

Server Update

For eRAD RIS

Version 2.0

Build 2.2017.3

Update 2.2017.3.2

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INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

WHO IS AFFECTED

Build 2017.3 installs. This server update must be applied to 2017.3.1

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NEW FEATURES

Some of the features included with this eRAD RIS Server Update were originally released in 2016.7.14 or 2017.1.10 and are now being merged into the 2017.3.2 build. The feature number listed first is the 2017.3.2 Redmine tracking number, followed by the associated 2016.7.14 or 2017.1.10 Redmine number.

There are additional items that were added from the current development cycle that has not yet been released. The purpose of adding these items is to make them available sooner. See Resolved Items section of this document for original origin of these listed features.

FEATURE #18220 / #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 UMByPassSTAT or UMGoldCardAutoApprove is set to Y, the order’s status code and resolution code will be immediately changed to match the 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

FEATURE #18218 / 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*.

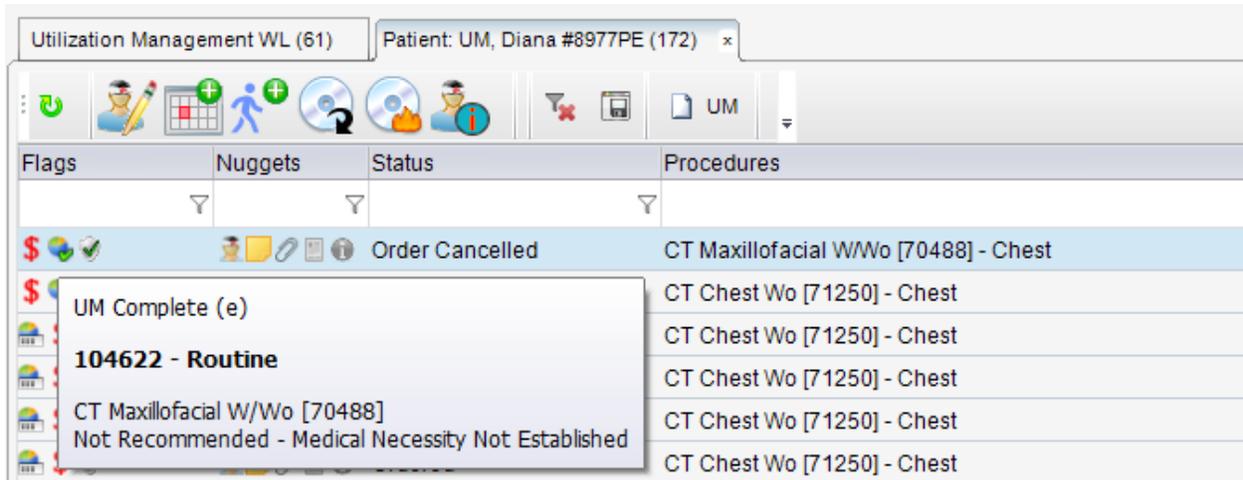
The following is an example of the audit log for the above scenario.

```

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:     'chasinl' (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')
    
```

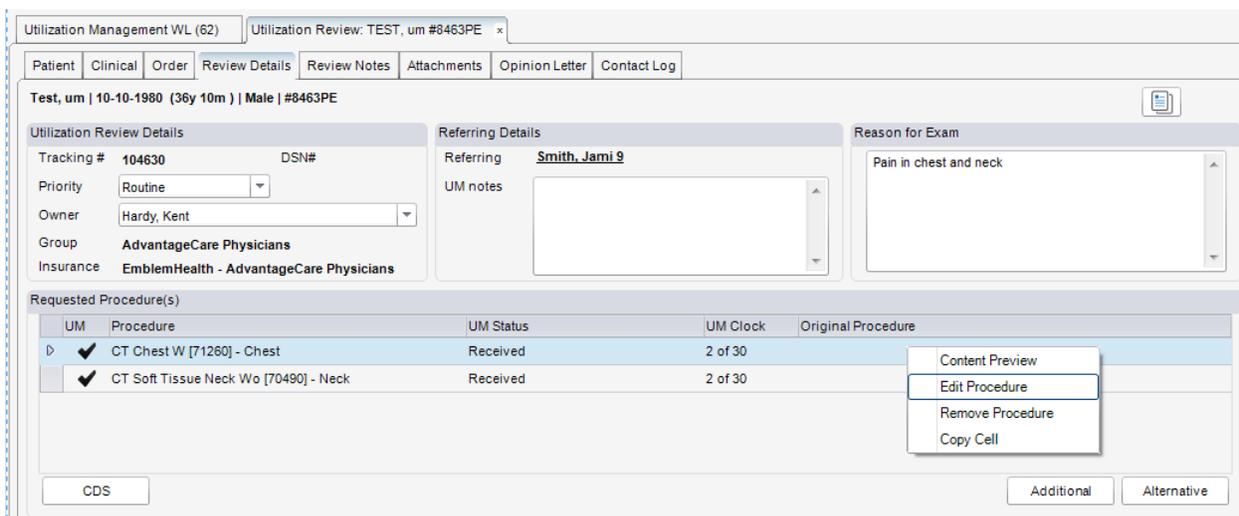
Below is an example of a UM order for which all exams on the order are moved to a Final UM status that indicates no scheduling is possible.



FEATURE #18215 / 17529 - UM REVIEWERS CAN NOW CHANGE THE 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.



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

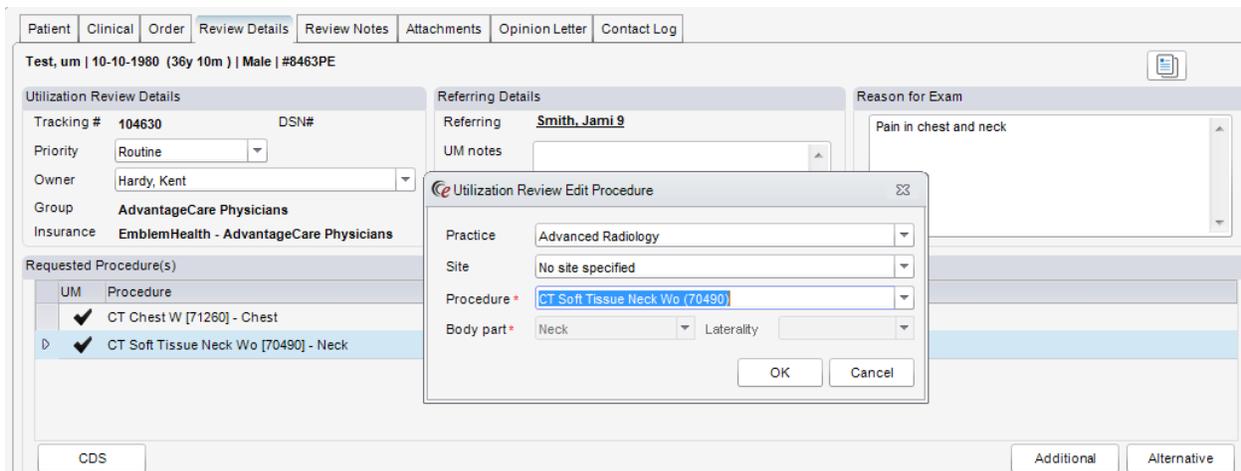
1. If the procedure is the only one for the order, the user is prevented from removing it and prompted with "At least one procedure is required."
2. If the procedure being removed already has a study associated with it (has been scheduled or is further in the workflow), the user is prevented from removing 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 you are recommending an alternative to 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 you are adding an additional procedure to 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.

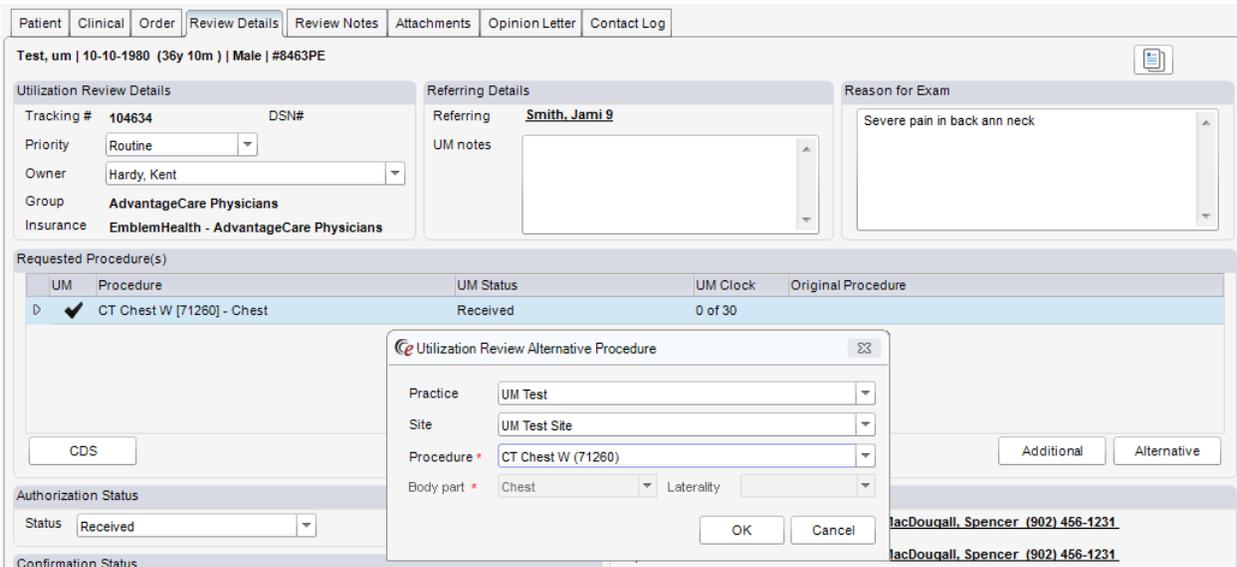


When selecting Remove Procedure, the user is prompted with “Are you sure you want to remove the procedure?” Selecting yes will delete the order item.

FEATURE #18217 / 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, or 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. Currently, there are some restrictions on what procedures are available in the dropdown when selecting Alternative or Additional procedures. The UM Reviewer should have 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.



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.

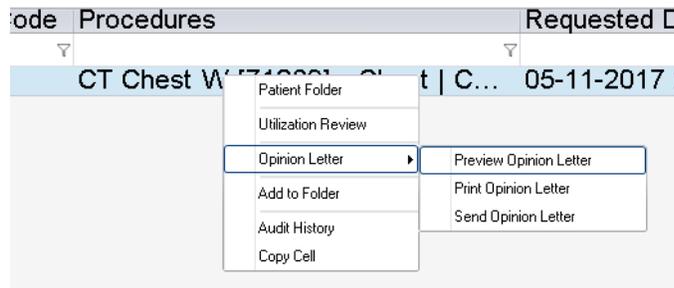
When adding additional procedures, the reviewer is not limited by the practice and site selection and will not be prompted if the procedure cannot be performed.

FEATURE #18216 / 17530 - RIS USERS CAN NOW PREVIEW AND DISTRIBUTE THE 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 WL 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](#)

FEATURE #18263 / 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 rectangular box. Other fields in the 'Other' section include 'Track CPOE pathology requests in Lab WL for 33 days', 'Eligible customer ID', 'MU Required', 'CT dosage tracking enabled', and 'Automatically attach photo ID to scan documents'.

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 rectangular box. Other fields in the 'Other' section include 'PIX Server' and 'PDQ Server'.

If the Tax ID has been added at the Practice and Site level, 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-XXXXXXX. A hyphen will be inserted after the second character and a blank line will be displayed until all of the digits have been entered.

The image shows a close-up of the 'Tax ID #' field. The text '76-87' is entered, followed by a hyphen and a blank space, illustrating the mask format.

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

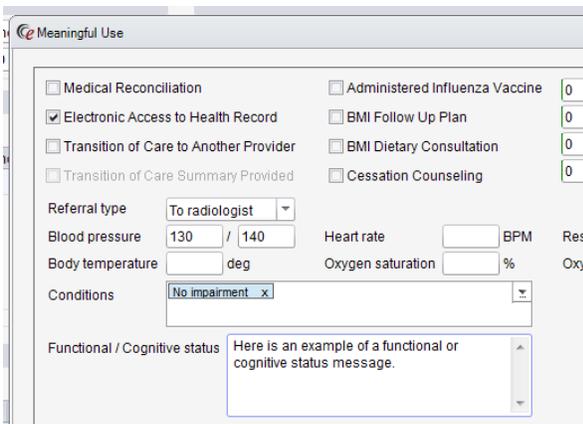
FEATURE #18232 / 16877 – CEHRT 170.315(B)(4): FUNCTIONAL/COGNITIVE STATUS FIELD ADDED TO CLINICAL TAB

To qualify as a certified EHR System under the latest 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:

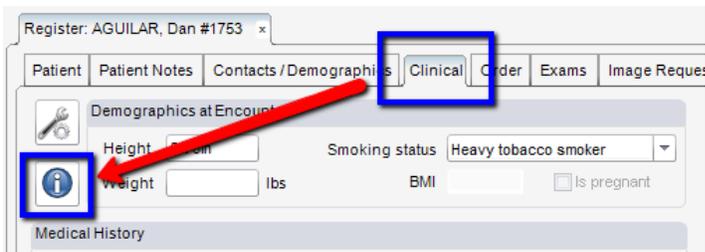
FUNCTIONAL AND COGNITIVE STATUS

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

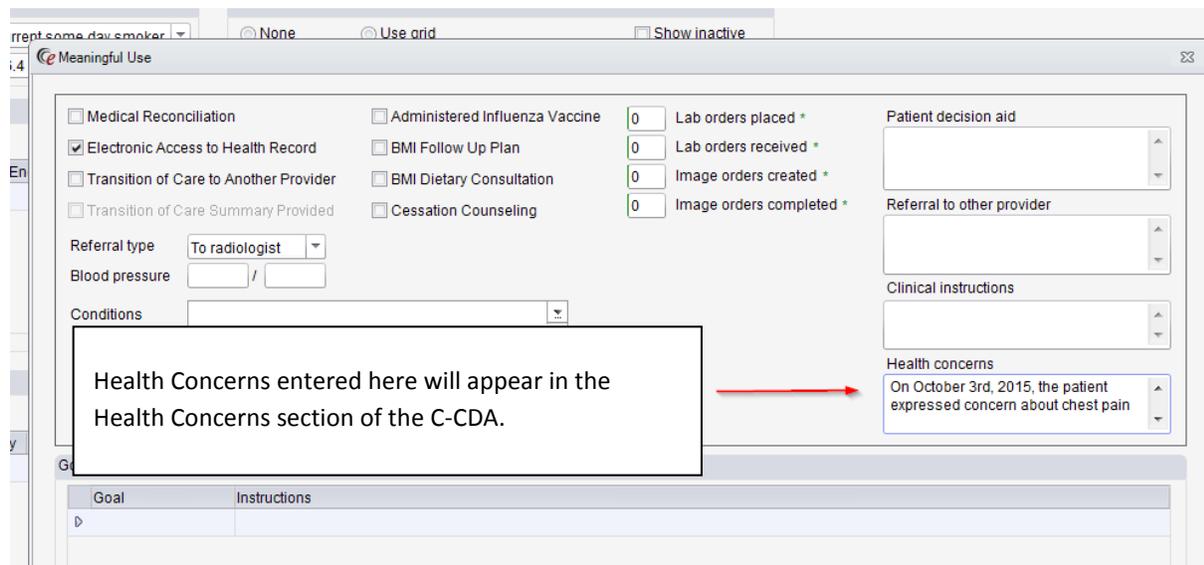
FEATURE #18230 / 16866 – CEHRT 170.315(B)(4): HEALTH CONCERNS FIELD ADDED TO CLINICAL TAB

To qualify as a certified EHR System under the latest 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.

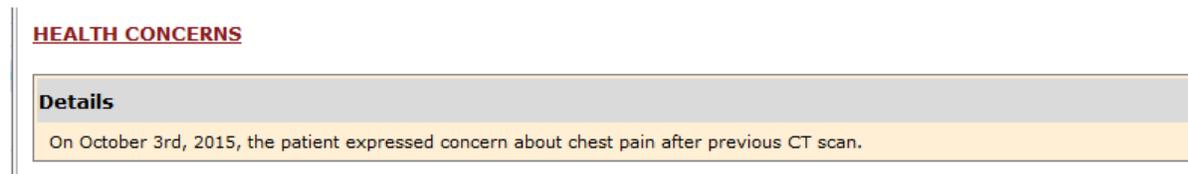
Because this data is unlikely to be separately collected in radiology, the fields were added in an out of the way area in the RIS. It is accessed using the Info button on the Clinical Tab.



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



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



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

<u>SOCIAL HISTORY</u>	
Description	Status
Smoking Status	Never smoker (Never Smoked)

<u>VITAL SIGNS</u>			
Date	Height	Weight	BMI
04-27-2017	65 in	153 lbs	25.46

<u>HEALTH CONCERNS</u>
No health concerns recorded

FEATURE #18229 / 16222 - CEHRT 170.315(B)(4): ADDITIONAL FIELDS ADDED TO CLINICAL TAB FOR C-CDA

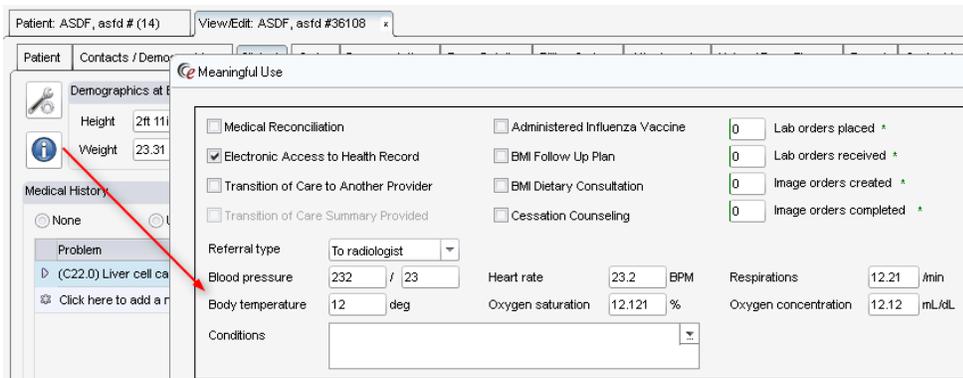
To qualify as a certified EHR System under the latest CEHRT requirements, eRAD RIS must be capable of collecting the following information that can be pulled into the C-CDA:

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

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 new information can be entered as seen below.



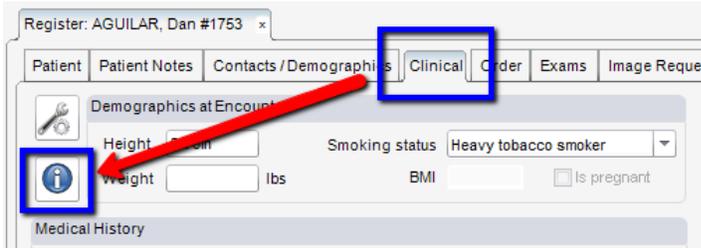
If these new fields are populated, the data will be displayed in the C-CDA.

The screenshot displays a medical software interface with several panels. On the left, there are sections for 'Medical History' (showing a problem of '(C22.0) Liver cell carcinoma' on 03-22-2017), 'Allergies', and 'Continuity of Care Record (CCR)'. The central panel shows 'Lab Orders' with a list of procedures including 'CT 4 Phase [ct04]' which is checked. On the right, a 'CCDA Preview' window is open, showing 'REASON FOR VISIT', 'Details', 'RESULTS' (Hemoglobin [30313-1] Pending), and 'VITAL SIGNS' (Blood Pressure: 232/23 mm[Hg], Heart Rate: 23.2 BPM, etc.). A red arrow points from the 'View Clinical Document (C-CDA)' button in the Lab Orders panel to the 'View' button in the CCDa Preview window. Another red arrow points from the 'View' button in the CCDa Preview window to the 'Preview' button at the bottom of the window.

FEATURE #18234 / 18039 – CEHRT: TRANSITION OF CARE CONFIRMATION RECEIVED

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

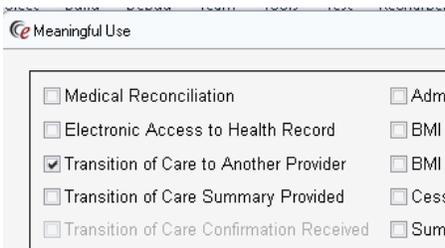
A new checkbox has been added for this purpose. It is accessed using the Info button on the Clinical Tab.



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



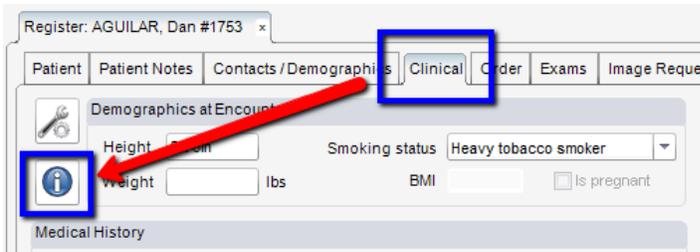
The checkbox for Transition of Care Summary Provided must be checked to enable the Transition of Care Confirmation Received checkbox. If it is not checked, the new Confirmation Received checkbox will be disabled.



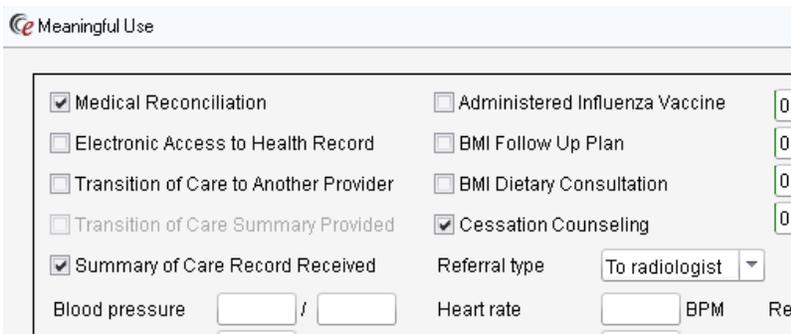
FEATURE #18233 / 18008 – CEHRT: SUMMARY OF CARE RECORD RECEIVED

To qualify as a certified EHR System under the latest 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 checkbox will be available on the resulting screen, as shown:



FEATURE #18237 / 16978 - 170.315(G)(2) AUTOMATED MEASURES REPORTING - UPDATE TO TRANSITIONAL MEASURES FOR 2017

A new management report has been created to provide information for ACI Transition Measures. It is located in the Meaningful Use folder. The report will provide the numerator, denominator and percentage, alongside the Base and Performance score for each of the following measures:

- Medication Reconciliation
- eRx
- Patient Education
- Health Information Exchange
- VDT (timely access)
- VDT (patient use)
- Secure Messaging

It is also possible to enter in the report criteria that a Security Risk Analysis has been completed, which will be reflected in the report. The report can be run to display individual radiologist data or an aggregate of “provider group” data for selected radiologists.

The Performance score is the numerator divided by the denominator multiplied by 20 for VDT (timely access) and Health Information Exchange. For Medication Reconciliation, VDT (patient use), Secure Messaging and Patient Education, the Performance score is the numerator divided by the denominator multiplied by 10.

The Base score is set at 50 if the following are true:

- Security Risk Analysis has been completed (per report criteria filters).
- Numerator is at least 1 for Health Information Exchange and VDT (timely access).
- Numerator is at least 1 for eRx when the denominator is at least 100.

ACI Transition Measures

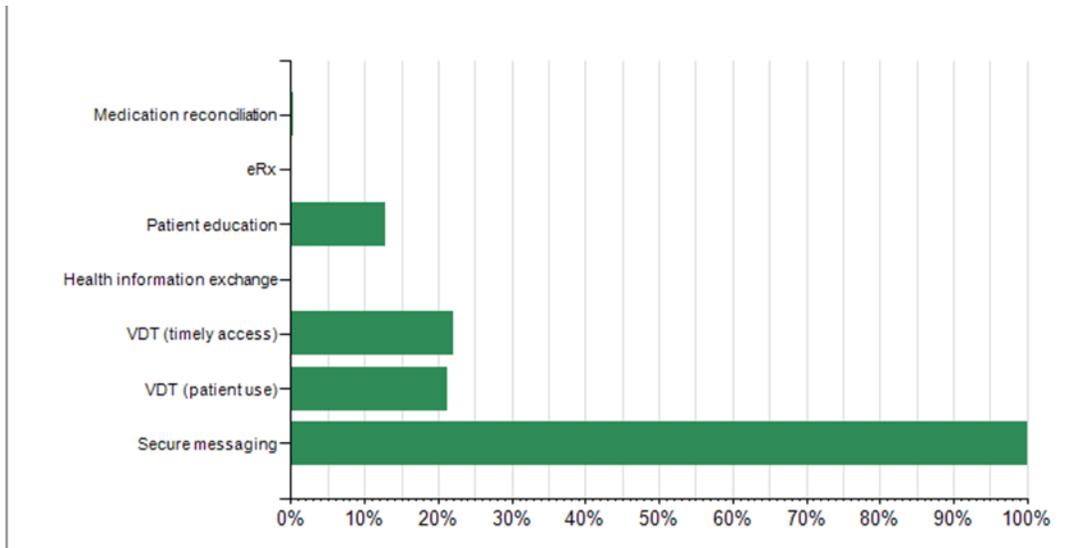
Radiologist: Aiken, Darcy ([darcy](#))

Practice(s): Advanced Radiology

Site(s): ADV: New Lutherville

Reporting Period: 1/1/2017 12:00:00 AM - 12/31/2017 12:00:00 AM

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



Meaningful Use Measure	Numerator	Denominator	%	Base**	Performance*
Security risk analysis				Y	
Medication reconciliation	1	419	0.24%	N	0 / 10
eRx	0	0	0.00%	N	0 / 0
Patient education	33	259	12.74%	N	1 / 10
Health information exchange	0	1	0.00%	N	0 / 20
VDT (timely access)	57	259	22.01%	Y	4 / 20
VDT (patient use)	55	259	21.24%	N	2 / 10
Secure messaging	259	259	100.00%	N	10 / 10
Total Score: 0 / 130				0	0

*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 by 10 for Medication Reconciliation, VDT (Patient Use), Secure Messaging, and Patient Education.
 **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.



Each measure, with the exception of Security Risk Analysis, has a sub-report that include the patient details underlying each score. To access the patient details, click the blue hyperlink for the measure. An example of the Medication Reconciliation patient details is displayed below.

Patient Name	Patient ID	Accession #	Practice Code	Scheduled Date	Signed Date	Status Code	Birth Date	Referral Type Code	Medication Reconciliation
Adams, Grizzly	42004QE2	1039258QE2	ADV	5/3/2017 12:00:00 AM	5/3/2017 12:00:00 AM	Signed1	3/15/1965 12:00:00 AM	306299005	N
		1041237QE2	ADV	6/19/2017 12:00:00 AM	6/19/2017 12:00:00 AM	Signed1	3/15/1965 12:00:00 AM	306299005	N
Agnew, Agnes	40994QE2	1037574QE2	ADV	4/4/2017 12:00:00 AM	4/20/2017 12:00:00 AM	Signed1	5/5/1980 12:00:00 AM	306299005	N
Alonso, Fernando	41462QE2	1038400QE2	ADV	4/18/2017 12:00:00 AM	8/1/2017 12:00:00 AM	Signed1	7/29/1981 12:00:00 AM	306299005	N
Appleton, Betsy Bayna	43697QE2	1041140QE2	ADV	6/12/2017 12:00:00 AM	6/12/2017 12:00:00 AM	Signed1	1/10/1946 12:00:00 AM	306299005	N
		1041272QE2	ADV	6/21/2017 12:00:00 AM	6/21/2017 12:00:00 AM	Signed1	1/10/1946 12:00:00 AM	306299005	N

FEATURE #18280 - ACCESS STRING WILL ALLOW EDITS TO DIGITAL FORMS AFTER THE REPORT IS SIGNED

Permissioned users sometimes need to make changes to Digital Forms after the report has been signed, when mistakes need to be corrected or additional information needs to be added. Appropriately trained staff can make a determination whether the changes necessitate an addendum and/or notification to the radiologist.

A new access string has been added to enable this functionality: *Clinical.DigitalForms.AllowEditPostSignature*.

Users with full access can now edit digital forms for studies in Signed status.

NEW CONFIGURATION SETTINGS

SYSTEM CONFIGURATION SETTINGS

Setting	Default	Purpose
UMDefaultCancelledReasonCode	N/A	(value = string) The default cancelled reason code for orders denied during the utilization review process.
UMDefaultGoldCardResolutionCode	N/A	(value = string) The default gold card utilization review resolution code.
UMDefaultGoldCardStatusCode	N/A	(value = string) The default gold card utilization review status code.
UMDefaultSTATResolutionCode	N/A	(value = string) The default STAT utilization review resolution code.
UMDefaultSTATStatusCode	N/A	(value = string) The default STAT utilization review status.

ACCESS STRINGS

Setting	Default	Purpose
Clinical.DigitalForms.AllowEditPost Signature	None	Allows user to edit digital forms after the report is signed.
Clinical.OpinionLetter	Full	Controls access to the WL context menu Opinion Letter.
Clinical.OpinionLetter.Preview	Full	Controls access to the WL context menu Opinion Letter/Preview Opinion Letter.
Clinical.OpinionLetter.Print	Full	Controls access to the WL context menu Opinion Letter/Print Opinion Letter.
Clinical.OpinionLetter.Send	Full	Controls access to the WL context menu Opinion Letter/Send Opinion Letter.

RESOLVED ITEMS

eRAD RIS

Redmine #	Subject
18264	An exception that prevented the dictation audio file archive process from running has been resolved.
18341	Eligibility tables added back into the Outbound message.
18340	WPR workflow – Resolved an exception that prevented submission for review if the accession number was not linked to a patient.

The following list contains bugs or features that have been resolved in previous RIS versions and have been added to this version of eRAD RIS to provide an upgrade path. Features are also described in the New Features section.

Some of these items have been taken from current new development (intended to be released in a future version).

Redmine #	Subject	Original Resolved Version
18261	C_type_bigint_key_list has been added.	2.2016.7.14
18224	Corrected an issue where EMR orders from the existing orders prompt with New Appointment or Walk-In icon in Patient Folder did not save all information appropriately.	2.2016.7.14
18223	Slow performance after updating to 2016.7.13 has been resolved.	2.2016.7.14
18222	UM Portal “get list of orders” is now a more efficient database query.	2.2016.7.14

18221	An issue with the query used by RIS Wedge has been addressed to prevent back-ups of the c_action_queue.	2.2016.7.14
18220	UM - When specifying Gold Card or STAT orders, the system should auto-approve the order and set the UM Status and UM Resolution.	2.2016.7.14
18219	UM – Resolved an issue where the UM Required flag could inappropriately change from Y to N when removing a procedure using the red or black “x.”	2.2016.7.14
18218	Feature: Automatically update Exam Status based on attributes of selected UM Status.	2.2016.7.14
18217	Feature: Allow a UM Reviewer to choose any active procedure, unlimited by the current site's Schedule Group.	2.2016.7.14
18216	Feature: Allow RIS users to preview and distribute the UM Opinion Letter.	2.2016.7.14
18215	Feature: Allow Reviewers to change the requested procedure (without recommending an alternative).	2.2016.7.14
18228	Corrected a timing issue that could cause Print to RIS to stop working intermittently.	2.2017.1.10
18227	Resolved a rare issue in which a user could receive an error when adding an Unknown Referring.	2.2017.1.10
18226	Resolved an issue related to duplicate c_study_item entries for same study key.	2.2017.1.10
18225	PACS images are now closing appropriately after viewing from the View/Edit screen.	2.2017.1.10

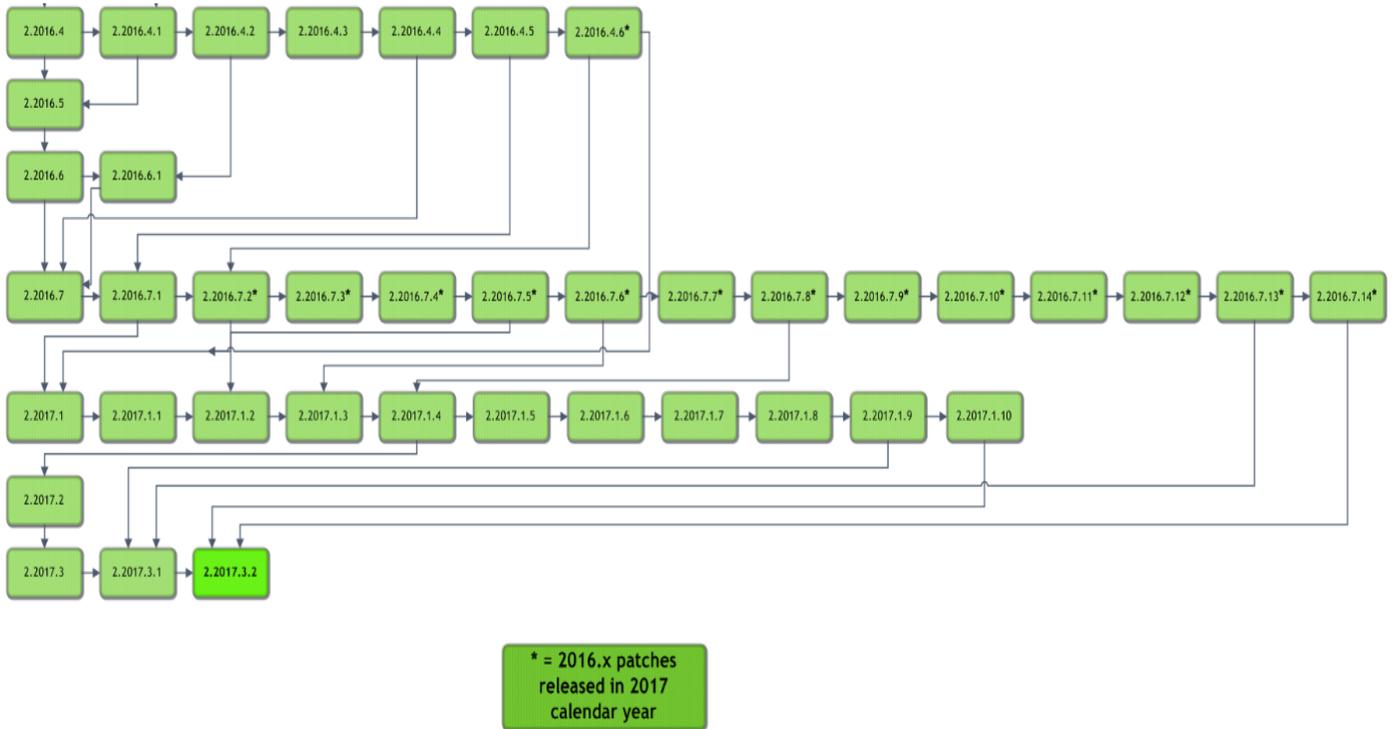
18263	Feature: 170.315(c)(4) Created a Tax ID field at Practice and Site levels	2.2017.4
18235	Feature: Capture both Timely Access and VDT(View, Download and Transmit) statistics. Transitional Measures Report.	2.2017.4
18232	Feature: 170.315(b)(4) Added Cognitive Status and Functional Status Fields to Clinical tab	2.2017.4
18230	Feature: 170.315(b)(4) Added Health Concerns Field to Clinical Tab.	2.2017.4
18229	Feature: 170.315(b)(4) Additional C-CDA fields added.	2.2017.4
18245	Feature: 170.315(g)(2) Automated Measures ACI Transitional and ACI "Standard" reports provide ability to display aggregated "provider group" data.	3.2017.6
18244	Feature: 170.315(g)(2) Automated Measures Medication Reconciliation Update added to ACI Transition Measures report.	3.2017.6
18243	Feature: 170.315(g)(2) Automated Measures Reporting - Secure Electronic Messaging added to ACI Transition Measures report.	3.2017.6
18242	Feature: 170.315(g)(2) Automated Measures Reporting - View Download Transmit added to ACI Transition Measures report.	3.2017.6
18241	Feature: 170.315(g)(2) Automated Measures Reporting - Health Information Exchange added to ACI Transition Measures report.	3.2017.6

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18240	Feature: 170.315(g)(2) Automated Measures Reporting - Patient Specific Education added to ACI Transition Measures report.	3.2017.6
18239	Feature: 170.315(g)(2) Automated Measures Reporting - Medication Reconciliation added to ACI Transition Measures report.	3.2017.6
18238	Feature: 170.315(g)(2) Automated Measures Reporting - Patient Timely Access added to ACI Transition Measures report.	3.2017.6
18237	Feature: 170.315(g)(2) Automated Measures Reporting - Updated to Transitional Measures for 2017	3.2017.6
18234	Feature: Transition of Care Confirmation Received checkbox has been added.	3.2017.6
18233	Feature: Summary of Care Record Received checkbox has been added.	3.2017.6
18280	Feature: Access string will allow edits to digital forms after the report is signed.	3.2018.1

CODE STREAM



Legend:

Light Green = Previously Released software

Bright Green = Current Release

ERAD 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	-	2.16.4.0	2.16.4.0	2.16.4.0	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284			Full Version Release
2016.4	1	2.16.4.1	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.0.310284			GUI and Web Service updates
2016.4	2	2.16.4.2 (3GB)	2.16.4.0	2.16.4.1	2.16.4.0.00301943	2.16.4.0	1.16.4.2.460241			GUI and Patient Portal updates
2016.4	3	2.16.4.3 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120			GUI and Patient Portal updates
2016.4	4	2.16.4.4 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0	1.16.4.3.489120			GUI
2016.4	5	2.16.4.5 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0				GUI
2016.4	6	2.16.4.6 (3GB)	2.16.4.0	2.16.4.3	2.16.4.3.00483474	2.16.4.0				GUI
2016.5	-	2.16.5.0 (3GB)	2.16.5.0	2.16.5.0	2.16.5.0.00349303	2.16.5.0	1.16.5.0.362009			Full Version Release
2016.6	-	2.16.6.0 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.0.432471			Full Version Release
2016.6	1	2.16.6.1 (3GB)	2.16.6.0	2.16.6.0	2.16.6.0.00411295	2.16.6.0	1.16.6.1.468583			GUI and Patient Portal updated
2016.7	-	2.16.7.0 (3GB)	2.16.7.0	2.16.7.0	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		Full version release
2016.7	1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	3	2.16.7.3 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	4	2.16.7.4 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	5	2.16.7.5 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	6	2.16.7.6 (3GB)	2.16.7.0	2.16.7.6	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	7	2.16.7.7 (3GB)	2.16.7.0	2.16.7.7	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	8	2.16.7.8 (3GB)	2.16.7.0	2.16.7.7	2.16.7.8.00683507	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and DB updates
2016.7	9	2.16.7.9 (3GB)	2.16.7.0	2.16.7.9	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Services, DB updates and UM Portal
2016.7	10	2.16.7.10 (3GB)	2.16.7.0	2.16.7.10	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI and Web Service updates
2016.7	11	2.16.7.11 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Service and DB updates
2016.7	12	2.16.7.12 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI
2016.7	13	2.16.7.13 (3GB)	2.16.7.0	2.16.7.13	2.16.7.13.00823274	2.16.7.0	2.16.7.13.805715	2.16.7.13.805717		GUI, Web Service, DB, Patient and UM Portal updates
2016.7	14	2.16.7.14 (3GB)	2.16.7.0	2.16.7.14	2.16.7.14.00888220	2.16.7.0	2.16.7.14.897644	2.16.7.14.897646		GUI, Web Service, DB, Patient and UM Portal updates
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI, Web Service, DB and Patient Portal updates
2017.1	5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		Web Service
2017.1	6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and DB Updates
2017.1	7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	8	2.17.1.8 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	9	2.17.1.9 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	10	2.17.1.10 (3GB)	2.17.1.0	2.17.1.10	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and Web Service update
2017.2	-	2.17.2.0(3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal
2017.3	-	2.17.3.0(3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321	2.17.3.0.321	Full Version Release. Including Patient, Provider and UM Portals
2017.3	1	2.17.3.1(3GB)	2.17.3.0	2.17.3.1	2.17.3.1.00846328	2.17.3.1	2.17.3.1.853299	2.17.3.1.853301	2.17.3.1.856171	GUI, Web Service, DB, Including Patient, Provider and UM Portals
2017.3	2	2.17.3.2(3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI, Web Service, DB, Including Patient, Provider and UM Portals

INSTALLING

CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD_rRIS_2017.3.2.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 131 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders are (Arabic), en_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc...

Services Configuration Wizard

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

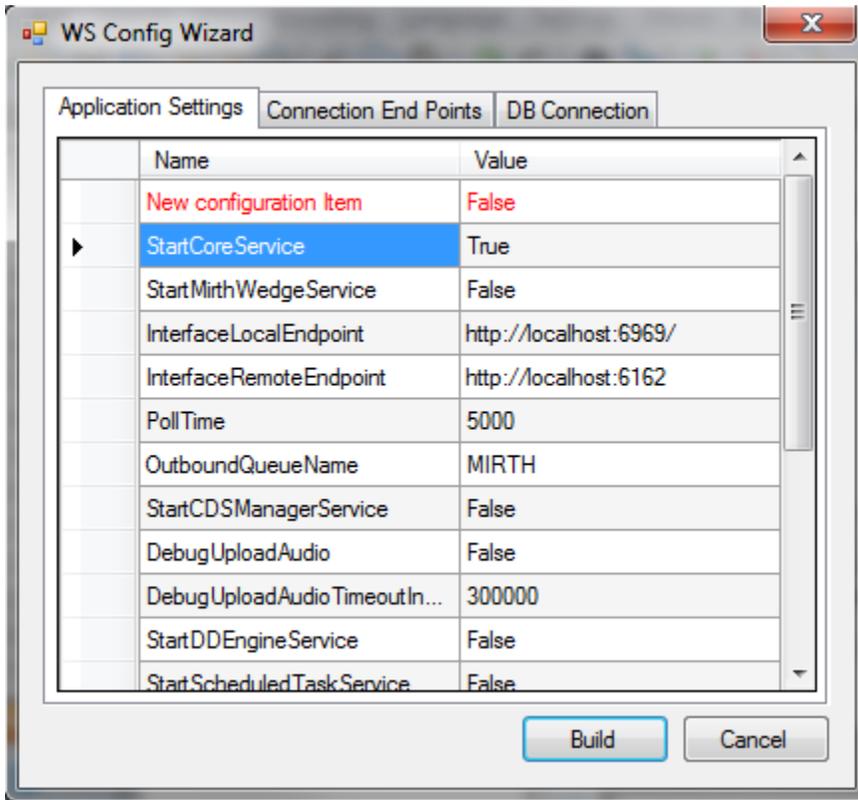
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

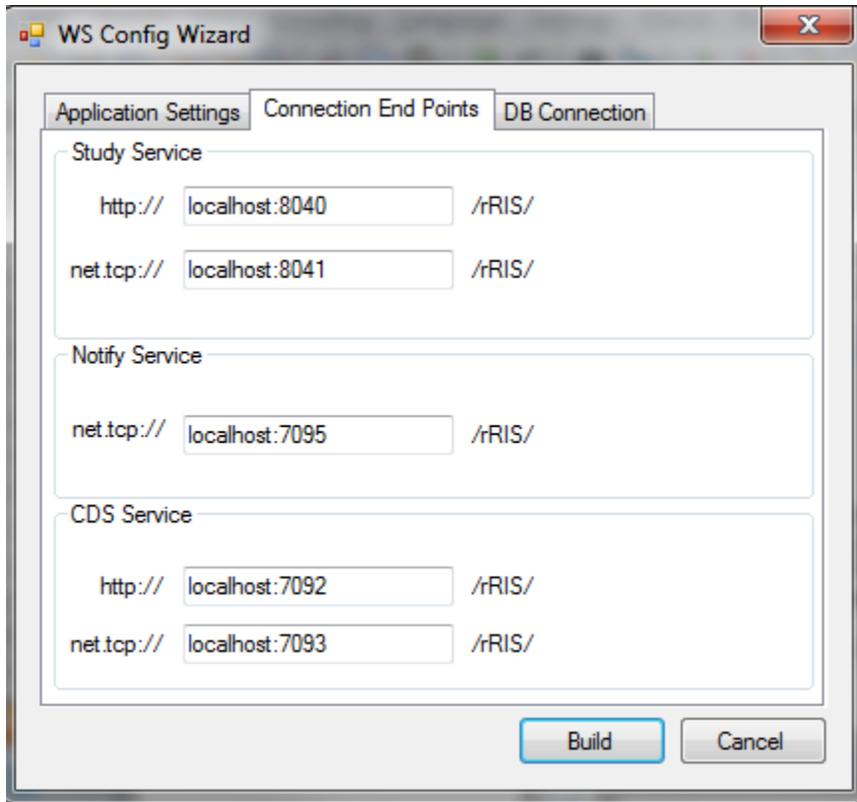
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Application Settings: all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.



Connection End Points: will display the existing configuration, if the value is left blank then that entry will not be created, in the case of “Study Service” or “CDS Service” if both http and net.tcp were not provided then that endpoint will not be created at all.



DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.

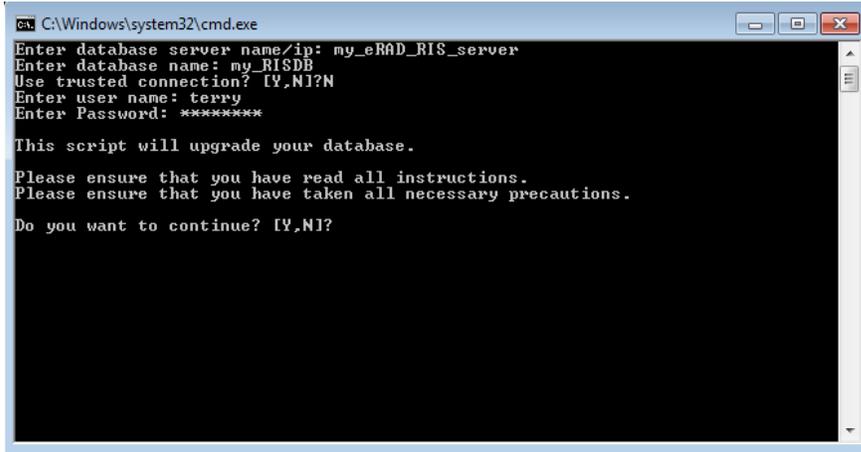
- 1) From the upgrade folder, double click the “RunUpgrade.bat” command file.
- 2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

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- 3) You can choose to use “Trusted connection”. Using this option will pass the identity of the currently logged on user. If this user has “db_owner” access to the eRAD RIS database then feel free to use this options.
- 4) If you decide not to use “Trusted connection” then you will be prompted for user id and password.

Example:



```
C:\Windows\system32\cmd.exe
Enter database server name/ip: my_eRAD_RIS_server
Enter database name: my_RISDB
Use trusted connection? [Y,N]?N
Enter user name: terry
Enter Password: *****

This script will upgrade your database.
Please ensure that you have read all instructions.
Please ensure that you have taken all necessary precautions.
Do you want to continue? [Y,N]?
```

- 5) After the upgrade program has finished you can find the upgrade logs in the “log” folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team