

Customer Release Notes

for eRAD RIS

Version 3

Build 2017.6

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PURPOSE

This is the Customer Release Notes document for eRAD RIS Version 3.2017.6.

Not every feature will be described in this document. Typically, only features which can be visually demonstrated are outlined here.

INTENDED AUDIENCE

The intended audience for this document is the RIS Administration team for eRAD RIS customers.

NEW SETTINGS

NEW ACCESS STRINGS

Note: In 2017.6, a clean-up was done to add some missing Access Strings that will allow administrators to assign specific permissions for functionality that has previously existed in the application.

Setting	Default	Purpose
Alert.BothTechOnlyAndExternalReport	Full	Full access enables users to see the alert of the "BothTechOnlyAndExternalReport" type when it is evaluated to be true.
Alert.CDS_06_BreastCancerScreening	Full	Full access enables users to see the alert of the "BreastCancerScreening" type when it is evaluated to be true.
Alert.InactiveCCPhysicianOrAddress	Full	Full access enables users to see the alert of the "InactiveCCPhysicianOrAddress" type when it is evaluated to be true.
Alert.InactiveReferringOrAddress	Full	Full access enables users to see the alert of the "InactiveReferringOrAddress" type when it is evaluated to be true.
Alert.PatientFlagAlert	Full	Full access enables users to see the alert of the "PatientFlagAlert" type when it is evaluated to be true.
Alert.ReportLockedOnTechAndViewEdit	None	Full access enables users to see the alert of the "ReportLockedOnTechAndViewEdit" type when it is evaluated to be true.
Clinical.AdjustPaymentDate	None	Controls access to Adjust Payment Date context menu option on the Payments grid. NEW
Clinical.AssignRescheduledFlag	Full	Controls access to the context menu "Rescheduled Flag -> Set Follow up Rescheduled" and "Rescheduled Flag -> Clear Follow up Rescheduled."
Clinical.ChangeStatusOrderSigned	Full	Controls access to the change status sub-context menu "Change Status To -> Order Signed."
Clinical.DDECancelJobAction	Full	Controls access to the Document Distribution Engine CancelJobAction context menu item.
Clinical.DDEEditJobAction	Full	Controls access to the Document Distribution Engine EditJobAction context menu item.
Clinical.DDEMammoLetterSubmit	Full	Controls access to the Document Distribution Engine MammoLetterSubmit context menu item.
Clinical.DDENewJobAction	Full	Controls access to the Document Distribution Engine NewJobAction context menu item.
Clinical.DDEPauseJobAction	Full	Controls access to the Document Distribution Engine

		PauseJobAction context menu item.
Clinical.DDERetryJobAction	Full	Controls access to the Document Distribution Engine RetryJobAction context menu item.
Clinical.DirectMessage	Full	Controls access to the Direct Message menu item for launching the Direct Message screen.
Clinical.MammoFollowUp	Full	Controls access to the Mammo Follow up context menu for launching the Mammo Follow-Up screen.
Clinical.PerformExam.Button.ContextMenu	Full	Controls access to the Perform Exam context menu item and button.
Clinical.Reconcile	Full	Controls access to the Reconcile menu item for launching the Reconcile screen.
Clinical.Reschedule	None	Controls access to the reschedule context menu item.
Clinical.SecureMessage	Full	Controls access to the Secure Message menu item for launching the Secure Message screen.
Clinical.SetSequesterFlag	None	Allows the user to mark an exam as sequestered. NEW
Clinical.ViewStudy.Button.ContextMenu	None	Controls access to the View Study context menu item and button.
Config.LookupEditor.AllergyReaction	None	Controls access to the Allergy Reaction look-up table. NEW
Config.LookupEditor.CategoryGroup	None	Controls access to the Category Group look-up table. NEW
Config.LookupEditor.CDSRules	None	Controls access to the CDS Rules look-up table. NEW
Config.LookupEditor.DigitalForms	None	Controls access to the Digital Forms look-up table. NEW
Config.LookupEditor.PatientAlert REPLACES/RENAMED Config.LookupEditor.PatientFlag	Full	Controls access to the Patient Alert look-up table.
Flag.PACSIImagesPurged	Full	This setting exists to support a feature that is still under development. *Future Use*
Flag.Sequester	Full	Access to see the flag for Sequester. NEW
MU.CCDAScheduledTask	None	Controls access to Schedule C-CDA Export. NEW
Portal.Patient.Admin.CacheInfo	None	Controls access to Cache Info in Patient Admin Portal. NEW
Portal.Referring.Admin.CacheInfo	None	Controls access to Cache Info in Referring Admin Portal. NEW
Portal.Um.Admin.CacheInfo	None	Controls access to Cache Info in Utilization Management Admin Portal. NEW

NEW SYSTEM CONFIGURATION SETTINGS

Setting	Default	Purpose
CareSelectToken		(value = string) The CareSelect token that indicates how the environment will be accessed.
CDSEnabled	False	(value = True/False) Determines if CDS is enabled.
CdsGetNormalsFromObjectId REMOVED		
DaysBeforeInactiveAccount	-1	(value = int) Number of days before accounts are deactivated for being inactive.
DefaultCancelReasonForRemindersOnAddendumSigned	N/A	(value = string) Identifies which cancel reason code should be used when an addendum is signed that does not require a reminder and a previous reminder exists.
DefaultPriorBreastDensity	True	(value = True/False) Determines whether the patient's most recent breast tissue density is prepopulated when dictating a new breast study.
InboundRADARMessageFilter	RIS QUICK MESSAGE,SecurePIC, RIS APPOINTMENT SUMMARY,UM Alert,Report Delivery	(value = string) Message type filter for RADAR inbound message processing.
MUInfoButtonSearchUrl	http://vsearch.nlm.nih.gov/vivisimo/cgi-bin/query-meta?v%3Aproject=medlineplus&query={0}	(value = string) Search URL that gets launched when clicking on the Info Button.
MUShowCCDAButton	True	(value = bool) Determines whether the C-CDA button is displayed on the Clinical tab.
MUShowCCRButton	True	(value = bool) Determines whether the CCR button is displayed on the Clinical tab.
PACSCacheServer – REMOVED	N/A	This value can now be set in the PacsServer lookup table.
PatientPortalURL		(value = string) URL for the Patient Portal.
PECOS_URL	https://data.cms.gov/Medicare-Enrollment/Order-and-Referring/qcn7-gc3g	(value = string) URL for PECOS website including placeholder for {NPI}.
PortalAttachmentAccessDeniedMessage	Attachments for this exam are unavailable on the portal. Please	The message to display to a Portal user when the Attachments are not available due to the scan document path server being unavailable.

	use {GetHelp} to request attachments.	
PortalLongDateFormat	dddd, MMMM dd, yyyy	(value = string) The long date format to be displayed in the Portal. (E.g. dddd, MMMM dd, yyyy which displays Wednesday, March 09, 2018)
PPDaysBeforeInactiveAccount	-1	(value = int) Number of days before Patient Portal accounts are deactivated for being inactive. (-1 will turn the feature off.)
PPPasswordRequirements	[{"minChar":"8","wordLowercase":"True","wordUppercase":"True","wordOneNumber":"True","wordOneSpecialChar":"False"}, {"minChar":"5","wordLowercase":"False","wordUppercase":"False","wordOneNumber":"False","wordOneSpecialChar":"False"}]	(value = string) JSON value to define default password requirements for Patient Portal user accounts.
QuickMessageEmailDefaultContactTypeCode	QuickMessageEmail	(value = string) The default Contact Type code to use for automated Contact Log entry after sending RADAR QuickMessage email message.
QuickMessageSMSDefaultContactTypeCode	QuickMessageSMS	(value = string) The default Contact Type code to use for automated Contact Log entry after sending RADAR QuickMessage text message.
RadarDirectAPIURL	https://api.myradarconnect.com/v1/	(value = string) URL for the RADAR API for direct messaging.
ReferringPortalURL		(value = string) URL for Referring Portal.
RPPasswordRequirements	[{"minChar":"8","wordLowercase":"True","wordUppercase":"True","wordOneNumber":"True","wordOneSpecialChar":"False"}, {"minChar":"5","wordLowercase":"False","wordUppercase":"False","wordOneNumber":"False","wordOneSpecialChar":"False"}]	(value = string) JSON value to define default password requirements for referring portal user accounts.
ScheduledTaskOutputLocations		(value = (string)) A comma separated list of network folder locations to be used for storage of scheduled tasks (e.g. C-CDA export)
UMPHelpRequestMessageGroup		The message group to which Get Help requests

		will be sent. If no message group is defined, email will not be sent to message group.
UMPPasswordRequirements	[{"minChar": "8", "wordLowercase": "True", "wordUppercase": "True", "wordOneNumber": "True", "wordOneSpecialChar": "False"}, {"minChar": "5", "wordLowercase": "False", "wordUppercase": "False", "wordOneNumber": "False", "wordOneSpecialChar": "False"}]	(value = string) JSON value to define default password requirements for UM Portal user accounts.
WLEExtraColumnsToGet		This setting exists to support a feature that is still under development. *Future Use*

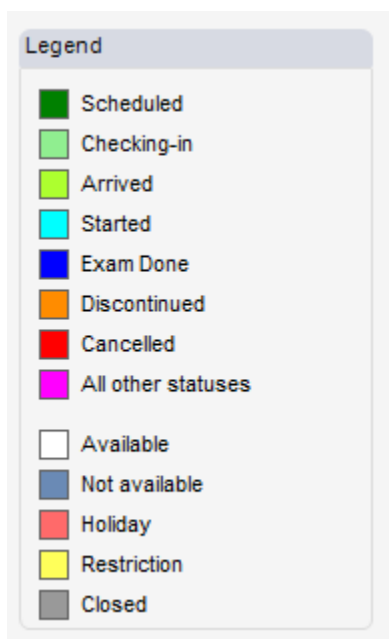
NEW FEATURES

SCHEDULING AND REGISTRATION

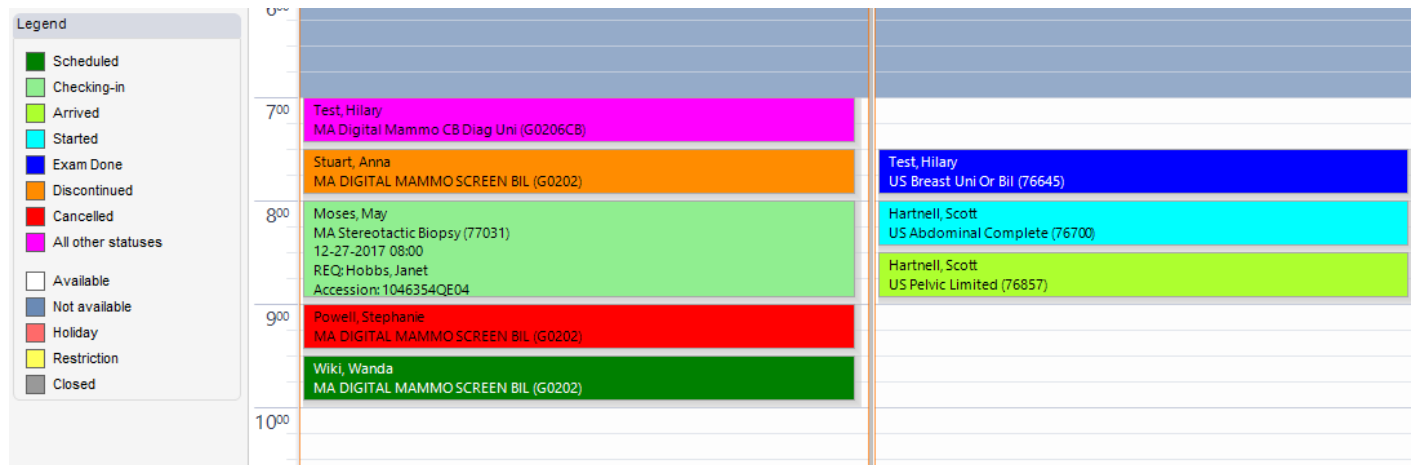
FEATURE #17542 – NEW LEGEND COLORS IN APPOINTMENT BOOK

Previously, the color coding in the Appointment Book reflected all statuses after “Arrived” as gray in color. Because the Appointment Book is more than just a scheduling tool, the color coding has been expanded to indicate more statuses in specific colors for ease of visual identification.

The new legend includes statuses for Scheduled, Checking In, Arrived, Started, Exam Done, Discontinued, Cancelled, and “All other statuses.”



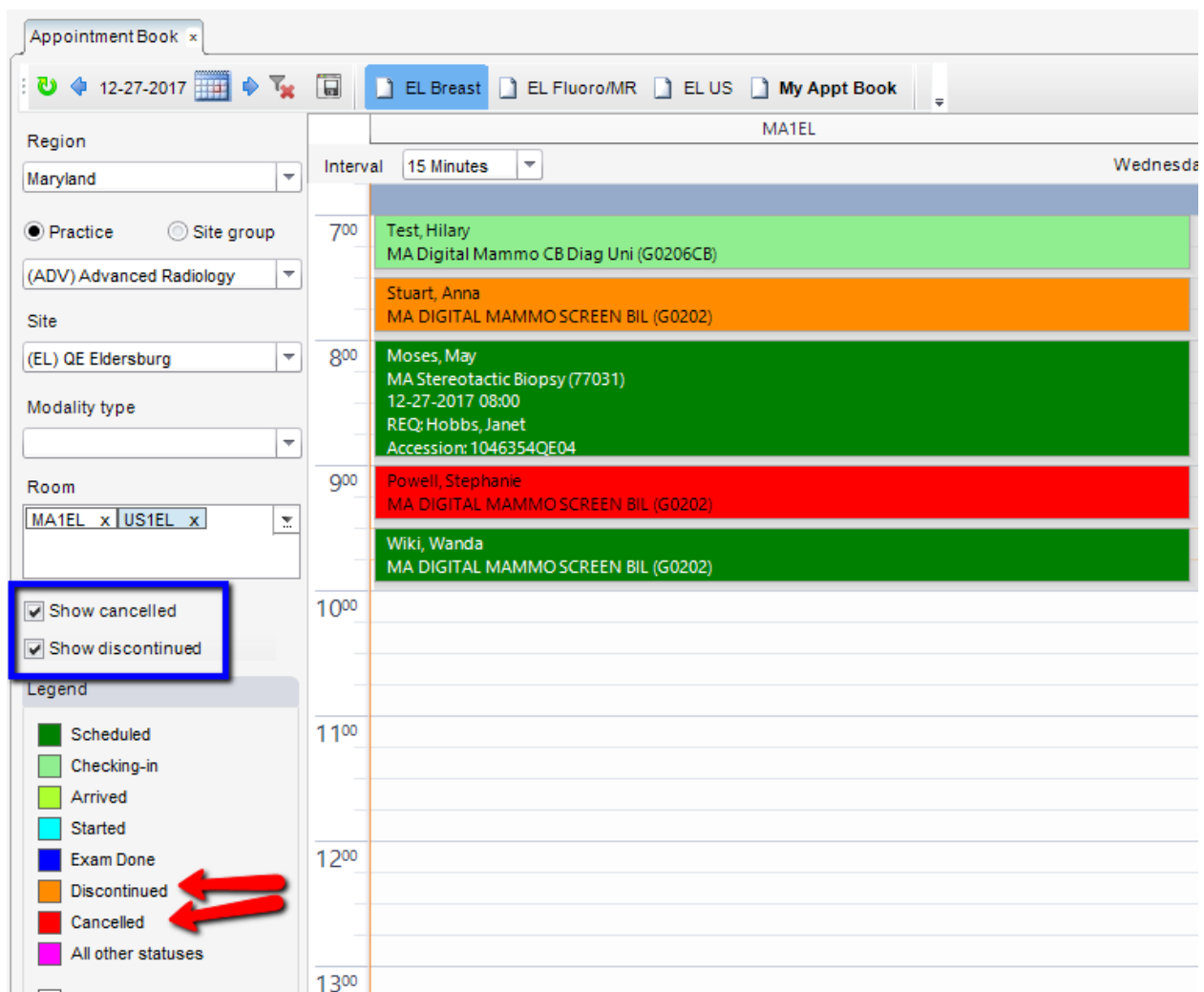
The following image shows the Appointment Book with exams in a variety of statuses.



FEATURE #9149 – NEW OPTIONS TO DISPLAY CANCELLED OR DISCONTINUED/ABORTED EXAMS ON APPOINTMENT BOOK

The Appointment Book is used by a variety of different types of users for various purposes. Sometimes it is helpful to see where cancelled or discontinued/aborted exams were previously scheduled. For example, seeing these types of exams might explain why there was a gap in the schedule for a particular room. However, other users, such as schedulers, want to clearly see where there are openings.

To allow users to customize their view of the Appointment Book according to their needs, new checkboxes have been added to the Appointment Book that will allow the user to choose whether to display the exams: [Show Cancelled](#) and [Show Discontinued](#).



In the above image, Show Cancelled and Show Discontinued are both checked, so the Appointment Book is displaying Cancelled exams (shown in Red) and Discontinued exams (shown in Orange).

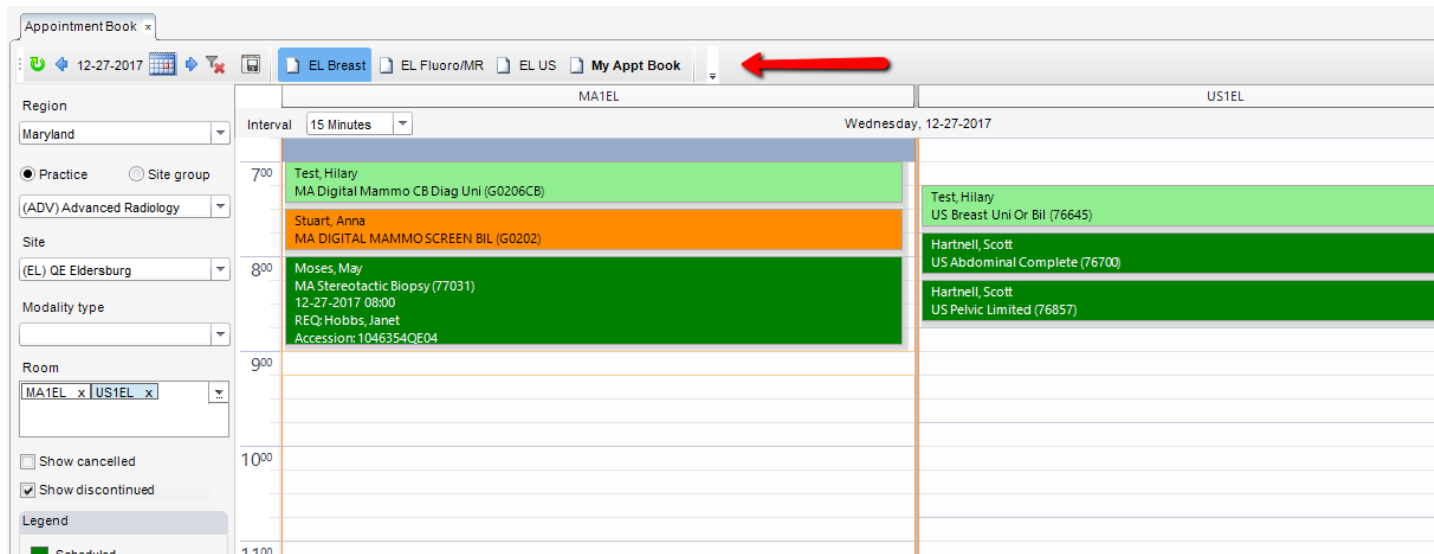
Unchecking the boxes and refreshing the Appointment Book will instead hide the Cancelled and Discontinued exams to make it apparent that these are available appointment slots in these spaces.

The screenshot shows the eRAD Appointment Book interface. On the left, there are filters for Region (Maryland), Practice (ADV Advanced Radiology), Site ((EL) QE Eldersburg), Modality type, and Room (MA1EL x US1EL x). Below these filters, there are two checkboxes: "Show cancelled" and "Show discontinued", both of which are checked. A legend below the checkboxes lists various statuses: Scheduled (green), Checking-in (light green), Arrived (yellow), Started (cyan), Exam Done (blue), Discontinued (orange), Cancelled (red), and All other statuses (magenta). The main area displays a schedule for MA1EL on Wednesday, 12-27-2017, with a 15-minute interval. The schedule shows three appointments: Test, Hilary (MA Digital Mammo CB Diag Uni (G0206CB)) at 7:00, Moses, May (MA Stereotactic Biopsy (77031)) at 8:00, and Wiki, Wanda (MA DIGITAL MAMMO SCREEN BIL (G0202)) at 9:00. The appointments are color-coded: Test is green, Moses is dark green, and Wiki is dark green.


To maintain the previous Appointment Book behavior, the default for these checkboxes will display Discontinued exams and hide Cancelled exams.

FEATURE #6378 – CUSTOM VIEWS CAN BE SAVED FOR THE APPOINTMENT BOOK

Custom Views have always been a convenient and efficient way to view a specific subset of information on a variety of worklists throughout the application. These same efficiencies are now available in the Appointment Book where Custom Views can be created and saved, in the same fashion as Worklist Custom Views.



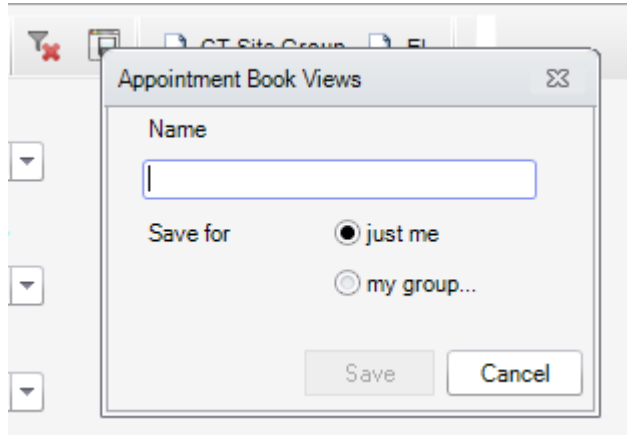
Create Custom Views by setting the filter criteria on the left side of the screen to a commonly used set-up, then

save the Custom View by clicking the  button in the top row. Criteria that can be saved are:

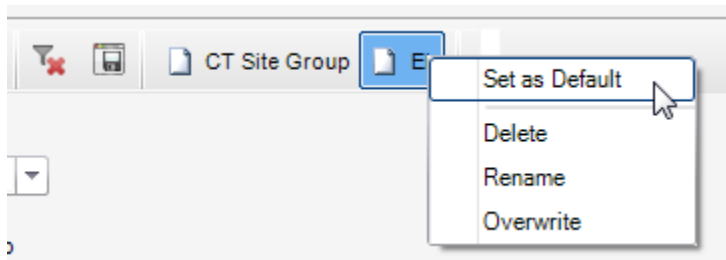
- Region
- Practice or Site Group
- Site
- Modality Type
- Room(s)
- Preference to display Cancelled exams
- Preference to display Discontinued exams
- Interval

After saving and naming a Custom View, it can be set as a Default view for the Appointment Book each time it is opened. Multiple Custom Views can be created for different workflows. For example, a scheduler may set up Custom Views that show particular rooms that are involved in Pain Management scheduling or breast imaging.

As with Worklist Custom Views, it is possible for a user with appropriate permissions to create “Group Views” that can be shared by other users in a User Group.



Custom Views can also be deleted, renamed or overwritten (updated).



When a Custom View is applied, the filters will automatically be set as they were saved and the display will be refreshed to show the new settings. It is possible to easily switch between a variety of saved Custom Views.

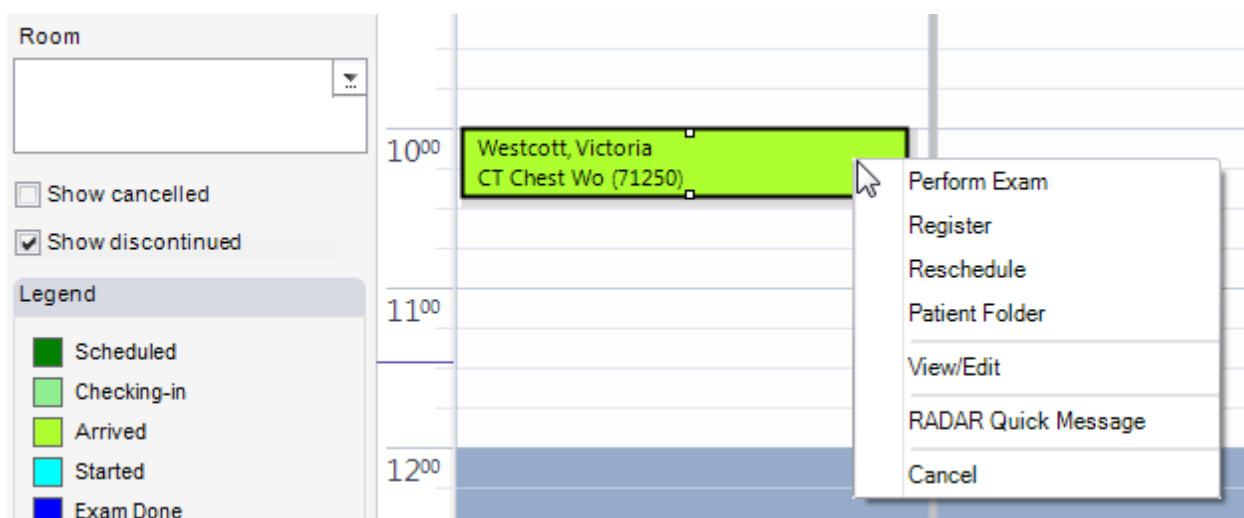
FEATURE #11193 – EXPANDED WORKFLOW OPTIONS AVAILABLE IN THE APPOINTMENT BOOK

When viewing information in the Appointment Book, a user often needs to take some kind of action for an appointment on the screen.

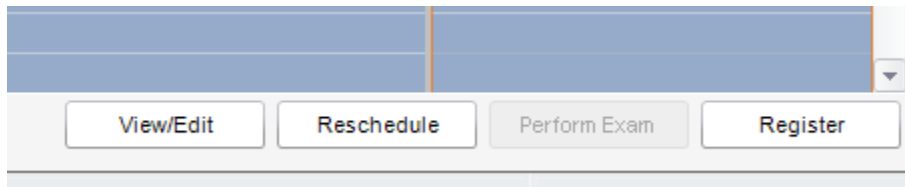
- A scheduler reviewing tomorrow's schedule may want to reschedule someone who has been double-booked.
- A technologist may want to open the exam in View/Edit or may wish to open the Patient Folder in order to view more details about the patient.
- A receptionist may wish to send a RADAR QuickMessage to let the next patient know that the technologist is behind schedule.

There are many possible scenarios and the Appointment Book will now empower the user to immediately launch common workflows based on the exam's status and their own user permissions.

The Appointment Book now behaves in a similar fashion as a Worklist. Like a worklist, right-clicking on an exam will present a context menu with various options. Depending on the status, a different set of possible actions will be available.



Another option for performing various workflow tasks is to use the new Action buttons. Just like a Worklist, the Appointment Book now has action buttons at the bottom of the screen. Users can select an exam by single clicking, then use the corresponding button to take the desired action. Any buttons with actions that are not relevant based on the exam's status will be inactive. As with Worklists, double-clicking the exam will initiate the action of the first active button. In most cases, the default action will be View/Edit.



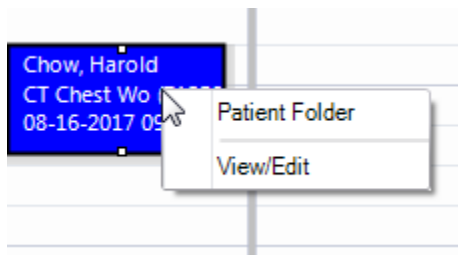
Both context menu and button actions will only be available to the user if he or she has the appropriate access string to perform the task. No new permissions need to be managed for the user groups; the existing access strings will be applied to the Appointment Book.

The following actions are possible for the statuses listed below:

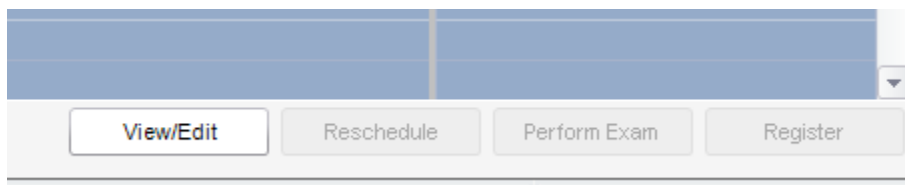
Status	Possible Actions
Scheduled, Checked In	View/Edit, Register, Reschedule, Cancel, RADAR Quick Message, Patient Folder
Arrived	Perform Exam, View/Edit, Register, Reschedule, Cancel, RADAR Quick Message, Patient Folder
Started	Perform Exam, View/Edit, Register, Cancel, RADAR Quick Message, Patient Folder
Exam Done, Discontinued, Cancelled	View/Edit, Patient Folder

One more example may be helpful. The images below depict the options available for an exam in Exam Done status.

Context menu options:







Button options:



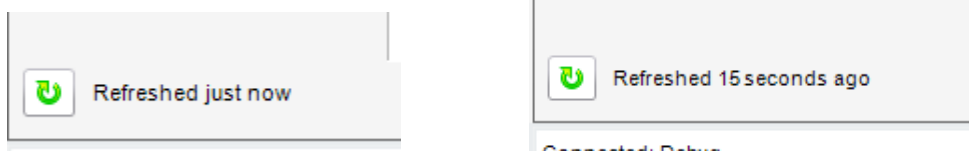
FEATURE #2583 – AUTOMATIC APPOINTMENT BOOK REFRESH

The Appointment Book now supports auto-refresh settings in the same fashion as RIS worklists. With this enhancement, new appointments, room closures, cancellations, et cetera, will be populated to the Appointment Book view so that users can see the changes without needing to frequently close and re-open the Appointment Book.

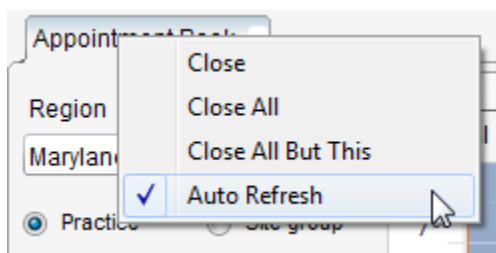
By default, the Appointment book will use the existing System Configuration setting [DefaultWorklistRefreshInterval](#) to determine how often auto-refresh should occur. To override the default setting, create an entry for Appointment Book in the existing configuration table [Worklist Preference](#).

Worklist Name	Refresh Interval	Last Updated	Active
No filter: 	Equals: 	Contains: 	Contains: 
✱ Click here to add a new row			
▶ Appointment Book	2	06-22-2017 1...	Y

The refresh interval can be defined by entering the number of minutes or by entering 0 to disable auto-refresh. As with worklist auto-refresh, the user will also have access to a refresh button with a label that indicates when the last refresh occurred.

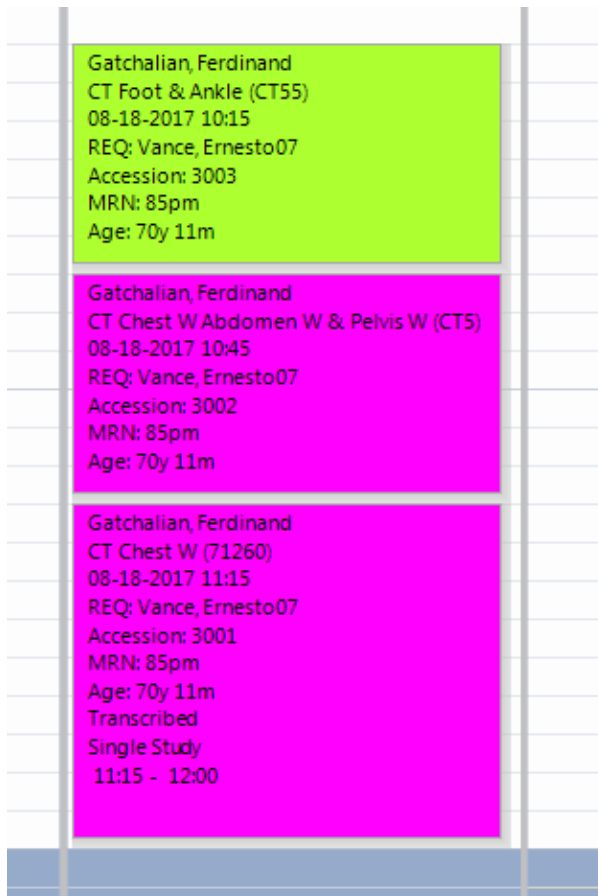


Refresh will not occur if the user is actively interacting with the Appointment Book tab. It is also possible for a user to manually disable auto-refresh, if desired. To do so, right-click the Appointment Book tab and uncheck Auto Refresh. Repeat the process to turn refresh back on when ready.

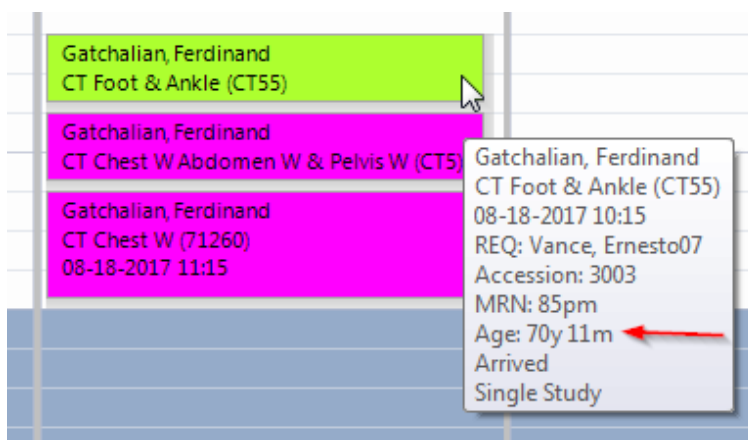


FEATURE #17864 – PATIENT’S AGE ADDED TO THE APPOINTMENT BOOK

The appointment description now displays the patient’s age, in the same format as on the Patient tab of the Schedule screen.



The full description will always display in the tooltip, and will only display in the appointment block if enough space is available.

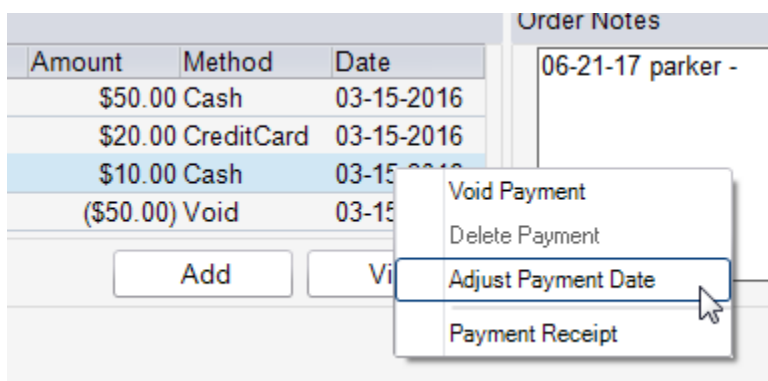


INSURANCE, ELIGIBILITY, PAYMENTS, & BILLING

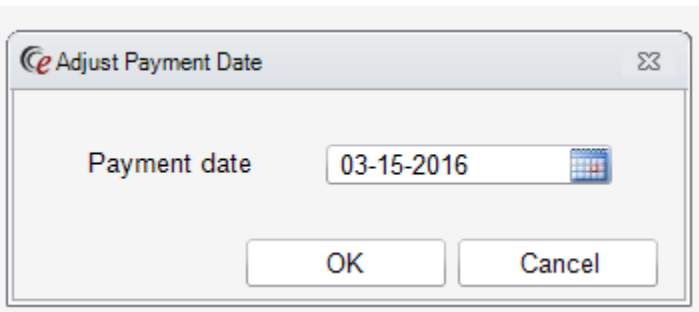
FEATURE #16773 – ABILITY TO ADJUST A PAYMENT DATE WITH APPROPRIATE PERMISSIONS

If the wrong amount for a payment was entered on the date of service, this can be corrected by Voiding the payment and entering a new payment. However, it was not previously possible to backdate the payment if the error was discovered after the date of service. For this reason, it is now possible to grant users permission to “backdate” a payment.

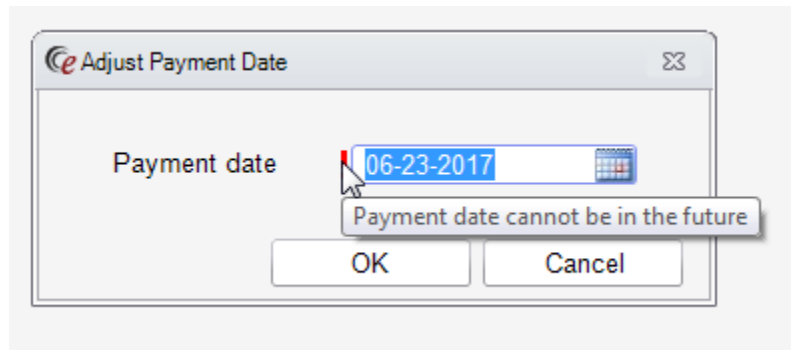
A new context menu option called **Adjust Payment Date** can be accessed by right-clicking the row in the Payment grid. This option will only be available if the user belongs to a User Group with Full permission to the new access string **Clinical.AdjustPaymentDate** (default NONE).



Clicking this context menu option will open a window where the user can enter the payment date.



Today's date or a prior date can be entered and saved. If the user selects a date in the future, saving will be prevented.



The date change will be recorded in the Audit History for future reference.

FEATURE #18017 – WITH MULTIPLE ORDERS ON THE SAME DAY, CO-PAY SHOULD ONLY BE COLLECTED ONCE AND REMAINING DEDUCTIBLE SHOULD NOT BE OVER COLLECTED

When primary insurance is the same, Amount to Collect on multiple orders should adapt so that multiple co-pays are not collected and remaining deductible is not over calculated. To support this need, changes have been made to the Amount to Collect calculation using the information from Eligibility workflow.

When patients have an Order A / Order B and the insurance is the same for both orders, RIS previously calculated co-pay and deductible payments for each, as if the other did not exist. As a result, two co-pays would be collected for the same day, as well as excessive deductible payments in the case where deductible may have been met by the other order.

If the insurance is the same for Order A and Order B, co-pay is now calculated for one order only. RIS will determine which co-pay is greater and will ignore the other order's co-pay amount. When determining remaining deductible for Order B, RIS will subtract the deductible payment that is to be made for Order A from the total remaining deductible, so that the staff does not over collect in situations where the deductible is met by the payment on Order A.

The following two screenshots demonstrate an example of an Order A / Order B scenario in which both orders are scheduled for the same date of service. Eligibility workflow has occurred and the Estimated Visit Cost has been entered for each order. In the example, the co-pay for Order A is \$1.00, while Order B has a co-pay of \$10.00. When looking at the right column, which shows the amount to be collected, notice that the lesser co-pay amount on Order A has been ignored, making the \$10 co-pay on Order B the only co-pay to be collected from the patient.

Order A:

Patient: CO, co #48441R (3) Register: CO, co #48441R *

Patient Patient Notes Contacts / Demographics Clinical Order[A] Order[B] Exams (2) Image Request (0) Review Contact Log

Reason for exam 08/25/2017 kevin -

Referring Details Referring * aa, aa t, Visited at* 2342, 234234, 234, Img notes Ref. date MM/dd/yyyy

Preferred Location Practice* ADV Advanced Radiology Site FH) PT QE PT QE Fisher

Flags ☐ Direct referral ☐ Transportation required ☐ STAT exam ☐ STAT read ☐ STAT PreCert ☐ Sequester

Insurance Policies

Note	Carrier Code	Carrier Name	Policy #	Group Number	Group Name
	0100demo	demo	10010010	234332	eRAD Group

Manage Policies IVT Notes Verify

Payments

Posted By	Amount	Method	Date

Order Notes 08/25/2017 kevin -

Amount to Collect - Details

CPT	Units	Usual & Custo...	Actual Rate	Total
74000 - RADIOLOGIC EXAMINAT...	1	29.26	29.26	29.26
74010 - RADIOLOGIC EXAMINAT...	1	47.13	47.13	47.13

Estimated visit cost \$76.39 ☐ Override

Co-pay \$1.00 Co-pay portion \$0.00

Remaining Deductible \$100.00 Deductible portion \$76.00

Co-insurance 10% Co-insurance portion \$0.00

Amount to collect \$76.00

OK Cancel

Modified Co-pay \$1

Note: this will be the one where we won't charge for co-pay

Warning Plan start 01/01/2008 Remaining deductible \$100

Diagnostic X-Ray Co-pay \$10 Co-insurance 10%

Order B:

Patient: CO, co #48441R (3) Register: CO, co #48441R *

Patient Patient Notes Contacts / Demographics Clinical Order[A] Order[B] Exams (2) Image Request (0) Review Contact Log

Referring Details Referring * aa, aa t, Visited at* 2342, 234234, 234, Img notes Ref. date MM/dd/yyyy

Flags ☐ Direct referral ☐ Transportation required ☐ STAT exam ☐ STAT read ☐ STAT PreCert ☐ Sequester

Insurance Policies

Note	Carrier Code	Carrier Name	Policy #	Group Number	Group Name	Phone	Priority
	demo	10010010	234332	eRAD Group		Primary	

Manage Policies IVT Notes Verify

Amount to Collect - Details

CPT	Units	Usual & Custo...	Actual Rate	Total
15787 - ABRASION, EACH ADDIT...	1			
23335 - REMOVAL OF PROSTHE...	1			
49083 - ABDOMINAL PARACENT...	1	384.94	384.94	384.94
70482 - CT ORBIT SELLA/POST...	5	430.17	430.17	2150.85
74170 - COMPUTED TOMOGRA...	1	387.56	387.56	387.56

Estimated visit cost \$2,923.35 ☐ Override

Co-pay \$10.00 Co-pay portion \$10.00

Remaining Deductible \$100.00 Deductible portion \$24.00

Co-insurance 10% Co-insurance portion \$289.00

Amount to collect \$322.94

OK Cancel

Warning Plan start 01/01/2008 Remaining deductible \$100

MRI/CAT Scan Co-pay \$10 Co-insurance 10%

Amount to collect \$322.94

Also, the screenshot for Order B illustrates a reduced deductible portion because the amount collected from Order A reduces the remaining deductible by \$76.

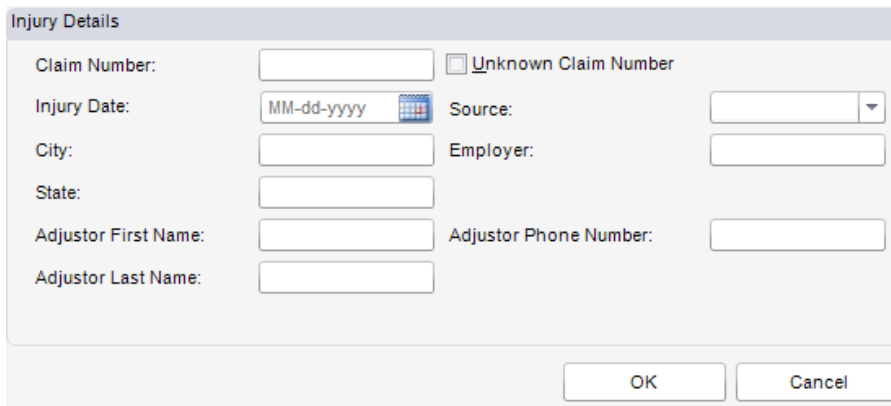
Amounts to collect will be recalculated and validated each time the Scheduling, Registration or View/Edit screens are opened. The logic described above will only occur when the orders are scheduled for the same date of service.

FEATURE #15206 – EMPLOYER ADDRESS AND PHONE NUMBER CAN BE COLLECTED IN INJURY DETAILS

On the Manage Policies screen, there is a section for Injury Details, which is used to collect information for Workman’s Compensation, Auto Accidents, and P.I. Liens. Some customers would like to store additional information about the employer including their City, State, and Phone Number.

New fields have been added to capture this information. The “Adjustor Phone Number” field has been moved below the Adjustor Last Name field to make space for the new Employer information.

Previous Injury Details section:

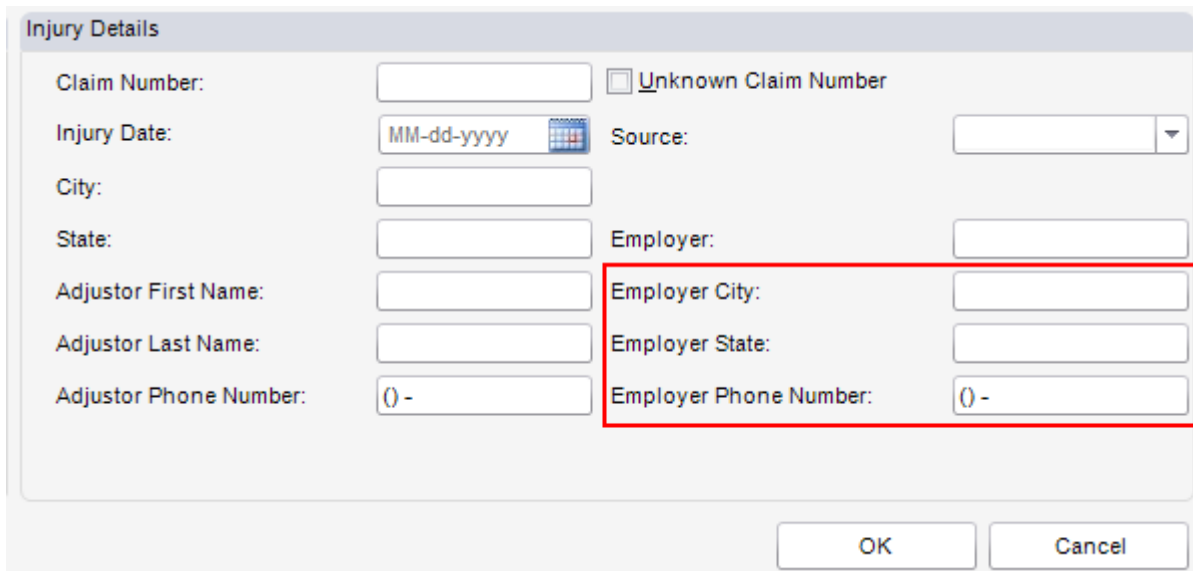


The previous Injury Details form contained the following fields:

- Claim Number: [Text Box] ☐ Unknown Claim Number
- Injury Date: [MM-dd-yyyy] [Calendar Icon] Source: [Dropdown]
- City: [Text Box] Employer: [Text Box]
- State: [Text Box]
- Adjustor First Name: [Text Box] Adjustor Phone Number: [Text Box]
- Adjustor Last Name: [Text Box]

Buttons: OK, Cancel

New Injury Details section:



The new Injury Details form contains the following fields:

- Claim Number: [Text Box] ☐ Unknown Claim Number
- Injury Date: [MM-dd-yyyy] [Calendar Icon] Source: [Dropdown]
- City: [Text Box] Employer: [Text Box]
- State: [Text Box] Employer City: [Text Box]
- Adjustor First Name: [Text Box] Employer State: [Text Box]
- Adjustor Last Name: [Text Box] Employer Phone Number: [Text Box]
- Adjustor Phone Number: [() - [Text Box]]

Buttons: OK, Cancel

Note: The Employer City, Employer State, and Employer Phone Number fields are highlighted with a red box in the original image.

FEATURE #15768 – BILLING INTEGRITY INTERFACE WILL NOW ALLOW USERS TO IDENTIFY WHEN A BILLING CODE WAS REACTIVATED BY IMAGINE BILLING

Sometimes a technologist will change the procedure code, which marks the original billing code as inactive and adds the new procedure's billing code. When the report goes to coding via the Imagine interface, CodeRyte sometimes sends back the 'original' billing code (i.e. the billing code that is inactive because the technologist changed the procedure code). Previously, the interface would simply reactivate that existing inactive billing code and it was not possible to identify that there was a discrepancy between what the technologist said they performed and what CodeRyte said was performed based on report contents.

An enhancement has been made to identify these scenarios, so that imaging centers can properly investigate why the discrepancy has occurred. This will allow corrections to be made in the cases where additional documentation in the report might have resulted in charging for a more comprehensive exam. It also allows the opportunity for technologist and radiologist education to occur when technologists often select the incorrect procedure or radiologists are not properly documenting all aspects of the exam performed.

In order to identify when an inactive billing code is reactivated by the interface, a new column has been added to the Billing Codes tab when opening the View/Edit screen from the Billing Confirmation WL. The column is labeled **Reactivated by Billing** and will display a Y when a billing code that was *inactive* at the time of billing submission has been *reactivated* by the Billing Integrity interface.

Reactivated By Billing	Added by Billing
N	Y
N	N

FEATURE #14799 - BILLING MODAILITY TYPE COLUMN IS NOW AVAILABLE IN THE BILLING CODES GRID

Billing Modality Type has been added as a column in the Billing Codes grid. This information can be useful to users who need to quickly identify if a billing code is a Supply charge, a Surgical charge, or any other category.

View/Edit: CAMPBELL, Griff #37230PE * x

ntation	Exam Details	Billing Codes	Attachments	Notes / Exam Times	Contact Log	UM	Demo Digital Form	Goodie's
---------	--------------	---------------	-------------	--------------------	-------------	----	-------------------	----------

Billing Code	Billing Modality Type	PreCert Status
71260 (COMPUTED TOMOGRAPHY, THORAX; WITH CONTRAST MATERIAL(S))	CAT Scan	Not Required

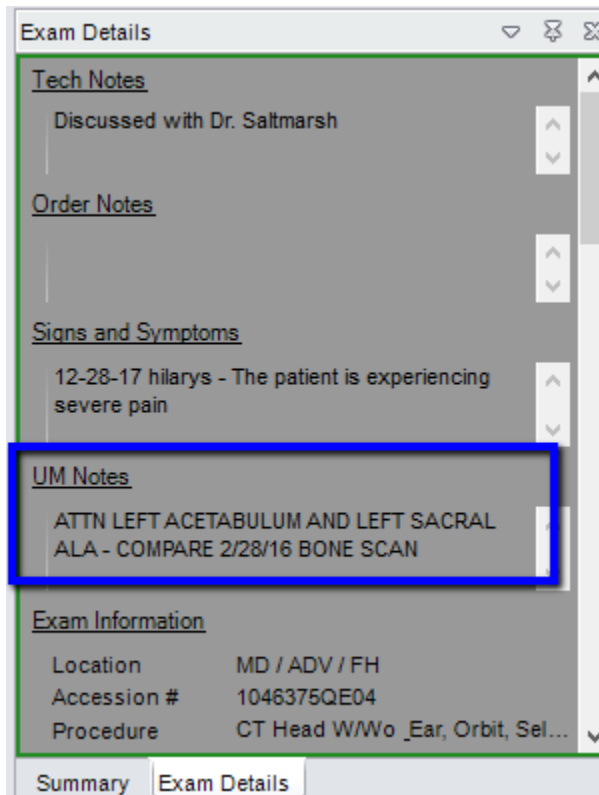
The new column should be available on any screen where the Billing Codes grid is displayed.

UTILIZATION MANAGEMENT

FEATURE #15296 – DISPLAY RADIOLOGIST-SPECIFIC NOTES TO THE RADIOLOGIST

When reviewing a study in Utilization Management workflow, UM reviewers sometimes wish to provide special instructions to the reading radiologist. These notes can now be displayed to the radiologist when they read the study.

If the System Configuration for setting **UMEnabled** is set to true, radiologists will now see a section for UM Notes in the Exam Details panel on the reporting screen. Any special instructions or notes the UM reviewer has entered in the Rad/Tech Special Instructions field will be displayed here.



This section will not be present if the system is not configured to use Utilization Management.

FEATURE #16996 – CONFIGURE A PRIMARY BILLING CODE FOR A PROCEDURE CODE

In Utilization Management workflow, CPT codes may exist on a matrix multiple times with different UM Coverage Types. For example, Medical Group A may list CPT code 70470 as Authorization Required coverage and Medical Group B lists the same CPT as Fee for Service (FFS).

Procedure codes may also have multiple billing codes associated with varying coverage types for each billing code. Previously, all additional billing codes were pushed to Utilization Review and the UM team would determine the coverage required.

To more efficiently route appropriate procedures/billing codes to the UM workload, it is now possible to indicate a Primary Billing Code in the Procedure Code sub-table **[l_procedure_code_x_billing_code](#)**.

Lookup - ProcedureCode * x

</

If a Billing Code for a Procedure is set to Primary, the UM logic will only evaluate for coverage using this Billing Code. If a Primary is not set, each individual Billing Code will be checked for whether authorization is required, as previously.

The primary billing code is labeled in the Authorization Summary (shown below).

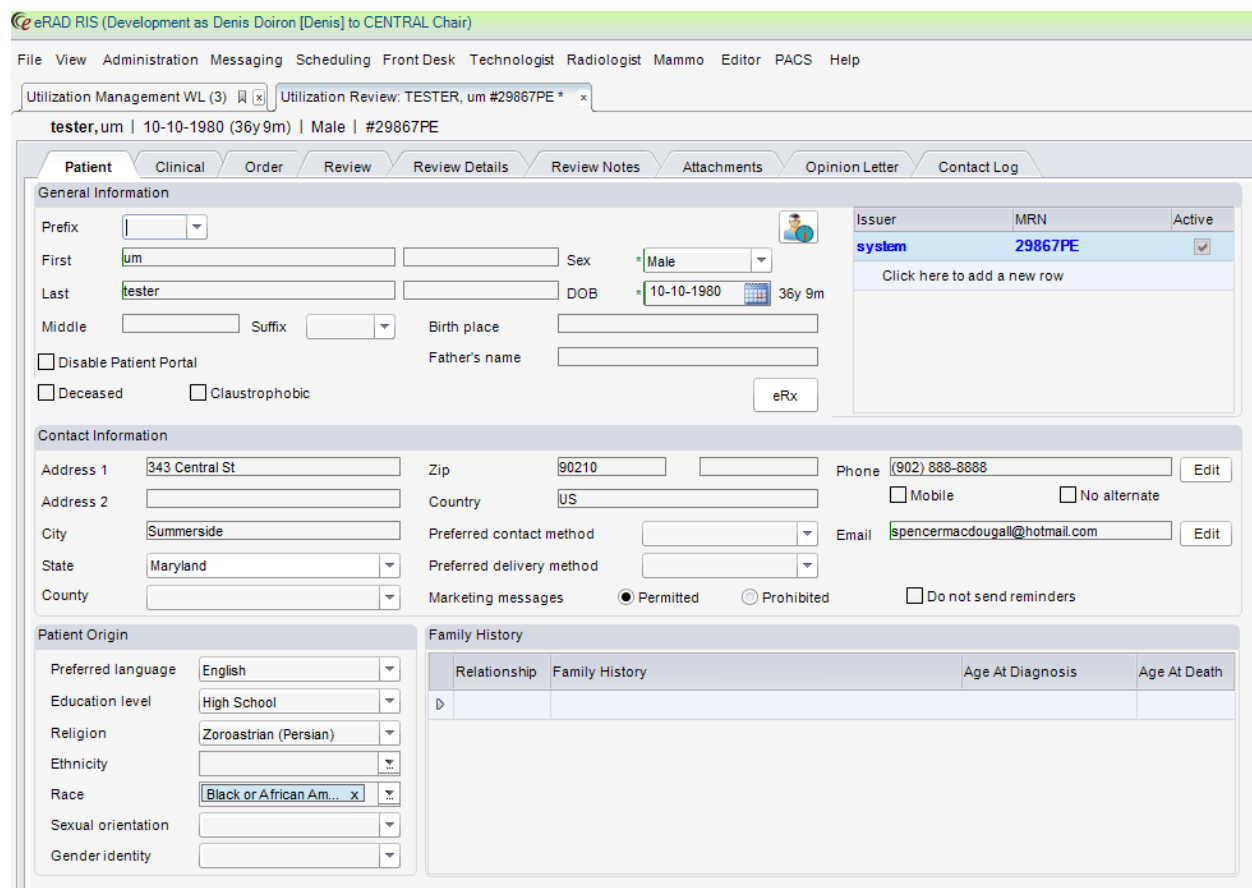
Utilization Review Details		Internal Notes		
Tracking #	DSN#	06-28-17 9:27 AM AT -		
Priority	<input type="text" value="Routine"/>			
Owner	<input type="text"/>			
Group	Utilization Management Portal Medical Group			
Insurance	UM Portal Carrier			
Requested Procedure(s)				
UM	Procedure	UM Status	UM Clock	Original Procedure
▶	✓ CT Head W/Wo & Sinus W/Wo [CT15] - Head	Received	0 of 30	
<div>CDS</div> <div>Additional Alternative</div>				
Authorization Status		Authorization Dates		
Status <input type="text" value="Received"/>		Created 06-28-2017 9:25 AM ?		
Confirmation Status		Updated		
<input type="checkbox"/> Confirmation Required <input type="checkbox"/> Confirmation Received		Reviewed		
Confirmed		Finalized		
Authorization Summary				
Primary Billing Code: 70470 - COMPUTED TOMOGRAPHY, HEAD OR BRAIN; WITHOUT CONTRAST MATERIAL, FOLLOWED BY CONTRAST MATERIAL(S) AND FURTHER SECTIONS Coverage: Auth Required Billing Code: 77002 - FLUOROSCOPIC GUIDANCE FOR NEEDLE PLACEMENT (EG, BIOPSY, ASPIRATION, INJECTION, LOCALIZATION DEVICE) Coverage: Auth Required				

FEATURE #17302 – ALLOW FOR CUSTOMIZABLE SCREEN LAYOUT ON UTILIZATION REVIEW SCREEN

The Utilization Management workflow includes a number of different notes fields. Due to the amount of data that must be entered for UM, the notes fields exist on a separate tab called Review Notes. UM Reviewers using multiple monitors have additional screen real estate and would like to be able to see the notes fields and other information at the same time, without switching tabs.

In order to provide the most flexibility, the Utilization Management screens will now behave in a fashion similar to the Reporting screen, with multiple data panes that can be docked, floated, tabbed and pinned as desired.

The default layout will be almost identical to the previous screen layout: all controls will be tabbed across the top of the screen, as shown below.



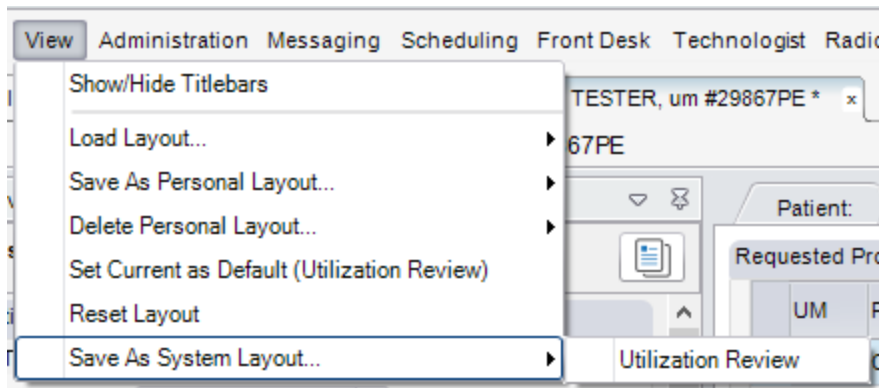
The screenshot displays the eRAD RIS interface for a Utilization Review. The top navigation bar includes tabs for Patient, Clinical, Order, Review, Review Details, Review Notes, Attachments, Opinion Letter, and Contact Log. The main content area is divided into several sections:

- General Information:** Fields for Prefix, First, Last, Middle, Sex (Male), DOB (10-10-1980), Birth place, and Father's name. There are checkboxes for 'Disable Patient Portal', 'Deceased', and 'Claustrophobic'.
- Contact Information:** Fields for Address 1 (343 Central St), Zip (90210), Phone ((902) 888-8888), Address 2, Country (US), City (Summerside), State (Maryland), County, Preferred contact method, Preferred delivery method, Email (spencermacdougall@hotmail.com), and Marketing messages (Permitted/Prohibited).
- Patient Origin:** Fields for Preferred language (English), Education level (High School), Religion (Zoroastrian (Persian)), Ethnicity, Race (Black or African Am...), Sexual orientation, and Gender identity.
- Family History:** A table with columns for Relationship, Family History, Age At Diagnosis, and Age At Death.

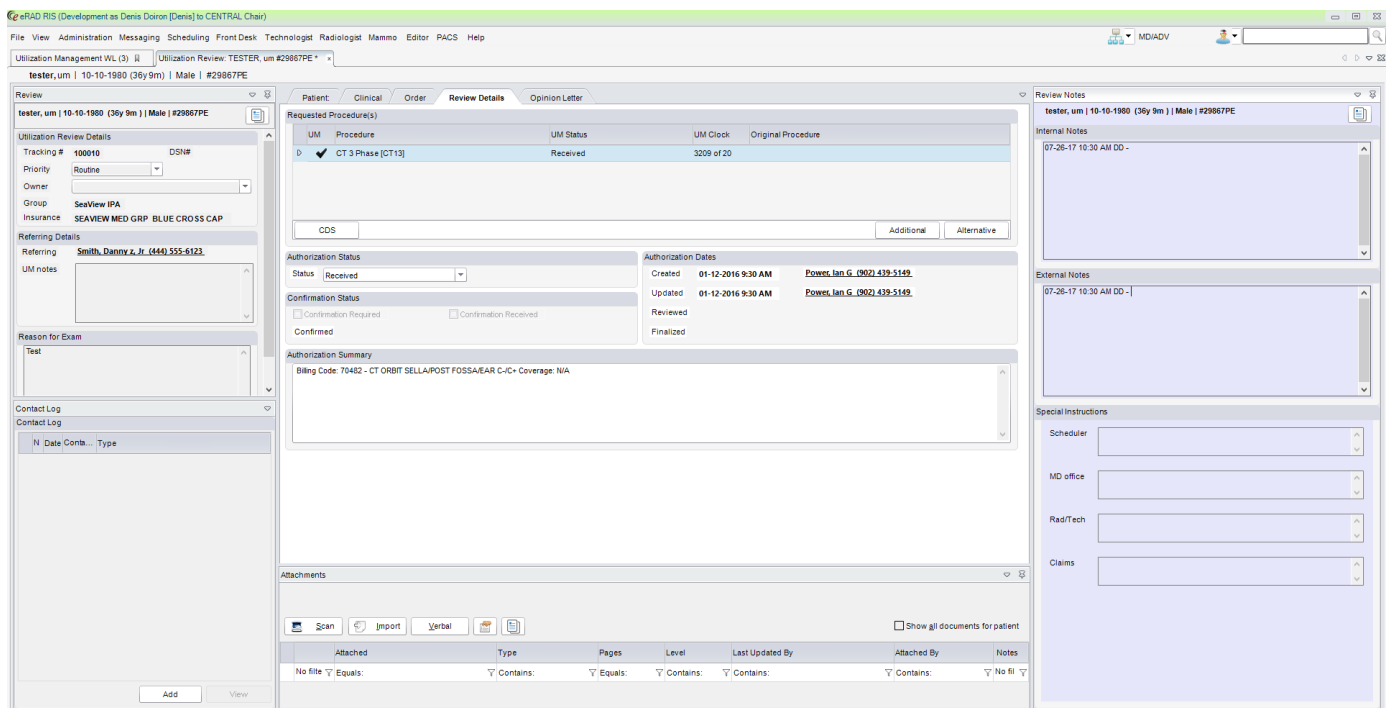
A system administrator with appropriate permissions will be able to override the deployed layout by saving a layout as a System Layout for Utilization Review via the "View" menu.

Individual users can also override the default layout by saving a layout with the **Save current as default (Utilization Review)** under the View menu. If desired, this permission can be revoked to give better control to layout consistency across the organization.

Users can also save personal layouts with a custom name, which can be manually loaded on demand by the user. The following image shows the “View” menu for Utilization Management with all permissions granted.



The following image depicts a custom screen layout created by floating, then docking a few controls around the centrally located tab screens.



One difference from the Reporting screen layout is that the Review Details tab is the main control, which will always be tabbed and visible on the main screen. This control cannot be floated.

Another difference is that users do not have the ability to hide any of the data panes. They can choose to pin them, but they will all be accessible on the screen.

RELEVANT ACCESS STRINGS

The following access strings previously existed, but are related to this feature:

- [View.Save](#) - controls the user's ability to save their own default layout.
- [View.Preset.Administration](#) - allows an administrator to override the default layout.
- [View.Custom.Layouts](#) - allows users to save personal layouts.

FEATURE #17504 – INDICATOR FOR MEDICAL GROUPS THAT ARE REVIEW ONLY

Some medical groups have contracts that only entail utilization review and the imaging is to be performed elsewhere. There is a **Review Only** flag at the Medical Group level. When this flag is enabled, any orders reviewed for that medical group cannot be scheduled.

To make this clear to users, a label has been added to the right of the Medical Group if it is configured as Review Only. The label is visible on the Review Details tab under UM Review, as well as the UM tab that appears during scheduling.

Patient
Clinical
Order
Review Details
Review Notes
Attachments
Opinion Letter
Contact Log

Test, UM | 10-10-1980 (36y 10m) | Male | #345QE2

Utilization Review Details
Tracking # 100014 DSN#
Priority Routine
Owner
Group Masters Medical Group (Review only)
Insurance SEAVIEW MED GRP BLUE CROSS CAP

Referring Details
Referring Smith, Danny z. Jr (444) 555-6123
UM notes this doc is gold card for all cts

Reason for Exam
03-03-17 admintest - test 4

Requested Procedure(s)

UM	Procedure	UM Status	UM Clock	Original Procedure
✓	CT Abdomen W & Pelvis W [CT9] - Abdomen	Recommended - As Requested	1389 of 30	CT Chest W & Abdomen W/Wo [CT42] - Chest
✓	CT Chest W [71260] - Chest	Recommended - As Added Ex...	1389 of 30	

CDS
Additional
Alternative

Authorization Status
Status Recommended As Requested

Confirmation Status
☐ Confirmation Required ☐ Confirmation Received
Confirmed

Authorization Dates

Created	03-03-2017 2:11 PM	Test User, Administrator, MD (999) 999-9999
Updated	03-03-2017 2:13 PM	Test User, Administrator, MD (999) 999-9999
Reviewed	03-03-2017 2:13 PM	Test User, Administrator, MD (999) 999-9999
Finalized	03-03-2017 2:13 PM	Test User, Administrator, MD (999) 999-9999

Authorization Summary
Billing Code: 74160 - COMPUTED TOMOGRAPHY, ABDOMEN; WITH CONTRAST MATERIAL(S) Coverage: Auth Required

Patient Search Patient: TEST, UM #345QE2 (70) Lookup Tables - Carrier Schedule Order: TEST, UM #345QE2 * x

Patient Patient Notes Contacts / Demographics Order Clinical Schedule Image Request (0) Billing Codes Review Contact Log **UM** Goodie Test ay tes

Test, UM | 10-10-1980 (36y 10m) | Male | #345QE2

Utilization Review Details		Internal Notes
Tracking #	100014	08-17-2017 2:56 PM AT -
DSN#		
Priority	Routine	
Owner		
Group	Masters Medical Group (Review only)	
Insurance	SEAVIEW MED GRP BLUE CROSS CAP	

Requested Procedure(s)

UM	Procedure	UM Status	UM Clock	Original Procedure
✓	CT Abdomen W & Pelvis W [CT9] - Abdomen	Recommended - As Requested	1389 of 30	CT Chest W & Abdomen W/Wo [CT42] - Chest
✓	CT Chest W [71260] - Chest	Recommended - As Added Ex...	1389 of 30	

CDS Additional Alternative

Authorization Status		Authorization Dates	
Status	Recommended As Requested	Created	03-03-2017 2:11 PM Test User, Administrator, MD (999) 999-9999
Confirmation Status <input type="checkbox"/> Confirmation Required <input type="checkbox"/> Confirmation Received Confirmed		Updated	03-03-2017 2:13 PM Test User, Administrator, MD (999) 999-9999
		Reviewed	03-03-2017 2:13 PM Test User, Administrator, MD (999) 999-9999
		Finalized	03-03-2017 2:13 PM Test User, Administrator, MD (999) 999-9999

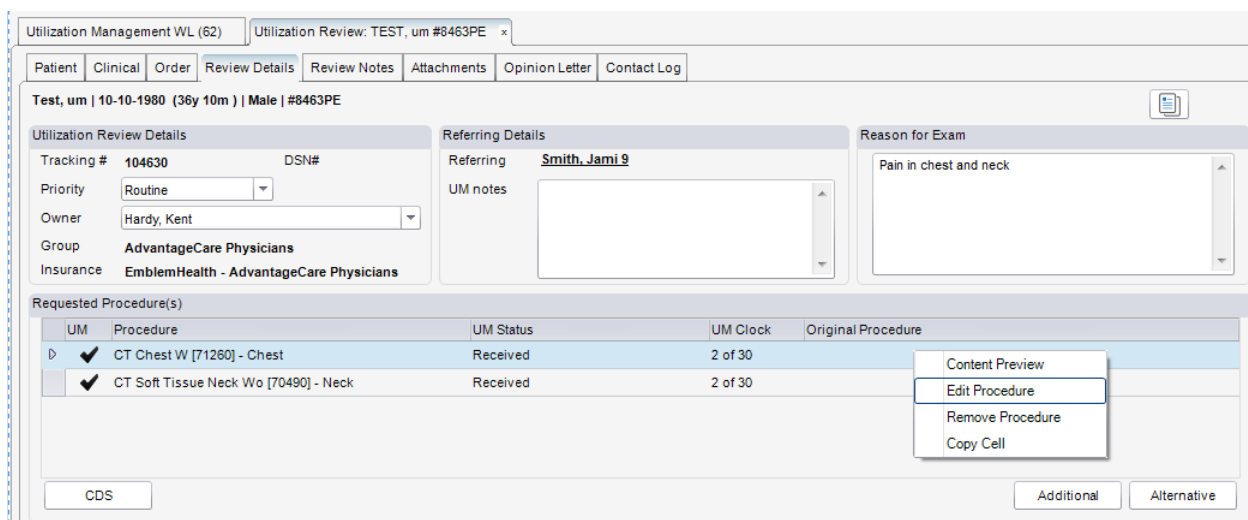
Authorization Summary

Billing Code: 74160 - COMPUTED TOMOGRAPHY, ABDOMEN; WITH CONTRAST MATERIAL(S) Coverage: Auth Required

FEATURE #17529 – UM – REVIEWERS CAN NOW CHANGE REQUESTED PROCEDURE

When adding UM orders to RIS, the data entry team sometimes mistakenly adds the wrong procedure to the order. The UM reviewer would previously have to modify the existing order via the Schedule Order screen because adding the correct procedure as an Alternative exam for a simple data entry error would skew the statistics. It is now possible for the reviewer to modify the ordered procedure from the Utilization Review screen.

The context menu on the Requested Procedure(s) grid on the Review Details tab has been enhanced to include both **Edit Procedure** and **Remove Procedure** menu items.



The screenshot shows the Utilization Review screen for a patient named Test, um | 10-10-1980 (36y 10m) | Male | #8463PE. The screen is divided into several sections: Utilization Review Details, Referring Details, Reason for Exam, and Requested Procedure(s). The Requested Procedure(s) section contains a table with two rows of procedures. A context menu is open over the second row, showing options: Content Preview, Edit Procedure, Remove Procedure, and Copy Cell.

UM	Procedure	UM Status	UM Clock	Original Procedure
✓	CT Chest W [71260] - Chest	Received	2 of 30	
✓	CT Soft Tissue Neck Wo [70490] - Neck	Received	2 of 30	

For the Remove Procedure option, the following logic is used to determine if the user can delete the procedure from the order.

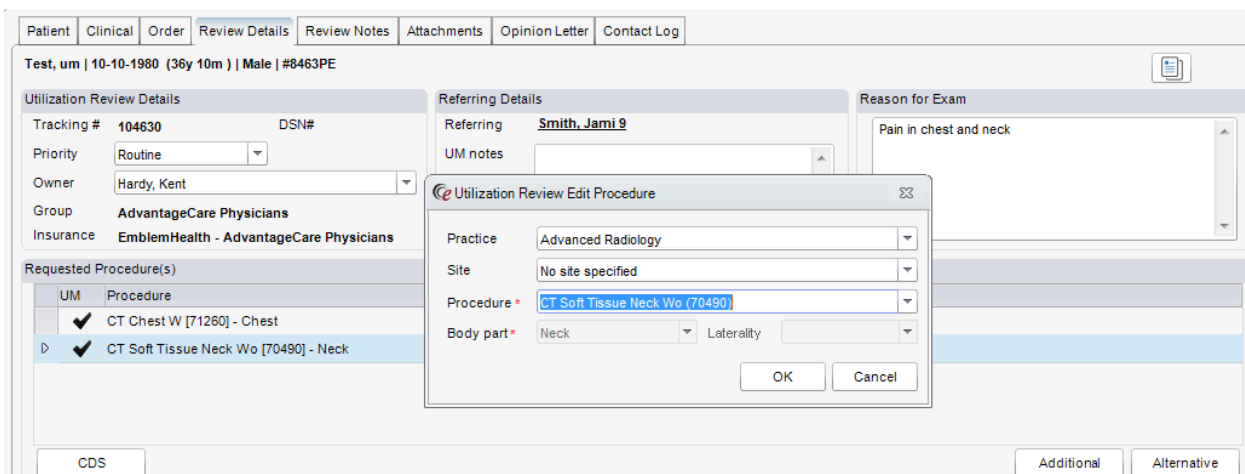
1. If the procedure is the only one for the order, the user is prevented from removing it and prompted with "At least one procedure is required."
2. If the procedure being removed already has a study associated with it (has been scheduled or is further in the workflow), the user is prevented from removing it and is prompted with "The procedure you are deleting is currently in Scheduled status. Please notify the appropriate person to make adjustments to the appointment."

For the Edit Procedure option, similar logic applies. If the procedure being removed already has a study associated with it (has been scheduled or is further in the workflow), the user is prevented from removing it and is prompted with "The procedure you are deleting is currently in Scheduled status. Please notify the appropriate person to make adjustments to the appointment." Note that the word "Scheduled" will be replaced with the actual status of the study.

While adding the above logic to not adjust ordered procedures that have studies associated, it was decided to also prevent and display a message to the user for the following scenarios:

1. When **specifying** an **alternative** procedure for an order item that already has a study associated, the user is prompted with: "The procedure for which you are recommending an alternative is currently in scheduled status. Please notify the appropriate person to make adjustments to the appointment."
2. When **removing** an **alternative** procedure for an order item that already has a study associated, the user is prompted with: "The procedure you are deleting is currently in Scheduled status. Please notify the appropriate person to make adjustments to the appointment."
3. When **adding** an **additional** procedure for an order that already has at least one study associated, the user is prompted with: "The order for which you are adding an additional procedure has a procedure in scheduled status. Please notify the appropriate person to make adjustments to the appointment."
4. When **removing** an **additional** procedure for an order item that already has a study associated, the user is prompted with: "The procedure you are deleting is currently in Scheduled status. Please notify the appropriate person to make adjustments to the appointment."

If the above validation passes when editing a procedure, the user is presented with a procedure picker so he or she can modify the procedure and replace it at the order item level.



When selecting Remove Procedure, the user is prompted with "Are you sure you want to remove the procedure?" Selecting yes will delete the order item.

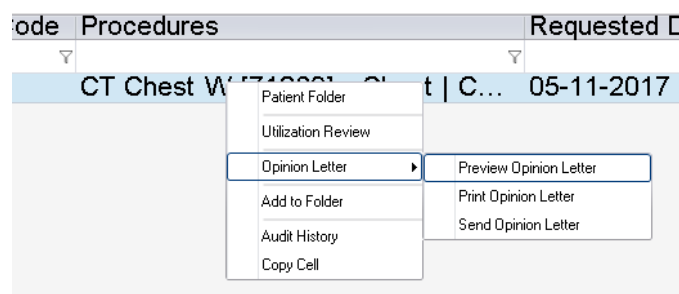
Note: This feature was previously released in a patch to make it available in the field prior to this release. First released in 2.2016.7.14.

FEATURE #18170/17530 – RIS USERS CAN NOW PREVIEW AND DISTRIBUTE UM OPINION LETTER

Previously, the UM Opinion Letter was only available to be previewed from the Utilization Review screen via the UM Opinion Letter tab. Sometimes it is necessary for other RIS users to preview or distribute the UM Opinion Letter. To accomplish this, a new context menu item has been added to the Patient Folder and UM worklist called **Opinion Letter**. This option will be available when the UM Required Flag = Y and the user has FULL access to a new access string: **Clinical.OpinionLetter**.

The Opinion Letter context menu item will have three options:

1. Preview Opinion Letter
2. Print Opinion Letter
3. Send Opinion Letter



Access to these three sub-menu options can be controlled via the access strings:

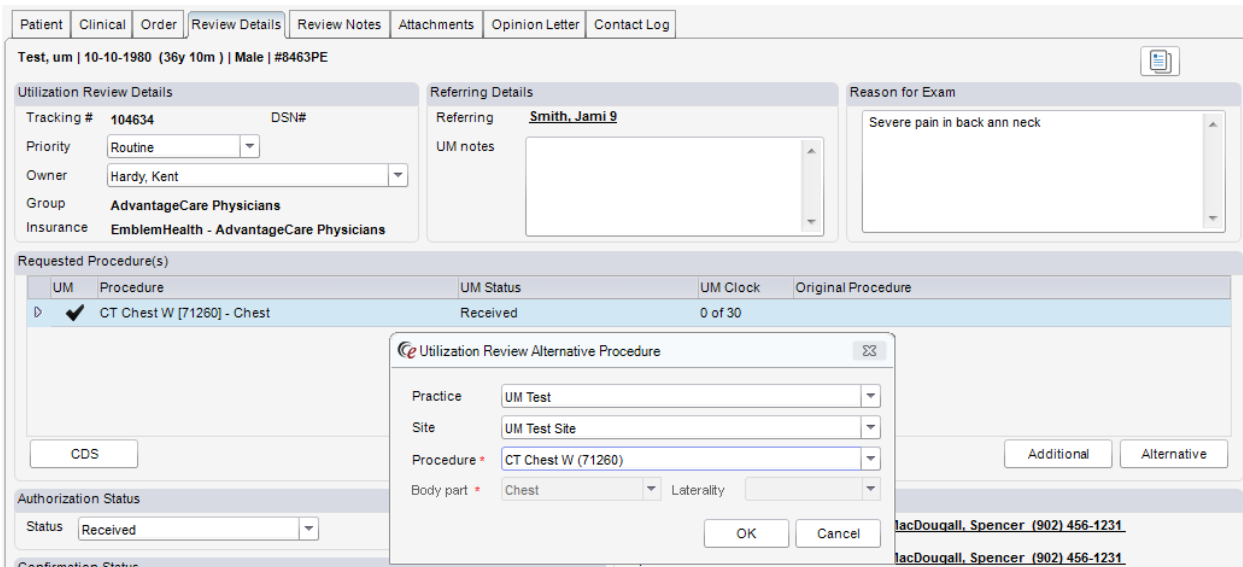
- **Clinical.OpinionLetter.Preview**
- **Clinical.OpinionLetter.Print**
- **Clinical.OpinionLetter.Send**

Note: This feature was previously released in a patch to make it available in the field prior to this release. First released in 2.2016.7.14.

FEATURE #17579 – UM REVIEWERS CAN NOW CHOOSE ANY ACTIVE PROCEDURE, UNLIMITED BY THE CURRENT SITE’S SCHEDULE GROUP

When a UM Reviewer wishes to recommend an alternative procedure, add an additional procedure, or edit the procedure, sometimes it is not a procedure that can be performed at the practice or site for which the order was created. Previously, there were some restrictions on what procedures were available in the dropdown when selecting Alternative or Additional procedures. The UM Reviewer now has access to any active procedure when choosing the procedure via UM workflow.

The utilization review procedure picker has been enhanced to include dropdowns for both Practice and Site. When editing the existing procedure or specifying an alternative procedure, the Procedure dropdown will default to the original ordered procedure.



The screenshot displays the eRAD Utilization Review interface. At the top, there are tabs for Patient, Clinical, Order, Review Details, Review Notes, Attachments, Opinion Letter, and Contact Log. The main area shows patient information: Test, um | 10-10-1980 (36y 10m) | Male | #8463PE. Below this, there are sections for Utilization Review Details, Referring Details, and Reason for Exam. The Utilization Review Details section includes fields for Tracking # (104634), DSN#, Priority (Routine), Owner (Hardy, Kent), Group (AdvantageCare Physicians), and Insurance (EmblemHealth - AdvantageCare Physicians). The Referring Details section includes Referring (Smith, Jami 9) and UM notes. The Reason for Exam section includes a text area with "Severe pain in back ann neck". Below these sections is a table for Requested Procedure(s) with columns for UM, Procedure, UM Status, UM Clock, and Original Procedure. The table shows one procedure: CT Chest W [71260] - Chest, with UM Status "Received" and UM Clock "0 of 30". A dialog box titled "Utilization Review Alternative Procedure" is open, showing fields for Practice (UM Test), Site (UM Test Site), Procedure (CT Chest W [71260]), Body part (Chest), and Laterality. There are buttons for OK and Cancel. At the bottom right, there are buttons for Additional and Alternative.

If the user changes the Procedure dropdown to a procedure that cannot be performed at the site or practice specified with the order, he or she is prompted with “The selected procedure cannot be performed at this Site or Practice. Please select a new Practice and Site from the list.”

If the user changes the Procedure dropdown to a procedure that cannot be performed at the site but is available at the practice specified with the order, he or she is prompted with “The selected procedure cannot be performed at this Site. Please select a new Site from the list.”

The Practice and Site dropdowns are then filtered to present the user with only practices and sites that can perform the newly selected procedure. This is accomplished by comparing active procedure codes against the configured schedule groups.

When adding additional procedures, the reviewer is not limited by the practice and site selection and will not be prompted if the procedure cannot be performed.

Note: This feature was previously released in a patch to make it available in the field prior to this release. First released in 2.2016.7.14.

FEATURE #17580 – AUTOMATICALLY UPDATE EXAM STATUS BASED ON ATTRIBUTES OF SELECTED UM STATUS

Previously, when a UM Reviewer marked all procedures in an order as Not Recommended, the Patient Folder continued to display the order in an Ordered status, with the Procedure column displaying as blank due to the fact that no active procedures were associated. This could be confusing in cases where the UM Reviewer needed to go back to the case (e.g. they receive a call from the referring provider) or to other RIS users.

For this reason, a new System Configuration value has been added called **UMDefaultCancelledReasonCode**. This configuration value is dependent on a corresponding entry in the **CancelStudyReason** look-up table.

The workflow will proceed as follows: First, the system will look at the order once it is marked as UM Complete. UM Complete is determined by looking at each ordered procedure that requires utilization review to see if it is in a final UM Status. Next, the system will determine if the final UM Status can advance to scheduling or not. For example, Recommended can be scheduled while Not Recommended typically cannot. This is determined by verifying that the Final Flag on the UM Status is set to “Y” and the Schedule Flag is set to “N.”

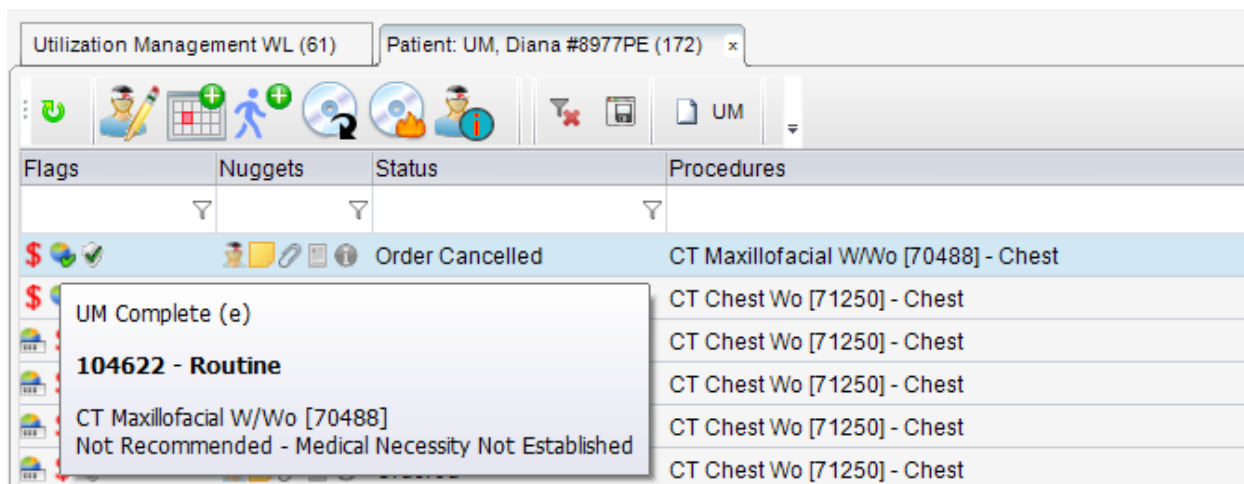
If it is determined that all the procedures for the order require utilization review and none can advance to be scheduled, the system will perform the following tasks:

1. Set the Status Code for the order to Order Cancelled.
2. Set the Cancelled by User ID field for the Order to “system.”
3. Set the Cancelled Date for the order to the current date and time.
4. Set the Cancelled Reason Code for the order to the **UMDefaultCancelledReasonCode**.

The following is an example of the audit log for the above scenario.

Event Time: 08-21-2017 03:38:15.836 PM Client IP Address: ::1	
Changed c_order	
status_code:	'OrderCancelled' (was 'OrderSigned')
cancelled_by_user_id:	'system' (was 'nothing')
cancelled_reason_code:	'UMDenied' (was 'nothing')
um_complete_flag:	'Y' (was 'N')
um_owner_user_id:	'chasin' (was 'nothing')
cancelled_date:	'08-21-17 3:38:14 PM -03:00' (was 'nothing')
Changed c_order_item	
procedure_code:	'70488'
um_status_code:	'NotRecommended' (was 'Received')
um_resolution_code:	'MedNec' (was 'nothing')
um_finalized_date:	'08-21-17 3:38:14 PM -03:00' (was 'nothing')
um_final_status_hours:	'40' (was 'nothing')
um_finalized_by_user_id:	'spencer' (was 'nothing')
um_reviewed_date:	'08-21-17 3:38:14 PM -03:00' (was 'nothing')
um_reviewed_by_user_id:	'spencer' (was 'nothing')
um_procedure:	'CT Maxillofacial W/Wo [70488] - Chest' (was 'nothing')
um_status:	'Not Recommended - Medical Necessity Not Established' (was 'nothing')
um_clock:	'40 of 30' (was 'nothing')

Below is an example of a UM order for which all exams on the order are moved to a Final UM status that indicates no scheduling is possible.



Flags	Nuggets	Status	Procedures
		Order Cancelled	CT Maxillofacial W/Wo [70488] - Chest
		UM Complete (e)	CT Chest Wo [71250] - Chest
		104622 - Routine	CT Chest Wo [71250] - Chest
		CT Maxillofacial W/Wo [70488]	CT Chest Wo [71250] - Chest
		Not Recommended - Medical Necessity Not Established	CT Chest Wo [71250] - Chest
			CT Chest Wo [71250] - Chest

Note: This feature was previously released in a patch to make it available in the field prior to this release. First released in 2.2016.7.14.

FEATURE #17708 – SET DEFAULT UM STATUS AND RESOLUTION CODES FOR GOLD CARD AND STAT ORDERS

When configured, special handling for Gold Card or STAT orders requires that the orders be advanced to scheduling, bypassing the UM process. Previously, the UM flag was set to “Y” to allow scheduling, but the order would remain in Received status.

It is now possible to configure which Status and Resolution codes will be used in these scenarios. The defaults are defined by the following System Configuration settings:

- **UMDefaultSTATStatusCode**
- **UMDefaultSTATResolutionCode**
- **UMDefaultGoldCardStatusCode**
- **UMDefaultGoldCardResolutionCode**

If either System Configuration setting **UMByPassSTAT** or **UMGoldCardAutoApprove** is set to Y, the order’s status code and resolution code will be immediately changed to match the appropriate System Configuration values. In addition, the following values are automatically set:

- UM Finalized Date = Current Date/Time
- UM Finalized by User ID = “system”
- UM Final Status Hours = 0

Note: This feature was previously released in a patch to make it available in the field prior to this release. First released in 2.2016.7.14.

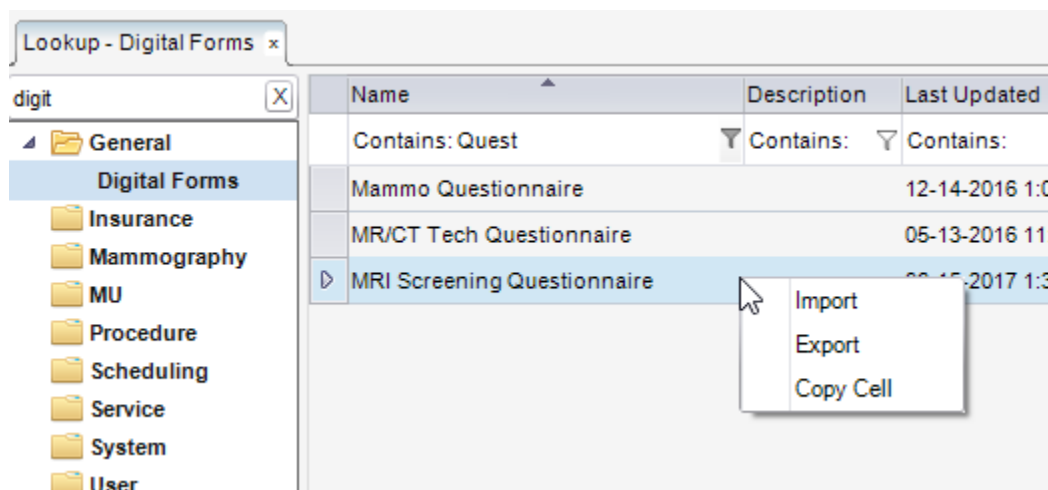
DIGITAL FORMS

FEATURE #16474 – IMPORT/EXPORT DIGITAL FORMS VIA LOOKUP TABLE

Previously, the import/export utility for Digital Forms was a standalone application requiring manual setup and configuration. The Digital Forms look-up will now be made available in the eRAD RIS GUI and will allow for the import/export functionality to be initiated from a context menu.

This activity is still considered a task to be performed by eRAD Support.

A Digital Forms configuration table is now visible in the General folder. Import and Export options have been added to the right-click context menu. Depending on the option selected, RIS will either export the selected Digital Forms as XML files or to import XML files as Digital Forms.



Users will be able to select an output path for exported XML files or select the location from which an XML file will be imported. Both options allow for multi-select. Exported files will be written to the folder the user has chosen while retrieving the content of associated image files from the web server. Import requires the XML to have been created using the export functionality in order to then be saved in the dataset and have an image file written to the web server.

Access to the new Digital Forms table will be controlled by the new access string [Config.LookupEditor.DigitalForms](#) (default = NONE).

Important Note: The same Digital Form should NOT be imported back to the originating system with the intention of then altering it to be used as a new Digital Form. The import process will assign the same GUIDs for the questions on the imported Digital Form and conflicts will occur if those unique question identifiers refer to questions on separate Digital Forms.

FEATURE #17628 – UPDATE DIGITAL FORM ANSWERS VIA HL7

In some cases, it can be advantageous to accept updates to the answers in Digital Forms from a third-party system. For example, some customers wish to create Digital Forms to store data related to Breast Cancer Risk Assessment from a third party.

In order to accommodate this need, it is now possible for HL7 messages coming in through the Wedge HTTP interface or the external interface service to update answers to Digital Forms ([c_questionnaire_answer](#) table).

A “match on” feature has been added to some tables in the external interface. The first table to make use of this new functionality is the table for Digital Form answers, but it can be enabled on other tables as the need arises. It is possible to define which criteria to match on. For example, by default, messages updating the Digital Forms answers will match on Study Key and Question GUID (a unique identifier for the Digital Form question).

FEATURE #17840 – ABILITY TO USE A LOAD BALANCER FOR DIGITAL FORMS SERVERS

Some customers would like to use a load balancer for Digital Forms servers. To support this need, eRAD RIS now has the ability to use a SQL server for session storage rather than using memory.

Please consult eRAD Support if interested in taking advantage of this feature.

FEATURE #17842 – NEW DISPLAY CRITERIA OPTIONS FOR THE CONDITIONAL TAB EDITOR

As eRAD RIS expands the use of Digital Forms, the following additional display criteria options have been added:

- Site Group
- Site
- Age Range
- Gender (Sex)
- Procedure Code
- Billing Code
- Carrier
- Carrier Type
- Contrast Required
- Sedation Required

In addition to loading the proper conditional tabs when a screen is opened, the conditional tab framework also listens for changes to key fields that may change the applicable tabs. For example, if a new billing code or carrier is added, the new tab will be attached immediately if the criteria match.

Most of the added criteria are self-explanatory, but a few may require further explanation.

Site Group Criteria

A Site Group is a user defined collection of sites. Site Groups can have types (e.g. Radiologist Reading Group, General WL, RIS Schedule, etc.), but these are not used for filtering purposes in the Conditional Tabs editor. Any Site Group will be available for selection.

Age Range Criteria

The age range was designed with a minimum age in years which is inclusive, and a maximum age in years which excludes the specified age. For example, 10-18 would match to a 10 year-old patient but not to an 18 year-old patient.

Sedation Required

The Order tab on various screens (e.g. Registration, View/Edit, etc.) has a Sedation field. If this is populated, the exam will be classified as **Sedation Required** for conditional tab filtering purposes.

Contrast Required

The Procedure Code table has a column named **Requires Contrast Flag**. This field is used for conditional tab filtering.

CEHRT

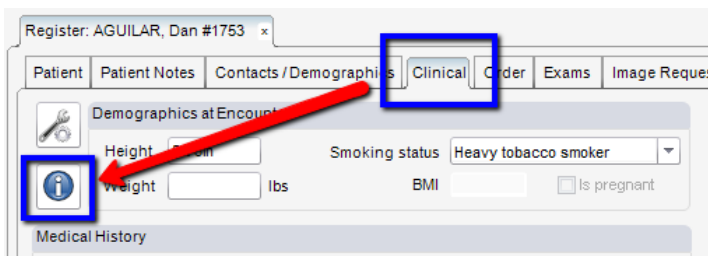
Certification of Electronic Health Records Technology (CEHRT) is a program that defines standards of performance that must be met in order to be considered a Certified EHR. eRAD RIS is currently certified under CEHRT 2014 Edition requirements. Using eRAD RIS Version 3.2017.6, eRAD RIS has applied for certification under CEHRT 2015 Edition requirements (the most recent edition for certification). eRAD RIS has already undergone and passed a testing process with an authorized certification body and is currently awaiting a new certification number, which will officially update the Certification Edition on the ONC's Certified Health IT Product List.

The following features have been added to the current eRAD RIS build to meet CEHRT 2015 Edition requirements. Some additional features are described in the Portals section of this document.

FEATURE #16866 – CEHRT 170.315(B)(4): HEALTH CONCERNS FIELDS ADDED TO CLINICAL TAB

To qualify as a certified EHR System under the 2015 CEHRT requirements, eRAD RIS must be capable of collecting a patient's Health Concerns in a separate field that can be pulled into the C-CDA.

Because this data is unlikely to be separately collected in radiology, the fields were added in an out of the way area in the RIS. It is accessed using the Info button on the Clinical Tab.



After opening, the Health Concerns can be entered as seen below. Up to 500 characters of free text are allowed.

Health Concerns entered here will appear in the Health Concerns section of the C-CDA.

Health concerns
On October 3rd, 2015, the patient expressed concern about chest pain

If this field is populated, the C-CDA will display the information:

HEALTH CONCERNS

Details

On October 3rd, 2015, the patient expressed concern about chest pain after previous CT scan.

If left blank, the C-CDA will indicate that health concerns were not recorded:

SOCIAL HISTORY

Description	Status
Smoking Status	Never smoker (Never Smoked)

VITAL SIGNS

Date	Height	Weight	BMI
04-27-2017	65 in	153 lbs	25.46

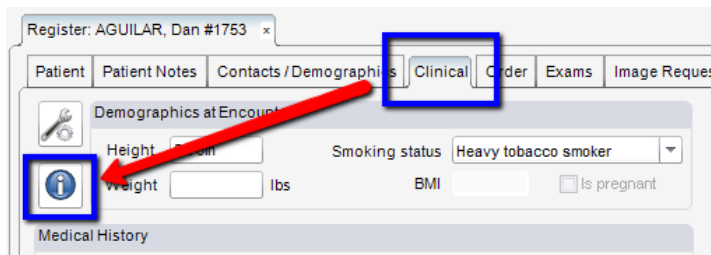
HEALTH CONCERNS

No health concerns recorded

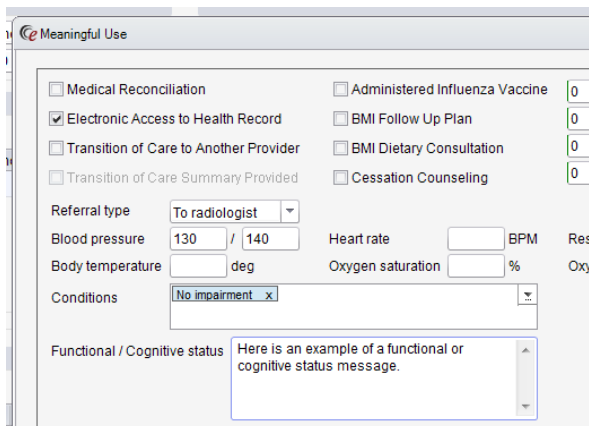
FEATURE #16877 – CEHRT 170.315(B)(4): FUNCTIONAL/COGNITIVE STATUS FIELD ADDED TO CLINICAL TAB

To qualify as a certified EHR System under the 2015 CEHRT requirements, eRAD RIS must be capable of collecting a patient's Functional and Cognitive status, as well as providing this information in the C-CDA.

Because this data is unlikely to be collected in radiology, the fields were added in an out of the way area in the RIS. It is accessed using the Info button on the Clinical Tab.



After opening, the Functional/Cognitive Status can be entered as seen below. Up to 500 characters of free text are allowed.



This field will appear on the C-CDA in the Functional and Cognitive Status section as a Functional Status Observation:

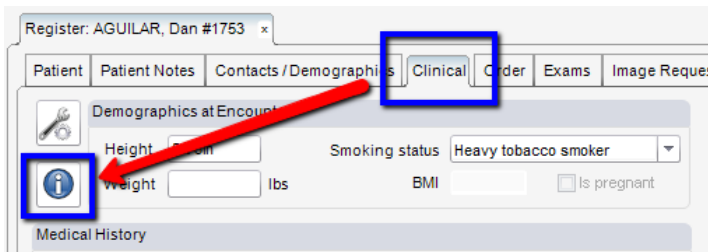
FUNCTIONAL AND COGNITIVE STATUS

Condition	Date	Status
No impairment	05-05-2017	Active
Other		
Here is an example of a functional or cognitive status message.		

FEATURE #18061 – CHECKBOX TO INDICATE THAT A SUMMARY OF CARE RECORD IS AVAILABLE

To qualify as a certified EHR System under the 2015 CEHRT requirements, eRAD RIS must be capable of recording that a Summary of Care Record is available.

A new checkbox has been added for this purpose. It is accessed using the Info button on the Clinical Tab.



The checkbox will be available on the resulting screen, as shown:

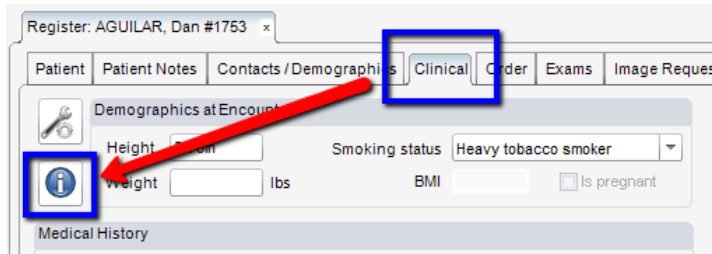
If this box is not checked, the existing checkbox for labeled **Summary of Care Record Received** will be disabled.

Note that some elements on this screen were reorganized to accommodate the new checkbox.

FEATURE #18008 – SUMMARY OF CARE RECORD RECEIVED

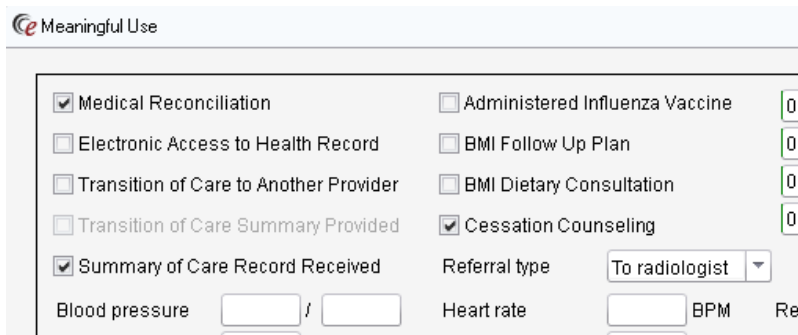
To qualify as a certified EHR System under the 2015 CEHRT requirements, eRAD RIS must be capable of recording that a Summary of Care Record has been received.

A new checkbox has been added for this purpose. It is accessed using the Info button on the Clinical Tab.



The screenshot shows the eRAD interface for a patient named AGUILAR, Dan #1753. The 'Clinical' tab is selected and highlighted with a blue box. Below the tabs, the 'Demographics at Encounter' section is visible. A red arrow points to the 'Info' button, which is also highlighted with a blue box. The 'Info' button is located in the bottom left corner of the 'Demographics at Encounter' section.

The checkbox will be available on the resulting screen, as shown:

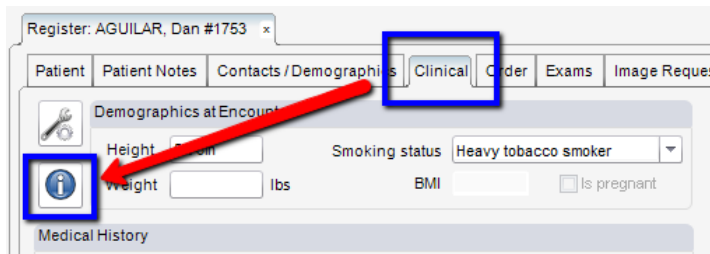


The screenshot shows the 'Meaningful Use' section of the eRAD interface. The 'Summary of Care Record Received' checkbox is checked. Other checkboxes include 'Medical Reconciliation', 'Electronic Access to Health Record', 'Transition of Care to Another Provider', 'Transition of Care Summary Provided', 'Administered Influenza Vaccine', 'BMI Follow Up Plan', 'BMI Dietary Consultation', and 'Cessation Counseling'. The 'Referral type' dropdown is set to 'To radiologist'. The 'Blood pressure' and 'Heart rate' fields are also visible.

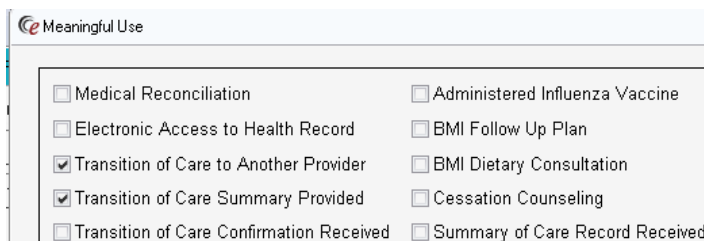
FEATURE #18039 – TRANSITION OF CARE CONFIRMATION RECEIVED

To qualify as a certified EHR System under the 2015 CEHRT requirements, eRAD RIS must be capable of recording that a Transition of Care Confirmation has been received.

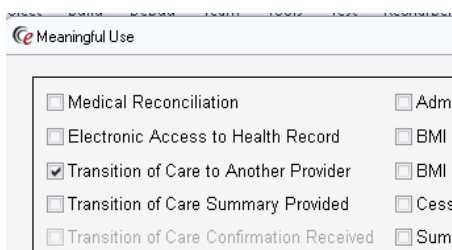
A new checkbox has been added for this purpose. It is accessed using the Info button on the Clinical Tab.



The checkbox will be available on the resulting screen, as shown:



The checkbox for Transition of Care Summary Provided must be checked to enable the Transition of Care Confirmation Received checkbox. If it is not checked, the new Confirmation Received checkbox will be disabled.

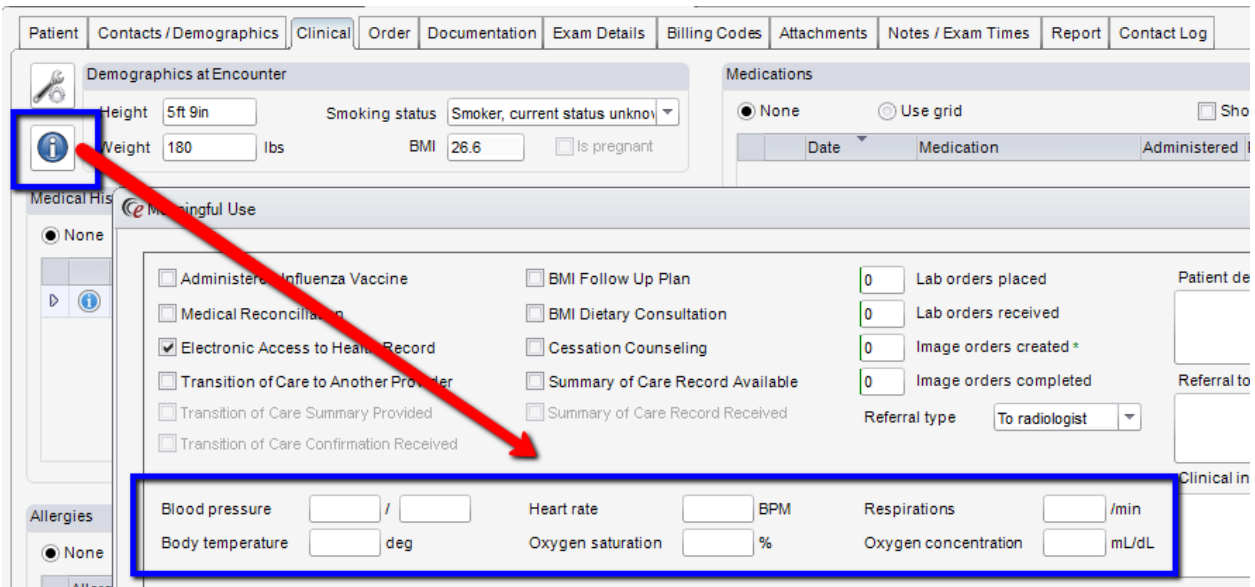


FEATURE #16222,16918 – CEHRT 170.315(B)(4): COLLECT NEW VITAL SIGN DATA AND DISPLAY IN THE C-CDA

eRAD RIS needs to provide the ability for the user to capture the following information on the Clinical tab, so that it can be electronically exchanged with Clinical Data set in the C-CDA:

- Heart rate - {beats}/min (LOINC 8302-2)
- Respiratory rate - /min (LOINC 9279-1)
- Body temperature – degree (LOINC 8310-5)
- Oxygen saturation – Percent (LOINC 2710-2)
- Oxygen concentration - mL/dL (LOINC 3150-0)

Data fields for these vital signs are now available on the Clinical tab and can be accessed by clicking the information button, as illustrated below.



If recorded, this data will be displayed in the **Vital Signs** section of the C-CDA. Height, Weight, and BMI will also be listed.

VITAL SIGNS

Date	Height	Weight	BMI	
04-21-2017	69 in	180 lbs	26.58	Blood Pressure: 115/80 mm[Hg] Heart Rate: 75 BPM Respirations: 15 /min Body Temperature: 98.7 deg Oxygen Saturation: 95 % Oxygen Concentration: 20 mL/dL

A date extension was also added to the C-CDA's template ID, per requirements.

FEATURE #16865, 17204 – CEHRT 170.315(B)(4): GOALS SECTION ADDED TO C-CDA FOR TRANSITION OF CARE DOCUMENT

To satisfy the 2015 Edition Certification Criteria, Continuity of Care documents now include a Goals section. It is possible to set goals and provide instructions for patients using the Information button on the Clinical tab.

The screenshot shows the eRAD interface with the Clinical tab selected. The Information button (represented by an 'i' icon) is highlighted with a blue box. A red arrow points from this button to the 'Goals' section at the bottom of the patient record. The 'Goals' section contains a table with two columns: 'Goal' and 'Instructions'.

Goal	Instructions
BP (Decrease BP)	30 minutes of daily physical activity and reduce sodium (salt) intake as discussed.
Calcium (Demonstrate adequate calcium intake)	Premenopausal women (19-50 years old) need 1,500 mg of calcium daily. Supplements can ensure adequate calci...

Goals can be selected via the dropdown, which is populated by any Active goals configured in the Goals look-up table. Instructions related to the goal can be added by typing them in.

When goals and instructions have been added for a patient, the information will appear in the new **Goals** section on the C-CDA.

GOALS

Goal	Instructions
Decrease BP	30 minutes of daily physical activity and reduce sodium (salt) intake as discussed.
Demonstrate adequate calcium intake	Premenopausal women (19-50 years old) need 1,500 mg of calcium daily. Supplements can ensure adequate calcium intake.

If no goals have been entered for the patient, the Goals section will state “no goals recorded.”

The Goals section replaces a previous C-CDA section that was labeled “Instructions.” The Instructions section has been removed from the C-CDA.

FEATURE #16909 – CEHRT 170.315(B)(4): CHANGES TO PLAN OF CARE SECTION OF C-CDA

Previously, the C-CDA had a **Plan of Care** section. Per new CEHRT requirements, the name of this section has been changed to **Plan of Treatment**.

A date extension was also added to the template ID, per requirements.

In the Treatment Plan section of the C-CDA, any exams that are in Ordered or Scheduled status for the patient will be listed as a Future Appointment.

TREATMENT PLAN

Name	Type	Date
CT Soft Tissue Neck W & Chest W [CT35] - Pelvis - Bilateral	Future Appointment	09-26-2016
MR Brain Spectroscopy [76390] - Head	Future Appointment	09-30-2016

Any visit Goals will also be listed in this section.

TREATMENT PLAN

Name	Type	Date
Asthma management	Scheduled Goal	03-27-2017
Weight loss	Scheduled Goal	03-27-2017

If no data is available, the C-CDA will note “No treatment plan recorded.”

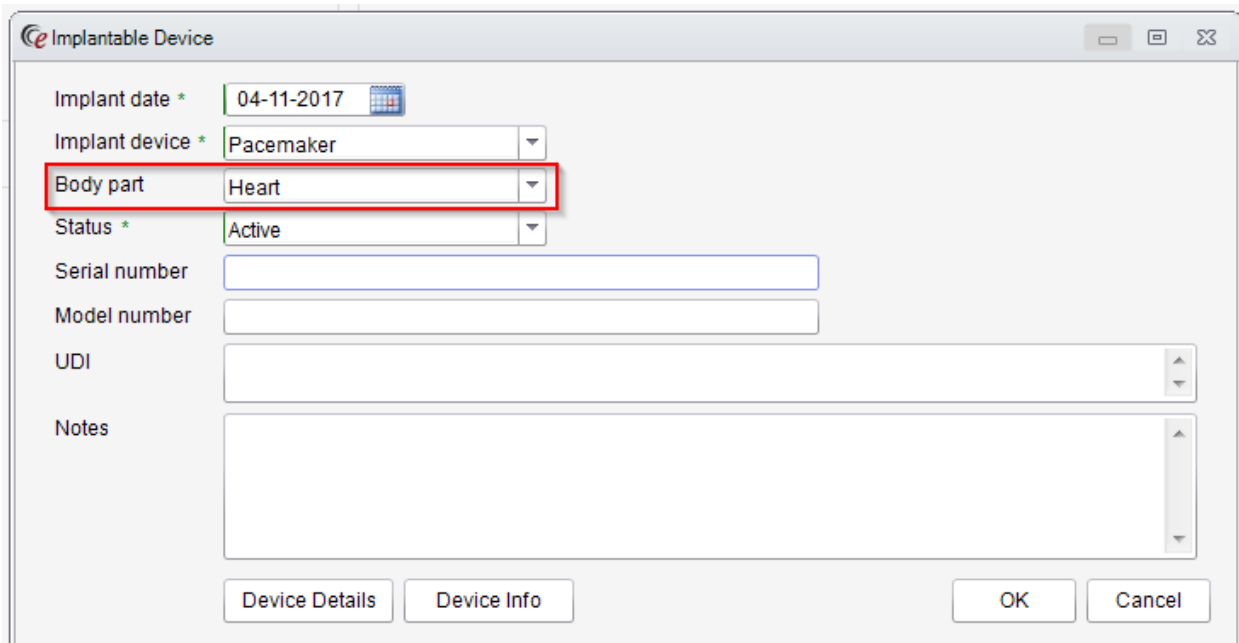
FEATURE #16910, 16912 – CEHRT 170.315(B)(4): IMPLANTED DEVICES ARE NOW LISTED IN THE PROCEDURES SECTION OF THE C-CDA AND INCLUDE BODY PART

Previously, the C-CDA contained a section labeled “Implanted Device.” This section is no longer valid and the implanted device information is now expected to be displayed in the [Procedures](#) section of the C-CDA, as displayed below.

PROCEDURES

Procedure	Body Part	Date
ANESTHESIA FOR PROCEDURES ON NOSE AND ACCESSORY SINUSES; RADICAL SURGERY	Chest	05-05-2017
Pacemaker [pacemaker]	Heart	04-11-2017
Mechanical Hip [mechanicalHip]	Hip joint	04-25-2017

In addition, the C-CDA also now requires a Body Part to be listed for the implanted device. To collect this data, a new Body Part dropdown is available on the Implantable Device screen.



The Body Part options in the dropdown are populated from the existing Body Part look-up table.

Once implanted devices have been added for a patient, the Implantable Device grid will now show a column for the Body Part that was selected.

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FEATURE #16917 – CEHRT 170.315(B)(4): UPDATE RESULTS SECTION TEMPLATE OF C-CDA

The Results section of the C-CDA will display any Lab Order data that is saved for the patient.

Lab Orders

	Test	Status / Value	Date
	LDL Cholesterol	500 mL	05-10-2017
	Eosinophils/100 leukocyte...	Positive (qualifier value)	05-05-2017
	Creatinine	Unknown result	05-05-2017

Add
Edit
☐ Skip Labwork Advised WL

The Lab Orders entered above would result in a Results section that is displayed as follows:

RESULTS

Test Name	Value
Eosinophils/100 leukocytes in Blood [26450-7]	Positive (qualifier value)
Creatinine [14682-9]	Unknown result
LDL Cholesterol [2089-1]	500 (mL)

A date extension was also added to the template ID, per requirements.

FEATURE #16853 – CEHRT 170.315(B)(4): UPDATES TO SOCIAL HISTORY C-CDA TEMPLATE SECTION

The C-CDA template has been updated to include **Birth Sex** in the Social History section. This observation represents the sex of the patient at birth. It is the sex that is entered on the person's birth certificate at time of birth.

The C-CDA will include an entry from the ONC Administrative Sex value set: Male or Female. If the information is unavailable, "Unknown" will be listed.

Smoking Status was also updated to follow new validation standards.

Examples:

SOCIAL HISTORY

Observation	Description	Date
Birth Sex	Female	04-15-1986
Smoking Status	Current some day smoker	03-27-2017

SOCIAL HISTORY

Observation	Description	Date
Birth Sex	Male	01-30-1930
Smoking Status	Unknown	

FEATURE #17192 – CEHRT 170.315(B)(4): ALLERGY SECTION OF C-CDA IS NOW TITLED “ALLERGIES AND INTOLERANCES”

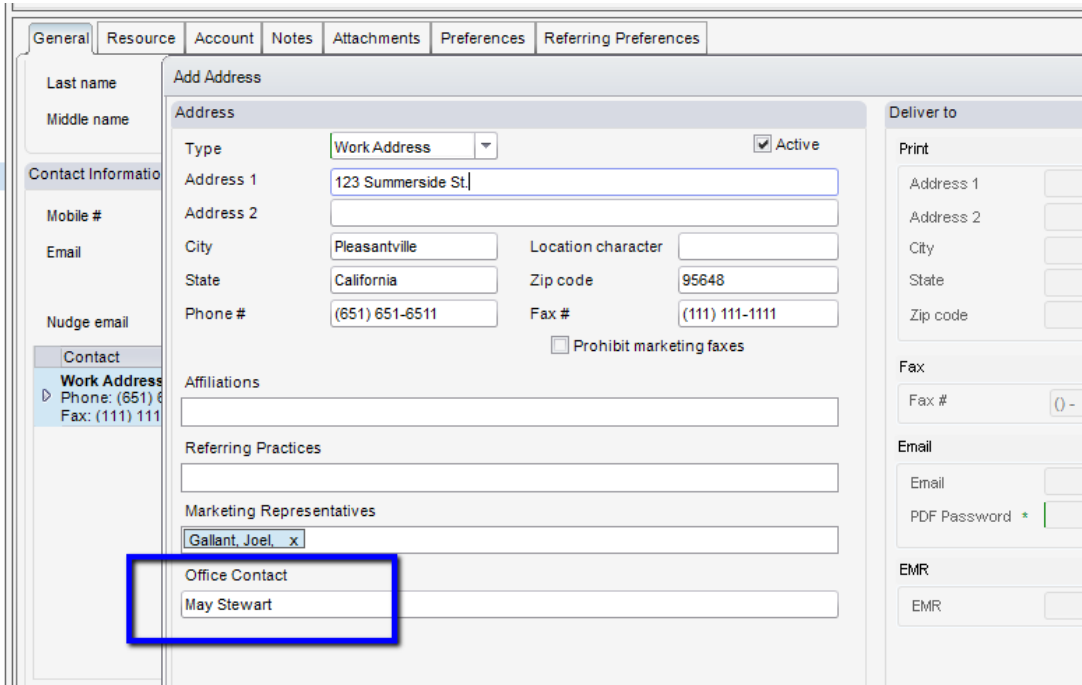
The Allergy section of the C-CDA lists and describes any medication allergies, adverse reactions, idiosyncratic reactions, anaphylaxis/anaphylactoid reactions to food items, and metabolic variations or adverse reactions/allergies to other substances (such as latex, iodine, tape adhesives). To more accurately describe this data, and conform with 2015 CEHRT requirements, the Allergies section in the C-CDA has been renamed: **Allergies and Intolerances**.

ALLERGIES AND INTOLERANCES

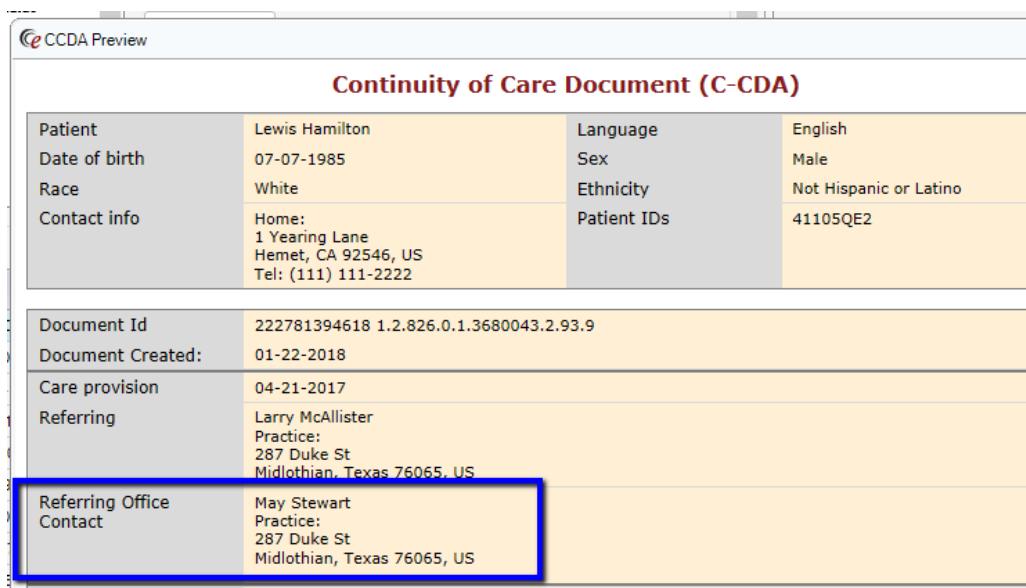
Description	Start Date	Reaction	Severity	Status
Bee Sting	04-03-2017	Redness and swelling	Moderate	Active
Bee Pollens	02-07-2017	Itchy rash.	Mild	Active
Peanut	11-01-2010	Swelling and loss of breath.	Moderate to severe	InActive

FEATURE #18131, 18136 – CEHRT 170.315(B)(6): DATA EXPORT – DESIGNATE AN OFFICE CONTACT FOR A REFERRING PHYSICIAN AND INCLUDE INFORMATION IN THE C-CDA

A new field has been added to the Personnel screen to allow an administrator to record the name of the primary contact at a referring physician's office. The field is labeled **Office Contact** and is located on the Add Address pop-up window.



The field accepts free text. This text will be displayed in the **Referring Office Contact** section in the header of the C-CDA. The address listed will be the same address to which the contact is associated for the referring physician.



Continuity of Care Document (C-CDA)			
Patient	Lewis Hamilton	Language	English
Date of birth	07-07-1985	Sex	Male
Race	White	Ethnicity	Not Hispanic or Latino
Contact info	Home: 1 Yearling Lane Hemet, CA 92546, US Tel: (111) 111-2222	Patient IDs	41105QE2
Document Id	222781394618 1.2.826.0.1.3680043.2.93.9		
Document Created:	01-22-2018		
Care provision	04-21-2017		
Referring	Larry McAllister Practice: 287 Duke St Midlothian, Texas 76065, US		
Referring Office Contact	May Stewart Practice: 287 Duke St Midlothian, Texas 76065, US		

FEATURE #16935 – CEHRT 170.315(B)(4): SMALL CHANGES TO C-CDA DOCUMENT TEMPLATE

Slight alterations to the C-CDA document template have been made to meet 2015 CEHRT requirements. This involved adding extensions to the template IDs of several sections and some small alterations to the order data is displayed in some sections.

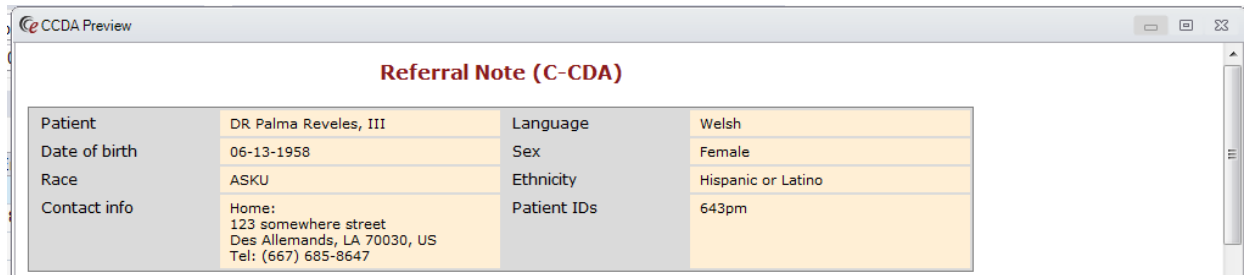
The updated Table of Contents for the C-CDA is now displayed as follows.

Table of Contents

- **ALLERGIES AND INTOLERANCES**
 - **ENCOUNTERS**
 - **FUNCTIONAL AND COGNITIVE STATUS**
 - **IMMUNIZATIONS**
 - **MEDICATIONS**
 - **MEDICATIONS ADMINISTERED**
 - **TREATMENT PLAN**
 - **PROBLEMS**
 - **PROCEDURES**
 - **REASON FOR VISIT**
 - **RESULTS**
 - **SOCIAL HISTORY**
 - **VITAL SIGNS**
 - **HEALTH CONCERNS**
 - **GOALS**
-

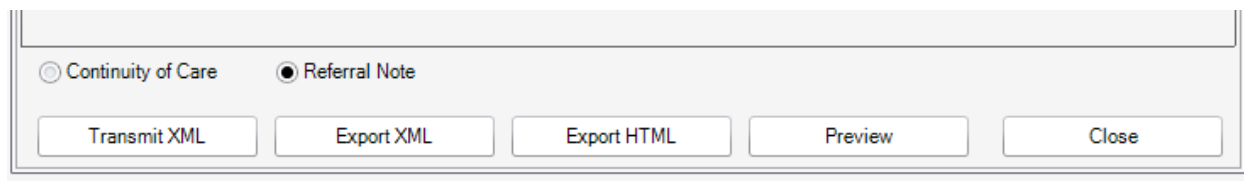
FEATURE #17436 – CEHRT 170.315(B)(1): TRANSITION OF CARE – NEW REFERRAL NOTE C-CDA TEMPLATE INCLUDES ASSESSMENT AND REASON FOR REFERRAL SECTIONS

A new type of C-CDA template called **Referral Note** is now supported in eRAD RIS. This variety of the C-CDA has a distinct title and two new sections: **Assessment** and **Reason for Referral**.



Referral Note (C-CDA)			
Patient	DR Palma Reveles, III	Language	Welsh
Date of birth	06-13-1958	Sex	Female
Race	ASKU	Ethnicity	Hispanic or Latino
Contact info	Home: 123 somewhere street Des Allemands, LA 70030, US Tel: (667) 685-8647	Patient IDs	643pm

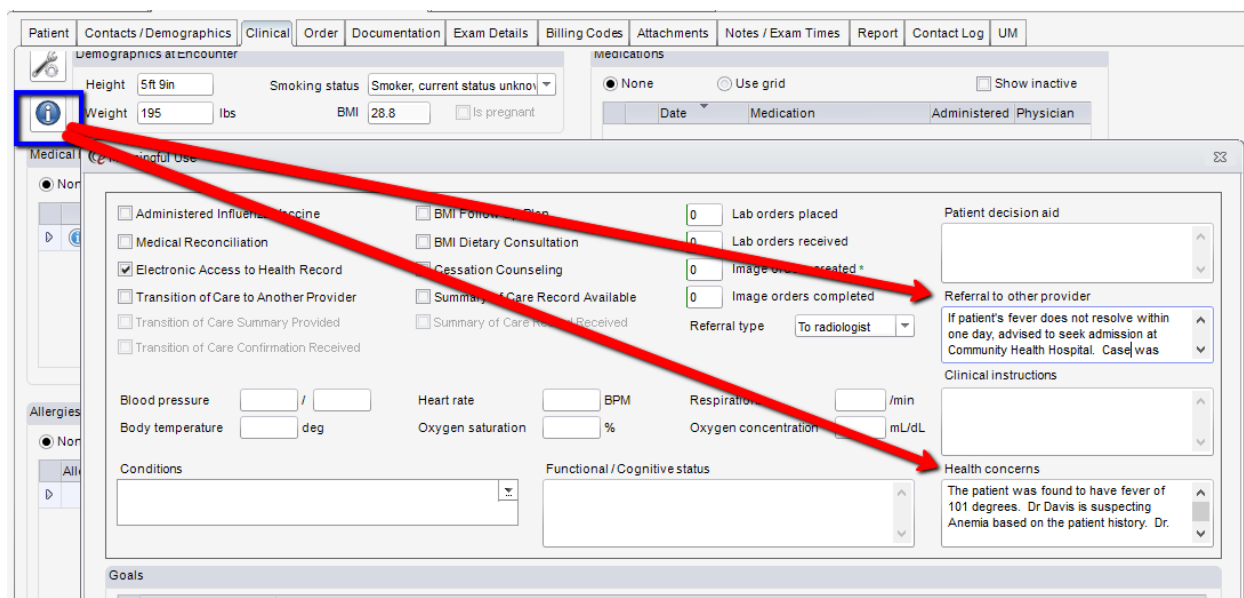
To transmit, export, or preview a C-CDA of this type, simply toggle the radio button above the Transmit/Export/Preview buttons to select Referral Note.



☐ Continuity of Care
 ☒ Referral Note

Transmit XML
 Export XML
 Export HTML
 Preview
 Close

The new Assessments and Reason for Referral sections will be populated with any text that is entered into the corresponding fields on the Clinical tab's "info button" screen, as illustrated below.



Patient
 Contacts / Demographics
 Clinical
 Order
 Documentation
 Exam Details
 Billing Codes
 Attachments
 Notes / Exam Times
 Report
 Contact Log
 UM

Demographics at encounter
 Height 5ft 9in
 Weight 195 lbs
 BMI 28.8
 Smoking status Smoker, current status unknown
 Is pregnant

Medications
 None
 Use grid
 Show inactive

Administered Influenza Vaccine
 Medical Reconciliation
 Electronic Access to Health Record
 Transition of Care to Another Provider
 Transition of Care Summary Provided
 Transition of Care Confirmation Received
 BMI Follow-up Plan
 BMI Dietary Consultation
 Cessation Counseling
 Summary of Care Record Available
 Summary of Care Record Received

Blood pressure
 Heart rate
 Respirations
 Body temperature
 Oxygen saturation
 Oxygen concentration
 Conditions
 Functional / Cognitive status

Lab orders placed
 Lab orders received
 Image orders created
 Image orders completed
 Referral type To radiologist

Patient decision aid
 Referral to other provider
 Clinical instructions
 Health concerns

The Reason for Referral section is populated with the text entered in the [Referral to Other Provider](#) field and the Assessments section is populated with the text entered in the [Health Concerns](#) field.

Examples of new Referral Note sections:

ASSESSMENTS

Details
On October 3rd, 2015, the patient expressed concern about chest pain after previous CT scan.

If no text is entered in the Health Concerns field, the Assessments section will read “No assessments recorded.”

REASON FOR REFERRAL

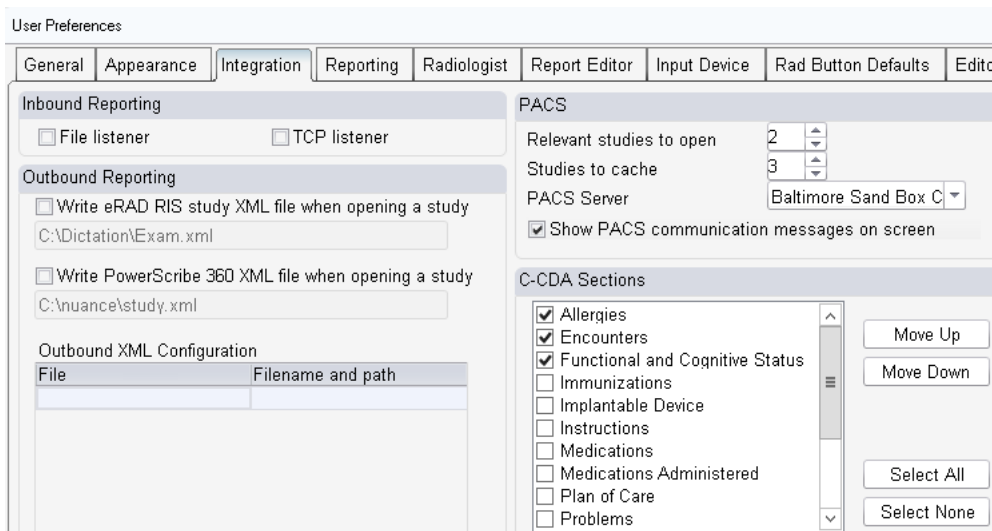
Details
If patient's fever does not resolve within one day, advised to seek admission at Community Health Hospital. Case was reviewed with Dr. Samantha Winter at that facility.

If no text is entered in the Referral to Other Provider field, the Reason for Referral section will read “No reason for referral recorded.”

FEATURE #17077 – ABILITY TO REORDER SECTIONS IN C-CDA

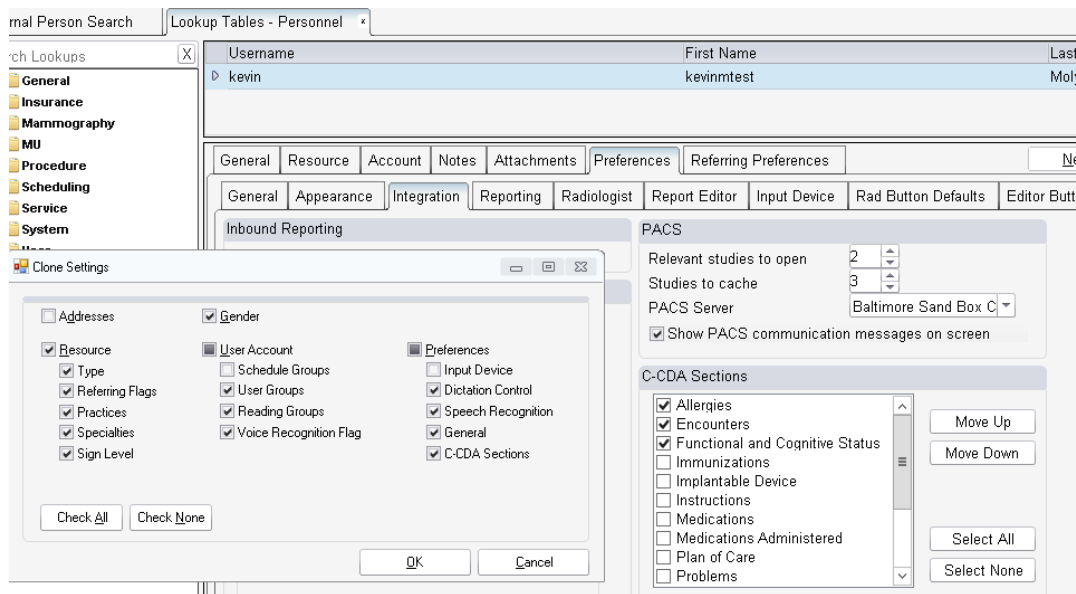
CEHRT 2015 required that eRAD RIS have the ability to reorder the sections within the C-CDA for exporting purposes.

A new **C-CDA Sections** selection has been added to the User Preferences screen to allow a RIS user or administrator to specify the sections to be included in the C-CDA and their order. Only sections that are marked as checked will be included in the C-CDA and the sections will be displayed in the specified order. The following image shows a user's configuration that will result in a C-CDA that only displays the sections for Allergies, Encounters, and Functional/Cognitive Status in that order.



The screenshot shows the 'User Preferences' window with the 'Reporting' tab selected. The 'C-CDA Sections' section is expanded, showing a list of sections with checkboxes. The sections 'Allergies', 'Encounters', and 'Functional and Cognitive Status' are checked. The 'Move Up' and 'Move Down' buttons are visible, indicating the ability to reorder the sections. The 'Select All' and 'Select None' buttons are also present.

When cloning user accounts, the C-CDA Section preferences can be copied to the new account as shown in the following screenshot.



Lookup Tables - Personnel

Username: kevin, First Name: kevinmtest, Last Name: Moly

General | Resource | Account | Notes | Attachments | Preferences | Referring Preferences

General | Appearance | Integration | Reporting | Radiologist | Report Editor | Input Device | Rad Button Defaults | Editor Buttons

Inbound Reporting

Clone Settings

Addresses ☐ Gender ☒ Resource ☒ Type ☒ Referring Flags ☒ Practices ☒ Specialties ☒ Sign Level ☒ User Account ☐ Schedule Groups ☐ User Groups ☐ Reading Groups ☐ Voice Recognition Flag ☐ Preferences ☐ Input Device ☐ Dictation Control ☐ Speech Recognition ☐ General ☐ C-CDA Sections

Check All Check None

OK Cancel

PACS

Relevant studies to open: 2, Studies to cache: 3, PACS Server: Baltimore Sand Box C

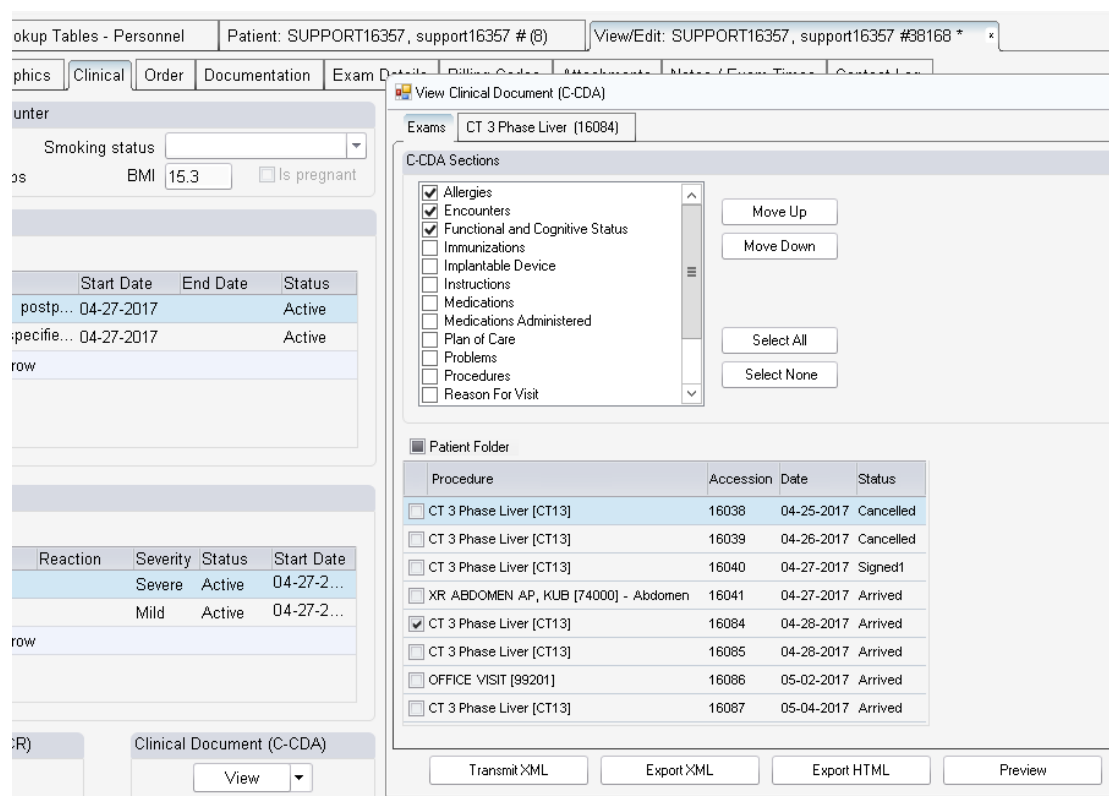
☒ Show PACS communication messages on screen

C-CDA Sections

☒ Allergies, ☒ Encounters, ☒ Functional and Cognitive Status, ☐ Immunizations, ☐ Implantable Device, ☐ Instructions, ☐ Medications, ☐ Medications Administered, ☐ Plan of Care, ☐ Problems

Move Up, Move Down, Select All, Select None

When clicking the C-CDA's "View" button on the Clinical tab, users can adjust their default C-CDA Preferences when exporting, transmitting or previewing a patient's C-CDA.



Lookup Tables - Personnel | Patient: SUPPORT16357, support16357 # (8) | View/Edit: SUPPORT16357, support16357 #88168 *

Physics | Clinical | Order | Documentation | Exam Details | Billing Codes | Attachments | Notes | Exam Times | Contact Us

View Clinical Document (C-CDA)

Exams: CT 3 Phase Liver (16084)

C-CDA Sections

☒ Allergies, ☒ Encounters, ☒ Functional and Cognitive Status, ☐ Immunizations, ☐ Implantable Device, ☐ Instructions, ☐ Medications, ☐ Medications Administered, ☐ Plan of Care, ☐ Problems, ☐ Procedures, ☐ Reason For Visit

Move Up, Move Down, Select All, Select None

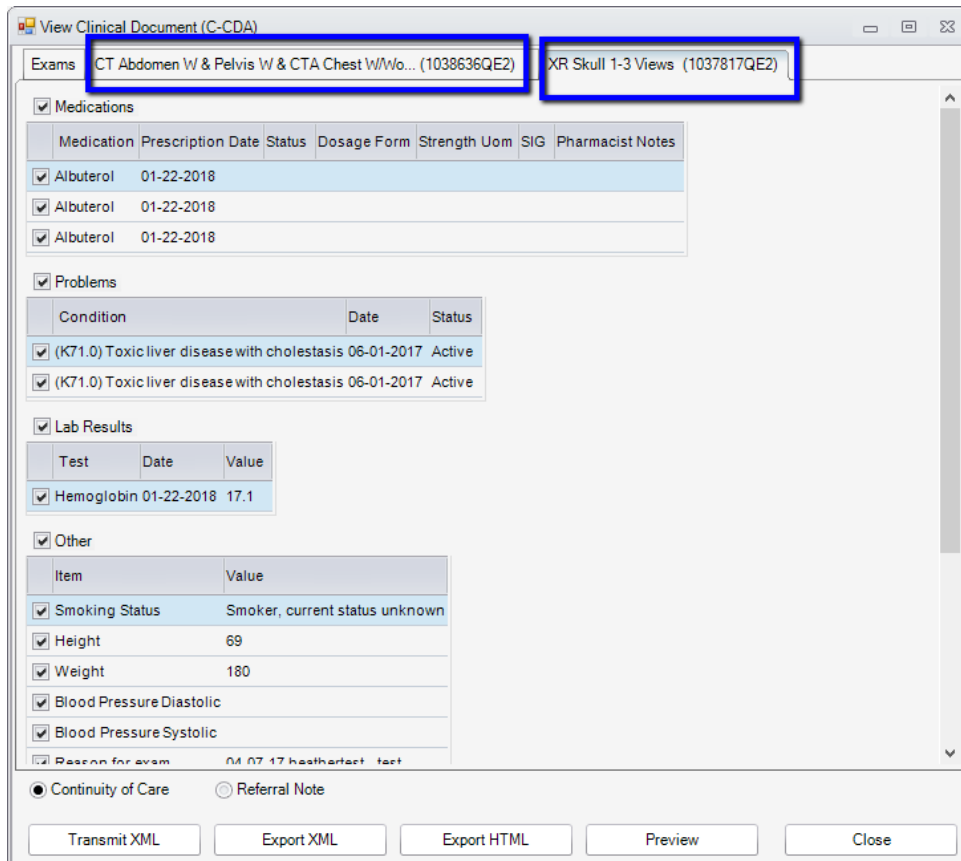
Patient Folder

Procedure	Accession	Date	Status
<input type="checkbox"/> CT 3 Phase Liver [CT13]	16038	04-25-2017	Cancelled
<input type="checkbox"/> CT 3 Phase Liver [CT13]	16039	04-26-2017	Cancelled
<input type="checkbox"/> CT 3 Phase Liver [CT13]	16040	04-27-2017	Signed1
<input type="checkbox"/> XR ABDOMEN AP, KUB [74000] - Abdomen	16041	04-27-2017	Arrived
<input checked="" type="checkbox"/> CT 3 Phase Liver [CT13]	16084	04-28-2017	Arrived
<input type="checkbox"/> CT 3 Phase Liver [CT13]	16085	04-28-2017	Arrived
<input type="checkbox"/> OFFICE VISIT [99201]	16086	05-02-2017	Arrived
<input type="checkbox"/> CT 3 Phase Liver [CT13]	16087	05-04-2017	Arrived

Transmit XML, Export XML, Export HTML, Preview

Changes to the preferences on this screen are temporary. The only way to permanently save new preferences is through the User Preferences screen.

The Patient Folder section allows the user to optionally include multiple exams on the same C-CDA. By default, only the current exam will be selected and the RIS user can check off any additional exams that should be included. Each included exam will receive a tab on the screen, which allows the user to suppress any individual data element (such as weight) for the selected exam by unchecking it.



The screenshot shows the 'View Clinical Document (C-CDA)' window. At the top, there are two tabs for exams: 'CT Abdomen W & Pelvis W & CTA Chest W/Wo... (1038636QE2)' and 'XR Skull 1-3 Views (1037817QE2)'. Below the tabs, there are several sections with checkboxes and tables:

- Medications:** A table with columns: Medication, Prescription Date, Status, Dosage Form, Strength Uom, SIG, and Pharmacist Notes. It lists three entries for Albuterol on 01-22-2018.
- Problems:** A table with columns: Condition, Date, and Status. It lists two entries for '(K71.0) Toxic liver disease with cholestasis' on 06-01-2017, both marked as 'Active'.
- Lab Results:** A table with columns: Test, Date, and Value. It lists one entry for 'Hemoglobin' on 01-22-2018 with a value of 17.1.
- Other:** A table with columns: Item and Value. It lists several items: 'Smoking Status' (Smoker, current status unknown), 'Height' (69), 'Weight' (180), 'Blood Pressure Diastolic', and 'Blood Pressure Systolic'.

At the bottom, there are radio buttons for 'Continuity of Care' (selected) and 'Referral Note'. Below these are buttons for 'Transmit XML', 'Export XML', 'Export HTML', 'Preview', and 'Close'.

In addition to controlling the display of C-CDAs generated in the RIS, the user preference also controls the way C-CDAs are displayed in the Provider Portal. The referring physician's user preferences will be used to display the C-CDA in the preferred section layout.



Patient: Sister Molyneux, ...

Case Liver ed 06-16-2015 8:15 AM	Maintained by Contact info Work: 5 Baltimore, US
--	---

Table of Contents

- ALLERGIES (MEDICATIONS)
- ENCOUNTERS
- FUNCTIONAL AND COGNITIVE STATUS

ALLERGIES (MEDICATIONS)

Description	Start Date	Reaction	Severity	Status
Alcohol	08-02-2016	sadf	Mild	Active

ENCOUNTERS

No encounters recorded

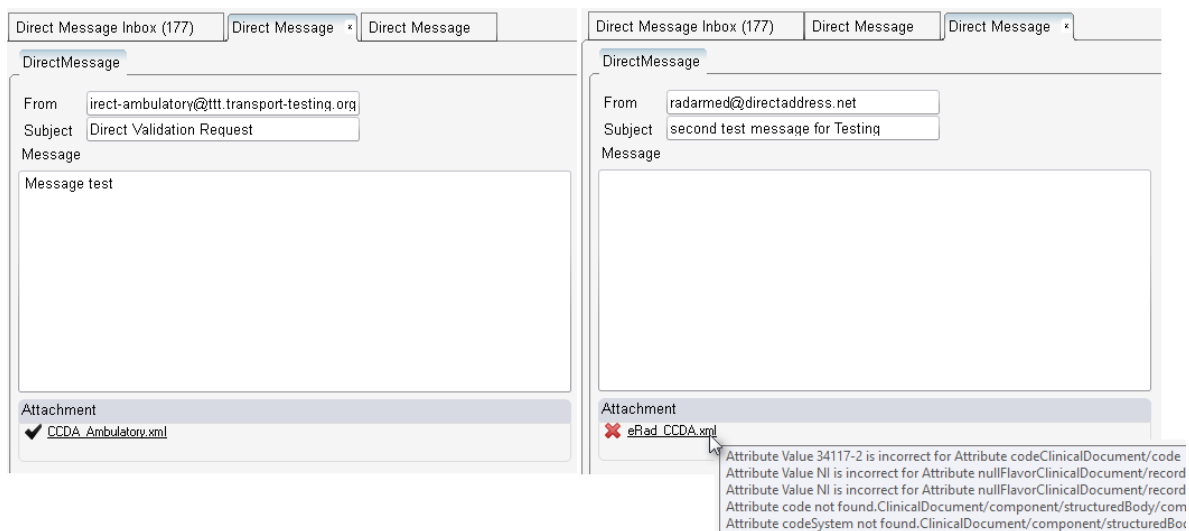
FUNCTIONAL AND COGNITIVE STATUS

No functional status recorded

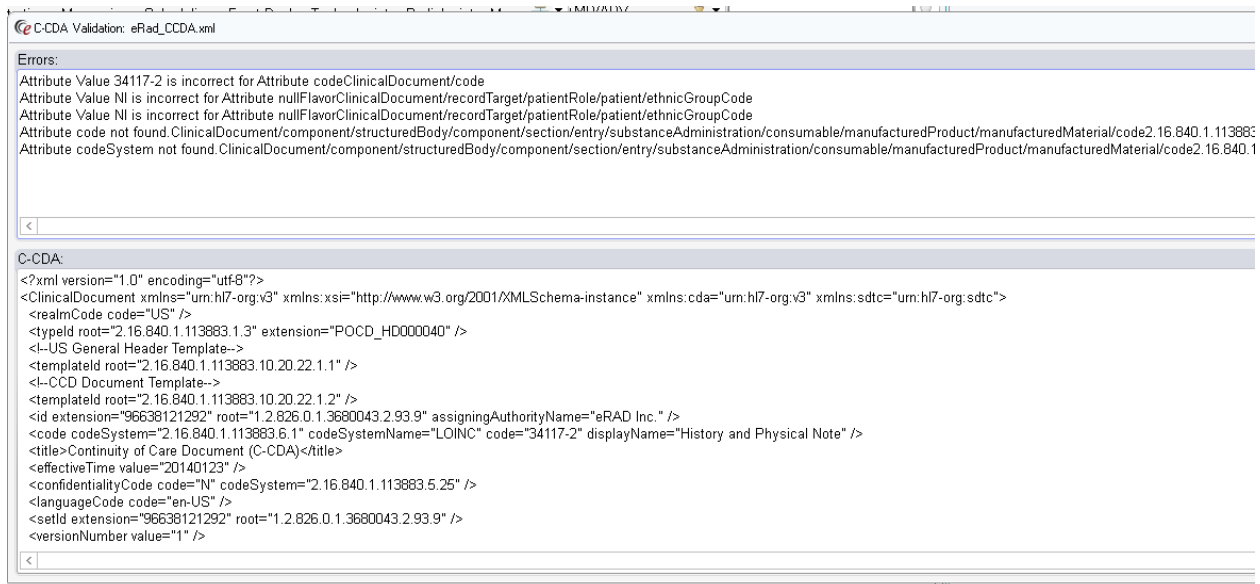
FEATURE #17213 – CEHRT 170.315(B)(5): VALIDATION OF C-CDA 1.1 AND 2.1 UPON RECEIPT

eRAD RIS is required to handle the receipt of external C-CDAs, whether they were transmitted using the older C-CDA 1.1 format or the new 2.1 format. When the C-CDAs are received in the Direct Message Inbox, the user needs to know whether the C-CDA is valid or there are errors caused by an incorrect C-CDA format.

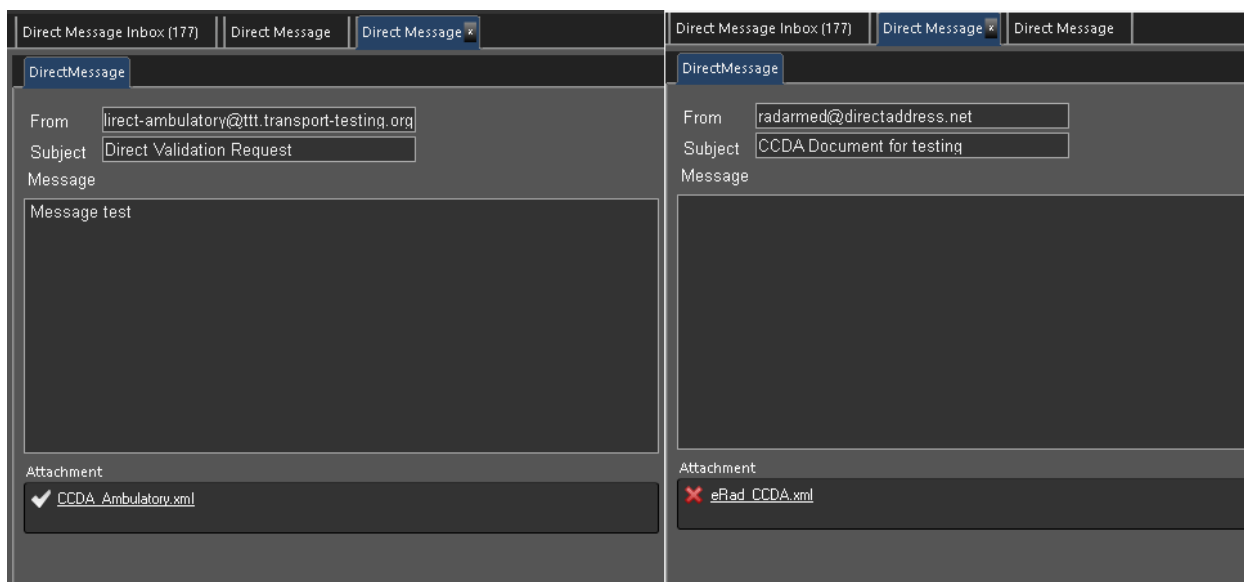
When viewing a Direct Message, a separate thread is started to validate the XML attachments. This was done so the screen will continue to load as quickly as possible. There will typically be a 2-5 second delay for the validation to complete. When it does, the Direct Message screen will display a green checkmark next to the C-CDA attachment if the format is valid. If there are errors, a red X will be displayed.



When there are errors, hovering over the attachment will present a tooltip with the error details. Clicking on the red X icon will display a popup with the errors and the XML contents.



When in dark mode, the icons for validation will be a *white* checkmark and a red X.





FEATURE #17503 – CEHRT 170.315(B)(1) – RACE ETHNICITY AND PREFERRED LANGUAGE
AVAILABLE TO BE VIEWED IN A RECEIVED C-CDA

When a C-CDA is received in RIS via Direct Message, Race, Ethnicity and Preferred Language must be included in the patient information when the C-CDA is displayed as a Continuity of Care or Referral note.

The C-CDA Import preview will now display the race, ethnicity and preferred language in the header, as illustrated below.

Patient Summary for: [REDACTED]

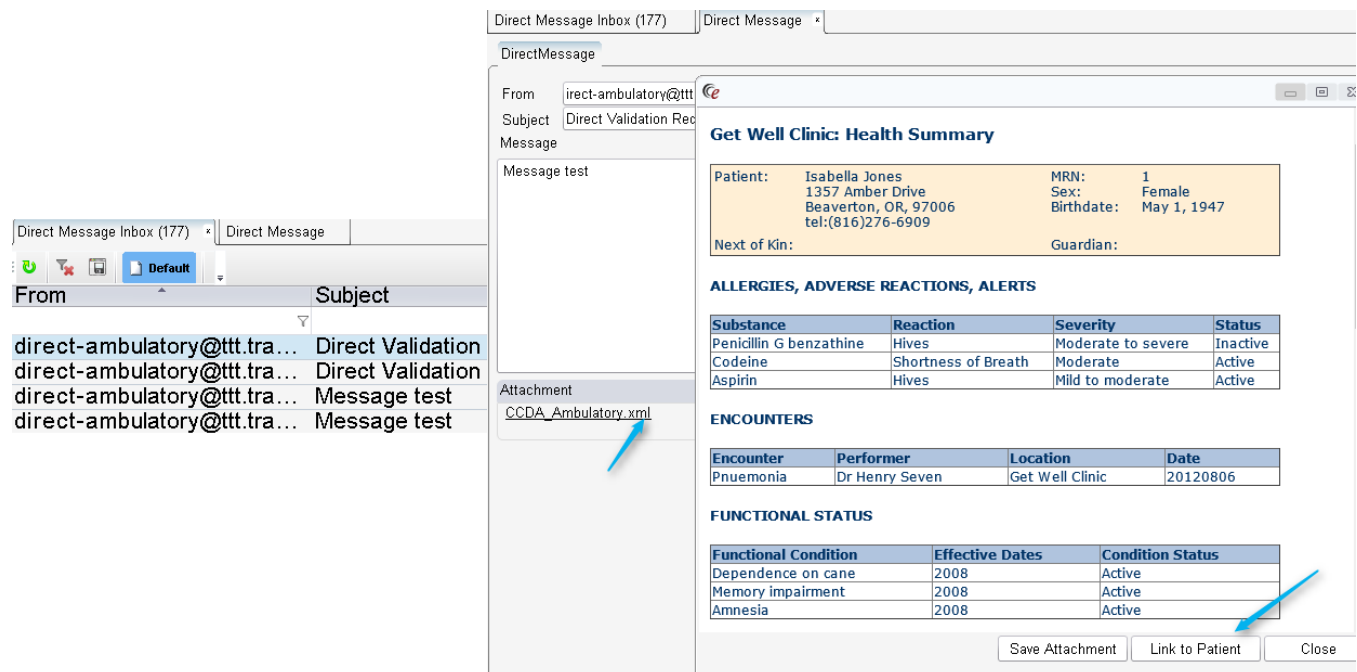
Patient:	[REDACTED]	MRN:	[REDACTED]
		Sex:	Male
Race:	White	Birthdate:	October [REDACTED]
Next of Kin:		Language:	English
		Ethnicity:	Not Hispanic or Latino
		Guardian:	



FEATURE #17089 – CEHRT 170.315(B)(2): RECONCILE INBOUND TRANSITION OF CARE DATA

When receiving an inbound Transition of Care for an existing patient, eRAD RIS needs to be able to display the inbound medication, medication allergy and problems information side by side with the existing RIS information to allow the user to reconcile the data.

To access the Import C-CDA reconciliation screen, double click on an item in the Direct Message Inbox. Click to open a C-CDA type XML attachment and choose [Link to Patient](#).



Direct Message Inbox (177) | Direct Message

DirectMessage

From: direct-ambulatory@ttt.tra...
Subject: Direct Validation Rec...
Message test

Attachment: CCDA_Ambulatory.xml

Get Well Clinic: Health Summary

Patient: Isabella 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
Pnuemonia	Dr Henry Seven	Get Well Clinic	20120806

FUNCTIONAL STATUS

Functional Condition	Effective Dates	Condition Status
Dependence on cane	2008	Active
Memory impairment	2008	Active
Amnesia	2008	Active

Save Attachment | [Link to Patient](#) | Close

This will add a [Patient](#) tab to the Direct Message screen. Information from the C-CDA, such as the Patient Discharge Notes, Medications, Allergies, and Medical History, will be displayed on the right side of the screen. Any of the Medications, Allergies, and Medical History from the C-CDA is labeled "Imported" and displayed in a bold, green font. Existing RIS information will be displayed on the left side.

DirectMessage Patient

General Information

Prefix First name Adam Sex Male Last name Everyman Birth date 10-22-1962 Middle Suffix Place of birth Father's name

☐ Deceased

Allergies

Allergy	Reaction	Severity	Status	Start Date
Contrast		Mild	Active	05-09-2017
Penicillin G		Mild	Active	08-15-2012

Imported

Allergy	Status	Date
Penicillin G	Active	08-15-2012
Codeine	Active	08-15-2012

Medications

Date	Medication	Administe...	Physician	SIG...	Acti...
05-09-2017	Kombiglyze XR	<input type="checkbox"/>			Y
05-09-2017	Xigduo	<input type="checkbox"/>			Y
08-01-2011	Albuterol	<input type="checkbox"/>			Y

Imported

Medication	Active	Date
Albuterol	Y	08-01-2011

Medical History

Problem	Start Date	End Date	Status
(E11.9) Type 2 diabetes mellitus wi...	05-09-2017		Active
(J45.909) Unspecified asthma, unc...			Active
(I10) Essential (primary) hypertensi...			Active

Imported

Problem	Status	Date
(J45.909) Unspecified asthma, unc...	Active	09-25-2011
(I10) Essential (primary) hypertensi...	Active	03-30-2012

Patient Discharge Notes: 05-09-17 kevin -

The user can use the “<<” buttons to choose the rows they would like to import into the RIS. Clicking on the “<<” will move the selected rows into the main (left-side) grids for Allergies, Medications and Medical History. The imported items will retain their dark green font while the screen is open, to make it clear to the user which items were imported. If a mistake is made, an imported row can be deleted from the RIS grid by right clicking and choosing Delete Row. This action will move the row back to the “Imported” grid.

Allergies

Allergy	Reaction	Severity	Status	Start Date
Contrast		Mild	Active	05-09-2017
Penicillin G		Mild	Active	08-15-2012

Imported

Allergy	Status	Date
Codeine	Active	08-15-2012

Medications

Date	Medication	Administe...	Physician	SIG...	Acti...
05-09-2017	Kombiglyze XR	<input type="checkbox"/>			Y
05-09-2017	Xigduo	<input type="checkbox"/>			Y
08-01-2011	Albuterol	<input type="checkbox"/>			Y

Imported

Medication	Active	Date
------------	--------	------

Right-click context menu: Delete Row, Copy Cell

In order for the above process to work properly, there are some values in the Medication, Indication, and Allergy look-up tables that must be configured. If any of these mapping values are not configured, the user will be prompted with an explanation of the missing configuration. An administrator can complete the missing values in the look-up tables to make the mapping and linking exercise possible.

Lookup Tables - Medication

Medication Code	Description	Display Order	Bloodwork Required F...	HI7v3 Value Set Oid	HI7v3 Value Set Code
Contains:	Contains:	Equals:	Contains:	Contains:	
Click here to add a new row					
573621	Albuterol	1	N	Medication Clinical Drug Name Value Set	573621-Albuterol 0.09 MG...

Lookup Tables - Allergy

Allergy Code	Description	Display Order	Origin	HI7v3 Value Set Oid	HI7v3 Value Set Code
Contains:	Contains:	Equals:	Contai	Contains:	Contains:
6554	Aspirin	1	FDB	Medication Brand Name Valu...	1191-Aspirin
10026	Penicillin G	1	FDB	Medication Brand Name Valu...	7982-Penicillin G
7370	Codeine	1	FDB	Medication Brand Name Valu...	2670-Codeine


Lookup Tables - Indication

Indication Code	Description	Display Order	Bloodwork Required F...	Coding Scheme
Contains:	Contains:	Equals:	Contains:	Contains:
Click here to add a new row				
64109004	Costochondritis	1	N	SNOMED

FEATURE #17936 – SHA-2 HASH USED FOR IMPORTED C-CDAS

eRAD RIS now uses SHA-2 hash code when importing C-CDAs via Direct Messaging. SHA stands for Secure Hashing Algorithm. SHA-2, also known as SHA-256, is the new standard for this cryptographic security algorithm.

The SHA-2 hash of the C-CDA XML file is now visible at the bottom of the preview screen.



Observation	Description	Date
Birth Sex	Female	05-01-1970
Smoking Status	Current every day smoker	05-23-2017

VITAL SIGNS

Date	Height	Weight	BMI	
05-23-2017	177 cm	88 kg	28.09	Blood Pressure: 145/88 mm[Hg] Heart Rate: 80 BPM Respirations: 18 /min Body Temperature: 38 deg Oxygen Saturation: 95 % Oxygen Concentration: 36 mL/dL

HEALTH CONCERNS

Details

Chronic Sickness exhibited by patient HealthCare Concerns refer to underlying clinical facts Documented HyperTension problem Documented HypoThyroidism problem Watch Weight of patient

GOALS

Goal	Instructions
Fever Reduction	Get rid of intermittent fever that is occurring every few weeks.
Increase Energy	Need to gain more energy to do regular activities

SHA-2 hash: 6FEFC72372D19F1C57BF839FBFD7510FD319E97AA0D2C74B657C443FCC624C5D

Save Attachment

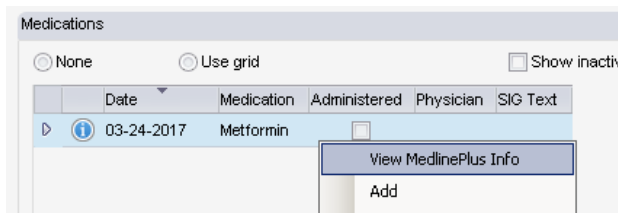
Link to Patient

Close

FEATURE #16551 – HYPERLINK TO MEDLINE PLUS AVAILABLE IN THE PROBLEMS AND MEDICATIONS GRIDS

Previously, searching for a medical condition or medication using the Medline Plus Quick Search option and printing this information for a patient was sufficient to be considered as providing educational resources to the patient. Under the new CEHRT requirements, RIS must allow a user to link to the pertinent information directly from the Problem and Medication grids where it is entered.

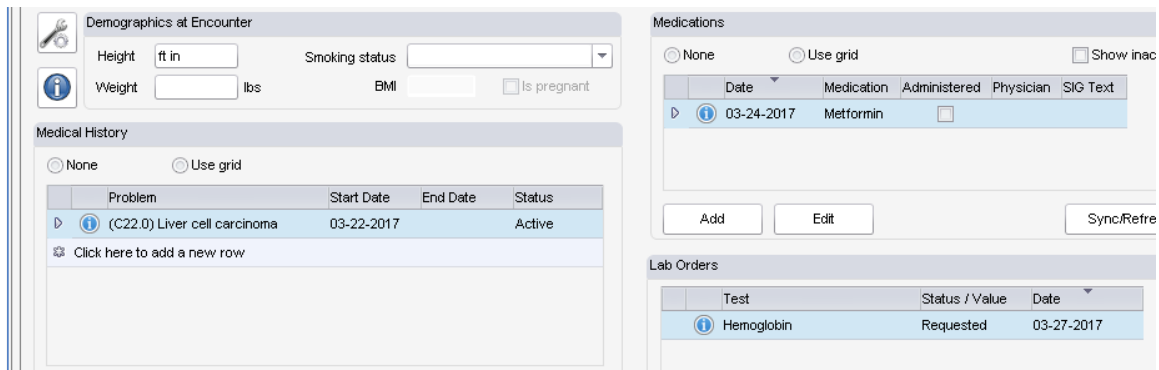
This can be done by right-clicking the row in the grid and selecting “View Medline Plus Info” or by clicking a new information button in the grid (indicated on each row with a blue circle with a white “i”).



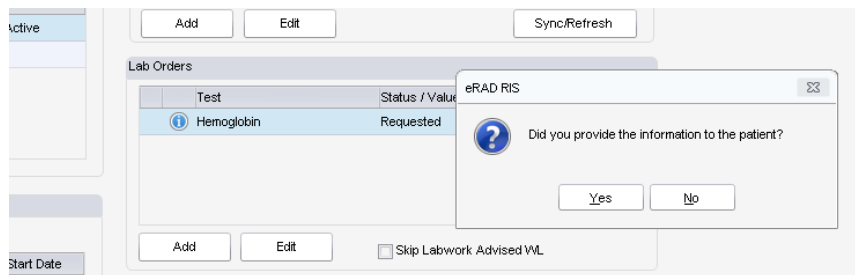
In order to increase the number of matching resources on Medline Plus, a full text search is performed when the medication or problem is entered via RIS. This will allow RIS to find the appropriate information when the name of the medication in RIS is not an exact match with the name in Medline Plus (e.g. Xanax and Alprazolam).

The search URL is configurable using the System Configuration setting [MUInfoButtonSearchURL](#).

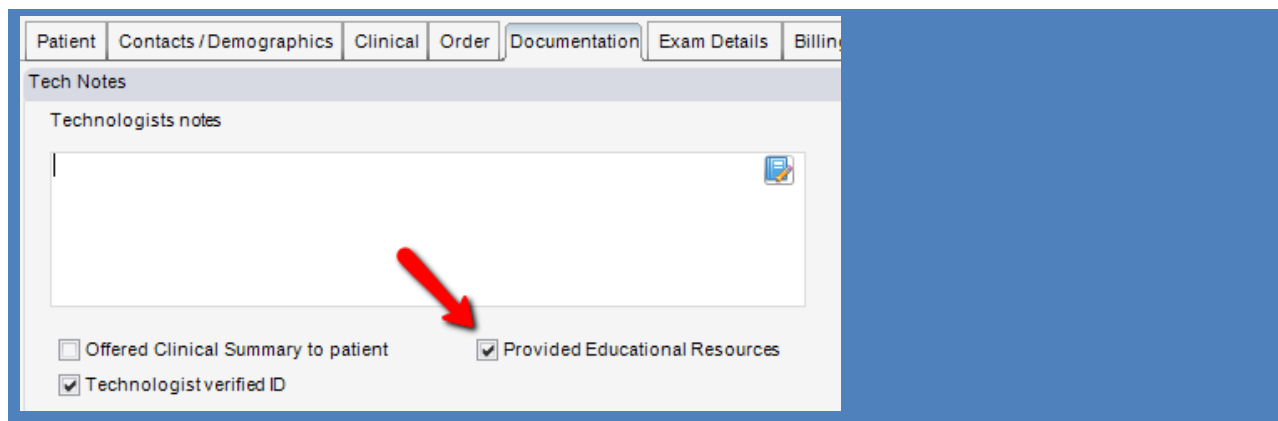
The new info button is also available on the Lab Orders grid.



Clicking on the information icon will display the Medline web page with relevant search results displayed. When the web page is closed, the user is asked if they provided the information to the patient.



If the user indicates Yes, the Provided Educational Resources checkbox will automatically be checked on the Documentation tab. This action is stored in the database table [c_visit.provided_education_resources_flag](#).

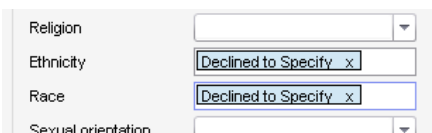


FEATURE #16230 – WHEN “DECLINED TO SPECIFY” IS SELECTED FOR RACE OR ETHNICITY, ADDITIONAL SELECTIONS ARE NOW PREVENTED

The existing Race and Ethnicity fields allow multiple entries, including an option for “Declined to Specify.” Per CEHRT guidelines, when “Declined to Specify” is selected, additional entries should not be allowed. To disable multi-select when the Declined option is added, a new column has been added to the **Race Type** and **Ethnic Origin** tables. The column is labeled **Exclusive Flag** to indicate that when this option is selected, this should be the only option allowed.

To enable this feature, open the Race Type and Ethnic Origin look-up tables and locate the “Declined to Specify” option. Set the Exclusive Flag to Y.

With this configuration, when “Declined to Specify” is selected, the Race and Ethnicity fields will not allow additional selections and the dropdown arrow will be hidden.



If the user has added other entries prior to selecting the “Declined to Specify” option, the previous entries will be removed and only the “Declined to Specify” entry will remain.

FEATURE #16318, 16315 – CEHRT 170.315(A)(5): UPDATED DEMOGRAPHICS CODE TABLES

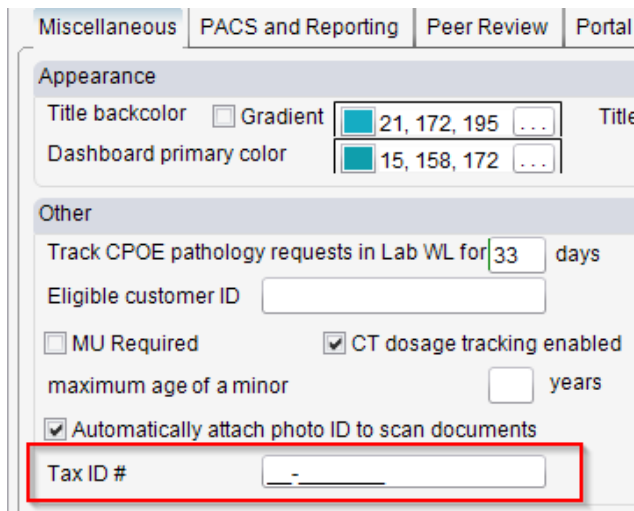
Changes were made to the Common Clinical Data Set, which is the standardized language to be used when electronically exchanging information between systems, as with the C-CDA. Updates were made to tables in eRAD RIS to ensure that the most current language is used when exchanging data using the Common Clinical Data Set.

Changes were also made to the C-CDA to properly display multiple Races and multiple Ethnicities if applicable.

FEATURE #16398 – CEHRT 170.315(C)(4): TAX ID FIELD AT PRACTICE & SITE LEVELS

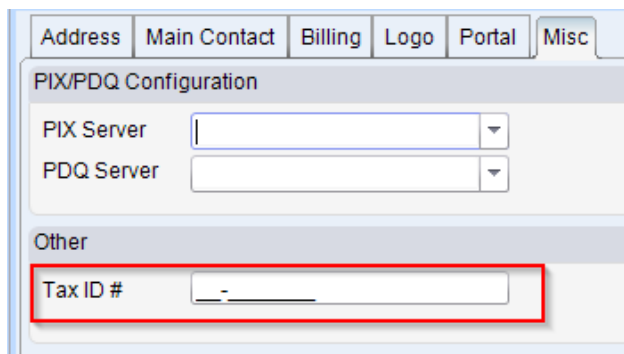
For CEHRT 170.315(c)(4), a Tax ID field was created at the Practice and Site levels in order to provide CQM management reports with the appropriate filters.

On the Practice Add/Edit screen, the **Tax ID #** field has been added to the Other section of the Miscellaneous tab.



The screenshot shows the 'Miscellaneous' tab selected. Under the 'Other' section, the 'Tax ID #' field is highlighted with a red box. The field is a text input with a mask that includes a hyphen and a blank space for the next digit.

On the Site Add/Edit screen, the Tax ID # field has been added to the Other section of the Misc tab.



The screenshot shows the 'Misc' tab selected. Under the 'Other' section, the 'Tax ID #' field is highlighted with a red box. The field is a text input with a mask that includes a hyphen and a blank space for the next digit.

If the Tax ID has been added at the Practice and Site levels, the Site level Tax ID will be used. If a Site level Tax ID is not present, the Site's Practice level Tax ID will be used.

For both Tax ID # fields, a mask has been applied to ensure that Tax ID #s are entered in the appropriate format of XX-XXXXXX. A hyphen will be inserted after the second character and a blank line will be displayed until all of the digits have been entered.

Tax ID #

Only numeric digits (0-9) can be entered into the field.

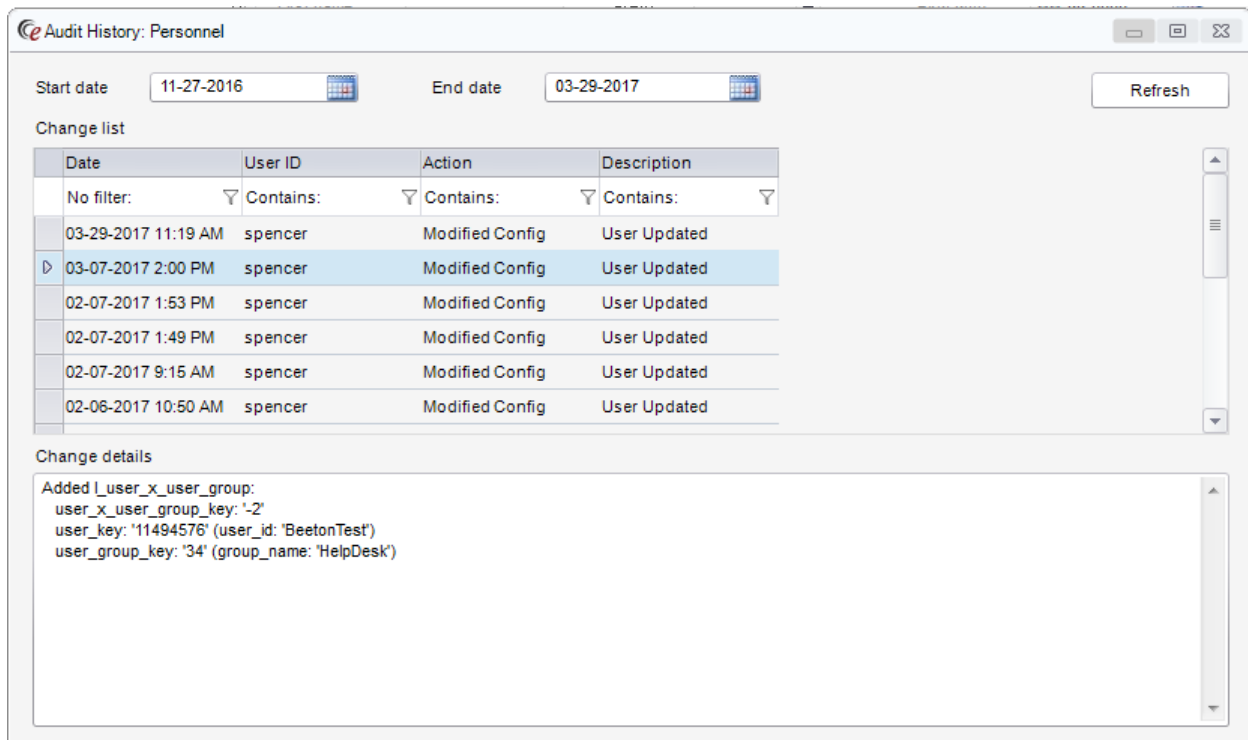
FEATURE #16008 – CEHRT 170.315(D)(2): USER ID FIELD ADDED TO PERSONNEL AUDIT HISTORY

eRAD RIS is required to provide a means to track changes to user privileges. The existing configuration audit history functionality has been expanded to accommodate for some specific requirements such as:

- The ability to provide a date range for filtering the audit information.
- The ability to filter by the ID of the user who performed the change.
- The ability to sort the following data elements in ascending or descending order:
 - Date and time of event.
 - User identification.
 - Type of action.
 - Description of the action.
 - Details of the changes.

To satisfy these requirements, the following features have been added to the Personnel look-up's Audit History screen only:

- A filter row has been added to the Change List grid to allow filtering by user ID.
- An Action column has been added, which defaults to the value of "Modified Config."
- A Description column has been added.



Audit History: Personnel

Start date: 11-27-2016 End date: 03-29-2017 Refresh

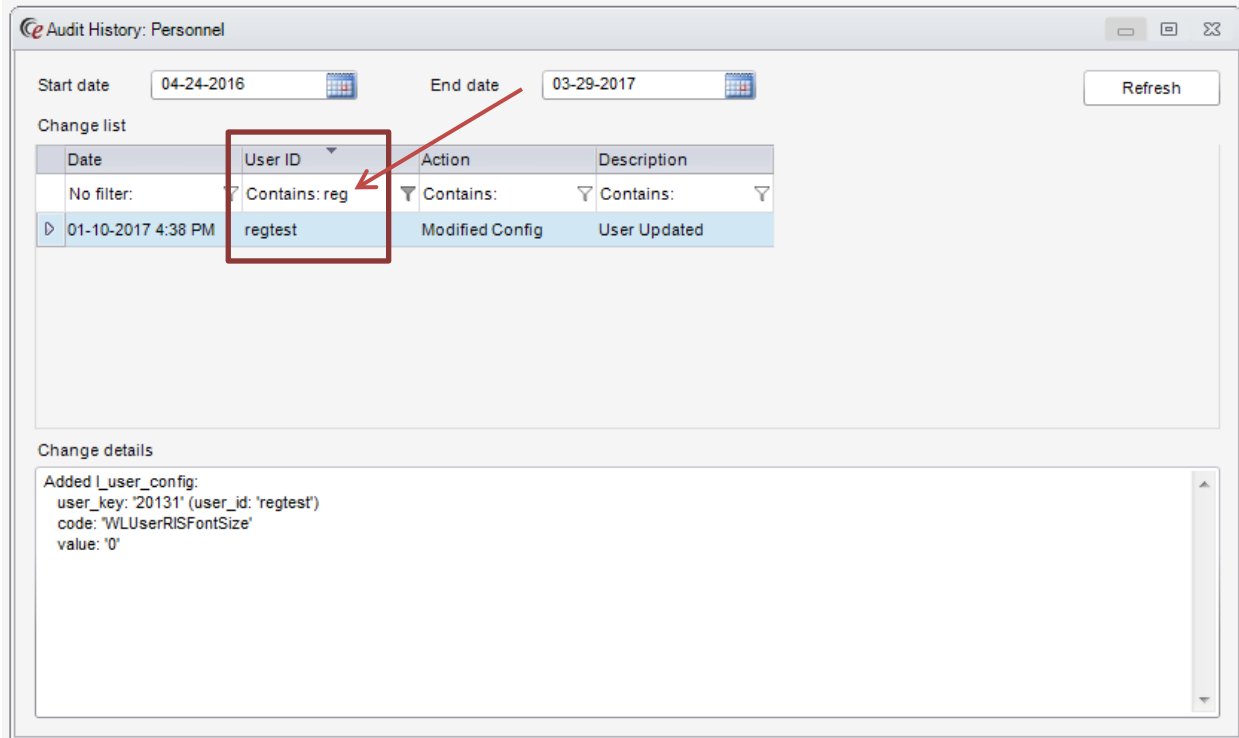
Change list

Date	User ID	Action	Description
No filter: ▾	Contains: ▾	Contains: ▾	Contains: ▾
03-29-2017 11:19 AM	spencer	Modified Config	User Updated
03-07-2017 2:00 PM	spencer	Modified Config	User Updated
02-07-2017 1:53 PM	spencer	Modified Config	User Updated
02-07-2017 1:49 PM	spencer	Modified Config	User Updated
02-07-2017 9:15 AM	spencer	Modified Config	User Updated
02-06-2017 10:50 AM	spencer	Modified Config	User Updated

Change details

Added l_user_x_user_group:
 user_x_user_group_key: '-2'
 user_key: '11494576' (user_id: 'BeetonTest')
 user_group_key: '34' (group_name: 'HelpDesk')

To filter by User ID, type the ID in the filter row below the User ID column, as shown below.



Audit History: Personnel

Start date: 04-24-2016 End date: 03-29-2017 Refresh

Change list

Date	User ID	Action	Description
No filter:	Contains: reg	Contains:	Contains:
01-10-2017 4:38 PM	regtest	Modified Config	User Updated

Change details

Added l_user_config:
 user_key: '20131' (user_id: 'regtest')
 code: 'WLUUserRISFontSize'
 value: '0'

As before, access to view the audit history information in the Personnel table is controlled by the existing Access Strings:

- [Config.LookupEditor.AuditHistory](#)
- [Config.LookupEditor.Personnel](#)

FEATURE #16233 – CEHRT 170.315(A)(1): COLLECT NDC, LOT NUMBER, AND EXPIRATION DATE FOR CONTRAST AND SEDATION

When entering information about contrast and sedation, there are three data elements that were not previously collected that can be important, particularly to U.S.-based customers: the National Drug Code (NDC), the Lot Number, and the Expiration Date. Previously, the Contrast and Sedation grids did not have fields to enter this information, though some customers do collect it in Digital Forms. The Contrast and Sedation grids now have the ability to store the NDC, Lot Number and Expiration Date.

When opening the Perform Exam screen or the View/Edit screen, the Contrast and Sedation grids are located on the Exam Details tab. The new columns have been added as illustrated below.

Patient	Clinical	Order	Documentation	Exam Details	Billing Codes	Attachments	Notes / Exam Times	Image R
Contrast								
Name	NDC	Lot #	Expiry Date	Amount	Unit	Vials		
▶ OptiMARK	0019-1177-11	51515	02-01-2018	10	cc	1		
							Add Delete	
Sedation								
Name	NDC	Lot #	Expiry Date	Amount	Unit			
▶ Xanax	00603-2129-32	080898	12-01-2019	1	mg			
							Add Delete	

FEATURE #16861 – CEHRT 170.315(B)(4): PROBLEM LIST MAPPED TO CURRENT U.S. EDITION SNOMED CODES

eRAD RIS is required to use the SNOMED CT U.S. Edition, with a minimum of the September 2015 release. The Indication table has been edited to include the updated SNOMED codes and the Medical History section on the Quick Add/Edit screen has been updated so that the appropriate SNOMED codes are added to the Medical History grid.

The Quick Add MU Dialog has been updated to use the latest indication codes for the Medical History section checkboxes. As required, indications are now added by SNOMED code instead of ICD10 code.

Medical History

☐ Aneurysm Clip or Coil
 ☐ Metal in the body

☐ Aneurysm Had Surgery
 ☒ Morphine Pump

☐ Aneurysm No Surgery
 ☐ Pacemaker

☐ Asthma
 ☐ Paraplegic

☐ Breast Implants
 ☒ Previous Radiology Contrast Reaction

☐ Cancer
 ☒ Previous MR Contrast Reaction

☐ Diabetes
 ☐ Renal Disease

☐ Hypertension
 ☐ Universal Precautions

☐ Insulin Pump

Medical History

☐ None
 ☒ Use grid

	Problem	Start Date	End Date	Status
	(292097002) MRI contrast media adve...	05-30-2017		Active
	(292096006) Radiology contrast media...	05-30-2017		Active
	(1081000119105) Opioid dependence,...	05-30-2017		Active
Click here to add a new row				

FEATURE #17376 – CEHRT 170.315(B)(4): STANDARDIZED ALLERGY REACTIONS

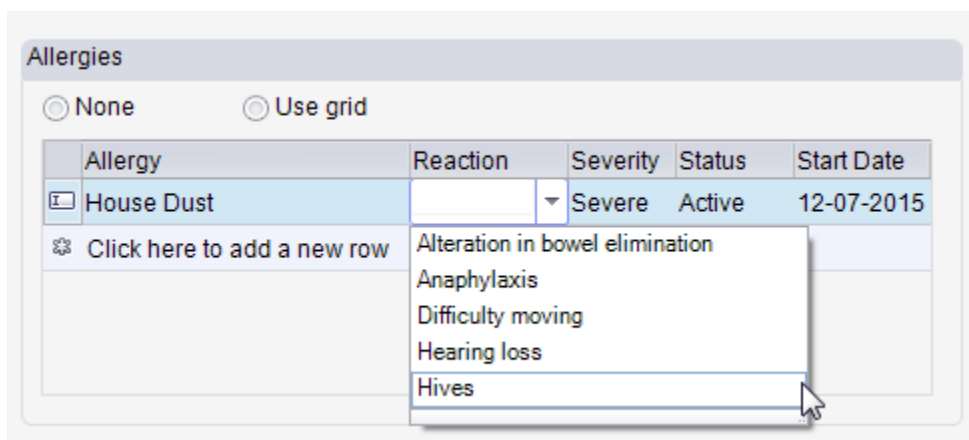
In the Allergy section on the Clinical tab, users have been able to enter the type of allergic reaction in the Reaction column, but this field only accepted free text. To facilitate the electronic transfer of information, there is now an option to create and use standardized Reaction options that can be mapped to SNOMED codes.

A new Configuration table named **Allergy Reaction** has been added to store the desired options.

Allergy Reaction Code	Description	Display Order	Snomed	Last Updated	Active
Contains:	Contains:	Equals:	Equals:	Equals:	Contains:
Click here to add a new row					
anaphylaxis	Anaphylaxis	1	39579001	05-31-2017 1...	Y
bowelElimination	Alteration in bowel elimination	1	129851009	05-31-2017 1...	Y
difficultyMoving	Difficulty moving	1	302002000	05-31-2017 1...	Y
hearingLoss	Hearing loss	1	15188001	05-31-2017 1...	Y
hives	Hives	1	247472004	05-31-2017 1...	Y

The new look-up table allows an administrator to define the options that should be available for users to select from a dropdown menu. A SNOMED code can be associated to each option if desired.

When users add an allergy entry for a patient, they will have access to select any of the active options from the Allergy Reaction look-up table.



The screenshot shows the 'Allergies' form with the 'Use grid' radio button selected. The table has columns: Allergy, Reaction, Severity, Status, and Start Date. The first row shows 'House Dust' as the Allergy, 'Severe' as the Severity, 'Active' as the Status, and '12-07-2015' as the Start Date. A dropdown menu is open for the Reaction field, showing the following options: 'Alteration in bowel elimination', 'Anaphylaxis', 'Difficulty moving', 'Hearing loss', and 'Hives'. A mouse cursor is pointing at the 'Hives' option.

Users can also type free text in the Reaction field, as before. Free text entries will not have a SNOMED code.

A new Access String has been added to control access to the look-up table: **Config.LookupEditor.AllergyReaction**. Users with a permission level of FULL will be allowed to add entries to the look-up table.

FEATURE #16992, 16991 – CEHRT 170.315(G)(9) AND 170.315(G)(8): APPLICATION ACCESS
– PROVIDE ENTIRE OR PARTIAL C-CDA VIA API

As required, eRAD RIS is now capable of providing an entire C-CDA or desired sections of the C-CDA for a specified date or date range via [API](#).

An external Web API was designed to provide the functionality for several 2015 edition certification requirements. The Web API is a standalone self-hosted program that is designed to be secure over the internet (without VPN requirements).

Please contact eRAD Support if you are interested in learning more details about this feature.

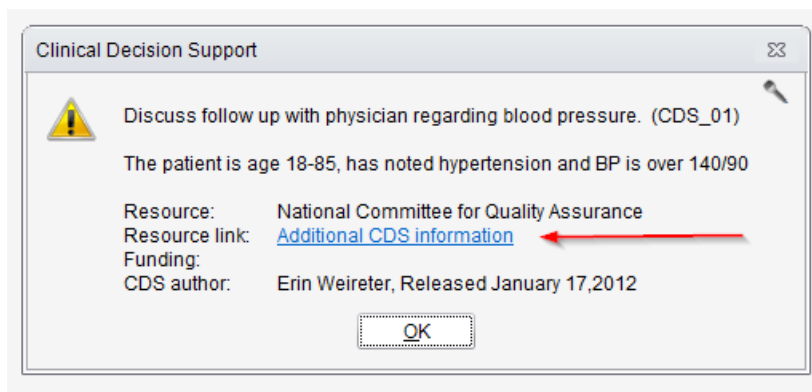
FEATURE #16986 – CEHRT 170.315(G)(7): APPLICATION ACCESS – PATIENT SEARCH
FUNCTIONALITY USING THE API

After obtaining an access token, the API described in the feature above allows a third party application to search for a patient using a number of criteria, including name, date of birth, MRN and phone number.

FEATURE #17517 – CEHRT 170.315(A)(9): CDS ALERTS MUST CONTAIN A LINK TO ADDITIONAL INFORMATION THAT CAN BE SPECIFIC TO PATIENT’S MEDICATION, ALLERGIES, OR DEMOGRAPHICS

CEHRT requires that eRAD RIS have an “info button” on the CDS alert for Medications, Allergies and Demographics. eRAD RIS already had the ability to include a link to additional information on the CDS alerts. Adjustments were made to fully comply with the new requirements.

The label of the existing information hyperlink has been updated to display "Additional CDS Information" instead of showing the URL.



It is now possible to pass relevant information about the patient’s medications, allergies, or demographics as part of the URL, in order to launch an information page based on the indications in the alert. Medline Plus is the source for information links that reference patient information.

MedlinePlus Connect found the following health information for your request. Always consult your health care provider about your

Results in **MedlinePlus**

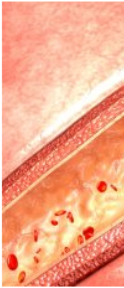
Vascular Diseases

The vascular system is the body's network of blood vessels. It includes the arteries, veins and capillaries that carry blood to and from the heart. Problems of the vascular system are common and can be serious. Arteries can become thick and stiff, a problem called atherosclerosis. Blood clots can ... [More on Vascular Diseases](#)

Selected resources

- [Aortic arch syndrome](#) (Medical Encyclopedia)
- [Arterial embolism](#) (Medical Encyclopedia)
- [Arteriogram](#) (Medical Encyclopedia)
- [Cerebral angiography](#) (Medical Encyclopedia)
- [Duplex ultrasound](#) (Medical Encyclopedia)

[Show More](#) ▼



FEATURE #17404 – CEHRT 170.315(A)(9): DEMOGRAPHIC CLINICAL DECISION SUPPORT RULE

CEHRT 2015 requires that the system demonstrate a Clinical Decision Support alert that will inform RIS users of contextual medical information based on the patient’s demographics. As with previous CDS Alerts, it must be possible to include a link to supporting documentation.

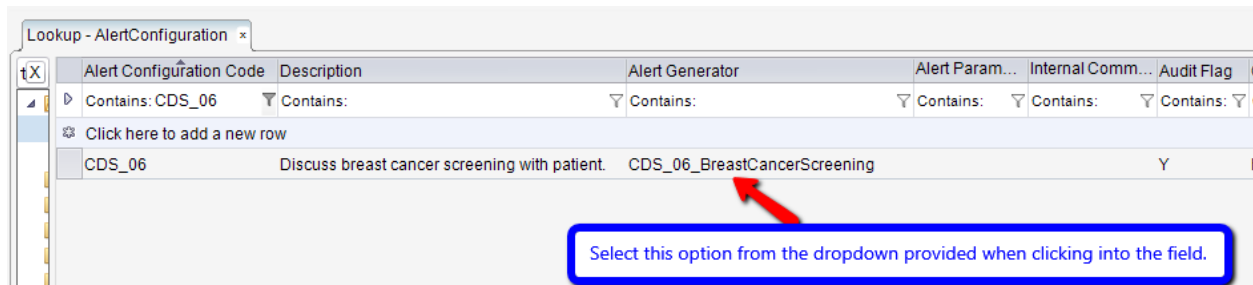
To meet this requirement, it is now possible to configure a CDS Alert which will alert users that breast cancer screening should be discussed when the patient is female and at least 40 years old.

To support this, a new **Alert Generator** was created, labeled **CDS_06_BreastCancerScreening**. To use this Alert Generator, a RIS administrator will need to configure a CDS Alert in the **Alert Configuration** table. The new Alert Generator will cause the configured message to display when the following conditions are met:

- Patient is Female.
- Patient is at least 40 years of age.

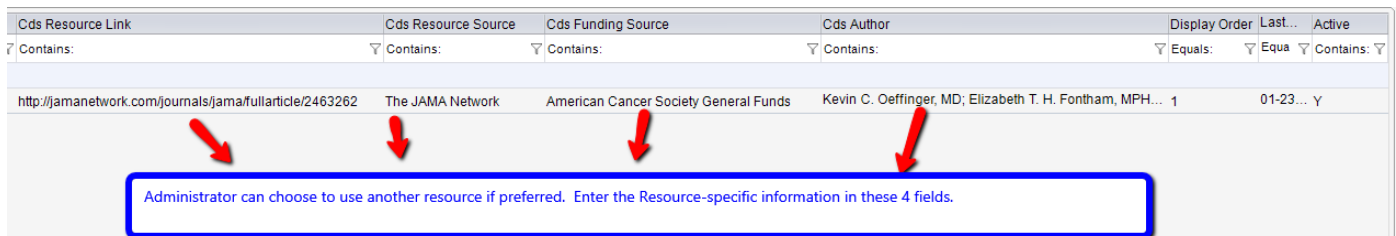
The following images illustrate an example of how this alert can be configured. The administrator can choose a different resource and adjust the information accordingly.

Part 1:



Alert Configuration Code	Description	Alert Generator	Alert Param...	Internal Comm...	Audit Flag
Contains: CDS_06	Contains:	Contains:	Contains:	Contains:	Contains:
Click here to add a new row					
CDS_06	Discuss breast cancer screening with patient.	CDS_06_BreastCancerScreening			Y


Part 2:



Cds Resource Link	Cds Resource Source	Cds Funding Source	Cds Author	Display Order	Last...	Active
Contains:	Contains:	Contains:	Contains:	Equals:	Equa	Contains:
http://jamanetwork.com/journals/jama/fullarticle/2463262	The JAMA Network	American Cancer Society General Funds	Kevin C. Oeffinger, MD; Elizabeth T. H. Fontham, MPH...	1	01-23...	Y

The example configuration above will result in the following pop-up alert that will be displayed when a user opens a screen for a female patient who is at least 40 years of age.

Clinical Decision Support

 Discuss breast cancer screening with patient.

Resource:

Resource link:

Funding:

CDS author:

The JAMA Network

[Additional CDS information](#)

American Cancer Society General Funds

Kevin C. Oeffinger, MD; Elizabeth T. H. Fontham, MPH, DrPH; Ruth Etzioni, PhD; et al

OK

The resource link will open the URL configured for the Alert.

FEATURE #17811 – CEHRT 170.315(A)(9): MEDICATION ALLERGY CLINICAL DECISION RULE

CEHRT 2015 requires that the system demonstrate a Clinical Decision Support alert that will inform RIS users of contextual medical information based on the patient's medication allergies. As with previous CDS Alerts, it must be possible to include a link to supporting documentation.

It is now possible to configure a CDS Alert which will alert users that a patient with a Penicillin allergy should also avoid cephalosporin antibiotics.

To support this, a new **Alert Generator** was created, labeled **CDS_07_MedicationAllergy**. To use this Alert Generator, a RIS administrator will need to configure a CDS Alert in the **Alert Configuration** table. The new Alert Generator will cause the configured message to display when Penicillin (code 7982) is an active allergy in the patient's Allergy grid.

The following images illustrate an example of how this alert can be configured. The administrator can choose a different resource and adjust the information accordingly.

Part 1:


Alert Configuration C...		Description	Alert Generator	Alert Paramet...	Internal Comm...	Audit Flag
Contains:	Contains:		Contains:	Contains:	Contains:	Contains:
Click here to add a new row						
CDS_07		This patient has a documented allergy to Penicillin. Please note: Cephalosporins should also be avoided for patients with a documented allergy to Beta Lactam Antibiotics....	CDS_07_MedicationAllergy			Y

Part 2:

Cds Resource Link		Cds Resource Source	Cds Funding Source	Cds Author
Contains:		Contains:	Contains:	Contains:
Click here to add a new row				
https://apps.nlm.nih.gov/medlineplus/services/mpconnect.cfm?mainSearchCriteria.v.c=7982&mainSearchCriteria.v.cs=2.16.840.1.113883.6.88&mainSearchCriteria.v.dn=&informationRecipient.languageCode.c=en		About Health	+Membership	Daniel More, MD

The example configuration above will result in the following pop-up alert that will be displayed when a user opens a screen for a patient with an active Allergy to Penicillin.

Clinical Decision Support



This patient has a documented allergy to Penicillin.
Please note: Cephalosporins should also be avoided for patients with a documented allergy to Beta Lactam Antibiotics. (CDS_07)

Resource: About Health
Resource link: [Additional CDS information](#)
Funding: +Membership
CDS author: Daniel More, MD

OK

The resource link will open the URL configured for the Alert.

FEATURE #17419 – CEHRT 170.315(A)(9): UPDATE CLINICAL DECISION SUPPORT ALERT TO USE ICD10 OR SNOMED CONDITIONS





There is an existing Clinical Decision Support Alert that will notify the RIS user if the patient has asthma and has had a prior contrast reaction (CDS_03). The conditions for the alert have been updated because the contrast reaction condition was tied to an ICD9 code only. The condition will now use the ICD10 code or SNOMED code for contrast reaction.

SNOMED: 292096006 Radiology contrast media adverse reaction

ICD10: Z91.041 Radiographic dye allergy status

Medical History

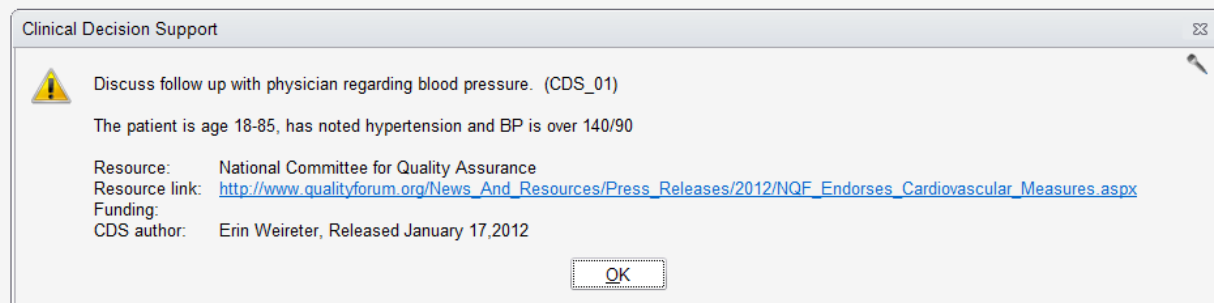
☐ None ☐ Use grid

	Problem	Start Date	End Date	Status
	(S35.8X) Injury of other bloo...	02-08-2016	08-17-2016	Inactive
	(292097002) MRI contrast...	06-05-2017		Active
	(292096006) Radiology con...	06-05-2017		Active
	(J45) Asthma	06-01-2016		Active

Click here to add a new row

FEATURE #17431 – CEHRT: CDS ALERT MESSAGE BOX SHOWS LESS INFORMATION TO CERTAIN USERS

The CDS Alert configuration allows administrators to enter a Resource Link, as well as information about the resource such as a title, a description of the funding source for the article, and the name of the article's author. This information is displayed to the RIS user as follows:

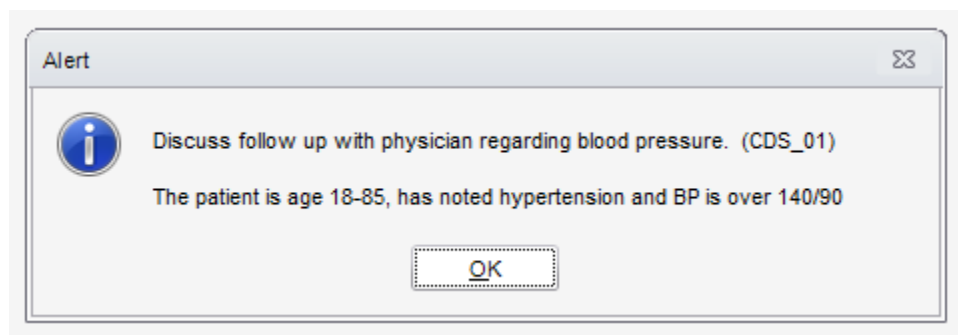


Some customers would like to suppress the resource link and additional information for certain users. It is now possible to do so using an access string level of ReadOnly.

There are existing access strings for each CDS Alert. These access strings have been adjusted so that a ReadOnly access level will trigger the CDS Alert, but will suppress the additional resource information.

Access String	Full	ReadOnly	None
Alert.CDS_01_HighBP	Users will see the CDS Alert pop-up, including the resource information.	Users will see the CDS Alert pop-up, but resource information will be hidden.	Users will not see the CDS Alert at all.
Alert.CDS_02_HighCholesterol	Users will see the CDS Alert pop-up, including the resource information.	Users will see the CDS Alert pop-up, but resource information will be hidden.	Users will not see the CDS Alert at all.
Alert.CDS_03_PossibleReaction	Users will see the CDS Alert pop-up, including the resource information.	Users will see the CDS Alert pop-up, but resource information will be hidden.	Users will not see the CDS Alert at all.
Alert.CDS_04_TobaccoUser	Users will see the CDS Alert pop-up, including the resource information.	Users will see the CDS Alert pop-up, but resource information will be hidden.	Users will not see the CDS Alert at all.
Alert.CDS_05_PneumoniaBooster	Users will see the CDS Alert pop-up, including the resource information.	Users will see the CDS Alert pop-up, but resource information will be hidden.	Users will not see the CDS Alert at all.

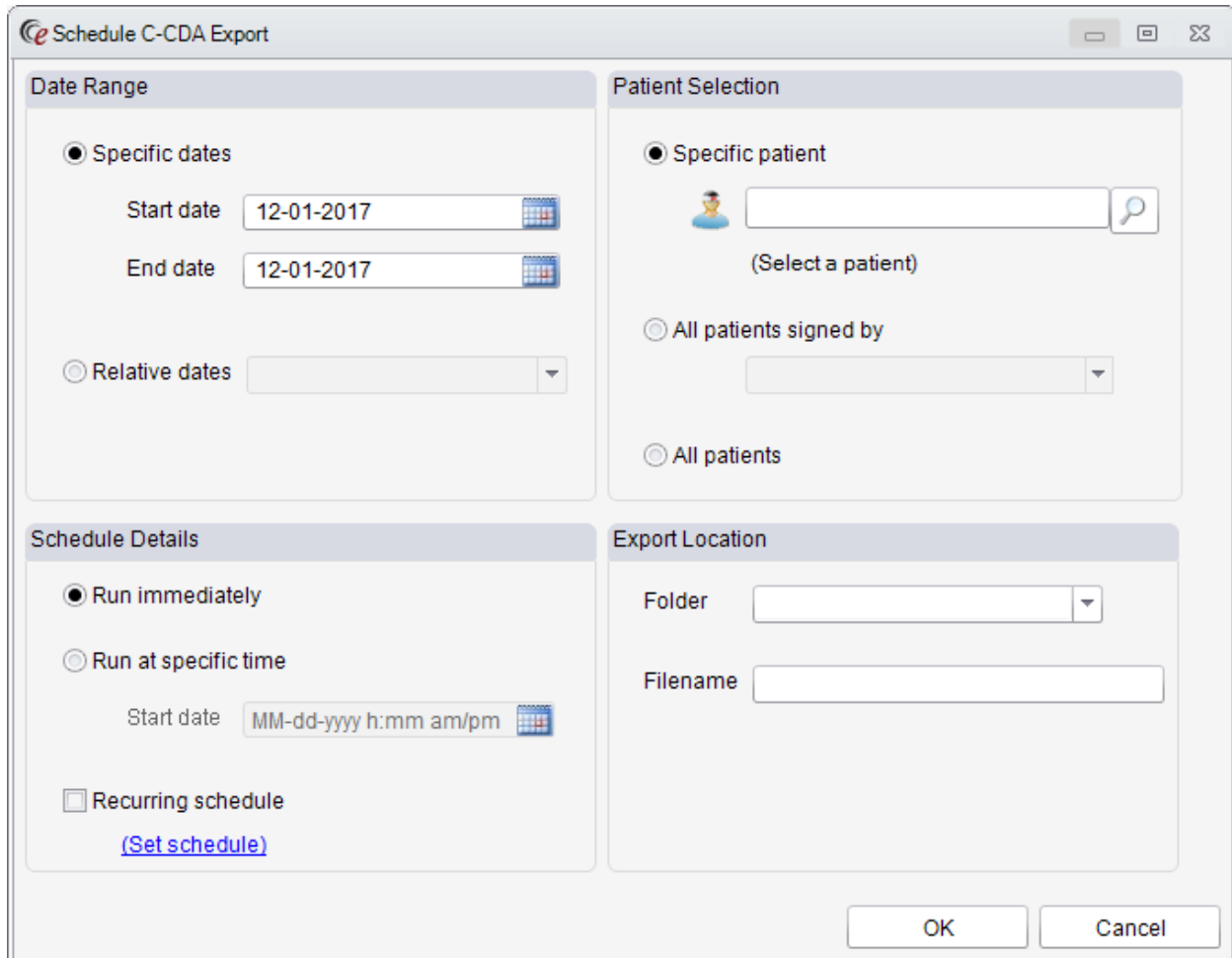
Below is an example of a CDS Alert that would appear for a user with an access level of ReadOnly.



FEATURE #16899 – CEHRT 170.315(B)(6): DATA EXPORT

eRAD RIS is required to provide a way for permissioned users to perform a Data Export to include C-CDAs for a single patient, a set of patients, or all patients meeting a variety of parameters. The user must be able to initiate the export on demand or create a scheduled event.

To initiate a C-CDA Data Export, there is a new option on the Administration menu: [Schedule C-CDA Export](#). This option is restricted by a new access string labeled [MU.CCDAScheduledTask](#). Users belonging to a User Group with the access string set to FULL will have the ability to select the Schedule C-CDA Export option, which opens the following screen.



Date Range

The “Date Range” controls allow the user to specify the start and end date for the C-CDA contents. The end date may be specified as a future date to include studies that are scheduled but have not yet been performed.

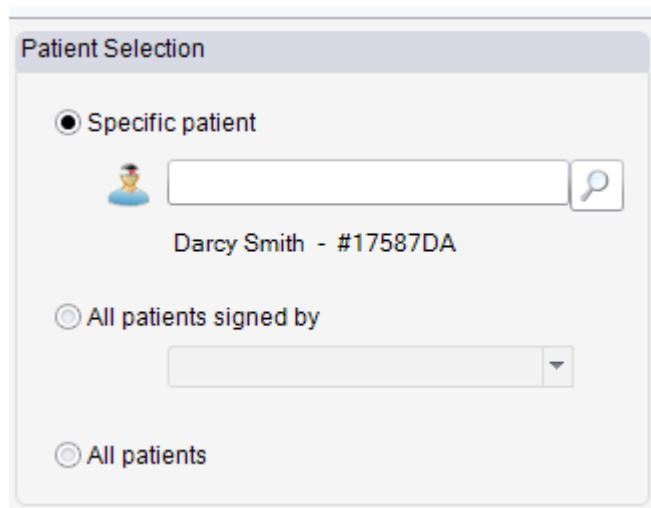
Relative Dates allow the user to indicate that the date filters should be constructed relative to the current system time when the task executes. For example, an export could be configured to run on the first day of every month to include all studies from the previous month.

The relative date options are today, yesterday, this week, this month, this year, last week, last month, and last year.

- **Today** – from midnight this morning until midnight tomorrow.
- **Yesterday** – from the start of the previous calendar day up until the start of today.
- **This week** – from Sunday at midnight this week up until midnight on Saturday.
- **This month** – from the first day of the current calendar month up until the end of the last day of the current month.
- **This year** – from January 1st of the current calendar year up until the end of December 31st.
- **Last week** – from the start of Sunday on the previous calendar week up until the end of Saturday of the same week.
- **Last month** – from the 1st day of the previous calendar month up until the first day of the current month.
- **Last year** – from January 1st of the previous year up until January 1st of the current year.

Patient Selection

The user can choose one specific patient, all patients, or a set of patients. The patient search control allows the user to perform a familiar patient search and then double click on the desired patient. Once a patient is selected, the label under the search box will change from (Select a patient) to a description of the selected patient including their first and last name and MRN.

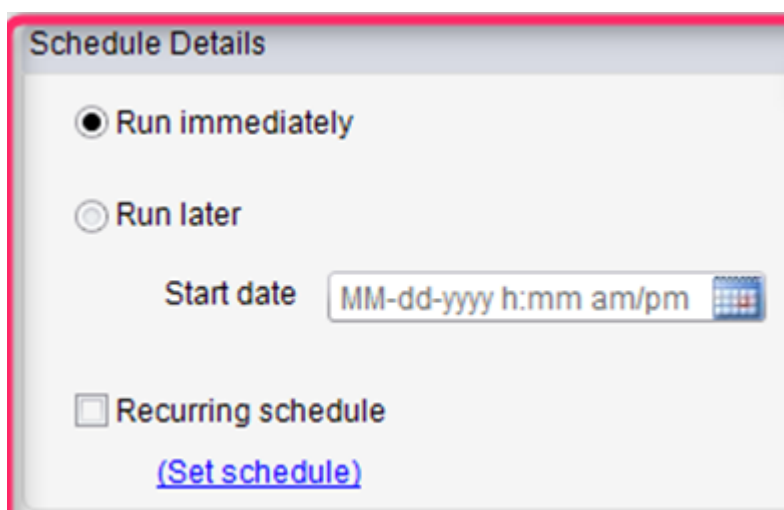


The image shows a 'Patient Selection' dialog box with three radio button options: 'Specific patient' (selected), 'All patients signed by', and 'All patients'. Under 'Specific patient', there is a search box with a magnifying glass icon and a dropdown menu. Below the search box, the text 'Darcy Smith - #17587DA' is displayed. The 'All patients signed by' option has a dropdown menu below it. The 'All patients' option has no additional controls.

The “All patients signed by” option is used to allow the user to select a set of patients. The system performs a query for all patients with an exam signed by a specific radiologist within the Date Range indicated by the user. Once these patients have been identified, the C-CDA will be generated for each patient using the Date Range indicated by the user as C-CDA parameters. In the event that no matching patients are found, the output will be a zip file that is 0 bytes; otherwise the zip file will contain a C-CDA XML file for each patient.

The “All patients” option will generate a C-CDA export for all patients in the system (use with care). The result will be a single zip file that contains an XML file for each patient. In this case the patient results are separated into folders and subfolders based on their date of birth. If the user chooses to export all patients, the C-CDA export task will simply schedule the previously designed C-CDA export for all patients. The job will be marked as completed as soon as the export begins, but the user may monitor the process from the Meaningful Use option under the Administration menu. Once this export of all patients is completed, the files and folders are zipped into a single file.

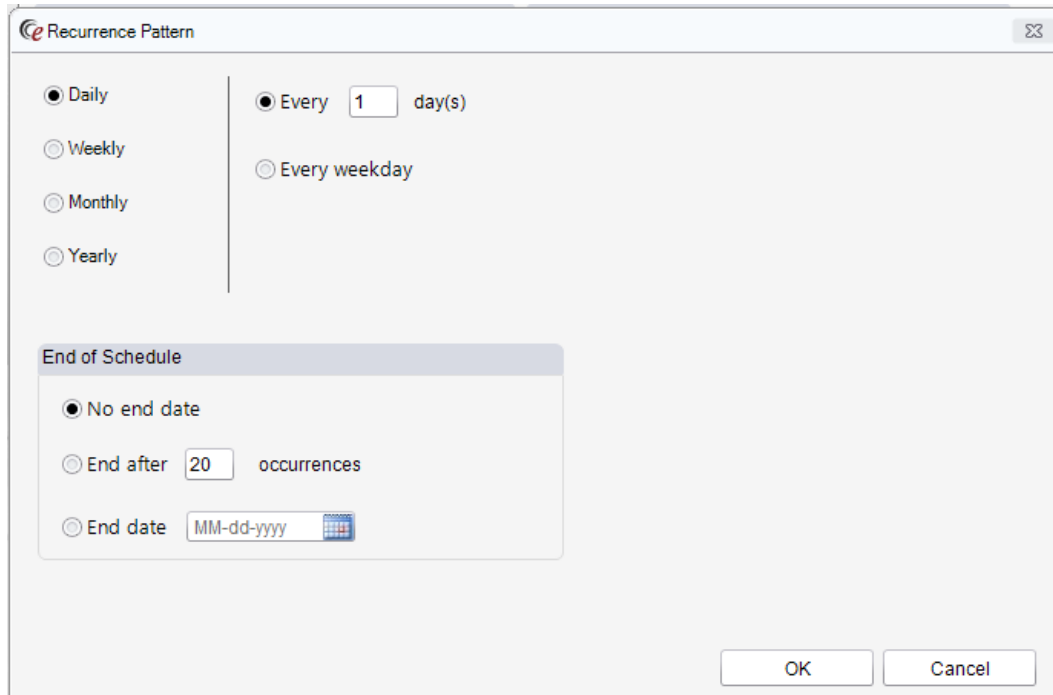
Schedule Details



There are two options for choosing a start time: **Run immediately** will schedule the job to run immediately (typically within a minute or so). **Run later** allows the user to pick the date and time that the job will begin to execute.

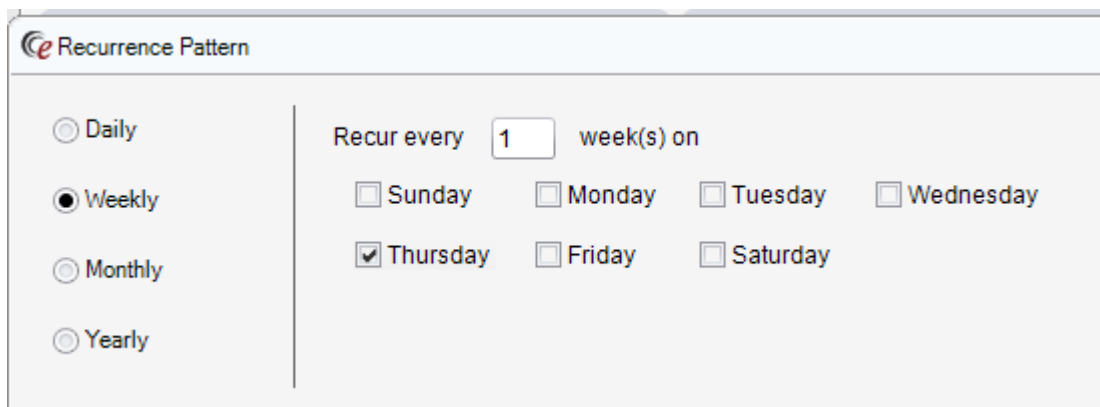
If the job is configured to run more than once (Recurring schedule, discussed below), then the same start time will be used for each date the job is executed.

Recurring Schedule



The dialog box is titled "Recurrence Pattern". It has two main sections. The first section contains radio buttons for "Daily", "Weekly", "Monthly", and "Yearly". The "Daily" option is selected. To the right of these options, there are two more radio buttons: "Every 1 day(s)" (selected) and "Every weekday". The second section is titled "End of Schedule" and contains three radio buttons: "No end date" (selected), "End after 20 occurrences", and "End date MM-dd-yyyy" with a calendar icon. At the bottom right are "OK" and "Cancel" buttons.

A scheduled task can be configured to run daily, weekly, monthly, or yearly. Each of these options has its own set of accompanying choices (e.g. on a “Daily” configuration, the user can indicate that the job should run every day, every X days, or every weekday).



The dialog box is titled "Recurrence Pattern". It has two main sections. The first section contains radio buttons for "Daily", "Weekly", "Monthly", and "Yearly". The "Weekly" option is selected. To the right of these options, there is a label "Recur every 1 week(s) on" followed by checkboxes for "Sunday", "Monday", "Tuesday", "Wednesday", "Thursday", "Friday", and "Saturday". The "Thursday" checkbox is checked. At the bottom right are "OK" and "Cancel" buttons.

A scheduled task with a Weekly configuration can be set to run every X weeks on 1 or more days of each week until the end of the schedule.

☐ Daily
 ☒ Day
 of every month(s)

☐ Weekly
 ☐ The

 of every month(s)

☒ Monthly

☐ Yearly

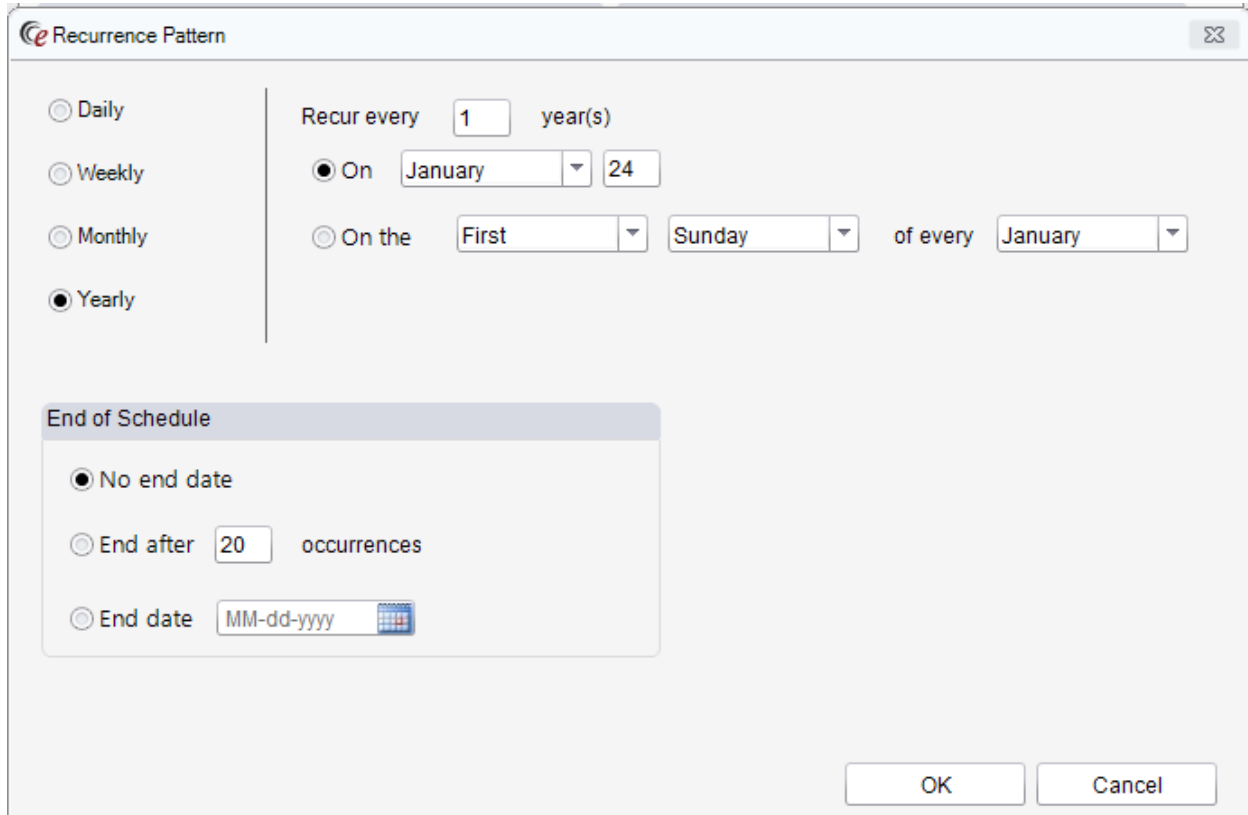
End of Schedule

☒ No end date
 ☐ End after occurrences
 ☐ End date

OK

Cancel

A scheduled task with a Monthly configuration can be set to run on the same day of every month (or every X months), or it can be configured to run on a certain day of a given week every X months (e.g. the First Sunday of the month). If a task is scheduled for the 31st day of each month and there is no 31st day of a given month, it will run on the last day of the month instead (e.g. Feb 28th).



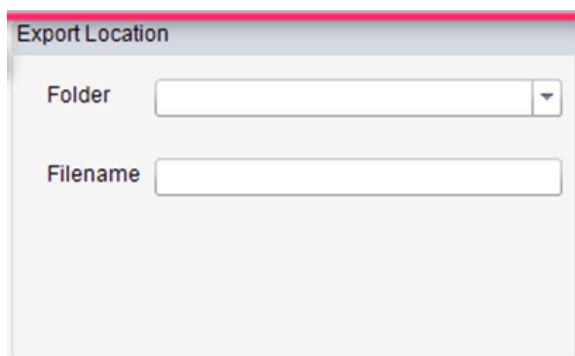
The **Recurrence Pattern** dialog box is used to configure the frequency and end of a scheduled task. It features a left sidebar with radio buttons for **Daily**, **Weekly**, **Monthly**, and **Yearly**. The **Yearly** option is selected. The main area shows the recurrence pattern: **Recur every 1 year(s)**. Below this, there are two options: **On January 24** (selected) and **On the First Sunday of every January**. At the bottom, the **End of Schedule** section offers three choices: **No end date** (selected), **End after 20 occurrences**, and **End date** (with a date picker icon). **OK** and **Cancel** buttons are at the bottom right.

A scheduled task with a Yearly configuration can be set to run every X years on a particular date (e.g. every 2nd January 24th), or it can be set to run every X years on a given week number (first through fourth) and weekday of a specific month (e.g. the second Tuesday of every February).

End of Schedule Options

A scheduled task can be configured to run with “No end date” (e.g. run every Monday from now on). It can be configured to stop after a specific number of occurrences (e.g. run every week for the next 52 weeks) or it can be configured to stop after a particular date.

Export Location



The **Export Location** dialog box is used to specify where a task is exported. It contains two fields: **Folder** (a dropdown menu) and **Filename** (a text input field).

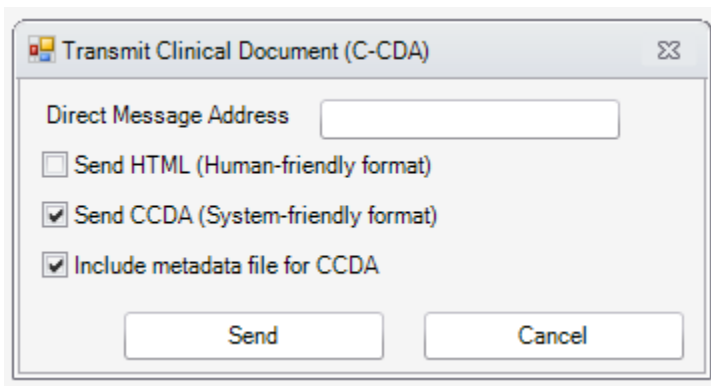
The user can choose from a predefined list of network folders that is stored in the System Configuration setting: [ScheduledTaskOutputLocations](#).

This new setting can include one or more network folders separated by a comma. The list will be presented to the user in the order that it is stored in the System Configuration value. The first item on this list will be used as a default value.

FEATURE #17820 – DIRECT MESSAGE FULL METADATA SUPPORT

As required, eRAD RIS now has an option to include a metadata file when transmitting the C-CDA XML file. When including a metadata file, the two files will be combined into one zip file that will be attached to the direct message. When the metadata file is included, the subject line for the direct message will include “XDM/1.0/DDM.”

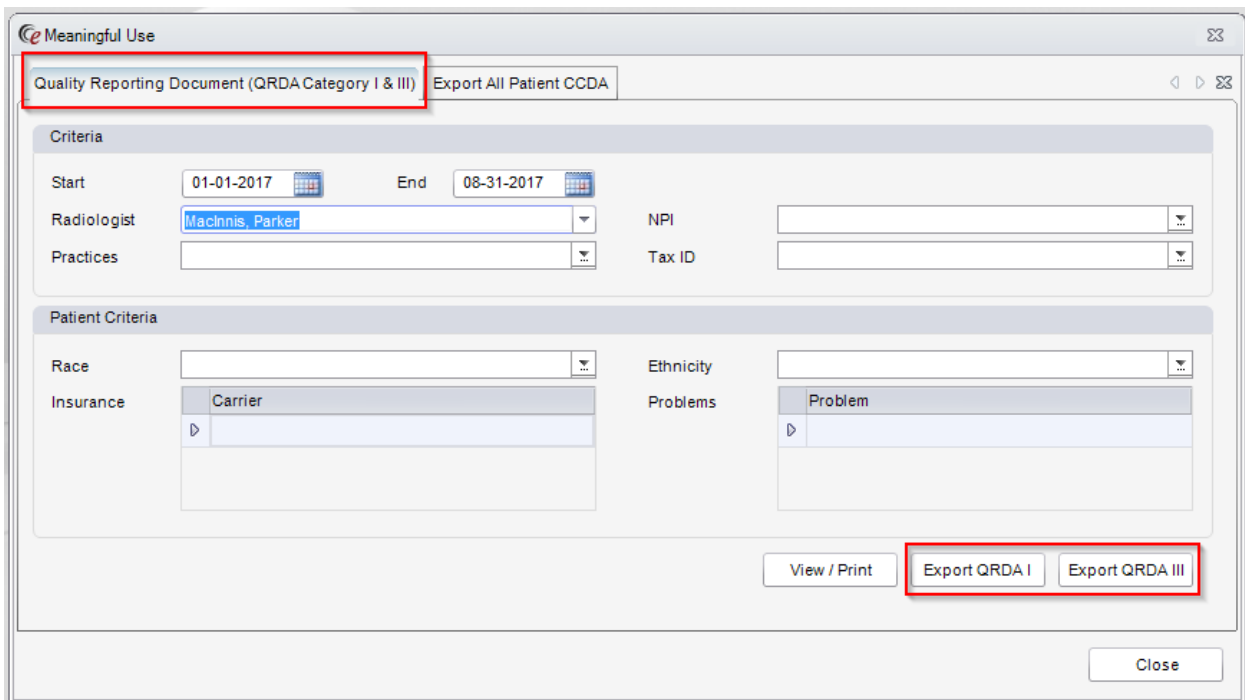
When transmitting the C-CDA, an additional checkbox labeled **Include metadata file for CCDA** will be available. The **Send CCDA** checkbox must be checked first to enable the metadata option. Metadata files are not available when sending in HTML format.



FEATURE #18140 – CEHRT 170.315(C)(1): ABILITY TO EXPORT A ZIP FILE CONTAINING QRDA I OR QRDA III FOR ALL PATIENTS MEETING THE FILTER CRITERIA

A 2015 CEHRT requirement states that eRAD RIS must be able to provide a file of QRDA results that is automatically compiled for all patients matching the filter criteria entered by the user. It must be possible to export using either QRDA Category I format or QRDA Category III format.

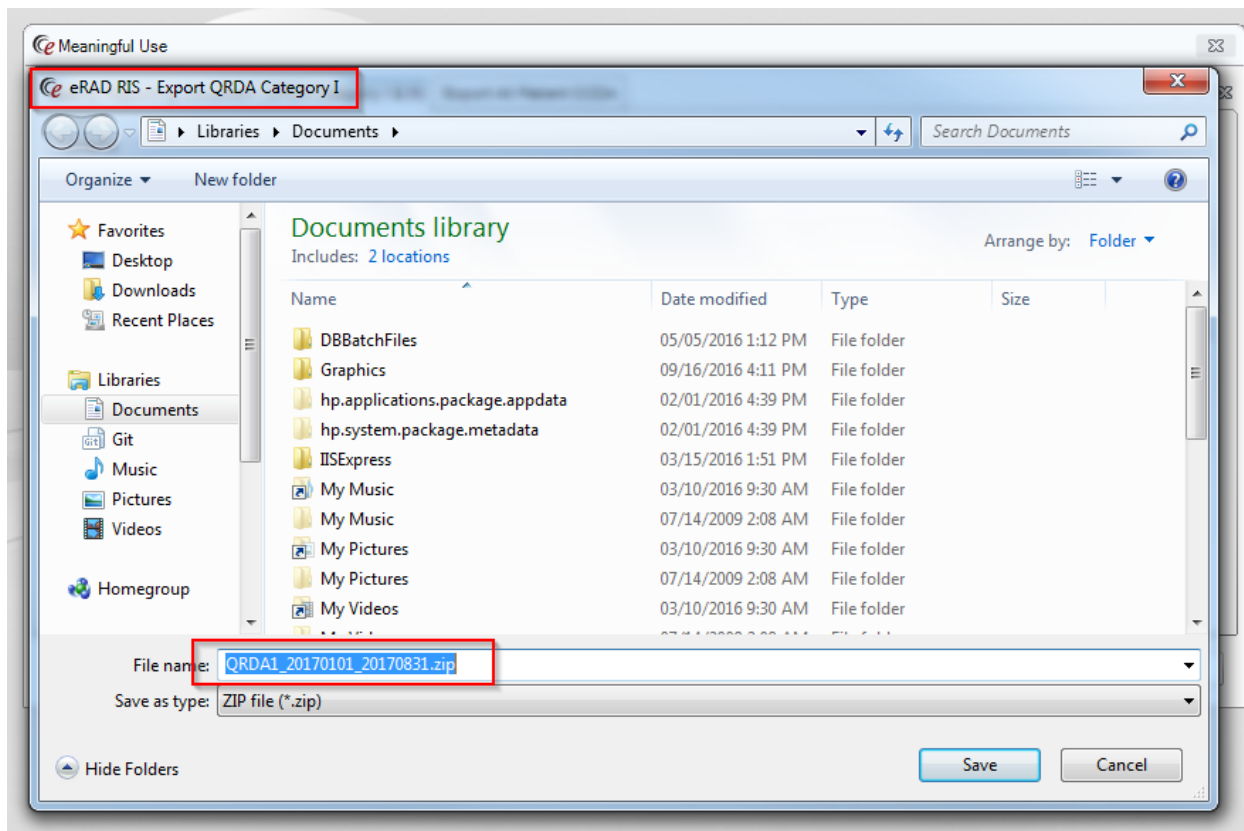
To launch the QRDA screen, click the Meaningful Use option under the Administration menu.



The screenshot shows the 'Meaningful Use' window in the eRAD application. At the top, there is a tab labeled 'Quality Reporting Document (QRDA Category I & III)' which is highlighted with a red box. Next to it is a button labeled 'Export All Patient CCDA'. Below the tabs, there are two main sections: 'Criteria' and 'Patient Criteria'. The 'Criteria' section includes fields for 'Start' (01-01-2017), 'End' (08-31-2017), 'Radiologist' (MacInnis, Parker), 'Practices', 'NPI', and 'Tax ID'. The 'Patient Criteria' section includes fields for 'Race', 'Insurance' (Carrier), 'Ethnicity', and 'Problems'. At the bottom right, there are three buttons: 'View / Print', 'Export QRDA I', and 'Export QRDA III'. The 'Export QRDA I' and 'Export QRDA III' buttons are highlighted with a red box. A 'Close' button is located at the bottom right of the window.

There are now **two** buttons: **Export QRDA I** and **Export QRDA III**. The QRDA files are created for each patient and combined into a zip file that the user can save to disk.

As illustrated below, the user will be able to choose a location to save the zip file. The top of this screen will indicate which QRDA format was selected.



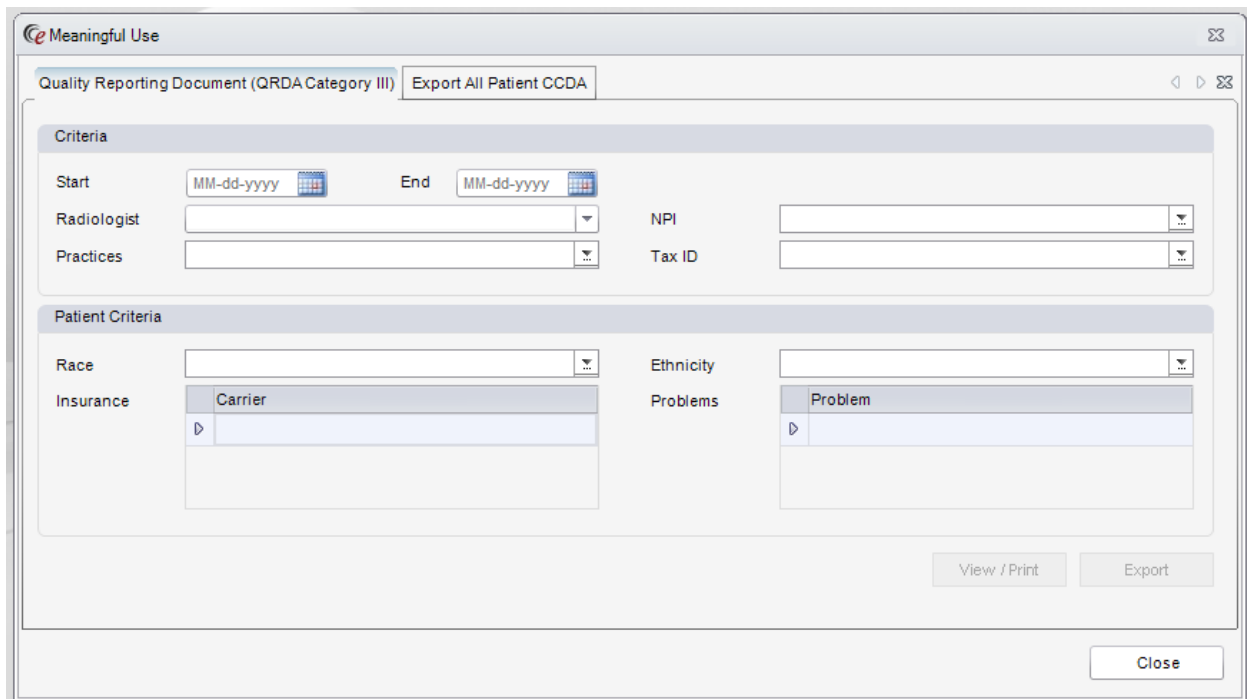
Once the export is complete, eRAD RIS will present a confirmation message to the user.

FEATURE #13673 – CEHRT: EXPANDED QRDA FILTER CRITERIA

Quality Reporting Document Architecture (QRDA) is a standard for communicating health care Quality Measurement information. When participating in a quality program for Centers for Medicare and Medicaid Services (CMS), it is required to submit Clinical Quality Measure (CQM) data that is in the appropriate QRDA format. It has previously been possible to export a QRDA from eRAD RIS, however, some adjustments have been made to allow for more specific data filtering.

The following filters have been added so that a user can create a QRDA with more specific contents:

- Tax ID
- National Provider Identifier (NPI)
- Patient insurance
- Patient race and ethnicity
- Patient problem list data



The screenshot shows the 'Meaningful Use' window with the 'Quality Reporting Document (QRDA Category III)' tab selected. The 'Export All Patient CCDA' button is visible. The 'Criteria' section includes fields for 'Start' and 'End' dates (MM-dd-yyyy), 'Radiologist', 'Practices', 'NPI', and 'Tax ID'. The 'Patient Criteria' section includes 'Race', 'Ethnicity', 'Insurance' (with a 'Carrier' dropdown), and 'Problems' (with a 'Problem' dropdown). 'View / Print' and 'Export' buttons are at the bottom right, and a 'Close' button is at the bottom center.

The following information will be included in the QRDA:

- Gender
- Race
- Ethnicity
- Payer (Medicare/Medicaid)
- Problem List

The QRDA results now also display a breakdown by problem. If filtering by either Tax ID or NPI, the results also include a breakdown by these criteria.

Example of QRDA showing Problem List:

QRDA Level III

Report Parameters

Period Start Date: 2015-01-01
Period End Date: 2017-08-31
Radiologist: MacInnis, Parker
Practice: Advanced Radiology, American Radiology, American Radiology 2, Borg/IDE, Get Well Clinic, PEI Radiology

Measures

1 Title CMS125v5
GUID 40280381-51F0-825B-0152-229C4EA3170C
NQF No. 2372
Version No. 5
eMeasure ID 125
Stratification

	Code	Initial Pop.	Denominator	Denom Excl	Numerator	Denom Excep
total		5	5	0	0	0
gender	F	5	5	0	0	0
ethnicity	2135-2	2	2	0	0	0
ethnicity	2186-5	2	2	0	0	0
race	2028-9	1	1	0	0	0
race	2054-5	1	1	0	0	0
race	2106-3	3	3	0	0	0
payer	19	5	5	0	0	0
problem	J45	1	1	0	0	0
problem	R07.1	1	1	0	0	0
problem	292097002	1	1	0	0	0
problem	292096006	1	1	0	0	0

Example of QRDA showing breakdown by Tax ID and NPI:

QRDA Level III

Report Parameters

Period Start Date: 2015-01-01
Period End Date: 2017-08-31
NPI: 77777
Practice: Advanced Radiology,American Radiology,American Radilogy 2,Borg/IDE,Get Well Clinic,PEI Radiology
Tax ID: 96-5657633

Measures

1 Title CMS125v5
GUID 40280381-51F0-825B-0152-229C4EA3170C
NQF No. 2372
Version No. 5
eMeasure ID 125
Stratification

	Code	Initial Pop.	Denominator	Denom Excl	Numerator	Denom Excep
total		3	3	0	0	0
gender	F	3	3	0	0	0
ethnicity	2135-2	1	1	0	0	0
ethnicity	2186-5	1	1	0	0	0
race	2028-9	1	1	0	0	0
race	2054-5	1	1	0	0	0
race	2106-3	1	1	0	0	0
payer	19	3	3	0	0	0
problem	J45	1	1	0	0	0
problem	R07.1	1	1	0	0	0
problem	292097002	1	1	0	0	0
problem	292096006	1	1	0	0	0
tax_id	96-5657633	3	3	0	0	0
npi	77777	3	3	0	0	0

FEATURE # 17949 – CEHRT 170.315(G)(2): MANAGEMENT REPORTS TO PROVIDE ACI MEASURE SCORES

This feature is designed to provide a means to track the 2017 Advanced Care Imaging (ACI) transition measures and 2017 Advanced Care Imaging (ACI) standard measures. Under the Merit-based Incentive Payment System (MIPS) pathway of the Medicare Access and CHIP Reauthorization Act (MACRA), ACI has replaced the Medicare HER Incentive Program (Meaningful Use). In 2017, ACI is also one of the three performance categories to be considered and weighted for scoring a clinician's overall performance under MIPS.

For scoring purposes, in the ACI performance category (weighted at 25% of the total score), MIPS eligible clinicians may earn a maximum score of up to 155%, but any score above 100% will be capped at 100%.

The ACI score is the combined total of the following three scores:

1. Required Base Score (50%)
2. Performance Score (up to 90%)
3. Bonus Score (up to 15%)

MIPS eligible clinicians need to fulfill the requirements of all base score measures in order to receive the 50% base score. If these requirements are not met, they will receive a 0 in the overall ACI performance category score. In order to receive the 50% base score, MIPS eligible clinicians must submit a "yes" for the security risk analysis measure, and at least a 1 in the numerator for the remaining measures.

The **transition** base score ACI measures are:

1. **Security Risk Analysis** – Conduct or review a security risk analysis, including addressing the security (including encryption) of electronic personal health information created or maintained by CEHRT.
2. **e-Prescribing** – At least one permissible prescription written by the provider is queried for a drug formulary and transmitted electronically using CEHRT.
3. **Provide Patient Access** – At least one patient seen by the MIPS eligible clinician during the performance period is provided timely access to view online, download, and transmit to a third party their health information subject to the MIPS eligible clinician's discretion to withhold certain information.
4. **Health Information Exchange** – The MIPS eligible clinician that transitions or refers their patient to another setting of care or health care clinician (1) uses CEHRT to create a summary of care record; and (2) electronically transmits that summary to a receiving health care clinician for at least one transition of care or referral.

The **standard** base score ACI measures are:

1. **Security Risk Analysis** – Conduct or review a security risk analysis, including addressing the security (including encryption) of electronic personal health information created or maintained by CEHRT.
2. **e-Prescribing** – At least one permissible prescription written by the provider is queried for a drug formulary and transmitted electronically using CEHRT.
3. **Provide Patient Access** – At least one patient seen by the MIPS eligible clinician during the performance period is provided timely access to view online, download, and transmit to a third party their health information subject to the MIPS eligible clinician's discretion to withhold certain information.

4. **Send Summary of Care** – For at least one transition of care or referral, the MIPS eligible clinician that transitions or refers their patient to another setting of care or health care clinician (1) creates a summary of care record using CEHRT; and (2) electronically exchanges the summary of care record.
5. **Accept Summary of Care** – For at least one transition of care or referral received or patient encounter in which the MIPS eligible clinician has never before encountered the patient, the MIPS eligible clinician receives or retrieves and incorporates into the patient's record an electronic summary of care document.

All of the base score requirements must be met in order to receive the 50% base score. However, for e-Prescribing there is an exception. e-Prescribing is only required to be reported if 100 or more prescriptions are written in the performance period.

To achieve an ACI performance score in addition to the base score, a MIPS eligible clinician must satisfy at least one additional ACI performance score measure during his or her performance period. This means that at least one performance score measure must have a numerator greater than 1 and clinicians must submit a numerator/denominator or Yes/No for each ACI performance score measure they report.

The percentage listed next to each 2017 ACI Transition Measure Set measure below indicates how much that measure can contribute to the ACI performance score, based on the measure rate (which is the numerator divided by the denominator). Performance score measures can be worth up to 90% of the total ACI score, giving clinicians the flexibility to focus on achieving the measures that are most meaningful to their practice. The higher a clinician's performance rate on these measures, the higher their ACI score will be.

The performance score **ACI Transition Measures** are:

1. **Provide Patient Access (up to 20%)** - For at least one unique patient seen by the provider, (1) the patient (or patient-authorized representative) is provided timely access to view online, download, and transmit his or her health information, and (2) the provider ensures the patient's health information is available for the patient (or patient authorized representative) to access using any application of his or her choice that is configured to meet the technical specifications of the Application Programming Interface (API) in the provider's CEHRT.
2. **View, Download or Transmit (VDT) (up to 10%)** - At least one patient seen by the MIPS eligible clinician during the performance period (or patient-authorized representative) views, downloads or transmits their health information to a third party during the performance period.
3. **Health Information Exchange (up to 20%)** - For at least one transition of care or referral, the provider who transitions or refers his or her patient to another setting of care or health care provider (1) creates a summary of care record using CEHRT; and (2) electronically exchanges the summary of care record.
4. **Secure Messaging (up to 10%)** - For at least one unique patient seen by the provider during the performance period, a secure message was sent using the electronic messaging function of the CEHRT to the patient (or patient-authorized representative), or in response to a secure message sent by the patient (or patient authorized representative).
5. **Medication Reconciliation (up to 10%)** - The MIPS eligible clinician performs medication reconciliation for at least one transition of care in which the patient is transitioned into the care of the MIPS eligible clinician.

6. **Patient-Specific Education (up to 10%)** - The provider must use clinically relevant information from the CEHRT to identify patient-specific educational resources, and provide electronic access to those materials, to at least one unique patient seen by the provider.

The performance score **ACI Standard Measures** are:

1. **Provide Patient Access (up to 20%)** - For at least one unique patient seen by the provider, (1) the patient (or patient-authorized representative) is provided timely access to view online, download, and transmit his or her health information, and (2) the provider ensures the patient's health information is available for the patient (or patient authorized representative) to access using any application of his or her choice that is configured to meet the technical specifications of the Application Programming Interface (API) in the provider's CEHRT.
2. **View, Download or Transmit (VDT) (up to 10%)** - At least one patient seen by the MIPS eligible clinician during the performance period (or patient-authorized representative) views, downloads or transmits their health information to a third party during the performance period.
3. **Send Summary of Care (up to 20%)** - For at least one transition of care or referral, the MIPS eligible clinician that transitions or refers their patient to another setting of care or health care clinician (1) creates a summary of care record using CEHRT; and (2) electronically exchanges the summary of care record.
4. **Secure Messaging (up to 10%)** - For at least one unique patient seen by the provider during the performance period, a secure message was sent using the electronic messaging function of the CEHRT to the patient (or patient-authorized representative), or in response to a secure message sent by the patient (or patient authorized representative).
5. **Medication Reconciliation (up to 10%)** - The MIPS eligible clinician performs medication reconciliation for at least one transition of care in which the patient is transitioned into the care of the MIPS eligible clinician.
6. **Patient-Specific Education (up to 10%)** - The provider must use clinically relevant information from the CEHRT to identify patient-specific educational resources, and provide electronic access to those materials, to at least one unique patient seen by the provider.
7. **Accept Summary of Care (up to 10%)** - For at least one transition of care or referral received or patient encounter in which the MIPS eligible clinician has never before encountered the patient, the MIPS eligible clinician receives or retrieves and incorporates into the patient's record an electronic summary of care document.

To provide information regarding the ACI measure scores described above, two new management reports have been added to the RIS Meaningful Use core reports: [ACI Transition Measures](#) and [ACI Standard Measures](#).

A new Y/N parameter called [Security Risk Analysis Completed](#) has been added to both reports. Answering Y to this parameter will satisfy the Security Risk Analysis base score.

Stage 1 and 2 Automated Measures are goal based where each measure has a goal percentage assigned. If the numerator divided by the denominator exceeds the goal, then that measure had passed; otherwise, it is considered a fail.

For 2017 Transition and Standard Measures, the Goal and Pass/Fail columns have been replaced with Base and Performance. The Base column will display a "Y" if the measure has been met. For ACI Transition Measures, base

score is set at 50 if Security Risk Analysis has been confirmed, numerator is at least 1 for Health Information Exchange and VDT (Timely Access), and numerator is at least 1 for eRx when denominator is at least 100.

For ACI Standard Measures, base score is set at 50 if Security Risk Analysis has been confirmed, numerator is at least 1 for Send Summary of Care, VDT (Timely Access) and Accept Summary of Care, and numerator is at least 1 for eRx when denominator is at least 100.

The Performance score will display the number of calculated performance points for the measure. For ACI Transition Measures, Performance score is the numerator divided by the denominator multiplied by 20 for VDT (Timely Access) and Health Information Exchange and the numerator divided by the denominator multiplied 10 for Medication Reconciliation, VDT (Patient Use), Secure Messaging, and Patient Education.

For ACI Standard Measures, Performance score is the numerator divided by the denominator multiplied by 20 for VDT (Timely Access) and Send Summary of Care and the numerator divided by the denominator multiplied 10 for Medication Reconciliation, VDT (Patient Use), Secure Messaging, Patient Education, and Accept Summary of Care. The Total score is the Base score plus the Performance score. Failing to achieve the Base score or 50 points will result in a Total score of 0.

Unlike the Automated Measures Report, the ACI Transition Measures and ACI Standard Measures Report include both Site and Practice as multi-select parameters. Both the Practice and Site parameters have been enhanced to include the Tax Identification Number (TIN) to allow the user to run the report based on one or more TINs.

The Radiologist parameter has also been modified to support multi-select, allowing the report user to consolidate or roll-up the data to the TIN (site or practice) level.

The following section will outline how each measure is calculated from eRAD RIS data. These calculations are based on the specified signing radiologist, the schedule date range, the practice code, and the site code where the procedure was performed.

Security Risk Analysis – This is determined at the management report level via the Security Risk Analysis Completed Y/N parameter.

Medication Reconciliation – The denominator is made up of the total studies where the Referral Type has been specified on the Meaningful Use tab. The numerator is made up of the total studies where the Medical Reconciliation flag has been specified on the Meaningful Use tab and the Referral Type has been specified on the Meaningful Use tab.

e-Prescribing (eRx) – The denominator is the total number of completed prescriptions for the patient entered electronically via NewCrop. The numerator is the total number of completed prescriptions for the patient entered electronically via NewCrop and sent electronically via Surescripts to the selected pharmacy.

Patient Education – The denominator is the total distinct patient count for the report period. The numerator is the total number of times the Provided Education Resources or Prep Notes Reviewed flags have been specified for the visit.

Health Information Exchange – The denominator is the total Transition of Care to Another Provider specified on the Meaningful Use tab. The numerator is the total Transition of Care to Another Provider where the Transition of Care Summary Provided and Transition of Care Confirmation Received have been selected on the Meaningful Use tab.

VDT (Timely Access) – The denominator is the total distinct patient count for the report period. The numerator is determined by the number of these patients (or someone with approved medical record access) that has an account on the patient portal.

VDT (Patient Use) – The denominator is the total distinct patient count for the report period. The numerator is determined by the number of these patients (or someone with approved medical record access) that has accessed the patient portal during the reporting period.

Secure Messaging – The denominator is the total distinct patient count for the report period. The numerator is calculated based on one of the following two conditions:

1. A secure message was sent to all patients (blast message) during the reporting period.
2. A secure message was sent to the specific patient during the reporting period.

Send Summary of Care – The denominator is the total Transition of Care to Another Provider specified on the Meaningful Use tab. The numerator is the total Transition of Care to Another Provider where the Transition of Care Summary Provided and Transition of Care Confirmation Received have been selected on the Meaningful Use tab.

Accept Summary of Care – The denominator is the total Summary of Care Record Available specified on the Meaningful Use tab. The numerator is the total Summary of Care Record Received where the Summary of Care Record Available has been selected on the Meaningful Use tab.

Please see examples of the [ACI Transition Measures](#) and [ACI Standard Measures](#) management reports below. Note that the filter criteria include the ability to select one or more radiologists and to indicate whether or not Security Risk Analysis has been completed. Also note that the Tax ID Number (TIN) is shown in the Site selection dropdown.

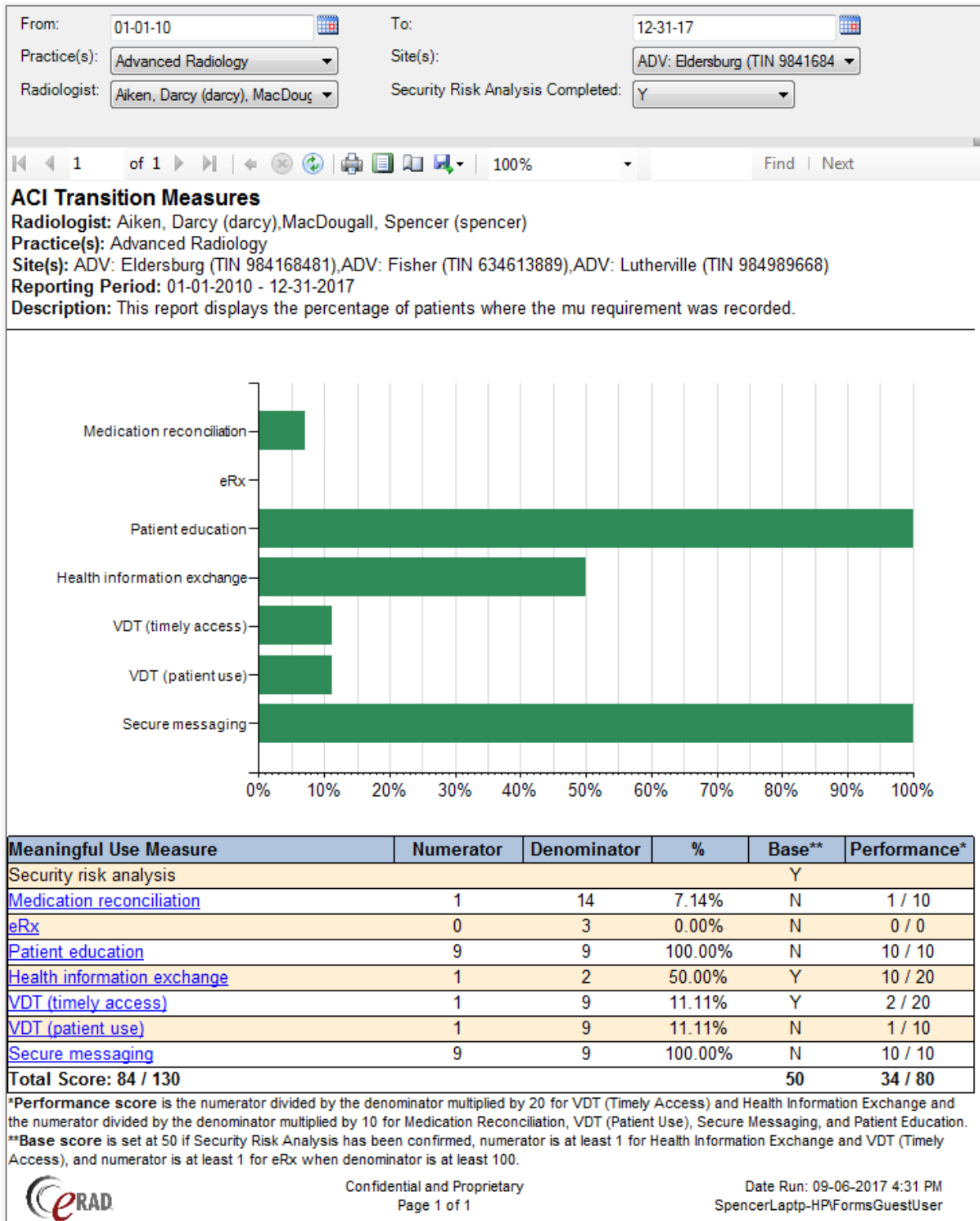


Figure 1 – ACI Transition Measures Report showing Base, Performance, and Total Score

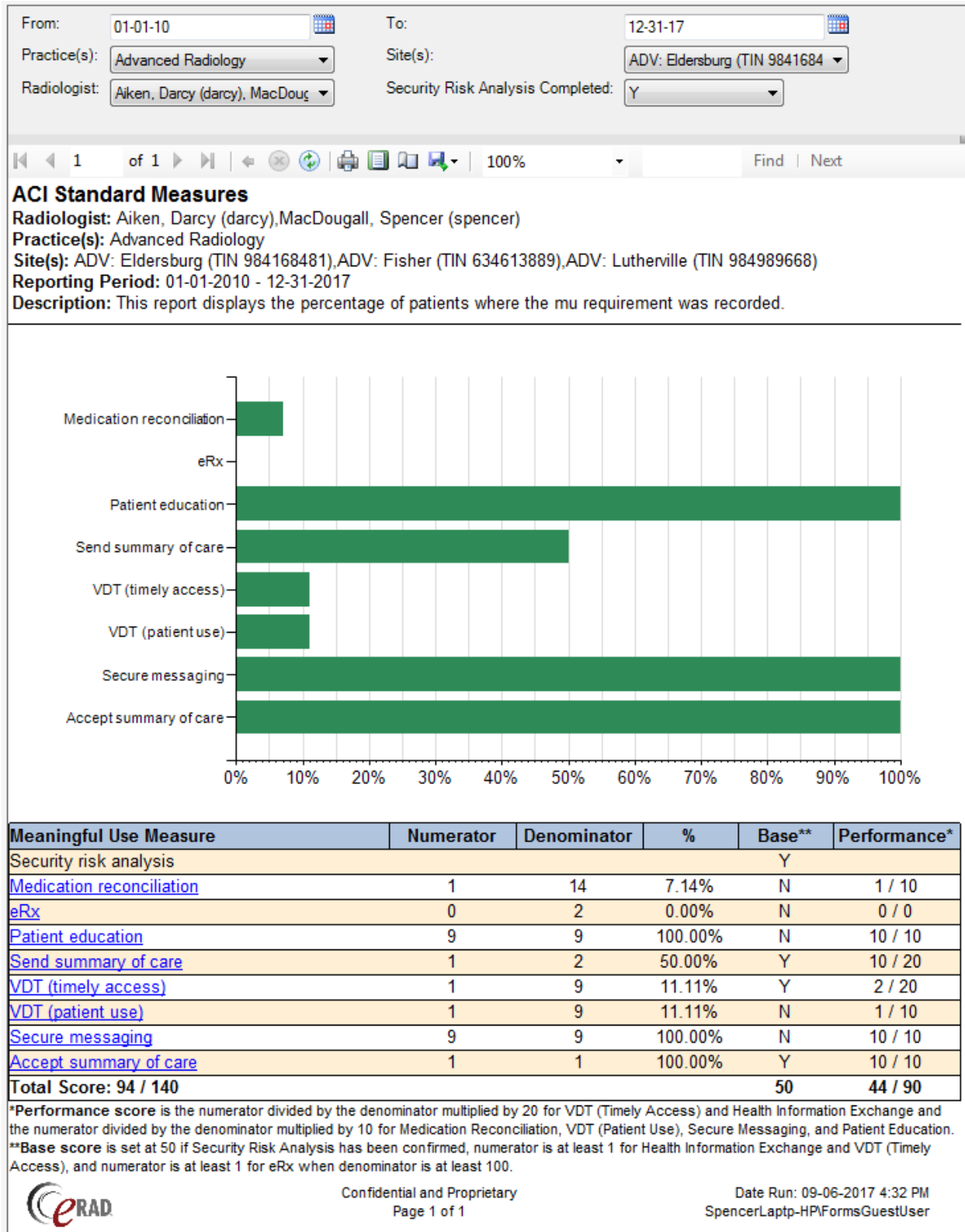


Figure 2 – ACI Standard Measures Report showing Base, Performance, and Total Score

GENERAL WORK LISTS ENHANCEMENTS

FEATURE #17805 – ADD A CUSTOM ICON FOR ALERTS TO DISPLAY ON WORKLISTS

This feature is described in the RIS Administration section.

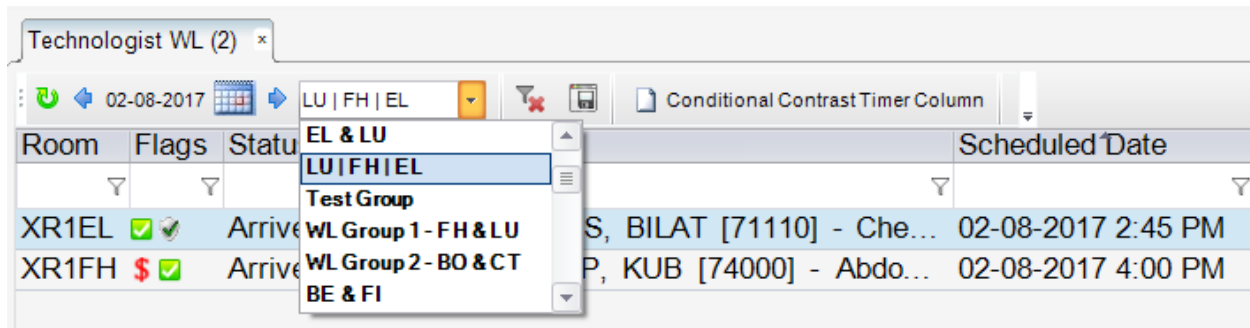
FEATURE #16309 – USE SITE GROUP FILTER ON RECEPTION AND TECHNOLOGIST WORKLISTS

When the Site Group filter was added to a variety of worklists in eRAD RIS, the Reception and Technologist worklists were excluded from the new framework. This was due to the fact that the primary uses for these two worklists are focused on a single site where the user is currently working: the receptionist needs to see patients to register for the site where she or he is located; or the technologist needs to see exams to be performed at the site she or he is covering that day. However, these worklists can sometimes be used for other purposes which may make it desirable to use the Site Group filter on these worklists.

For example, the Reception WL is often used for things like "preprocessing" or reviewing upcoming appointments. A staff member may be designated to review upcoming appointments for a number of sites, such as a lead technologist reviewing all MRI exams scheduled in his or her region for the following day. There is a need to be able to display multiple sites on the worklists to allow for easy centralization of these types of tasks.

In addition, there are some instances where a single site is split up into two distinct RIS sites for tax ID purposes or other reasons. These sites would benefit from the ability to be grouped together on Reception and Technologist worklists, so that receptionists and technologists do not need to switch back and forth between worklists.

For these reasons, the Reception and Technologist worklists can now be filtered by Site Groups that have been configured with the Site Group Type of **Worklist Group**.



The screenshot shows the 'Technologist WL (2)' window. A dropdown menu is open, displaying the following options: 'EL & LU', 'LU|FH|EL', 'Test Group', 'WL Group 1 - FH & LU', 'WL Group 2 - BO & CT', and 'BE & FI'. The table below the menu has columns for 'Room', 'Flags', 'Status', and 'Scheduled Date'. Two rows are visible: 'XR1EL' with status 'Arrive' and 'XR1FH' with status 'Arrive'. The 'Scheduled Date' column shows '02-08-2017 2:45 PM' and '02-08-2017 4:00 PM'.

Configuration and use is identical to existing worklist Site Group filters.

FEATURE #17246 – PATIENT CLASS COLUMN AVAILABLE ON ADDITIONAL WORKLISTS

Customers have requested that the **Patient Class** column be added to additional worklists. The column has been added to the following worklists:

- Pending Dictation
- All Pending Dictation
- Pending Signature
- All Pending Signature
- Activity WL

de	First Name	Last Name	Visit #	Patient Class	Mark
	Brand	Kale	23684	Outpatient	
	goodie21	goodie21	104272	Outpatient	
	Lacey	Linsley	109261	Outpatient	
	Coral	Cravalho	109357	Emergency	
	Geraldine	Grassi	109546	Outpatient	
	Oretha	Reinbold	109547	Unknown	
	Terry	Trupp	109747	Outpatient	
	Jared	Iodice	110218	Unknown	

The column will be populated with the Class selected on the Order tab.

Order
Documentation
Exam Details
Billing Codes
Attachments
Notes / Exam Times
Contact Log

Referring Details

CC Physicians

Referring *
OCONNOR, WILLIAM T.

Visited at *
PO BOX 102, MISSION OF MERCY, FAIRFIELD, PA, 17320

Img notes

Ref. date
MM-dd-yyyy

Visit location for CC *

Copy to patient

Flags

☐ Direct referral
☐ STAT exam
☐ STAT read
☐ STAT PreCert

☐ Transportation required
Special accommodations *
No

☐ Sequester
Urgency Level

Class *
Outpatient

Sedation

☐ Transition of care
☐ Provided Educational Resources

FEATURE #17792 – “CATEGORY” COLUMN IS NOW AVAILABLE ON THE ALL CRITICAL RESULTS AND CRITICAL RESULTS WL

The Category column has been added to the Critical Results and All Critical Results worklists. Sorting on this column will be by Display Order, not alphabetical order. This will allow users to easily order their lists by the level of urgency.

INTERFACING

FEATURE #15508 – CONFIGURABLE DPI SETTING FOR ATTACHMENTS IMPORTED VIA INTERFACE

When an attachment is sent into eRAD RIS in PDF format over an external interface, the PDF is processed into images with a hard coded DPI of 120. It has been determined that this DPI is too low for some purposes, so the DPI setting is now configurable.

A new attribute called **DPI** has been added to the **c_scan_document** table on inbound messages. Any numerical value may be specified in this attribute to set the DPI. For quality purposes, an upper bound of 250 DPI and a lower bound of 100 DPI have been established. The default DPI setting is 120, if no value is specified. If a setting of less than the lower bound or more than the upper bound is entered, RIS will use the lower or upper bound respectively (i.e. it will use 100 or 250 DPI).

When sending in an external study update with a scanned document, specify the DPI attribute's value in the following location. This will work for both external interface web service study updates, as well as http inbound updates.

```
<ext1:ScanDocument>
  <ext1:c_scan_document dpi="80">
    <ext1:scan_document_key>-1</ext1:scan_document_key>
    <ext1:scan_type_code>Worksheet</ext1:scan_type_code>
    <ext1:pdf>BASE 64 of PDF file</ext1:pdf>
    <ext1:external_id>>manual-test-interface</ext1:external_id>
    <ext1:reviewed_flag>N</ext1:reviewed_flag>
    <ext1:scanned_by_user_id>admintest</ext1:scanned_by_user_id>
  </ext1:c_scan_document>
  <ext1:c_scan_document_association>
    <ext1:scan_document_key>-1</ext1:scan_document_key>
    <ext1:patient_key>1</ext1:patient_key>
  </ext1:c_scan_document_association>
</ext1:ScanDocument>
```

FEATURE #6941 – OPTION TO DISABLE WEDGE FROM AUTO-RESOLVING PATIENTS WITH MATCHING DEMOGRAPHICS

There is an existing feature in the Wedge which attempts to match the patient from an external transaction to an existing patient in our system. If unable to identify an internal patient account based on MRN, the Wedge will attempt to find a match based on demographics data: first name, last name, date of birth, and, optionally, sex and/or home phone number.

In some cases, customers may wish to keep distinct accounts for the same patient coming from an external source, or they may not want to depend on the less definitive demographic matching.

It is now possible to disable the second tier, demographic matching process.

Please contact eRAD Support for more information about disabling this feature if desired.

RIS ADMINISTRATION

FEATURE 17804 – NEW OPTION TO CHOOSE BETWEEN ORDER-LEVEL AND PATIENT-LEVEL ALERTS

Previously, it was possible to create Patient-level Alerts that would be applicable for all future activity for the patient's account. However, there are often occasions when setting an Alert at the Order level is more beneficial. This can be useful when there is some piece of information that a user should be warned about for a particular visit, but will not be relevant next time the patient returns. For example, the front desk may flag a patient as requiring isolation because of a positive PPD test, but this should not display when the patient returns in 6 months for a screening mammogram.

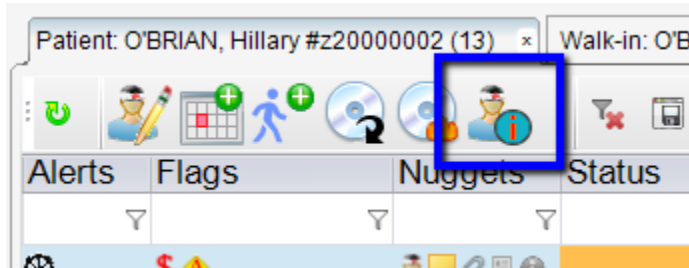
In the **Patient Alert** look-up table, there is now a new column labeled **Level** which determines if the Alert is Patient-level or Order-level.

Patient Flag Code Description		Level	Pp Prevent Patient Scheduling...	Rp Prevent Patient Scheduling...	Display Order	Last Updated	Active	Icon
Contains:	Contains:	Contains:	Contains:	Contains:	Equals:	Equals:	Cont	
Click here to add a new row								
Department_Unit	Department or Unit	Order	N	N	1	01-19-2018 7:15 PM	Y	
Emancipated	Emancipated minor	Patient	N	N	1	06-30-2017 12:55 PM	N	
FrequentNoShow	Patient often misses appointments. Tell the patient additional charges...	Patient	N	N	1	11-22-2016 10:29 AM	Y	
Isolation	Isolation	Order	N	N	1	11-30-2017 1:06 PM	Y	
Click here to add a new row								
Patient Flag Code Screen								
Isolation	Registration							
Isolation	PerformExam							
Click here to add a new row								
LifetimeBan	This patient has been banned from our facilities.	Patient	Y	Y	1	01-03-2018 6:25 PM	Y	
Migrated	Migrated Alert:	Patient	N	N	1	11-29-2017 3:43 PM	Y	
Nervous	Patient is nervous about medical procedures. Be extra reassuring dur...	Patient	N	N	1	07-21-2017 12:05 PM	Y	
ServiceAnimal	Patient will be accompanied by a service animal.	Patient	N	N	1	01-03-2018 6:25 PM	Y	

By default, Alerts will be stored at the Patient-level and will continue to be displayed any time the configured screens are opened for all future visits. However, if the Alert's Level is set as Order, the Alert will only be displayed when the configured screens are opened for the Order on which the Alert was activated.

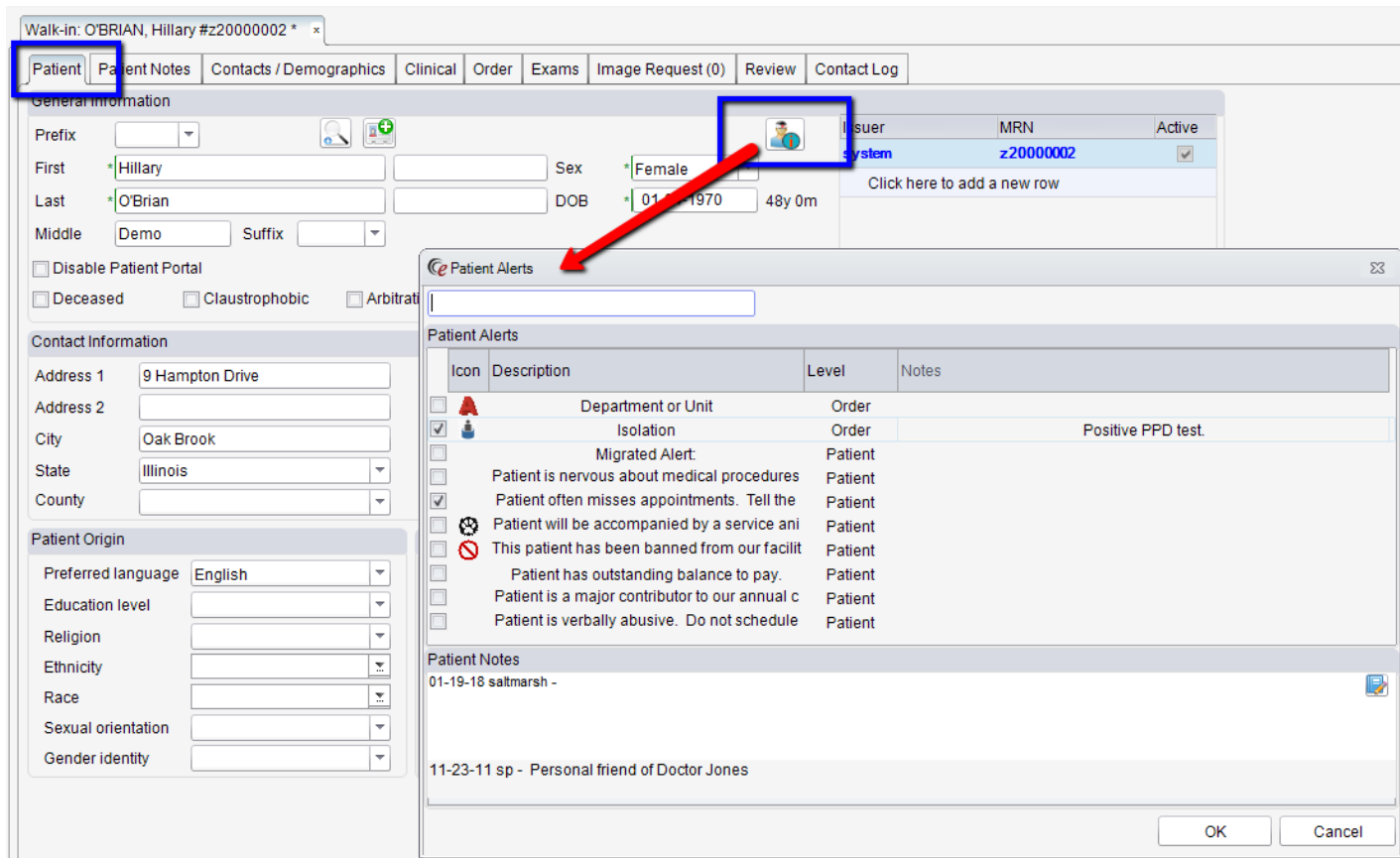
After an Order-level Alert is configured in the Patient Alert look-up table, staff can turn on the Alert in the same way they did previously:

Option 1: Use the Patient Alert button in the Patient Folder.



There is one difference when adding Order-level Alerts with this button. Because it is an Order-level Alert, it will be applied to the Order for the row that is currently selected in the Patient Folder. It is not possible to multi-select from the Patient Folder when setting an Order-level Alert and the user will be informed if they attempt to do so. (It is still possible to multi-select if setting a Patient-level Alert.)

Option 2: Use the Patient Alert button on the Patient tab when an order-specific screen (e.g. Schedule Order or Perform Exam) is open.

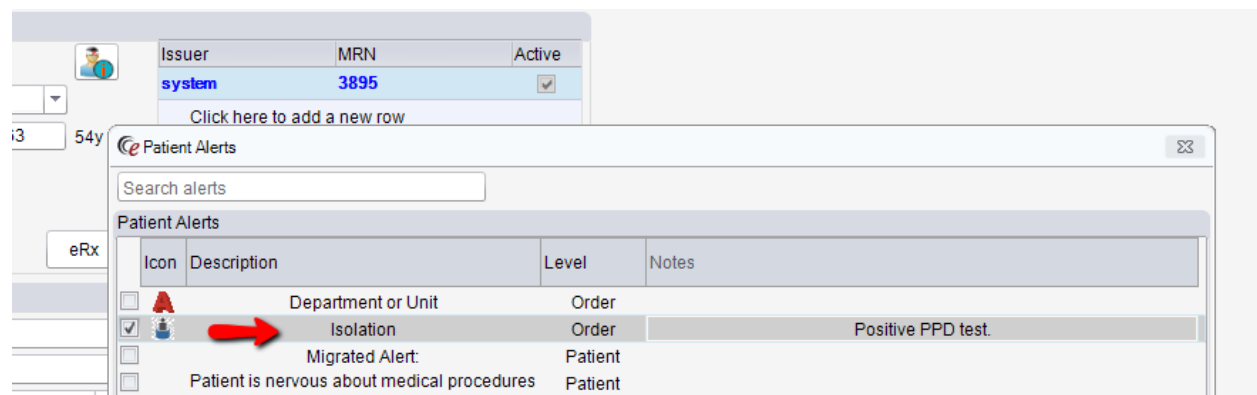


Order-level and Patient-level Alerts can be selected and specific notes can be added in the Notes column that will be displayed with the pop-up Alert. The user can easily see whether the Alert is Patient-level or Order-level by looking at the Level column in the window. It is possible to create two Alerts in the look-up table with different

Level settings if it is desirable to have either Order-level or Patient-level depending on the circumstance. The user can then select the Alert with the desired Level.

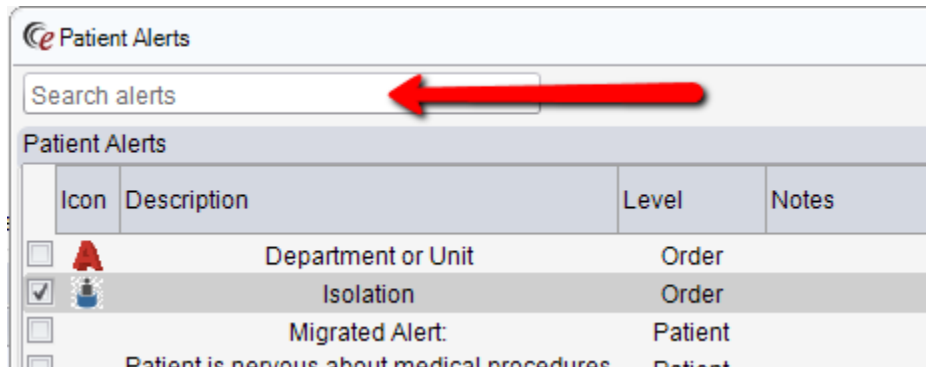
If the user is adding an Alert from a Patient-level screen that does not have any Orders in the context, such as Edit Patient, only Patient-level Alerts will be available. If the user is adding an Order-level Alert from a screen that includes multiple Orders for the patient (e.g. the user is scheduling an appointment with an Order A and Order B), the Alert will be applied to any Orders that are open on that screen.

If a user opens a screen that includes multiple Orders that already have at least one Order-level Alert, the Alert window will mark the Alert's row in gray if it isn't applicable to all of the Orders that are open. For example, Scheduler A schedules an appointment for tomorrow and adds an Order-level Alert of Isolation. Scheduler B schedules a second appointment for the same patient for tomorrow and does not add the Isolation Alert. If the receptionist chooses to register these two separate Orders together, he or she will receive the Isolation Alert pop-up because one of the Orders has this Alert set. If the receptionist were to open the Alerts window, she or he would see that the row for the Alert is colored in gray to indicate that it is only applicable for some of the open Orders.



If the user wishes to apply the Alert to all of the open Orders, he or she can simply uncheck it and re-check it. Then the row will appear white to indicate that it is applied to all open Orders.

Note that a new filter box has been added when opening the Patient Alerts window to allow users to quickly find the Alert they'd like to add. Typing in this box will filter the Alert options to display only those that contain the word typed in the field.



e Patient Alerts

Search alerts

Patient Alerts

Icon	Description	Level	Notes
<input type="checkbox"/>	Department or Unit	Order	
<input checked="" type="checkbox"/>	Isolation	Order	
<input type="checkbox"/>	Migrated Alert:	Patient	
<input type="checkbox"/>	Patient is nervous about medical procedures	Patient	




See the feature below for some additional functionality related to Alerts.

FEATURE #17805 – ADD A CUSTOM ICON FOR ALERTS TO DISPLAY ON WORKLISTS

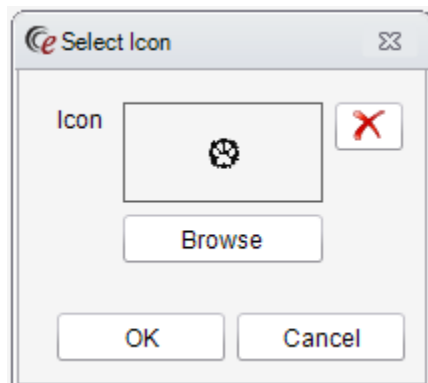
It can be helpful to know about certain types of Patient Alerts when viewing a worklist, so that staff can easily identify that patients with particular situations or conditions are being seen at the center *before* they open a screen that would present the Alert pop-up message.

For example, many facilities enact a special workflow for patients requiring Isolation. It is helpful to know ahead of time when an isolation patient is scheduled so that staff can quickly identify the patient when they present at the front desk, in order to provide them with a mask and move them to an isolation area. A custom Alert icon on the worklist will help to identify any isolation patients on the Reception WL for that day, especially if conditional formatting is applied to change the font or row color.

To make this possible, the Patient Alert table now has an **Icon** column.

Patient Flag Code	Description	Display Or...	Pp Prevent Patient Scheduling...	Rp Prevent Patient Scheduling...	Level	Last Updated	Active	Icon
Contains:	Contains:	Contains:	Contains:	Contains:	Contains:	Contains:	Contains:	Contains:
Click here to add a new row								
Department_Unit	Department or Unit	1	N	N	Order	01-19-2018 7:15 PM	Y	
Emancipated	Emancipated minor	1	N	N	Patient	06-30-2017 12:55 PM	N	
FrequentNoShow	Patient often misses appointments. Tell the patient additional charges...	1	N	N	Patient	11-22-2016 10:29 AM	Y	
Isolation	Isolation	1	N	N	Order	11-30-2017 1:06 PM	Y	
LifetimeBan	This patient has been banned from our facilities.	1	Y	Y	Patient	01-03-2018 6:25 PM	Y	
Migrated	Migrated Alert:	1	N	N	Patient	11-29-2017 3:43 PM	Y	
Nervous	Patient is nervous about medical procedures. Be extra reassuring duri...	1	N	N	Patient	07-21-2017 12:05 PM	Y	
ServiceAnimal	Patient will be accompanied by a service animal.	1	N	N	Patient	01-03-2018 6:25 PM	Y	





Clicking the space under the Icon column will open up a window where an administrator can upload a desirable icon to represent the Alert in question.



Clicking Browse will allow the administrator to select an image file from their computer. File types of BMP, JPEG, PNG and GIF can be uploaded. For best results, the selected image should have a size of 16x16 with a transparent background. Many free icons can be found online by searching “16 x 16 icon” using a search engine. Other sizes

may also work—the editor will attempt to create a thumbnail and the administrator can evaluate whether the image can be interpreted at the display size.

A new column labeled **Alerts** has been added to all applicable worklists and will display any Alert icons that may be associated with the current patient or order. Hovering over the icon will display the description for the Alert.

Alerts	Flags	Status	Nuggets	Scheduled Date
		StartsWith: S		
		Signed		11-15-2016 5:4
				04-06-2015 1:4
				04-06-2015 1:4

It is possible to filter a worklist to display only items with specific Alerts by switching the Alerts column filter to Select Values and choosing any desired Alerts. This can then be saved as a Custom View, if desired. It is also possible to use conditional formatting to change font color or background color, etc.

Keep in mind that new Alert Icons will not appear on a worklist until the next refresh, so manually click the refresh button to see them immediately.

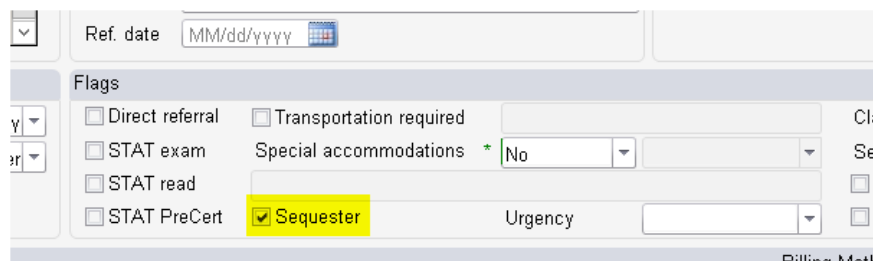
Alert icons are **not** required and administrators can decide which Alerts would benefit from a worklist icon.

FEATURE #16516 – SUPPORT FOR SEQUESTERING RESULTS FOR CLINICAL TRIALS

Many radiology providers provide imaging studies for Clinical Trials. The images and diagnostic reports for these exams are typically for the sole purpose of providing information to the Clinical Trial team. It is usually inappropriate for the reports to be shared with the patient or their doctors (outside of the clinical trial). Any circumstances which would warrant the sharing of information outside of the Clinical Trial team are almost always handled by the clinical trial staff—not the radiology provider.

For this reason, eRAD RIS now has an option to suppress these exam results, and even the existence of the exam, from the CONNECT Portals and Continuity of Care Document (C-CDA). These exams can also be quickly identified in eRAD RIS by a new Flag icon and warnings are provided to any users who print/distribute reports or burn CDs.

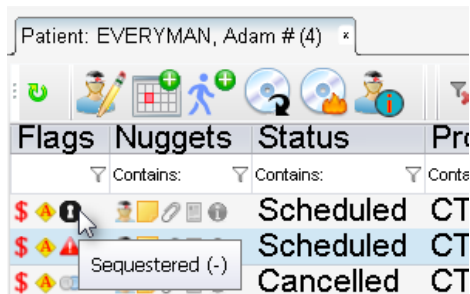
These Clinical Trial studies, and any other study that should be handled in a similar fashion, can be designated by checking a new “Sequester” checkbox on the Order tab.



Any studies that receive this Sequester checkmark will be segregated from the patient’s normal exam information in the CONNECT Portals (Patient Portal, Provider Portal, Utilization Management Portal) and the Continuity of Care document (C-CDA), as well as receiving special handling in other ways.

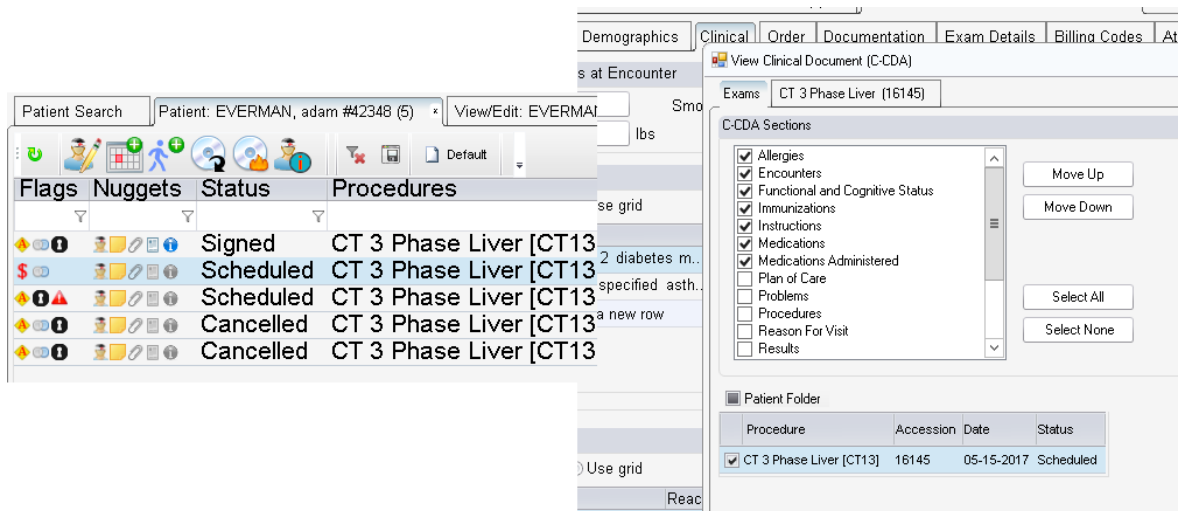
By default, the Sequester checkbox will not be visible to users. Customers electing to use this workflow can grant access by adding the new access strings to User Group permissions. Full access to the access string [Flag.Sequester](#) will make the Sequester checkbox visible. Full access to the access string [Clinical.SetSequesterFlag](#) will allow users to designate an order as Sequestered.

Sequestered studies will display a new Flag icon on worklists and the Patient Folder. The flag is a black “keyhole” image with a tooltip that indicates “Sequestered.”



When an order is marked as Sequestered, all mention of any exams on the sequestered order will be suppressed in all CONNECT portals (Patient, Provider, UM). The exam will not be displayed in the patient's history/search results or any worklists. The portals will behave as if the exam does not exist.

When generating Continuity of Care (C-CDA) documents from the Portals or inside of the RIS, the Sequestered exams will not be displayed. For example, only one exam for the Patient Folder pictured below is **not** sequestered. This will be the only procedure displayed on the C-CDA.



Finally, when a user prints, previews, or distributes reports **or** burns a CD for a sequestered exam, eRAD RIS will display a warning message. For example:

Patient Search Patient: EVERMAN, adam #42348 (5) View/Edit: EVERMAN, adam #42348

Flags Nuggets Status Procedures Scheduled Date Referring MRN Accession # Co

Flags	Nuggets	Status	Procedures	Scheduled Date	Referring	MRN	Accession #	Co
		Signed	CT 3 Phase Liver [CT13]	05-15-2017 4:12 PM	aa, aa test	42348	16127	28
		Display Nugget (Linked to Selection)	se Liver [CT13]	05-15-2017 2:45 PM	aa, aa test	42348	16145	29
		Dictate	se Liver [CT13]	05-10-2017 8:00 AM	aa, aa test	42348	16098	27
		View Study	se Liver [CT13]	05-09-2017 1:30 PM	aa, aa test	42348	16097	27
		Schedule From	se Liver [CT13]	05-09-2017 1:00 PM	aa, aa test	42348	16096	27
		IVT						
		Edit Patient						
		Patient Merge						
		View/Edit						
		Print Forms						
		Attachments						
		Image Request						
		Burn CD						
		Update Relevance						
		RADAR Quick Message						
		View Images						
		Report	Preview Report					
		Report History	Print Report					
		Send Report	Send Report					

eRAD RIS

Please be aware that this exam is sequestered. Distribute report with caution.

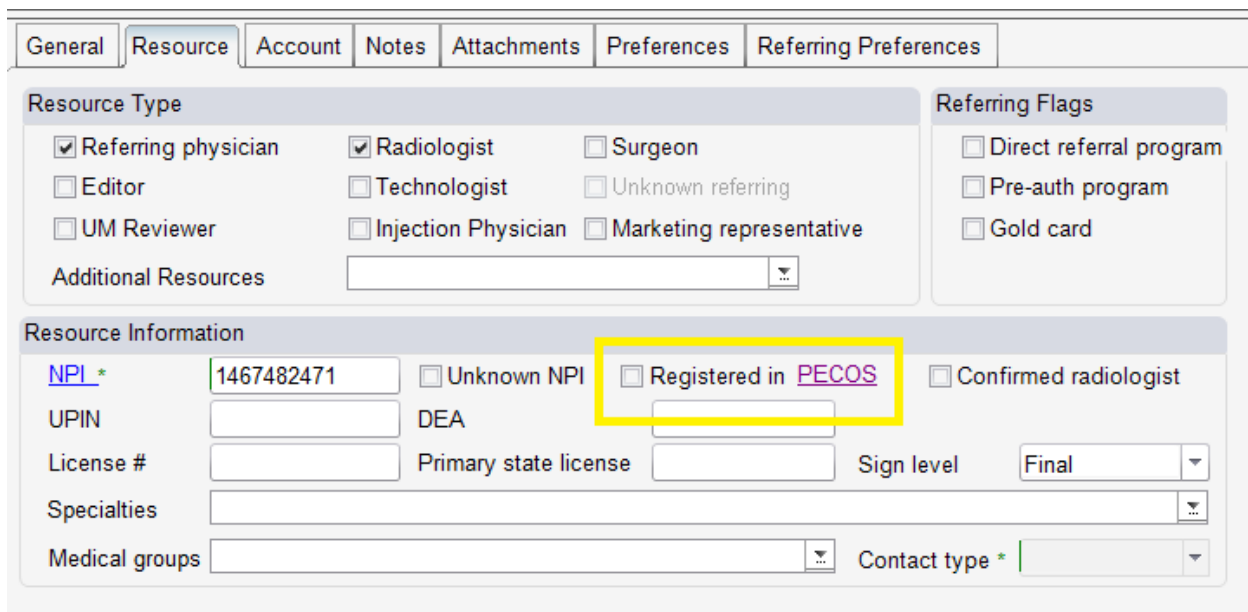
OK

Users are able to continue the requested workflow, so that reports/CDs can be distributed when there is a valid reason to do so (distribution to a member of the Clinical Trial team or other valid reasons). However, the chance that the user might accidentally distribute the information inappropriately will be reduced by calling their attention to the fact that the exam is sequestered.

FEATURE #11006 – PECOS HYPERLINK IN PERSONNEL EDITOR

For United States customers billing Medicare, referring physicians must be registered in Medicare’s Provider Enrollment Chain and Ownership System (PECOS) to prevent claims from being denied. When adding physicians to the Personnel editor, there has historically been a checkbox to indicate that the physician is registered in PECOS. Customers have expressed a desire for a hyperlink to the PECOS website, similar to the hyperlink for the NPI field. This would make it easier to check the PECOS website to verify whether the referring physician is registered.

There is now a hyperlink for the PECOS website on the Resource tab of the Personnel editor:



The screenshot shows the 'Resource' tab of the Personnel Editor. The 'Resource Type' section includes checkboxes for 'Referring physician' (checked), 'Editor', 'UM Reviewer', 'Radiologist' (checked), 'Technologist', 'Injection Physician', 'Surgeon', 'Unknown referring', and 'Marketing representative'. The 'Referring Flags' section includes checkboxes for 'Direct referral program', 'Pre-auth program', and 'Gold card'. The 'Resource Information' section includes fields for 'NPI *' (1467482471), 'UPIN', 'License #', 'Specialties', 'Medical groups', 'DEA', 'Primary state license', 'Sign level' (Final), and 'Contact type *'. A yellow box highlights the 'Registered in PECOS' checkbox and the underlined 'PECOS' text, which is a hyperlink.

Clicking the underlined word PECOS will open a small window with the PECOS website. The web address can be updated in the System Configuration table if needed.

System Config Code	Value	Default	Description
Contains: pecos_	Contains:	Contains:	Contains:
PECOS_URL	https://data.cms.gov/Medicare-Enrollm...	https://data.cms.gov/Medicare-Enrollme...	(value = string) URL to PECOS website including placeholder for {NPI}

As with the hyperlink for NPI, the PECOS checkbox and hyperlink are disabled unless the Referring Physician or Radiologist Resource Type is selected. Once it is activated by selecting the applicable Resource Type, clicking the hyperlink will open a small browser with the search bar prepopulated with the information entered in the Personnel editor, including the name and NPI number. Focus will be set to the website’s search bar, so the user can simply press enter to trigger the search.



The screenshot shows the Data.CMS.gov website interface. At the top, there is a search bar containing the text "Aab Barry 1467482471". A red arrow points to the search bar. Below the search bar, there is a table with columns for NPI, LAST NAME, and FIRST NAME. The table contains several rows of data, including NPI 1467482471 with LAST NAME AAB and FIRST NAME BARRY. A blue box with a white border contains the text: "Upon clicking enter, a list of matches will appear below."

	NPI	LAST NAME	FIRST NAME
1	1467482471	AAB	BARRY
2	1467482471	AAB	BARRY
3	1467482471	AAB	BARRY
4	1467482471	AAB	BARRY
5	1467482471	AAB	BARRY
6	1467482471	AAB	BARRY
7	1467482471	AAB	BARRY
8	1467482471	AAB	BARRY
9	1467482471	AAB	BARRY
10	1467482471	AAB	BARRY
11	1467482471	AAB	BARRY
12	1467482471	AAB	BARRY

FEATURE #16774 – RESTRICT BILATERAL OPTION ON CERTAIN PROCEDURES

This feature is designed to address a common issue with imaging on paired body parts (often extremity imaging). Laterality must be chosen for these exams so that it is clear which side is to be imaged: right or left. The problem was that when laterality is chosen, all laterality options configured in the system were available, including bilateral. Many procedures require special handling to ensure appropriate billing for a bilateral exam. In these cases, there are often separate procedures created for unilateral and bilateral options, so that the appropriate billing codes and modifiers can be associated to the procedure codes. If a bilateral laterality is chosen (and subsequently performed) for one of these exams that was configured for unilateral billing, the appropriate billing is not applied and the customer does not get paid for the second side.

To solve this issue, eRAD RIS now allows a RIS Administrator to indicate whether a Procedure Code should allow a bilateral laterality.

A new column has been added to the Procedure Code look-up table: **Allow Bilateral Flag**. The default setting is Y (for Yes) which will allow bilateral to be selected. Any existing procedure codes will automatically be set as Y at the time of upgrade to maintain existing behavior.

Procedure C...	Description	Allow Bilateral Flag
Contains:	Contains: wrist	Contains:
Click here to add a new row		
73100	XR Wrist 2 Views	N
73110	XR WRIST MIN 3 VIEWS	N
73115	FL Arthrogram Wrist Fluoro	N
AMCTWRIST...	AMCT WRIST ARTHROGRAPHY	N
AMCTWRISTW	AMCT WRIST W CONTRAST	N
AMCTWRIST...	AMCT WRIST W CONTRAST - L...	N

Because customers may use various Laterality codes, RIS also needs to allow a RIS administrator to indicate which Laterality Codes are bilateral. A new column has been added to the Laterality look-up table for this purpose: **Bilateral Flag**. Customers should set this to Y for any bilateral laterality.

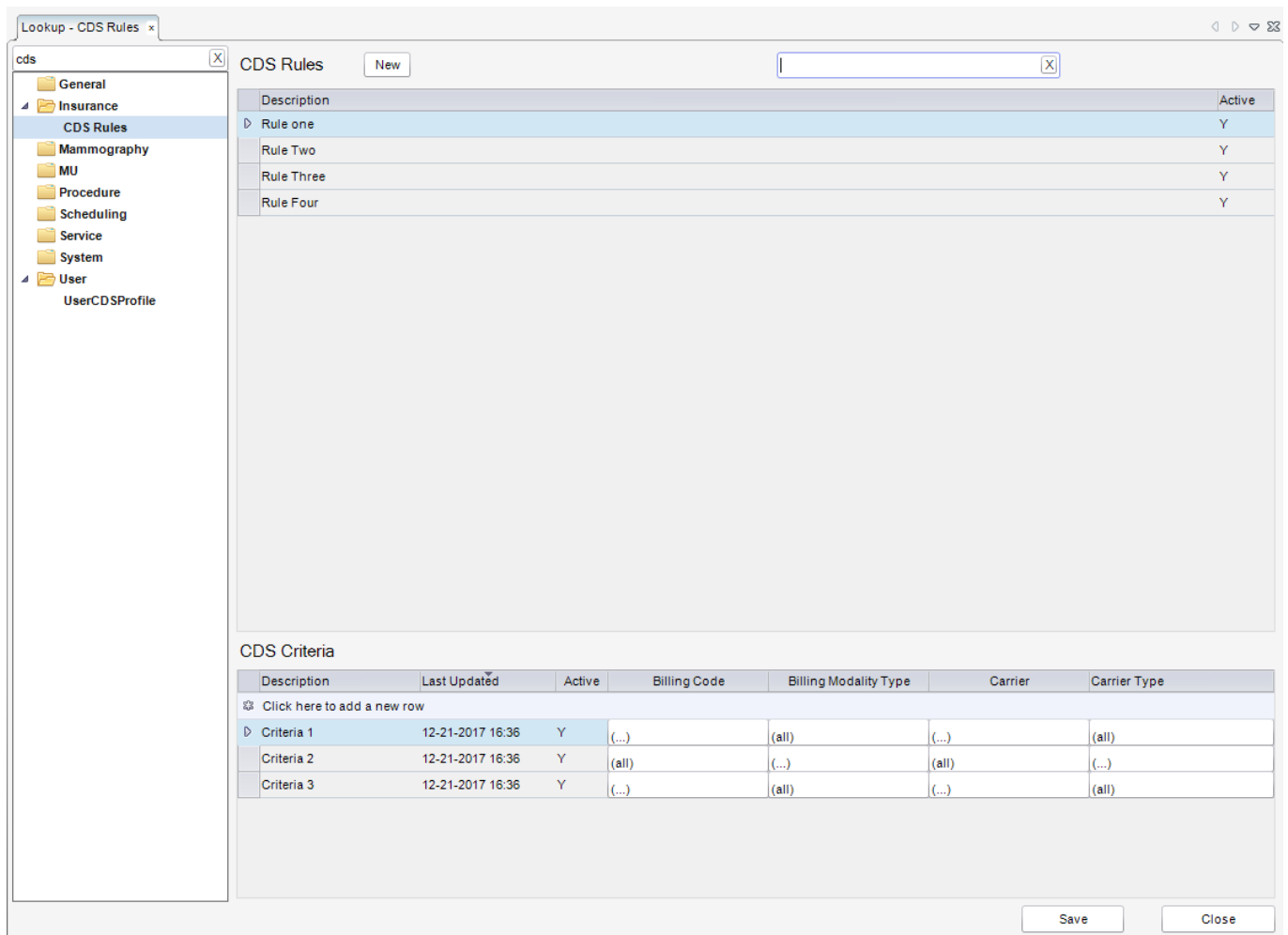
Laterality Code	Display Order	Description	Bilateral Flag	HI7v3 Value Set Oid
Contains:	Equals:	Contains:	Contains:	Contains:
Click here to add a new row				
Bilateral	3	bilateral	Y	
Left	1	left	Y	
Right	2	right	N	

Then, the Procedure Code table can be reviewed for any procedures that should not allow bilateral laterality to be selected. The desired procedures should then be set to Allow Bilateral Flag = N to prevent users from selecting an inappropriate laterality.

FEATURE #17133 – ABILITY TO CREATE RULES TO REQUIRE CLINICAL DECISION SUPPORT

As eRAD RIS moves forward with Clinical Decision Support capabilities, it was necessary to create a mechanism to indicate when Clinical Decision Support (CDS) is required. An administrator needs the ability to configure CDS Rules based on the following criteria: Billing Codes, Billing Modality Type, Carrier, Carrier Type.

To do so, a new look-up editor, **CDS Rules**, has been added to the Configuration tables. The editor for CDS functions in the same fashion as the existing PreCert Groups editor.



The screenshot shows the 'Lookup - CDS Rules' editor. On the left is a tree view with folders: General, Insurance, CDS Rules (selected), Mammography, MU, Procedure, Scheduling, Service, System, User, and UserCDSPProfile. The main area is titled 'CDS Rules' and contains a table with the following data:

Description	Active
Rule one	Y
Rule Two	Y
Rule Three	Y
Rule Four	Y

Below the table is a section for 'CDS Criteria' with a table containing the following data:

Description	Last Updated	Active	Billing Code	Billing Modality Type	Carrier	Carrier Type
Criteria 1	12-21-2017 16:36	Y	(...)	(all)	(...)	(all)
Criteria 2	12-21-2017 16:36	Y	(all)	(...)	(all)	(...)
Criteria 3	12-21-2017 16:36	Y	(...)	(all)	(...)	(all)

At the bottom right are 'Save' and 'Close' buttons.

Access to the CDS Rules editor is controlled by a new access string: **Config.LookupEditor.CDSRules** (default = NONE).

An administrator can create CDS rules by clicking the “New” button at the top left of the editor. First, enter a description for the rule, such as “Medicare Configuration” and click OK.

CDS Rules
New
Description, Carrier Code, Carrier Type Code X

Description	Active
Rule one	Y
Rule Two	Y
Rule Three	Y
Rule Four	Y
▷ Medicare Configuration	Y

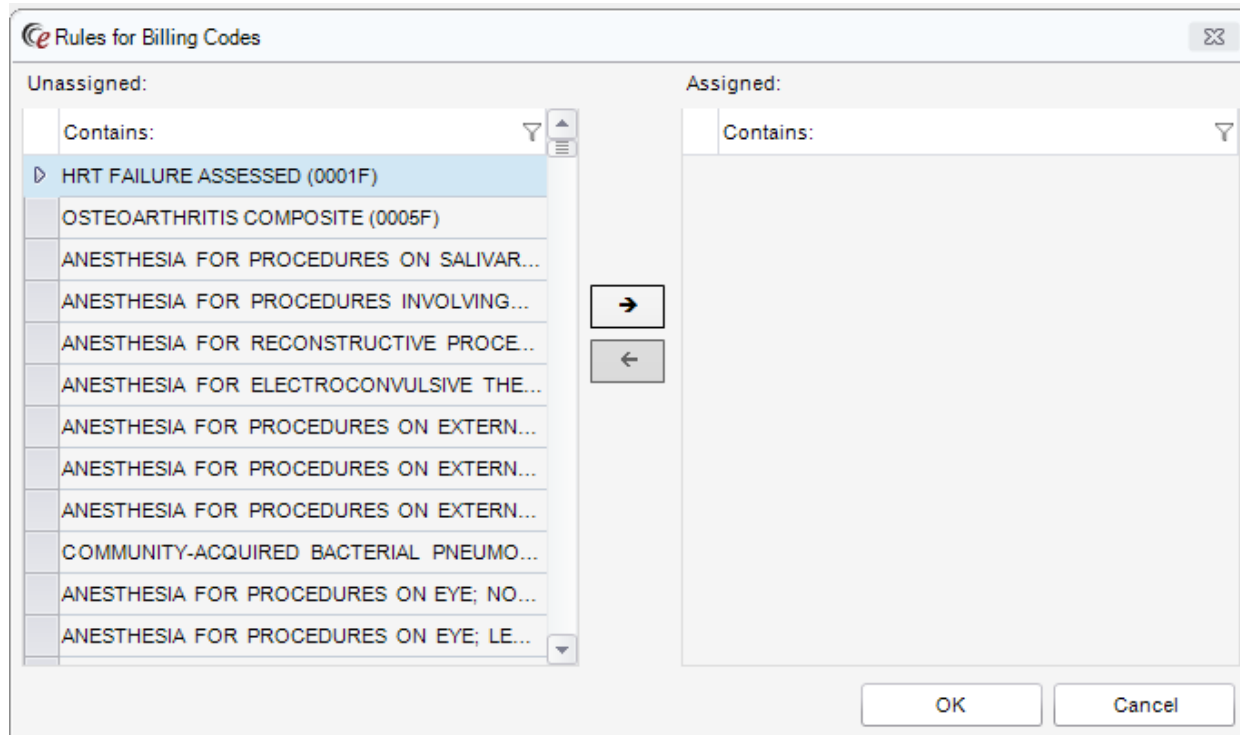
CDS Criteria

Description	Last Updated	Active	Billing Code	Billing Modality Type	Carrier	Carrier Type
▷						

Save
Close

The rule will be added to the section at the top and the CDS Criteria section will be available to define the criteria for this rule to apply. A CDS criteria ruleset requires a description, a billing component (either Billing Code or Billing Modality Type but not both), and an insurance carrier component (either Carrier or Carrier Type but not both).

Each of the criteria has a button that launches a dialog that allows the administrator to choose one or more options:



The button for launching the dialogs will either display “(all)” or will show “(...)” which signifies that this option has been configured with a subset of items. It is preferable leave all options as “Unassigned” if the intent is to match to **any** possible option.

The administrator is free to use a single CDS Rule with multiple criteria rulesets (i.e. rows at the bottom of the screen), or multiple CDS Rules, generally with one criteria ruleset each. With PreCert Groups, some administrators have elected to create many groups named after the Carriers or Carrier Types that they describe, while others have opted to have a single group and then create multiple rule sets (e.g. one per billing modality type).

RULESET EVALUATION

For a rule to be considered a match, one or more ruleset row must match on all criteria. That is, the different criteria for a single row must match on the Billing Code/Billing Modality Type component and match on the Carrier/Carrier Type component.

If RIS or a Connect Portal need to determine whether CDS is required, the criteria will be evaluated and if any of the individual rows match, then CDS will be deemed to be required.

The Connect portal, or any other entity calling for the information of whether CDS is required, can pass a single Carrier and one or more Billing Codes. There is no support for querying on Carrier Types or Billing Modality types directly; these are inferred from the specified Carrier and Billing Codes.

The filtering logic does not consider whether a carrier is the primary or secondary carrier. It is left up to the caller to determine if secondary carriers are relevant.

VALIDATION OF CDS RULES

Validation is enforced on the CDS Rules to ensure that:

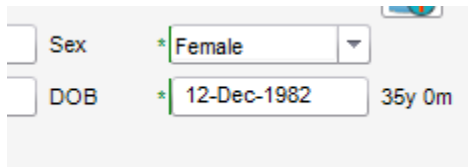
- a ruleset (i.e. a single row on the bottom portion of the editor) includes a billing component and a Carrier/Carrier Type component.
- a ruleset does not include Billing Codes AND Billing Modality Types *or* Carriers AND Carrier Types.
- each ruleset has a description.
- if there are multiple CDS rules (entries at the top portion of the editor), then a single Carrier does not appear in the assigned Carrier list of more than one rule.

Before saving or allowing the user to switch from one CDS Rule to another (i.e. switching rows at the top portion of the editor), the current CDS rule is validated and any errors will be displayed to the user.

FEATURE #17786 – SUPPORT THREE ALPHA-CHARACTER MONTH IN DATE FORMAT (DD-MMM-YYYY)

In some areas of the world, there can be inconsistency in whether dates are written as dd-mm-yyyy or mm-dd-yyyy. Because this can lead to data discrepancies, some customers require the ability to configure their system to use a date format of dd-MMM-yyyy, where MMM is the 3 letter alpha representation of the month (e.g. 12-AUG-1954 or 01-JUN-2017).

Previously, the Date Format configuration in eRAD RIS did not support alpha characters. This is now possible. All dates, including fields and worklist data, will display the date with the alpha-character month if configured to do so.



The screenshot shows a portion of a patient form. The 'Sex' field is a dropdown menu with 'Female' selected. The 'DOB' field is a date picker showing '12-Dec-1982'. To the right of the DOB field, the text '35y 0m' is displayed, indicating the patient's age.

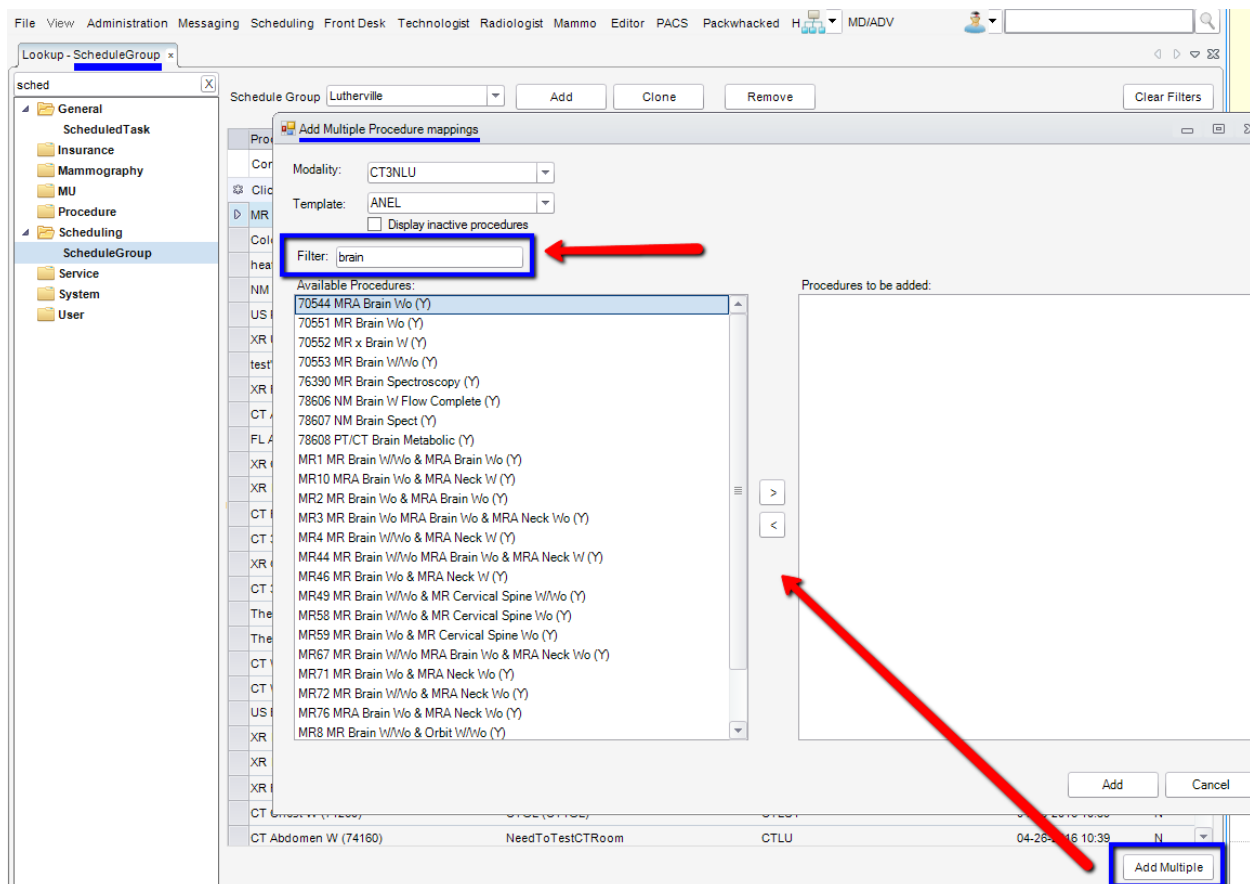
To use this date format, change the **DateFormat** System Configuration setting to any of the following options:

- dd-MMM-yyyy
- dd/MMM/yyyy
- ddMMMyyyy
- dd MMM yyyy

It is recommended that a log out take place after making a change to DateFormat.

FEATURE #7006 – FILTERING NOW AVAILABLE WHEN ADDING MULTIPLE PROCEDURES TO THE SCHEDULE GROUP TABLE

When using the **Add Multiple** button in the Schedule Group look-up table, it is helpful to be able to filter the procedure list to easily find the procedures that need to be added. There is now a **Filter** field on the Add Multiple Procedure Mappings screen. Typing in this field will act as a “Contains” search and will narrow down the list of Available Procedures to those that contain the text in the Filter field.



VALIDATION RULES

FEATURE #16594 – VALIDATION RULES FOR RADIOLOGIST AND EDITOR SCREENS

Because the Radiologist and Editor screens were designed differently from many other screens in RIS, they needed special handling for validation rules. These screens have been enhanced to use custom validation prior to saving, including “save, next” type workflow.

Like other screens in RIS, validation is tightly coupled to controls that allow the user to edit data. On the Scheduling screen for example, a validation rule could be tied to the patient’s middle name and the user would have the ability to fix the data if validation failed. On the radiologist and editor type screens, there is a lot of data that is read only (e.g. Patient Name) and RIS will not validate them directly. These screens have been updated to validate the **editable** data (e.g. the report, BI-RADS, Recommendations, Findings, Assign To, etc.).

Although only the editable controls are being validated, conditions can still be attached to other data relating to the study, such as gender, patient age and laterality.

As with other screens, the save buttons set an “intended UI action” that can be used to ensure that a rule is only enforced when Dictating or Signing an exam, as opposed to validating prior to any study update. A validation rule currently allows a maximum of one intended UI action. If a rule is built referencing ReportSigned, it will need a twin rule that references Tentatively Signed, if that status is also desired.

When configuring validation rules, the field **interpretation_text** can be used to reference the contents of the report. Special handling was put in place to ensure that RIS processes the plain report text instead of the true interpretation text, which could include picklists that contain options that were not selected by the radiologist and therefore will not appear in the report (e.g. A picklist containing a list of BI-RADS, only one of which was selected, should not be considered during the validation process—only the selection that will be included in the final report should be used.).

Validation rules in a PowerScribe 360 reporting environment is not fully supported at this time. The report contents and actions taking place in the third-party environment cannot be evaluated by the validation framework. In an environment that has *some* users using PowerScribe 360, conditions may be required that indicate that the **interpretation_type_code** is not “PowerScribe360” (i.e. a condition that is a DomainValidator with a domain of “PowerScribe360” that ignores nulls and is set to Negated).

As with other validation rules, rules created for the reporting screens can be either prevent saving or simply provide a warning to the user.

FEATURE #16341 – EASILY DIFFERENTIATE BETWEEN SYSTEM ADDED AND CUSTOMER ADDED VALIDATION RULES

Validation rules are sometimes included in some of the upgrade scripts, so that they are available after an upgrade should the customer wish to use them. In order to differentiate between validation rules that are added as part of the core RIS system and those that are custom for the individual customer, a naming convention has been established for validation rules that are automatically added during an upgrade.

Validation rules that are included in as part of a RIS upgrade will be prefixed with **@Core_**.

```

@Core_BillingCodesRequired (c_study_item.(ComputedExpression))
@Core_BypassCCExpiry (c_payment.credit_card_expiry)
@Core_BypassCCName (c_payment.cardholder_name)
@Core_BypassCCNum (c_payment.credit_card_number)
@Core_BypassCCType (c_payment.credit_card_type_code)
@Core_BypassTNotes (c_study.tech_notes)
@Core_ContrastDose (c_study_item_contrast.ExceedsMaxDoseFlag)
▶ @Core_ContrastRequired (c_study_item_contrast.contrast_code)
▶ @Core_CTDosage (c_study_item.ct_dose_amount)
Default Value - @Core_DefaultTech (c_study.performed_by_user_id)
▶ @Core_HasInsurance (c_visit_x_patient_insurance.(ComputedExpression))
▶ @Core_MinorRespParty (c_patient_contact.patient_relation_code)
▶ @Core_OutstandingBal (c_patient.first_name)
@Core_QETestIssuer (c_patient_key_data.(ComputedExpression))
▶ @Core_ReasonForExam (c_order.indication)
@Core_SpecialAccommodation (c_visit.special_accommodations_flag)
@Core_TechVerifiedID (c_study.tech_verified_id_flag)
@Core_VerifiedID (c_study.(ComputedExpression))
@Core_VisitedAt (c_order.requested_by_address_key)
@Core_WorksheetExists (c_vw_scan_document_list.(ComputedExpression))
TestMiddleNameTestMiddleName (c_patient.middle_name)
  
```

Validation rules that are prefixed with “@Core_” will be read only, with the exception of the message template and the active flag properties. This will allow the Core validation rules to be turned on or off for specific customers, as well as control the message to the user.

Data Mapping	
DataSetName	Study
DataTableName	c_study_item
FieldName	(ComputedExpression)
General	
ActiveFlag	True
AlertType	PreventSave
IgnoreNulls	True
MessageTemplate	Billing codes are required
Name	@Core_BillingCodesRequired
Negated	False
PracticeCode	
ValidatorType	RangeValidator
Misc Parameters	
DefaultValue	
DomainMembers	
RegexPattern	
Range Parameters	
LowerBound	1
LowerBoundUnit	None
UpperBound	1000
UpperBoundUnit	None
Status Filters	
IntendedUIAction	UI_PatientArrived
OnOrAfterStatus	
Table Expressions	
Expression	min(ActiveBillingCodeCount)
ExpressionFilter	active_flag = "Y"

An error message will be displayed if any manual rules are created with the @Core prefix.

A migration script was created to rename the existing system rules to "@Core_" rules.

The name property was modified to accept up to 50 characters instead of 20.

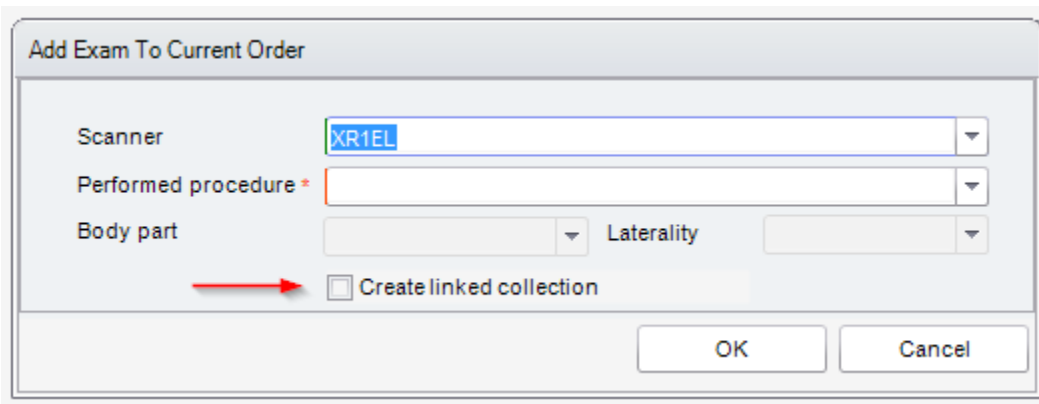
TECHNOLOGIST

FEATURE #17803 – ADD OPTION TO LINK REPORTS WHEN ADDING EXAMS VIA PERFORM EXAM SCREEN

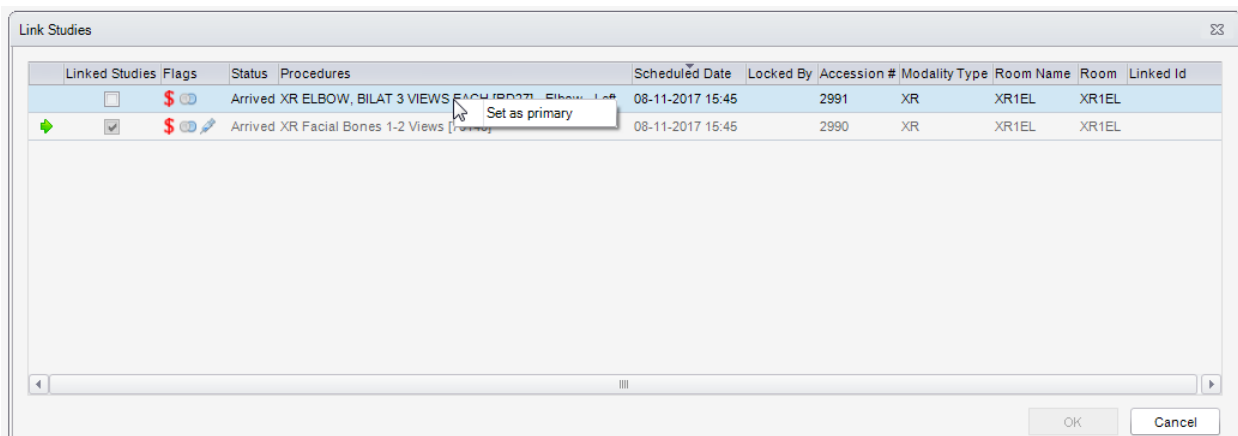
Previously, a feature was created that would allow a technologist to add a new procedure from the Perform Exam screen. If the original exam was part of a Linked Report, the technologist had an option to include the new exam as part of the linked set. However, there are occasions where the new exam might necessitate a NEW linked report scenario.

For example, a patient is scheduled for a Mammogram only, but the radiologist determines that a Breast Ultrasound is needed at the time of the Mammogram. If the customer uses linked reporting for Mammography and Breast Ultrasound, the two exams must be linked in order to report properly. Changes have been made to the feature to allow the technologist to create a new linked set.

If the originating exam was NOT part of a linked set, there will now be a checkbox for "Create Linked Collection."



If this is checked, the existing Linked Studies pop-up window will open once the Add Exam to Current Order window has been saved.



Linked Studies	Flags	Status	Procedures	Scheduled Date	Locked By	Accession #	Modality Type	Room Name	Room	Linked Id
<input type="checkbox"/>	\$	Arrived	XR ELBOW, BILAT 3 VIEWS	08-11-2017 15:45		2991	XR	XR1EL	XR1EL	
<input checked="" type="checkbox"/>	\$	Arrived	XR Facial Bones 1-2 Views	08-11-2017 15:45		2990	XR	XR1EL	XR1EL	

The user will then be able to select any exams on the order to include in the linked set and can choose the primary study. By default, the original study will be primary, but the user can right click another study and “Set as Primary.” The primary study will be indicated with a green arrow.

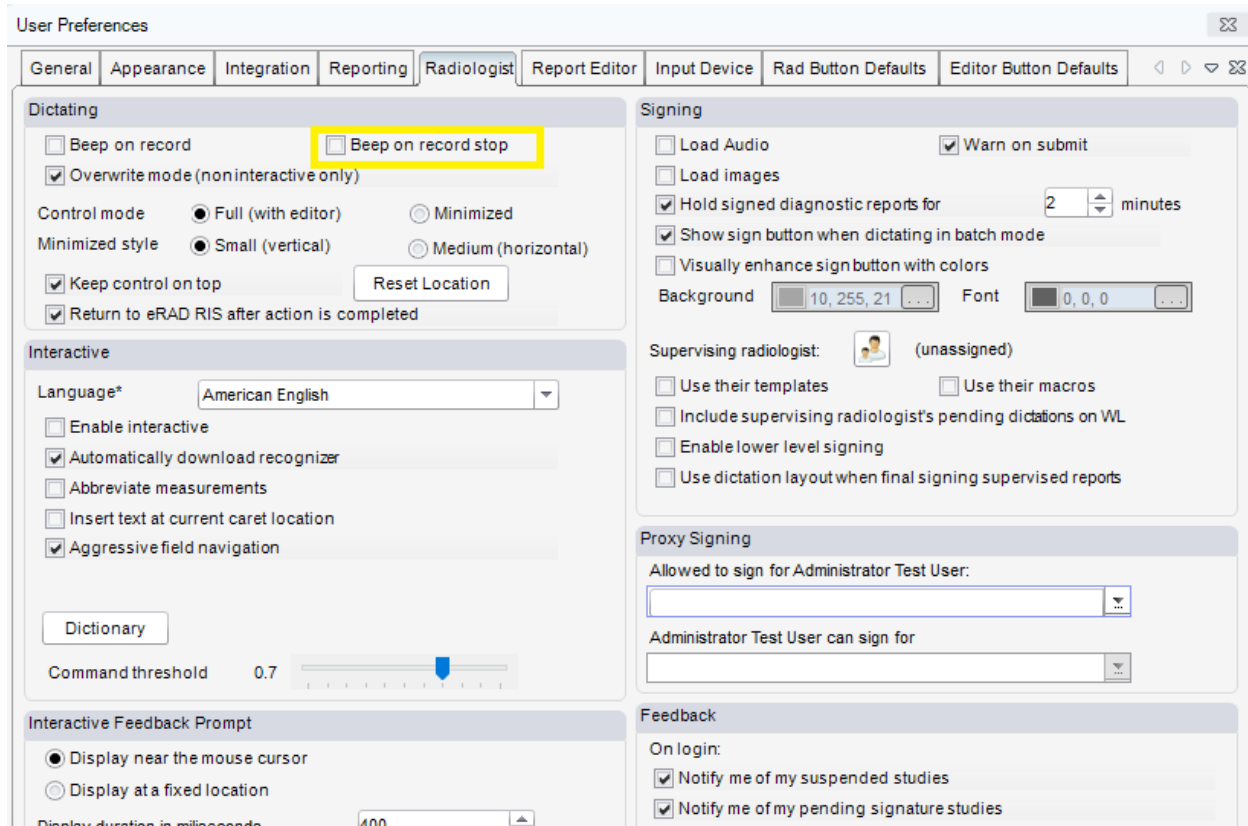
To take advantage of this feature, the user must belong to a User Group with FULL permission to the existing access string [Clinical.Tech.AllowAddExam](#).

RADIOLOGIST

FEATURE #3805 USER PREFERENCE FOR AUDIO SIGNAL WHEN M*MODAL RECORDING HAS STOPPED

When using M*Modal dictation, there is an existing user preference for **Beep on record** which will play a “beep” noise when dictation recording is initiated. Radiologists have indicated that it would also be helpful to hear an audio confirmation when the dictation recording has stopped.

There is now a new option on the User Preference screen’s Radiologist tab for **Beep on record stop**.



The screenshot shows the 'User Preferences' window with the 'Radiologist' tab selected. The 'Dictating' section contains the following options:

- ☐ Beep on record
- ☒ Beep on record stop (highlighted with a yellow box)
- ☒ Overwrite mode (noninteractive only)
- Control mode: ☒ Full (with editor), ☐ Minimized
- Minimized style: ☒ Small (vertical), ☐ Medium (horizontal)
- ☒ Keep control on top
- ☒ Return to eRAD RIS after action is completed
- Reset Location button

The 'Interactive' section contains the following options:

- Language*: American English (dropdown)
- ☐ Enable interactive
- ☒ Automatically download recognizer
- ☐ Abbreviate measurements
- ☐ Insert text at current caret location
- ☒ Aggressive field navigation
- Dictionary button
- Command threshold: 0.7 (slider)

The 'Interactive Feedback Prompt' section contains the following options:

- ☒ Display near the mouse cursor
- ☐ Display at a fixed location
- Display duration in milliseconds: 400 (slider)

The 'Signing' section contains the following options:

- ☐ Load Audio
- ☐ Load images
- ☒ Hold signed diagnostic reports for 2 minutes
- ☒ Show sign button when dictating in batch mode
- ☐ Visually enhance sign button with colors
- Background: 10, 255, 21 (color picker)
- Font: 0, 0, 0 (font picker)
- Supervising radiologist: (unassigned) (dropdown)
- ☐ Use their templates
- ☐ Use their macros
- ☐ Include supervising radiologist's pending dictations on WL
- ☐ Enable lower level signing
- ☐ Use dictation layout when final signing supervised reports

The 'Proxy Signing' section contains the following options:

- Allowed to sign for Administrator Test User: (dropdown)
- Administrator Test User can sign for: (dropdown)

The 'Feedback' section contains the following options:

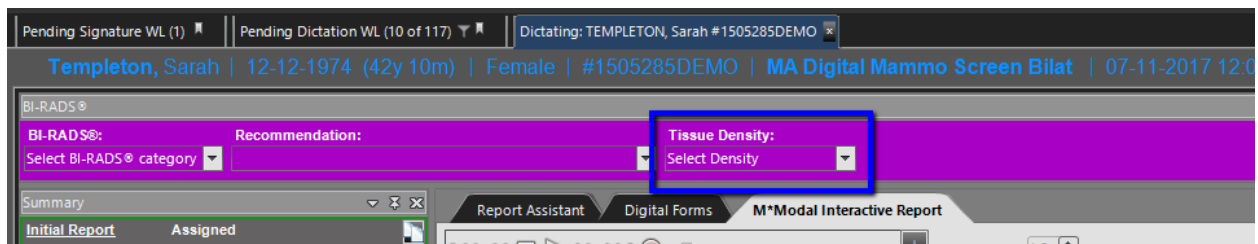
- On login: ☒ Notify me of my suspended studies, ☒ Notify me of my pending signature studies

After enabling the beep on record stop checkbox, the radiologist will hear a beep noise after clicking anything that stops the recording. The beep sound for record **stop** is a lower frequency, so radiologists can tell the difference between the two beeps. When both beep preferences are enabled, it will be easier for radiologists to know when they have started or stopped recording their dictation. This will prevent accidental occasions where radiologists dictate without M*Modal capturing the dictation.

FEATURE #17245 – OPTION TO DISABLE BREAST TISSUE DENSITY DEFAULT

When Mammo Tracking in eRAD RIS was first developed, there was a desire to default the breast tissue density from the patient's prior exam. Though a patient's tissue density may change over time, it is likely to be the same for exams done at short intervals. Even if the radiologist does need to update the density category, defaulting the density from the patient's prior exam is an easy way for the radiologist to see what the most recent tissue density was previously.

However, some customers would prefer to present the radiologist with a blank Tissue Density selection to force the radiologist to select the tissue density each time. This may be desired if there is a concern that the radiologist could neglect to update the tissue density because it is already filled in.



The screenshot shows the eRAD RIS interface for a patient named Templeton, Sarah. The BI-RADS form is displayed, and the 'Tissue Density' dropdown menu is highlighted with a red box. The dropdown menu shows 'Select Density' as the current selection. The interface also includes a 'Summary' tab and a 'Report Assistant' section.

To accommodate this option, eRAD RIS now has a System Configuration setting labeled **DefaultPriorBreastDensity**. The setting will determine whether the patient's most recent breast tissue density is prepopulated when dictating a new breast study.

The default is TRUE, in order to maintain the existing behavior. To prevent the prior density from being populated, change the setting to FALSE.

Note: This setting does not change the behavior for Addendums. Addendums will continue to display the density that was entered for the original report (or most recent addendum).

FEATURE #17544 – CHAIR API INCLUDES SCHEDULED START DATE AND SORTS THE RESULTS BY SCHEDULED START DATE

For customers using Chair workflow, issues can occur when the work backlog becomes too large. To alleviate these issues, the Chair API has been enhanced to include the Scheduled Start Date and return the oldest exams first. This will allow the workflow engine to utilize this information to ensure that the oldest cases are assigned out first.

Additionally, a change has been made to the original Chair API design, which limited query results by chair and status to exams that were scheduled within the past 7 days. Because this is undesirable when there is a large backlog of studies to be read, an optional parameter, [IncludeAllDates](#), was added to bypass the 7 day filter on Scheduled Start Date. This parameter will default to false if not specified and the original behavior will be maintained.

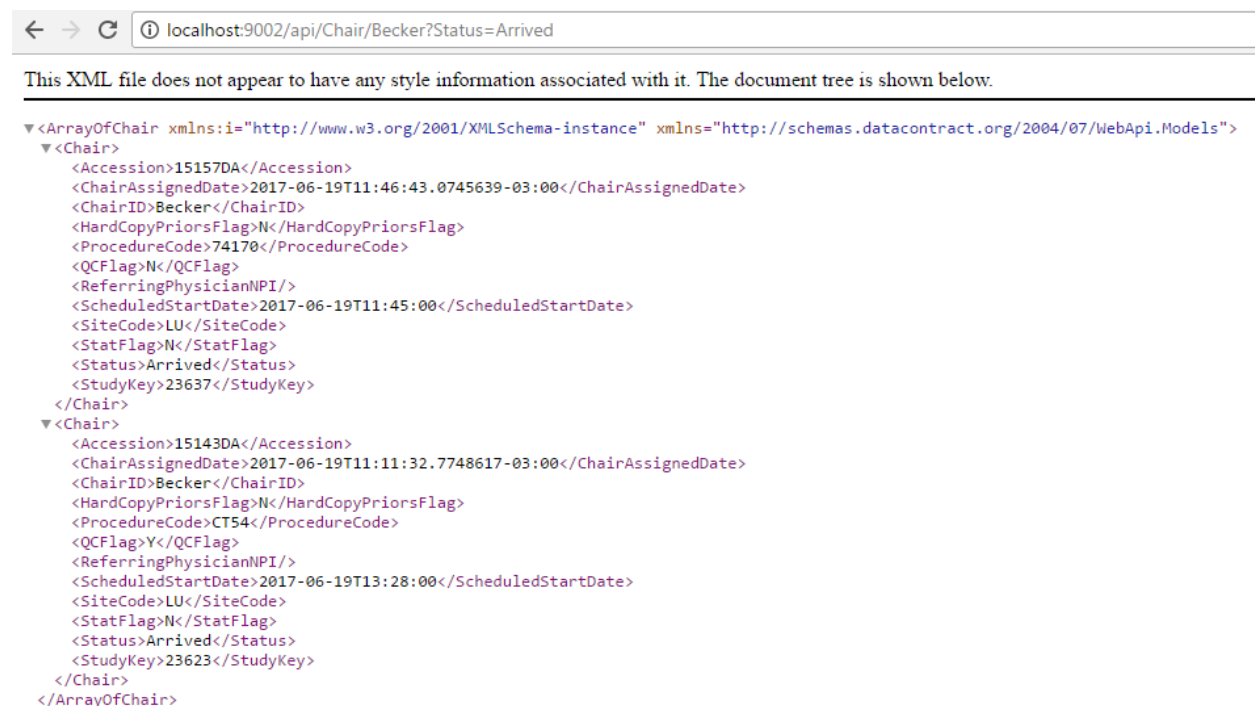


Figure 1 – Get Exam list by chair and status

← → ↻ ⓘ localhost:9002/api/Chair/Becker?Status=Arrived&ReturnAllDates=true

This XML file does not appear to have any style information associated with it. The document tree is shown below.

```

▼ <ArrayOfChair xmlns:i="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://schemas.datacontract.org/2004/07/WebApi.Models">
  ▼ <Chair>
    <Accession>15149DA</Accession>
    <ChairAssignedDate>2017-06-20T16:17:02.9579357-03:00</ChairAssignedDate>
    <ChairID>Becker</ChairID>
    <HardCopyPriorsFlag>N</HardCopyPriorsFlag>
    <ProcedureCode>72126</ProcedureCode>
    <QCFlag>N</QCFlag>
    <ReferringPhysicianNPI/>
    <ScheduledStartDate>2017-06-01T16:19:00</ScheduledStartDate>
    <SiteCode>LU</SiteCode>
    <StatFlag>N</StatFlag>
    <Status>Arrived</Status>
    <StudyKey>23629</StudyKey>
  </Chair>
  ▼ <Chair>
    <Accession>15157DA</Accession>
    <ChairAssignedDate>2017-06-19T11:46:43.0745639-03:00</ChairAssignedDate>
    <ChairID>Becker</ChairID>
    <HardCopyPriorsFlag>N</HardCopyPriorsFlag>
    <ProcedureCode>74170</ProcedureCode>
    <QCFlag>N</QCFlag>
    <ReferringPhysicianNPI/>
    <ScheduledStartDate>2017-06-19T11:45:00</ScheduledStartDate>
    <SiteCode>LU</SiteCode>
    <StatFlag>N</StatFlag>
    <Status>Arrived</Status>
    <StudyKey>23637</StudyKey>
  </Chair>
</ArrayOfChair>

```

Figure 2a – Get Exam list by chair and status with ReturnAllDates = true to **include** older studies

← → ↻ ⓘ localhost:9002/api/Chair/Becker?Status=Arrived&ReturnAllDates=false

This XML file does not appear to have any style information associated with it. The document tree is shown below.

```

▼ <ArrayOfChair xmlns:i="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://schemas.datacontract.org/2004/07/WebApi.Models">
  ▼ <Chair>
    <Accession>15157DA</Accession>
    <ChairAssignedDate>2017-06-19T11:46:43.0745639-03:00</ChairAssignedDate>
    <ChairID>Becker</ChairID>
    <HardCopyPriorsFlag>N</HardCopyPriorsFlag>
    <ProcedureCode>74170</ProcedureCode>
    <QCFlag>N</QCFlag>
    <ReferringPhysicianNPI/>
    <ScheduledStartDate>2017-06-19T11:45:00</ScheduledStartDate>
    <SiteCode>LU</SiteCode>
    <StatFlag>N</StatFlag>
    <Status>Arrived</Status>
    <StudyKey>23637</StudyKey>
  </Chair>
</ArrayOfChair>

```

Figure 2b – Get Exam list by chair and status with ReturnAllDates = false to **exclude** older studies (compare to Figure 2a)

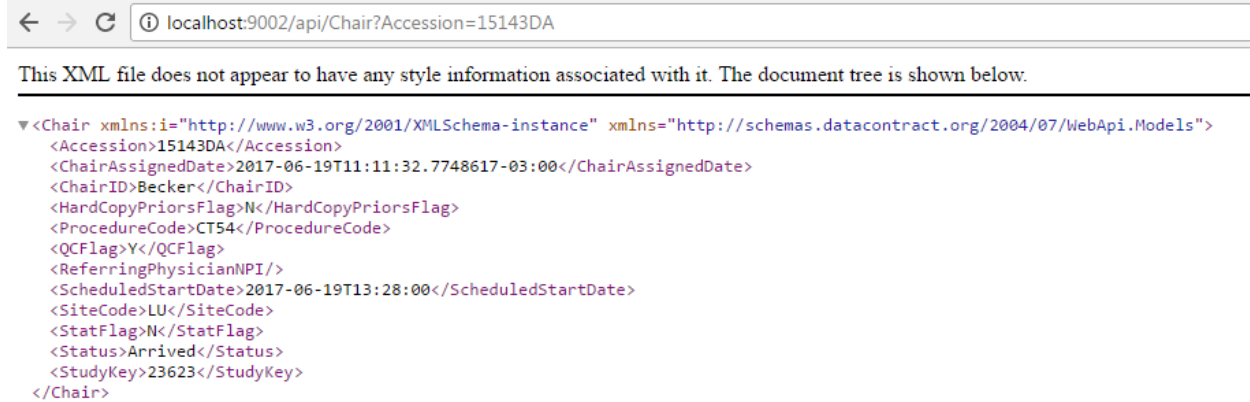
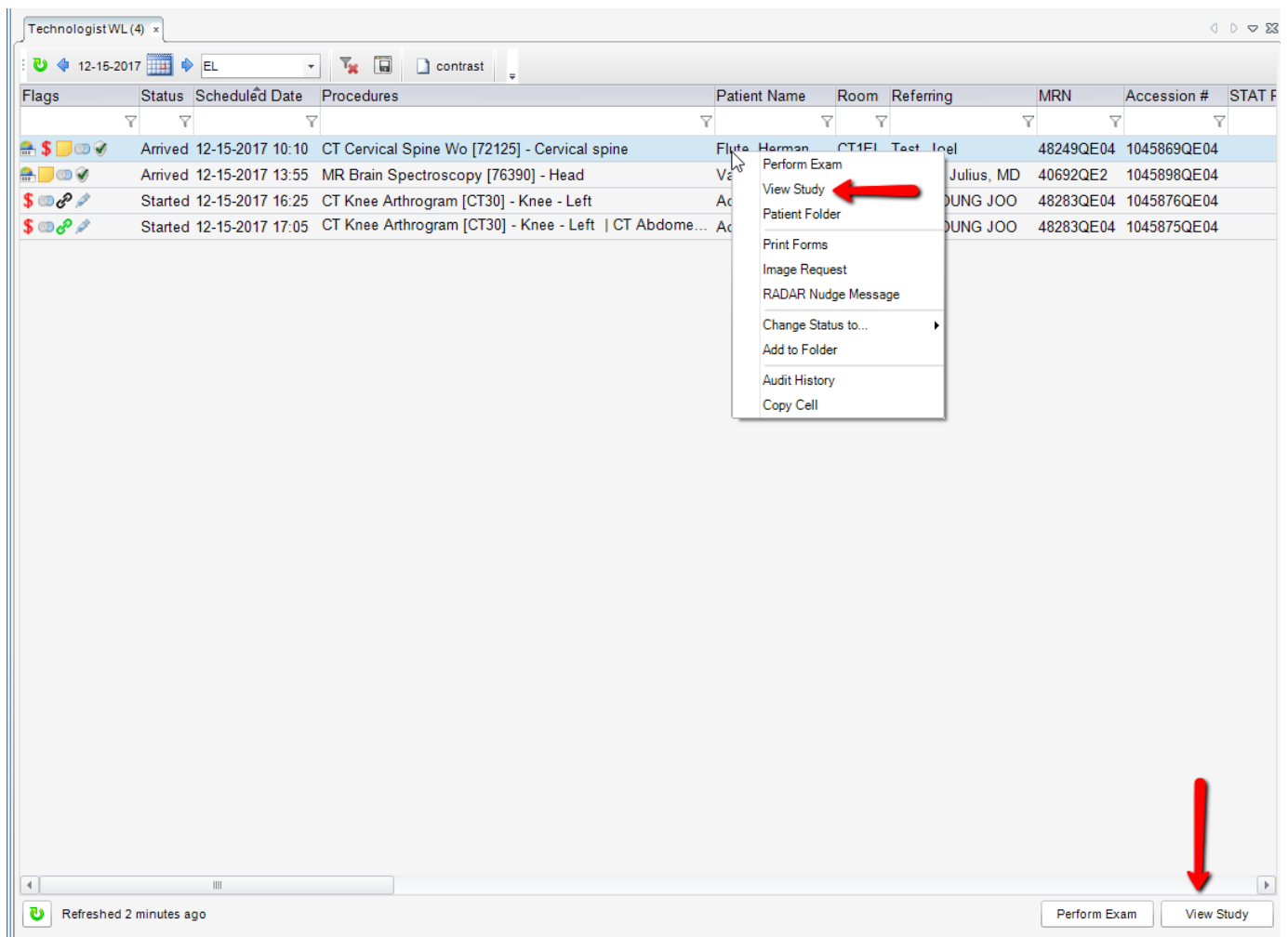


Figure 3 - Get Chair Data by Accession

FEATURE #16772 – VIEW STUDY OPTION FOR TECHNOLOGIST WORKLIST

Radiologists sometimes use the Technologist WL to view information about a study in progress. To provide all possible information about the patient's exam, including PACS images, attachments, Digital Forms, etc., the View Study option is best suited to their purpose. For this reason, the View Study button and right-click context menu have been added to the Technologist WL.

The button will be available in the lower right corner of the screen for exams in an Arrived or Started status. It is possible for both View Study and Perform Exam to be open simultaneously for the same patient.



The screenshot displays the Technologist Worklist (WL) interface. The table lists exams with columns for Flags, Status, Scheduled Date, Procedures, Patient Name, Room, Referring, MRN, Accession #, and STAT. A right-click context menu is open over the first row, showing options like Perform Exam, View Study, Patient Folder, Print Forms, Image Request, RADAR Nudge Message, Change Status to..., Add to Folder, Audit History, and Copy Cell. A red arrow points to the 'View Study' option in the menu. Another red arrow points to the 'View Study' button in the bottom right corner of the interface.

Flags	Status	Scheduled Date	Procedures	Patient Name	Room	Referring	MRN	Accession #	STAT
Arrived	12-15-2017 10:10	CT Cervical Spine Wo [72125] - Cervical spine	Flute, Herman	CT1F1	Test, Joel	48249QE04	1045869QE04		
Arrived	12-15-2017 13:55	MR Brain Spectroscopy [76390] - Head	Va			Julius, MD	40692QE2	1045898QE04	
Started	12-15-2017 16:25	CT Knee Arthrogram [CT30] - Knee - Left	Ac			JUNG JOO	48283QE04	1045876QE04	
Started	12-15-2017 17:05	CT Knee Arthrogram [CT30] - Knee - Left CT Abdome...	Ac			JUNG JOO	48283QE04	1045875QE04	

Refreshed 2 minutes ago

Perform Exam View Study

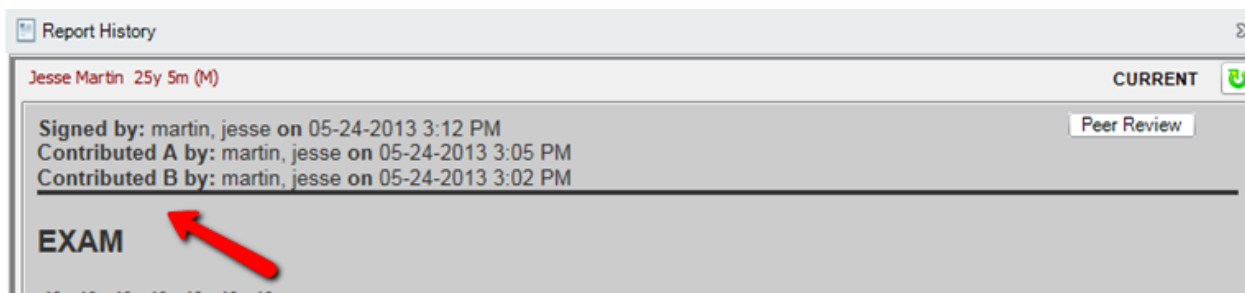
FEATURE #4766 – IN QA WORKFLOW, AUDIO AND TEXT POSITIONS WILL BE MAINTAINED WHEN REJECTING REPORT

Previously, when a QA user rejected a report, the audio would return to the beginning of the recorded voice file. For convenience, RIS will now maintain both audio and text positions at the point the user rejected the report. This feature is applicable for both M*Modal and eRAD reporting modes. No configuration is required to activate this new behavior.

FEATURE #16825 – SHOW "CONTRIBUTED BY" INFORMATION IN THE NUGGET REPORT VIEW

Customers using Contributing Radiologist workflow (sometimes known as “Fellow Workflow”) would benefit from the ability to see any contributing radiologists listed in the Nugget view of a report. This makes it easy to identify all radiologists who were involved with the report.

Contributing radiologist information is now listed below the signing radiologist, as seen below.



PACS INTEGRATIONS

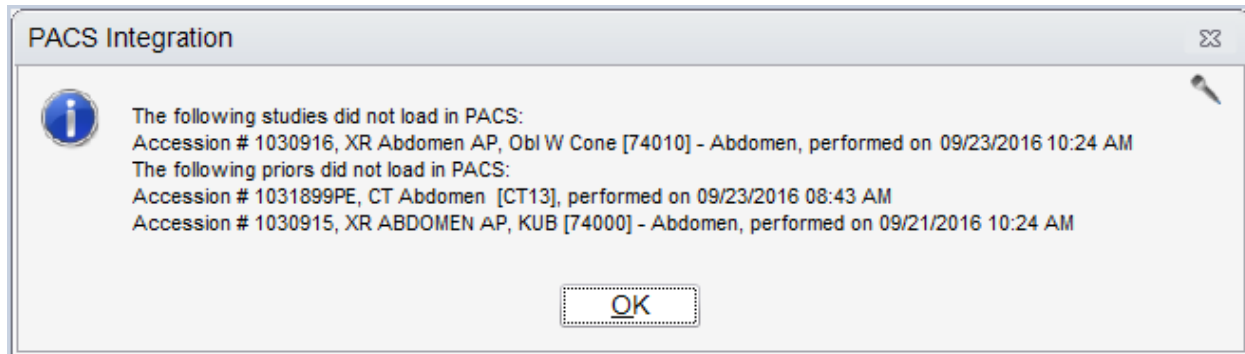
FEATURE #16806 – MORE INFORMATIVE MESSAGE WHEN STUDIES CANNOT BE LOADED IN ERAD PACS

Previously, when a study could not be loaded in eRAD PACS, the message that would be displayed in eRAD RIS listed only the Accession number for the study that failed to load. Accession numbers aren't very meaningful to the radiologist, who had to compare the numbers with the Patient History panel to figure out which study matched with the accession number.

To improve this experience, the Failed Studies message now contains more details about any primary studies or relevant priors that fail to load. The message will include the following information:

- Accession #
- Procedure Code/Description
- Date of Service
- Time of Service

The following image depicts an example where the primary study *and* two priors could not be loaded in PACS.



FEATURE #16804 - ERAD PACS - SORTING PRIORS IN REVERSE CHRONOLOGICAL ORDER

The loading of prior studies in the PACS should be done in reverse chronological order, regardless of the percentage of relevance. The most relevant priors will be calculated as before, but the sort order will now be in reverse chronological order for the priors that are selected for loading. This is applicable in two areas:

- 1) When performing the initial open, any priors will be sorted prior to sending the open call to PACS.
- 2) When appending another prior RIS either needs to tell PACS to insert it at a particular index, or the whole list (including the new prior) needs to be sent again.

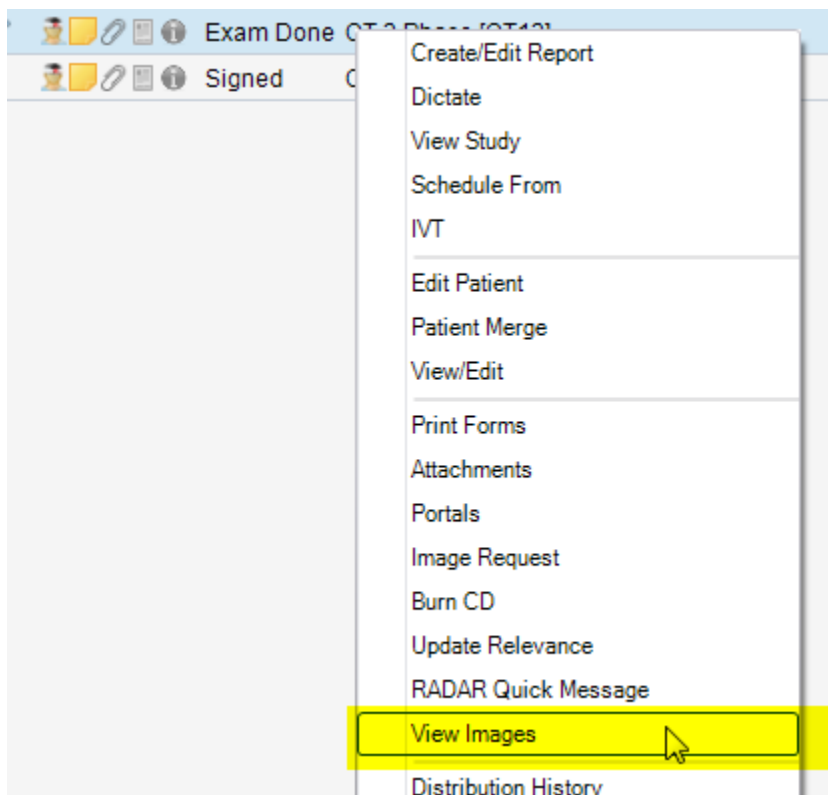
Date is determined on the basis of Performed first. If Performed Date is not populated, then Scheduled Date will be utilized, which will always be populated.

FEATURE #16805 AND 6102 – REMOVE PRIORS FROM PACS SESSION

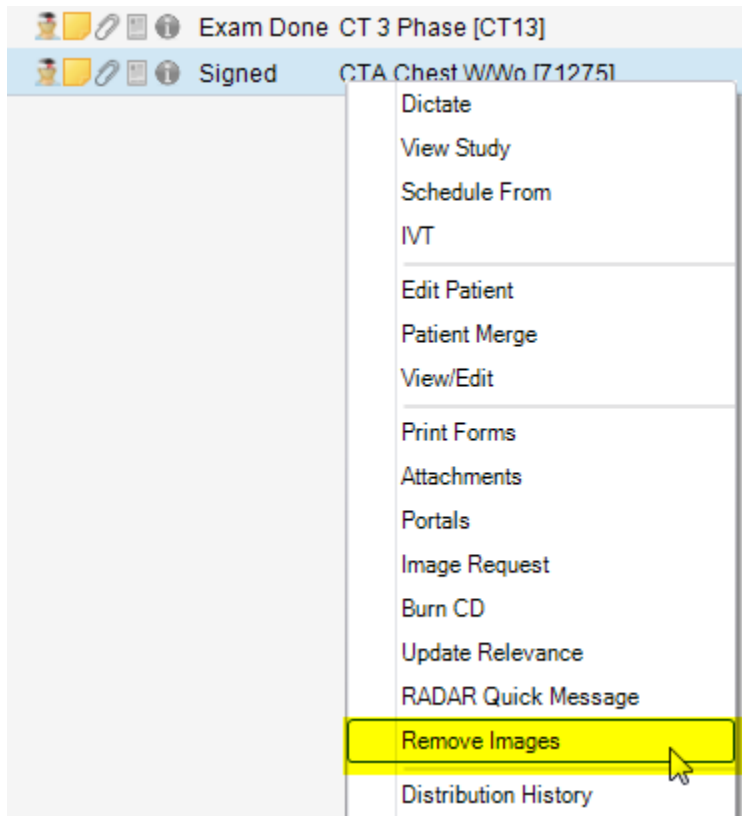
It is now possible to remove selected studies from a PACS view session via a Remove call to the PACS or, for PACS integrations that do not support a Remove call, by issuing a Close command, followed by an updated Open command. This functionality is possible from the Patient Folder or from the Patient History control on the Reporting screens.

Patient Folder

The Patient Folder previously had a [View Images](#) context menu item which would open a new view session with the selected study. Subsequent use of the menu item would append the selected study to the already opened view session, if the PACS integration supported it.



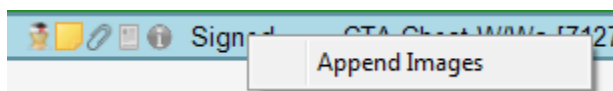
When right-clicking on a study that has already been added to the view session, the [View Images](#) menu item is now replaced with [Remove Images](#). Selecting this item will remove the images for the selected study or studies from the view session.



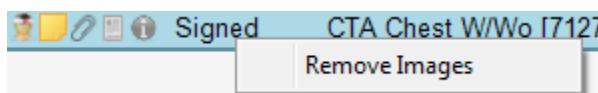
The first study that was selected prior to the first execution of [View Images](#) is considered the primary, or current study, and cannot be removed from the view session.

Radiologist Patient History Control

The previous behavior in the Patient History control was that double-clicking on a row would load its images into the PACS view session if they were not already loaded. This still applies, but a context menu has also been added so that right-clicking a row displays an [Append Images](#) menu item. Clicking this option will result in the same behavior as a double-click of the row: loading images into the existing PACS view session for the selected study or studies.



Once the images for the study have been loaded into the view session, right-clicking the row will display a [Remove Images](#) menu item instead.



If a mixture of studies that are loaded and studies that are *not* loaded in the PACS view session are multi-selected, neither option will be available.

FEATURE #15636 - NON-ERAD PACS INTEGRATIONS CAN NOW SUPPORT APPEND ACTION VIA CLOSE/OPEN

There are several PACS integrations with PACS systems that do not support appending additional images, such as Infinitt and Sectra PACS. Previously, once images were opened for these integrations, it was not possible to select additional studies in RIS to add their images to the open PACS window.

Changes have been made to perform a new series of actions when a second study is selected from the Patient Folder or from the Patient History (mini-Patient Folder) panel in the Reporting screens. If the PACS integration does not support an “Append” call (i.e. add the images to the already open PACS session), RIS will tell PACS to close the first study’s images and then re-open them along with the additional images requested.

Note: some additional work will be done to optimize this functionality for the GE Universal Viewer integration.

FEATURE #16812 – 3RD PARTY SYSTEMS CAN QUERY RELEVANT PRIORS

In some RIS-PACS integrations, both RIS and PACS have their own mechanisms to determine which studies are relevant priors. This can lead to confusion when one system does not match the other. eRAD RIS now supports an interface where the PACS can query the RIS for these relevant priors, making for a more seamless and consistent integration.

A new web method has been created on the External Interface service called [GetRelevantPriors](#) which accepts one or more accession number. The web method returns the appropriate priors and their identifiers related to the accession numbers provided.

FEATURE #11486 – MIM INTEGRATION

eRAD RIS now supports integration with MIM software (<https://www.mimsoftware.com/>). It is possible to open, close, or append patient images in MIM in conjunction with actions taken in eRAD RIS. Radiologists using MIM will find that this integration allows them to dictate these cases without the extra step of searching for the patient in MIM when opening a case for dictation.

MIM is now an option to configure as the “PACS” to use for any relevant procedure codes or modality types, using the pre-existing **Reporting Option** configuration table.

As with some existing PACS integrations, MIM does not provide a response back to eRAD RIS indicating that its request was successfully completed. Therefore, it is not possible for RIS to prevent images from becoming out of sync if the radiologist moves to another case while MIM is unable to action the request to close the previous images and open the new patient. As with other integrations of this type, radiologists will need to be aware of this risk and confirm that they are viewing the correct images.

If interested in using the MIM integration, please contact eRAD Support. Additional information about the Reporting Option configuration can be found in the Release Notes for eRAD RIS version 2016.7.

MAMMOGRAPHY

FEATURE #16781 – MAMMOGRAPY TAB NOW AVAILABLE FOR BI-RADS ENABLED PROCEDURES EVEN IF THEY ARE INACTIVE

Previously, the Mammography tab on View/Edit was only available if the procedure code was both Active **and** BI-RADS enabled. This could cause a problem when a customer restructures their Procedure Codes and deactivates a BI-RADS procedure that they no longer wish to use going forward. Pathology results could not be entered for the deactivated procedure codes unless they happened to be on the BI-RADS 0 or 4/5 WLs.

In order to record incidental cancer findings without needing to reactivate the procedure, a change has been made to the behavior of the Mammography tab. The tab will now be displayed for any BI-RADS enabled procedure, even if that procedure code is inactive.

RADAR

FEATURE #15357 – USE REAL-TIME INBOUND RADAR MESSAGING FOR APPOINTMENT REMINDER CONFIRMATION

Previously, RADAR Appointment Confirmation messaging relied upon Mirth channels for the outbound and inbound messaging interfaces. With this new feature, the need for inbound Mirth channels is eliminated by instead expanding the existing inbound RADAR messaging support (SignalR) to include Appointment Confirmation messages. The real-time nature of this feature will provide quicker feedback to appointment confirmation messages, reducing time delays that are inherent in the existing Mirth interfaces. Appointments will drop off of the Confirmation WL in a timely manner as patients reply to their Appointment Confirmation messages.

A single Wedge service using the RADAR plug-in that is currently in place for processing outbound Patient Portal email messaging and RADAR SecurePIC messaging can now replace all of the Mirth inbound channels configured for Appointment Confirmation messaging.

This feature will:

- Eliminate the use of Mirth channels for inbound Appointment Confirmation messaging.
- Eliminate the use of text files for returning confirmation responses back to eRAD RIS.
- Reduce the use of shared folders to exchange data between eRAD RIS and RADAR.
- Allow Confirmation responses to be sent in **real-time** to the Wedge service from RADAR Signal event broker (no polling delays).
- Update the Confirmation Status and Confirmed flag for a study when a patient confirms an appointment via phone, email, or text.

Once enabled, Appointment Reminders that are confirmed by the patient (via phone, SMS or email) will be marked as Confirmation_Status_Code = Confirmed and Confirmed_Flag = Y. As a result, the appointment will fall off of the Confirmation WL.

FEATURE #8498 – REPORT DISTRIBUTION VIA RADAR EMAIL WILL REFLECT APPROPRIATE EMAIL DELIVERY STATUS IN RIS

It has previously been possible to distribute diagnostic reports via secure RADAR emails; however, the Document Distribution status would only reflect whether the report was successfully delivered to the RADAR server. In the case of an invalid email address or other problem, it is still possible that the report will not be successfully delivered to the recipient.

Now, eRAD RIS will more accurately reflect the Document Distribution status for email delivery. When the report has been delivered to the RADAR server, the Document Distribution status will now be “In Progress.” It will remain in this status until RADAR indicates that the email was delivered successfully to the recipient. In this case, the status will update to Completed. If RADAR is unable to deliver the email, the status will update to Error. The Activity Log column will display additional details regarding the error, indicating that the secure email could not be delivered and listing the recipient name and email address.

In order to receive RADAR status updates on the email delivery, the value for new System Configuration setting, [InboundRADARMessageFilter](#), discussed in the feature above, must contain “Report Delivery” as a valid inbound RADAR message type.

FEATURE #17778 AND 17779 – SEND RADAR NUDGE MESSAGES TO ANY NUDGE ENABLED USER FROM A WIDE VARIETY OF WORKFLOWS

A RIS user may need to contact a co-worker, manager, or radiologist about a patient in a wide number of scenarios. A scheduler may have a question for the billing department. A manager may want an employee to correct a mistake. A technologist may need to let the radiologist know that the patient is prepped for their biopsy procedure.

Until now, RADAR Nudge instant messaging was primarily a tool for the radiologist when used with the eRAD RIS integration. This is because it was only possible to initiate a RADAR Nudge conversation about a patient from the radiologist's Reporting screen. To enhance the ability to use Nudge for internal RIS communication, it is now possible to launch a context-specific Nudge conversation from additional points in the RIS workflow. It is also now possible to look up any Nudge user in the system and add that user to the Nudge conversation.

To make RADAR Nudge available for the widest number of scenarios, the RADAR Nudge integration now allows users to initiate a Nudge from any of the following new places, via either a RADAR Nudge button or a context (right-click) menu option:

RIS Screens:

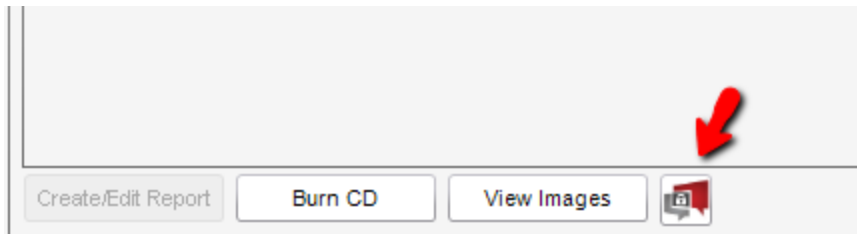
- Edit Patient
- IVT
- Schedule Order
- Walk-in
- Registration
- Confirmation
- View/Edit
- Edit Billing
- Perform Exam

Worklists:

- Patient Folder
- Reception WL
- Technologist WL
- Orders to Schedule WL
- Confirmation WL
- Activity WL
- Billing Exception WL
- IVT WL
- Utilization Management WL
- Image Request WL
- All Critical Results
- (My) Critical Results

- All Problem WL
- All Peer Review Pending Action WL
- Finding Follow-up WL
- Mammo Follow-up Orders WL
- ACR Category 0 Follow-up WL
- ACR Category 4/5 Follow-up WL

For any of the screens listed above, the Nudge button will be available in the lower left corner of the screen.



The button opens the Nudge dialog screen and allows the user to select one or more contacts to be part of a context-specific Nudge conversation.

Similarly, any of the worklists listed above will have a context menu option for [RADAR Nudge message](#), which will open the same Nudge dialog screen.

RADAR Nudge [Close]

Subject
@1046113QE04 | 01-01-1923 | #34689PE | Hilary Test

Select contacts [Find Contact]

Contact	Role

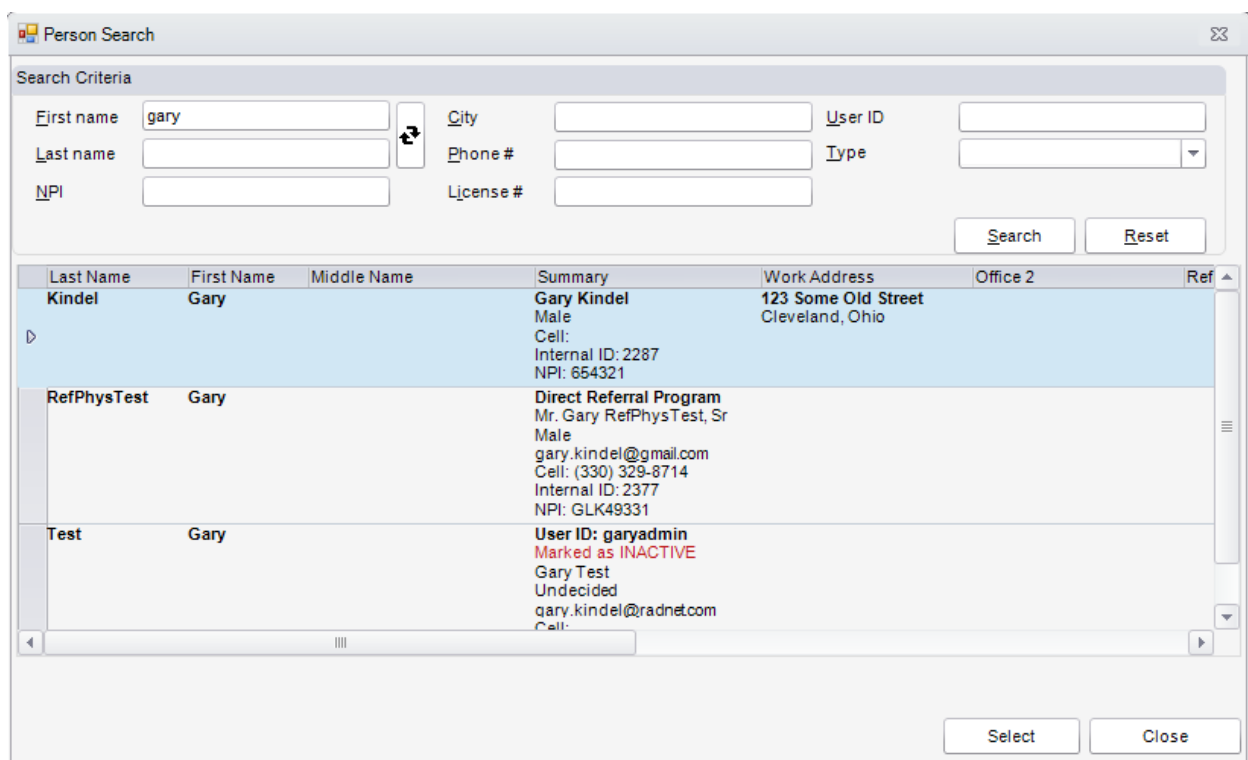
[OK] [Cancel]

The “Subject” of the conversation will be filled in automatically based on the existing System Configuration setting: **RADARSecureMessageTitle**.

Lookup - SystemConfig x		
System Config Code	Value	Default
Contains: titl	Contains:	Contains:
RADARSecureMessageTitle	@<accession_number> <birth_date> #<patient_id> <first_name> <last_name>	<last_name>, <first_name> #<patient_id> @<accession_number>

By default, the Subject will look like the following: Doe, Jane|#123456789|@987654. It is possible to change the order of these elements or add elements such as Date of Birth.

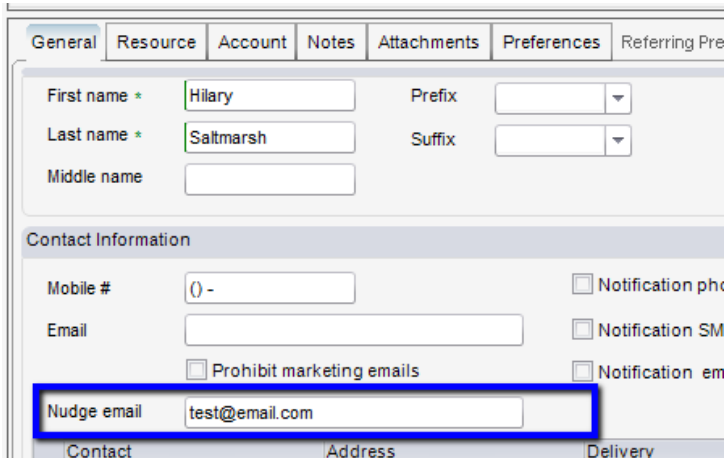
Click the **Find Contact** button to search for RADAR Nudge users to include in the conversation. The button will open a customized Person Search dialog that will allow a user to search for other Nudge users in the RIS Personnel records.



The Person Search dialog box contains a search criteria section with fields for First name, Last name, NPI, City, Phone #, License #, User ID, and Type. Below the search criteria is a table of search results. The table has columns for Last Name, First Name, Middle Name, Summary, Work Address, Office 2, and Ref. The results show three entries for Gary Kindel: a general summary, a Direct Referral Program entry, and a Test entry marked as INACTIVE.

Last Name	First Name	Middle Name	Summary	Work Address	Office 2	Ref
Kindel	Gary		Gary Kindel Male Cell: Internal ID: 2287 NPI: 654321	123 Some Old Street Cleveland, Ohio		
RefPhysTest	Gary		Direct Referral Program Mr. Gary RefPhysTest, Sr Male gary.kindel@gmail.com Cell: (330) 329-8714 Internal ID: 2377 NPI: GLK49331			
Test	Gary		User ID: garyadmin Marked as INACTIVE Gary Test Undecided gary.kindel@radnet.com Cell:			

The Find Contact screen’s search options mirror the usual Internal Person search; however, the search will only include results where the Nudge Email field in the Personnel record has been populated with a valid Nudge email.



General Resource Account Notes Attachments Preferences Referring Pre

First name * Hilary Prefix

Last name * Saltmarsh Suffix

Middle name

Contact Information

Mobile # () - ☐ Notification pho

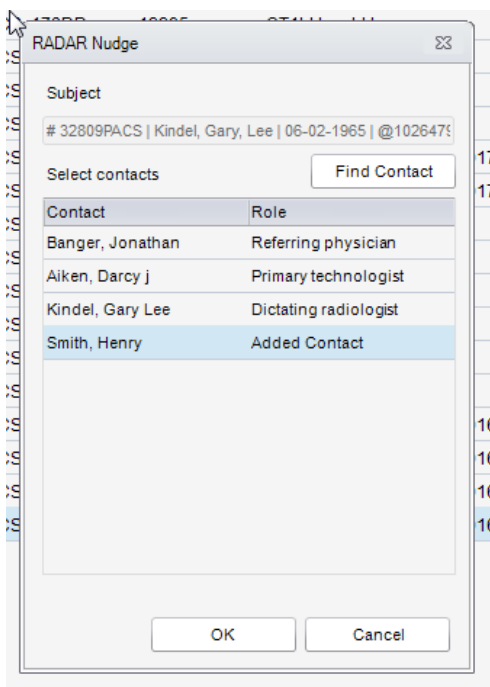
Email ☐ Notification SM

☐ Prohibit marketing emails ☐ Notification em

Nudge email

Contact Address Delivery

When a contact is selected in PersonSearch results, the contact is added to contact grid in the dialog. Depending on the status of the exam, Nudge users who are already associated to the exam may be listed in order to quickly select them.



RADAR Nudge

Subject

32809PACS | Kindel, Gary, Lee | 06-02-1965 | @1026475

Select contacts

Contact	Role
Banger, Jonathan	Referring physician
Aiken, Darcy j	Primary technologist
Kindel, Gary Lee	Dictating radiologist
Smith, Henry	Added Contact

In this case, the user's role in the patient's exam will be listed next to their name. It is possible to message any of these contacts, as well as find new contacts to include. Any contacts highlighted in blue will be part of the Nudge conversation upon clicking OK. To select multiple contacts, click the desired contacts while holding the CTRL key. Contacts added via the Find Contact button will be highlighted by default.

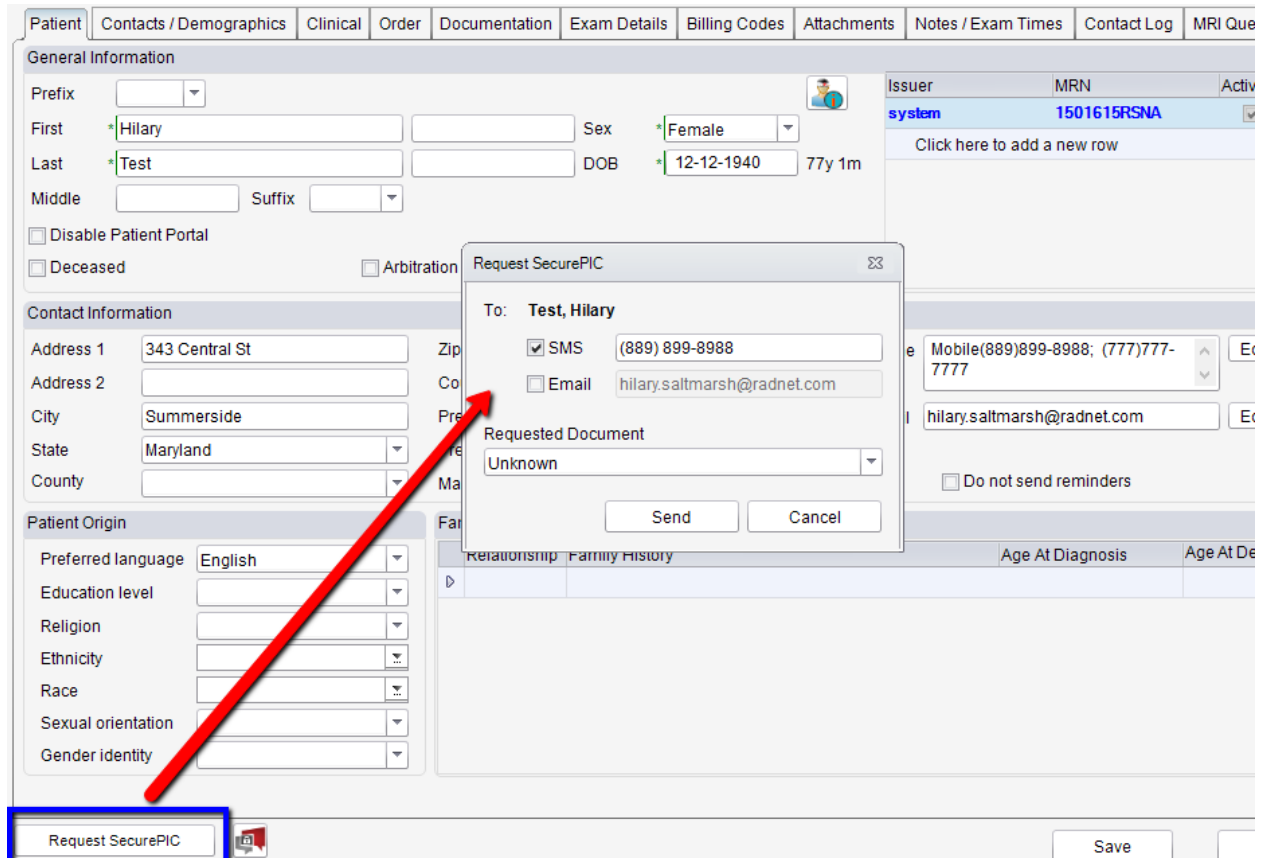
Upon clicking OK, the Nudge conversation will be opened and the user can begin messaging the selected contacts. As before, to use the Nudge integration, the eRAD RIS user must have:

- An active RADAR Nudge account.

- A valid Nudge email address associated with the user's personnel profile.
- A user group that has access string [Clinical.RADARSecureMessage](#) = Full assigned.

FEATURE #16567 – SEND SECUREPIC REQUESTS VIA EMAIL

It is now possible to send SecurePIC requests via email. After clicking the Request SecurePIC button, the Request SecurePIC screen will open. By default, SMS will be checked, so that the SecurePIC will be sent to the patient via text message. However, there is now an option to select email instead of, or in addition to, the SMS text message.



The screenshot displays the eRAD patient record interface. The 'Request SecurePIC' dialog box is open, showing the patient's name 'Test, Hilary'. The 'SMS' checkbox is checked, and the 'Email' checkbox is unchecked. The 'Requested Document' is set to 'Unknown'. A red arrow points from the 'Request SecurePIC' button in the bottom left of the patient record to the 'Email' checkbox in the dialog box.

If email is selected, the patient will receive an email with a link to open SecurePIC, where they can attach a picture. Accepted file types are png, jpeg, gif, and bmp. If opening the email from a mobile device, the user can also choose to take a new picture with their device's camera, just as they can when receiving the SecurePIC via text message.

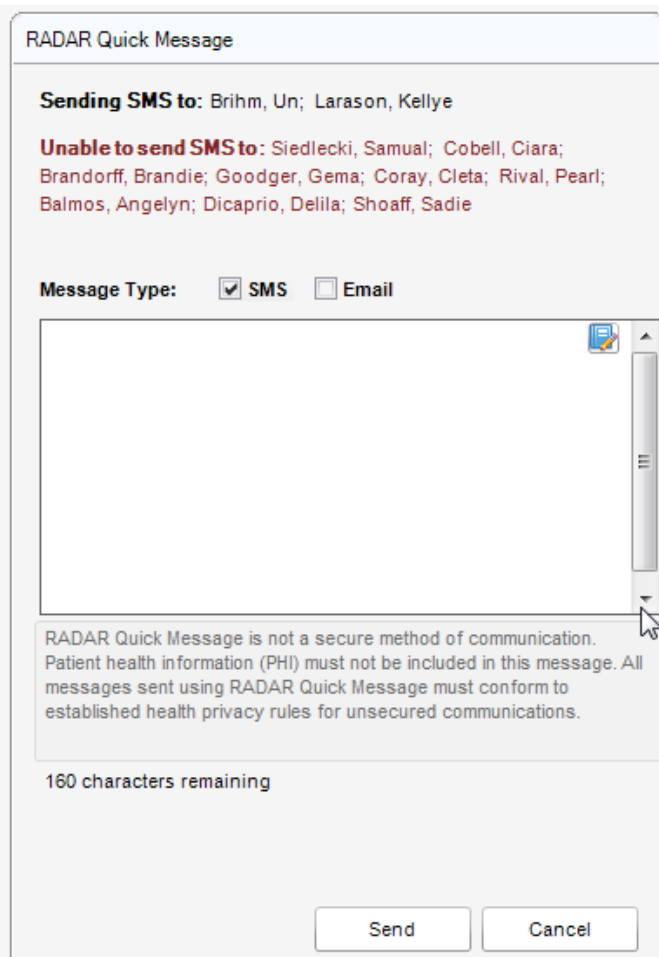
The remainder of the workflow will be the same as if the SecurePIC request had been sent via text message.

FEATURE #11249 – DISPLAY AVAILABLE CONTACT METHODS WHEN SENDING RADAR QUICK MESSAGE TO MULTIPLE PATIENTS

RADAR Quick Message is an easy way to quickly send a message to a patient, via SMS (text) message and/or email. It is possible to multi-select patients to send the desired message to each of the selected patients. Previously, sending RADAR Quick Messages to multiple patients could be confusing because it is not possible to view ahead of time whether the selected patients have mobile phone numbers and/or email addresses entered in RIS. Without any indication of the available contact methods, the user can't identify which patients will not receive the message until a pop-up is displayed after composing and sending the message.

Instead of being notified **after** the fact when a message cannot be delivered due to a lack of mobile phone and/or email, it is better to advise the user before the message is sent, so that adjustments can be made to the method of contact if needed.

To accommodate this, the RADAR Quick Message window will now display a list of selected patients split into applicable categories. When a single Message Type is selected (email or SMS), there can be up to 2 sub-categories:



RADAR Quick Message

Sending SMS to: Brihm, Un; Larason, Kellye

Unable to send SMS to: Siedlecki, Samuel; Cobell, Ciara; Brandorff, Brandie; Goodger, Gema; Coray, Clea; Rival, Pearl; Balmos, Angelyn; Dicaprio, Delila; Shoaff, Sadie

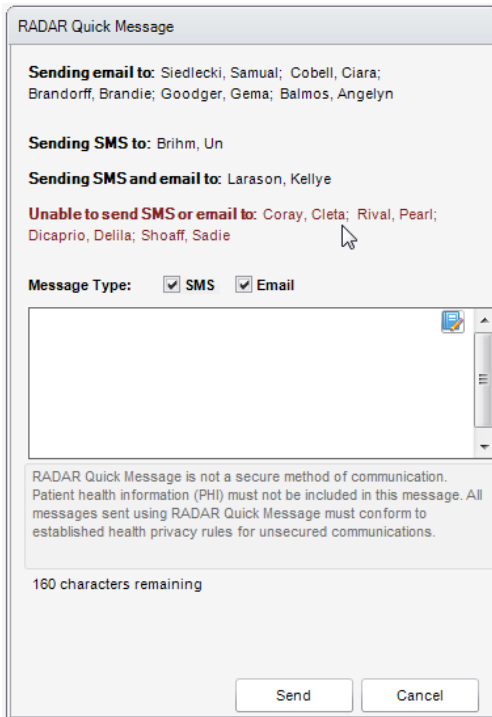
Message Type: ☒ SMS ☐ Email

RADAR Quick Message is not a secure method of communication. Patient health information (PHI) must not be included in this message. All messages sent using RADAR Quick Message must conform to established health privacy rules for unsecured communications.

160 characters remaining

Send **Cancel**

When both email and SMS are selected, there can be up to 4 sub-categories, as displayed in the image below.



RADAR Quick Message

Sending email to: Siedlecki, Samuel; Cobell, Ciara; Brandorff, Brandie; Goodger, Gema; Balmos, Angelyn

Sending SMS to: Brihm, Un

Sending SMS and email to: Larason, Kellye

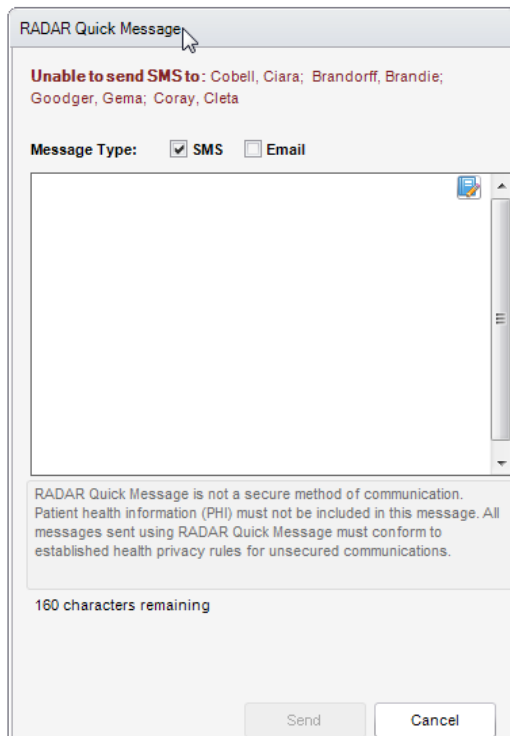
Unable to send SMS or email to: Coray, Cleta; Rival, Pearl; Dicaprio, Delila; Shoaff, Sadie

Message Type: ☒ SMS ☒ Email

160 characters remaining

Send **Cancel**

If none of the selected patients can be sent a message using the selected Message Type, the Send button will be disabled.



RADAR Quick Message

Unable to send SMS to: Cobell, Ciara; Brandorff, Brandie; Goodger, Gema; Coray, Cleta

Message Type: ☒ SMS ☐ Email

160 characters remaining

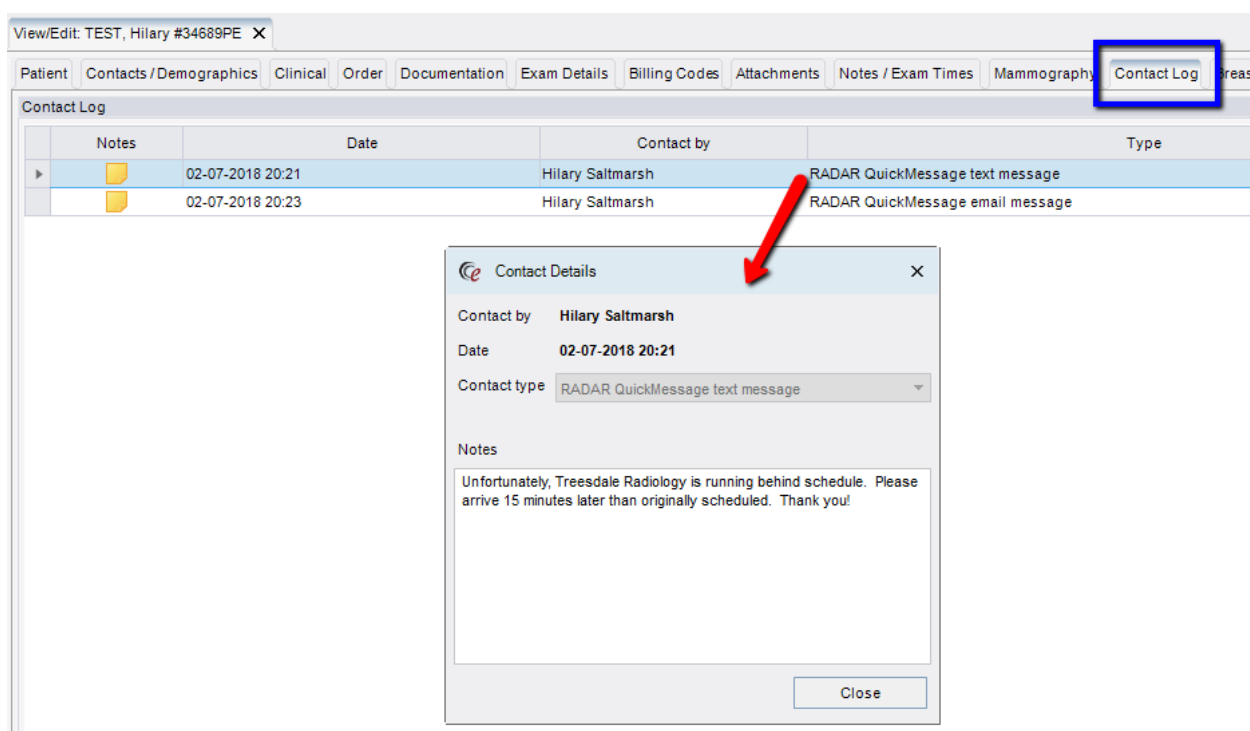
Send **Cancel**

FEATURE #12482 – CONTACT LOG ENTRIES NOW GENERATED AUTOMATICALLY FOR RADAR QUICK MESSAGES

RADAR Quick Message is a tool that is often used to send a quick text or email message to a patient from eRAD RIS. For example, if a department is behind schedule, the receptionist may wish to notify the next three scheduled patients that they can arrive 15 minutes later due to the delay.

Previously, this type of contact had to be added to the patient's Contact Log manually, if the user wanted to maintain a record of the message outside of the Audit History.

eRAD RIS will now automatically add Quick Message information to the patient's Contact Log to provide easier access to all information regarding contact to patients regarding their appointment. The Contact Log entry will be added to the Contact Log for the Order from which the message was sent.



Upon opening the Contact Log entry, it is possible to view the following information:

Contact By: The name of the eRAD RIS user who sent the message.

Date: The date RADAR notifies eRAD RIS that the message was sent.

Contact Type: Will be populated with the description of the Follow Up Type Code configured for RADAR QuickMessage email message or RADAR QuickMessage text message, respectively. By default, messages will be labeled as described in the table below.

Notes: The message body from the RADAR QuickMessage.

Two values have been added to the FollowUpType configuration table to support this feature:

Follow Up Type Code	Description
QuickMessageEmail	RADAR QuickMessage email message
QuickMessageSMS	RADAR QuickMessage text message

In addition, two System Configuration values have been added to identify that these Follow Up Types are to be used for creating automated Contact Log entries for RADAR Quick Messages.

System Config Code	Value
QuickMessageEmailDefaultContactTypeCode	QuickMessageEmail
QuickMessageSMSDefaultContactTypeCode	QuickMessageSMS

Unless any adjustments to these default settings are desired, no set up should be required to add this functionality to the system. If your system is already configured to use RADAR Quick Message and the user in question has the appropriate access to send RADAR Quick Messages, the Contact Log entries will be added automatically after the upgrade is complete.

CONNECT PORTALS

FEATURE #16933 – ACCESS SYSTEM/CACHEINFO FROM THE ADMIN PORTAL

Previously, to access the System/CacheInfo page, the user had to log in to the Admin Portal and then manually edit the Admin Portal's URL. This was cumbersome and required additional time. To improve efficiency, there is a new tab in the Admin Portal to display the System Cache Info.

User Mgt.
User Messages 0
Sys. Messages
Img. Retrieval 6
Account Migration
Sys. Cache Info

To prevent poor performance, you cannot submit more than 60 manual expires per hour.

Lookups in memory

Lookup	Last Expiry	Next Expiry (minutes)	
LegalDocument	05-09-2017 10:07 AM	29	Expire Now
ImagingCenter	05-09-2017 10:07 AM	29	Expire Now
Gender	05-09-2017 10:07 AM	29	Expire Now
PatientRelation	05-09-2017 10:07 AM	29	Expire Now
Organization	05-09-2017 10:07 AM	29	Expire Now
ProcedureCode	05-09-2017 10:07 AM	29	Expire Now
ProcedureGeneralDescription	05-09-2017 10:07 AM	29	Expire Now
Modality	05-09-2017 10:07 AM	29	Expire Now
MessageGroup	05-09-2017 10:07 AM	29	Expire Now
SystemConfig	05-09-2017 10:07 AM	29	Expire Now
SystemMessage	05-09-2017 10:07 AM	29	Expire Now
PACSServer	05-09-2017 10:07 AM	29	Expire Now
UMStatus	05-09-2017 10:07 AM	29	Expire Now
UMResolution	05-09-2017 10:07 AM	29	Expire Now
UserGroup	05-09-2017 10:07 AM	29	Expire Now
AccessString	05-09-2017 10:07 AM	29	Expire Now
UserGroupPermission	05-09-2017 10:07 AM	29	Expire Now

Manual expiries in the past hour (0):

There have been no changes to the contents or functionality of the page, but it is now easier to access.

A new access string controls whether the user has the ability to access the tab and manually expire system/cacheinfo. [Portal.admin.cacheinfo](#) must be set to FULL for the User Group(s) that should have access to this page.

If a user without this permission attempts to access the page by altering the URL, they will be informed that they do not have permission to access Cache Info.

FEATURE #17033-17036 – MANAGE GET HELP REQUESTS EXCLUSIVELY IN THE ADMIN PORTAL

Previously, Get Help Requests were sent from the portal to an email distribution group, which could include unsecure email addresses. As Get Help Requests may contain patient information, all inbound Get Help Requests will now be managed and responded to within the Portal Admin Tool.

In support of this change, enhancements have been made to the notification email and the User Messages tab in the Admin Tool.

A Get Help Request will initiate a notification email to the email distribution group, but the email will not contain the content of the message. Instead, the email will direct recipients to access the request via the portal's Admin Tool. The User Messages tab in the Admin Portal will display all inbound messages from the Get Help Requests, as well as user messages.

Admin Portal users must be assigned the appropriate Message Groups in order to view the Get Help Requests in the Admin Portal. The applicable Message Groups are defined in the following System Configuration settings:

- [UMPHelpRequestMessageGroup](#)
- [RPHelpRequestMessageGroup](#)
- [PPHelpRequestMessageGroup](#)

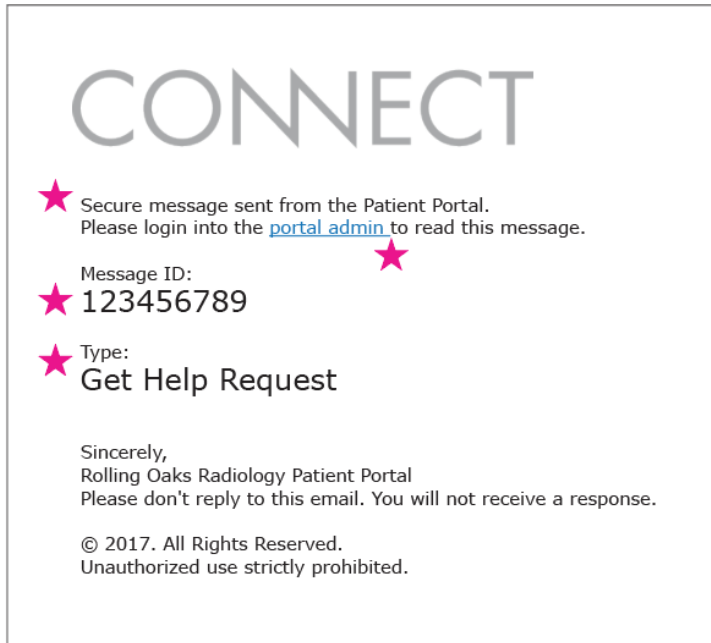
The Message Group (or groups) defined in these System Configuration settings should be assigned in the Personnel table for any administrators who should be interacting with Get Help Requests.

If an External Notification Email Address has been defined for the Message Group, an enhanced notification email will be sent to the email address (which can be a distribution list with emails distributing to multiple users).

Message Group Code	Description	External Notification Email Address
Contains: ▼	Contains: ▼	Contains: ▼
Click here to add a new row		
technical	Portal Technical Assistance	portalteam@abc.com

Below is an example of a notification email. The stars indicate areas that have been updated.

From: Rolling Oaks Radiology Patient Portal [ConnectPortal@MyRadarConnect.com]
Sent: Tuesday, April 18, 2017 12:02 PM
To: WebTeamCA
Subject: Patient Portal Get Help Request ★



- The email's Subject will indicate the portal from which the message was sent, as well as the type of message: Get Help Request or User Message.
- A link is provided to open the message from within the Admin Portal.
- A unique ID will be generated for the message and displayed in the email.
- The type of message will be displayed (e.g. Get Help Request or User Message).

Enhancements have also been made to the User Messages tab in the Admin Portal.

- Patient Portal Only: A new MRN column is available to display the patient's MRN if the Get Help Request was made by a user who had logged into the portal. This will be blank if the user made the request outside of a log-in.
- A new Type column is available in the Admin Portal for Patient, Provider, and Utilization Management portals. This column will identify whether the message is a Get Help Request or a User Message.
- There is also a filter for Type, which will allow the admin user to filter the messages to display Get Help, User Messages, or All messages.
- The unique Message ID is also displayed in a new column.

User Mgt.
User Messages 110
Sys. Messages
Workflow Failures
Sys. Cache Info

Search

Search

Get Help

SEARCH

CREATE NEW MESSAGE

Inbox 110
Archived
Sent

Open Messages

		Message ID	Date ↓↑	Name	MRN	Type	Subject	Message	
VIEW	CLOSE	314	06-01-2017	second, charan	2	Get Help	6477814675(Stockton Advanced Imaging Image Request)	Exams and Reports	FORWARD
VIEW	CLOSE	313	06-01-2017	second, charan	2	Get Help	test(Get Help)	Get help MRN Check	FORWARD
VIEW	CLOSE	299	05-31-2017	second, charan		Get Help	test(Get Help)	Get Help Take 10	FORWARD
VIEW	CLOSE	298	05-31-2017	second, charan		Get Help	test(Get Help)	Get HElp	FORWARD
VIEW	CLOSE	294	05-31-2017	second, charan		Get Help	test(Get Help)	Get hELp	FORWARD
VIEW	CLOSE	293	05-31-2017	second, charan		Get Help	test(Get Help)	Get help	FORWARD

When clicking the View button to read the message, the resulting page has some additional enhancements to provide more detail to the administrator.

- The message's Type will be displayed.
- The patient's contact information, phone and email, will be displayed.
- User Messages will include the patient's Follow Up Preference (their preferred method of contact).
- A change has been made to the display of the user's message to make it easier to read.
- The Reply section is disabled for Get Help Requests, which should not be responded to via email or portal.

Example:

User Mgt.

User Messages 110

Sys. Messages

Workflow Failures

Sys. Cache Info

User Message

MESSAGE

From

second, charan

Sent

05-31-2017 12:48:22 PM

Phone

(647) 781-4675(Primary), (902) 457-8145

Email

veeranjanyulu.boina@radnet.com(Primary), boina.cad@gmail.com

Follow Up Preference

Email

Subject

test

Message *

Exam details

second, charan

10/10/1991 (25y 7m) Male

MRN: 2

Accession: 20122786

CT Calcium Scoring

REPLY

To *

second, chara... ▼

Subject *

RE: test

Message *

SAVE

CANCEL

Additionally, a new section has been added after the Reply section. This section is designed for internal use. It allows the portal administrator to choose a category for the request and add internal notes regarding the message.

REPLY

To *

Subject *

Message *

Category

Notes

HISTORY

Created Date 06-06-2017
 Created By (Unknown)
 Last Modified 06-06-2017
 Modified By boina, Veeranjana (veeranjana)

The options in the Category dropdown are defined in a new RIS look-up table called **Category Group**.

Category Group Code	Description	Display Order	Show In Pp Admin Portal Flag	Show In Rp Admin Portal Flag	Show In Ump Admin Portal Flag	Last Updated	Active
Contains:	Contains:	Equals:	Contains:	Contains:	Contains:	Equals:	Contains:
Click here to add a new row							
account creation	Account Creation	1	Y	Y	Y	06-05-2017 15...	Y
reports	Reports	4	Y	Y	Y	06-05-2017 14...	Y
demographic discrepancy	Demographic Discrepancy	5	Y	Y	Y	06-02-2017 10...	Y
direct message	Direct Message	7	Y	Y	Y	06-02-2017 10...	Y
appointments	Appointments	6	Y	Y	Y	06-02-2017 10...	Y
account access	Account Access	2	Y	Y	Y	06-02-2017 10...	Y
images	Images	3	Y	Y	Y	06-02-2017 10...	Y

The Description will display in the dropdown for any Category Groups that are set to show for the portal in question, as defined in the look-up table.

The last new area on this screen is a History section for the message. The following information will be displayed:

Created Date: The date the message was sent.

Created By: The name of the sender, if known. Get Help Requests initiated from outside a log-in will be listed as unknown.

Last Modified: The last date the message was updated by an Admin Portal user.

Modified By: The name and User ID of the Admin Portal user who last updated the message.

FEATURE #17154 – CONFIGURE WHICH PORTAL ERROR MESSAGES GENERATE AN EMAIL NOTIFICATION TO PORTAL ADMINISTRATORS

By default, all errors encountered in the portals generate an email notification to the notification email address configured for each portal. Sometimes, portal administrators do not wish to receive notification of certain types of error messages. This feature allows for box-level configuration of notification emails based on the HTTP status code for the error.

A new AppConfig setting has been added for all portals: [ErrorMessageEmailSettings](#). By default, all error types will continue to generate notification emails. The following options can be configured:

- Value = All
 - All error status codes will trigger an email.
- Value = comma delimited list of status codes
 - Example: 400, 404, 405, 515
 - Only the status codes in the list will trigger an email.
 - A range can be used to include codes (e.g. 404, 500-515)
- Value = All, comma delimited list of status codes
 - When a comma delimited list begins with “All,” the codes following All will be **excluded** from triggering an email.
 - Example: All, 400, 402, 500-510
 - The above example would mean: Generate notification emails for All error status codes [**except for**] status codes 400, 402, and 500 through 510.

To enable this feature, add an [ErrorMessageEmailSettings](#) key to the applicationsettings.config file and set the desired value based on the description above.

FEATURE #17247 – AUTOMATICALLY DISABLE PORTAL ACCOUNTS DUE TO INACTIVITY

As a security measure, eRAD RIS now has the ability to configure a timeframe after which portal accounts will be automatically disabled due to account inactivity. Account inactivity is defined as not logging into the portal.

Two new System Configuration settings have been added to support this feature:

- **DaysBeforeInactiveAccount:** This setting defines the number of days a **Provider Portal** or **Utilization Management Portal** account can remain inactive before being automatically disabled.
- **PPDaysBeforeInactiveAccount:** This setting defines the number of days a **Patient Portal** account can remain inactive before being automatically disabled.

Setting these values to 0 or lower will disable the feature.

Two SQL jobs have been created, one for each of the new System Configuration values. These jobs run daily and deactivate accounts that have been inactive for more days than the System Configuration value allows.

Users attempting to log into an inactive account would receive a message stating that their portal account is inactive. They will be directed to contact the Web Team to re-activate the account.

FEATURE #16217 – CONFIGURABLE PASSWORD STRENGTH REQUIREMENTS FOR CONNECT PORTALS

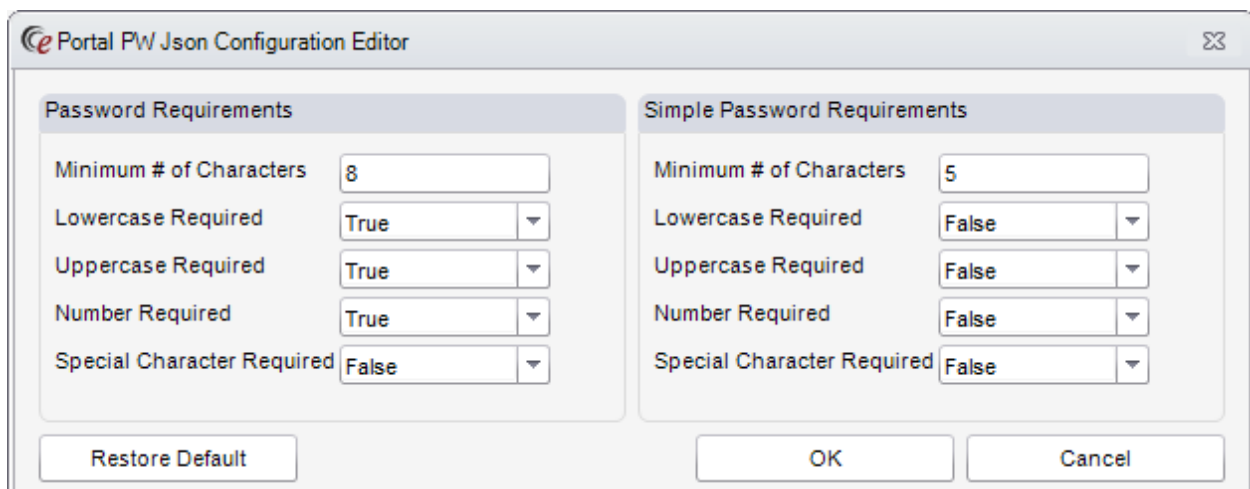
Previously, password requirements for the CONNECT Patient Portal, Provider Portal, and UM Portal were hard coded. It is now possible for customers to customize password requirements and force a password reset workflow for any existing users whose passwords do not meet the new password strength requirements.

A new Password Requirement editor is now available via the System Configuration table for the three Connect Portal options: Patient Portal (setting: [PPPasswordRequirements](#)), Provider Portal ([RPPasswordRequirements](#)), and Utilization Management (UM) Portal ([UMPPasswordRequirements](#)).

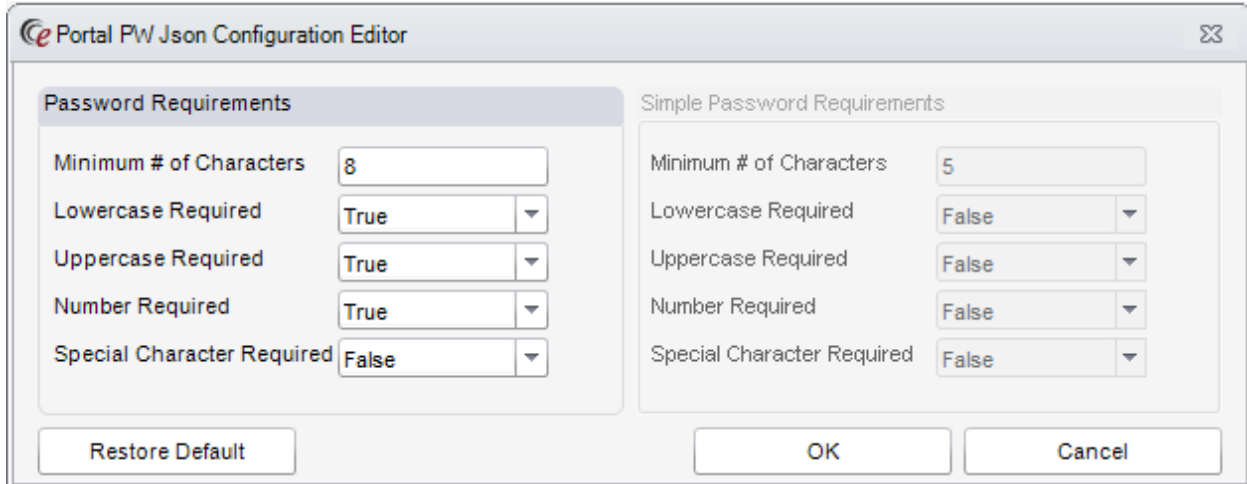
System Config Code	Value	Default	Description
Contains: PasswordRequirements	Contains:	Contains:	Contains:
PPPasswordRequirements	[{"minChar": "8", "wordLowercase": "Tru...	[{"minChar": "8", "wordLowercase": "Tru...	(value = string) JSON value to define default password requirements for patient portal user accounts.
RPPasswordRequirements	[{"minChar": "8", "wordLowercase": "Tru...	[{"minChar": "8", "wordLowercase": "Tru...	(value = string) JSON value to define default password requirements for referring portal user accounts.
UMPPasswordRequirements	[{"minChar": "8", "wordLowercase": "Tru...	[{"minChar": "8", "wordLowercase": "Tru...	(value = string) JSON value to define default password requirements for UM portal user accounts.

The settings in this custom editor define the password requirements for the relevant portal's users. If a user logs in and their password does not match these custom requirements, the user will be forced through the password reset workflow.

To adjust the password requirements, filter the System Configuration look-up table to find the Password Requirement setting for the relevant portal (see above for the names of each setting). Then click the current "Value" for that setting's row. The editor will open as shown in the following illustration:



The "Simple Password" option is only available in the Patient Portal, so the screen will display as follows for the Provider and UM Portals:



The image shows a software configuration window titled "ePortal PW Json Configuration Editor". It contains two panels: "Password Requirements" and "Simple Password Requirements".

Requirement	Value
Minimum # of Characters	8
Lowercase Required	True
Uppercase Required	True
Number Required	True
Special Character Required	False

Buttons: Restore Default

Requirement	Value
Minimum # of Characters	5
Lowercase Required	False
Uppercase Required	False
Number Required	False
Special Character Required	False

Buttons: OK, Cancel

The password requirements can be adjusted to force passwords to contain:

- A minimum number of characters.
- At least one lower case character.
- At least one upper case character.
- At least one number.
- At least one special character.

FEATURE #17336 – REMOVE USER TYPE REFERRING PROVIDER FROM DROPDOWN WHEN CREATING NEW USER IN THE PORTAL

All new referring providers should be created inside of the RIS application by properly permissioned RIS administrators following standard imaging center guidelines. Therefore, it was requested that customers have the ability to exclude the Referring Provider role when creating a new user in the Admin Portal. This workflow is intended for creating portal accounts that are for staff, marketing, or help desk users, which do not require special RIS configuration settings that cannot (and should not) be managed from the Admin Portal.

Because User Group names can vary between customers, applicationsettings.config will be used to configure the Role that should be removed from the dropdown in the Admin Portal. It is possible to remove any Role using this configuration, which is handled by eRAD Support. Please contact eRAD if you would like to use this feature.

FEATURE #17723-17725 - BETTER HANDLING FOR ACCOUNT RECOVERY WHEN THE SAME EMAIL ADDRESS IS ASSIGNED FOR MULTIPLE ACCOUNTS

It is possible for multiple portal accounts to be created using the same email address. This allows for a parent to use the same email address for their own and their child's portal accounts, for example. However, workflow issues could occur when the Account Recovery process was used for an email address associated to multiple accounts.

To address this, an evaluation will be done during Account Recovery to identify whether the email address is associated to more than one portal account. If so, the user will be prompted with additional questions to identify which portal account is to be recovered.

Verify your identity

Please answer a few questions about yourself. All fields are required.

First Name *

Last Name *

What is your date of birth? *



What is your ZIP code? *

NEXT

If multiple matches are still found, an additional filter will be applied, which will narrow down the results to only the Active account.

After identifying which portal account is to be recovered, the Account Recovery process will proceed as usual.

FEATURE #17720-17722 – PORTAL DATE FORMATS SHOULD MATCH RIS SYSTEM CONFIGURATION SETTING

Previously, most of the portals' date formats were hard coded. It is important to allow customers to control the date format for the portal. Therefore, portal date formats are now controlled via System Configuration settings.

This feature refers to two existing System Configuration settings:

- **DateFormat** – Example: yyyy-MM-dd
 - This is referred to as **short date** in **server** configuration.
- **TimeFormat** – Example: HH:mm
 - This is referred to as **short time** in **server** configuration.

In addition, a new System Configuration setting has been added:

- **PortalLongDateFormat** – Example: dddd, MMMM dd, yyyy
 - This is referred to as **long date** in **server** configuration.


If any issues with the date format configuration exist, error notifications will be presented upon log in to the portal. The intent is for the problems to be caught by an administrator during the test phase, so that external portal users do not see any errors related to the configuration. In all cases, users will not be able to log into the portal or Admin Portal until the date issue is resolved. When logging into the Admin Portal, a more informative message will be displayed regarding the date/time configuration issue.

- If date formats are invalid in the System Configuration table, an error notification will be displayed when attempting to log into the portals.
 - a. Example:
- If date formats in the System Configuration do not match server configuration, an error notification will be displayed when attempting to log into the portals, recommending that the server and System Configuration settings match.
 - a. Example: Unable to login due to system configuration error. System configuration setting for "PortalLongDateFormat" must be valid and must match server date format.
- In addition, an email will be sent with information about the date format issue.



Error Loading Page

Bhavya <unittest@testradarmed.com>

 If there are problems with how this message is displayed, click here to view it in a web browser.

Sent: Thu 31/8/17 10:21 AM

To: Veeranjanyulu Boina

CONNECT

Error Source

UserIdentity: RMIS\yboina

Computer Name: Veeranjanyulu-HP.rmis.pei

IP Address: fe80::6dda:8c6e:f3ab:c753%11

- fe80::900a:659d:fe8a:6cc9%18

- 10.100.16.157

- 10.100.16.236

<http://localhost:45926/admin>

Please verify date format in system configuration and would recommend server date format same as system configuration

Please don't reply to this email. You will not receive a response.

© 2017. All Rights Reserved.

Unauthorized use strictly prohibited.

FEATURE #17570 – CONNECT PORTALS: DISPLAY AN INFORMATIONAL HEADER WITHIN THE PROCEDURE PICKER TO GUIDE USERS TO THE CORRECT CHOICE

Previously, administrators were sometimes forced to use overly complex options in the Procedure Picker because there was no way to display the implied question. For example, instead of displaying a question "Is this exam the result of a new symptom?" with Yes and No answer options, the information had to be supplied in each answer: "This exam IS the result of a new symptom" and "This exam is NOT the result of a new symptom."

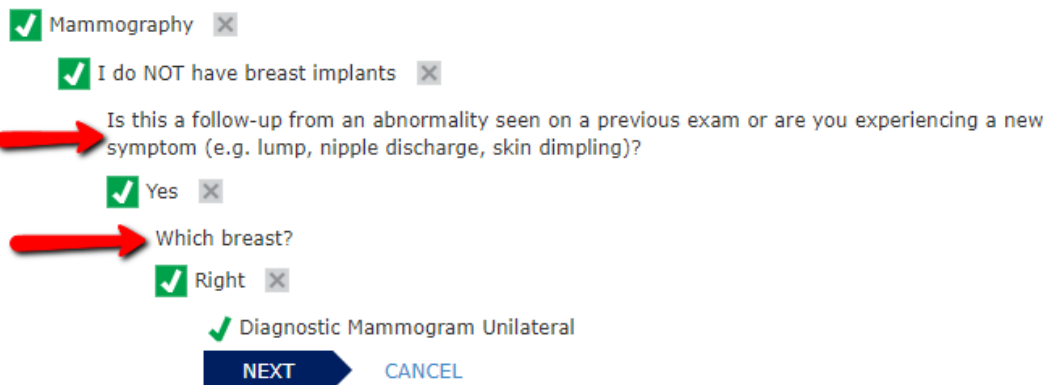
With more complex scenarios, the question answers could become convoluted and confusing for patients and referring offices. To allow the procedure picker to more elegantly handle complex choices, it is now possible for the RIS administrator to choose to display a header in the procedure tree that is displayed in the portals. The header can be used to display a question or other informational text about the selection options listed below it.

This feature applies to both the Connect Patient Portal and the Connect Provider Portal. The image below shows the use of headers in the Connect Patient Portal (see red arrows):

Select an exam

Review your prescription carefully and select the type of exam indicated.

Note: If this is a medical emergency, call 911. If this exam requires an immediate appointment, please contact us.



☒ Mammography ☐

☒ I do NOT have breast implants ☐

Is this a follow-up from an abnormality seen on a previous exam or are you experiencing a new symptom (e.g. lump, nipple discharge, skin dimpling)?

☒ Yes ☐

Which breast?

☒ Right ☐

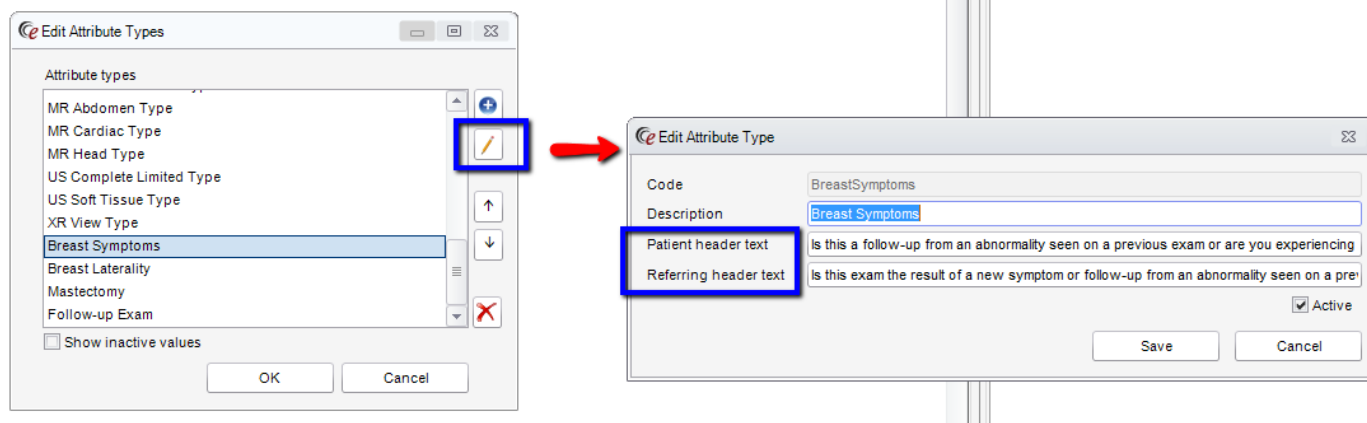
☒ Diagnostic Mammogram Unilateral

NEXT CANCEL

[ADD ANOTHER EXAM](#)

Two new fields have been added to the Procedure Picker Attribute Types:

- **Patient Header Text:** Header text to display in the Patient Portal.
- **Referring Header Text:** Header text to display in the Provider Portal.



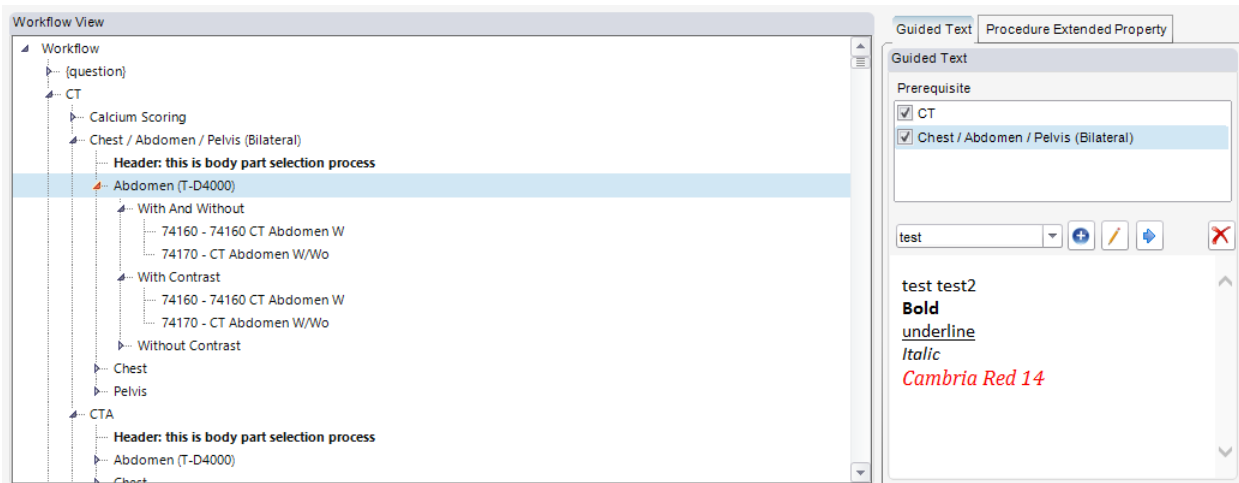
The text entered in these fields will be displayed in the portals just above the value selections for that type.

The Procedure Picker editor will show a preview of the decision tree, including headers, when viewed in Workflow View.



FEATURE #17642-17644 – DISPLAY GUIDED TEXT DURING PORTAL SCHEDULING

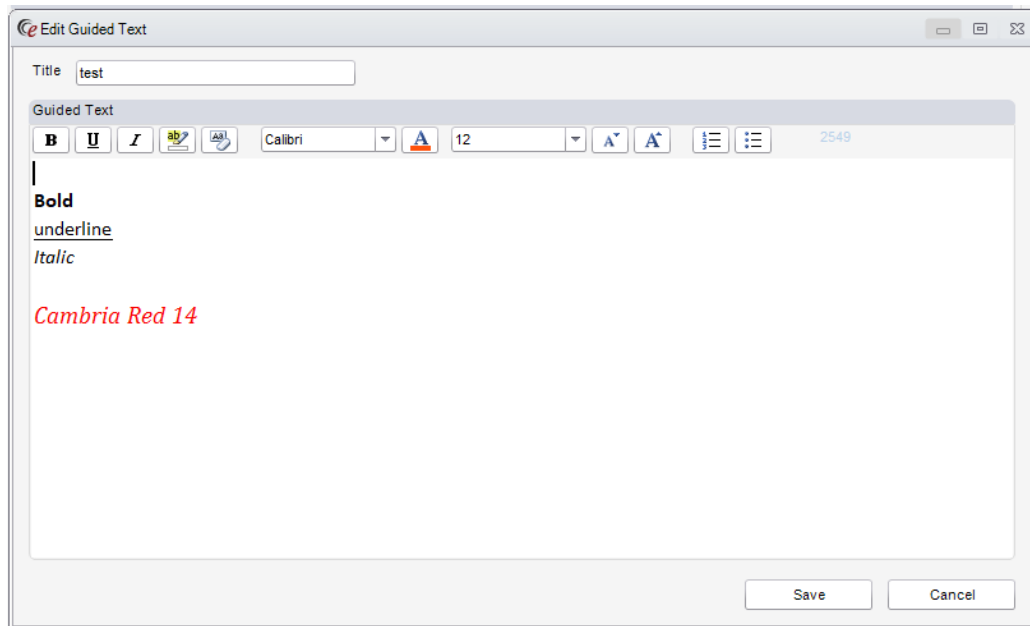
In an effort to assist the patient or referring office in selecting the correct procedure during online scheduling, sometimes it is beneficial to show some explanatory text to guide the user to selecting the correct choice in the procedure picker tree.

eRAD RIS now allows an administrator to configure this Guided Text via the Procedure Picker editor, based on the selected node in the tree.

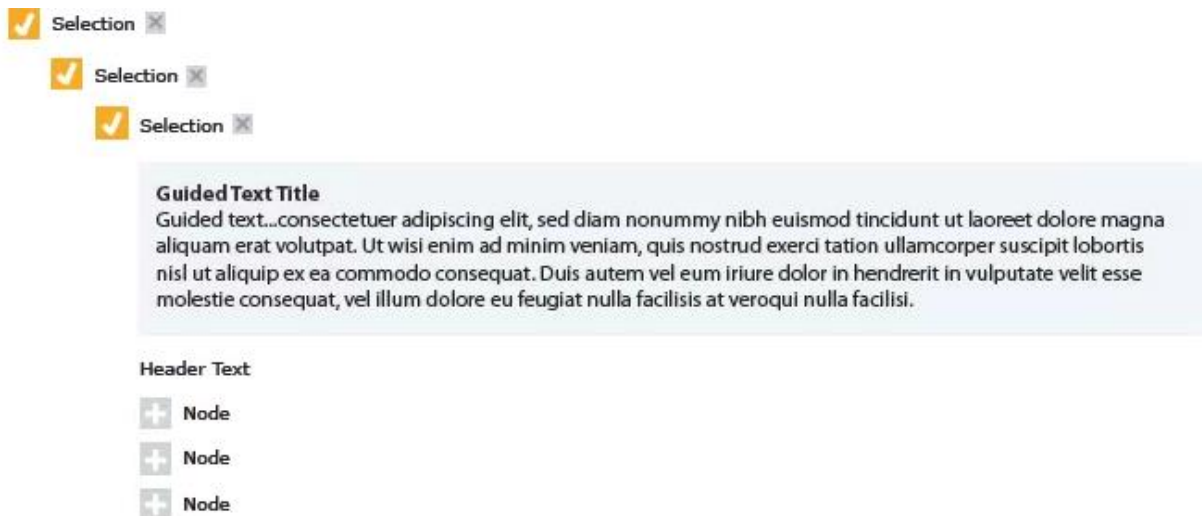


The **Guided Text** tab, on the right side of the image above, has several sections. The **Prerequisite** section will define at which nodes the guided text will be displayed. The dropdown will define which guided text will be used, with a preview of that guided text in the box below. As shown in the example above, it is possible to use a variety of formatting options in the guided text.

The add/edit buttons   will allow the administrator to create new guided text or edit the currently selected text:



The guided text will only display for the active node. The boxed area in the image below shows an example of how guided text will appear in the procedure picker tree.



FEATURE #17015,17016 – SCHEDULE PROCEDURE PLANS FROM THE PORTALS

Customers using Procedure Plans have requested the ability to use a Procedure Plan as the end result of the Procedure Picker tree for online scheduling in the Portals. This will simplify the scheduling process for the patient or referring, and will automatically link the exams for Linked Reporting, if the Procedure Plan is configured for this.

The Procedure Picker editor now supports the ability to assign a Procedure Plan as the final tree node. The administrator will check the box for “Include unassigned procedures” to display existing Procedure Plans to be mapped. The administrator can then select and map the Procedure Plan in the same fashion as a Procedure Code. As with Procedure Code mapping, right clicking the Procedure Plan will allow for the selection of an attribute.

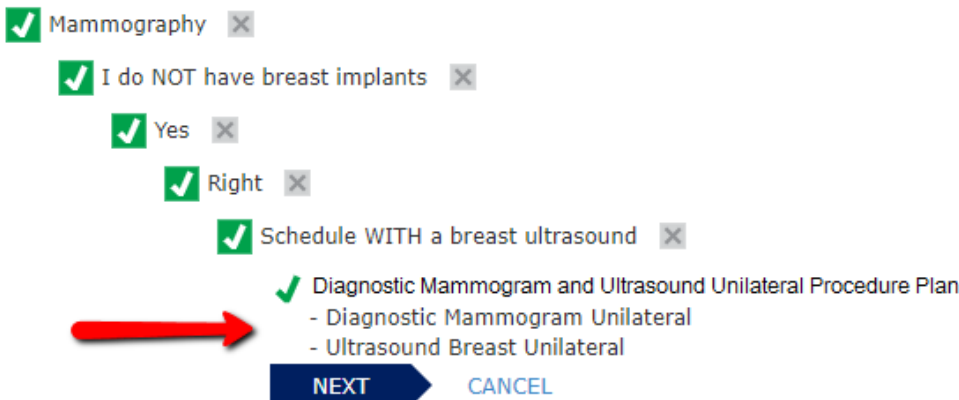
Displaying the Workflow View mode will show any section that is not fully mapped, just as with normal Procedure Codes.

When Procedure Plans are displayed in the Portals, the Procedure Plan description will be displayed, followed by the Portal Friendly Procedure Code description for each of the procedures included in the Procedure Plan.

Select an exam

Review your prescription carefully and select the type of exam indicated.

Note: If this is a medical emergency, call 911. If this exam requires an immediate appointment, please contact us.



✓ Mammography ✕

 ✓ I do NOT have breast implants ✕

 ✓ Yes ✕

 ✓ Right ✕

 ✓ Schedule WITH a breast ultrasound ✕

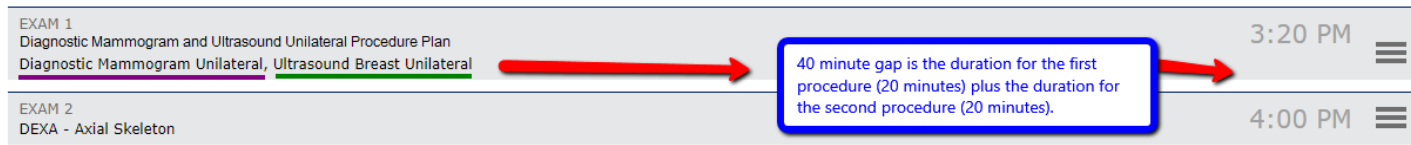
 ✓ Diagnostic Mammogram and Ultrasound Unilateral Procedure Plan

 - Diagnostic Mammogram Unilateral

 - Ultrasound Breast Unilateral

 NEXT CANCEL

From this point forward, the scheduling process will treat the Procedure Plan as if it were a single exam. When choosing a time slot, the portal will reflect the multiple procedures in the Procedure Plan as one exam, though in the RIS, the individual exams will be scheduled as usual. Inside the portal, procedures within a Procedure Plan will not display their individual start times.



In addition, if the user attempts to reschedule via the portal, all of the exams within the Procedure Plan must be rescheduled together. If any of the procedures have moved past a Scheduled status in the RIS, rescheduling via the portal will not be permitted and the user will be directed to place a phone call to reschedule.

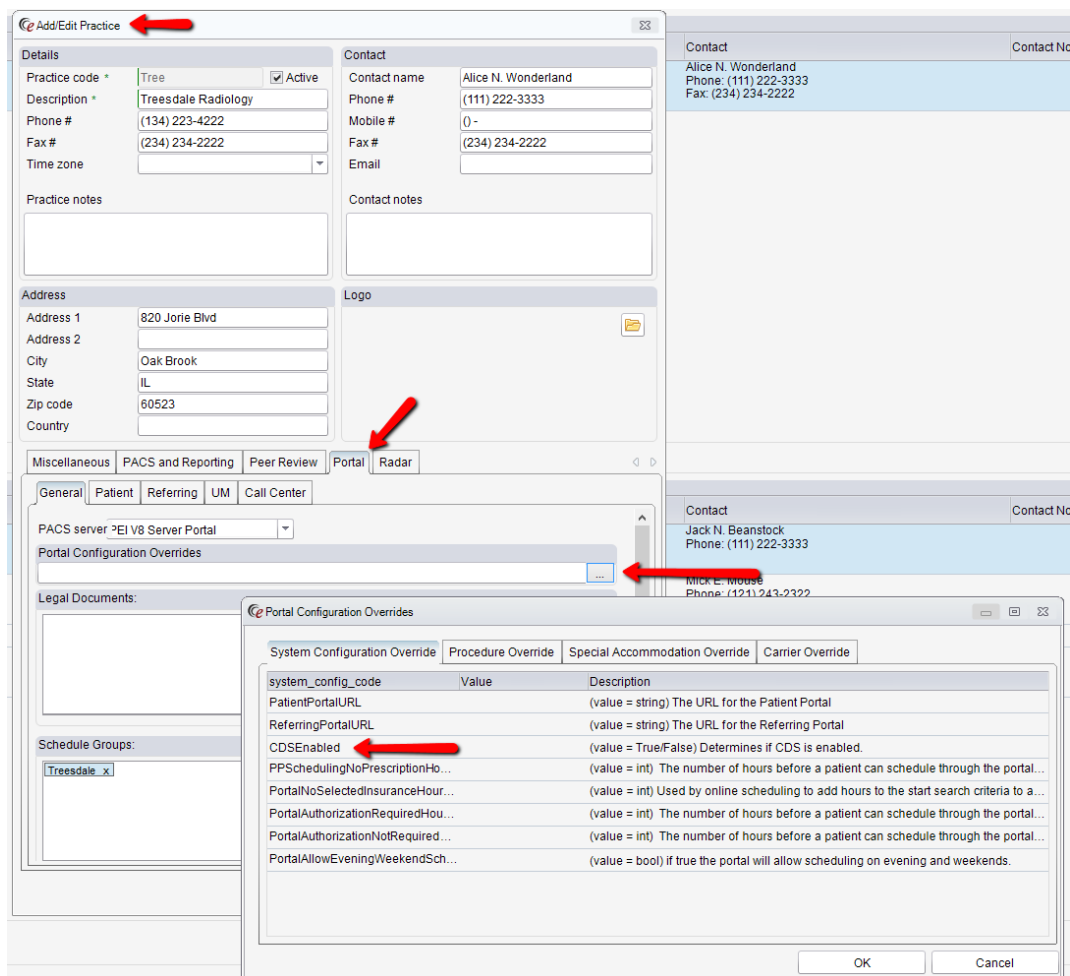
FEATURE #17131 – UPDATED PORTAL SYSTEM CONFIGURATION SETTINGS TO ACCOMMODATE CLINICAL DECISION SUPPORT

As eRAD RIS moves forward with Clinical Decision Support for the portals, a few new System Configuration settings were added to allow for configuration of various CDS elements.

The following System Configuration settings have been added:

- **CDSEnabled**: Determines whether CDS will be enabled for the Provider Portal.
- **CareSelectURL**: URL that will determine the CareSelect environment to be used (Production or Test).
- **CareSelectToken**: Used to indicate how to access the CareSelect environment.

An override for **CDSEnabled** has also been added at the Practice level. This can be configured in the Add/Edit Practice window of the Organization table. On the Portal tab, open the Portal Configuration Overrides screen and find the **CDSEnabled** setting on the System Configuration Override tab.



The screenshot shows the 'Add/Edit Practice' window with the 'Portal' tab selected. A red arrow points to the 'Portal' tab. Another red arrow points to the 'Portal Configuration Overrides' button. A third red arrow points to the 'CDSEnabled' setting in the 'System Configuration Override' tab of the 'Portal Configuration Overrides' dialog.

Portal Configuration Overrides

system_config_code	Value	Description
PatientPortalURL	(value = string)	The URL for the Patient Portal
ReferringPortalURL	(value = string)	The URL for the Referring Portal
CDSEnabled	(value = True/False)	Determines if CDS is enabled.
PPSchedulingNoPrescriptionHo...	(value = int)	The number of hours before a patient can schedule through the portal...
PortalNoSelectedInsuranceHour...	(value = int)	Used by online scheduling to add hours to the start search criteria to a...
PortalAuthorizationRequiredHou...	(value = int)	The number of hours before a patient can schedule through the portal...
PortalAuthorizationNotRequired...	(value = int)	The number of hours before a patient can schedule through the portal...
PortalAllowEvening/WeekendSch...	(value = bool)	if true the portal will allow scheduling on evening and weekends.

FEATURE # 17053 – REORDER INSURANCE STEP IN THE CREATE ORDER WORKFLOW

To better support workflows that require insurance information, such as Clinical Decision Support, the insurance selection step in the online scheduling workflow has been reordered to appear before the selection of a Procedure. This will allow the Portals to trigger workflow variations that result from the selection of the insurance. The new screen order is reflected below:

PATIENT INSURANCE EXAM PROVIDER ATTACHMENTS REVIEW **SCHEDULE** CONFIRM

Because the Insurance step now takes place prior to the procedure selection, Utilization Management review requirements can no longer be confirmed and presented on the Insurance screen. For this reason, a new UM Review step will be inserted into the workflow after the Exam questions. This step will only appear if the combination of Primary Insurance and Procedure trigger the UM requirement.

PATIENT INSURANCE EXAM **UM REVIEW** PROVIDER ATTACHMENTS REVIEW

FEATURE #17126-17128, 17075-17076, 17134 - PRESENT CLINICAL DECISION SUPPORT MECHANISM IN DECISION TREE WHEN INSURANCE AND PROCEDURE REQUIRE CDS

For the beginning stages of Clinical Decision Support in the portals, online scheduling/ordering required a new step in the Procedure Picker tree when CDS is required.

In the Patient Portal, that step simply prevents the patient from continuing with the online scheduling process and directs them to contact the Scheduling Department via phone, with an explanation that their ordering provider is required to use Clinical Decision Support.

BACK

Select an exam

Review your prescription carefully and select the type of exam indicated.
Note: If this is a medical emergency, call 911. If this exam requires an immediate appointment, please contact us.

☒ CT

×

☒ Calcium Scoring

×

☒ Arm

×

☒ Without

×

This Selection requires your ordering provider to use Clinical Decision Support. Please contact us.
(647) 781-4675
Call Center Hours:
24/7 hours
MRN: 2
Please provide us with this ID so that we can quickly locate your appointment when you call.

CLOSE

CANCEL

ADD ANOTHER EXAM

Ap

PAT

Sec

DOE

MRN

In the Provider Portal, the procedure picker tree will allow the provider to use the National Decision Support Company's CareSelect Clinical Decision Support mechanism to obtain CDS from within the Connect Provider Portal.

The provider will first be asked to select the appropriate Clinical Indications. Entering the reason for exam will filter the available clinical indications to show those that are relevant.

CT

Chest / Abdomen / Pelvis

Abdomen

Without

Yes

No

This selection requires you to use Clinical Decision Support.

Enter the reason for the exam

SELECT CLINICAL INDICATIONS

☐ Abd mass, palpable, non-pulsatile(R19.00 | R19.01 | R19.02 | R19.03 | R19.04)
 ☒ Abd mass, pulsatile, AAA suspected(R19.00)
 ☐ Abd pain, gastroenteritis or colitis suspected(K51 | K52 | A09 | R10.84 | R10.9 | R52)
 ☐ Abd swelling, ascites suspected(K71.51 | K70.11 | K70.31 | R18 | R18.8 |

Can't find a match?

APPROPRIATENESS RANKINGS FOR A 30 YEAR OLD MALE

Display Evidence

INDICATIONS: Abd mass, pulsatile, AAA suspected(R19.00)

7	CT Abdomen W WO [CPT:74170]	REPLACE
9	US Abdomen Complete [CPT:76775]	REPLACE
9	US Abdomen Limited [CPT:76775]	REPLACE
9	US Aorta [CPT:76775]	CONFIRM

REMOVE EXAM

ADD ANOTHER EXAM

The portal will then display appropriateness rankings and scores for the selected procedure and alternative procedures.

APPROPRIATENESS RANKINGS FOR A 30 YEAR OLD MALE

Display Evidence

INDICATIONS: Abd mass, pulsatile, AAA suspected(R19.00)

9	US Abdomen Complete [CPT:76775]	REPLACE
9	US Abdomen Limited [CPT:76775]	REPLACE
9	US Aorta [CPT:76775]	CONFIRM
9	US Gallbladder [CPT:76775]	REPLACE
9	US Liver [CPT:76775]	REPLACE

If the provider cannot find a matching clinical indication, they can click the [Can't find a match?](#) link. They will then be directed to call the scheduling department for assistance.

Clicking the [Display Evidence](#) link will provide a new tab with a PDF document from CareSelect, displaying additional information regarding their appropriateness scores and ranking.

ect™

[Provide Feedback](#)
[ACR](#)

Date of origin: 1995
Last review date: 2012

**American College of Radiology
ACR Appropriateness Criteria®**

Clinical Condition: Pulsatile Abdominal Mass, Suspected Abdominal Aortic Aneurysm

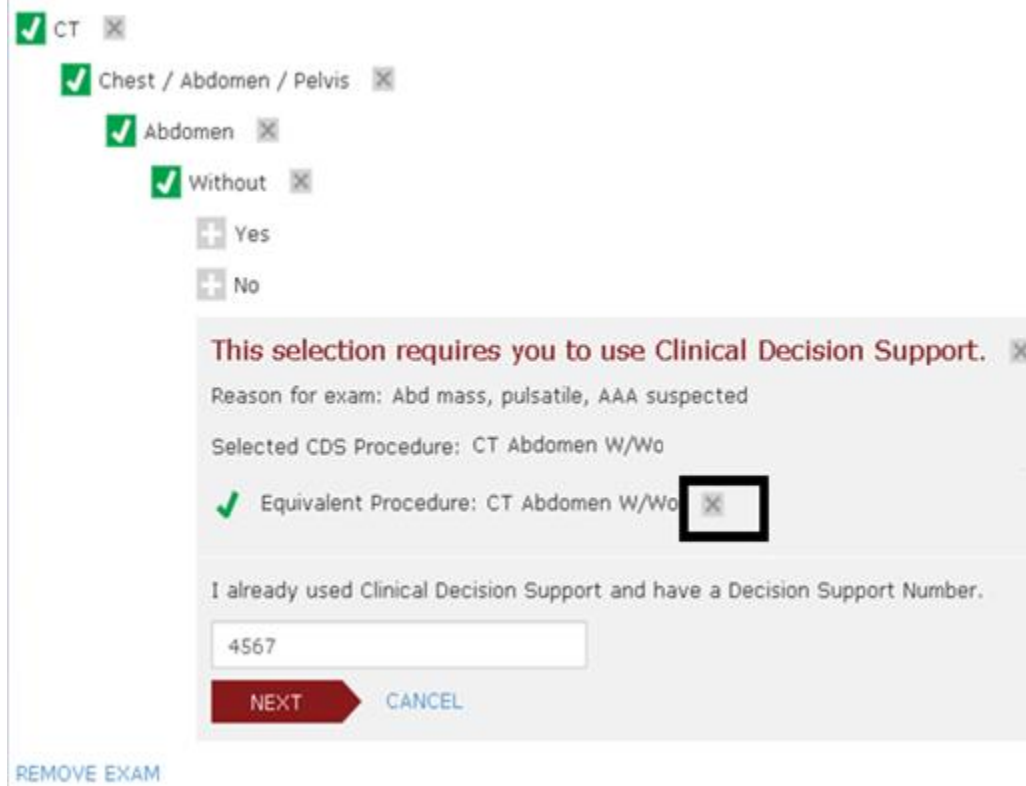
Radiologic Procedure	Rating	Comments	RRL*
US aorta abdomen	9	Initial examination. May be limited by body habitus or acoustic window.	O
CT abdomen without IV contrast	8	Preferred for symptomatic patients. Suitable for patients in whom US is not useful.	☼ ☼ ☼
CTA abdomen with IV contrast	7	Also enables preinterventional planning.	☼ ☼ ☼
MRA abdomen without IV contrast	6	Alternative to CTA. Unable to detect calcium. Site-specific expertise important.	O
MRA abdomen without and with IV contrast	6	Alternative to CTA. Unable to detect calcium. Site-specific expertise important.	O
Aortography abdomen	2	Essentially replaced by cross-sectional imaging for diagnostic purposes. May be used for preinterventional planning.	☼ ☼ ☼
FDG-PET/CT abdomen	2		☼ ☼ ☼ ☼

Rating Scale: 1,2,3 Usually not appropriate; 4,5,6 May be appropriate; 7,8,9 Usually appropriate

*Relative Radiation Level

The provider can click the [Replace](#) button to choose an alternative exam, or click the [Confirm](#) button to continue with the exam that was chosen in the procedure picker tree.

The procedure tree will display the selected procedure and CDS information, as shown below.



The screenshot shows a procedure selection tree on the left with the following items checked: CT, Chest / Abdomen / Pelvis, Abdomen, and Without. Below these are expandable sections for 'Yes' and 'No'. A modal window is open in the center with the following content:

- This selection requires you to use Clinical Decision Support.** (with a close button)
- Reason for exam: Abd mass, pulsatile, AAA suspected
- Selected CDS Procedure: CT Abdomen W/Wo
- ☒ Equivalent Procedure: CT Abdomen W/Wo (with a close button highlighted by a black box)
- I already used Clinical Decision Support and have a Decision Support Number.
- Input field containing: 4567
- Buttons: NEXT (red arrow) and CANCEL (blue text)

At the bottom left of the main interface, there is a 'REMOVE EXAM' link.

The **Equivalent Procedure** will display the portal friendly description of the eRAD RIS Procedure Code that is mapped to the CareSelect option selected.

If the provider has already used a Clinical Decision Support mechanism and has a **Decision Support Number**, that can be entered.

If the provider has made a mistake and selected an incorrect option from the CareSelect window, the X next to the end of the Equivalent Procedure (emphasized with a black box in the above image) can be clicked to take the provider back to the procedure tree.

The **Decision Support Number**, manually entered or the number that is automatically generated when the provider uses CareSelect via the portal, will be saved in RIS, along with the appropriateness score for the selected procedure.

Clicking Next will take the provider to the **Exam Questions** step of the ordering workflow. The Reason for Exam question will automatically contain the clinical indication(s) selected during the CareSelect workflow. The provider can add additional information as well.

BACK

Exam Questions

What is the reason for the exam?

Chest pain, acute coronary syndrome suspect

Does the patient require any special accommodations?

What is the patient's current weight (lbs)?

lbs

Does your patient have heart valve replacements?

Does your patient have cardiac stents?

Does your patient have aneurysm clips?

Does your patient have any surgical implants (e.g. IVC filter, neurostimulator, medication pump, screws, pins, rods, joint replacements, or tissue expanders)?

DETERMINING WHETHER CDS IS REQUIRED

To indicate whether Clinical Decision Support is required based on the selected nodes in the procedure picker tree, a new setting is available in the Procedure Picker configuration table. A **CDS Enabled** option is available on the **Procedure Extended Property** tab, as shown below. There are 3 options for the setting's value:

- Blank – If the setting is left blank, other configuration will determine whether CDS is required based on Billing Code and Insurance Carrier, as defined in the CDS Rules table.
- Y – This setting will **require** CDS regardless of other configuration settings, such as the Billing Code and Insurance Carrier requirements defined in the CDS Rules table.
- N – This setting will **disable** CDS even if it is configured to be required based on the Billing Code and Insurance Carrier, as defined in the CDS Rules table.

Workflow View

- Workflow
 - {question}
 - CT (Computerized Tomography)
 - Body
 - Abdomen Only
 - Without Contrast (sometimes called Dry)
 - With Contrast (sometimes called Wet)
 - 74160 - CT Abdomen W
 - With and Without Contrast (sometimes called Wet and Dry)
 - Not Sure of Contrast
 - Abdomen and Pelvis

Guided Text

Procedure Extended Property

Extended Properties

Prerequisite

☐ CT (Computerized Tomography)
 ☐ Body
 ☐ Abdomen Only
 ☒ With Contrast (sometimes called Wet)

74160 - CT Abdomen W

☐ ☐ ☐

Misc

CDS Enabled Y

CDS Enabled

Enable/Disable CDS based on the selected nodes ('Y'=CDS used regardless of setting...

The following features are specific to the [Patient](#) Portal.

FEATURE# 16680, 16685-16688 – SPECIFY A DATE RANGE WHEN VIEWING, DOWNLOADING, OR TRANSMITTING A C-CDA

The C-CDA tab in the Patient Portal now has the ability for the patient to choose a date range to be included on the C-CDA. The date range filter will only be available when viewing the most recent C-CDA in the portal.

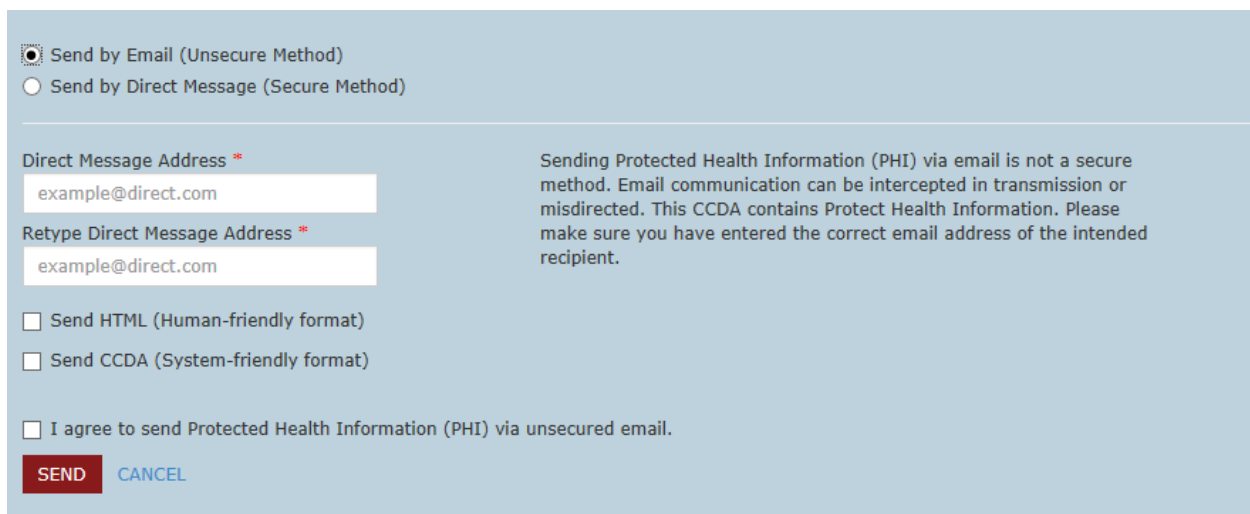


The screenshot shows the Patient Portal interface with the 'CCDA' tab selected. Below the tabs, there are two date range filters: 'From' and 'To', each with a text input field (mm-dd-yyyy) and a calendar icon. To the right of these filters is a red 'UPDATE' button.

After entering a date range, clicking Update will refresh the displayed C-CDA document to display data for the specified date range.

After changing the filter for the displayed C-CDA, the patient can then Download or Transmit the C-CDA with the same date range.

The C-CDA can now be transmitted via email, in addition to Direct Message. By default, the Direct Message option will be used, but the patient has the ability to choose to send to an unsecure email address. To do so, the patient must check a box acknowledging that they choose to send their Protected Health Information via unsecured email.



The screenshot shows the 'Send by Email (Unsecure Method)' form. It includes radio buttons for 'Send by Email (Unsecure Method)' (selected) and 'Send by Direct Message (Secure Method)'. Below these are two text input fields for 'Direct Message Address' and 'Retype Direct Message Address', both containing 'example@direct.com'. To the right of these fields is a warning message: 'Sending Protected Health Information (PHI) via email is not a secure method. Email communication can be intercepted in transmission or misdirected. This CCDA contains Protect Health Information. Please make sure you have entered the correct email address of the intended recipient.' Below the input fields are two checkboxes: 'Send HTML (Human-friendly format)' and 'Send CCDA (System-friendly format)'. At the bottom, there is a checkbox for 'I agree to send Protected Health Information (PHI) via unsecured email.' and two buttons: 'SEND' (red) and 'CANCEL' (blue).

Sending the C-CDA will add an entry to the Activity Log, indicating the address to which it was sent.

FEATURE #16981 – CEHRT – WEB CONTENT ACCESSIBILITY GUIDELINES

Web content accessibility guidelines are developed through the W3C process in cooperation with individuals and organizations around the world, with a goal of providing a single shared standard for web content accessibility that meets the needs of individuals, organizations, and governments internationally.

The eRAD RIS Patient Portal is required to be compliant with the web accessibility guidelines (WCAG) 2.0 Level A. An evaluation tool was used to identify areas that required alteration and the appropriate changes were made.

FEATURE #17050 – CHECK FOR UM BASED ON SELECTED INSURANCE AND EXAM

When an exam requires Utilization Management (UM), the patient is now prevented from scheduling via the portal. Instead, they are directed to contact the appropriate call center.

Based on the selected insurance carrier and the selected exam, an evaluation will occur to determine whether Utilization Management is required. If so, when the patient clicks the Next button in the Insurance step, a message will appear, explaining that the exam requires a review for medical necessity. The configured scheduling contact information will be displayed and the patient will be prevented from making an appointment.

The patient does have the ability to change the insurance, which could result in the selection of an insurance carrier or payment method that does not require Utilization Management, which would remove the restriction and allow the patient to continue to schedule.

The following features are specific to the [Utilization Management](#) Portal.

FEATURE #16929 – ENHANCE USER MANAGEMENT IN THE UM CONNECT ADMIN TOOL, INCLUDING ABILITY TO ASSIGN A MEDICAL GROUP

Previously, UM Connect users had to be added/edited through the Personnel editor in RIS because the Admin Portal did not have the ability to map a user to one or more Medical Groups or assign a Contact Type. To make it possible to add UM Connect users via the Admin Portal, some new functionality has been added.

The User Details tab now has dropdowns to select one or more Medical Groups, as well as the user's Contact Type for that Medical Group.

Medical Group	<div>AY medical group</div> <div>SeaView IPA</div> <div>Summerside Group</div>	Contact Type	<div>QE Tester</div> <div>Administration</div> <div>Administration</div>	Remove Remove Remove
	Add			

A new column has been added to the Medical Group Contact Type look-up table: [UMP Visible Flag](#). If set to Y, the Contact Type will be available in the dropdown.

Lookup - MedicalGroupContactType X				
Medical Group	Contact Type Code	Description	Display Order	Ump Visible Flag
Contains:	Contains:	Contains:	Equals:	Contains:
* Billing	Billing	1	Y	11
Contract	Contract	1	Y	11
Physician	Physician	1	Y	11
Scheduler	Appointments	1	Y	11
▶ UM Reviewer	Reviewer	1	Y	11
Administration	Administration	1	N	11

If the user was already assigned a Contact type via the RIS, then that Contact type will still display even if the [UMP Visible Flag](#) is set to N.

One additional update has been made to the User Management screen. The [Practice](#) column has now been replaced with a [Medical Group](#) column, which is the relevant information for the UM Connect Portal.

Last Name	First Name	Role	Username	RIS ID	Medical Group	Status
EDIT	Noye	Darcy	darcyn	1125	AY medical group, SeaView IPA, Summerside Group	Active

RESOLVED DEFECTS

RIS

Bugs and support issues resolved in build 3.2017.6.

Bug #	Category	Subject
3642		Resolved a bug seen when using "skip and continue" workflow where the skip order may not behave as expected when moving between studies that are Exam Done status and studies that are Signed pending addendum.
17395		Created a new System Configuration setting, RadarDirectAPIURL, to define the API URL to use for Direct Messages.
17490		When an exam is removed from a saved order (black X), the removed exam no longer displays in the Cancellation Reason screen.
17857		When adding a new Attribute in Procedure Picker table, the Attribute window no longer closes after receiving an error message due to a blank field.
17946		Resolved an issue where a required field message for Outside Reads did not list the field that was missing data.
11265	Access strings	Some missing access strings were added for various Alerts and Flags.
17435	Access strings	Renamed access string "Clinical.ExportDICOMImage" to "Clinical.BurnCD."
17665	Access strings	Additional missing access strings have been added as a clean-up effort.
17345	Admin-Clinical Data	Resolved an issue that could cause the Issuer of ID to be hidden after making changes to the current selection.
16726	Admin-Other	Selecting a 'named' color in Portal Worklist configuration editor no longer throws error when selecting worklist tab row.
4299	Admin-Other	Administration - M*Modal Document Model - Error no longer occurs on right click preview of expanded rows.
17341	Admin-Other	Browser Config look-up editor now allows administrator to remove a value from URL and leave it blank.
17676	All Workflows	When a second PrintToRIS job is started while the first document is still open, the second request is no longer ignored.
16043	Appointment book	Inactive Modality Types are no longer showing in Appointment Book filter.
4781	Appointment book	The refresh button in the Appointment Book now displays newly added modality restrictions, closures, business hours alterations, etc.
17677	Appointment book	Appointment Book no longer allows user to move (drag) an

		appointment to an inactive room.
18113	Appointment book	No longer receive error after text is typed in a row on the Appointment Book and then the row is opened.
16616	Billing	Additional logging implemented to identify when Imagine and RIS become out of sync.
18065	CCDA	Resolved an issue related to an empty string for Gender when sending a C-CDA via Direct Message. No longer receiving error.
16790	CD Import	It is now possible to successfully import images from a CD without a DICOMDIR, with no additional action required from user.
18817	CD Import	Added missing DLLs to resolve a "JPEG Lossless" error that could occur under certain conditions.
1923	CEHRT	When printing a Clinical Summary, the Offered Clinical Summary checkbox is no longer automatically checked if the print job is cancelled.
7619	CEHRT	Direct Message data pane is now appropriately indicating unsaved changes exist when changes are made to the grids.
9253	CEHRT	Error no longer displayed when deleting a Lab Order when several exist.
15009	CEHRT	Made some style sheet changes to C-CDA to resolve errors found using Edge testing tool.
16750	CEHRT	Language look-up codes updated to match new 2015 Edition codes for CEHRT.
16788	CEHRT	SNOMED code column now available for Family Relation and Family History look-up tables.
17377	CEHRT	Updated C-CDA to only contain a single "Documentation of" section, resolving validation errors.
17423	CEHRT	Alert Configuration table can now be edited.
12363	CEHRT	Added System Configuration settings to hide CCR and C-CDA buttons for non-U.S. customers if desired. MUShowCCRButton MUShowCCDAButton
17218	CEHRT	Updated database installer to stop importing MU2 CMS codes.
17849	CEHRT	Resolved an issue which could prevent NewCrop from launching due to "Zip4" error.
12142	CEHRT	Resolved "invalid character" error with C-CDA preview.
17536	Citrix Bridge	Updated Citrix Bridge icon in Windows tray to match the new icon in Start menu.
17045	Clinical Tab	Resolved an issue which could prevent BMI from being displayed on Reschedule screen.
17276	Confirmation	Resolved an error which could occur when registering an appointment with one order and two exams when one exam is deleted then replaced.
17305	Digital Forms	Digital Form editor is again displaying grid lines on top of sections.
16427	Document Distribution	When editing multiple jobs on the Distribution WL, the "deliver to" field is no longer altered inappropriately.
16970	Document Distribution	Recipient and Address are now being set when retrying a

		distribution job for UM Opinion Letter, which could previously cause an error and prevent distribution.
17238	Drawing Tool	Breast diagram is now localized for Hebrew.
17408	eRAD Editor	Resolved an issue in the Template/Macro editor for eRAD Reporting mode where the "Waiting" cursor (blue circle) would not disappear properly after saving.
17955	Flags	Allergy Flag is no longer displayed on the worklists if the allergy has been set to inactive.
17713	HL7	When inbound orders from the Wedge did not contain a referring address, RIS was using the first address for the referring]g physician when creating the Verbal Order form. It is now using the first active address for the referring.
17297	ICD	ICD codes are now maintained when an order is rescheduled.
17282	Image request	It is now possible to add an Image Request prior to adding a Referring Physician. Previously, this was causing an object reference error.
17788	Image request	Resolved a Telerik.WinControls error that could occur when resetting the Image Request WL layout when filtering contained a conditionally formatted row.
17798	Image request	Image Request History management report will now include completed requests, as appropriate.
17224	Inbound Document	A progress bar has been added when RIS is extracting TIFF or PDF documents during Inbound Document workflow. This will reduce the appearance that RIS is freezing when a large, multi-page document is being extracted.
17623	Inbound Document	Resolved an issue that could cause the inbound documents to stay on the WL after the user associates them to an existing order.
17465	Inbound Document	Resolved a memory leak that could cause an Inbound Document page to show as blank in the document viewer after being classified.
17636	Inbound Document	Resolved an issue where configuring a ScanType with a Display Order of 0 could cause other documents to be stored at that ScanType's assigned level under certain conditions.
17118	Inbound Document	Inbound Document Service no longer interferes with Service shutdown.
17521	Inbound Document	When the Inbound Document WL receives a file type that is not supported, the user is now informed that the file type is invalid and cannot be displayed.
18156	Inbound Document	Corrupt or 0 byte PDF files on the Inbound Document WL would previously throw an error and could not easily be cleared from the worklist. Now these will display a blank page that can be discarded from the worklist.
17039	Interfaces	Made adjustment to a query used by RIS Wedge to be more efficient and avoid c_action_queue backups.
16724	IVT / Precert	Carrier editor's PreCert Rules context menu item will now include rules based on Carrier Type when the PreCert Rules editor is

		opened.
16412	Localization	Added Hebrew localization on the technologist copy/paste dialog.
17142	Localization	Added Hebrew localization for some stray items in User Preferences.
14795	Localization	Replaced "\" with single quotes where applicable in localization files.
13340	Localization	Added Hebrew localization for 3 PACS user messages.
17648	Lookup Tables	Resolved an issue that could cause an "index out of range" error when filtering look-up tables with the letter "u."
17758	Lookup Tables	Modality look-up table is now showing the Site Code with the site description in parenthesis.
18021	Lookup Tables	Resolved "Missing operand after 'scode' operator" error which could occur when interacting with an order containing a Procedure Code with a single quote (').
13044	Mammography	Resolved an issue where a Mammo Tracking Reminder was not removed when an Addendum changed the Recommendation to one that should not issue a Reminder.
16703	Mammography	Resolved an issue with Printer configuration rules not being properly enforced for some mammo letters on Distribution WL.
2534	Mammography	When using Mammo Follow-up worklists, resolved an issue where order level data changes on the Follow-up tab are not carried forward when the Schedule button is clicked before saving the changes.
14645	Mammography	Resolved an issue related to registering a Mammo Tracking Reminder.
18060	Mammography	Adjusted a stored procedure to update Mammo Reminder categories to make it more efficient and avoid hanging.
17941	Meaningful Use	Offered Clinical Summary checkbox is no longer incorrectly checked when form printed for another open study.
16990	Messaging	In order to appropriately forward external notification emails to configured portal administrator user groups, a "from" RIS user must be created and the user key added to the System Config setting: GenericIncomingMessagePersonKey.
16017	Mgt Reports	ReportDeploymentLog now differentiates reports using an alternate report server with an asterisk.
17432	Mgt Reports	Scheduler Activity management report was updated to improve efficiency. No longer causes excessive physical IO.
15166	Mgt Reports	Scheduled vs Performed management report was updated to improve efficiency. A new stored procedure is used to capture the procedure code that was scheduled at the time the technologist begins the exam, so that it can be compared to the procedure code that is ultimately chosen by the technologist.
17487	MRN	Duplicate Issuer/MRN in grid will appropriately display error when scheduling/creating order.
18041	PACS (eRAD) Int - RIS only	After viewing images from View/Edit window, images are now closing properly when the View/Edit window is closed

17541	PACS (eRAD) Integration	Cache time is now appropriately using the server time instead of UTC time.
17553	PACS (eRAD) Integration	Caching now appropriately starts at the top of the WL after using Skip and Continue and then closing/reopening WL.
19291	PACS (eRAD) Integration	Resolved an issue which would previously cause a "get_ViewSessionIDs" error.
15694	PACS (Non - eRAD) Integration	All internet explorer browsers opened via the Sectra PACS integration are appropriately closed when user closes RIS.
16879	PACS (Non - eRAD) Integration	Resolved "IsCitrixBridgeAlive" error that occurred when canceling UV PACS credential screen.
16998	PACS (Non - eRAD) Integration	Resolved a "cross-thread" error that could occur when opening a study in dictation screen.
13610	PACS (Non - eRAD) Integration	URL is now displayed on PACS log-in dialog. This was previously missing for non-eRAD PACS.
14766	PACS (Non - eRAD) Integration	Enable/Disable PACS options are no longer disabled when the PACS Viewer is not found to be running at the time of launch. Improved crash recovery when there are issues with RIS/PACS communication.
17241	Patient Management	Patient Merge now appropriately handles multiple MRN issuers.
16488	Patient Search	Context menu in Patient Search now lists New Appointment and New Walk-in for both internal and external results.
17671	Patient Search	Date of birth is no longer assuming a birth year of 20xx when searching for birth dates prior to 1930.
17277	Peer Review	Resolved a "Get node by index" error that could occur if the Portal datapane was visible during Next workflow.
17526	Person Management	Adding Alternate ID is now possible for Personnel with an NPI.
15198	Powerscribe Integration	AutoFeed option will properly reappear on in the status bar when switching reporting modes from a non-PowerScribe mode back to PS360.
18610	Powerscribe Integration	After disabling PowerScribe, PowerScribe will not automatically be re-enabled after one exam and will remain disabled until the user chooses to enable it.
15138	Problem Workflow	Resolved error that could occur when resolving a Problem if the System Config for LockDurationInMinutes was set to 0.
15337	RADAR	Resolved an issue that could show email as a RADAR Quick Message option for patients without an email address.
17922	RADAR Nudge	Resolved an error which could occur when using WPR workflow when user is RADAR enabled.
9423	Radiology Reporting	Resolved an issue where the QA Flag would not be removed when verifying reports if the Assign To panel was closed or hidden.
10746	Radiology Reporting	Resolved an issue where next workflow could skip Addendum Requested studies under certain conditions.
16250	Radiology Reporting	Resolved an issue where long dictations that fail to save could be deleted and the radiologist was not able to attempt to re-save.
16319	Radiology Reporting	Breast Drawing is now loaded on CTRM screen.
16320	Radiology Reporting	Breast Drawing is now loaded on Peer Review screen.

16344	Radiology Reporting	Implanted devices are now loaded on Utilization Management screen.
16418	Radiology Reporting	Using Skip and Continue after opening an Addendum from the View Study screen now appropriately opens the next study in the View Study screen, instead of starting an addendum.
16471	Radiology Reporting	Visit goal, condition and patient immunization are now loaded on Confirmation screen.
17019	Radiology Reporting	Editor is no longer double prompted when audio is not available.
17068	Radiology Reporting	Resolved an issue that could cause an error when checking "Show all versions" in Report History.
17220	Radiology Reporting	Resolved an issue where the Dictate screen could fail to load if choosing to dictate an addendum from the View Study screen, if the user had clicked Skip and Continue on the previous study.
17010	Radiology Reporting	Resolved an issue reloading the dictation control after an error occurs during save.
17440	Radiology Reporting	Editor is no longer receiving a null reference error caused by PatientHistoryControl.ResizeLastColumn.
17486	Radiology Reporting	CC physician is no longer listed on "Copy To" in diagnostic report if the CC physician has chosen to Disable Report Delivery.
17562	Radiology Reporting	All panels are now enabled when using Emergency Access in reporting screen.
17660	Radiology Reporting	No longer receive object reference error when submitting a report on accession when Dictate screen is also open.
17738	Radiology Reporting	When a technologist has added additional studies from the Perform Exam screen, the radiologist can now appropriately load the studies using Next workflow.
18034	Radiology Reporting	No longer receive an object reference error when clicking Microphone Calibration button after disabling speech mike.
18036	Radiology Reporting	Notification for Pending Signature is appropriately displaying when configured count is met.
16588	Reception	For linked studies, the Overbook reason for one study should automatically populate to all other linked studies.
17441	Registration	Resolved a lang file issue that caused an "Input string was not in a correct format" error during registration in Hebrew environments.
16494	Scanning	Resolved an issue that could cause the "Attached By" field in Attachments screen to change to a question mark after being viewed by another user.
17290	Scanning	Resolved an issue that could prevent scanned documents from saving if the Attachment Viewer is open when the user clicks a save button such as Checking In.
17294	Scanning	ScannerEventlog.txt is now saved to folder c:\users\<username>\Appdata\Roaming\rTwain\ on the Citrix server.
17301	Scanning	Resolved an issue that could prevent attachment levels from updating when categorizing scanned documents with quick keys in a non-English environment.

17737	Scanning	When using PrintToRIS tool on a multi-page PDF, all pages are now appropriately included.
15632	Scheduling	Height and Smoking Status are appropriately populated when scheduling from the ACR Category 0 Follow-up WL.
17062	Scheduling	Age label is appropriately displayed during Rescheduling.
17110	Scheduling	Resolved an error that could occur if scheduling 3 or more orders where Order A and C are both Procedure Plans and Order B is not.
17191	Scheduling	Resolved an issue that could cause an object reference error when adding an Unknown Referring.
17414	Scheduling	Disabled the ability to click the Schedule button multiple times while Print Forms dialog is loading, which could cause an error or multiple appointments to be created.
16944	Scheduling	When rescheduling an order, the Preferred Location now lists the Practice and Site from the previously scheduled study.
17292	Scheduling	Existing Order prompt now appropriately displays when using the "Schedule From" option.
17581	Scheduling	Resolved issue which could prevent rescheduling a cancelled order due to an "ExpirationMonthYear" error related to Insurance plan expiry date.
16617	Technologist	Resolved an issue that could prevent a provider's Preferred Radiologist from being assigned if the provider had a resource type of Surgeon or Marketing Representative.
16628	Technologist	Automatic including and copy/pasting of exams for linked collections now only occurs within the same modality type.
17184	Technologist	Appropriately enforcing laterality requirement when changing procedure after Started status.
16850	Technologist	Appropriately populating Body Part when adding a new procedure from Perform Exam screen.
16595	Technologist	Resolved a Validation Rule issue that could prevent UI Action type rules from firing on Perform Exam screen.
17802	Technologist	Now possible to select different room when adding an exam from the Perform Exam screen.
16321	Thick Client GUI	Patient's race is now populating appropriately on Finding Follow-up and Mammo Follow-up screens.
16322	Thick Client GUI	Family History is now populating appropriately on UM, Finding Follow-Up, and Mammo Follow-Up screens.
16326	Thick Client GUI	When patient's address is updated from Medical Record access, it is now updating appropriately to other screens.
16327	Thick Client GUI	Image requests created on the Schedule screen are loaded when viewing the Image Requests tab in Registration.
16553	Thick Client GUI	Prior patient notes are loading in the Edit Image Request screen.
16859	Thick Client GUI	RIS locking is disabled in Single Sign On mode.
4647	Thick Client GUI	After upgrade, Location Filter (Organization Picker) will maintain the last selection that was made by the user on the current workstation.
17628	Thick Client GUI	Implantable device rows are no longer temporarily hidden when

		adding a new appointment.
18594	Thick Client GUI	Stale cache no longer causes delay in enforcing changes to User Groups.
17338	UI Look and feel	Added language localization for Add Unknown Referring in scheduling workflow.
17701	UI Look and feel	If a user enters invalid UTF16 characters into the Height or Weight fields, RIS will clear the invalid characters from the field. This change is made in response to an issue where RIS could crash after foreign language characters sporadically appear in those fields. Additional logging will take place if invalid UTF16 characters are detected in these fields.
15843	UI Look and feel	Date format in the Log Control will now match the System Configuration setting for date format.
17578	UI Look and feel	The audit functionality for configuration tables has been renamed: Audit Changes.
18112	UI Look and feel	Resolved an issue where font sizes could be so large that RIS would appear to be blank when in a region where decimals are written with commas instead of periods.
17437	User Preferences	Appropriate error is now displayed to the user if User Preference changes fail to save.
17027	Utilization Management	Updated terminology for ACR Select to reflect the new name: CareSelect.
17145	Utilization Management	Utilization Management "Internal Notes" are now visible on the UM tab for schedulers.
17146	Utilization Management	When recommending an additional procedure in Utilization Management, the authorization status is no longer read-only.
17600	Utilization Management	No longer receive object reference error when opening Clinical tab's additional info button from Utilization Review screen.
16729	Utilization Management	Minor changes were made to the UM Alert configuration screen (Medical Group table).
17428	Utilization Management	Search button is no longer enabled after switching options in "Search Options" section, if scheduling is prevented due to UM requirement.
17604	Utilization Management	Utilization Management Owners are now listed alphabetically in the dropdown.
17651	Utilization Management	When scheduling, if a procedure is removed via red or black X, the UM Required flag remains (as appropriate).
18057	Utilization Management	When modifying a UM order from the schedule screen, the Authorization Grid on the UM Tab is refreshing properly, resolving an issue with temporarily hidden procedure rows and an incorrect UM Clock.
17318	Validation Rules	Removed the "Please note:" prefix that was added to Validation Rule warnings.
11560	Walk-In	An object reference error no longer occurs when un-splitting orders (e.g. Order B back to Order A) during registration.
17800	Walk-In	Resolved a re-binding issue that could (rarely) cause a problem by

		attempting to issue a System MRN for a patient who already has one.
17028	Worklists	Data is now populating correctly to columns in Signed By Date WL that were previously empty.

PATIENT PORTAL

Bugs and support issues resolved in build 3.2017.6.

Bug #	Category	Subject
17687		Text color changed to black for Get Help Request replies for better visualization.
16835	Pat Admin - User Mssgs	The letter Y is no longer displayed next to the User Message recipient's checkbox.
17049	Patient Appointments Page	Patients are now prevented from scheduling exams that are under utilization review.
17024	Patient Exam Detail Page	Exam Details Panel is now displaying the correct contact information.
17816	Patient Exam Detail Page	Resolved an issue that could cause an error when downloading C-CDA.
16289	Patient Logon	Changed language during workflow where provider invites patient to schedule, so that it is clear that an I-code is a verification code.
17144	Patient WF: Create Account	When most recent exam is "CDIImport," patient account creation will ignore and use the provider for the next most recent exam for verification purposes.
15638	Patient WF: Make Appointment	Resolved an error which could occur if the patient entered a Work Comp claim number of more than 20 characters.
19298	Patient WF: Make Appointment	Resolved Object Reference error that could occur during online scheduling for patients with no prior appointments.
17824		Patient verification question updated to appropriately ask for location of most recent exam, instead of next exam.
18159	Patient Portal	Resolved an issue which could cause a daily error notification to be emailed to portal administrators.

PROVIDER PORTAL

Bugs and support issues resolved in build 3.2017.6.

Bug #	Category	Subject
16794	Prov Admin - System Messages	System Messages are now appropriately displayed according to the highest priority.
16893	Prov Admin - User Management	"Last Signed" timestamp now correctly displaying for End User License Agreement.
16895	Prov Admin - User Management	During account creation, when a PACS account is created, the account populates on the Referring Portal Admin Account screen.
16903	Prov Admin - User Management	Unable to create an account with a duplicate user name.
17041	Prov Admin - User Management	Provider Portal user's account settings for Authorized to Order search are no longer case sensitive.
17042	Prov Admin - User Management	Resolved save issue when creating Proxy users.
17291	Prov Admin - User Management	Column Filters for Search results in Admin Provider Portal and Patient Portal are now sorting appropriately.
17336	Prov Admin - User Management	
16791	Prov Admin - User Messages	When selecting the Sent tab in the Admin Portal, it now changes to the appropriate screen and changes back after clicking 'Inbox'.
16939	Prov Admin - User Mgmt: Edit	Close button now works properly on the RIS ID look-up window in Admin Portal.
16892	Provider Account Page	No longer receive validation warning when editing tabs if changes have already been discarded.
17556	Provider Account Page	When users change their default landing page, the correct default will now load.
17485	Provider General Display	Reports are now displayed properly in Internet Explorer (no longer opening in a small window).
17809	Provider Home Screen	Quick Launch image icon and Get Help link for report are no longer producing internal server errors.
16897	Provider Logon	No longer receive error in Legal helper when refreshing page after application pool restart.
17161	Provider Logon	External Get Help form appropriately requires reCaptcha again when users select "Send Another."
16817	Provider Search	Ordered exams are now displayed as "To Be Scheduled."
16890	Provider Search	It is now possible to search by UM Tracking number without specifying a last name.
17005	Provider WF Create Order	When a Proxy user submits an order for approval and the referring adds a UM required insurance, the UM flag is triggered and the portal will not allow scheduling. In RIS, the study has the UM required flag and appears on the UM WL.
17836	Provider WF Create	Order notes are now always displayed to the provider for Pending

	Order	Order workflow.
18700		Electronic Order form is now appropriately created when appointments are made in the Provider Portal.
18690	Provider Portal	Resolved an error that could occur during password reset workflow.

UTILIZATION MANAGEMENT PORTAL

Bugs and support issues resolved in build 3.2017.6.

Bug #	Category	Subject
16712		Page title updated to remove provider specific language.
16709	Accounts Page	Removed password reset controls from Accounts page to be consistent with other portals.
18053	Accounts Page	Resolved an issue where the "Make Default tab checkbox could become unchecked during save.
17259	Admin Portal	System Message type "New" now displays in the correct color.
18051	Admin Portal	Resolved an issue where the requirement for the email address was not enforced in the Admin Portal when editing users.
18052	Admin Portal	Close button now functions properly when closing messages from User Messages grid in Admin Portal.
17462	Exam Detail Page	When scanned documents are archived to a location that RIS/the Portals cannot access, a user friendly message will inform the user that the documents are not available and, in the case of the UM portal, a Get Help link will be provided.
16298	Get Help Page (Outside & Inside)	Help Page and Messages page have been renamed to be consistent with other portals.
16035	Orders Page	Custom tab options now appropriately support filters that include multiple UM Statuses.

KNOWN LIMITATIONS

The following are new bugs found in build 3.2017.6. Bugs reported in previous versions are not captured as Known Limitations in this document.

eRAD RIS

#	Subject
18699	PACS integration – Occasional duplication of message box such as “Study not loaded in PACS”.
19007	Multiple time zones are not properly supported when searching for appointments.
19008	Multiple time zones are not properly supported when timestamping the notes style log controls. It uses the workstation local time.
19071	Patient search window - Patient Folder (Preview Mode) is not loading/displaying when the date format uses MMM (fully spelled out month).
19081	Visual ‘loop’ when adding a CC physician and clicking a tab quickly. The same CC physician is added repeatedly.
18087	When configured to copy “Same as Patient” in the Patient Relation look-up table, it is possible that information for a patient’s relative might not be updated visually in the RIS. Updates are saved in the database, but the patient’s information can still be displayed when viewing the RIS, despite the data being updated. Workaround: in the Patient Relation look-up, set the problematic field (e.g. last name) to N under the Same as Patient column. This will turn off the default (same as patient) information and allow the updated information to display.
18090	Title bar colors are not saving in Practice editor screen.
18206	Performing Radiologist column in the Radiologist worklists is not localized in Hebrew.
18289	Infinitt PACS - When studies are opened from 2 Patient Folders, the second set does not close correctly.
18417	Image Request History management report can mis-report statistics if requesting and performing sites are different.
18448	Adding a Recommendation to the Findings table and not entering a 'display order' will cause an error.
18507	When a Rad attempts to open a study in the View Study window that was recently completed by a tech, an Object Reference error is produced.
18530	Clicking on “Workflow” in the Procedure Picker can cause an Object Reference error.
18624	Non-eRAD PACS integration - multi-selecting, then clicking View Images doesn't change the context menu item to Remove Images. Also on Infinitt PACS, only the first image is opened.
18713	Critical Results window – The Finding Follow-up window is in View menu but does not open if study is in exam done status.
18721	On a manually created Document Distribution job, the delivery method and details may not update if referring is changed.
18806	Cannot delete a newly added person from the Personnel management window.
18877	PACS Integration - When appending studies, if the study cannot be loaded, no message is produced. It should behave the same as on the initial load and tell the user what studies are not loaded.
18947	Register window – Removing, then re-adding a procedure without selecting a room, then opening

	the attachment window will cause an Object Reference error.
18951	Scheduling a procedure plan that contains an inactive procedure will cause an Object Reference error.
18960	The Last Updated and Last Updated By User Id columns are not being updated when importing Digital Forms from the context menu import tool.
18961	Performing a walk-in on a new patient without a DOB will throw a DBNull Exception error when selecting the room.
19020	Patient quick search doesn't work with date format of dd/MMM/yyyy (alpha month abbreviation).
19052	MIM PACS - PACS window does not close when RIS is closed.
19055	MIM PACS - If you have several studies open in dictation window and you quickly close them, not all of the images are closed.
19058	Workflow can be stopped by using the Unknown Referring workflow, making the referring known and not setting any active addresses. The RIS will be unable to proceed with this study.
19096	When rescheduling an order from the Labwork Advised WL, the height and weight values are removed.
19133	IW PACS – From the mini-patient history only, after attempting to open more than one prior (which is not supported by IW), you cannot simply close and re-open another prior.
19149	Issuer column in MRN grid is not pre-populated with values if the New Patient feature is used.
19180	In the reschedule window, if the user selects a new medication but does not enter a start and stop date / status, an error is thrown.
19241	Relative date and time filters do not take into account date time offset.
19242	Validation rules do not fire on new patient (UI_PatientCreated)
19292	Validation of externalactionschema.xsd is missing name_prefix_code and name_suffix_code data
19303	eRAD PACS V8 - caching does not appear to be working, the 'User2' and 'User8' fields in PACS WL are not populating
19324	eRAD PACS v7.2 - when the 'config options' field is totally empty and 'studies to cache' is set to 0 , getting prompted for PACS credentials when you open the pending dictation WL
19111	Document distribution email jobs can stay in 'InProgress' status even though they did complete successfully.
18569	Creating a new Patient Alert in admin tools occasionally causes an error.
18647	Identify Patient throws an error if scan ID type is set to study level instead of patient level.
18943	Deleting the weight value in the registration window can throw an error.
19331	PACS V8 - Using the Remove Images option in mini Patient Folder will prompt to break lock.
17678	Polling for transcription jobs after purging job table soft-locks RIS.
18144	In Hebrew, when adding an Unknown Referring RIS throws an error.

Patient Portal

Bug #	Subject
18174	Patient Portal indicates a date format error, even though a valid format of "yyyy-MM-dd" is configured.

Provider Portal

Bug #	Subject
18724	Message to referring is worded in a patient-centric format. Needs to be updated.
19061	Creating folders using Firefox as a browser can cause errors.
19065	From the Admin Portal, attempting to view a user message produces an error instead.

UM Portal

Bug #	Subject
19038	When adding a new user and selecting 'Add medical group' then immediately saving without selecting a group, other changes are not saved.
19341	When logging into the UM Admin Portal as a user without proper access strings, the error message indicates that the user name or password are incorrect, when in fact the user does not have proper permissions.

RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2016.4	-	216.4.0	216.4.0	216.4.0	216.4.0.00301943	216.4.0	216.4.0.310284			Full Version Release
2016.4	1	216.4.1	216.4.0	216.4.1	216.4.0.00301943	216.4.0	216.4.0.310284			GUI and Web Service updates
2016.4	2	216.4.2 (3GB)	216.4.0	216.4.1	216.4.0.00301943	216.4.0	216.4.2.460241			GUI and Patient Portal updates
2016.4	3	216.4.3 (3GB)	216.4.0	216.4.3	216.4.3.00483474	216.4.0	216.4.3.489120			GUI and Patient Portal updates
2016.4	4	216.4.4 (3GB)	216.4.0	216.4.3	216.4.3.00483474	216.4.0	216.4.3.489120			GUI
2016.4	5	216.4.5 (3GB)	216.4.0	216.4.3	216.4.3.00483474	216.4.0				GUI
2016.4	6	216.4.6 (3GB)	216.4.0	216.4.3	216.4.3.00483474	216.4.0				GUI
2016.5	-	216.5.0 (3GB)	216.5.0	216.5.0	216.5.0.00349303	216.5.0	216.5.0.362009			Full Version Release
2016.6	-	216.6.0 (3GB)	216.6.0	216.6.0	216.6.0.00411295	216.6.0	216.6.0.432471			Full Version Release
2016.6	1	216.6.1 (3GB)	216.6.0	216.6.0	216.6.0.00411295	216.6.0	216.6.1.468583			GUI and Patient Portal updated
2016.7	-	216.7.0 (3GB)	216.7.0	216.7.0	216.7.0.00490835	216.7.0	216.7.0.493031	216.7.0.493008		Full version release
2016.7	1	216.7.1 (3GB)	216.7.0	216.7.1	216.7.0.00490835	216.7.0	216.7.0.493031	216.7.0.493008		GUI and Web Service updates
2016.7	2	216.7.2 (3GB)	216.7.0	216.7.2	216.7.0.00490835	216.7.0	216.7.0.493031	216.7.0.493008		GUI and Web Service updates
2016.7	3	216.7.3 (3GB)	216.7.0	216.7.3	216.7.0.00490835	216.7.0	216.7.0.493031	216.7.0.493008		GUI and Web Service updates
2016.7	4	216.7.4 (3GB)	216.7.0	216.7.3	216.7.0.00490835	216.7.0	216.7.0.493031	216.7.0.493008		GUI
2016.7	5	216.7.5 (3GB)	216.7.0	216.7.3	216.7.0.00490835	216.7.0	216.7.0.493031	216.7.0.493008		GUI
2016.7	6	216.7.6 (3GB)	216.7.0	216.7.6	216.7.0.00490835	216.7.0	216.7.0.493031	216.7.0.493008		GUI and Web Service updates
2016.7	7	216.7.7 (3GB)	216.7.0	216.7.7	216.7.0.00490835	216.7.0	216.7.0.493031	216.7.0.493008		GUI and Web Service updates
2016.7	8	216.7.8 (3GB)	216.7.0	216.7.7	216.7.8.00683507	216.7.0	216.7.0.493031	216.7.0.493008		GUI and DB updates
2016.7	9	216.7.9 (3GB)	216.7.0	216.7.9	216.7.9.00715012	216.7.0	216.7.0.493031	216.7.9.723457		GUI, Web Services, DB updates and UM Portal
2016.7	10	216.7.10 (3GB)	216.7.0	216.7.10	216.7.9.00715012	216.7.0	216.7.0.493031	216.7.9.723457		GUI and Web Service updates
2016.7	11	216.7.11 (3GB)	216.7.0	216.7.11	216.7.11.00761267	216.7.0	216.7.0.493031	216.7.9.723457		GUI, Web Service and DB updates
2016.7	12	216.7.12 (3GB)	216.7.0	216.7.11	216.7.11.00761267	216.7.0	216.7.0.493031	216.7.9.723457		GUI
2016.7	13	216.7.13 (3GB)	216.7.0	216.7.13	216.7.13.00823274	216.7.0	216.7.13.805715	216.7.13.805717		GUI, Web Service, DB, Patient and UM Portal updates
2016.7	14	216.7.14 (3GB)	216.7.0	216.7.14	216.7.14.00888220	216.7.0	216.7.14.897644	216.7.14.897646		GUI, Web Service, DB, Patient and UM Portal updates
2017.1	-	217.1.0 (3GB)	217.1.0	217.1.0	217.1.0.00559886	217.1.0	217.1.0.572290	217.1.0.000000		Full Version Release
2017.1	1	217.1.1 (3GB)	217.1.0	217.1.1	217.1.1.00589952	217.1.0	217.1.0.572290	217.1.0.000000		GUI, Web Service and DB updates
2017.1	2	217.1.2 (3GB)	217.1.0	217.1.2	217.1.2.00621962	217.1.0	217.1.0.572290	217.1.0.000000		GUI, Web Service and DB updates
2017.1	3	217.1.3 (3GB)	217.1.0	217.1.3	217.1.3.00640480	217.1.0	217.1.0.572290	217.1.0.000000		GUI, Web Service and DB updates
2017.1	4	217.1.4 (3GB)	217.1.0	217.1.4	217.1.4.00692239	217.1.0	217.1.4.701924	217.1.0.000000		GUI, Web Service, DB and Patient Portal updates
2017.1	5	217.1.4 (3GB)	217.1.0	217.1.5	217.1.4.00692239	217.1.0	217.1.4.701924	217.1.0.000000		Web Service
2017.1	6	217.1.6 (3GB)	217.1.0	217.1.5	217.1.6.00745281	217.1.0	217.1.4.701924	217.1.0.000000		GUI and DB Updates
2017.1	7	217.1.7 (3GB)	217.1.0	217.1.5	217.1.6.00745281	217.1.0	217.1.4.701924	217.1.0.000000		GUI update
2017.1	8	217.1.8 (3GB)	217.1.0	217.1.5	217.1.6.00745281	217.1.0	217.1.4.701924	217.1.0.000000		GUI update
2017.1	9	217.1.9 (3GB)	217.1.0	217.1.5	217.1.6.00745281	217.1.0	217.1.4.701924	217.1.0.000000		GUI update
2017.1	10	217.1.10 (3GB)	217.1.0	217.1.10	217.1.6.00745281	217.1.0	217.1.4.701924	217.1.0.000000		GUI and Web Service update
2017.2	-	217.2.0 (3GB)	217.2.0	217.2.0	217.2.0.00695782	217.2.0	217.2.0.702238	217.2.0.702213	217.2.0.702226	Full Version Release. First release of Provider Portal
2017.3	-	217.3.0 (3GB)	217.3.0	217.3.0	217.3.0.00764112	217.3.0	217.3.0.321	217.3.0.321	217.3.0.321	Full Version Release. Including Patient, Provider and UM Portals
2017.3	1	217.3.1 (3GB)	217.3.0	217.3.1	217.3.1.00846328	217.3.1	217.3.1.853299	217.3.1.853301	217.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2	217.3.2 (3GB)	217.3.0	217.3.2	217.3.2.00898348	217.3.2	217.3.2.913898	217.3.2.913899	217.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2.1	217.3.2.1 (3GB)	217.3.0	217.3.2	217.3.2.00898348	217.3.2	217.3.2.913898	217.3.2.913899	217.3.1.856171	GUI Only
2017.3	3	217.3.3 (3GB)	217.3.0	217.3.3	217.3.3.00954008	217.3.2	217.3.3.962869	217.3.3.962870	217.3.3.962870	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	4	217.3.4 (3GB)	217.3.0	217.3.4	217.3.4.00987562	217.3.2	217.3.3.962869	217.3.3.962870	217.3.3.962870	GUI, Web Service and DB
2017.3	5	217.3.5 (3GB)	217.3.0	217.3.5	217.3.5.01023250	217.3.2	217.3.5.1023087	217.3.5.1025862	217.3.5.1023087	GUI, Web Service, DB, Patient Portal, Referring Portal, UM Portal
2017.6	-	317.6.0 (3GB)	317.6.0	317.6.0	317.6.0.01037550	317.6.0	317.6.0.1037868	317.6.0.1037869	317.6.0.1037869	Full Version Release. Including Patient, Provider and UM Portals

CODE STREAM DIAGRAM

