Patient Folder and also from the Reporting windows Patient History data pane.

From the Patient Folder the study can be peer reviewed by selecting the Peer Review option from the context menu. The option will display for studies not signed by “you” and are in signed status.

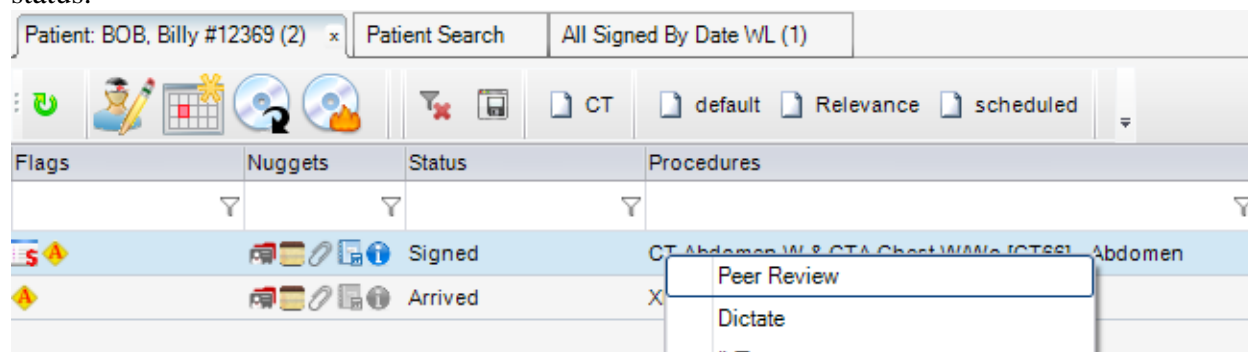


Figure 5.1 – Peer Review context menu option from Patient Folder

From the Reporting windows Patient History control the Peer Review button will be displayed in the “My Views” column.

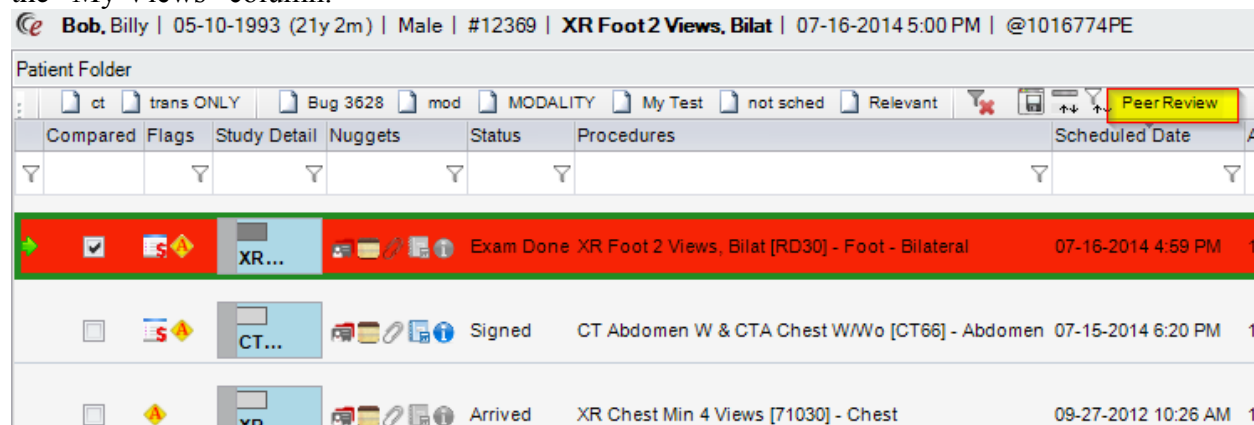


Figure 5.2 – Peer Review button on Patient History control of reporting window.

Again, only the studies in signed status that were not signed by you can be reviewed. Selecting a study in a status other than signed will inform the user that the current study status cannot be peer reviewed.

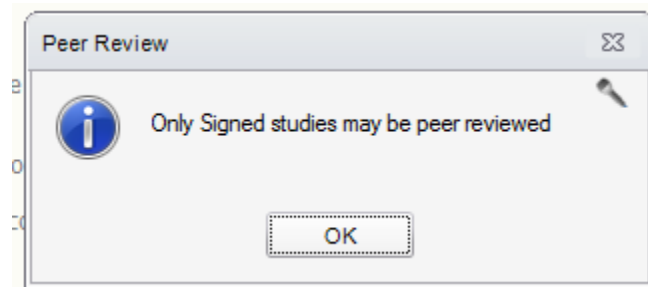


Figure 5.3 – Attempt to peer review a study in status other than signed

The options for peer review are controlled by an access string titled **“Clinical.PeerReview”** with a default level of None.

Upon selecting one of the options for peer review the Peer Review window will open. From this window the user can see the performed data, accession number, procedure performed, patients name, MRN and date of birth.

A screenshot of the 'Peer Review' window. It has a title bar with 'Peer Review' and a close button. The window contains the following information:
Performed: 07-16-2014 9:26 AM Acc #: 1016737PE
Procedure: CT Abdomen W_CTA Chest W/Wo [CT66]
Patient: Bob, Billy 21y 2m (M)
MRN: 12369 DOB: 05-10-1993
Below this information are four radio button options:
☐ 1 - Concur
☒ 2 - Discrepancy - understandable
☐ 3 - Discrepancy - should have been made
☐ 4 - Discrepancy - misinterpretation
There is a 'Notes:' section with a text area labeled 'Enter notes'. Below the text area is a checkbox labeled 'Likely to be clinically significant'. At the bottom, there is a text label '2a - Discrepancy in Interpretation, not ordinarily expected to be made (understandable miss)' followed by '- Unlikely to be significant'. At the very bottom are 'OK' and 'Cancel' buttons.

Figure 5.3 – Peer Review window

The Peer Reviewer will have 7 scoring options. The values are 1-4 with the option to select the check box “Likely to be clinically significant”. Selecting this check box if the difference of the study to be Unlikely significant and Likely significant, changing the score from 2a to 2b for example.

The scoring would look like this:

Peer review score code	Description
1	Concur with interpretation
2a	Discrepancy in Interpretation/not ordinarily expected to be made (understandable miss) - Unlikely to be significant
2b	Discrepancy in Interpretation/not ordinarily expected to be made (understandable miss) - Likely to be significant
3a	Discrepancy in Interpretation/should be made most of time - Unlikely to be significant
3b	Discrepancy in Interpretation/should be made most of time - Likely to be significant
4a	Discrepancy in Interpretation/should be made almost every time (misinterpretation of findings) - Unlikely to be significant
4b	Discrepancy in Interpretation/should be made almost every time (misinterpretation of findings) - Likely to be significant

Table 5.1 – Peer review scores

There is also a notes field for the user to add any notes pertaining to the studies peer review. Notes are required when the score passes a certain threshold, that threshold is configurable at the system and the practice level. The practice level overrides the system configuration setting if it is configured. This threshold identifies the score at which notes will start to be required. When notes are required, the OK button will be disabled until notes are entered. This is also set at the system and practice level. The system configuration setting is titled **“PeerReviewScoreToStartRequiringNotes”** with a default value of 2b.

The Add/Edit Practice window has been redesigned. To access the optional settings for Peer Review, select the appropriate tab as shown in the screenshot below.

The screenshot displays the 'Add/Edit Practice' window with several sections. The 'Details' section on the left includes fields for Practice code, Description, Phone #, Fax #, Time zone, and Practice notes (containing 'sdf gab gab'). The 'Contact' section on the right includes fields for Contact name, Phone #, Mobile #, Fax #, Email, and Contact notes (containing 'jim@mail.com'). The 'Address' section below 'Details' includes fields for Address 1, Address 2, City, State, Zip code, and Country. At the bottom, there are five tabs: 'Miscellaneous', 'Pacs and Reporting', 'Peer Review', 'Portal', and 'Radar'. The 'Peer Review' tab is selected and highlighted with a red box. It contains two dropdown menus: 'Notes required at score' and 'Send for QA at score', both showing 'Using system config value (currently 2b)'.

Figure 5.4 – Peer Review tab of the Add/Edit Practice window

Similar to the system configuration setting for notes, we have another setting titled **“PeerReviewScoreToStartSendinfToQA”** with a default value of 2b that determines if a peer review will then go to a “post peer review work list” where it can then be reviewed, or entered in an external system and marked as completed. This is also set at the system and practice level with the practice level overriding the system configuration setting.

Once a study is peer reviewed, if it meets the **“PeerReviewScoreToStartSendinfToQA”** settings, the peer review will be went to the “All Peer Review Pending Action WL”. This worklist can be accessed from the Radiologist and Editor menus and each is controlled by its

own new access string. The All Peer Review Pending Action WL under the Radiologist menu is controlled by access string **“WL.Rad.PeerReviewPendingActionAll”** with a default of none. Access to the work list option under the Editor menu is controlled by access string **“WL.MT.PeerReviewPendingActionAll”** which also has a default of none.

This work list will show the score and score description along with some details attached to the peer review and the study itself. From this worklist, the user will have the option to “Mark as Completed” which will remove the item from the worklist, or “Open”.

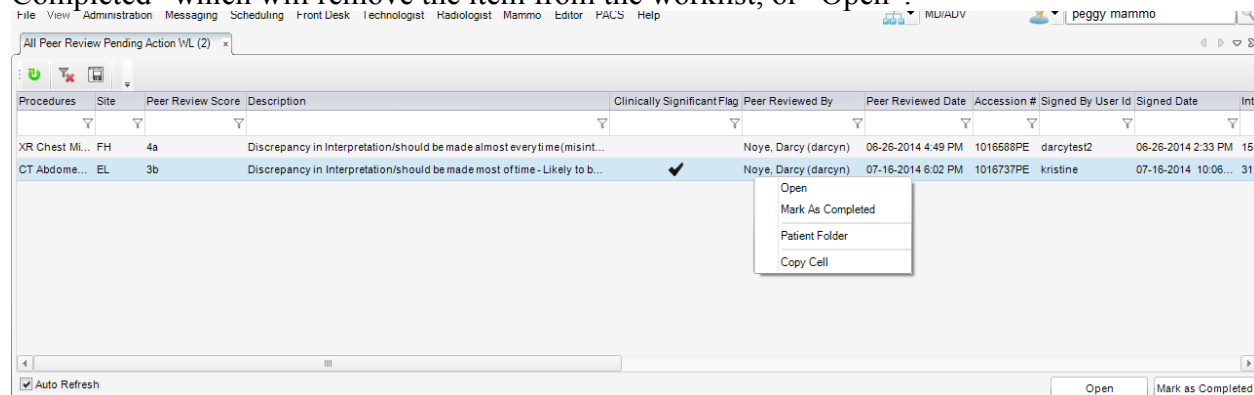


Figure 5.5 – All Peer Review Pending Action WL

Selecting Open will present the user with a read only version of the Peer Review window. The user can see the notes and score given by the peer reviewer. Options in this window are to Mark As Completed and Cancel. There is also an ICON in the upper right corner that will allow the user to copy and paste the details of the peer review. Data can also be copied from each row in the peer review window via a right click on the snippet of information.

Example of the text:

Reviewed by: Noye, Darcy (darcyn)
Date: 07-16-2014 6:02 PM

Performed: 07-16-2014 9:26 AM
Acc #: 1016737PE
Procedure: CT Abdomen W & CTA Chest W/Wo [CT66]
Patient: Bob, Billy 21y 2m (M)
MRN: 12369
DOB: 05-10-1993

Notes:
I have entered my notes

Score:
3b - Discrepancy in Interpretation, should be made most of time
- Likely to be significant

Peer Review

Reviewed by: Noye, Darcy (darcyn)

Date: 07-16-2014 6:02 PM

Performed: 07-16-2014 9:26 AM Acc #: 1016737PE

Procedure: CT Abdomen w/ CTA Chest w/Wo [CT66]

Patient: Bob, Billy 21

MRN: 12369 DOB: 05-10-1993

☐ 1 - Concur

☐ 2 - Discrepancy - understandable

☒ 3 - Discrepancy - should have been made

☐ 4 - Discrepancy - misinterpretation

Notes:

I have entered my notes

☒ Likely to be clinically significant

3b - Discrepancy in Interpretation, should be made most of time

- Likely to be significant

Mark as Completed Cancel

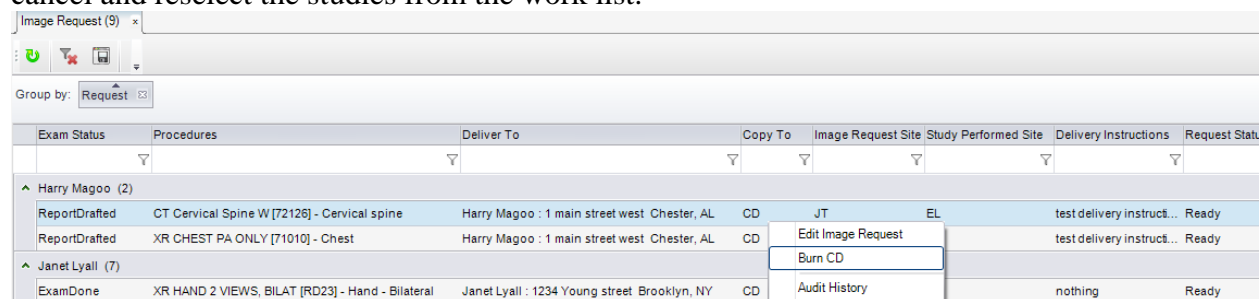
Figure 5.6 – Peer Review window displaying score from peer reviewer and copy options.

Export Images (Burn CD)

Burn CD option in eRAD RIS will be available from 3 locations in the application, the Image Request work list, the Patient Folder work list and the Technologists Perform Exam window. Access to Burn CD from all 3 locations is controlled by the access string tilted **“Clinical.BurnCD”** with a default value of Full.

Access from Image Request work list:

Image request work list now has the option to group requests. Default grouping is: Site, Media Type and Deliver To. This grouping makes it easier to multi select the items and completes the “Burn CD” in one step as shown in the following “Burn CD” context menu selection. Multiple studies can be selected from the Image request work list to be burned. From the Burn CD window the user can choose to include or not the studies for the CD. The Deliver To information in the Burn CD window will automatically be populated from the data entered on the Image Request. If there are different deliver to addresses, the user will be required to select one or can cancel and reselect the studies from the work list.



The screenshot shows the 'Image Request (9)' window. At the top, there's a 'Group by:' dropdown set to 'Request'. Below is a table with columns: Exam Status, Procedures, Deliver To, Copy To, Image Request Site, Study Performed Site, Delivery Instructions, and Request Status. The table is grouped by patient. For 'Harry Magoo (2)', there are two rows: 'ReportDrafted CT Cervical Spine W [72126] - Cervical spine' and 'ReportDrafted XR CHEST PA ONLY [71010] - Chest'. For 'Janet Lyall (7)', there is one row: 'ExamDone XR HAND 2 VIEWS, BILAT [RD23] - Hand - Bilateral'. A context menu is open over the 'XR CHEST PA ONLY' row, showing options: 'Edit Image Request', 'Burn CD' (highlighted), and 'Audit History'.

Exam Status	Procedures	Deliver To	Copy To	Image Request Site	Study Performed Site	Delivery Instructions	Request Status
Harry Magoo (2)							
ReportDrafted	CT Cervical Spine W [72126] - Cervical spine	Harry Magoo : 1 main street west Chester, AL	CD	JT	EL	test delivery instruct...	Ready
ReportDrafted	XR CHEST PA ONLY [71010] - Chest	Harry Magoo : 1 main street west Chester, AL	CD	Edit Image Request		test delivery instruct...	Ready
Janet Lyall (7)							
ExamDone	XR HAND 2 VIEWS, BILAT [RD23] - Hand - Bilateral	Janet Lyall : 1234 Young street Brooklyn, NY	CD	Audit History		nothing	Ready

Figure 5.7 – Image Request work list

Access from Patient Folder work list:

From the Patient Folder work list the user can select a single or multiple studies. The Burn CD option is also in the context menu. When the Burn CD window opens the Deliver To information will be blank. These fields are not required to be completed. Again the user can decide in the Burn CD window if they want to include all of the studies that were selected.

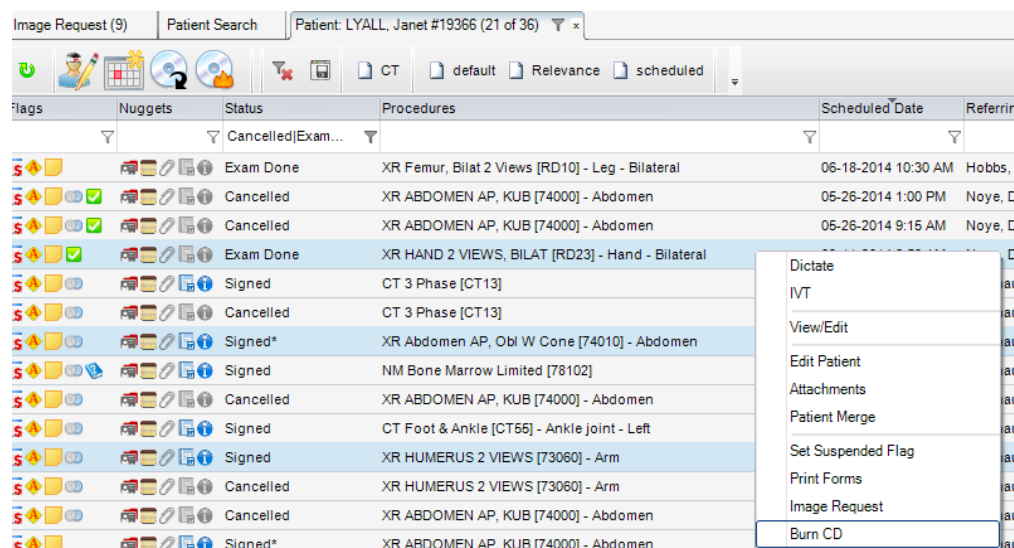


Figure 5.8 – Patient Folder work list

Access from Technologist's Perform Exam window:

The Perform Exam window will have access to the Burn CD window via the button of the same name in the lower left corner of the data window.

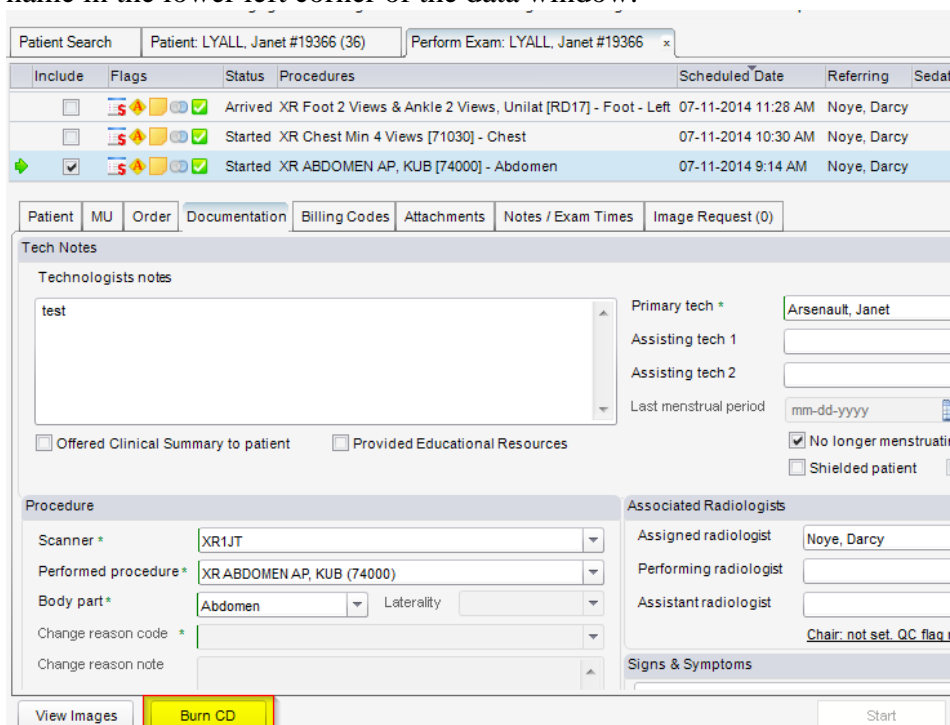


Figure 5.9 – Perform Exam window

As a precaution the user will be prompted with a message from the Perform Exam window to ensure all of the images have been uploaded to PACS.

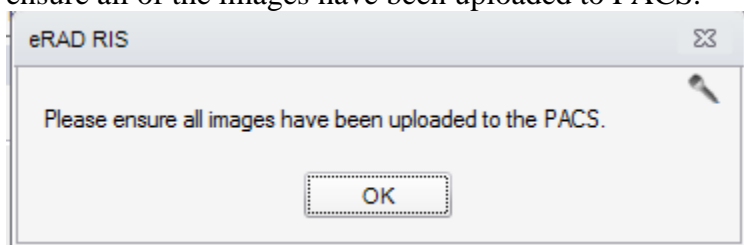


Figure 5.10 – Message displayed from Perform Exam window when Burn CD is selected

When the Burn CD window opens the Deliver To information will be blank. The user will have the option to select additional studies to burn that have been completed for that day.

Burn CD window:

The Burn CD window is the main dialog for this feature. It shows all the studies that were selected in the Image Request WL or Patient Folder WL (the exception is the Burn CD from Perform Exam) and allows you to uncheck items to exclude them from the CD. The checked items are included in an Image Request level lock so that if another user tries to export the same Image Requests they will be notified that another user is processing that request.

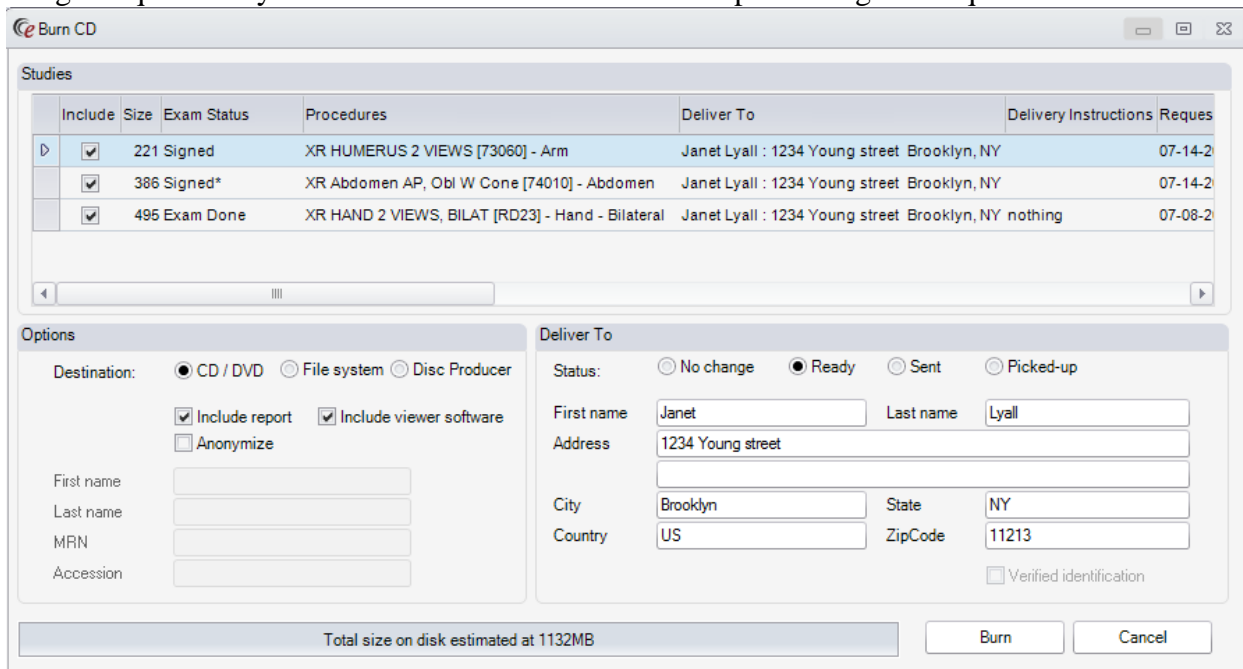


Figure 5.11 – Burn CD window

If actioned from the Image Request WL, successful burns will remove the selected studies requests from the WL.

Images for the selected studies are requested from PACS and the contents are written to the specified media type. If the media type is “CD/DVD”, the contents will be written to the local burner. If the media type is Filesystem or Disc Producer, the contents will be written to the directory chosen. For disc producer the file format written is specific to the Epson JDF file format. After the JDF file is created, the progress can be monitored via the Epson TD Bridge software. The RIS will do an estimated size of the images to be burned.

When the Burn CD window opens, it queries each of the Requesting Site’s local child PACS servers. If it does not have the study, it then queries the Practice’s PACS WL server. The goal of this query is:

1. To obtain an approximate size of the study data
2. To identify which server has the images

The figure above of the Burn CD window shows the approximate sizes and in the progress bar area a total estimate of the size on disc.

If it exceeds 680MB it will present the user will message informing that the estimated size may not fit on one CD.

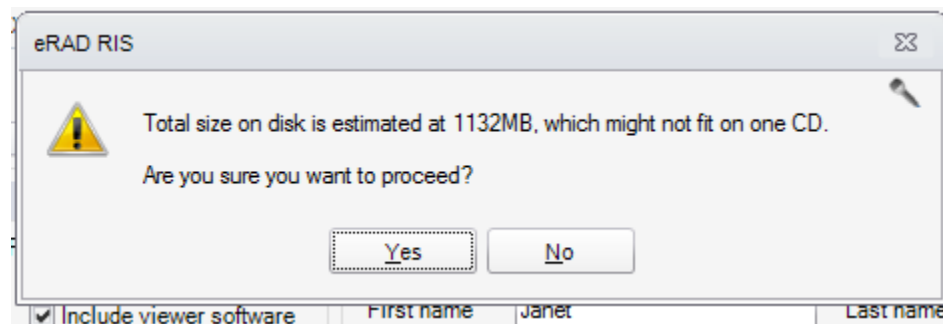


Figure 5.12 – Are you sure?

If they are actually burning to a DVD media, they should ignore this message and click “Yes” but if they only have CD’s then they will need to click “NO” and include fewer studies.

If all of the selected studies are on the local child PACS server then the request for the CD contents will be made local. But if one or more of the studies are not local the request will be made to the practices PACS WL server.

When the media is successfully burned, the status and deliver to information for the “included” image requests will be updated. And before and after audit messages are written to the Audit log. The description in the audit entry is basically the entire contents of the CD’s Readme file, which includes unique identifiers and even the CD’s checksum.

Image Request (12)	Patient Search	Patient: LYALL, Janet #19366 (36)	Audit: LYALL, Janet #19366 x
Filters <input type="radio"/> Patient <input type="radio"/> Order <input checked="" type="radio"/> Study <input type="checkbox"/> Include retrievals			
Date	Action	Description	User
Equals:	Contains:	Contains:	Contains:
07-14-2014 12:17 PM	CD/DVD export started	Delivered to : Lyall, Janet 1234 Young street NY, Brooklyn MediaUID="1.2.826.0.1.3680043.2.93.1.4.2831157776.22896.1405351020.1" MediaID="WL1_HXLXPM93_TPZ" Server="unknownSite/paipacswl1" Creator="remote:192.168.16.99" Time="Mon Jul 14 11:17:00 EDT 2014" CheckSum="86b5f5dd89b17f508b4ebaa080809af6"	Noye, Darcy (darcy)

Figure 5.13 – Audit history

Change to Image Request:

With B43, when creating an image request there is a new required field “Requesting site”.

The screenshot shows the 'Image Request' form in the eRAD RIS interface. The form is for Patient: LYALL, Janet #19366. It includes a 'Studies (2)' table with columns for Date, Last Name, First Name, and Study. Below this is a 'Previous Requests (5)' table with columns for Date, Req. By, Source, Format, Delivery, and Status. The 'Requested By' section has radio buttons for Patient, Referring, Other doctor, and Other. The 'Requesting site' field is highlighted with a blue box, showing a dropdown menu with 'Test Site 1' selected. The 'Deliver To / Pickup By' section includes fields for Doctor, Location, Prefix, and Suffix.

Figure 5.14 – Image request has new required field of Requesting site

The “Requesting Site” value is the site used when showing the Image Request WL. So when looking at the JTEST/JT WL as shown in the following screen shot, you see all the image requests that need to be completed at JT. Previous to B43, the JT WL would only show the image request’s needed at a site such as JT if they were performed at JT.

We also changed the work list so (by default) it groups Requests by Patient, Media Format and Deliver To. In the following screen you can see the default “Request” grouping. If the user clicks on the “Group by.” button the sorting changes between Ascending and Descending (by image request date).

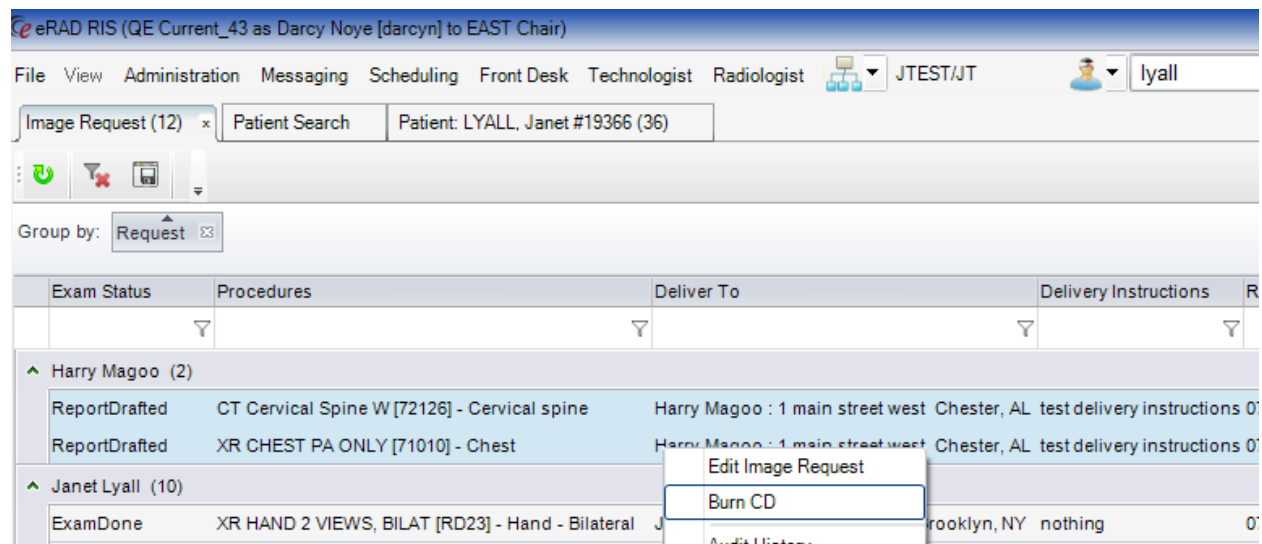


Figure 5.15 – Image request work list group by Request

The remaining will explain how to set up the Disc Producers Epson TD Bridge Server

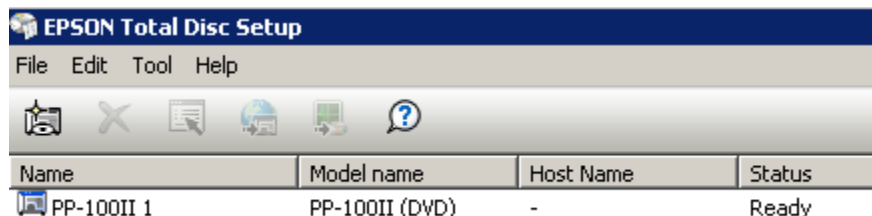
When using an Epson Disc Producer you will need to dedicate a PC to host the hardware. On that PC you will need to install the EPSON TD Bridge software. The TD Bridge software and documentation is available at:

<https://www.epsonexpert.com/login>

<https://www.epsonexpert.com/ee/techRes/index.htm?ProductId=598>

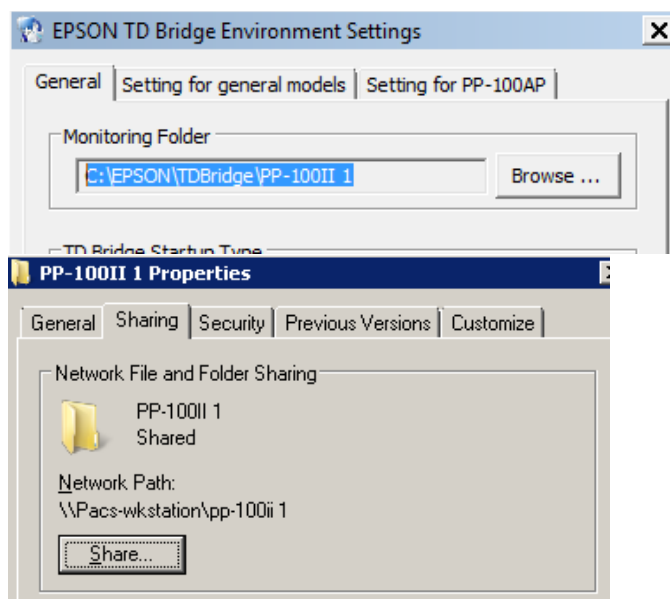
In addition to the typical install you will need to:

1. Install the Epson Total Disc Maker Software, either download the latest from Epson or use the install disc that came with the burner.
2. Launch the “Epson Total Disc Setup” utility, which is in your “start/program” menu after the install. Add the local “PP-100” burner as shown in the following:



3. Install the TD Bridge software.
4. Launch the program “EPSON TD Bridge Environment Settings”

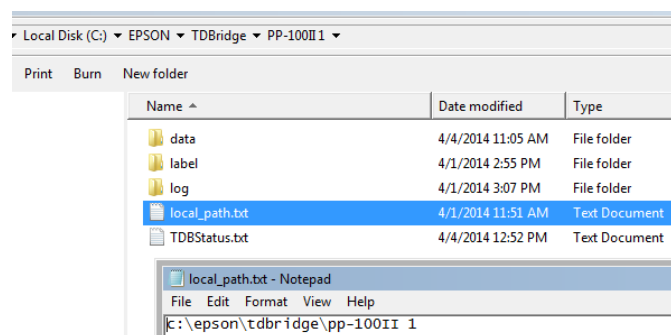
5. Setup the TD Bridge monitoring folder to use a network share, which users will have write access for submitting JDF files and data. Unfortunately, the monitoring folder must be on the host system's hard drive; therefore, will need to share the folder on the Epson Disc Publisher host.
6. **Make sure the subfolder name for that share location is the name of the EPSON Disc Publisher Instance.** For example, in my installation the hardware's name is "PP-100II 1" so:



7. Next, create a text file in the share called "**local_path.txt**", which contains the file path to the monitoring folder as seen by the TD Bridge.

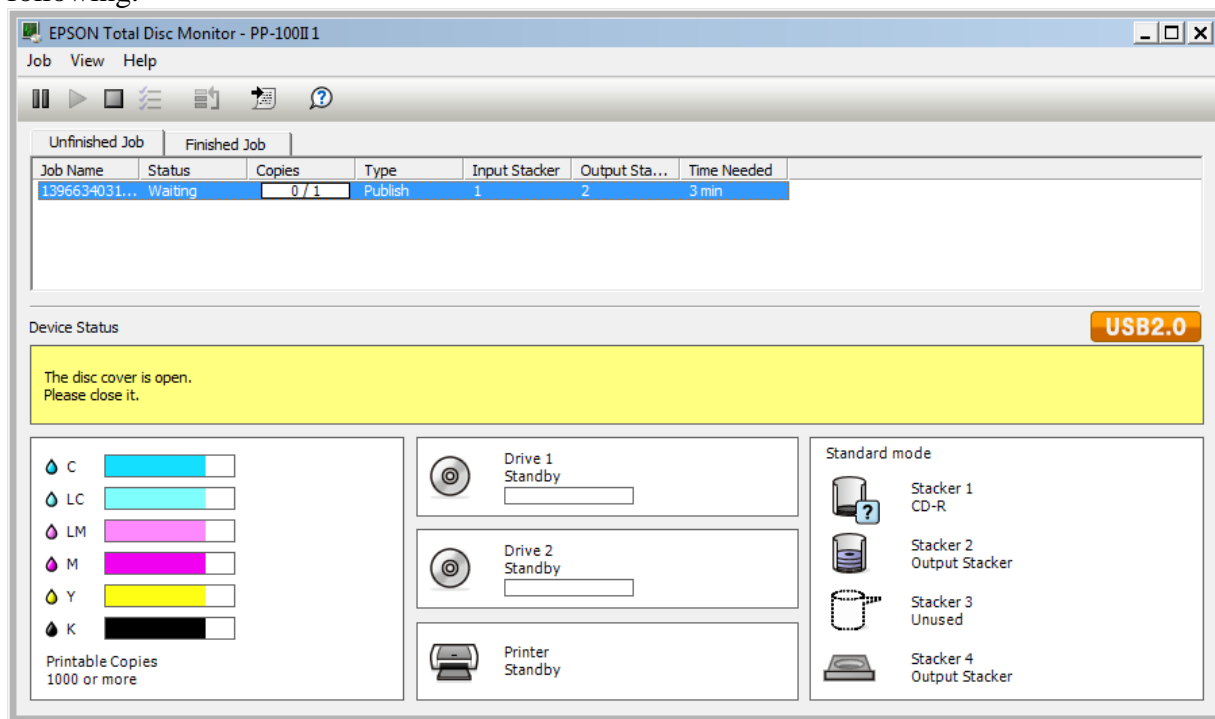
The reason for this is that users might access the share via `g:\Public\PP-100II 1\` but on the server it is actually `c:\EPSON\TDBridge\PP-100II 1\` and when the RIS creates the JDF file it needs the actual path as registered in the TD Bridge software

The following screen shot illustrates what you need to do for this step:



Finally, as an administrator of the TD Bridge host machine, you may want to consider a batch job that cleans up completed jobs and deletes their data.

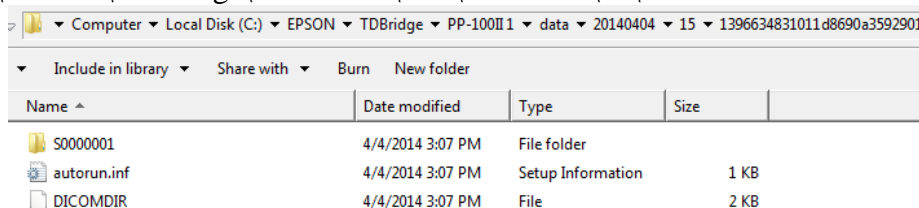
When a user creates a Disc Producer Job by submitting a CD Burn request via the RIS, a JDF (Epson Job Definition File) will be created at the monitoring location. As the TD Bridge processes that file its file extension will change JDF → RJD → IMP → STF → DON and if there is an error it will be renamed to ERR. In the case of an error you can re-submit the job by changing the extension back to “JDF” and lookup the error code in the TDBStatus.txt file. You can also monitor the JOB status in the Epson Total Disc Monitor application, which will tell you when you need to put more discs in the stacker or close the door to the device as shown in the following.



IMPORTANT: After the CDs are burned the data for the CD will remain on the TD Bridge share. Over time this will take up lots of drive space and it will be in your best interest to delete/clean out the old data on a daily bases. You just want to make sure the data you are deleting isn't for a job that is in the ".ERR" status.

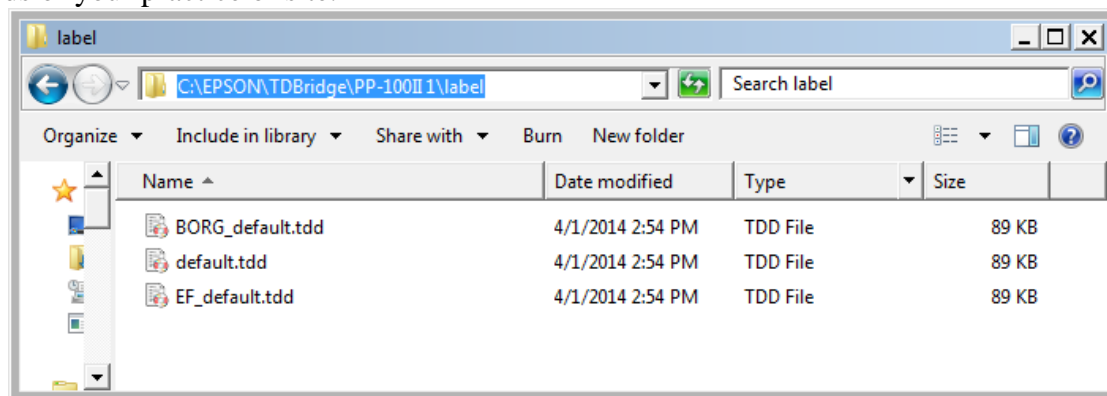
The data directory is organized by date then by hour, then by JDF file name. The following example shows the job 1396634831011d8690a3592901, which was submitted on April 4th at the 15h and if you look closely at the job id a3592901 represents the accession number of the first study on the CD. The audit log for that study can be used to track down more information about the job.

>> C:\EPSON\TDBridge\PP-100II 1\data\20140404\15\1396634831011d8690a3592901



Name	Date modified	Type	Size
S0000001	4/4/2014 3:07 PM	File folder	
autorun.inf	4/4/2014 3:07 PM	Setup Information	1 KB
DICOMDIR	4/4/2014 3:07 PM	File	2 KB

You can also create a label sub-directory and create default *.TDD files, which will get printed to your CDs. If the label directory and default tdd files don't exist, they will be created the first time RIS submits a job to the disc producer share. You can then edit the default.tdd file to meet the needs of your practice or site.



Name	Date modified	Type	Size
BORG_default.tdd	4/1/2014 2:54 PM	TDD File	89 KB
default.tdd	4/1/2014 2:54 PM	TDD File	89 KB
EF_default.tdd	4/1/2014 2:54 PM	TDD File	89 KB

The fields available for the labels are:

name, patient_id, site_code, site_description, deliver_to_first_name,
deliver_to_last_name, deliver_to_address_lines, deliver_to_city, deliver_to_country,
deliver_to_state, deliver_to_zip

For reference, the following is a sample JDF file:

```
#
# JOB_ID === <PacsMediaRequestID>a<RISAccessionNumber>
# you can use the accession number to look at the RIS audit log and see more information about the job
#
JOB_ID=1396634831011d8690a3592901
#
# PUBLISHER === the name of the folder where this job file was written
#
PUBLISHER=PP-100II 1
#
# Only writing CDs, if you need to write a DVD you will need to use an attached burner or
# change this to DVD and change the job extension back to JDF
#
DISC_TYPE=CD
COPIES=1
FORMAT=ISO9660L2
#
# Note: location of data/label is relative to the share/UNC path that was used by the RIS user.
#   If you would like to use another path specific to the local TD Bridge software,
#   create a file named local_path.txt in the DiscPublisher share.
#   It should contain the full path to the share location as accessible by the TD Bridge software
#
DATA=c:\epson\tdbridge\pp-100II 1\data\20140404\15\1396634831011d8690a3592901\
#
# Fields available for the labels are:
#   name,patient_id,site_code,site_description,
#   deliver_to_first_name,deliver_to_last_name,deliver_to_address_lines,
#   deliver_to_city,deliver_to_country,deliver_to_state,deliver_to_zip
#
LABEL=c:\epson\tdbridge\pp-100II 1\data\20140404\15\1396634831011d8690a3592901_label.tdd
```

County Option for Radiologist Signing Location

Option to select the County for the Radiologist is controlled by a new system configuration setting titled **“EnforceCountySelection”** with a default of False.

If set to False, the application will behave as before and the user will not be required to select a county before dictation. If the site is Chair enabled at the practice level they will still be required to select a Chair, but the County and Zip Code options will not be presented.

If the site is not Chair enabled but requires County based on the above system configuration setting, they will be presented with a window that will allow them to select a County. They can also enter a Zip Code to shorten the list or select the County automatically. The following window is presented on login. The value entered is remembered on a workstation bases.

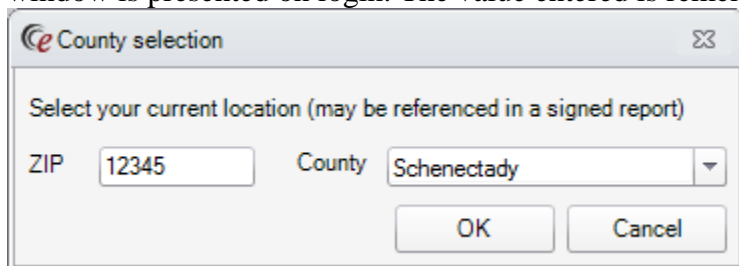
A screenshot of a dialog box titled "County selection" with a close button (X) in the top right corner. The dialog contains the text "Select your current location (may be referenced in a signed report)". Below this text are two input fields: "ZIP" with the value "12345" and "County" with a dropdown menu showing "Schenectady". At the bottom of the dialog are two buttons: "OK" and "Cancel".

Figure 5.16 – County selection window prompt

If **“EnforceCountySelection”** is true and the chair workflow is enabled for the practice, then the chair selection dialogs with the additional county fields will be displayed

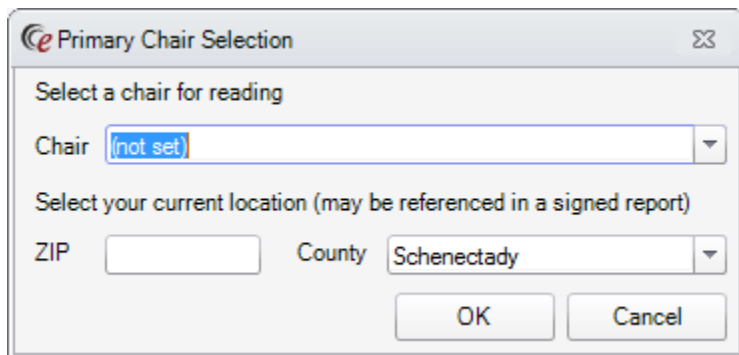
A screenshot of a dialog box titled "Primary Chair Selection" with a close button (X) in the top right corner. The dialog contains the text "Select a chair for reading". Below this text is a dropdown menu for "Chair" with the value "(not set)". Below the chair selection is the text "Select your current location (may be referenced in a signed report)". Below this text are two input fields: "ZIP" (empty) and "County" with a dropdown menu showing "Schenectady". At the bottom of the dialog are two buttons: "OK" and "Cancel".

Figure 5.17 – Chair selector with Zip and County fields

If the user preference “Use detailed chair selector” is on the user will be prompted with the detailed chair selector window

The screenshot shows the 'Primary Chair Selection' window. At the top, there are fields for 'Chair' (set to '(not set)'), 'Signing ZIP' (90254), and 'County' (Los Angeles). Below these is a 'Statistics as of' date field set to 07-16-2014. The main area contains a table with columns for Chair, Primary Occupant, Directly Assigned, Guests, and Exam Units. The Exam Units section is further divided into 'To Be Read', 'Read', 'Total', and 'To Be'.

Chair	Primary Occupant	Directly Assigned	Guests	Exam Units							
				To Be Read		Read		Total		To Be	
				Left Over	Today	Left Over	Today	Left Over	Today	Left Over	
Central		0		0	0	7	0	7	0	0.00	
East	Harding, Clifton L; Noye, Darcy	0		0	0	5	0	5	0	0.00	
West		0		0	0	0	1	0	1	0.00	

Figure 5.18 – Detailed chair selector

If the county selection is enforced, the county that is set at the time of signing is saved to the interpretation table's "signed_county" column.

If Chair is not enabled for the current user but county is enabled, a new status bar icon will be displayed allowing the user to open the County selector.

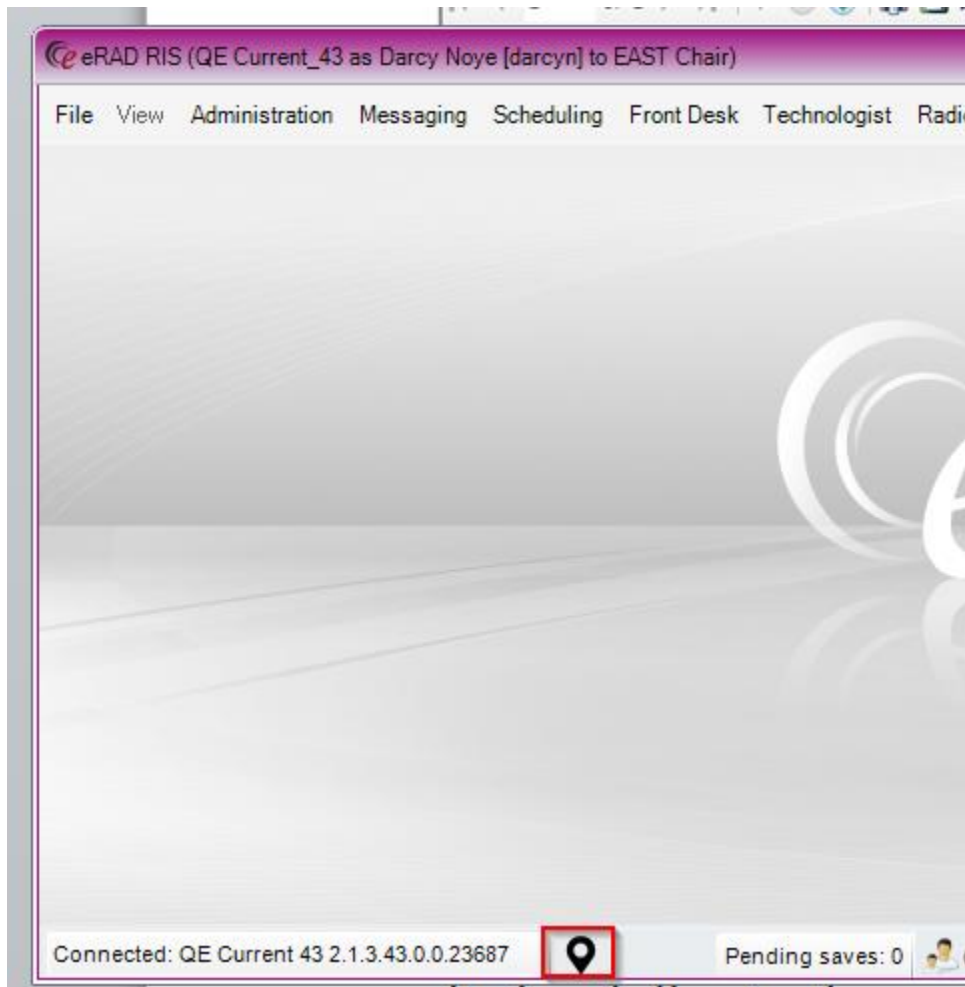


Figure 5.19 – County selector

IVT – Ability to Edit Patient Information

Previous to Build 43, users had to access the Patient Folder – View Edit to alter patient information on the Patient tab. Now the patient tab is editable from the IVT window.

The screenshot displays the IVT (Inpatient Visit Tracker) window for a patient named Peggy Mammo. The window has a tabbed interface with the following tabs: Patient, Insurance Verification PreCert, Order \ Exam, Attachments, and Contact Log. The 'Patient' tab is active, showing two main sections: 'General Information' and 'Contact Information'. Below these is a 'Patient Notes' section.

General Information:

- Prefix: [Dropdown]
- First name *: Peggy
- Last name *: Mammo
- Middle: [Text]
- Suffix: [Dropdown]
- MRN *: 23195PE
- Sex *: Female
- Birth date *: 10-02-1955
- Place of birth: [Text]

Contact Information:

- Address 1: 4 Green Tree Ave.
- Address 2: Suite 4
- City: Nantucket
- State: Massachusetts
- Preferred contact method: [Dropdown]
- Zip: 02584
- Country: US
- Email: darcy.noye@radnet.com
- Home phone: (902) 555-8471
- Work phone: () -
- Cell phone: () -
- ☐ No Alternate Phone

Patient Notes:

- 07-16-14 Test UserS -

Figure 5.20 – Patient tab fields editable from IVT window

ICD10 Support

To support ICD-10, the RIS code table that current contains ICD9 must be upgraded to support ICD-10 and other coding schemes as necessary. A new table called `l_indication` that is similar to the current `l_indication_code` has been created. The new table employs a composite key consisting of coding scheme, release date, and code. Rather than the code itself being the primary key, a numeric primary key exists instead. This approach requires that any place in code/XSLT etc. that refers to the indication code explicitly must be updated to perform a reverse lookup to find the code/coding scheme based on the numeric key.

ICD10 codes can be downloaded from

<http://www.cdc.gov/nchs/icd/icd10cm.htm#icd2014>

Choose the ICD-10-CM XML Format Option

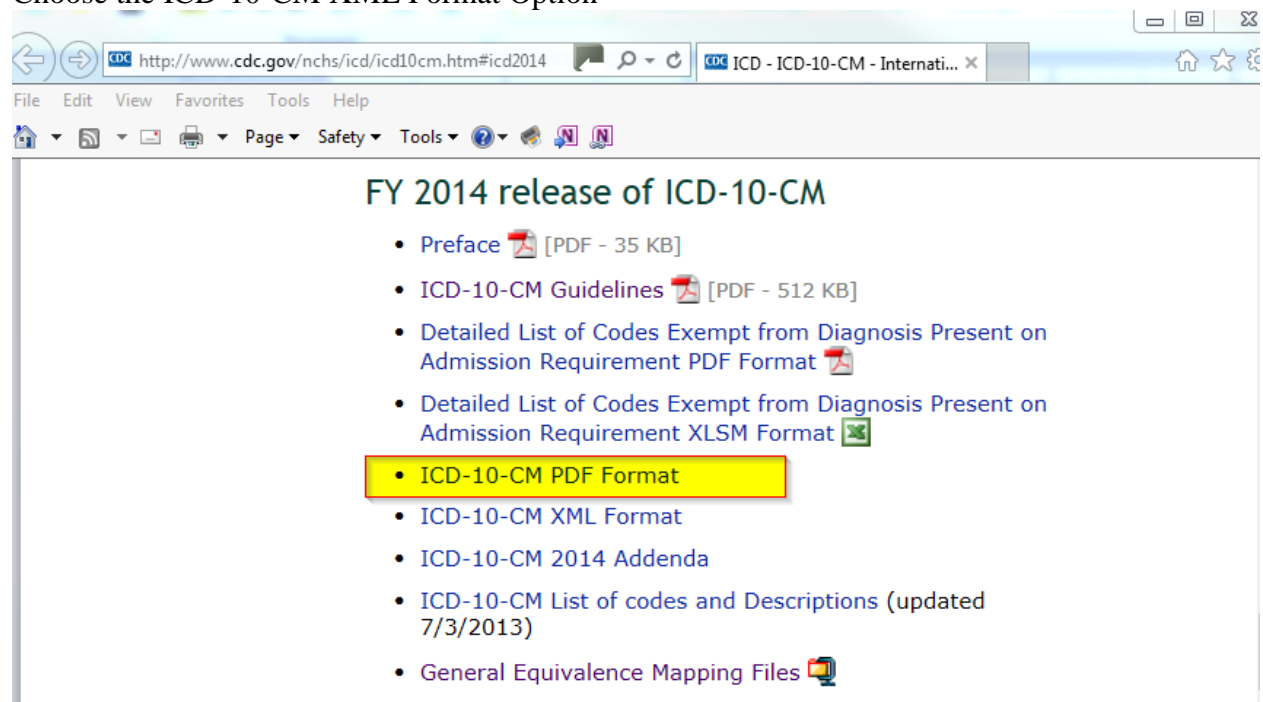


Figure 5.21 – ICD-10 download

This XML import file contained roughly 45,000 rows of ICD-10 Clinical Modification (CM) data. Procedure Coding System (PCS) that is also available seems to be for other purposes and not necessary for ICD-10 support. To manage importing of new versions of ICD-10, the indication code lookup has been enhanced with an “Import” button and associated screen for importing only rows in the import XML that do not already exist in the `l_indication` table. The placement of the “Import” button on the Indications lookup is shown below.

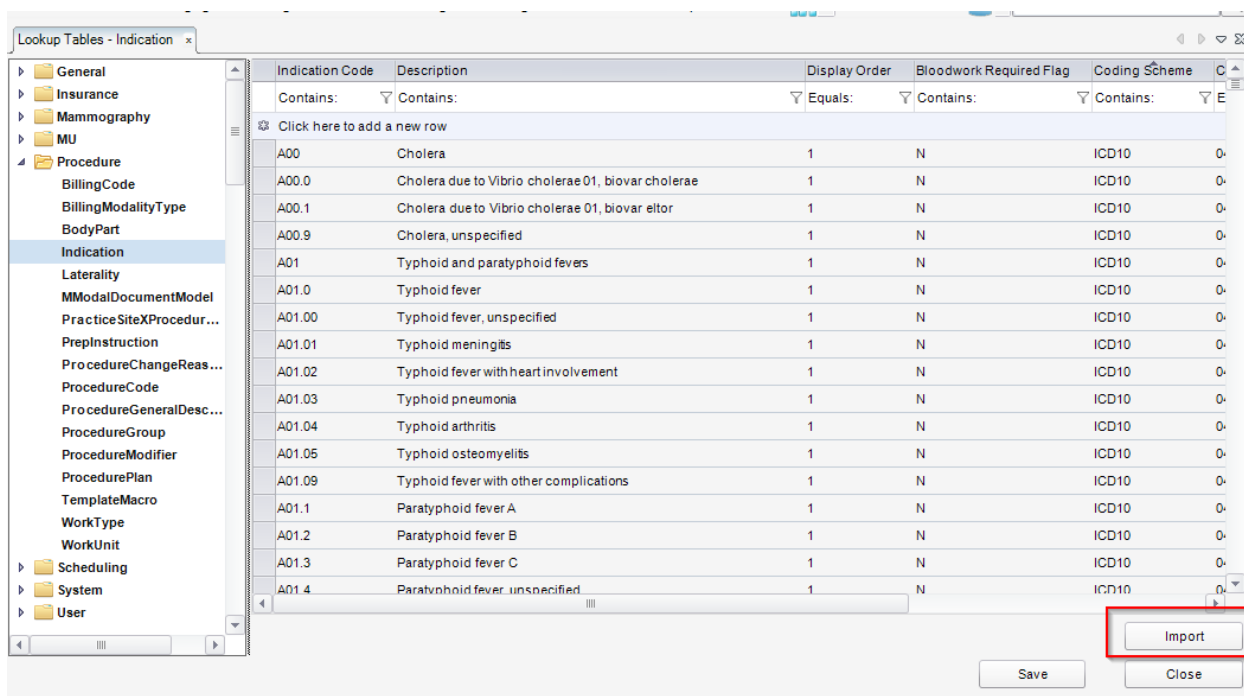



Figure 5.22 – Indication table with option to Import codes

To Import new codes select the “Import” button and this will present the Import ICD10 window.

Select the ellipsis button  next to the File field. Locate the directory where the XML file was saved. With this folder select the ICD10CM_FY_Full_XML_Tabular.xml file (NOTE: this file will change as new versions are released. It will be the responsibility of the site to continually update with newest codes).

The File path will not be populated. Select the Load XML button. At this point, the user can enter keywords as required. Only the codes that are missing from your current indication list will be imported. In my example I was only missing ICD10 code A22.9, so this is the only one available for download. The “include” column is checked by default. Once editing is complete and all rows that are needed are checked, the “Import” button can be selected. Before selecting the Import button you can also change the effective date.

After import of new rows, RIS must be closed and re-opened for the newly-imported rows to be available in the lookup editor.

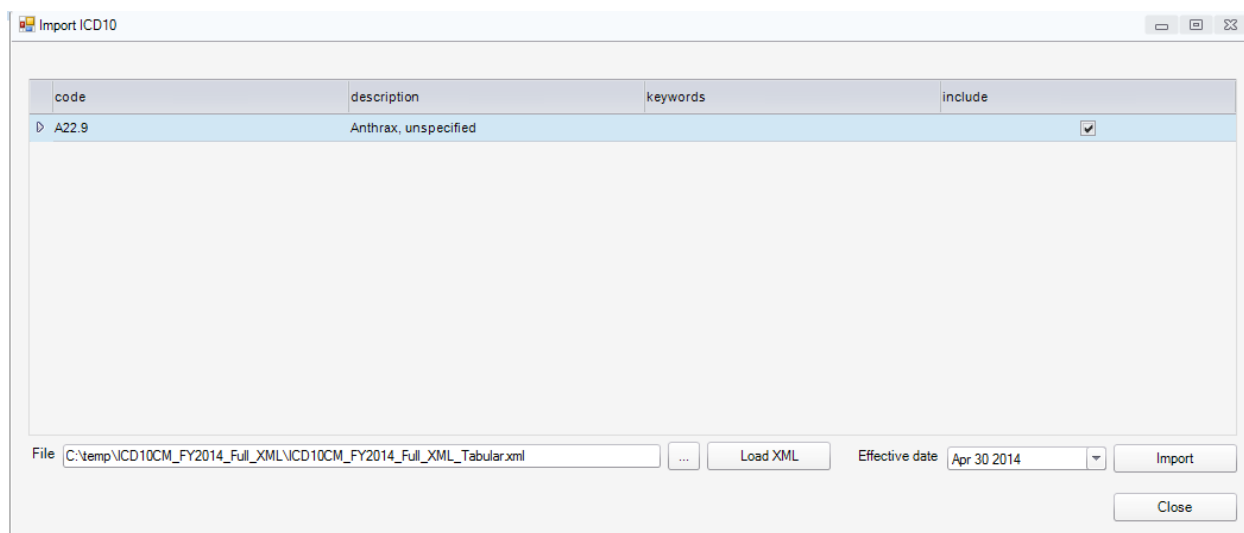


Figure 5.23 – Import ICD10 window

Searching for ICD Codes:

The ICD Codes dialog facilitates searching and filtering of ICD codes in the Indication table. The form contains a textbox for the reason for the exam (from the Order tab) and then the search/results section.

ICD search can be performed from many areas of the application. A general search of a code can be performed from the ‘Quick Search’ field in the upper right corner of eRAD RIS.

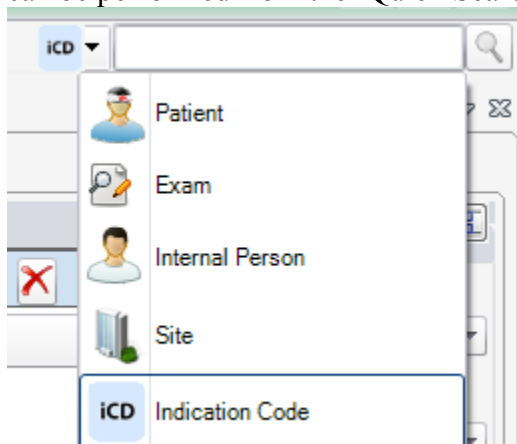


Figure 5.24 – ICD Quick Search

Enter the code or description in the field or leave it empty and select the search button to open the ICD Codes window. From this window you can select the Type of code being search for, this

can be a combination of ICD9 and ICD10. There is an option for SNOWMED codes, but by default there are no SNOWMED codes included. The box can be checked, but no data will be returned. By default, ICD9 will be checked until the date value in the System Config’s **“ICD10EffectiveDate”** whereby ICD10 will be checked by default when the window opens.

Entering a partial or full code number or description will return the results. The search results will display the Code, the Type of code and the Description.

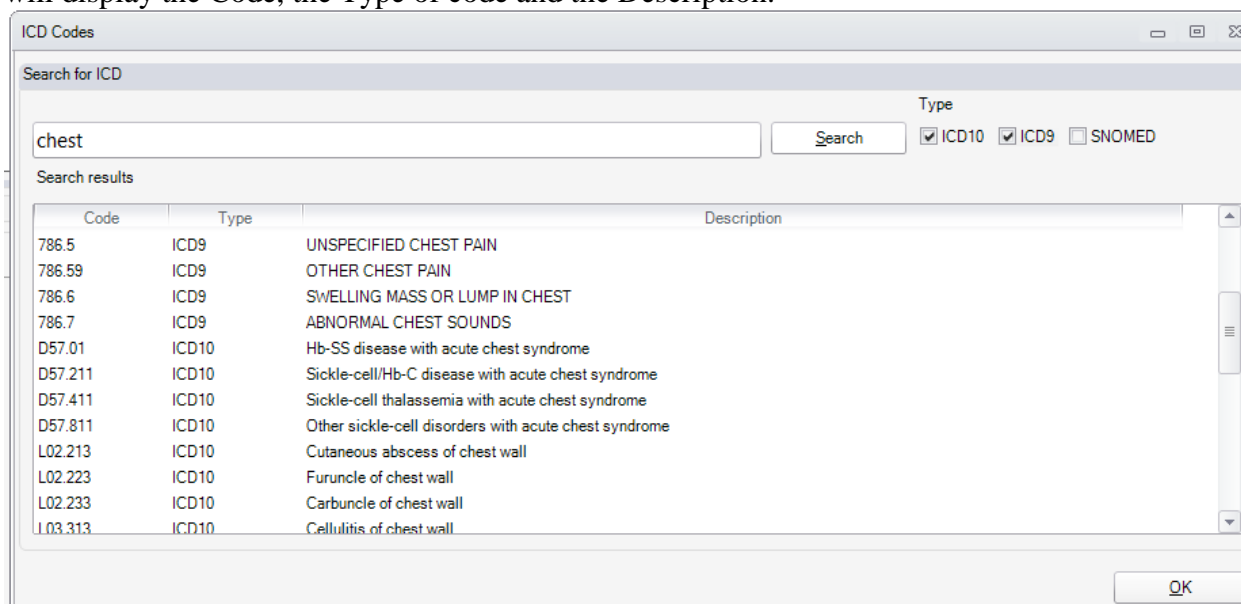


Figure 5.25 – ICD Codes search window.

From the Scheduling\Registration\Walk-In windows the user can add Indication codes. The window is accessed on the Schedule\Exam tab, with a new button labeled ICD on the procedure picker row. The button is enabled after the Study is entered. This button is controlled by new access string **“Clinical.Schedule.AssignIcdCode”** with a default of none.

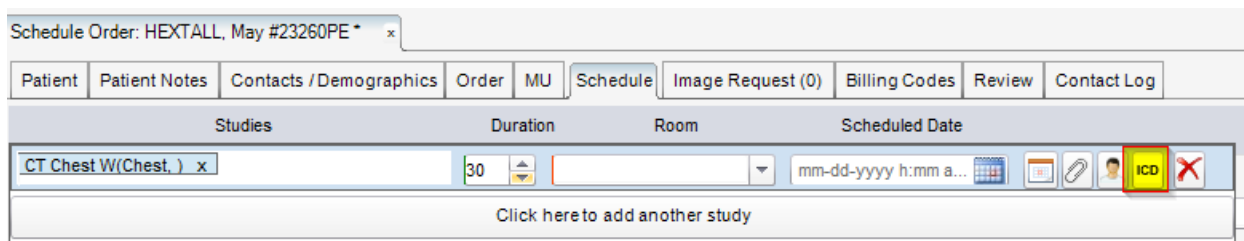


Figure 5.26 – Add Indication code in Scheduling

When the ICD Codes window opens, the Reason for exam will be pre-populated from Order tab. Perform search and from the Search results you can double click a row to insert in the selected codes section of the window. Multiple codes can be entered. When finished, select OK.

The screenshot shows the 'ICD Codes' window. At the top, the 'Reason for exam' field is populated with 'chest pain'. Below this is the 'Search for ICD' section, which includes a search input field containing 'chest pain', a 'Search' button, and checkboxes for 'ICD10' (checked), 'ICD9' (checked), and 'SNOMED' (unchecked). The 'Search results' section displays a table with three columns: 'Code', 'Type', and 'Description'. The results are as follows:

Code	Type	Description
786.5	ICD9	UNSPECIFIED CHEST PAIN
786.59	ICD9	OTHER CHEST PAIN
R07	ICD10	Pain in throat and chest
R07.1	ICD10	Chest pain on breathing
R07.8	ICD10	Other chest pain
R07.89	ICD10	Other chest pain
R07.9	ICD10	Chest pain, unspecified

The 'Selected codes' section at the bottom shows a table with the same columns, containing one entry: R07.9, ICD10, Chest pain, unspecified. An 'OK' button is located at the bottom right of the window.

Figure 5.27 – ICD Codes window accessed from Scheduling\Registration\Walk-in windows.

In the Technologist workflow, and in View/Edit, The Documentation tab contains two grids that display the ICDs captured up to exam done, and those captured by the radiologist. The buttons to the right of each grid are enabled based on whether the current context should allow editing. If the new access string titled **“Clinical.ViewEditCanChangeTechIndications”** Is set to full then the Indications button is enabled allowing changing of indications set up to Exam Done. It can be enforced that a code must be entered by the Tech is the system configuration setting of **“TechMustProvideIcdCode”** is set to True. The default is False. If the new access string titled **“Clinical.ViewEditCanChangeDiagIndications”** is set to full, then the Diagnostic Indications button is enabled, allowing changing of indications set by the radiologist.

The default for both of the above mentioned access strings is none.

The screenshot shows the eRAD RIS interface. The top menu bar includes File, Administration, Messaging, Scheduling, Front Desk, Technologist, Radiologist, Mamm, Editor, and Help. The toolbar includes buttons for Patient, MU, Order, Documentation, Billing Codes, Attachments, Notes / Exam Times, Image Request (0), and Questionnaire. The main window is divided into several sections. The top section displays patient information: Patient: WAITE, Barrett #1004548874, Scheduled Date: 05-05-2014 12:16 PM, Referring: Waite, Andrew R Jr, Sedation: CT1EL, Room: 5607646, Accession #: 5607646, Read STAT: CT, Exam STAT: CT, Modality Type: CT. The middle section contains tabs for Procedure, Associated Radiologists, Signs & Symptoms, and Indications. The Indications tab is selected, showing two grids: Indications and Diagnostic Indications. The Indications grid is on the left and the Diagnostic Indications grid is on the right. Both grids are currently empty. The bottom section contains buttons for View Images, Start, Suspend, Complete, Abort, and Save. The status bar at the bottom shows Connected: Debug, (all), (unassigned), Dictated: 0 - Signed: 0, and a red exclamation mark icon.

Figure 5.28 – Indication grids. Left for Technicians and right for Radiologist

IMPORTANT: Radiologist ICD Support Uncomplete

The Radiologist portion of this feature is not complete. It is recommended that the system configuration setting “RadMustProvideIcdCode” be left to the default of “False” and the access string of “Clinical.ViewEditCanChangeDiagIndications” be left to the default of None.

The Reporting window also has a new ICD button. The button is enabled with the system configuration setting of “RadMustProvideIcdCode” that has a default of False. This button will open the same ICD Codes search window. The data for the indications defined here are saved to c_interpretation_indication.

For the Radiologist to view the Tech workflow defined ICDs, viewing the Exam Details from the View menu will display indications defined in that workflow.

On the MU tabs Medical History pane the problem codes added are ICD codes and the same search window is provided allowing the user of both ICD9 and ICD10 codes. The user can select the search icon in the problem field of the Medical History grid to open the ICD Codes window, or can enter partial or full value in the problem field and search.

Reception V/L (5) Patient: HIGHTOWER, Chester #23299PE (3) View/Edit: HIGHTOWER, Chester #23299PE * x Lookup Tables - AccessString

Patient Contacts / Demographics MU Order Documentation Billing Codes Attachments Notes / Exam Times Contact Log

Demographics at Encounter Height ft in Smoking status Continuity of Care Record (CCR) Clinical Document (C-CDA)

Weight lbs

Medications

None Use grid

Date	Medication

Add Edit

Medical History

None Use grid

Problem	Status
chest pain	
Click here to add a new row	

ICD Codes

Reason for exam

test

Search for ICD

chest pain Search

Type

☒ ICD10 ☒ ICD9 ☐ SNOMED

Search results

Code	Type	Description
786.5	ICD9	UNSPECIFIED CHEST PAIN
786.59	ICD9	OTHER CHEST PAIN
R07	ICD10	Pain in throat and chest
R07.1	ICD10	Chest pain on breathing
R07.8	ICD10	Other chest pain
R07.89	ICD10	Other chest pain
R07.9	ICD10	Chest pain, unspecified

Selected codes

Code	Type	Description

OK Cancel

Figure 5.29 – MU ICD Code search

Secure Messaging

Secure Messaging has been added in Build 43. This allows RIS users to send secure encrypted messages to other users in the RIS and also to patient that can access the message via the Patient Portal.

To start a new Lookup table titled MessageGroup was created and located under the General list of lookup tables. Columns of the table include the Message Group Code, Description, Display Order, Last Updated and Active column.

Message Group Code	Description	Display Order	Last Updated	Active
Contains:	Contains:	Equals:	Contains:	Contains:
Click here to add a new row				
PTA	Portal Technical Assistance	3	12-13-2013 4:...	Y
Test	This is a test of message codes	1	12-13-2013 4:...	Y

Figure 5.30 – Message Group lookup

Values entered in this table will appear in a new field in the Personnel editors Account tab. This field is similar to the other fields on this tab. It is a type ahead field that can contain multiple values.

Having the messaging groups would allow a patient to send a message to a group if they don't know an individual to send it to. The RIS users who have access to this group would then get the messages.

Lookup Tables - Personnel * x

Username
darcyn

General Resource Account Notes Attachments Preferences

Account Information

☒ Active account ☐ Prompt for credentials

User ID * darcyn ☐ Domain authentication

Password * ***** ☒ Emergency Access

Schedule groups Darcy Test x JTT x PEI TEST x

Message groups Portal Technical Assistance x This is a test of message codes x ...

User groups Radiologist x Administrator x ...

Practices Janet Test x Stick Practice x Test Practice x

Figure 5.31 – Assigning message groups to users

From within the RIS messages are sent/received from under a new Menu option titled Messaging. The Messaging work list access is controlled by access string **“Config.MessageInbox”**. This access string also controls access to the Menu option of Secure Message Inbox that is under this Messaging menu. Default is none.

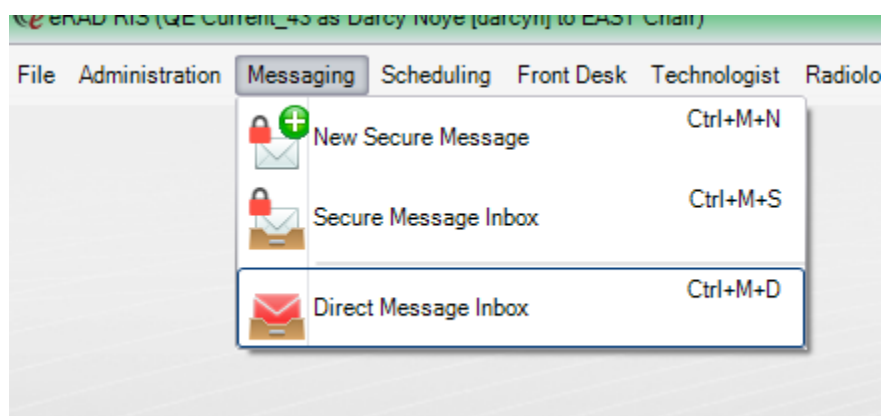


Figure 5.31a – Message menu and menu options

To create a new message select the menu option of New Secure Message that is controlled by the new access string of “**Config.CreateMessage**” that has a default of none. In this window the user can select to send to one of the messaging groups created, or they can send to a patient or another RIS user. The other RIS user would also need access to the Secure Messaging in order to receive the message in their inbox.

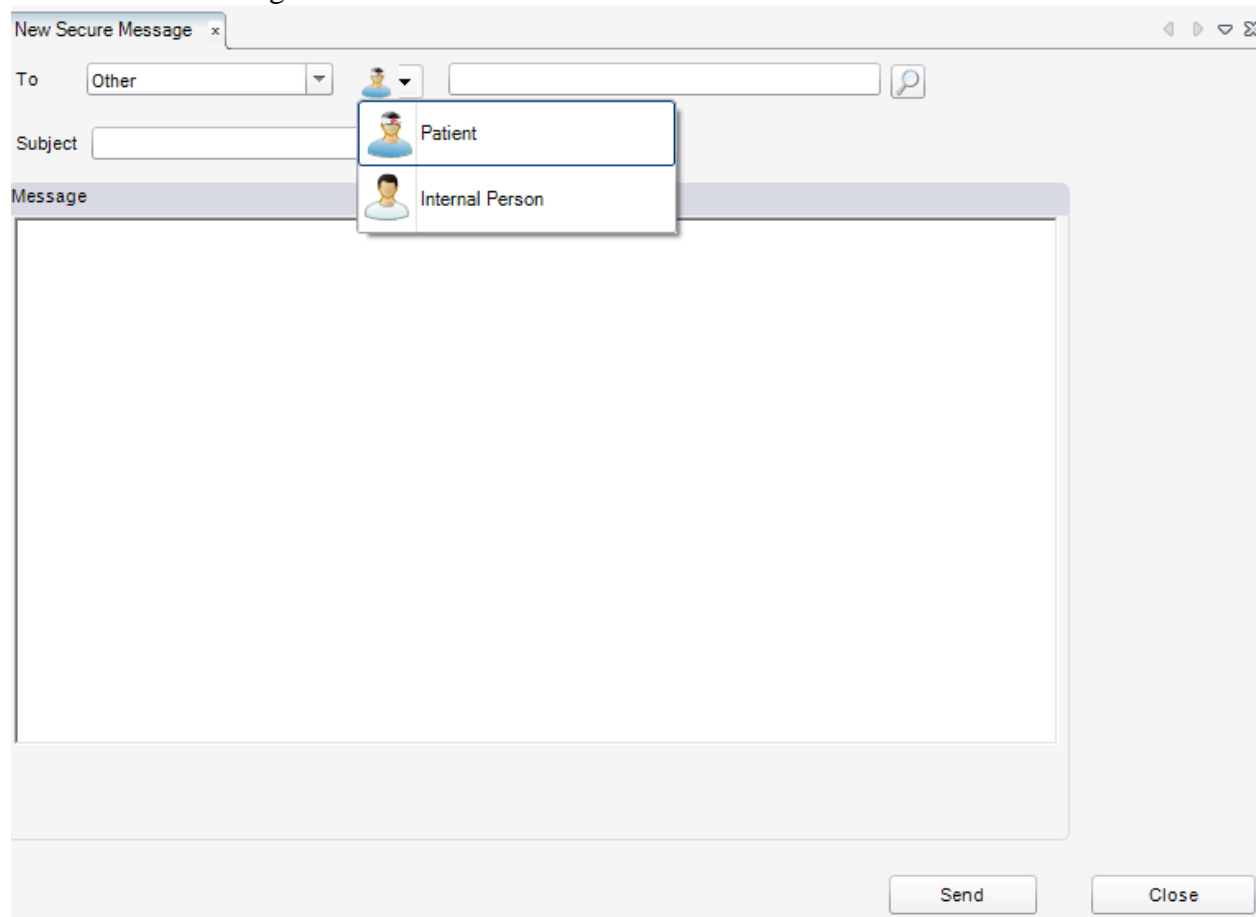
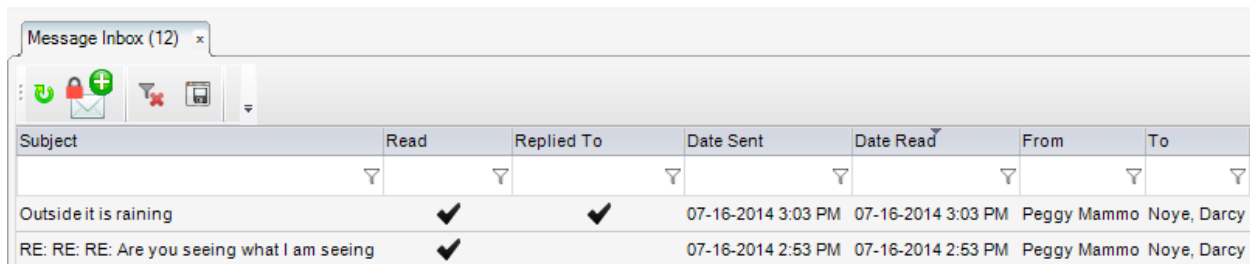


Figure 5.32 – New Secure Message

The RIS user can search for a patient or internal person, enter a message and send.

Messages sent to the user can be viewed / reviewed in the Message Inbox. This is accessed from the menu option Secure Message Inbox. Columns of Subject of the message, if the message has been Read, if the message has been replied, Date Sent, Date Read and From and To columns.



The screenshot shows a web-based interface for a secure message inbox. At the top, there is a tab labeled "Message Inbox (12)". Below the tab is a toolbar with icons for refreshing, locking, adding, deleting, and printing. The main area is a table with columns for Subject, Read, Replied To, Date Sent, Date Read, From, and To. Two messages are listed: "Outside it is raining" and "RE: RE: RE: Are you seeing what I am seeing". Both messages are marked as read and replied to, and were sent on 07-16-2014.

Subject	Read	Replied To	Date Sent	Date Read	From	To
Outside it is raining	✓	✓	07-16-2014 3:03 PM	07-16-2014 3:03 PM	Peggy Mammo	Noye, Darcy
RE: RE: RE: Are you seeing what I am seeing	✓		07-16-2014 2:53 PM	07-16-2014 2:53 PM	Peggy Mammo	Noye, Darcy

Figure 5.33 – Secure message inbox

The Direct Message aspect of this menu will be covered later in this document with the Meaningful Use updates.

Patient Portal Legal Documents

Legal documents were required for the Patient Portal. A new lookup table was created titled LegalDocument that resides under the System folder of the Administration>Configure menu.

Document types that can be created include:

Terms and Conditions

Privacy Statement

Notice of Privacy Practices

Patient Portal Terms and Conditions

Patient Privacy Notes

Patient Service Agreement

Patient Consent Agreement

The user can define the Document Title and the Description of the Document to be displayed in the Patient Portal.

Document Title	Description	Document Type	Default Flag	Version	Last Updated	Active
Contains:	Contains:	Contains:	Contains:	Contains:	Equals:	Contains:
Click here to add a new row						
MyTermsAndConditions	Patient Terms and conditions go here hello world v2 and then some Why aren't we seeing this? L...	Patient Portal Terms and Conditions	Y	1	07-15-2014 3...	Y
TermsAndConditions	Terms and Conditions23 These are the Terms and Conditions that you must agree too a couple of ch...	Terms and Conditions	Y	4	07-15-2014 3...	Y
PatientPrivacyADV	We respect your privacy at ADVI If you are reading this you are reading the Patient Privacy Statement...	Patient Privacy Notes	N	1	07-15-2014 1...	Y
PatientPrivacyElseWhere	We respect your privacy at this unnamed practice Patient privacy elsewhere... as in St. Elsewhere 	Patient Privacy Notes	Y	1	07-15-2014 1...	Y
PatientTermsAndConditionsARS	Here are the Patient Terms and conditions for ARS. Hello !!!world is there anyone in her openT...	Patient Portal Terms and Conditions	N	1	07-15-2014 1...	N

Figure 5.34 – LegalDocument look up

Each type is allowed to have one default of that type, which would be used in the case when a practice cannot be determined or the practice does not have the desired legal document.

The Add/Edit Practice window accessed from the Organization lookup can have Legal Documents defined for a specific practice. Select the Portal tab and use the type ahead feature to add the legal documents.

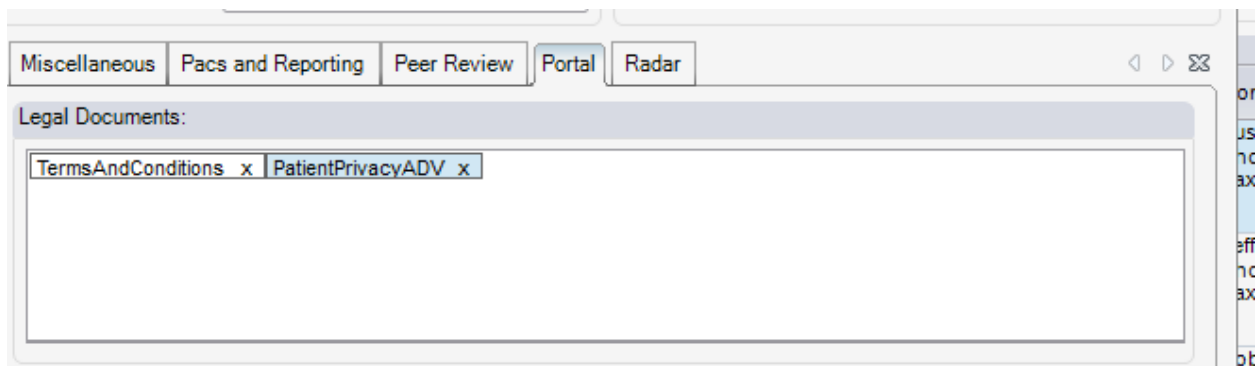
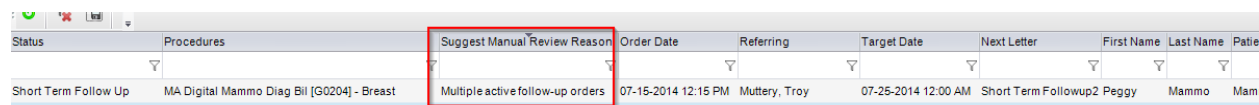


Figure 5.35 – Legal document specified for a practice

When logging into the Portal the system will check to see if the document has changed based on the last updated date, and display to the user before they will be able to access the site, if they have already approved that version then the site will load as normal.

Mammography – Suggest Manual Review

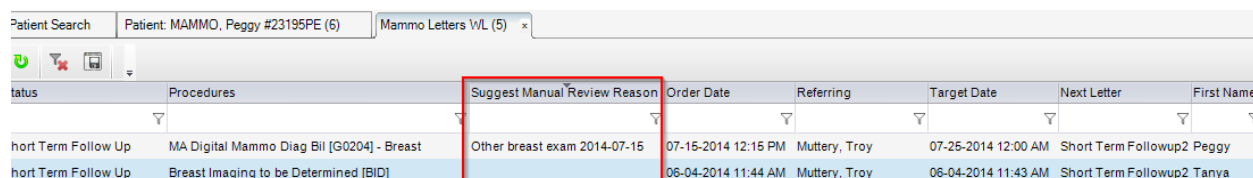
Manual review has been addressed by adding a new column to the Mammo Letters WL. The column titled “Suggest Manual Review Reason” will display reasons for a manual review. If the patient has multiple follow up orders that have not been scheduled the column will inform the user.



Status	Procedures	Suggest Manual Review Reason	Order Date	Referring	Target Date	Next Letter	First Name	Last Name	Patie
Short Term Follow Up	MA Digital Mammo Diag Bil [G0204] - Breast	Multiple active follow-up orders	07-15-2014 12:15 PM	Muttery, Troy	07-25-2014 12:00 AM	Short Term Followup2 Peggy	Mammo	Mam	

Figure 5.36 – Mammo Letters work list displaying new column for patient with multiple follow up orders.

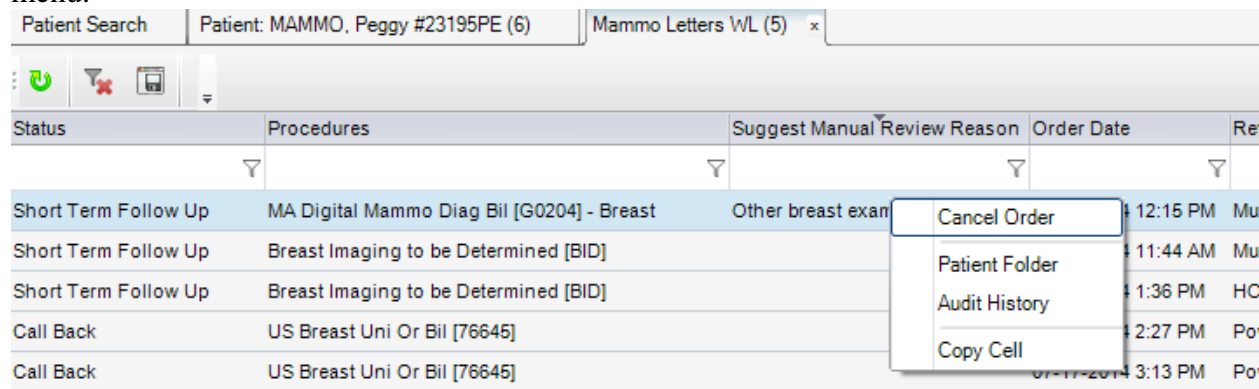
If the patient has a follow up letter on the Mammo Letters WL and the patient has another mammo exam scheduled within 30 days of the target date of the follow up, this column will also inform the user with a reason of another breast exam.



Status	Procedures	Suggest Manual Review Reason	Order Date	Referring	Target Date	Next Letter	First Name	Last Name	Patie
Short Term Follow Up	MA Digital Mammo Diag Bil [G0204] - Breast	Other breast exam 2014-07-15	07-15-2014 12:15 PM	Muttery, Troy	07-25-2014 12:00 AM	Short Term Followup2 Peggy	Mammo	Mam	
Short Term Follow Up	Breast Imaging to be Determined [BID]	Breast Imaging to be Determined [BID]	06-04-2014 11:44 AM	Muttery, Troy	06-04-2014 11:43 AM	Short Term Followup2 Tanya	Mammo	Mam	

Figure 5.37 – Mammo Letters work list displaying new column for patient with a breast exam scheduled.

Also from this work list the user can access the Patient Folder and Cancel Order from the context menu.



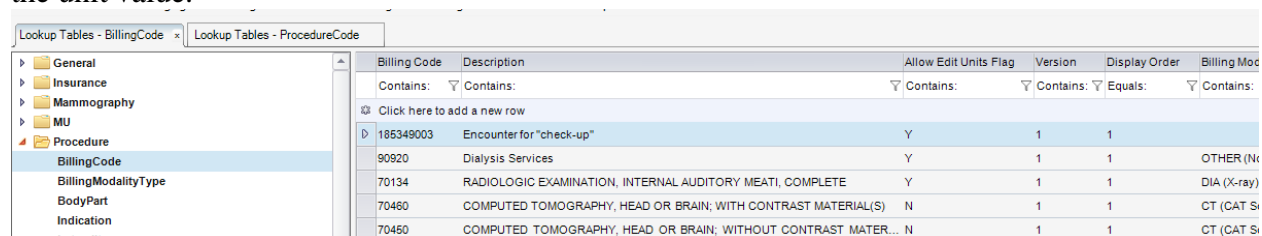
Status	Procedures	Suggest Manual Review Reason	Order Date	Referring	Target Date	Next Letter	First Name	Last Name	Patie
Short Term Follow Up	MA Digital Mammo Diag Bil [G0204] - Breast	Other breast exam	07-15-2014 12:15 PM	Muttery, Troy	07-25-2014 12:00 AM	Short Term Followup2 Peggy	Mammo	Mam	
Short Term Follow Up	Breast Imaging to be Determined [BID]		06-04-2014 11:44 AM	Muttery, Troy	06-04-2014 11:43 AM	Short Term Followup2 Tanya	Mammo	Mam	
Short Term Follow Up	Breast Imaging to be Determined [BID]								
Call Back	US Breast Uni Or Bil [76645]								
Call Back	US Breast Uni Or Bil [76645]								

Figure 5.38 – Context menu options from Mammo Letters WL

Option to Not Allow Editing of Billing Codes by Technicians

Currently in the RIS we have an option on the procedure code that will allow\disallow the editing of the amount of units for a billing code. This works great for billing codes that are associated to the procedure, but doesn't prevent the tech user from adding a different code and change the units.

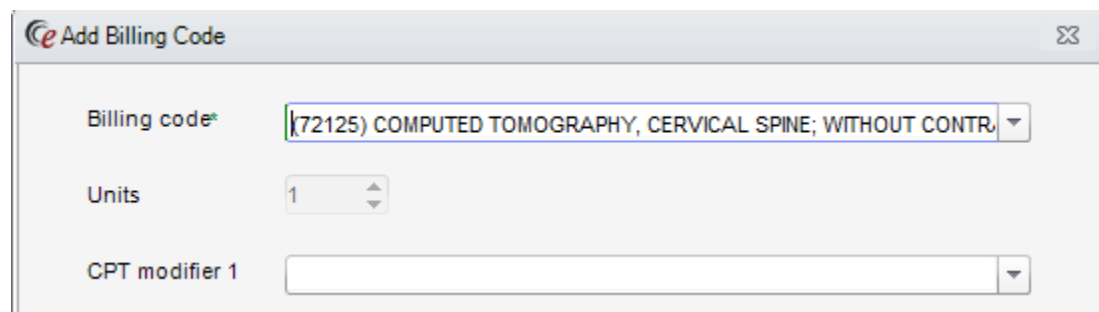
For this we have added a new column on the Billing Code table titled Allow Edit Units Flag. If the value of this column is set to Y the user will be able to edit the value on the Billing Code tab of the Perform Exam window. Alternately, if it is N, the user will be prevented from changing the unit value.



The screenshot shows a software interface with a left-hand navigation pane and a main table area. The navigation pane has a tree structure with categories: General, Insurance, Mammography, MU, Procedure, BillingCode (selected), BillingModalityType, BodyPart, and Indication. The main table area has two tabs: 'Lookup Tables - BillingCode' (active) and 'Lookup Tables - ProcedureCode'. The table displays billing codes with columns: Billing Code, Description, Allow Edit Units Flag, Version, Display Order, and Billing Mod. The 'Allow Edit Units Flag' column contains 'Y' for codes 186349003, 90920, and 70134, and 'N' for codes 70460 and 70460. A link 'Click here to add a new row' is visible above the table data.

Billing Code	Description	Allow Edit Units Flag	Version	Display Order	Billing Mod
186349003	Encounter for "check-up"	Y	1	1	
90920	Dialysis Services	Y	1	1	OTHER (N
70134	RADIOLOGIC EXAMINATION, INTERNAL AUDITORY MEATL, COMPLETE	Y	1	1	DIA (X-ray)
70460	COMPUTED TOMOGRAPHY, HEAD OR BRAIN; WITH CONTRAST MATERIAL(S)	N	1	1	CT (CAT Si
70460	COMPUTED TOMOGRAPHY, HEAD OR BRAIN; WITHOUT CONTRAST MATER...	N	1	1	CT (CAT Si

Figure 5.39 – Billing code lookup showing new column Allow Edit Units Flag



The screenshot shows a dialog box titled 'Add Billing Code'. It contains three fields: 'Billing code*' with a dropdown menu showing '(72125) COMPUTED TOMOGRAPHY, CERVICAL SPINE; WITHOUT CONTR...', 'Units' with a numeric input field set to '1', and 'CPT modifier 1' with an empty dropdown menu.

Figure 5.40 – Unit that cannot be edited

Patient “Not Yet Menstruating” Flag

In the Perform Exam window there was a flag of No longer menstruating that would disable the LMP and Pregnant fields. For cases of patients that have not starting menstruating but were over the age in which we active the LMP and Pregnant fields, there was no mechanism to disable.

We have added another flag of “Not yet menstruating”.

The screenshot displays the 'Tech Notes' section of the eRAD RIS interface. The 'Documentation' tab is selected. The 'Tech Notes' panel includes a text area for 'Technologists notes' and a 'Copy / Paste' button. Below this, there are checkboxes for 'Offered Clinical Summary to patient' and 'Provided Educational Resources'. The 'Last menstrual period' field is set to 'mm-dd-yyyy' with a calendar icon. To its right, there are radio buttons for 'Pregnant' and 'Not pregnant'. Below these, there are checkboxes for 'No longer menstruating', 'Not yet menstruating' (highlighted with a red box), 'Shielded patient', 'Pregnancy test', and 'Blood test'. The 'Procedure' section shows 'Scanner *' as 'CT1EL', 'Performed procedure *' as 'CT Chest W & Abdomen W/Wo (CT42)', and 'Body part *' as 'Chest'. The 'Associated Radiologists' section shows 'Assigned radiologist' as 'Preferred: Strife, Barney a' and 'Performing radiologist' as an empty field.

Figure 5.41 – Not yet menstruating flag

Exam Search Filter of BI-RADS

The exam search window now has the BI-RADS option filter that can be added for search criteria

The screenshot shows the 'Exam Search' window with a search criteria form. The 'Birads' dropdown menu is open, displaying the following options: BI-RADS 0, BI-RADS 1, BI-RADS 2, BI-RADS 3, BI-RADS 4, and BI-RADS 4a. Below the search criteria, a table header is visible with columns: Flags, Status, Pro, MRN, Birth Date, Accession #, Referring, Room, Site, and Modality Type.

Flags	Status	Pro	MRN	Birth Date	Accession #	Referring	Room	Site	Modality Type
-------	--------	-----	-----	------------	-------------	-----------	------	------	---------------

Figure 5.42 – Exam search capability of searching on BI-RAD levels

Patient Search – New Patient Split Button Added

The New Patient button has been updated with a new split button. Options within the split button are New patient / New appointment, New appointment and New patient.

The screenshot shows the 'Patient Search' window. It has a 'Search Criteria' section with fields for First Name, Last Name, Birth Date (mm-dd-yyyy), Phone #, and MRN. There is a 'Search' button and a 'Reset' button. A split button labeled 'New Pt + Apt' is visible, with a dropdown menu showing three options: 'New patient / New appointment', 'New appointment', and 'New patient'. Below the search criteria is a table with columns: First Name, Last Name, Middle Name, Birth Date, MRN, Issuer, Gender, Add, and Sta.

Figure 5.43 – Patient search

If the user wishes to create a new appointment and performs a search and no results are found the New patient / New appointment option can be selected. This will open the Schedule Order window with for a new patient. If they wish to just create a new patient in the system the New patient option can be used

If the user performs a search and the results list does have a match or multiple results returned, they can select a patient from the list and select the New appointment option. This will open the Schedule Order window with the patient details pre-populated.

In the case of orders from external systems that have to matched with an eRAD RIS MRN, the patient search window will open with only the option of New patient.

The screenshot shows the 'Patient Search' window for an external order. It has a 'General Information' section with fields for Prefix, MRN (with a red exclamation mark and the value 25), and an 'Alternate MRN' button. Below this is the 'Search Criteria' section with fields for First Name (Test), Last Name (Patient0), Birth Date (10-14-1976), Phone #, and MRN. There is a 'Search' button and a 'Reset' button. A split button labeled 'New Patient' is visible, with a dropdown menu showing three options: 'New patient / New appointment', 'New appointment', and 'New patient'.

Figure 5.44 – Patient search for external order

Responsible Party MRN

Two new fields have been added to the Responsible Party's information on the Contacts / Demographics tab. The fields are not required to be completed. The fields are Relation's ID and ID Issuer.

The screenshot shows the 'Responsible Party' form within the 'Contacts / Demographics' tab. The form includes the following fields:

Responsible Party	
Relation	Spouse
First name	Mary
Last name	Hextall
<input type="checkbox"/> Same as patient	
Address 1	1
State	MA
Address 2	
Zip	02584
City	Nantucket
Phone	() -
Relation's ID	12358
ID Issuer	QE Test

The 'Relation's ID' and 'ID Issuer' fields are highlighted with a red box. Below the form is a section for 'Approved Medical Record Access'.

Figure 5.45 – Responsible Party fields added

Scheduling – Patients Height and Weight Required at Time of Scheduling

In previous versions we had the ability to turn on/off if the patient's height and weight were required at the time of "arriving" the patient. We have added to the ability to turn on/off is the patient's height and / or weight is required at the time of scheduling.

Two new system configuration settings have been created. For patient's height required at scheduling the setting is **"HeightRequiredOnSchedule"**

For the patient's weight required at the time of scheduling the new setting is **"WeightRequiredOnSchedule"**

Both have a default value of none.

System Config Code	Value	Default	Description
Contains: onsche	Contains:	Contains:	Contains:
HeightRequiredOnSchedule	False	False	(value = True/False) height is required when scheduling the patient
WeightRequiredOnSchedule	False	False	(value = True/False) weight is required when scheduling the patient

Figure 5.46 – new system configuration settings for height/weight required at scheduling.

Patients Weight and Room Added to Weight Limit Message

The message box that is presented to the user informing them that the current selected scanner has a weight limit that the patient exceeds has had the weight of the patient and the room name added to the message.

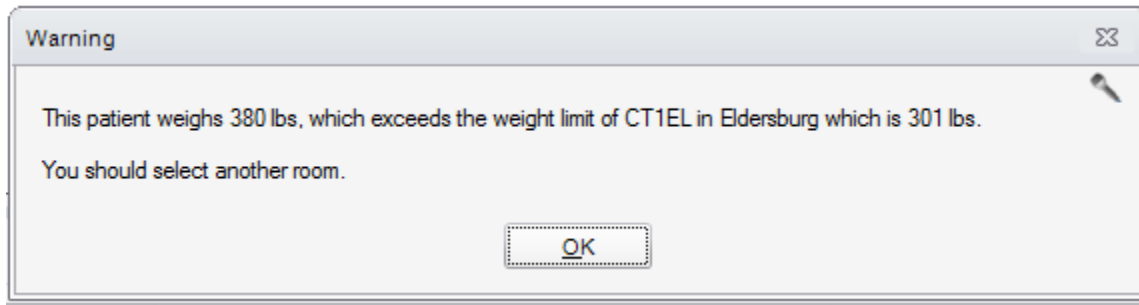


Figure 5.47 – Message includes patients weight and room

Ability to Add Longer Room Names

Currently in the scheduling window the names of the rooms come from the Modality Code of the Modality table. A new column was added to the Modality lookup titled Short Description that has a character length of 50. If this field has a value it will be displayed.

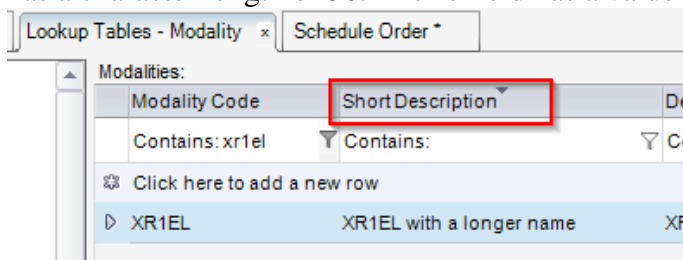


Figure 5.48 – Short description column added to the modality lookup

Admins can enter in a longer description name of the room and have it display in the scheduling windows details section.

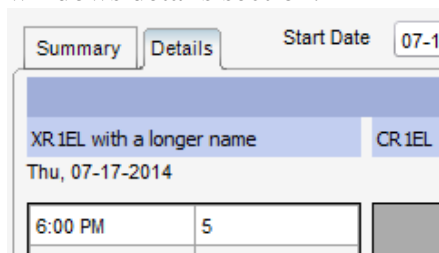


Figure 5.49 – Details showing short description

Also displayed in the Calendar of the Scheduling window

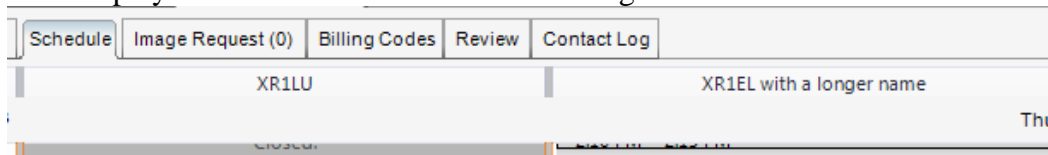


Figure 5.50 – Calendar control of the new appointment window

Lastly in the procedure picker rows Room list box

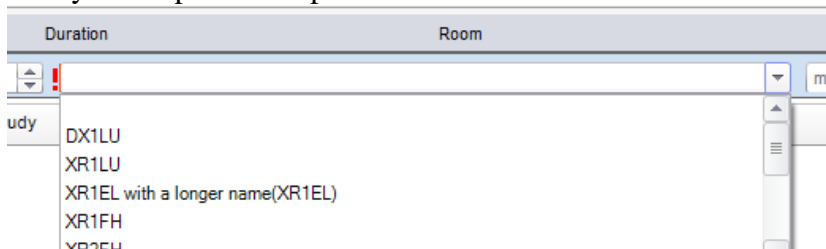


Figure 5.51 – Room list box on the procedure picker row

Ability to Use a Closed Room from Registration Window

Registration screen will now allow the use of a closed room/holiday, but on checking-in and arriving they will be prompted to ensure they would like to still use the selected modality.

For checking in a patient, the user will be presented with the following message

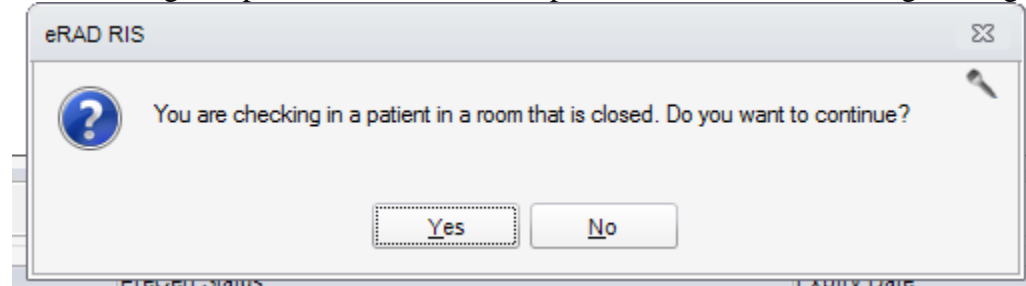


Figure 5.52 – Message on closed room for checking in a patient

When arriving the patient in a closed the room the message is:

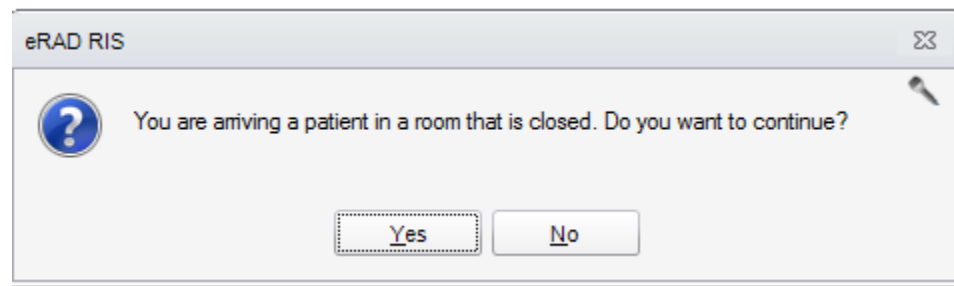


Figure 5.53 – Arriving a patient in a closed room

The message will be presented when completing a walk in to a closed room as well.

Scheduling – Repeating Modality Closures

The modality lookup table has an additional option added to the modality closures grid. The Repeat column has a list of values that include days of the week, weekday, weekend, all week and full range.

tion WL (13) | Lookup Tables - Modality x | Appointment Book | Walk-in: ATRICK, Gerry #9969 * | Sched

Modalities:

Modality Code	Short Description	Description	AE
Contains: xr1el	Contains:	Contains:	Co
Click here to add a new row			
XR1EL	XR1EL with a longer name	XR1EL	XR

Duration Override | Logo Override

XR1EL modality closure:

Description	Start Date	Start Time	End Date	End Time	Repeat	XR1EL Descr
Click here to add a new row						
Closed for maintenance	07-12-2014	10:00 AM	08-08-2014	3:00 PM	Weekend	Going
CLOSED	04-27-2013	8:00 AM	04-27-2013	3:00 PM	Tuesday	in
another time maybe	04-27-2013	12:00 PM	04-27-2013	11:59 PM	Wednesday	in
ROOM CLOSED	03-07-2013	12:00 PM	03-07-2013	11:59 PM	Thursday	th
tedst	12-21-2012	3:00 PM	12-21-2012	11:59 PM	Friday	
DARCY TEST	10-16-2012	12:00 PM	10-16-2012	8:00 PM	Saturday	
					WeekDay	
					Weekend	
					All Week	
					Full Range	

Figure 5.54 – Repeating room closures

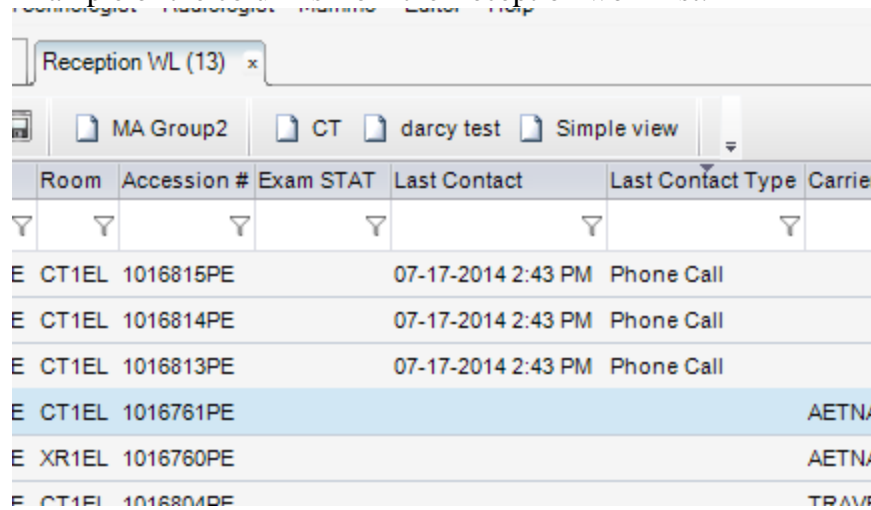
An example of this would be closure on the weekend between 7am – 5pm, selecting the Weekend option would apply the closure to Saturdays and Sundays in your specified date range.

Last Contact and Last Contacted Type Added to Work Lists

The columns of Last Contact and Last Contacted Type have been added to the following work lists.

- Confirmation
- Reception
- Technologist
- No Show
- Closed Room

Example of the columns from the Reception work list:



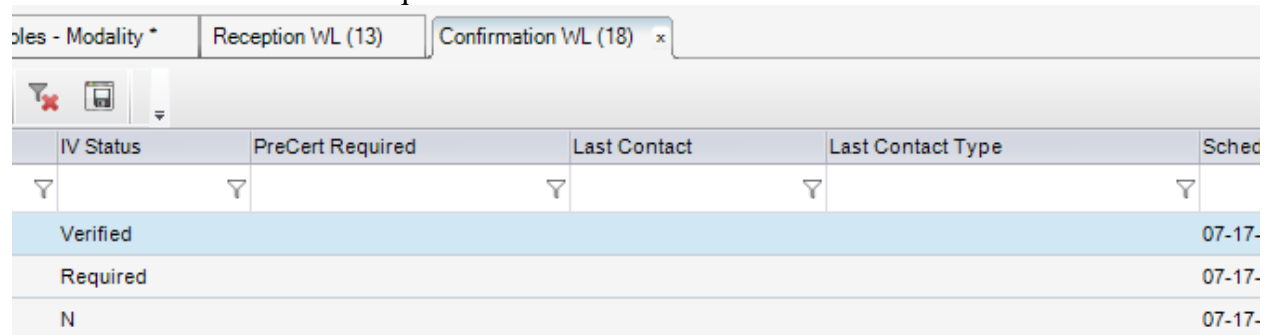
The screenshot shows a web application window titled "Reception WL (13)". Below the title bar is a toolbar with icons for a printer, a folder labeled "MA Group2", a document labeled "CT", a document labeled "darcy test", and a document labeled "Simple view". Below the toolbar is a table with the following columns: Room, Accession #, Exam STAT, Last Contact, Last Contact Type, and Carrier. The table contains several rows of data, with the first three rows having "Phone Call" as the Last Contact Type. The fourth row is highlighted in blue and has "AETNA" as the Carrier. The fifth row also has "AETNA" as the Carrier. The sixth row has "TRAVEL" as the Carrier.

Room	Accession #	Exam STAT	Last Contact	Last Contact Type	Carrier
E CT1EL	1016815PE		07-17-2014 2:43 PM	Phone Call	
E CT1EL	1016814PE		07-17-2014 2:43 PM	Phone Call	
E CT1EL	1016813PE		07-17-2014 2:43 PM	Phone Call	
E CT1EL	1016761PE				AETNA
E XR1EL	1016760PE				AETNA
E CT1EL	1016804PE				TRAVEL

Figure 5.55 – Last contact and last contact type added to work lists

Additional Columns Added to the Confirmation WL

The IV Status and PreCert Required columns have been added to the Confirmation WL.



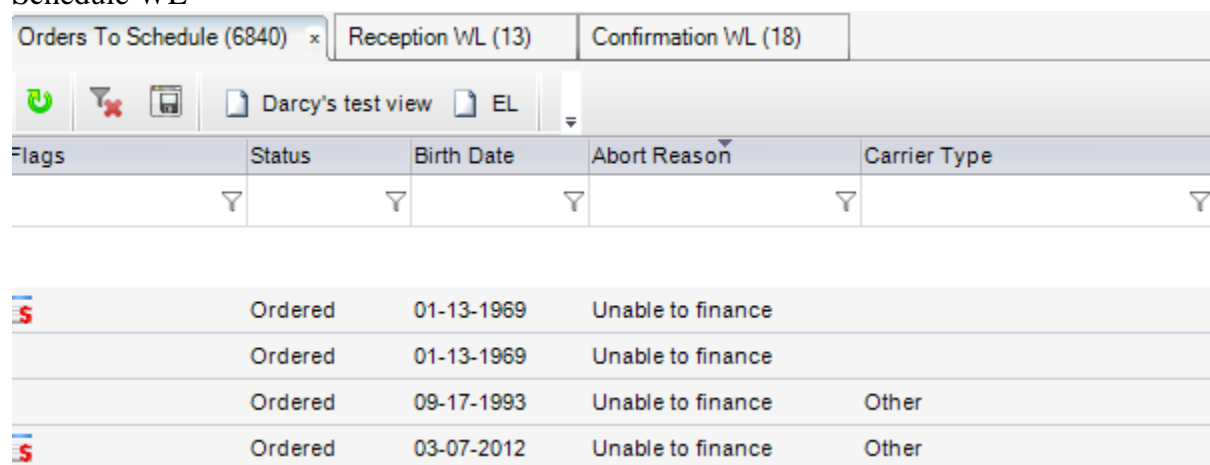
The screenshot shows a software interface with a tab labeled 'Confirmation WL (18)'. Below the tab is a toolbar with icons for a red 'X', a document, and a dropdown arrow. The main table has the following columns: 'IV Status', 'PreCert Required', 'Last Contact', 'Last Contact Type', and 'Sched'. The 'IV Status' column contains the values 'Verified', 'Required', and 'N'. The 'Sched' column contains the date '07-17-' for all three rows.

IV Status	PreCert Required	Last Contact	Last Contact Type	Sched
Verified				07-17-
Required				07-17-
N				07-17-

Figure 5.56 – Columns added to the Confirmation WL

Additional Columns added to the Orders to Schedule WL

The columns Birth Date, Abort Reason and Carrier Type have been added to the Orders to Schedule WL



The screenshot shows a software interface with a tab labeled 'Orders To Schedule (6840)'. Below the tab is a toolbar with icons for a green circular arrow, a red 'X', a document, and a dropdown arrow. The main table has the following columns: 'Flags', 'Status', 'Birth Date', 'Abort Reason', and 'Carrier Type'. The 'Status' column contains the value 'Ordered' for all four rows. The 'Birth Date' column contains the values '01-13-1969', '01-13-1969', '09-17-1993', and '03-07-2012'. The 'Abort Reason' column contains the value 'Unable to finance' for all four rows. The 'Carrier Type' column contains the value 'Other' for the third and fourth rows.

Flags	Status	Birth Date	Abort Reason	Carrier Type
	Ordered	01-13-1969	Unable to finance	
	Ordered	01-13-1969	Unable to finance	
	Ordered	09-17-1993	Unable to finance	Other
	Ordered	03-07-2012	Unable to finance	Other

Figure 5.57 – Columns added to the Orders to Schedule WL

Columns added to the Image Request WL

The columns of Date of Service and Site columns of Study Performed Site and Image Request site are included on the Image Request WL.

Exam Status	Procedures	Date Of Service	Study Performed Site	Image Request Site
Roman724 Boone (66)				
Signed1	CT Sinus Wo & Temporal Bone Wo [CT62] - Head	03-06-2012 11:17 AM	LU	LU
Signed1	MR Ankle Wo [MR25] - Ankle joint	03-14-2012 10:33 AM	LU	LU
Transcribed	CT 3 Phase [CT13]	03-16-2012 10:57 AM	EL	EL

Figure 5.58 – Columns added to the Image Request WL

Locked By Column Added to the CTRM WL

The locked by column has been added to the Critical Results WL and the All Critical Results WL

Flags	Status	Procedures	Referring	Locked By	Si
	ReportDrafted	XR IVP [74400]	Power, Ian		O
	ReportDrafted	CT Abdomen W/Wo & Pelvis W [CT23] - Abdomen	ROBERTS, WENDY		LU
	Signed1	XR Spine 1 View [72020] - Lumbar spine	Graves, Laurie		EL
	Signed1	XR Coccyx Only [RD421]	Arsenault, Janet		FI

Figure 5.59 – Locked by column added to Critical Results WL

Ability to Select Date Range for Confirmation WL

There Confirmation WL is a daily work list in which the user must select each day to see the studies for a specific day. In build 43 we have added to the ability to select a date range from the calendar control to a maximum of 10 days.

This is accomplished by opening the calendar. Focus will be on the current date. Holding down the shift key on the keyboard and select the day in which you would like to end the range. To change back to a single day, double click the day from the calendar.

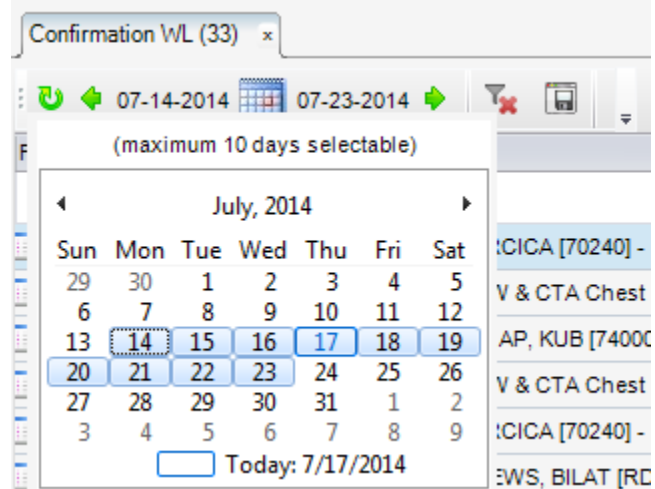




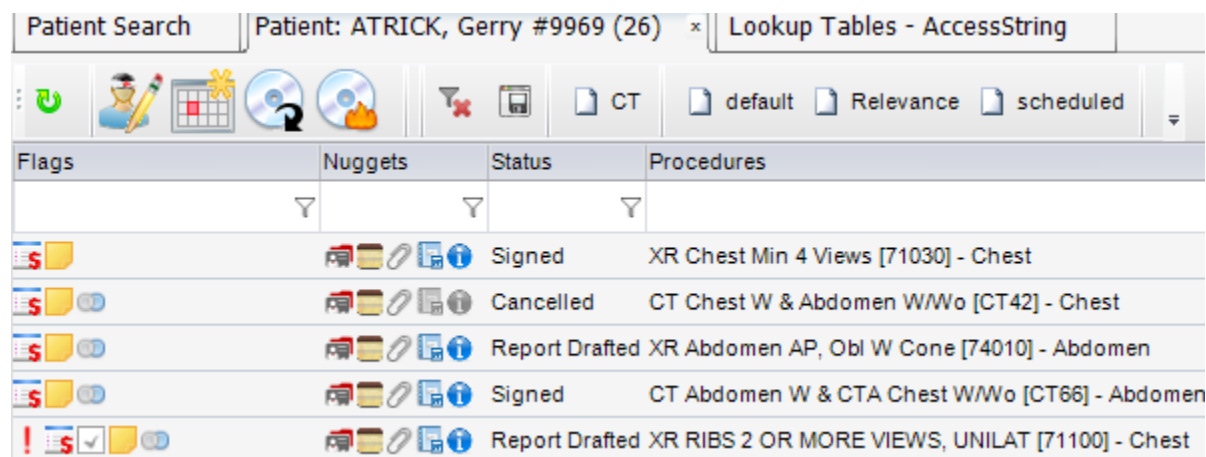
Figure 5.60 – Selecting a date range on Confirmation WL

The previous/next arrows cause dates to slide by one day but maintain the selected number of days in the range.

Problem and QA Flags Added to Patient Folder WL

Two new flags have been created for display on the Patient Folder WL. The flag for Problem, with an ICON of a red exclamation point  and the flag for QA with an ICON of a check mark  have been added. The Problem flag is controlled by a new access string titled **“Flag.Problem”** with a default access of full.

The QA flag is controlled by a new access string titled **“Flag.QA”** and it also have a default access of full



The screenshot shows the Patient Folder WL interface for Patient: ATRICK, Gerry #9969 (26). The interface includes a toolbar with various icons and a table with columns: Flags, Nuggets, Status, and Procedures. The table lists several procedures with their corresponding flags and statuses.













Flags	Nuggets	Status	Procedures
		Signed	XR Chest Min 4 Views [71030] - Chest
		Cancelled	CT Chest W & Abdomen W/Wo [CT42] - Chest
		Report Drafted	XR Abdomen AP, Obl W Cone [74010] - Abdomen
		Signed	CT Abdomen W & CTA Chest W/Wo [CT66] - Abdomen
 	 	Report Drafted	XR RIBS 2 OR MORE VIEWS, UNILAT [71100] - Chest

Figure 5.61 – Problem and QA flags added to Patient Folder

Personnel Editor – Have City Populated by Zip Code

The common zip code lookup to both the Address section and Deliver To section has been added. The functionality is the same as other areas where this feature exists: when tabbing away from the zip code textbox, if the zip code exists then the city/state will be automatically populated. If more than one entry exists, then the popup shown below will be displayed.

The screenshot displays the 'Edit Address' form in the Personnel Editor. The 'Address' section includes fields for Type (Work Address), Address 1 (75 Keri), Address 2, City (Schdy), State (New York), Zip code (12345), Phone # ((902) 367-7667), Fax # (() -), Affiliations, and Referring Practices. A 'Deliver to' section is also visible. A 'Print' section contains fields for Address 1 *, Address 2, City *, State *, and Zip code *, along with a 'Same as above' button. A 'Fax' section has a Fax # field. An 'EMR' section has an EMR field. A 'Refer' section has three rows of checkboxes for 'Refer' and 'CC'. A 'Disable report delivery for this address' checkbox is at the bottom. A popup window is displayed over the 'Deliver to' section, showing a list of suggestions: 'General Electric New York', 'Schdy New York', and 'Schenectady New York'.

Figure 5.62 – Personnel editor with zip code lookup

Ability to Define Primary Specialty for Referring Physician

To set a specialty to ‘primary’, right click on the item in the multi-select Specialties box and select ‘Set as primary’. Only the specialties multi-select should allow this right-click functionality. Only one primary should be allowed.

The screenshot displays the RADNET eRAD RIS personnel editor interface. At the top, there is a navigation bar with links: Front Desk, Technologist, Radiologist, Mammo, Editor, and Help. Below this is a header section with tabs: (1), IVT WL (4202), IVT: KENNEDY, Robert #1004548376, All Edits Pending QA WL (11), and All Problem W. The main content area is divided into several sections. The 'Resource Type' section contains checkboxes for Referring physician, Radiologist, Surgeon, Editor, Technologist, Unknown referring, and UM Reviewer. The 'Referring Flags' section contains checkboxes for Direct referral p, Pre-auth progra, and Gold card. The 'Resource Information' section contains fields for NPI (5454), UPIN, License #, DEA, Primary state license, Sign level, and Final. The 'Specialties' section shows a multi-select box with 'General', 'Optometrist (for anbakia)', and 'Acupuncture' selected. A right-click context menu is open over the 'General' specialty, showing the option 'Set as primary'. The 'Medical groups' section is empty. The 'Preferred radiologists' section is also empty.

Figure 5.63 – Set specialty as primary in personnel editor

Referring Practice Address Changes

Instead of adding a referring practice at the Personnel Level we now have the ability to add 1 or more referring practices when adding or editing addresses as shown in the following:

The screenshot shows the 'Add Address' dialog box in the Personnel editor. The dialog has tabs for 'General', 'Resource', 'Account', 'Notes', and 'Attachments'. The 'General' tab is active, showing fields for 'First name', 'Last name', 'Middle name', 'Prefix', 'Suffix', 'Mobile #', and 'Email'. Below these is a table with 'Contact' and 'Address' columns, showing 'Work Address'. The 'Add Address' dialog is open, showing fields for 'Type' (Work Address), 'Address 1', 'Address 2', 'City', 'State', 'Zip code', 'Phone #', 'Fax #', 'Affiliations', and 'Referring Practices' (Borneo x). A sub-dialog box titled 'eRAD RIS' is open, asking 'Would you like to copy the address from another person at the 'Borneo' practice?' with 'Yes' and 'No' buttons.

Figure 5.64 – Add address in Personnel editor

When a referring practice is added, the user is prompted, “to copy the address from another person at the selected practice”. If they choose “Yes” to that question they get a list of person’s addresses to use as the address/delivery information, as shown in the following screen capture:

The screenshot shows the 'Copy Address From' dialog box. It has a dropdown menu with the selected address 'Molyneaux, kevin - 9 Water Street East Summerside PE'. Below the dropdown are 'Copy' and 'Cancel' buttons.

Figure 5.65 – Copy Address From prompt

The Personnel editor allows the user to add addresses and edit them individually. To make managing referring addresses easier, we have introduced the following “- Referring Address” editor:

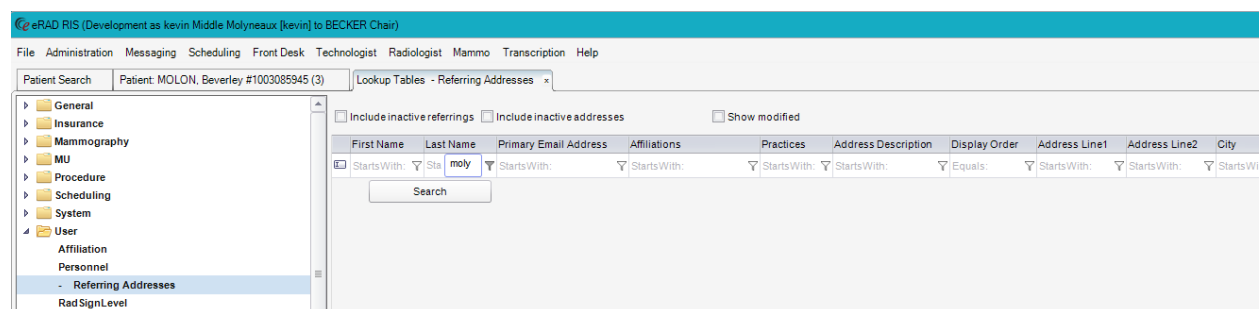


Figure 5.66 – Referring Addresses lookup

When you open this screen the first thing you must do is to specify at least one filter value and then click the “Search” button. In this example, I’ve search for all users with the last name ‘moly’n’.

Using the context menu option ‘Copy/Paste Referring Address” the user can copy an entire address row and paste it to another person/address row.

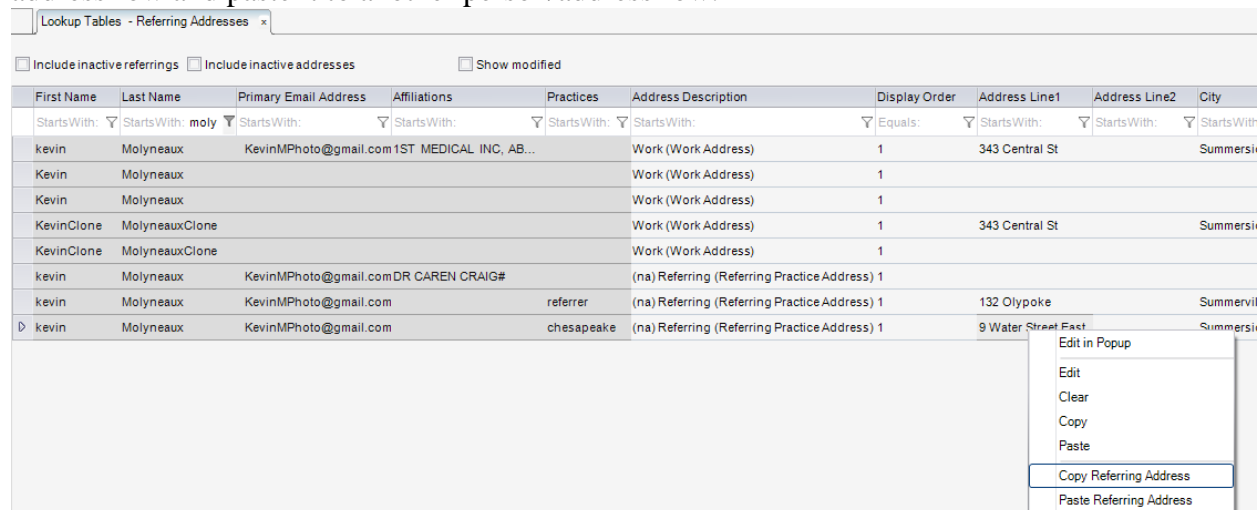


Figure 5.67 – Referring Addresses context menu options

Note, the columns shown in the darker shading are non-address fields, which are not included in the “Paste Referring Address” operation and are not editable directly in the grid. Consider these darker columns as read-only, except for the Practice and Affiliations columns which can be edited via the “Add/Remove Practice” context menu as shown in the following screen capture:

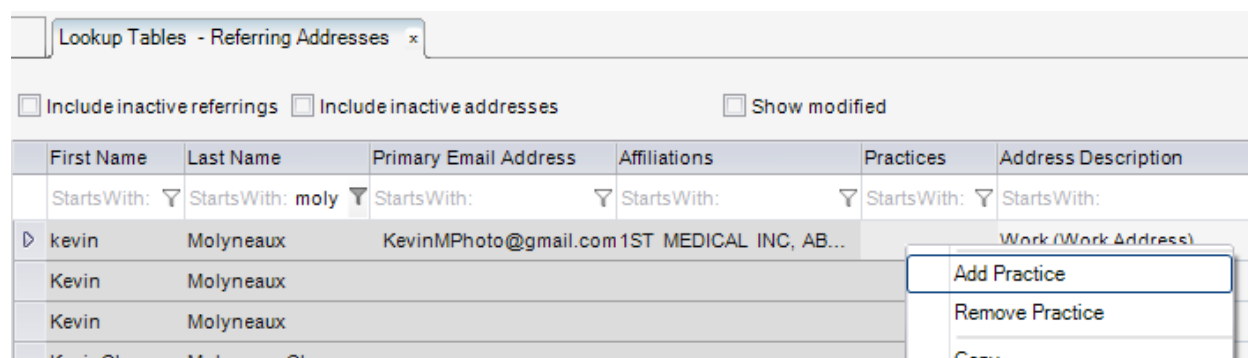


Figure 5.68 – Add or remove practice

The grid also support multi cell selection so you could add a practice to more than one address in the same operation as shown in the following screen capture, where I used the keyboard or mouse plus the <CTRL> key to selected multiple Practice cells:

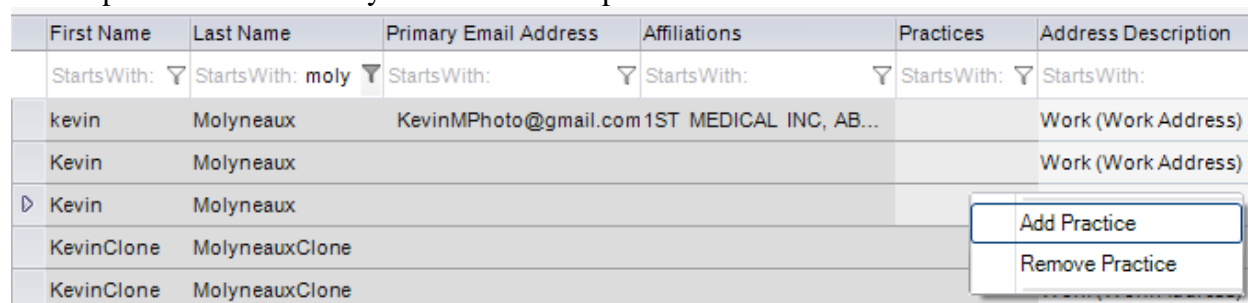


Figure 5.69 – Multi select cells

The user can also select multiple cells and paste the same value to all of them as shown in the following example where I am pasting the '343 central st' to all of the selected cells:

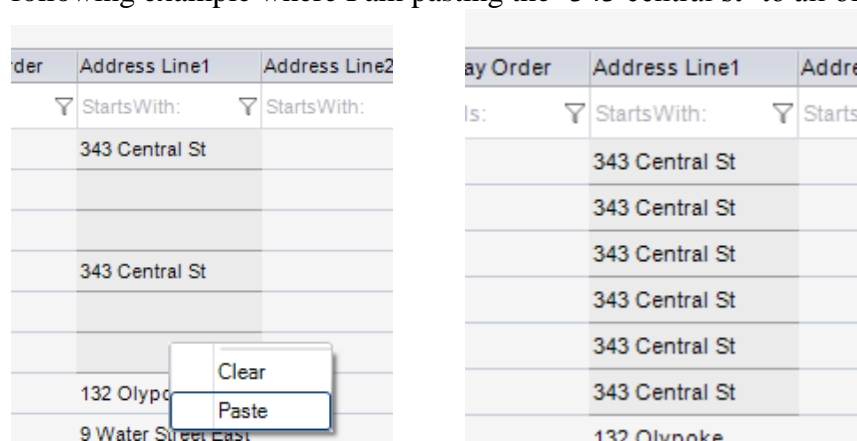


Figure 5.70 – Before and after copy / paste

Checking the “Show Modified” checkbox will remove all filters and show all the rows that have been modified and not yet been saved:

The screenshot shows a web application window titled "Lookup Tables - Referring Addresses". Below the title bar, there are three checkboxes: "Include inactive referrals" (unchecked), "Include inactive addresses" (unchecked), and "Show modified" (checked). Below these checkboxes is a table with the following columns: "First Name", "Last Name", "Primary Email Address", "Affiliations", "Practices", and "Address". The table contains two rows of data for "Kevin Molyneaux". The first row is highlighted in grey, and the second row is highlighted in blue. The "Address" column for the second row is labeled "Work".

Figure 5.71 – Show modified

Then after unchecking the “Show Modified” the filters you had before checking it will be re-applied. If your search returns too many rows (~1000), then the amount returned will be limited and you will see a message explaining that partial results are being displayed. You will also notice that at all times the row count is displayed in the bottom right corner of the RIS screen as shown in the following:

The screenshot shows a web application window titled "eRAD RIS". Below the title bar, there are several checkboxes: "Include inactive referrals" (unchecked), "Include inactive addresses" (unchecked), and "Show modified" (unchecked). Below these checkboxes is a table with the following columns: "First Name", "Last Name", "Primary Email Address", "Affiliations", "Practices", "Address Description", "Display Order", "Address Line1", and "Address Line2". The table contains several rows of data, including "WILLIAM ARNOLD" and "Yolanda Ajala". A modal dialog box is displayed over the table, with the text "Your search returned 1000 of 3313 rows. Please refine your search." and an "OK" button. The bottom of the window shows a status bar with the text "1000 of 3313 rows".

Figure 5.72 – Unselecting Show Modified results

Management Report – Appointment Schedule by Procedure Group

The Appointment Schedule by Procedure Group management report will display the details for exams scheduled on the specified date for practice, site(s) and procedure groups selected.

Appointment Schedule by Procedure Group

Practice: [REDACTED]

Site(s): [REDACTED]

Date: 4/24/2014

Procedure Group(s): PET

Description: This report displays the details for exams scheduled on the specified date for the practice, site(s) and procedure groups selected.

Scanner	Time Sched	Patient Name	MRN#	DOB	Exam(s)
MODCT1	8:30 AM	[REDACTED]	[REDACTED]	[REDACTED]	PETCT Tumor Imaging Skull-Thigh [78815] - Body Body Part\Lat:Body/
ALT#: [REDACTED]					
Home Phone: [REDACTED] Age: [REDACTED] years Referring: [REDACTED]					
Cell Phone: [REDACTED] Copay: [REDACTED]					
Current Exam Status: Scheduled Enc #: [REDACTED] Acc #: [REDACTED]					
Insurance: [REDACTED] Insurance: [REDACTED]					

Figure 5.73 – Appointment Schedule by Procedure Group management report

Management Report – Users in Usergroups

This report displays the list of users assigned to the selected user group(s). You can choose to see both active (by default) as well as inactive user accounts.

User group(s) Active user flag:

1 of 1 100% Find | Next

Users in Usergroups

User Group(s): Add Referring (Add Referring)

Description: This report displays the list of users assigned to the selected user group(s).

User id	Name	Active User
Group: Add Referring (Add Referring)		
User ID Hidden	User Name Hidden	Y
		Y
		Y
		Y
		Y
		Y
		Y
		Y
		Y
		Y
		Y
		Y
		Y
Total Count		14

Users in Usergroups

Confidential and Proprietary

Page 1 of 1

Date Run: 4/22/2014 12:24 PM

RADNETyeod

Figure 5.74 – Users in Usergroups management report

Management Reports – Radiologist Productivity by User – Mammo

This report is to display the selected mammography exams read by the radiologists for the period specified based on signed off exams.

Radiologist Productivity by User - Mammo

Practice: [REDACTED]

Site(s): [REDACTED]

Date Range: 3/1/2014 - 3/31/2014

Procedure Codes: 76645, 76645SCREE, 77058, 77059, G0202, G0202BRUS, G0202BRUST, G0202I, G0202IBRUS, G0202IT, G0202T, G0202U, G0202UBRUS, G0202UIMT, G0202UNIT, G0202WCT, G0204, G0204BRUS, G0204BRUST, G0204CB, G0204CBT, G0204CBUS, G0204CBUST, G0204I, G0204IBRUST, G0204IT, G0204T, G0206, G0206BRUS, G0206BRUST, G0206CB, G0206CBT, G0206CBUS, G0206CBUST, G0206I, G0206IBRUST, G0206IT, G0206T, HVRA76645, HVRA76645SCREE, HVRA77058, HVRA77059, HVRAG0202, HVRAG0202BRUS, HVRAG0202I, HVRAG0202IT, HVRAG0202TM, HVRAG0202UNIT, HVRAG0204, HVRAG0204BRUS, HVRAG0204CB, HVRAG0204CBUS, HVRAG0204I, HVRAG0204IT, HVRAG0204TM, HVRAG0206, HVRAG0206BRUS, HVRAG0206CB, HVRAG0206CBUS, HVRAG0206I, HVRAG0206IT, HVRAG0206TM, HVRAMA70, MA300, MA300T, MA301, MA301T, MA302T, MA303T, MA999, USBRAD

Description: This report displays the selected mammography exams read by Radiologist for a specified period. All Exams are Signed exams.

Procedure	Count	%
[REDACTED]	13	2.08%
MA Digital Diagnostic Mammo Bilat W CAD	1	0.16%
MA Digital Screening Mammo W Breast US and CAD	1	0.16%
MA Digital Screening Mammo W CAD	8	1.28%
MR Breast W WO Bilateral W Cad	2	0.32%
US Breast Unilateral Or Bilateral	1	0.16%

Figure 5.74a – Radiologist Productivity by User – Mammo Management report

Utilization Management – Addition of Medical Group Lookup Table

A lookup has been added called Medical Group has been added under the Insurance directory of the Administration>Configure menu. This contains the name and demographics of the medical group. The table includes the column for UM Routine Review, UM Stat Review and UM Urgent Review

Medical Group Code	Description	Phone	Fax	Address1	Address2	City	Zipcode	State	Notes	Um Routine Review	Um Stat Review	Um Urgent Review	Last Updated	Active
Contains:	Contains:	Contains:	Contains:	Contains:	Contains:	Contains:	Contains:	Contains:	Contains:	Equals:	Equals:	Equals:	Equals:	Cont
Click here to add a new row														
D	Summerside	Summerside Group	902-123-4567	902-111-2222	251 Water Street	Suite 301	Summerside	92140	PE	30	5	15	06-27-2014...	Y
	Vantage	Vantage Medical Group	951-280-8200	951-280-8203	2115 Compton	Suite 301	Corona	92881	CA	0	0	0	02-19-2014...	Y
	SeaView	SeaView IPA	805-988-5188	805-988-5183	1901 N. Solar Drive	Suite 285	Oxnard	93036	CA	20	0	0	01-15-2014...	Y
	RPN	Riverside Physician Network	951-788-9800		1650 Iowa Ave	Ste 220	Riverside	92507	CA	0	0	0	01-15-2014...	Y

Figure 5.75 – Medical Group lookup table

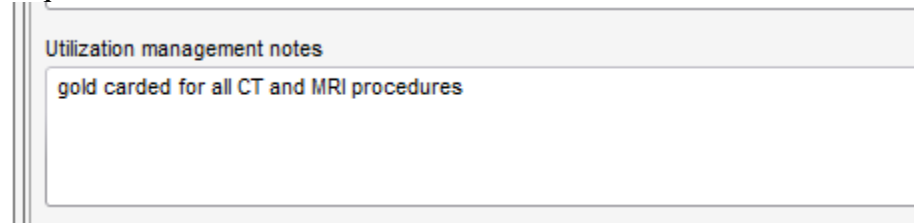
Access to this new lookup table is controlled by the access string **“Config.LookupEditor.MedicalGroup”** with a default of none.

From the Personnel editor the user can be mapped to one or multiple Medical Groups. The option is found on the Resource tab.

The screenshot shows the 'Resource' tab of the Personnel editor. The 'Resource Type' section has checkboxes for 'Referring physician', 'Editor', 'UM Reviewer' (highlighted with a red box), 'Radiologist', 'Technologist', 'Surgeon', and 'Unknown referring'. The 'Referring Flags' section has checkboxes for 'Direct referral program', 'Pre-auth program', and 'Gold card' (highlighted with a red box). The 'Resource Information' section includes fields for NPI, UPIN, License #, DEA, Primary state license, Sign level, and Specialties. The 'Medical groups' dropdown (highlighted with a red box) is open, showing a list of medical groups: 'Riverside Physician Network' (selected), 'SeaView IPA', 'Summerside Group', and 'Vantage Medical Group'. The 'Contact type' dropdown (highlighted with a red box) is set to 'Medical Director'. The 'Preferred radiologist' field shows 'Power, Ian G'. An 'Add Radiologist' button is at the bottom right.

Figure 5.76 – Map person to medical group

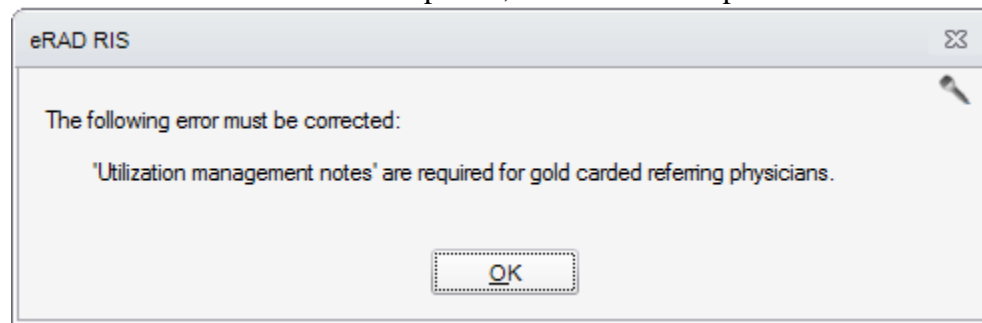
Also in the Personnel Editor on the Resource tab is the Referring Flag of Gold Card. The gold card flag is only available if the resource type is referring physician. If the gold card flag is checked, then the utilization management notes field, located on the Notes tab, becomes required.



The screenshot shows a text input field titled "Utilization management notes". Inside the field, the text "gold carded for all CT and MRI procedures" is entered.

Figure 5.77 – Utilization management notes

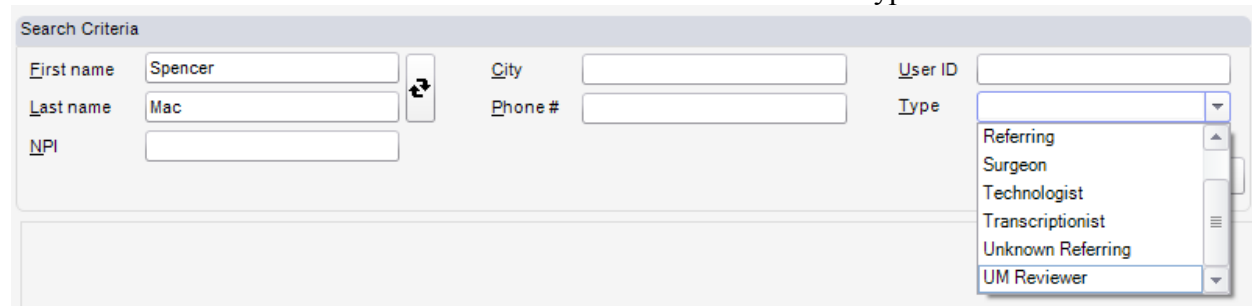
The end user will need to know why the requesting physician is marked as gold carded. If the utilization notes field is not completed, the user will be promoted with an error message.



The screenshot shows an error message dialog box titled "eRAD RIS". The message reads: "The following error must be corrected: 'Utilization management notes' are required for gold carded referring physicians." There is an "OK" button at the bottom.

Figure 5.78 – Prompt is Utilization management notes are not completed

Again on the Resource tab, the Resource Type of UM Receiver has been added. The Internal Person Search has been modified to include “UM Reviewer” as a Type filter.



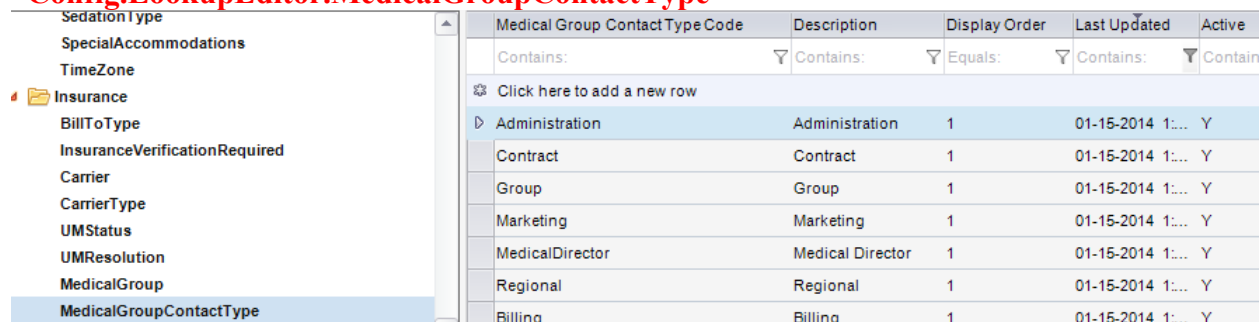
The screenshot shows the "Search Criteria" form for the Internal Person Search. It includes fields for First name (Spencer), Last name (Mac), NPI, City, Phone #, User ID, and Type. The Type dropdown menu is open, showing options: Referring, Surgeon, Technologist, Transcriptionist, Unknown Referring, and UM Reviewer.

Figure 5.79 – Internal person search with type of UM Reviewer added

Utilization Management – Support Medical Group Contact Types

The lookup table Medical Group Contact Type has been added under the Insurance directory of the Administration>Configure menu. This new lookup table is controlled by access string

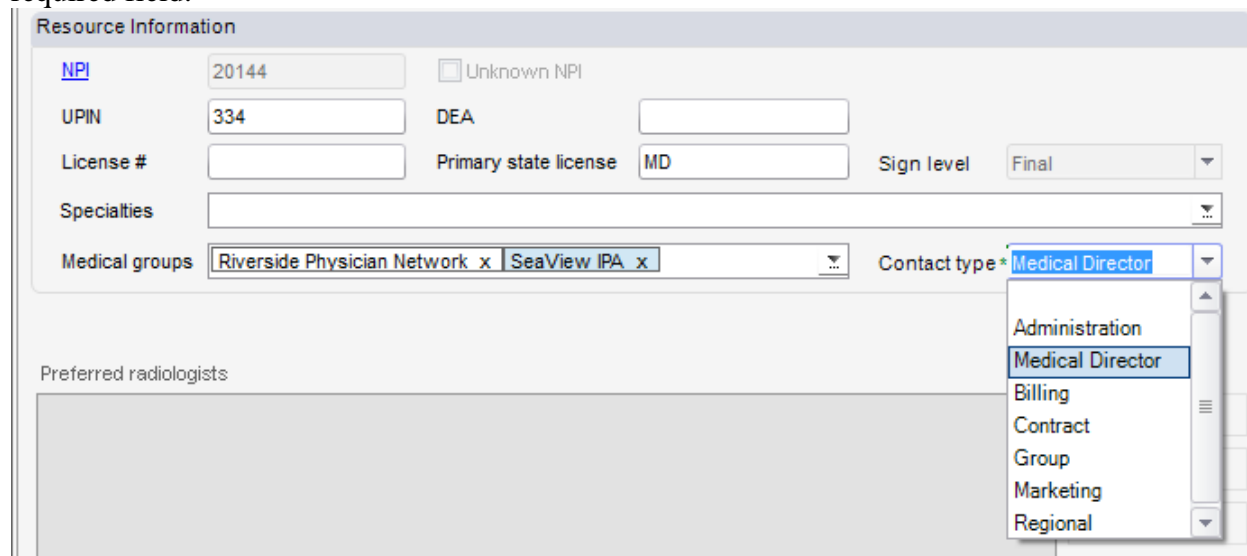
“Config.LookupEditor.MedicalGroupContactType”



Medical Group Contact Type Code	Description	Display Order	Last Updated	Active
Contains:	Contains:	Equals:	Contains:	Contains:
Click here to add a new row				
Administration	Administration	1	01-15-2014 1:...	Y
Contract	Contract	1	01-15-2014 1:...	Y
Group	Group	1	01-15-2014 1:...	Y
Marketing	Marketing	1	01-15-2014 1:...	Y
Medical Director	Medical Director	1	01-15-2014 1:...	Y
Regional	Regional	1	01-15-2014 1:...	Y
Billing	Billing	1	01-15-2014 1:...	Y

Figure 5.80 – Medical Group Contact Type lookup table

The values from this table are used in the Resource tab on the Personnel editor, which has been enhanced to contain a multi type-ahead control for medical groups as well as a corresponding drop-down for medical group contact type. If a medical group is selected, the contact type is a required field.



Resource Information

NPI: 20144 ☐ Unknown NPI

UPIN: 334 DEA:

License #: Primary state license: MD Sign level: Final

Specialties:

Medical groups:

Contact type:

Preferred radiologists:

Figure 5.81 – Adding Contact Type to a user account in Personnel editor

Utilization Management – Support UM Coverage Type

A lookup called UMCoverage will hold the coverage types that will eventually be applied to a CPT Code level. These coverage types are displayed on the matrix for each medical group so staff can determine which CPT Codes require authorization. The Authorization Flag column will specify which coverage types require review.

<u>Matrix Name</u>	<u>Effective Date</u>	<u>Revision Date</u>
ADP - 2013 Matrix - Alliance Desert Physicians	1/1/2013	2/18/2013

Disposition Legend

A - Capitated service, authorization required

EX - Exclude

FFS - Fee for service, authorization required

IN - Include

TBD - To be determined

X - Capitated service, direct referral (no authorization required)

EXAM	Body Part	General Comments	CPT	Group Comments	ADP
Computed Tomography					
CT HEAD W/O CONTRAST	Head		70450		A
CT HEAD WITH CONTRAST	Head		70460		A
CT HEAD W/O AND W/CONTRAST	Head		70470		A
CT ORBIT W/O CONTRAST	Head		70480		A
CT ORBIT WITH CONTRAST	Head		70481		A
CT ORBIT WITH&WITHOUT CON	Head		70482		A
CT FACIAL BONES W/O CONTRAST	Head		70486		A

Figure 5.82 – Matrix showing coverage type legend

The lookup table access is controlled by a new access string titled **“Config.LookupEditor.UMCoverage”** with a default of none.

Utilization Management – Support UM Common Language

A lookup called UMCommonLanguage will hold the list of common language items which will be accessed by the utilization management staff when performing reviews. Each common language item stores the content which will appear in the external comments which will be distributed to the requesting physician and/or medical group.

Um Common Language Code	Description	Language Content
Contains:	Contains:	Contains:
Click here to add a new row		
QE Test	QE Test	This is a test that QE can add, edit and delete an entry.
InsufficientClinical	Insufficient: Specific Clinical	To facilitate your request, we ask that you limit your response to the following specific information:

Figure 5.83 – UM Common Language lookup

Access to this lookup table is controlled by access string

“Config.LookupEditor.UMCommonLanguage” with a default of none.

Utilization Management – Support Default Review Times

A key component of Utilization Management workflow is review time. This is the amount of time (in hours) that it took the UM team to review and finalize the request. Although times can differ based on the contract with the Medical Group, the system is required to have default times for STAT, Urgent, and Routine requests.

UMRoutineReview	30	30	(value = int) The maximum number of UM hours for a routine exam.
UMStatReview	4	4	(value = int) The maximum number of UM hours for a STAT exam.
UMUrgentReview	10	10	(value = int) The maximum number of UM hours for an urgent exam.

Figure 5.84 – system configuration settings

Three new system configuration settings have been added. These values will be used when calculating review time in future releases. Based on a 10 hour workday

- **“UMRoutineReview”** that has a default of 30 hours
- **“UMStatReview”** that has a default of 4 hours
- **“UMUrgentReview”** that has a default of 10 hours

The Medical Group lookup table has 3 columns that will allow for an override to the above system configuration settings to allow for contracts or arrangement differences with the groups.

Utilization Management – Support UM Status

Two lookup tables called UMStatus and UMRResolution have been added that are under the Insurance grouping in the lookup table editor. UMStatus contains a list of UM Statuses. This lookup table's access is controlled by the access string "Config.LookupEditor.UMStatus" with a default of none.

Um Status Code	Description	Form Content	Final Flag	Display Order
Contains: ▾	Contains: ▾	Contains: ▾	Contains: ▾	Equals: ▾
Click here to add a new row				
QE_Test	QE Test	We're sorry your claim cannot be viewed, processed, approved, declined or rejected at this time. We are doing the...	N	1
Approved	Approved		Y	11

Figure 5.85 – UMStatus lookup table

The UMRResolution look up is controlled by the access string "Config.LookupEditor.UMResolution"

Um Resolution Code	Description	Form Content	Um Status Code	Display C
Contains: ▾	Contains: ▾	Contains: ▾	Contains: ▾	Equals: ▾
Click here to add a new row				
QE_Approved	QE Approved	Please contact QE Test Department for approval process.	QE_Test (QE Test)	1
QE_Declined	QE Declined	We're sorry your claim cannot be declined at this time. Please try again...	QE_Test (QE Test)	1
DirectReferral	Direct Referral	No prior review necessary for the requested exam procedure. Please schedule directly with the RadNet site.	ReturnedNotInitiat...	1

Figure 5.86 – UMRResolution lookup table

Each UMRResolution is mapped to one UMStatus. A field called Form Content contains the text that will be displayed on the authorization letter when that status and resolution is selected.

Utilization Management – Authorization Rules for Medical Groups

From medical group lookup table the user can create the authorization rules. Each medical group has a set of authorization rules which is available on the right-click context menu. Typically authorization rules will be created by CPT Code and not procedure code or modality type. The rules are access from the context menu.

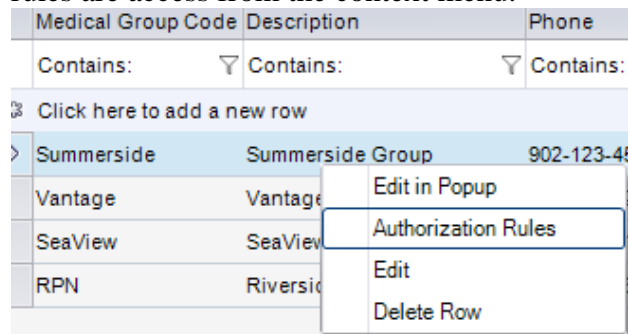


Figure 5.87 – Accessing Authorization Rules

The user must select one or more CPT Codes. The user must then specify if this rule is for all practices or a specific one (Matrices will usually apply to all practices however; there are some medical groups where the authorization rules can vary across geographical areas). A coverage type must be specified. These are based on the UM Coverage lookup values.

Authorization rules for SeaView IPA

CPT Codes:

Code	Description
Contains:	Contains:
0028T	DUAL ENERGY X-RAY ABSORPTIOMETRY...
10160	PUNCTURE ASPIRATION OF ABSCESS, H...
20605	ARTHROCENTESIS ASPIR&INJECTION IN...
34804	ENDOVASCULAR REPAIR OF INFRARENA...
49180	BIOPSY, ABDOMINAL OR RETROPERITON...
70030	RADIOLOGIC EXAMINATION, EYE, FOR D...
70100	RADIOLOGIC EXAMINATION, MANDIBLE;...
70110	RADIOLOGIC EXAMINATION, MANDIBLE;...
70120	RADIOLOGIC EXAMINATION, MASTOIDS;...
70130	RADIOLOGIC EXAMINATION, MASTOIDS;...
70134	RADIOLOGIC EXAMINATION, INTERNAL A...
70140	RADIOLOGIC EXAMINATION, FACIAL BON...
70150	RADIOLOGIC EXAMINATION, FACIAL BON...
70160	RADIOLOGIC EXAMINATION, NASAL BON...
70190	RADIOLOGIC EXAMINATION; OPTIC FORA...
70200	RADIOLOGIC EXAMINATION; ORBITS, CO...
70210	RADIOLOGIC EXAMINATION, SINUSES, P...
70220	RADIOLOGIC EXAMINATION, SINUSES, P...
70240	RADIOLOGIC EXAMINATION, SELLA TURC...

Practices:

☐ All Practices

Advanced Radiology
American Radiology
American Radiology 2
Borg/IDE
DATest
DATest2 This is my superduperduper long...
ga
Get Well Clinic
Used for creating blank patients for intern...

Coverage Types:

A - Auth Required
EX - Excluded
FFS - Fee For Service
IN - In Cap
X - Auth Not Required

Rules:

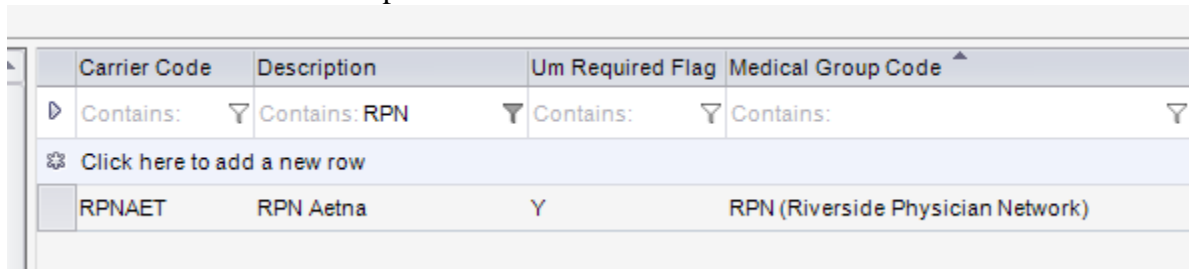
Code	Coverage	Description
Contains:	Con...	Contains:
70460	A	COMPUTED TOMOGRAPHY, H...
70460	A	COMPUTED TOMOGRAPHY, H...
70470	A	COMPUTED TOMOGRAPHY, H...
70480	A	COMPUTED TOMOGRAPHY, O...
70481	A	COMPUTED TOMOGRAPHY, O...
70482	A	CT ORBIT SELLA/POST FOSSA...
70486	A	COMPUTED TOMOGRAPHY, M...
70487	A	COMPUTED TOMOGRAPHY, M...
70488	A	COMPUTED TOMOGRAPHY, M...
70490	A	COMPUTED TOMOGRAPHY, S...
70491	A	COMPUTED TOMOGRAPHY, S...
70492	A	COMPUTED TOMOGRAPHY, S...
70496	A	COMPUTED TOMOGRAPHIC A...
70498	A	COMPUTED TOMOGRAPHIC A...
71250	A	COMPUTED TOMOGRAPHY, T...
71260	A	COMPUTED TOMOGRAPHY, T...
71270	A	COMPUTED TOMOGRAPHY, T...
71275	A	COMPUTED TOMOGRAPHIC A...
72125	A	COMPUTED TOMOGRAPHY, C...

OK Cancel

Figure 5.88 – Authorization rules form

Utilization Management – Support Capitated Carriers

A new column has been added to the Carrier lookup table titled UM Required Flag. All current rows in this the Carrier lookup will have a default of N.

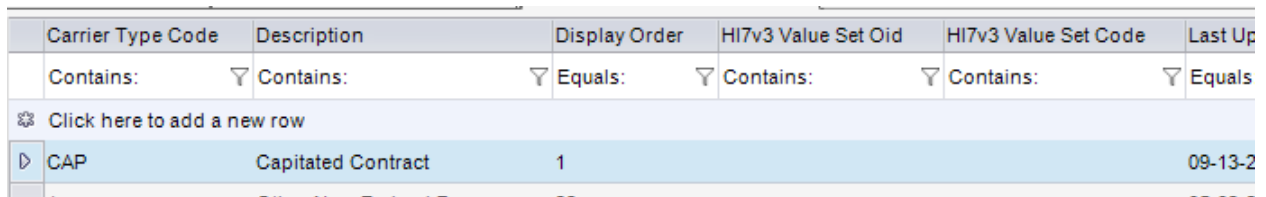


The screenshot shows a web-based table interface for carrier lookup. The table has four columns: Carrier Code, Description, Um Required Flag, and Medical Group Code. The first row is a header row. Below the header, there is a row with dropdown menus for each column. A link 'Click here to add a new row' is present. The second data row shows 'RPNAET' as the Carrier Code, 'RPN Aetna' as the Description, 'Y' as the Um Required Flag, and 'RPN (Riverside Physician Network)' as the Medical Group Code.

Carrier Code	Description	Um Required Flag	Medical Group Code
Contains: ▼	Contains: RPN ▼	Contains: ▼	Contains: ▼
Click here to add a new row			
RPNAET	RPN Aetna	Y	RPN (Riverside Physician Network)

Figure 5.89 – Carrier showing UM required flag

In addition, the Carrier Type lookup table has a new Carrier Type of CAP has been added to further categorise the carriers requiring utilization review.



The screenshot shows a web-based table interface for carrier type lookup. The table has six columns: Carrier Type Code, Description, Display Order, HI7v3 Value Set Old, HI7v3 Value Set Code, and Last Updated. The first row is a header row. Below the header, there is a row with dropdown menus for each column. A link 'Click here to add a new row' is present. The second data row shows 'CAP' as the Carrier Type Code, 'Capitated Contract' as the Description, '1' as the Display Order, and '09-13-2' as the Last Updated date.

Carrier Type Code	Description	Display Order	HI7v3 Value Set Old	HI7v3 Value Set Code	Last Up
Contains: ▼	Contains: ▼	Equals: ▼	Contains: ▼	Contains: ▼	Equals ▼
Click here to add a new row					
CAP	Capitated Contract	1			09-13-2

Figure 5.90 – New carrier type code

Utilization Management – Mapping Carriers to Medical Groups

From within the Carrier lookup table there is a new column titled Medical Group Code. If the “UM Required Flag” is enabled, then the Medical Group Code field is required. The user will be prompted with "medical group is required for utilization management" if the Medical Group Code is not specified and the UM Required Flag is enabled.

Carrier Type Code	Policy Number Mask	Self Pay Flag	Eligibility Payer Id	Um Required Flag	Medical Group Code	Collect Deductible Flag
Contains: ▼	Contains: ▼	Contains: ▼	Contains: ▼	Contains: ▼	Contains: ▼	Contains: ▼
CAP (Captiated Cont...		N		Y	<input type="text" value=""/>	Y
CAP (Captiated Cont...		N		Y	RPN (Riverside Ph...	Y
CAP (Captiated Cont...		N		Y	SeaView (SeaView...	Y
CAP (Captiated Cont...		N		Y	Vantage (Vantage...	Y
MC (Medi - Cal)		N	00431	N		Y

Figure 5.91 – Specifying Medical Group Code for Carrier

Utilization Management – Addition of Utilization Management User Group

This can be done via configuration. A new user group called “Utilization Management” was added to the UserGroup lookup. All utilization review access strings will be mapped to this group.

Group Name ▼	Description	Display Order	Maximum Open Tabs	Last Updated	Active
Contains: ▼	Contains: ▼	Equals: ▼	Equals: ▼	Equals: ▼	Contains: ▼
Click here to add a new row					
UtilizationManagement	Utilization Management	1	40	01-14-2014 1:...	Y

Figure 5.92 – User Group with new group of UtilizationManagement

Meaningful Use – Site Level MU Override

Currently the MU Required flag is set at the Practice level the sites that fall under that practice will also be MU Required. It has been requested that we allow for a site to disengage from collecting MU data. For this we have added an MU Required check box at the site level so an Administrator can remove the site. This however doesn't work the opposite way. You can't have a site that MU Required when the practice is not.

The screenshot shows the 'Edit Site' window with the following details:

- Site Section:**
 - Site code *: PEI_TEST1
 - Description*: PEI TEST 1
 - Phone #: (902) 724-3314
 - Fax #: () -
 - PACS Child Server: [Dropdown]
 - Active: ☒
 - Mammography Tracking Enabled: ☒
 - Disable BI-RADS Controls: ☐
 - Outside Read Location: ☐
 - Insurance required: ☐
 - MU Required: ☐
 - Site notes: [Text Area]
 - Report template path: [Text Field]
 - Availability template: [Dropdown]
- Contact Section:**
 - Contact name: [Text Field]
 - Phone #: () -
 - Mobile #: () -
 - Fax #: () -
 - Email: [Text Field]
 - Contact notes: [Text Area]
- Address Section:**
 - Address 1: [Text Field]
 - Address 2: [Text Field]
 - City: [Text Field]
 - State: [Text Field]
 - Zip code: [Text Field]
 - Country: [Text Field]

Buttons: Save, Close

Figure 5.93 – Site with MU Required flag

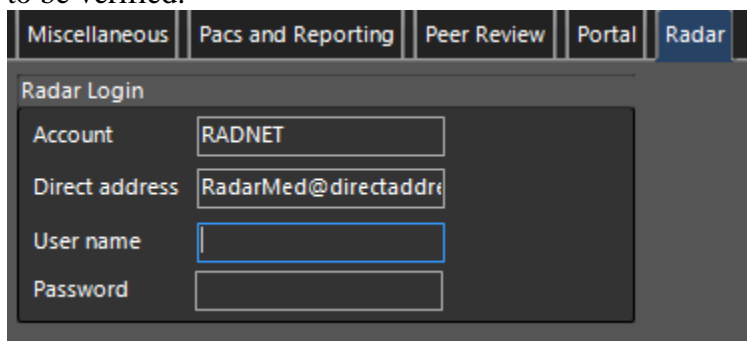
Meaningful Use – Direct Messaging

Worked with RADAR, to create an API call to secure exchange (Direct Message) email provider.

During the configuration of each practice a radar login information will need to be provided, it is intended currently for each box to have a RADAR account, with the same info on every practice, but will allow for a practice to have their own RADAR account and direct message address.

The RADAR account is the same account that would be used for Appointment Reminder and CTRM.

Direct Email Address can be requested through RADAR and Secure exchange, which will have to be verified.



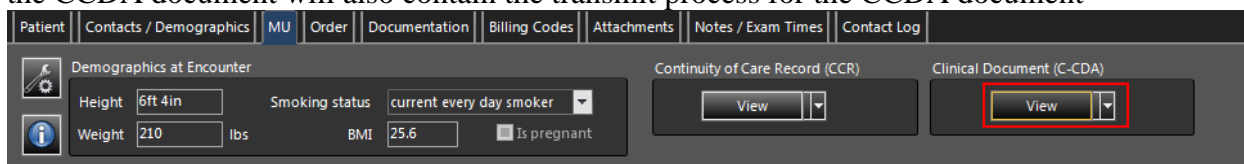
The screenshot shows a web application interface with a top navigation bar containing tabs: Miscellaneous, Pacs and Reporting, Peer Review, Portal, and Radar. The Radar tab is selected. Below the navigation bar is a section titled "Radar Login" with four input fields: "Account" (containing "RADNET"), "Direct address" (containing "RadarMed@directaddre"), "User name" (empty), and "Password" (empty).

Figure 5.94 – Practice Radar tab

This Direct message address and RADAR login is used for sending messages from the Patient Portal as well as sending and receiving Direct message from RIS. When sending a Message the system will first check for a provided value in the practice specific “Direct address” (which does need to be a qualified direct message address), if there is no value specified then we will look at the configuration variable "DirectMessageFromAddress".

Sending RIS Direct Messages

From within the RIS you are able to send a direct message that will contain the CCDA document by means of opening a patients study through View/Edit, under the MU tab, the process to view the CCDA document will also contain the transmit process for the CCDA document



The screenshot shows a web application interface with a top navigation bar containing tabs: Patient, Contacts / Demographics, MU, Order, Documentation, Billing Codes, Attachments, Notes / Exam Times, and Contact Log. The MU tab is selected. Below the navigation bar is a section titled "Demographics at Encounter" with fields for Height (6ft 4in), Weight (210 lbs), Smoking status (current every day smoker), BMI (25.6), and Is pregnant (checkbox). To the right of this section are two buttons: "View" under "Continuity of Care Record (CCR)" and "View" under "Clinical Document (C-CDA)". The "View" button under "Clinical Document (C-CDA)" is highlighted with a red box.

Figure 5.95 – MU tab Clinical Document access

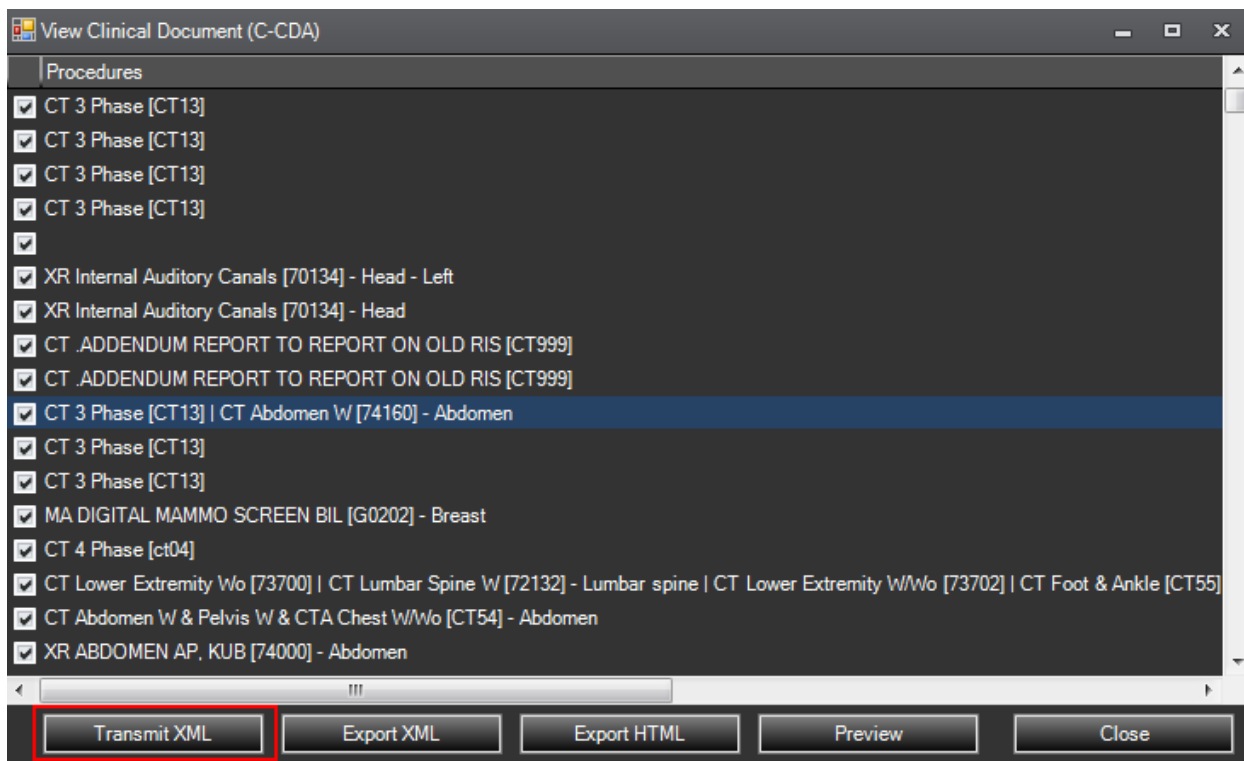


Figure 5.96 – View Clinical Document

Transmitting (sending) the CCDA document will allow two version of the document HTML and system(xml) format, where the user will be required to provide a valid Direct message address.

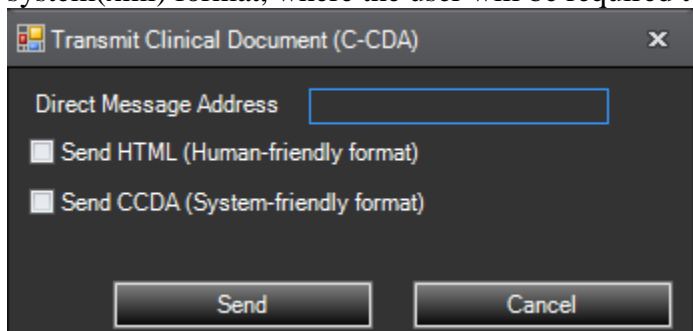


Figure 5.97 – Transmit Clinical Document

Sending Portal Direct Messages

From within the Patient portal, the patient has the ability to send there CCDA document through Direct Message to any desired Direct Message address. When the user has successfully logged

into the portal, when there CCDA document is available, the tab will be visible, opening this tab will enable the send button.



Figure 5.99 – Sending via Patient Portal

Click on this will allow for a similar process to the RIS transmit process, where the patient will be prompted for a direct message address, the patient will be required to confirm the address, and then be able to choose what version of the document they would like to send.

A screenshot of the 'Enter sender information' form. At the top, there is a row of icons: 'Details', 'Print', 'Download', 'Message', and 'Send'. The 'Send' icon is highlighted. Below the icons, there are two text input fields labeled 'Direct Message Address' and 'Retype Direct Message Address', both containing the text 'Direct Email Address'. Below these fields are two checkboxes: 'Send HTML (Human-friendly format)' and 'Send CCDA (System-friendly format)'. The 'SEND' button is highlighted in red, and the 'CANCEL' button is in blue. To the right of the form, there is a text box explaining Direct Message: 'A Direct Message is a communication protocol that allows you to encrypt personal health information and send to a third party. Only use a Direct Message address (usually containing "@direct." in the address). You will need to contact the recipient for their Direct Message address. A Direct Message address is not the same as an email address. Email addresses will not work.'

Figure 5.100 – Entering sender information

Receiving Direct Messages

RIS is the only location that is able to receive messages (outside the Direct message provider controlled tools).

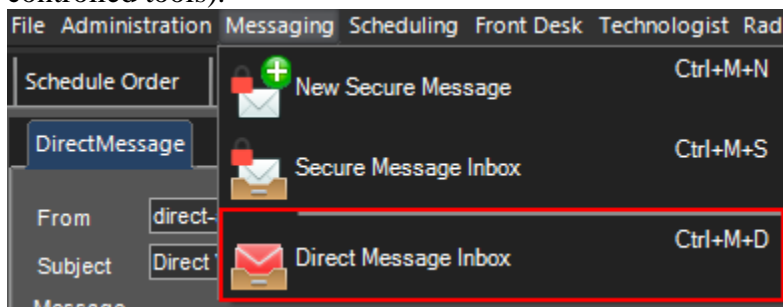
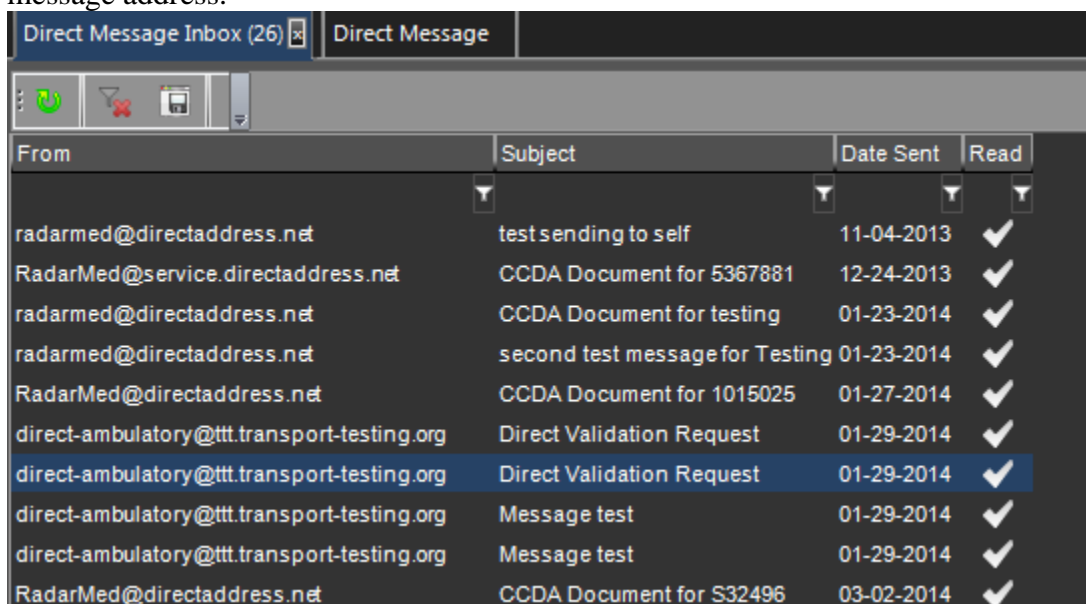


Figure 5.101 – Access direct messages work list in eRAD RIS

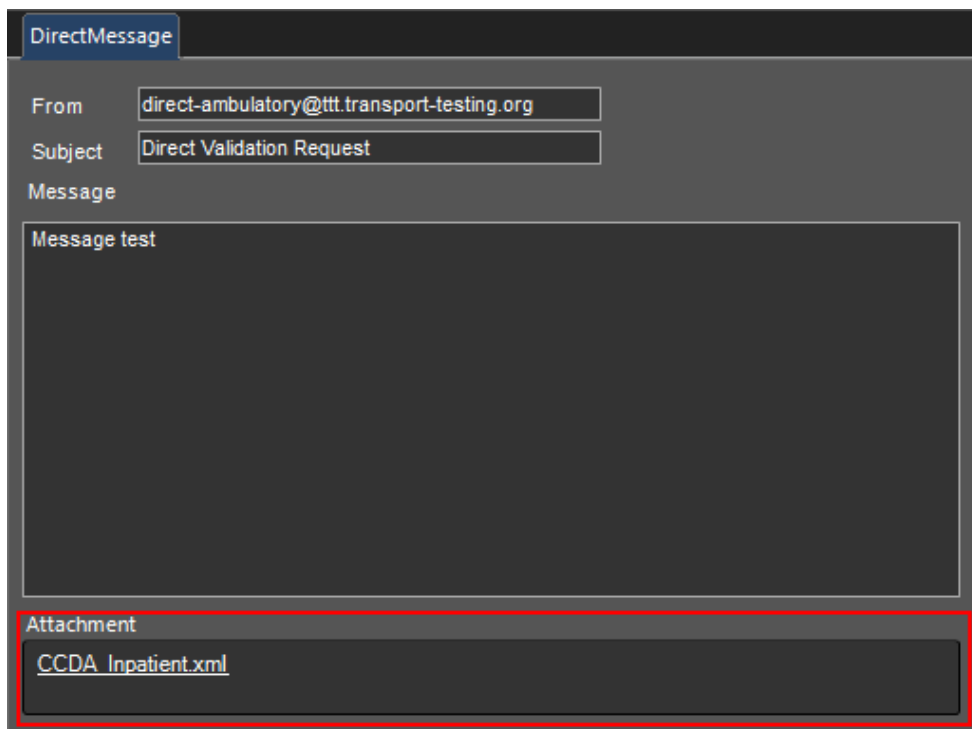
From the direct message inbox will list all non-archived messages that for the practices Direct message address.



The screenshot shows a web application interface for a Direct Message Inbox. At the top, there are two tabs: "Direct Message Inbox (26)" and "Direct Message". Below the tabs is a toolbar with icons for refresh, search, and other functions. The main area is a table with columns: "From", "Subject", "Date Sent", and "Read". The table contains several rows of messages, with the row "direct-ambulatory@ttt.transport-testing.org" and "Direct Validation Request" highlighted in blue.

From	Subject	Date Sent	Read
radarmed@directaddress.net	test sending to self	11-04-2013	✓
RadarMed@service.directaddress.net	CCDA Document for 5367881	12-24-2013	✓
radarmed@directaddress.net	CCDA Document for testing	01-23-2014	✓
radarmed@directaddress.net	second test message for Testing	01-23-2014	✓
RadarMed@directaddress.net	CCDA Document for 1015025	01-27-2014	✓
direct-ambulatory@ttt.transport-testing.org	Direct Validation Request	01-29-2014	✓
direct-ambulatory@ttt.transport-testing.org	Direct Validation Request	01-29-2014	✓
direct-ambulatory@ttt.transport-testing.org	Message test	01-29-2014	✓
direct-ambulatory@ttt.transport-testing.org	Message test	01-29-2014	✓
RadarMed@directaddress.net	CCDA Document for S32496	03-02-2014	✓

Figure 5.102 – Direct Message inbox



The screenshot shows the detail view of a direct message. At the top, there is a tab labeled "DirectMessage". Below the tab, the "From" field is "direct-ambulatory@ttt.transport-testing.org" and the "Subject" field is "Direct Validation Request". The "Message" field contains the text "Message test". Below the message field, there is an "Attachment" section with a red border, containing the file "CCDA_Inpatient.xml".

DirectMessage

From: direct-ambulatory@ttt.transport-testing.org

Subject: Direct Validation Request

Message

Message test

Attachment

CCDA_Inpatient.xml

Figure 5.103 – Accessing direct message

Depending of the file type will dictate on how the attachment will handled, if the file is an xml or html we will try to display the attachment, otherwise we will just prompt the user to download the file.

When display the attachment, if it is an xml document type, and we detect that it is a CCDA document we will also provide the user with the ability to link the information from the CCFA document to a desired patient;

Community Health and Hospitals: Health Summary

Patient:	Myra Jones 1357 Amber Drive Beaverton, OR, 97006 tel:(816)276-6909	MRN:	1
		Sex:	Female
		Birthdate:	May 1, 1947
Next of Kin:	Guardian:		

ALLERGIES, ADVERSE REACTIONS, ALERTS

Substance	Reaction	Severity	Status
Penicillin G benzathine	Hives	Moderate to severe	Inactive
Codeine	Shortness of Breath	Moderate	Active
Aspirin	Hives	Mild to moderate	Active

ENCOUNTERS

Encounter	Performer	Location	Date
Pneumonia	Dr Henry Seven	Community Health and Hospitals	20120806

IMMUNIZATIONS

Vaccine	Date	Status
Pneumococcal (Pneumovax) Vaccine	August 2012	Completed
Influenza virus vaccine, IM	May 2012	Completed
Tetanus and diphtheria toxoids, IM	Apr 2012	Completed

MEDICATIONS

Save Attachment **Link to Patient** Close

Figure 5.104 – Viewing CCDA document from link in direct message

Clicking the link to patient, we will do an initial patient search based on the information we are able to extract from the document, the user is able to modify the search criteria if need be.

Upon selecting a patient, all information from the CCDA document will be merged into the desired patient, and a new patient tab will be added.

DirectMessage Patient

General Information

Prefix: [Dropdown] MRN: 1004549116

First name: Myra Sex: Female

Last name: Jones Birth date: 05-01-1947 67y 2m

Middle: [Text] Suffix: [Dropdown] Place of birth: [Text]

☐ Deceased ☐ Arbitration signed

Medications

☒ Show inactive

Date	Medication	Administered	Physician	SIG Text
Click here to add a new row				

Allergies

Allergy	Reaction	Severity	Status	Start Date
Penicillin G	Hives		InActive	05-01-2007
Codeine	Shortness of...	Moder...	Active	05-01-2006
Aspirin	Hives		Active	05-01-2008
Click here to add a new row				

Medical History

Problem	Start Date	End Date	Status
(J18.9) Pneumonia, unspecified organi...	08-06-2012	08-06-2012	Resolved
(J45.909) Unspecified asthma, uncom...	01-03-2007	08-06-2012	Active
Click here to add a new row			

Patient Discharge Notes

07-08-14 WaiteA -

Ms. Jones, you have been seen by Dr. Henry Seven at Local Community Hospital from August 6th until August 13th 2012. You are currently being discharged from Local Community Hospital. Dr. Seven has provided the following instructions to you at this time; should you have any questions please contact a member of your healthcare team prior to discharge. If you have left the hospital and have questions, please contact Dr. Seven at 555-555-1002. Instructions:

- Take all medications as prescribed.
- Resume normal activity and previous diet as tolerated.

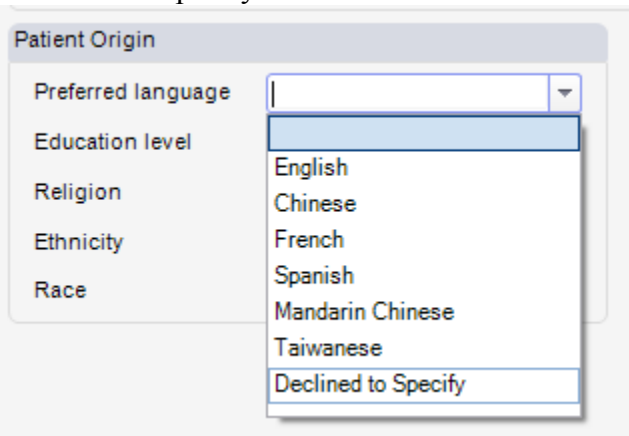
Archive Message Save Close

Figure 5.105 – Patient tab created

Once all information is imported and confirmed saving will save all imported data. Clicking the archive message is used for once a messages has been completed with, it will remove the message from the direct message inbox WL.

Meaningful Use – Additional Options for MU Fields

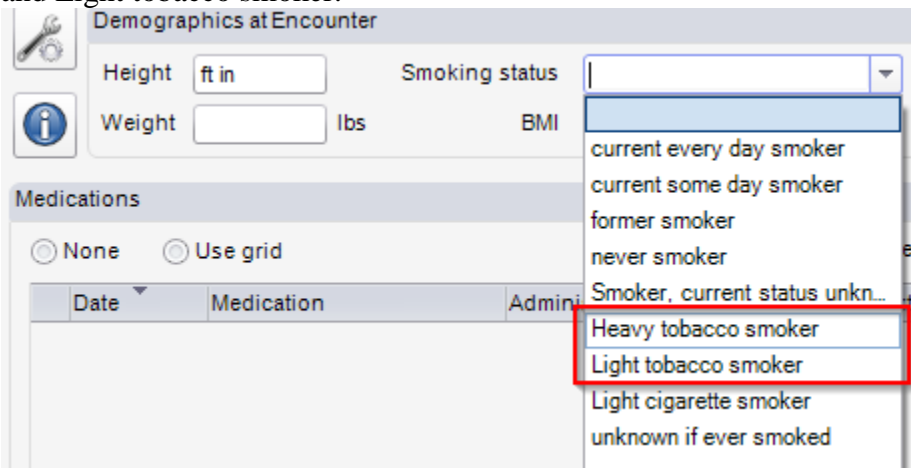
On the patient tab the field for Race type, Ethnic origin and Language now have a value of “Declined to Specify”.



The screenshot shows a form titled "Patient Origin". It contains several fields: "Preferred language", "Education level", "Religion", "Ethnicity", and "Race". The "Race" field has a dropdown menu open, displaying a list of options: "English", "Chinese", "French", "Spanish", "Mandarin Chinese", "Taiwanese", and "Declined to Specify". The "Declined to Specify" option is highlighted at the bottom of the list.

Figure 5.106 – Declined to specify option

The Smoking status field on the MU tab also has 2 additional options of Heavy tobacco smoker and Light tobacco smoker.



The screenshot shows a form titled "Demographics at Encounter". It contains fields for "Height" (ft in), "Weight" (lbs), "Smoking status", and "BMI". The "Smoking status" field has a dropdown menu open, displaying a list of options: "current every day smoker", "current some day smoker", "former smoker", "never smoker", "Smoker, current status unkn...", "Heavy tobacco smoker", "Light tobacco smoker", "Light cigarette smoker", and "unknown if ever smoked". The "Heavy tobacco smoker" and "Light tobacco smoker" options are highlighted with a red box.

Figure 5.107 – New smoking status options

Meaningful Use – Additional Medications for Quick Add Edit Window

On the MU quick Add/Edit form we modified the code to add the two requested medications (Glycomet and Kombiglxzxr).

MU Quick Add Edit Dialog

Medications

<input type="checkbox"/> ACTOplus Met	<input type="checkbox"/> Glyburide-metformin
<input type="checkbox"/> Avandamet	<input checked="" type="checkbox"/> Glycomet
<input type="checkbox"/> Diabex	<input type="checkbox"/> Janumet
<input type="checkbox"/> Diaformin	<input checked="" type="checkbox"/> Kombiglxzxr
<input type="checkbox"/> Flortamet	<input type="checkbox"/> Metaglip
<input type="checkbox"/> Glucophage	<input type="checkbox"/> Metformin
<input type="checkbox"/> Glucovance	<input type="checkbox"/> PrandiMet
<input type="checkbox"/> Glumetza	<input type="checkbox"/> Riomet (liquid form Metformin)

Medical History

<input type="checkbox"/> Aneurysm Clip or Coil	<input type="checkbox"/> Metal in the body
<input type="checkbox"/> Aneurysm Had Surgery	<input type="checkbox"/> Morphine Pump
<input type="checkbox"/> Aneurysm No Surgery	<input type="checkbox"/> Pacemaker
<input type="checkbox"/> Asthma	<input type="checkbox"/> Paraplegic
<input type="checkbox"/> Breast Implants	<input type="checkbox"/> Previous CT Contrast Reaction
<input type="checkbox"/> Cancer	<input type="checkbox"/> Previous MR Contrast Reaction
<input type="checkbox"/> Diabetes	<input type="checkbox"/> Renal Disease
<input type="checkbox"/> Hypertension	<input type="checkbox"/> Universal Precautions
<input type="checkbox"/> Insulin Pump	

Allergies

Substance	Mild	Mod	Severe
Adhesive Tape	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bee Sting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Betadine (Topical Iodine)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contrast (Medical Imaging)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dog, Cat or Animal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dust	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fruit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Grass / Pollen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Latex	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lidocaine / Novocaine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mold	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Peanut or other nut	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Penicillin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rubbing Alcohol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shellfish	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sulfa Drug	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

OK Cancel

Figure 5.108 – MU Quick Add Edit window

Note, in order for these to show enabled on the mu quick add/edit form these two codes will have to be added to the Medication lookup table.

Patient Search Lookup Tables - Medication x

General Insurance Mammography MU

Allergy Condition FamilyHistory FamilyRelation Goal LabObservation LabProvider LabTest LegalAuthenticator Medication

Medication Code	Description
Contains:	Contains:
Click here to add a new row	
Nicotine	24 HR Nicotine 0.313 MG/HR Transdermal Patch
Kombiglxzxr	Kombiglxzxr
Glycomet	Glycomet
ACTOplus Met	ACTOplus Met
Lipitor	Lipitor
Lantus	Lantus
NovoLog	NovoLog
Avandamet	Avandamet
Diabex	Diabex

Figure 5.109 – Medication lookup with new additions

Meaningful Use – Laboratory Tests and Values / Results

In order to incorporate MU2 laboratory test results we needed to modify the lab value framework and separated the lab order from the lab results. The screen shot below shows the newly designed form. The User has the ability to add lab order information in the top part of the form and the results will be completed in the results grid. A new button was added that allows the user the ability to add child labs to the lab entry.

The screenshot shows a window titled "Lab Results" with a standard Windows-style title bar. The form is organized into several sections:

- Order status ***: A dropdown menu with "Completed" selected.
- Requested by**: A text input field with a search icon.
- Test name**: A dropdown menu.
- Lab name / address**: A dropdown menu.
- Clinical information**: A large text area.
- Notes**: A large text area.
- Specimen type**: A dropdown menu.
- Draw date**: A date picker showing "05-08-2014".
- Specimen condition**: A dropdown menu.
- Specimen quality**: A dropdown menu.
- Specimen action**: A dropdown menu.

Below the form is a **Results** section containing a table with the following columns: Observation, Value, Units, Reference Range, Date, Abnormal..., and note. The table is currently empty. At the bottom of the window, there are four buttons: "Delete", "Child Labs" (with a dropdown arrow), "OK", and "Cancel".

Figure 5.110 – Lab results window from MU tab

We created a script (Lab_value_changes.sql) to the build process to migrate over MU values into the new lab framework.

Meaningful Use – Office Visit

The Billing Code table has a new column titled MU Office Visit Flag. It will be used by the automated measures management report when applicable to determine if the mu measure is an office visit and calculate the numerator and denominator based on the performed procedure being an office visit. By default the value is set to N.

Lookup Tables - BillingCode x								
Billing Code	Description	Version	Display Order	Billing Modality Type Code	Technical Rvu	Profession Rvu	Mu Office Visit Flag	
Co... 99201	Contains:	Contains:	Equals:	Contains:	Equals:	Equals:	Contains:	
Click here to add a new row								
D 99201	OFFICE OR OTHER OUTPATIENT VISIT FOR THE EVALUATION AND MANA...	1	1	EM (Evaluation and Manage...			Y	

Figure 5.111 – Billing code table

Meaningful Use – Clinical Summaries

Added to the MU tab is a new section called Clinical Documentation (C-CDA). The button contains 2 new options of “View” which will view all exams for the patient and “View Current Exam” which will only view the current exam. Normally for Clinical Summary we will select “View Current Exam” to generate the CCDA/human readable format since we are mainly concerned about the current visit.

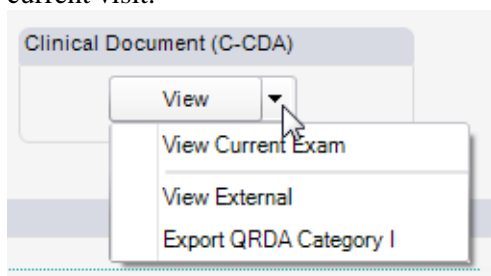


Figure 5.112 – New options for C-CDA button

Clicking the View Current Exam will launch a new dialog which will allow the user the ability to customize data. The user will have the option to removed sections for example uncheck Medications will remove medications from both the CCDA and human readable. The user also will have the ability to uncheck specific items they wish not to appear in either the CCDA or human readable format. To generate the CCDA the file format the user will click the Export XML, while the human readable is generated by clicking the Export HTML.

A screenshot of a software dialog box titled "View Clinical Document (C-CDA)". The dialog box contains several sections with checkboxes and tables. The "Patient Folder" section is checked and contains a table with columns "Procedures", "Scheduled Start Date", and "Status Code". The "Allergies" section is checked and contains a table with columns "Description", "Start Date", "Reaction", "Severity", and "Status". The "Medications" section is checked and contains a table with columns "Medication", "Prescription Date", "Status", "Dosage Form", "Strength Uom", "SIG", and "Pharmacist Notes". The "Problems" section is checked and contains a table with columns "Condition", "Date", and "Status". At the bottom of the dialog box are five buttons: "Transmit XML", "Export XML", "Export HTML", "Preview", and "Close".

Procedures	Scheduled Start Date	Status Code
<input checked="" type="checkbox"/> XR Chest PA Lat & Ribs 2 Views Unilat [RD33] - Chest	08-13-2012	Scheduled

Description	Start Date	Reaction	Severity	Status
<input checked="" type="checkbox"/> Penicillin G	08-06-2012	hives	Mild	Active
<input checked="" type="checkbox"/> Codeine	08-06-2012	shortness of breath	Mild	Active
<input checked="" type="checkbox"/> Aspirin	08-06-2012	test	Mild	Active

Medication	Prescription Date	Status	Dosage Form	Strength Uom	SIG	Pharmacist Notes
<input checked="" type="checkbox"/> albuterol	10-02-2013	P	puff	mcg/actuation	2 puffs inhale daily	
<input checked="" type="checkbox"/> clarithromycin	10-03-2013	C	Add'l Sig	mg	1 Select Frequency	

Condition	Date	Status
-----------	------	--------

Figure 5.113 – View Clinical Document (C-CDA)

Meaningful Use – Data Portability

The data portability feature is really the ability to export all CCDA patient records and therefore this story will be referred to as the MUExportAll feature.

When exported the results will be written to the location specified by the system configuration setting **“MUExportAllPath”**. This setting doesn’t have a default value. When complete the file will be updated with the date it was completed. If an error occurs the error details are captured.

The UI’s Meaningful use form under “Administration / Meaningful Use” shows the progress of the current or previous export operation. It shows how many records have been exported and how many in total are to be processed. It also allows the user to start a new export and gives them the option to suspend or resume the latest export.

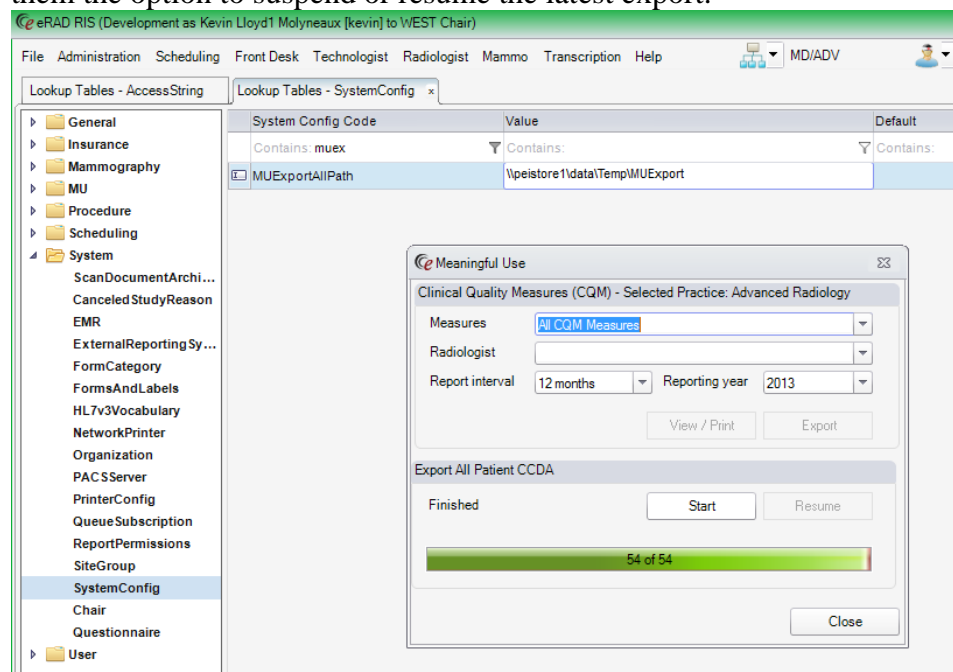


Figure 5.114 – System config setting and Meaningful Use window display progress

When clicking the start button the user is asked to confirm the export operations.

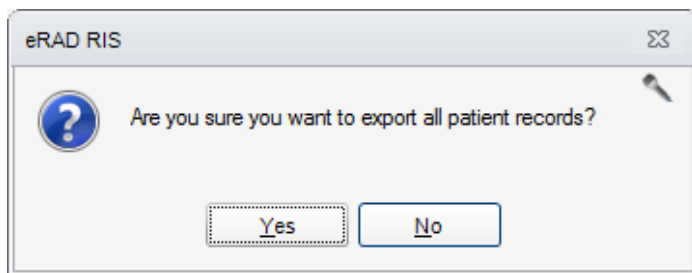


Figure 5.115 – Confirmatory message

Choosing Yes will export **all patient** records to the MUExportPath and will overwrite any pre-existing exports at that location. The files are written to the MUExportPath in the format

Birthyear\birthmonth\birthday\<patient_id>_<issuer_of_id>_<first_name>_<last_name>.xml

If there is less than 1 GB available at the MUExportPath the status of the export will change to “InsufficientSpace” and after space is made available the user can restart the process by clicking the “Resume” button.

The export progress is completely asynchronous and is executed on the server. There is only one export processing thread per server instances, which on our test instance was exporting about 1 million patients in a week. If you need to process 2 million in a week all you have to do is scale the solution by adding additional WS instances.

Access to this feature is control via the access string **“MU.ExportAll”** with a default of none.

When an export is started, the Start button then becomes the Stop button. If the Stop button is selected the current job will be put in a status of stopped, which in turn will change the stop button to start again. Stopping or suspended the job will terminate the existing export thread (which will take a few seconds to terminate). The count will be refreshed when you decide to Start the export process again which is only available when in stopped state.

Meaningful Use – Alerts and Clinical Decision Support

The MU alerts we have provided to meet these MU requirements are as follows:

- **MRI65PlusHeartDiseaseLipitorAndLDL100Plus**
- **LabOrderWithEmptyValue**
- **HasAllergy** (*allergy_code, contrast_procedure_flag)
- **HasProblem** (*indication_code, contrast_procedure_flag)
- **OnMedication** (*drug_name, contrast_procedure_flag)
- **ProcedureXAndHighBP** (procedure_code, BP) // we will allow * from procedure_code
- **AgeGreaterThan** (age, contrast_procedure_flag)

Lookup Tables - AlertConfiguration		View/Edit: MOLYNEAUX, bevin #T1276		Lookup Tables			
Alert Configuration Code	Description	Alert Generator	Alert Display Order	Audit Flag	Cds Resource Source	Cds Funding Source	Cds Au
Contains:	Contains:	Contains:	Contains:	Equals:	Contains:	Contains:	Contains:
Click here to add a new row							
CDS_01	Discuss follow up with physician regarding blood pressure. (CDS_01)	CDS_01_HighBP	0	Y	National Committee for Quality Assurance		Erin Wi
CDS_02	Discuss follow up with physician regarding cholesterol. (CDS_02)	CDS_02_HighCholesterol	1	Y	The American College of Physicians	ACP operating budget	Amir Qi
CDS_03	Patient has possible allergic reaction to contrast because they have asthma and a prior reaction to asthma. (CDS_03)	CDS_03_PossibleReaction	2	Y	American Family Physician		THOM
CDS_04	Discuss preventative care and screening tobacco use. (CDS_04)	CDS_04_TobaccoUser	3	Y	American Heart Association		Joseph
CDS_05	Remind patient about pneumonia booster (CDS_05)	CDS_05_PneumoniaBooster	4	Y	National Committee for quality Assurance		Akin I, I
Patient's Birth Date has changed. Data source: the data is correct							
DefaultBirthChannel							

Figure 5.116 – Alert configuration table

contrast_procedure_flag is either a Y or N value. if Y, then the alert only fires if the procedure requires contrast. * are parameters that can be more than one separated by a comma.

To deal with **Clinical Decision Support** the alert text for several of these entries is customizable via the AlertConfiguration lookup table and supports links to external web sites via the a href syntax such as:

Heart Disease

With the above, when the user clicks on the “Heart Disease” link, the web page www.med.unc.edu will be displayed in a web browser form. The form will be model and when they close the form they will return to the RIS.

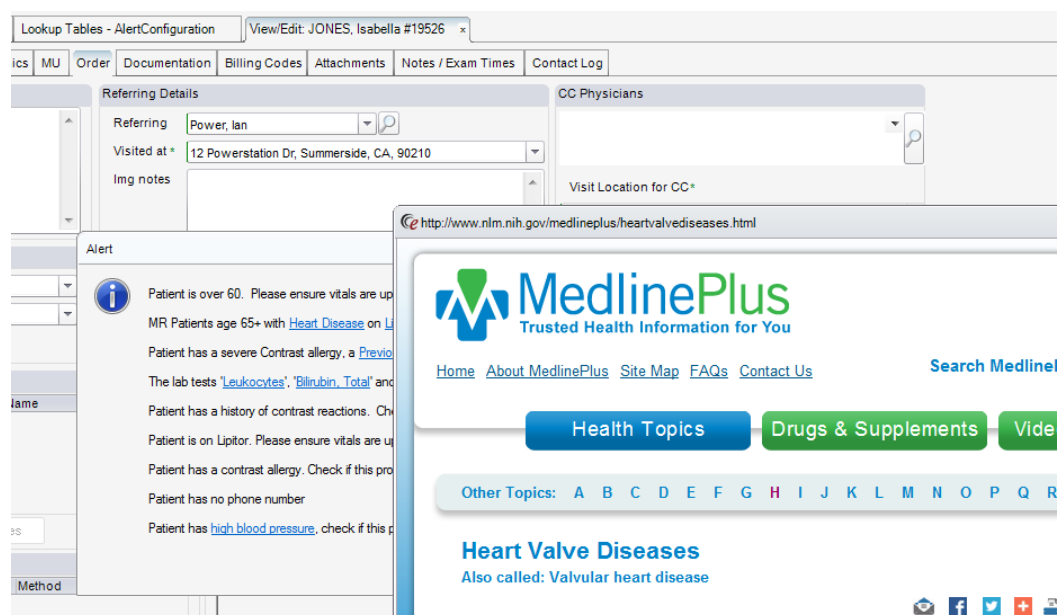


Figure 5.117 – Clinical decision support

If the LINK is prefixed with #MUProvidedEducation# and the patient hasn't been provided with CDS information for the current visit, the user will get prompted when they close the web info window with a dialog such as:

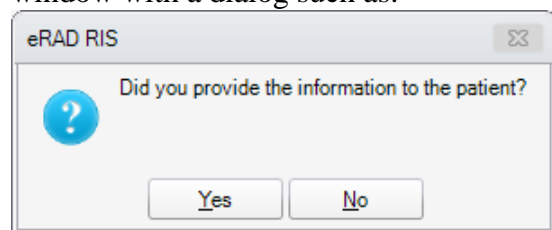


Figure 5.118 – Confirmatory message for CDS

If they choose Yes, it will be marked as “provided educational resources” for the visit.

Here is another example of an alert description, which is set to provide CDS information and record if we provided education resources to the patient:

Patient has [high blood pressure](#MUProvidedEducation#https://www.med.unc.edu/im/patients/Resources/high-blood-pressure), check if this procedure should be done in an imaging center.

Then in our first round of MU certification testing we realized we needed Clinical Resource Sourced rules for CDS such as the American Family Physician backed rules for our MU alerts. Based on this we produced the following MU rules:

#1 Alert patient to follow up with physician regarding BP

- 1) Condition that triggers the alert
 - High BP age 18-85
 - Noted hypertension
 - BP is over 140/90
- 2) The Clinical resource source
 - National Committee for Quality Assurance
- 3) The funding source
- 4) The author of the CDS
 - **Erin Weireter**, Released January 17,2012
- 5) The link to the clinical resource
 - http://www.qualityforum.org/News_And_Resources/Press_Releases/2012/NQF_Endorses_Cardiovascular_Measures.aspx

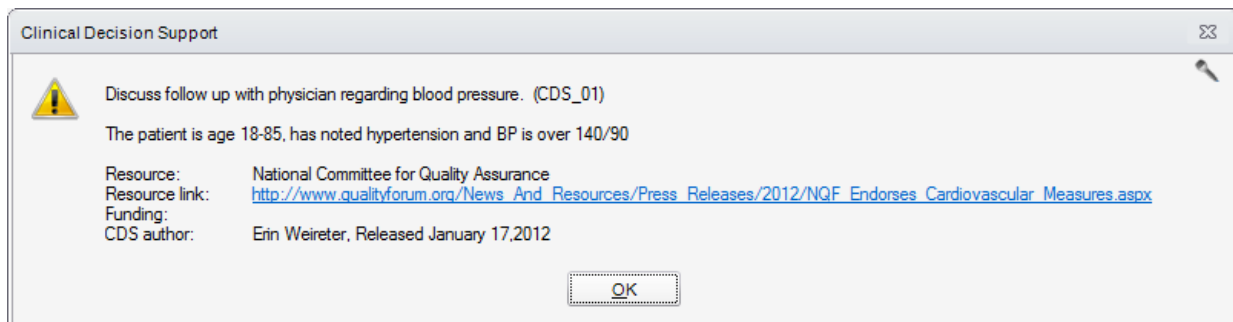


Figure 5.119 – Alert 1

#2 Alert patient to follow up with physician regarding cholesterol

- 1) Conditions that triggers the alert
 - Patient over 65
 - On Lipitor
 - Cholesterol reading over 100
- 2) The Clinical resource source
 - The American College of Physicians
- 3) The funding source

- Financial support for the Performance Measurement Committee comes exclusively from the ACP operating budget
- 4) The author of the CDS
 - Amir Qaseem, MD, Robert Centor, MD and Andrew Dunn, MD
- 5) The link to the clinical resource:

http://www.acponline.org/clinical_information/performance_measurement/ckd.htm

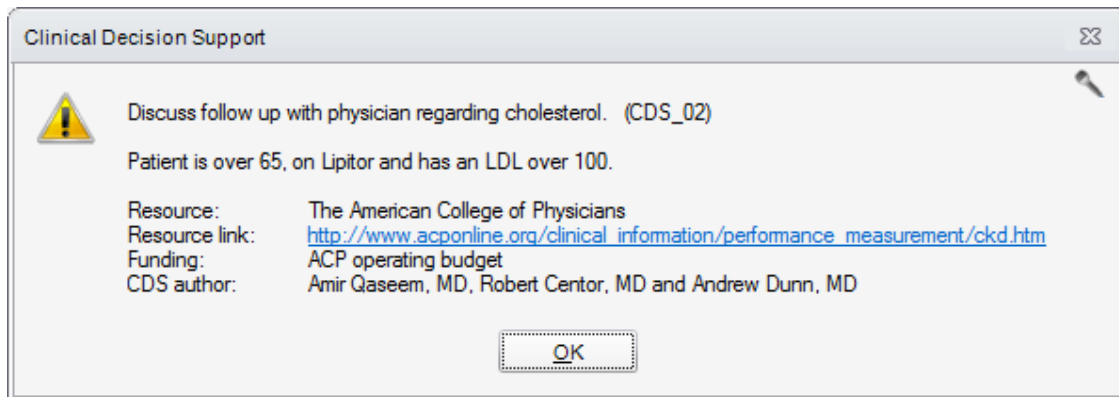


Figure 5.120 – Alert 2

- #3 Alert patient as to possible allergic reaction to contrast
- 1) Conditions that triggers the alert
 - a. Patient has asthma
 - b. Prior reaction to contrast
 - 2) The clinical Resource Source
 - a. American Family Physician
 - 3) Financial Source
 - a. n/a
 - 4) The author of the CDS
 - a. THOMAS G. MADDUX, M.D.,
 - 5) The link to the clinical resource:
 - a. <http://www.aafp.org/afp/2002/1001/p1229.html>

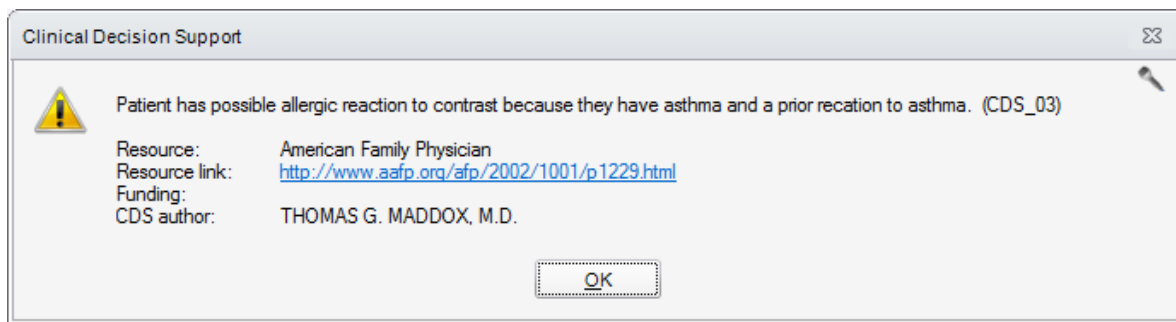


Figure 5.121 – Alert 3

- #4 Discuss Preventative Care and Screening Tobacco Use
- 1) Conditions that triggers the alert
 - a. Aneurysm /no surgery/smoker
 - b. Men over 50 years old higher risk of infection
 - 2) The Clinical Resource Source
 - a. American Heart Association
 - 3) Financial Source
 - a. n/a
 - 4) The Author of the CDS
 - a. Joseph P. Broderick, M.D.,
 - 5) The link to the clinical resource

www.sciencedaily.com/releases/2010/02/100226093207.htm

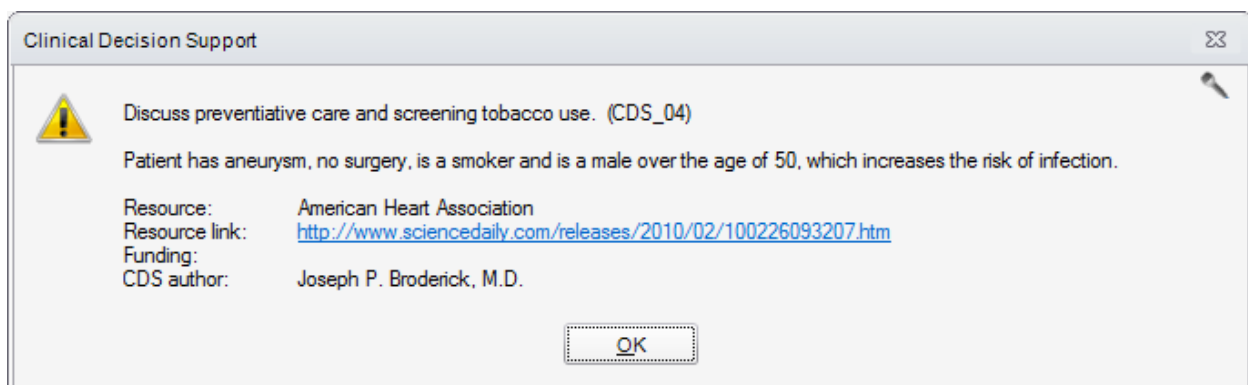


Figure 5.122 – Alert 4

- #5 Patient Reminder for Pneumonia Booster if Criteria is met
- 1) Conditions that trigger alert:
 - a. Pneumonia Vaccination (PPV23)
 - b. Adults 65 and older
 - c. Smoke, asthma, heart disease

- 2) The Clinical Resource Source
 - a. National Committee for quality Assurance
- 3) Financial Resource
 - a. n/a
- 4) The author of the CDS
 - a. Akin I, Kaya M. Altinel S. & Durand L.
- 5) The link to the clinical resource
 - a. www.qualityforum.org/WorkArea/linkit.aspx?LinkIdentifier=id...

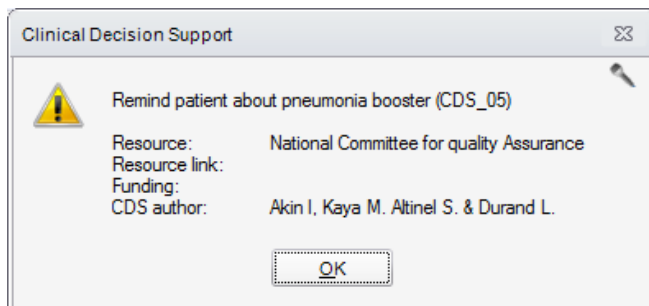


Figure 5.123 – Alert 5

Configuration for new Alerts:

Alert access strings have been created in the application and can be configured so users whose clinical role allows or does not allow them to see clinical decision support interventions rules. By default the alerts in the system will be set to **Full** access so they will fire for all users. In order to not fire the CDS rule an admin user that has the rights to configure user's rights would have to set the user group to NONE.

Alert #1 is controlled by the access string **"Alert.CDS_01_HighBP"**

Alert #2 is controlled by the access string **"Alert.CDS_02_HighCholesterol"**

Alert #3 is controlled by the access string **"Alert.CDS_03_PossibleReaction"**

Alert #4 is controlled by the access string **"Alert.CDS_04_TobaccoUser"**

Alert #5 is controlled by the access string **"Alert.CDS_05_PneumoniaBooster"**

Meaningful Use – Clinical Quality Measures

To resolve this feature we need to use the cypress tool [v2.4.1]. Radnet has selected the following CQMs measures for Meaningful Use stage 2. Documentation to generate QRDA Category I and III use **CDAR2_QRDA_DSTUR2_2012JUL.docx** which can be downloaded from HL7 Implementation website.

Radnet 9 CQMs measures

CMS50 - Closing the referral loop: receipt of specialist report

CMS65 - Hypertension: Improvement in blood pressure

CMS69 - Preventive Care and Screening: Body Mass Index Screening and Follow-Up

CMS117 - Childhood Immunization Status

CMS125 - Breast Cancer Screening

CMS138 - Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention

CMS147 - Preventive Care and Screening: Influenza Immunization

CMS155 - Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents

CMS165 - Controlling High Blood Pressure

1) Clinical Quality Measures – capture and export.

- Retrieve the patient data from Cypress based on the chosen CQMs
HTML FILE - G:\Documents\RADNet\rRis Product Requirements\Meaningful Use\2014\CQM\QRDA\Samples\NewFolks
- Create the QRDA Category I output data for evaluation.

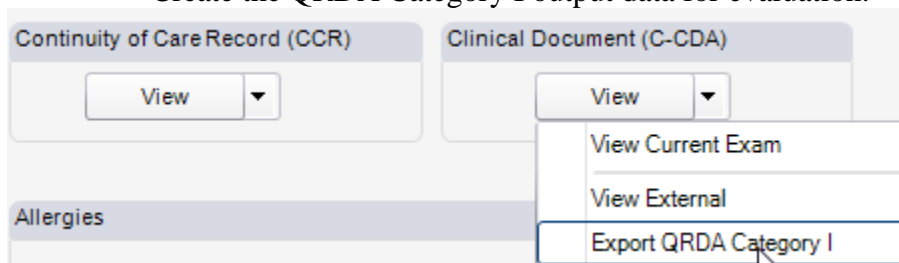
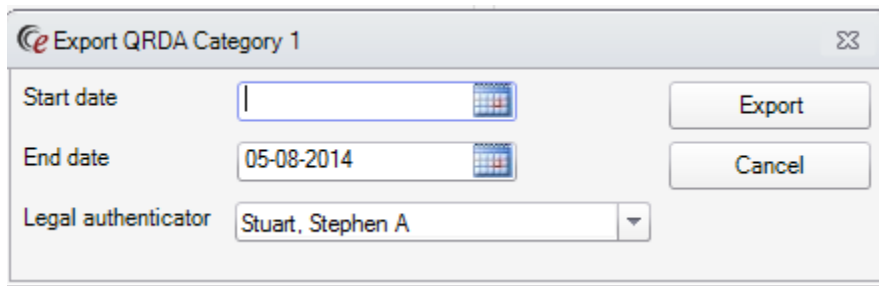


Figure 5.124 – Capture and export

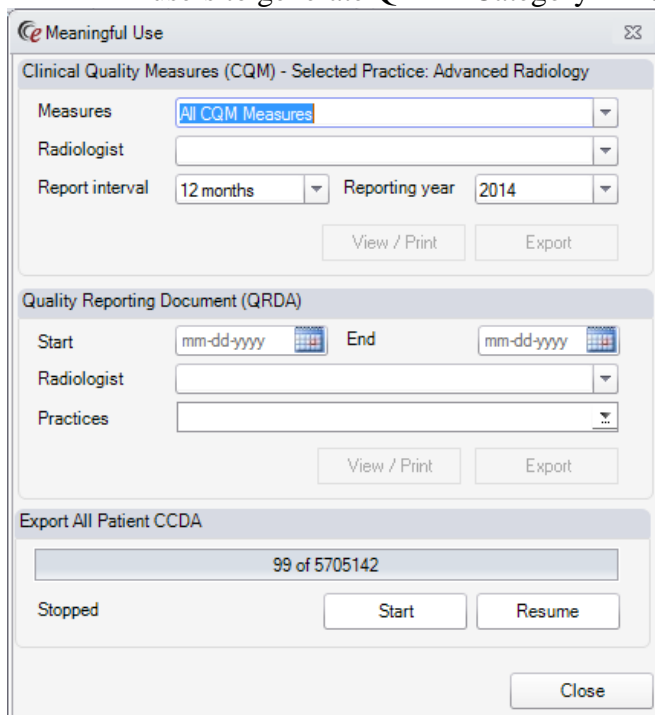
User must select the legal authenticator which is used in the QRDA file. (These values are populated from a lookup legal authenticator).



The dialog box is titled "Export QRDA Category 1". It contains three input fields: "Start date" with an empty date field and a calendar icon, "End date" with the value "05-08-2014" and a calendar icon, and "Legal authenticator" with a dropdown menu showing "Stuart, Stephen A". To the right of these fields are two buttons: "Export" and "Cancel".

Figure 5.125 – Export QRDA Category 1

- 2) Clinical Quality Measures – Import and calculate
 - Create the patient test deck from Cypress using the specific CQMs selected.
 - Proctor will instruct the Vendor to use the EHR functions to perform the CQM calculations and evaluate them against the expected results.
- 3) Clinical Quality Measures – electronic submission
 - The CQM calculation results in both QRDA Category I and III format.
 - In order to upload the QRDA Category III results into Cypress for evaluation we added the Quality Reporting Document (QRDA) to the Meaningful Use form for users to generate QRDA Category III results.



The window is titled "Meaningful Use". It has three main sections:

- Clinical Quality Measures (CQM) - Selected Practice: Advanced Radiology**: Contains a "Measures" dropdown menu (set to "All CQM Measures"), a "Radiologist" dropdown menu, a "Report interval" dropdown menu (set to "12 months"), and a "Reporting year" dropdown menu (set to "2014"). Below these are "View / Print" and "Export" buttons.
- Quality Reporting Document (QRDA)**: Contains "Start" and "End" date fields (format mm-dd-yyyy with calendar icons), a "Radiologist" dropdown menu, and a "Practices" dropdown menu. Below these are "View / Print" and "Export" buttons.
- Export All Patient CCDA**: Contains a progress bar showing "99 of 5705142", a "Stopped" status, and "Start" and "Resume" buttons.

A "Close" button is located at the bottom right of the window.

Figure 5.126 – Meaningful use window

Meaningful Use – Preventative Care

A new option has been added to the Contact Method of “Declined” has been added to the ContactMethod lookup table.

Lookup Tables - SystemConfig		Lookup Tables - ContactMethod x				
ContactMethod Type Code	Display Order	Description	HI7v3 Value Set Oid	HI7v3 Value Set Code	Last Updated	
Contains: ▾	Equals: ▾	Contains: ▾	Contains: ▾	Contains: ▾	Equals: ▾	
Click here to add a new row						
Declined	99	Declined			07-03-2014 11.	
Pony Express	5	Pony Express			04-09-2013 4.	

Figure 5.127 – Declined added to the ContactMethod lookup

This value will appear in the Preferred Contact Method list box of the Patient tab.

Walk-in: HOUGH, Charlie #20261PE * x Lookup Tables

Patient Patient Notes Contacts / Demographics MI

General Information

Prefix

First name *

Last name *

Middle Suffix

☐ Deceased ☐ Claustrophobic ☐ Arbit

Contact Information

Address 1

Address 2

City

State

Preferred contact method

Patient Origin

Preferred language

Education level

Religion

Figure 5.128 – New preferred contact method

Also a new system configuration setting of “**CallbackDeclinedValue**” has been added. This value references the item in the ContactMethod lookup that is used to trigger whether the order’s last_letter field should be flagged as ‘Declined Callback’ in the web services. **There is no default value set for this config setting.**

If contact method is set to decline value, we will set the order’s last letter to ‘*Declined Callback*’ and set the order’s last letter date to now when a follow-up order is about to be created.

When configuring this setting, users must take a precaution when selecting the value of Declined as the Preferred Contact Method when the System Configuration setting of “CallbackDeclinedValue” is set to Declined or any other value from the ContactMethod lookup.

For example, a patient that has the Preferred Contact Method of Declined and the System Configuration setting has a value of Declined. If this study is a Mammo study in which a follow up letter will be sent, the letter would not appear on the Mammo Letters WL as the contact method of Declined will be filtered out of the work list.

Meaningful Use – Automated Measures Management Report

Automated Measures – A management report that can accurately adjust the reporting period for all the required types and that the numerator and denominator information are accurate and complete for each reporting period and meaningful use stage for a specific Radiologist.

Automated Measures - Stage 1

Radiologist: Power MD, Ian

Date Range: 1/1/2014 - 12/31/2014

Practice(s): Get Well Clinic

Description: This report displays the percentage of patients where the mu requirement was recorded.

*Click [here](#) to get the details.

Description	Numerator	Denominator	MU measure	Percentage
Demographics	5	8	50	62.50 %
Patient reminders	5	14	20	35.71 %
Medication reconciliation	4	8	50	50.00 %
Problem list	6	8	80	75.00 %
Medication list	7	8	80	87.50 %
Allergy list	6	8	80	75.00 %
Vitals and BMI	4	7	50	57.14 %
Vitals and BMI (alt)	5	8	50	62.50 %
Vitals - BP Out of Scope	6	8	50	75.00 %
Vitals - Ht/Wt Out of Scope	4	7	50	57.14 %
Smoking status	5	7	50	71.43 %
CPOE med	6	7	30	85.71 %
CPOE med (alt)	9	19	30	47.37 %
eHealth	0	0	50	0.00 %
eRx	0	10	40	0.00 %
Lab results	10	17	40	58.82 %
Patient education	6	8	10	75.00 %
Clinical summary	6	9	50	66.67 %
Summary of care	5	8	50	62.50 %
VDT (timely access)	7	8	10	87.50 %
VDT (patient use)	6	8	5	75.00 %



Confidential and Proprietary

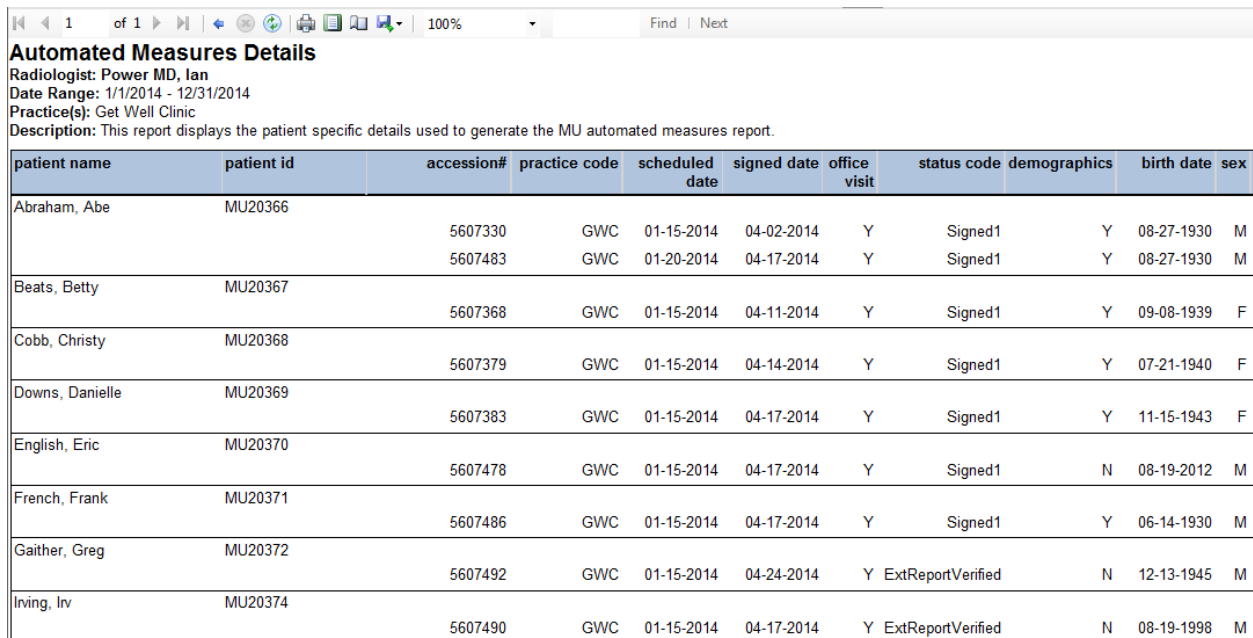
Page 1 of 1

Date Run: 5/8/2014 2:15 PM

RMIS\FormsGuestUser

Figure 5.129 – Automated measures management report stage 1

Automated Measures Details - we created to help troubleshoot MU measure problems in the field a new report that will be used to display summary details which make up the numerators and denominators found in the Automated Measures Report. This report can be found in the “SubReport” folder.



patient name	patient id	accession#	practice code	scheduled date	signed date	office visit	status code	demographics	birth date	sex
Abraham, Abe	MU20366	5607330	GWC	01-15-2014	04-02-2014	Y	Signed1	Y	08-27-1930	M
		5607483	GWC	01-20-2014	04-17-2014	Y	Signed1	Y	08-27-1930	M
Beats, Betty	MU20367	5607368	GWC	01-15-2014	04-11-2014	Y	Signed1	Y	09-08-1939	F
Cobb, Christy	MU20368	5607379	GWC	01-15-2014	04-14-2014	Y	Signed1	Y	07-21-1940	F
Downs, Danielle	MU20369	5607383	GWC	01-15-2014	04-17-2014	Y	Signed1	Y	11-15-1943	F
		5607478	GWC	01-15-2014	04-17-2014	Y	Signed1	N	08-19-2012	M
French, Frank	MU20371	5607486	GWC	01-15-2014	04-17-2014	Y	Signed1	Y	06-14-1930	M
Gaither, Greg	MU20372	5607492	GWC	01-15-2014	04-24-2014	Y	ExtReportVerified	N	12-13-1945	M
		5607490	GWC	01-15-2014	04-17-2014	Y	ExtReportVerified	N	08-19-1998	M

Figure 5.130 – Automated measures details

Automated Measures Raw Data - A management report that can accurately adjust the reporting period for all the required types and that the numerator and denominator information are accurate and complete for each reporting period and meaningful use stage for multiple Radiologist. The main purpose of this report will be used to export results to csv or excel so administrators can monitor the progress of individual Radiologist with regards to MU measures.

<div> <div>1 of 1</div> <div>100%</div> <div>Find N</div> </div>						
Automated Measures Raw Data - Stage 2 Date Range: 1/1/2014 - 12/31/2014 Practice(s): Get Well Clinic Description: This report displays the percentage of rads where the mu measures were recorded.						
Description	Numerator	Denominator	%	MU measure	Signed by user id	User Name
Demographics	5	8	62.50%	80%	ian	Power MD, Ian
Patient reminders	1	6	16.67%	10%	ian	Power MD, Ian
Medication reconciliation	4	8	50.00%	50%	ian	Power MD, Ian
Vitals and BMI	5	8	62.50%	80%	ian	Power MD, Ian
Vitals - BP Out of Scope	6	8	75.00%	80%	ian	Power MD, Ian
Vitals - Ht/Wt Out of Scope	4	7	57.14%	80%	ian	Power MD, Ian
Smoking status	5	7	71.43%	80%	ian	Power MD, Ian
Family health history	6	8	75.00%	20%	ian	Power MD, Ian
Electronic notes	6	8	75.00%	30%	ian	Power MD, Ian
CPOE med	9	19	47.37%	60%	ian	Power MD, Ian
CPOE lab	10	17	58.82%	30%	ian	Power MD, Ian
CPOE rad	11	11	100.00%	30%	ian	Power MD, Ian
eRx	0	10	0.00%	50%	ian	Power MD, Ian
Lab results	10	17	58.82%	55%	ian	Power MD, Ian
Imaging	8	17	47.06%	10%	ian	Power MD, Ian
Patient education	6	8	75.00%	10%	ian	Power MD, Ian
Clinical summary	5	9	55.56%	50%	ian	Power MD, Ian
Summary of care A	5	8	62.50%	50%	ian	Power MD, Ian
Summary of care B	4	8	50.00%	10%	ian	Power MD, Ian
VDT (timely access)	7	8	87.50%	50%	ian	Power MD, Ian
VDT (patient use)	6	8	75.00%	5%	ian	Power MD, Ian
Secure messaging	5	8	62.50%	5%	ian	Power MD, Ian

Figure 5.131 – Automated measures rad data stage 2

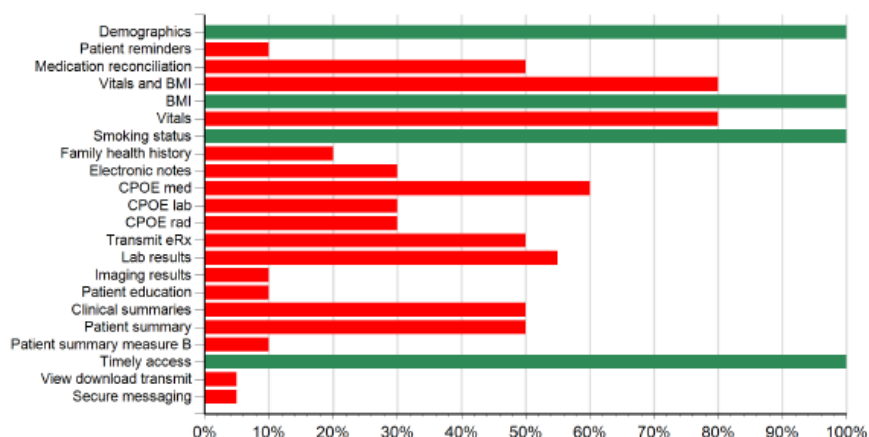
Meaningful Use – Reports by Radiologist Management Report

Created a new management report that will allow the user to select a specific reporting period as well will allow the user the ability to select either stage 1 or stage 2 MU stats to show for a practice or multiple practices.

1dd88bbf-d70b-4593-8d11-e6241defb297 Stage 2

Radiologist: County, Mister

Reporting Period: Jan-01-2014 - Dec-31-2014



Meaningful Use Measure	Numerator	Denominator	%	Goal	Pass/Fail
Demographics	2	2	100.00%	80%	Pass
Patient reminders	0	0	0.00%	10%	Fail
Medication reconciliation	0	0	0.00%	50%	Fail
Vitals and BMI	0	2	0.00%	80%	Fail
BMI	2	2	100.00%	80%	Pass
Vitals	0	2	0.00%	80%	Fail
Smoking status	2	2	100.00%	80%	Pass
Family health history	0	2	0.00%	20%	Fail
Electronic notes	0	2	0.00%	30%	Fail
CPOE med	0	0	0.00%	60%	Fail
CPOE lab	0	0	0.00%	30%	Fail
CPOE rad	0	0	0.00%	30%	Fail
Transmit eRx	0	0	0.00%	50%	Fail
Lab results	0	0	0.00%	55%	Fail
Imaging results	0	0	0.00%	10%	Fail
Patient education	0	0	0.00%	10%	Fail
Clinical summaries	0	0	0.00%	50%	Fail
Patient summary	0	0	0.00%	50%	Fail
Patient summary measure B	0	0	0.00%	10%	Fail
Timely access	2	2	100.00%	50%	Pass
View download transmit	0	2	0.00%	5%	Fail
Secure messaging	0	2	0.00%	5%	Fail

Figure 5.132 – Reports by Radiologist management report

Meaningful Use – Stage 2 Management Reports

MU 2014 requires that the automated measures report be capable of selecting either stage 1(2011) or stage 2(2014) MU statistics; and be able to select date ranges for 90 continuous days within a calendar year, including 90 day periods that span across more than 3 months (e.g. Beginning May 12th); or be able to select a specific calendar year quarter (first, second, third, fourth); and finally be able to select the entire calendar year.

MU 2014 requires a management report(Patient Lists) that will generate a list of patients that can be selected by date and time and based on each data element including: Problems, Medications, Medication Allergy, Demographics, Lab tests and values/results, and Patient communication preference.

To resolve we archived the following MU 2011 management reports.

- Automated Measures.rdl
- CQM Measures.rdl
- MU Automated Measures Details.rdl
- MU Scorecard.rdl
- Patient Lists.rdl
- Patient Reminder List.rdl

We moved all of these reports to a newly created folder “Archive” under Meaningful use on the reporting server. These reports will be used for auditing purposes for previously submitted attestation reports. To ensure these reports are deployed correctly we modified the script for deploying management reports to include the Archive folder structure and reports.

For MU 2014 we created three new management reports and a new SubReport.

- 1) **Automated Measures** – A management report that can accurately adjust the reporting period for all the required types and that the numerator and denominator information are accurate and complete for each reporting period and meaningful use stage for a specific Radiologist.
 - Automated Measures Details - we created to help troubleshoot MU measure problems in the field a new report that will be used to display summary details which make up the numerators and denominators found in the Automated Measures Report. This report can be found in the “SubReport” folder.

- 2) **Automated Measures Raw Data** - A management report that can accurately adjust the reporting period for all the required types and that the numerator and denominator information are accurate and complete for each reporting period and meaningful use stage for multiple Radiologist. The main purpose of this report will be used to export results to csv or excel so administrators can monitor the progress of individual Radiologist with regards to MU measures.
- 3) **Patient Lists** - Lists of patients are selected by date and time and based on each data element including: Problems, Medications, Medication Allergy, Demographics, Lab tests and values/results, and Patient communication preference

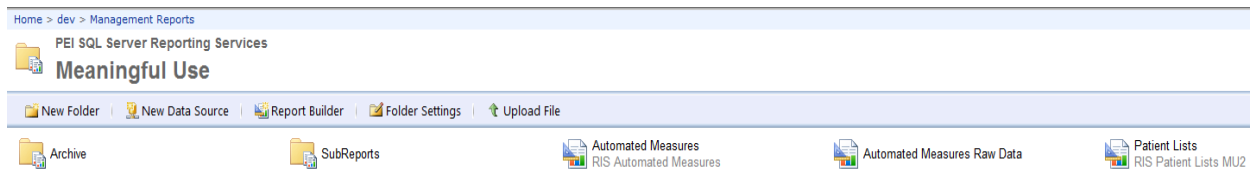
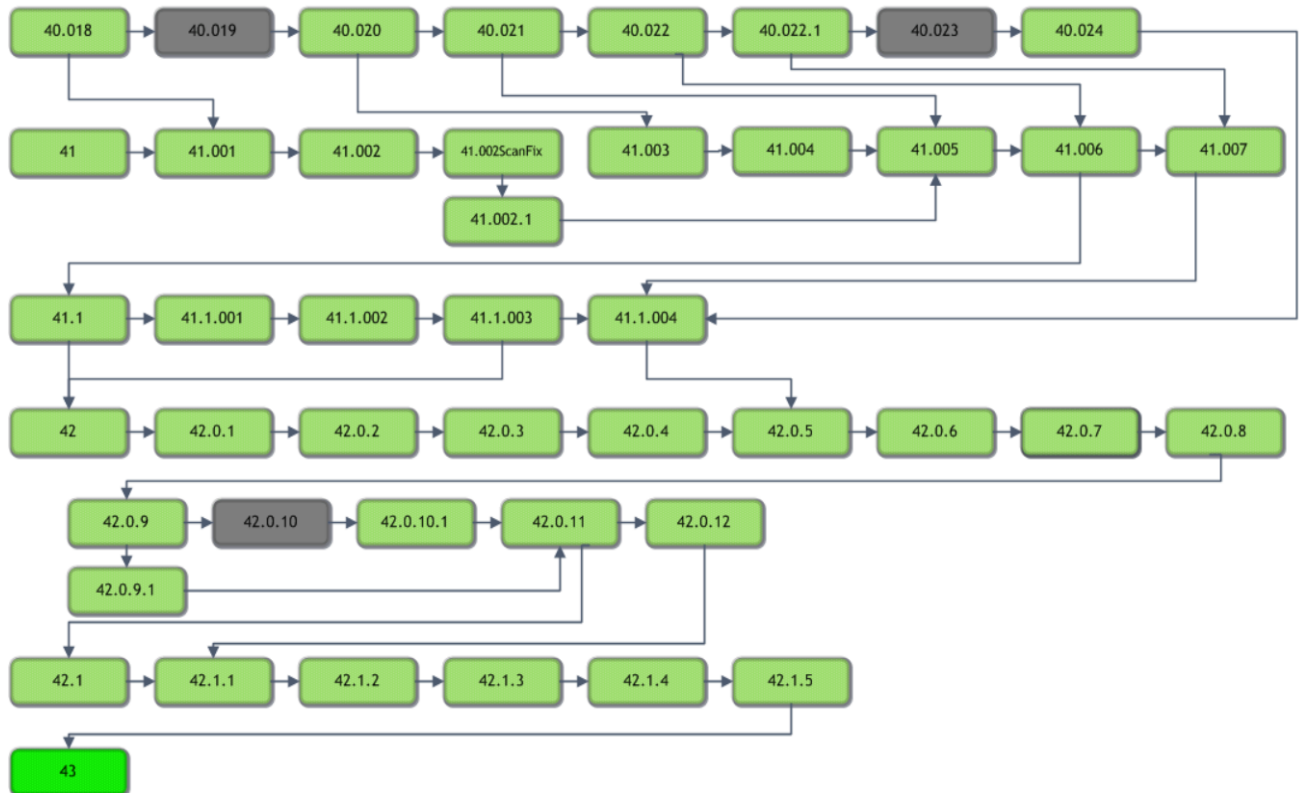


Figure 5.133 – Meaning Use Stage management reports

6. Code Stream

eRAD RIS - Source Code Evolution



Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

7. RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
41.1	-	1.3.41.20918(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip, Core install, Web Service and DB updates, Help files
41.1	1	1.3.41.20987(3GB)	1.3.41.20791	1.3.41.20918	1.3.41.20739	GUI.zip
41.1	2	1.3.41.21162(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip, Web Service and DB updates,
41.1	3	1.3.41.21264(3GB)	1.3.41.20791	1.3.41.21162	1.3.41.21150	GUI.zip
42	-	2.42.0.0.21261(3GB)	2.42.0.0.21261	2.42.0.0.21261	2.42.0.0.21187	Full version release
42	1	2.42.0.1.21597	2.42.0.0.21261	2.42.0.1.21597	2.42.0.0.21187	GUI and Web Service updates
42	2	2.42.0.2.21702	2.42.0.0.21261	2.42.0.2.21702	2.42.0.0.21187	GUI and Web Service updates
42	3	2.42.0.2.21806	2.42.0.0.21261	2.42.0.2.21806	2.42.0.0.21187	GUI and Web Service updates
42	4	2.42.0.2.21862	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI and Database updates
42	5	2.42.0.5.21924	2.42.0.0.21261	2.42.0.2.21806	2.42.0.4.21870	GUI
42	6	2.42.0.5.22009	2.42.0.0.21261	2.42.0.5.22009	2.42.0.4.21870	GUI and Web Service updates
42	7	2.42.0.7.22090	2.42.0.0.21261	2.42.0.6.22009	2.42.0.4.21870	GUI.zip updates
42	8	2.42.0.7.22090	2.42.0.7.22150	2.42.0.6.22009	2.42.0.4.21870	Web Service updates
42	9	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI and Web Service updates
42	9.1	2.42.0.9.22203	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	Web Service updates
42	10	2.42.0.10.22232	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip
42	10.1	2.42.0.10.22420	2.42.0.0.21261	2.42.0.9.22203	2.42.0.4.21870	GUI.zip updates
42	11	2.42.0.11.22495a	2.42.0.0.21261	2.42.0.11.22471	2.42.0.11.22527	GUI.zip, Web Service, Database updates. Management Report Deployment
42	12	2.42.0.12.22982	2.42.0.0.21261	2.42.0.12.22982	2.42.0.12.22911	GUI.zip, Web Service, Database updates.
42.1	-	2.42.1.0.22744(3GB)	2.42.0.0.21261	2.42.1.0.22744	2.42.1.0.22736	GUI.zip, Web Service, DB updates and Management Report Deployment
42.1	1	2.42.1.1.2296(3GB)	2.42.0.0.21261	2.42.1.1.22963	2.42.1.1.22864	GUI.zip, Web Service, DB updates
42.1	2	2.42.1.2.23007(3GB)	2.42.0.0.21261	2.42.1.2.23007	2.42.1.2.23007	GUI.zip, Web Service, DB updates
42.1	3	2.42.1.2.23237(3GB)	2.42.0.0.21261	2.42.1.2.23237	2.42.1.2.23007	GUI.zip, Web Services
42.1	4	2.42.1.4.23348(3GB)	2.42.0.0.21261	2.42.1.4.23348	2.42.1.2.23007	GUI.zip, Web Services
42.1	5	2.42.1.5.23406(3GB)	2.42.0.0.21261	2.42.1.5.23406	2.42.1.2.23007	GUI.zip, Web Services
43	-	2.43.0.0.23715(3GB)	2.43.0.0.23171	2.43.0.0.23715	2.43.0.0.23743	Full Version Release

8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.43. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.43.

Bug #	Priority	Subject	Category	Found Version
6701	Urgent	When a popup window is open in RIS and user actions a report in PS360, Ris crashes.	Powerscribe Integration	2.42.1
6678	Urgent	PAC IW Out of sync problem	PACS Integration	2.42.0.9
6534	Urgent	original_interpretation_version should be stamped on dictated (currently just on signed reports)	Web Services/DB	2.42.0.11
6436	Urgent	Potential for studies to be orphaned in a way as they won't appear on worklists	Thick Client GUI	2.42.0
6255	Urgent	Slow Mammo Letters WL is impacting DB query times	Worklists	1.42
7061	High	MQSA Outcome Report + and - title values should be reversed	Mgt Reports	42
6993	High	RRR - Orders to Schedule Worklist and Procedure Plans	Thick Client GUI	42.0.9
6938	High	Reporting - insert report template with automacros will remove the technique section	Embedded Reporting	2.42.1
6926	High	paitnet folder for previously unlinked external patient does not get reassociated when the patient is mapped.	EMR	1.4
6823	High	Multple scanned images do not get sent to PACS	Thick Client GUI	42.02
6774	High	Callback reminder letters print as diagnostic reports instead of using the proper reminder letter	Document Distribution	2.42.2
6700	High	PS360 integration is opening when it doesn't need to causing unnecessary delays and flicker.	Powerscribe Integration	2.42.1
6685	High	Object reference error when opening transcription screens in read only mode	Radiology Reporting	2.42.1
6683	High	Verbal order is hard-coded to associate to a known scan document type - this should be	Thick Client GUI	1.4

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		configurable		
6681	High	bi-rads info not reset when using screen re-use on dictate screen.	Mammography	2.42.11
6680	High	ReportTemplateEditor not being cleaned up when ReportingRadiologist closes	Radiology Reporting	2.42.09
6679	High	referring physician "visited at" drop down list contains only numbers, not human readable addresses	Thick Client GUI	2.42.0.11
6517	High	excessive network traffic generated by transfer of dictations and other data	Web Services/DB	2.42
6479	High	BI-RADS 0 and BI-RADS 4/5 stored procedure causes issues with an implicit conversion of birad_code to an integer	DB	2.42
6463	High	Reschedule - Can reschedule studies in exam done status and outside reads	Scheduling	2.42.0.11
6462	High	Order level IVT - billing codes inactive on reschedule save as order	IVT / Precert	1.41.1
6447	High	_max_interpretation_version does not update when an addendum is deleted	Radiology Reporting	2.42
6432	High	Tech screen - procedures list is not alphabetical	Technologist	1.42
6189	High	Hidden text in editor counts as text when validating fields and section.	Radiology Reporting	1.4
6106	High	error opening merge suggestions due to patient search results	Web Services/DB	1.41
5963	High	MU - Medical History grid, cannot delete a row	Thick Client GUI	1.42
5950	High	MU - CCDA preview - the Allergies (Medications) section is messed up.	Thick Client GUI	1.42
5847	High	Dark mode - BMI on MU tab is white on white and unreadable	Thick Client GUI	1.42
5800	High	parameter is not valid and/or out of memory error while viewing thumbnails	Thick Client GUI	1.42
5787	High	RadNet - Western Operations - Breast Density dropdown order not consistent with the config table settings	Thick Client GUI	41.1

5783	High	Dark mode login box impossible to see	PACS Integration	1.42
5732	High	issues with sorting exam search results when max row count is reached	Thick Client GUI	1.42
5720	High	referring practice address pattern has many issues when migrating referring legacy data.	Thick Client GUI	1.4
5711	High	Using two procedures at scheduling, and patient is claustro - it is showing an option for a closed modality when it should not		1.42
5664	High	When dictating, losing your lock, and save failed with screen recovered, you won't be able to save	Radiology Reporting	1.42
5513	High	index outside the bounds of the array when saving scan documents	Thick Client GUI	1.41.002.1
5496	High	Scanning - Document Viewer Quick Key Issue		1.41
5459	High	right click change status to cancel does not refresh worklist afterwards	Thick Client GUI	1.42
5447	High	Reporting - RIS allows the addendum workflow on Legacy PDF reports.		1.41
5420	High	some messageboxes improperly sized	Thick Client GUI	1.42
5406	High	concurrency violation on save of UserPrefs can crash RIS	Thick Client GUI	1.42
5393	High	confirmation screen does not save scan documents	Thick Client GUI	1.42
5335	High	If a study is in a closed room, it should not appear on the confirmation WL	Thick Client GUI	1.41
5291	High	Operational Management Report - Payments Details	Mgt Reports	1.4
5289	High	Operational Management Report - Performed Procedures Count	Mgt Reports	1.4
5287	High	Operational Management Report - Front Desk Activity	Mgt Reports	1.4
5258	High	Multi-type ahead: control is too tall		1.42

5257	High	Multi-type ahead: Dropdown button should have a ... in the icon		1.42
5234	High	Outside Read screen will not open		1.4
5232	High	For Truxtun DataMigration only, we need a tool to extract diagnostic report from the Intergy DB	DB	1.41
5230	High	Need to enhance our ImportLegacy utility to include diagnostic reports formatted as MS-Word and WordPerfect	DB	1.41
5192	High	Outside Read - requires "Reason for Exam" field to be completed in view edit window`	Thick Client GUI	1.41.003
4980	High	Unknown CC flag never re-set if CC referring is removed from the order. (RRR)		40.17
4936	High	Default lock workstation value should be 60 minutes.	Thick Client GUI	1.41
4928	High	Darkmode misses		1.41
4843	High	RRR - Scheduling/Front Desk - Verbal Offer - child row has multiple parents	Thick Client GUI	1.4
4840	High	IVT - PreCert Status Update - PreCert Field Changing	Thick Client GUI	1.4
4838	High	RIS Admin - HL7	HL7	1.4
4836	High	IVT - IVT Worklist - Error retrieving the IVT worklist	Thick Client GUI	1.4
4830	High	Carrier search error if carrier name is not found	Thick Client GUI	1.42
4755	High	HL7 ReportSigned could produce duplicate addendum	HL7	1.41.001
4742	High	scan document documents are saved in the db as null	Thick Client GUI	1.4
4658	High	Scheduling --> modality restriction = no warning	Thick Client GUI	40.17
4620	High	Referring without a first name, erroring when multiple orders are available for patient in reception worklist.	Thick Client GUI	1.1.3.41.19052

4598	High	RRR - Prep Instructions - when prep instructions exceed maximum visible space, scroll bars do not appear as they should, and user cannot read the bottom of the page of instructions.	Thick Client GUI	40.18127
4593	High	WPR - Send To button causes error	Thick Client GUI	1.42
4576	High	Personnel - Internal person notes	Admin Tools	1.41
4548	High	CTRM - Notes field isn't read only	Thick Client GUI	1.41
4464	High	RRR - IVT - when user adds "-01" to the end of the policy number for a patient, upon saving the change to the policy, the billing code exam information disappears.	Thick Client GUI	40.18127
4450	High	Auto-open worklist won't open if you cancel the chair selection prompt		1.41
4412	High	WL Filter filtering out all rows when no filter value is specified	Thick Client GUI	1.4
4356	High	Critical Result - CTRN - Unknown referrers added in critical result window display as invalid	Thick Client GUI	1.41
4349	High	Worklist filters ending with a pipe " " symbol causes error	Thick Client GUI	1.40.015
4284	High	Mammo - generated followup order not setting default patient type	Thick Client GUI	40.15
4278	High	RRR - Responsible party - "Same As Patient" flag not recognized, and orders are hitting the BEWL that should not be there.	Thick Client GUI	40.16
4241	High	Printer Config - Display Order should have a default	Thick Client GUI	1.4
4095	High	Selected report pane showing "Legacy Report" that doesn't work	Thick Client GUI	40.14
4035	High	RIS Client --> Login Failed	Thick Client GUI	40.12
3904	High	removing alternate MRN does not remove all references	Web Services/DB	1.4
3877	High	Walk In - Object Reference Error	Thick Client GUI	40.1

3852	High	IVT : ?The ?IV required? flag on the worklist said IV was not required, but when I opened it, it says Verification is required? (it was correctly on the worklist as pre-cert was required however)	Thick Client GUI	1.40.008
3847	High	ConfigFile upload everytime a screen is closed.	Thick Client GUI	1.4
3798	High	Worklist refreshes at different scroll positions (Fisher site visit)	Thick Client GUI	40.006
3749	High	RadNet - ADV Call Centre - can not type in order notes field.	Thick Client GUI	1.40.006
3738	High	Perform exam - perform exam completed time is not be saved if Exam Times tab is accessed	Thick Client GUI	1.40.008
3688	High	wsnocertificate Endpoint does not require authentication	Web Services/DB	1.4
3661	High	Availability template lookup table usability	Admin Tools	1.4
3644	High	Removing procedure then procedure row at arriving throws exception	Thick Client GUI	1.40.006
3431	High	RRR - When you choose 'Self' from responsible party dropdown, then update the patient's address information, you have to uncheck then recheck the 'Same as Patient' check box to get the information to update		39.1
3375	High	RRR Image Request WL - When status is 'Hold Code Completed' and user presses 'Edit' RIS is throwing an error		39.1
2999	High	When report is viewed from the Billing Exceptions Work List, via Edit Billing it is showing an Addendum line, even though no addendum exists for the exam	Thick Client GUI	38
2982	High	inactive CPT codes are showing up when you check 'Show Previous Pre-cert CPT codes' option.		38
2230	High	Cannot create Alternate MRN when creating new patient	Thick Client GUI	1.2.38.14486
2142	High	Reschedule permission does not make 'reschedule' appear in context menu		1.38

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1225	High	Scheduling - Image Request WL --> Edit Image request (new patient icon)	Thick Client GUI	1.36
6986	Normal	Reporting - going from a non BIRADS enabled study to a BIRADS enabled study will throw an exception	Radiology Reporting	2.42.1
6939	Normal	Reporting - create template from when the current template has automacros will raise an exception	Embedded Reporting	2.42.1
6924	Normal	scheduling using external MRN (does not consistently display alternate MRN in grid)	EMR	42.1
6923	Normal	Appointment book cannot be accessed if user doesn't have scheduling group assigned.	Appointment book	2.42.1
6922	Normal	There is no way to register individual studies at different sites that are on one order.		2.42.2
6846	Normal	When tentative sign is disabled through access string, user preference is half visible	Radiology Reporting	2.42.0.9
6839	Normal	Mgmt Report - IVT Canceled (deprecated report)	Mgt Reports	2.42
6806	Normal	A user/person can be cloned even if they have an address with no cc delivery preference.	Administration	2.42.0
6773	Normal	Using PS360: An exam is assigned to a resident and that resident assign a supervising rad, once the exam is in transcribed status, it is not in the supervising rad's Pending Signature WL	Powerscribe Integration	2.42.1.2
6751	Normal	Error on multi procedure schedule after one study is removed	Scheduling	2.42.1.2
6735	Normal	Management Report Deployment - Radnet specific reports deploying to eRAD	Mgt Reports	2.42
6711	Normal	Clicking the close or skip button on the eRAD RIS window doesn't save the values in Assigned to window	Powerscribe Integration	42.1.1
6689	Normal	RadNet - Monthly Variance Raw Data reports needs to be modified to use cpt_Radnet_counts as well add referring practice functionality	Mgt Reports	2.42
6688	Normal	Error: "Deleted row information cannot be accessed through the row" when updating	Thick Client GUI	2.42.09

		insurances		
6686	Normal	Scanner - users are having to re-scan documents		1.42
6682	Normal	Reporting - screen reuse and pending save items may hang around on the worklist	Radiology Reporting	2.42.0.11
6675	Normal	PACS Caching - The RIS is failing to clear out the cache field properly when it is to no longer be cached.	PACS Integration	2.42.0
6611	Normal	Mgmt Report - Marketing numbers skewed when c_study_item_certification.units is null	Mgt Reports	2.42.0.11
6582	Normal	Unable to create unknown referring	Scheduling	42.1
6547	Normal	Document distribution does not recover InProgress jobs that do not have a job id when it starts up	Document Distribution	0
6546	Normal	Fax Console Outbox grows too large over time and slows faxing down significantly	Document Distribution	0
6545	Normal	Reporting - Access string PowerScribe360.AllowAutofeed doesn't control user preference	Powerscribe Integration	2.42.1
6531	Normal	PACS images are loaded even if reporting window ultimately does not open.	PACS Integration	2.42
6526	Normal	CD Import - Duplicate MRNs resulting in missing images after the import	Patient Search	1.42
6525	Normal	CD Import - null exception opening a CD, which has a empty patient record	PACS Integration	1.42
6516	Normal	c_frm_core_view - cleanup the view	Web Services/DB	2.42
6473	Normal	Print Forms dialog does not appear when checking-in/arriving patients after removing insurance policy	Thick Client GUI	2.42.09
6464	Normal	MU Clinical Summary Form Needs modified to look at the new c_patient_problem_list2 and the new l_indication tables for handling MU problems(medical history).	Meaningful Use	42
6452	Normal	service throttling is not sufficient for large implementations	Web Services/DB	2.42

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6331	Normal	detailed chair selector does not display - print an error message indicating dataset is incorrect.	DB	2.42
6330	Normal	Re-deployment of reports loses folder specific permission	Mgt Reports	2.42
6296	Normal	CD Import - Everything is sent but study can't be found in PACS.	PACS Integration	1.42
6268	Normal	PACS Server lookup the URL can have new line characters which will cause CD Imports to fail	PACS Integration	1.42
6251	Normal	RIS service "Server" garbage collection	Web Services/DB	1.42
6242	Normal	RIS Service Installation document is out of date	Documentation	42.0.6
6239	Normal	RADNET - MU - Problem list - problem with no start date can be added again via Meaningful Use Quick Add Edit window	Thick Client GUI	2.42.0.6
6233	Normal	RADNET - Reporting - Pregnant field displayed in Exam Details for all patients	Radiology Reporting	2.42.0.6
6194	Normal	Report history and dark mode have some visual issues	Radiology Reporting	1.42
6187	Normal	CDS Service does not start in x64 mode	Documentation	42.003
6185	Normal	RRR - Error when creating outside reads	Thick Client GUI	42.02
6126	Normal	Scheduling - Calendar view does not display business hours or device availability template	Thick Client GUI	2.42
6115	Normal	Vague descriptions on Referral reports	Mgt Reports	1.41
6113	Normal	Referring Physician Volumes - missing description	Mgt Reports	1.41
6109	Normal	Language, Race and Ethnicity not in the core view for forms	Mgt Reports	1.42
6107	Normal	MU changed Provided Clinical Summaries to Offered Clinical Summary to patient	Meaningful Use	2.42
6091	Normal	Management reports - IVT Turnaround - Total turnaround time is incorrect	Mgt Reports	2.42

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6087	Normal	Management reports - IVT management reports looking for Approved, but status is now Verified	Mgt Reports	42.0.1
6080	Normal	CD Import via patient folder can match with the wrong patient.	Thick Client GUI	1.42
6077	Normal	Relevance Override does not allow assignment of inactive procedures		1.42
6064	Normal	Scheduling - Procedure Plans Error	Thick Client GUI	42.0.0.21577
6052	Normal	RadNet - Patient Folder - column missing	Thick Client GUI	1.42
6051	Normal	RadNet - Schedule Existing Order - uncheck not working	Thick Client GUI	1.42
6015	Normal	create a function to coalesce site and practice logo	Web Services/DB	1.42
6003	Normal	Management Reports - Automatic Measures - Missing Parameter	Mgt Reports	2.42.0.0.21410
5988	Normal	re-selecting and blanking out the Referring combo box		42
5984	Normal	Deleted row error saving attachments		1.42
5982	Normal	Negative values in Dictated to Drafted on the RTAT portion of the Transcription Dashboards.	Mgt Reports	1.41
5944	Normal	Cloning a person "may" impact original person being cloned	Thick Client GUI	1.41
5861	Normal	unhandled exception logging in as a rad but without permission to some WL.	Thick Client GUI	1.42
5843	Normal	MU - When editing the date in Lab results get error.	Thick Client GUI	1.42
5837	Normal	Reporting - Open study in dictate window and get C++ Exception	Radiology Reporting	2.42
5814	Normal	If lab test code matching systemconfig's CPOELabTestCode value doesn't exist for procedure who's CPOE Pathology flag is set, misleading exception occurs	Thin Client GUI	1.42
5735	Normal	The query to get radiologist and transcriptionist statistics in taking over 5	DB	1.4

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		second on SE		
5603	Normal	recent activity message list shows Assign To as Dictated	Radiology Reporting	1.42
5495	Normal	Scanning - "Scanner is not responding" can lock up RIS for about 1 minute		1.41
5450	Normal	RRR - Confirmed Appointments Report Customization	Mgt Reports	2.41
5422	Normal	Scheduling - Assign to Rad is first name, last name	Thick Client GUI	1.41.002
5252	Normal	Reporting - Verify edits context menu option from All Edits Pending QA opens Create Edit report window	Radiology Reporting	1.41
5156	Normal	can't update performed modality (RRR)	Thin Client GUI	40.17
4950	Normal	Race type code	DB	1.41.002
4555	Normal	When opening a study in read only, user should get a prompt	Radiology Reporting	1.41
4326	Normal	Reporting - Multiple Pending Signature notifications raised	Radiology Reporting	1.41
4308	Normal	Patient Folder - Selected Summary not resizing properly when dragging the pane	Radiology Reporting	1.41
4116	Normal	Error on Sign Next or Submit Next in the field	Thick Client GUI	1.3.40.18063
3878	Normal	GUI - procedure code lookup (laterality dropdown display)	Thick Client GUI	40.1
3814	Normal	Already Transcribed prompt when in signing workflow (Fisher site visit)	Thick Client GUI	40.006
3639	Normal	Reporting - Index out of range		1.4
3521	Normal	MU - Calculating MU statistics of Void Exams	Meaningful Use	1.4
3273	Normal	Patient Folder Worklist - Default filter applied results in side scrolled WL on open	Radiology Reporting	1.4
3099	Normal	Documentation window - futuristic menstrual periods....	Thick Client GUI	1.4

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2759	Normal	Distribution WL - Message box should display in the center of the screen	Thick Client GUI	1.39
2635	Normal	Unchecking No Longer Menstruating doesnt enable pregnancy fields	Thick Client GUI	1.39
665	Normal	fk error when adding new order	Thick Client GUI	1.25
357	Normal	Lookup table filters with dropdown datatype don't work		1.13
6940	Low	Reporting - apply style formatting to automacro inserted text will break create template from	Embedded Reporting	2.42.1
4733	Low	Spelling mistake in details message (Cannot "adden" an interpretation when previous interpretation is not signed off.)	Thick Client GUI	1.41
3991	Low	Reporting - Exam Details and Summary panes - Text can be entered in notes' fields, but does not save.	Thick Client GUI	1.40.013

9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.43. Bugs reported in previous versions are not captured as Known Limitation in this document.

#	Status	Priority	Subject
7065	New	High	ICD button is overlaid by the stat button in minimized dictation mode
7195	New	High	System config setting RadMustProvideIcdCode doesn't force rad to enter ICD code
7196	New	Normal	When registering a patient with multiple procedures, and then deselecting the procedure checkbox, an error is produced
7186	New	Normal	Transportation req'd validation issue
7160	New	Normal	IVT - Issue with "Parent Procedure" on billing code grid
7153	New	Normal	ICD Codes - Issue removing codes
7086	New	Normal	Internal Person search doesn't have default field
7029	New	Normal	AccessionXMLDrop button showing up all the time if configured, regardless of reporting mode
6991	New	Normal	Reporting - Exam details data pane can open with scroll bar hidden and window can be resized to have scroll bar hidden
6989	New	Normal	Secure Messaging - Able to send an empty message
6863	New	Normal	Inconsistent grid behaviour with new ICD functionality.
6840	New	Normal	Holiday Lookup missing practice code required field check
6807	In Progress	Normal	Create template causes Object Reference Not set error
6793	New	Normal	distribution wl - Activity log column is crowded
6790	New	Normal	Personel Merge - reject takes user to a blank page
6785	New	Normal	Administration - Patient search window on patient merge, 'New Pt +Apt' button does nothing
6784	New	Normal	tech screen - able to complete an exam on a body part different than defined by procedure
6726	New	Normal	View menu not disabled after Report on Accession #
6592	New	Normal	Required Notes Fields accept whitespace as input
6908	In Progress	Normal	MU Quick Add Edit Dialog makes 30 consecutive service calls each time it is opened

7182	New	Normal	Menu item Messaging doesn't have an access string
7172	New	Normal	Reconcile Form - Issue with layout of Order and Scheduling Notes
7164	New	Normal	Cannot delete indication codes from the Indication lookup table via GUI
7023	New	Normal	Selected attachments navigating when user selects text.
6972	New	Normal	BI-RADS picker set tissue density to inactive value
6834	New	Normal	QA workflow, error when saving opens the wrong screen.
6821	New	Normal	Reschedule can show incorrect procedure if procedure was changed in Register window
6750	New	Normal	MU - CCDA Error when generating XML when Allergy is NULL
6671	New	Normal	Right-click "Confirmation" in Patient Folder for Follow up order throws multiple exceptions
7127	New	Normal	MT polling when waiting for jobs and none exist, can't close tab or visit another tab.
6987	New	Normal	Fields in scheduling screen not showing as required until you try to save, or tab out of the control.
6792	New	Normal	Filtering work lists
6081	New	Normal	If patient has multiple orders on same day (procedure changed) --> registration confirmation does not reflect it
7188	New	Normal	County selection screen requires user to click or tab to county field.
7181	New	Normal	County/ZIP - county getting saved with data but dialog doesn't show one selected
7179	New	Normal	County/ZIP - possible wrong county selecting automatically. County drop down changing when nulling out ZIP textbox
7165	New	Normal	Special characters in custom fields for templates can cause the report to not be openable.
7159	New	Normal	Reporting - PACS integration
7138	New	Normal	Mammo letter config save button doesn't save changes
7015	New	Low	MU - A requested lab order can be entered with a blank observation and return an error
6865	New	Low	Personnel - Referring addresses - Address open double clicking on scroll bar arrows

7178	New	Low	County/ZIP allows typing in County but doesn't changes value when clicking ok
7177	New	Low	County/ZIP textbox persists invalid data