User Release Notes

for eRAD RIS
Version 2
Build 44.3

Table of Contents

1. Purpose

This document describes some of the new features and changes implemented in eRAD RIS as of the end of Sprint 44.3 and subsequent server releases. This version of eRAD RIS is referred to as Build 2.44.3

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

2. Intended Audience

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

3. Installing/Accessing the Application

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

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

Please note that Build 2.44.3 is considered a new release of the application. It does not require a reinstallation of eRAD RIS. If users choose to reinstall, this is accomplished by navigating to the eRAD RIS shared installation drive and running the CoreInstall.bat file (ex: I:\RISDeployment\CoreInstall.bat)

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

4. Existing Access Strings Required for New Feature in B2.44.3

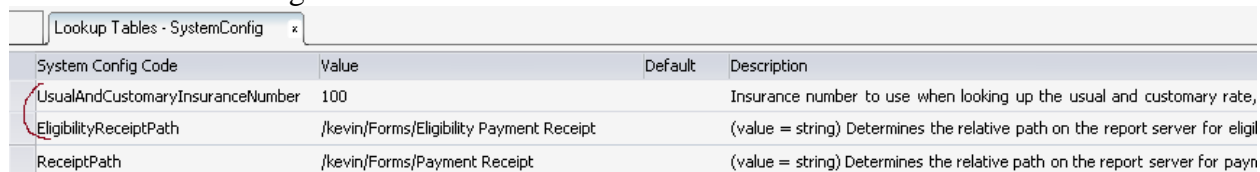| Setting Placeholder	Setting	Default	Purpose / Controls Access to
System Configuration	EligibilityReceiptPath	None	(value = string) Determines the relative path on the report server for eligibility payment receipts
System Configuration	MaxPaymentAboveAmountToCollect	999	(value = int) Max $ above the amount to collect that will be allowed.
System Configuration	MaxPaymentAmount	6000	(value = int) Max $ amount that can be paid in a single payment.
System Configuration	ShowKeepSelfPayPrivate	False	(value = bool) Determines if RIS will present the 'Do not share with insurance provider' option in the case of self-pay.
System Configuration	UsualAndCustomaryInsuranceNumber	None	Insurance number to use when looking up the usual and customary rate, which is displayed on the patient's receipt.

5. New Features and Enhancements

Insurance Eligibility – Payment Receipt Showing Insurance and Pricing

It can be difficult explaining charges to the patient. A report showing the breakdown of the amount to collect is required.

For payment made on visits, where RIS had used eligibility to calculate an amount to collect, RIS will display an alternate receipt. The receipt will list the CPTs and their Usual & Customary rates and the eligibility verified co-insurance, co-pay and deductible portions, plus payment information such as total payments and estimated balance. The receipt creation process archives all this information, so that when we re-print the receipt, it prints exactly the same.

To get the Usual & Customary amount, the new system configuration setting of "**UsualAndCustomaryInsuranceNumber**" (no default value) must be set to the NPD's insurance company for the usual rate fee schedule. If this is not set, then the costs in the report will display as blank. The usual rate is stored for every CPT, even those which do not have Eligibility enabled carrier.

To enable the auto printing and reprinting of the Eligibility Payment Receipt, set the new system configuration setting of "**EligibilityReceiptPath**" (no default value) to the new payment form as shown in the following.

System Config Code	Value	Default	Description
UsualAndCustomaryInsuranceNumber	100		Insurance number to use when looking up the usual and customary rate,
EligibilityReceiptPath	/kevin/Forms/Eligibility Payment Receipt		(value = string) Determines the relative path on the report server for eligi
ReceiptPath	/kevin/Forms/Payment Receipt		(value = string) Determines the relative path on the report server for payn

Figure 5.1 – Displaying new system configuration settings

The Eligibility Payment receipt will get printed after saving a screen such as Registration or View Edit when there was one or more payments made during the edit. Or receipts can be reprinted by right clicking on one of the payment and choosing "reprint" as shown in the following:
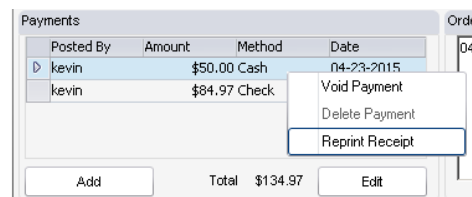
Figure 5.2 – Reprinting receipt

There are two variations on the Eligibility Payment Receipt.
  1) A simple receipt where the patient paid for their services in full.
  2) Payment estimate change, CPTs could have changed during the exam and patient either needs to be either refunded or pay an additional amount.

In these two cases the receipt will look similar but in the second case will have additional fields such as '**Current Payments**' and '**Previous Payments for this Visit'**.

The following shows a simple receipt where the patient paid using both Cash and Cheque:

LOGO

RECEIPT

April 23, 2015 9:13 AM
RECEIPT # EL-102-39110

Mol, kevin
343 Central St
Summerside, MD 90210
MRN # 24742PE

Insurance Payments are an Estimate Only

Please write this number on your check: 39110
Make checks payable to: Advanced Radiology

Service Date	Description	Units	Charge	Total
04/23/2015	CT ORBIT SELLA/POST FOSSA/EAR C-/C+	1	$ 430.17	$ 430.17
				$ 430.17

	Deductible Portion	Copay	Coinsurance	Total
Estimated Patient Responsibility	$ 100.00	$ 10.00	$ 24.97	$ 134.97

Method	Notes	Amount
Cash		$ 50.00
Check #2123		$ 84.97
	Total Payments	$ 134.97
	Estimated Patient Balance	$ 0.00

Thank you for your business!

Figure 5.3 – Payment receipt display different modes of payment

After the initial registration, additional CPTs were added and the patient had to return to pay the additional amount. The following is the second payment receipt for this visit:

Service Date	Description	Units	Charge	Total
04/23/2015	CT ORBIT SELLA/POST FOSSA/EAR C-/C+	1	$ 430.17	$ 430.17
04/23/2015	RADIOLOGIC EXAMINATION, ABDOMEN; ANTEROPOSTERIOR AND ADDITIONAL OBLIQUE AND CONE VIEWS	1	$ 47.13	$ 47.13
04/23/2015	RADIOLOGIC EXAMINATION, ABDOMEN; SINGLE ANTEROPOSTERIOR VIEW	1	$ 29.26	$ 29.26
				$ 506.56

	Deductible Portion	Copay	Coinsurance	Total
Estimated Patient Responsibility	$ 100.00	$ 10.00	$ 31.96	$ 141.96

Method	Notes	Amount
CreditCard MC 3322	XR ABDOMEN AP was added after inital registration. Patient paid remaining ESTIMATED balance.	$ 6.99
	Current Payments	$ 6.99
	Previous Payments for This Visit	$ 134.97
	Total Payments	$ 141.96
	Estimated Patient Balance	$ 0.00

Figure 5.4 – Second payment required for additional services receipt

The Usual and Customary amount is often different from the contracted rate. To help our staff understand how the amount to collect was calculated, we have updated the "Amount to Collect – Details" popup to include a list of CPTs and their rates.

Figure 5.5 – Amount to Collect Details changes

A new column titled "Charge For Each Unit Flag" has been added to the Billing Code lookup table. By default we will not charge for multiple units. The RIS will only bill for multiple units if the billing_code lookup's field charge_for_each_unit_flag is set to 'Y'. If charge_for_each_unit_flag is 'N' then the visit cost will only include one charge for the CPT and the Eligibility Payment Receipt and the above Amount to Collect Details will only show that the CPT was charged once.

Figure 5.6 – New column on the Billing Code tab

Administrators can update multiple billing code in a batch as outlined in the following steps:

1. Filter on the types of billing codes you would like to set to 'Y'

Figure 5.7 –Filtering billing code table

2. Set one of the entries to 'Y'
3. Press <CTRL>+A on the keyboard to select all rows
4. Right click on the cell that has the 'Y' from step 2 and select "Assign Cell To Selected Rows"

Figure 5.8 – Assigning multiple rows in billing code with attribute

Insurance Eligibility – Payments Exceeding Amount to Collect Warning

A popup warning is now displayed, if the amount entered is greater than the remaining amount to collect. The warning is displayed when the cursor focus moves away from the Amount textbox.
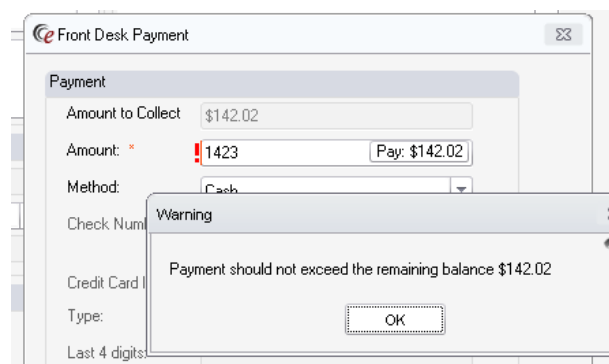

Figure 5.9 –Warning if payment exceeds amount to collect

To help users key in the correct remaining balance, we have introduced the "Pay" button. When clicked, the "Amount" text box will get set to the remaining balance. In the above example, clicking the "Pay: $142.02" button sets the amount to 142.02.

Two new system configuration settings have also been introduced. The first is "**MaxPaymentAmount**" that has a default of 6000. This setting will limit the user's ability to enter an amount more than the value set for this configuration setting.

Figure 5.10 – new configuration settings for payment amounts

In the example below the user tried to enter a payment amount of $5000.00. The amount to collect is $142.02. Because the value set above for MaxPaymentAmount is $4000.00, we will display a message and inform the user they cannot enter this payment amount.
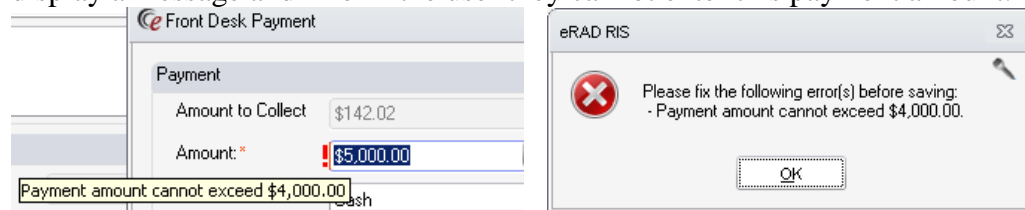
Figure 5.11 – Message displayed when Amount to Collect exceeds MaxPaymentAmount

In the next example the user is trying to enter a payment amount that exceeds the set value for the next new system configuration setting of "**MaxPaymentAboveAmountToCollect**" which has a default of 999. In figure 5.10 the value is set to $99 and the amount to collect is $142.02. Since the payment amount exceeds $99 the user is prevented from entering that amount and the value displayed with these two values added together.
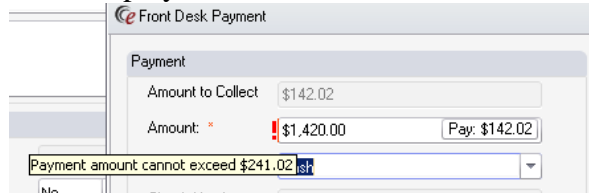
Figure 5.12 – Amount entered exceeds MaxPaymentAboveAmountToCollect

Insurance Eligibility – Collect Copay When it Exceeds Amount to Collect

If the amount to collect is less than the copay, the amount to collect will now be that of the copay amount. In the example below you can see that the amount to collect is $56, but the Copay portion is $99. The amount to collect will be $99.

Figure 5.13 – Amount to Collect will now be the Copay amount.

Self-Pay Option "Do not share with insurance provider"

When the exam is to have a self-pay method selected from the Billing Method section on the Order tab a new check box will appear. This check box is labeled "Do not share with insurance provider". Functionally in eRAD RIS, it will not affect anything. The flag is set to Y when selected, which is then passed to an external system that will share/not share data with the insurance company.

A new system configuration setting of "**ShowKeepSelfPayPrivate**" which has a default of false will control whether or not this check box will appear when selecting a self-pay option

Figure 5.14 – Check box displayed when self-pay option used and config setting ShowKeepSelfPayPrivate=Y

Referring Doctor Affiliations Included With MIRTH Messages

Logic was added to the RIS outbound external interface to include identifiers for the doctors affiliations as part of the expanded study container sent to MIRTH.

The referring doctors affiliation will be included in the c_order.requested_by_address_key.l_person_address node within the study container. A new node called affiliation_list is now a child node of l_person_address. If there are no affiliations this node would be empty. If there 1 or more then a child node called <affiliation_code> node would repeat for each occurrence. See examples below.

```
        <report_cc_delivery_emr_flag>N</report_cc_delivery_emr_flag>
        <report_delivery_do_not_deliver_flag>N</report_delivery_do_not_deliver_flag>
        <report_cc_delivery_do_not_deliver_flag>N</report_cc_delivery_do_not_deliver_flag>
        <report_delivery_email_flag>N</report_delivery_email_flag>
        <report_cc_delivery_email_flag>N</report_cc_delivery_email_flag>
        <affiliation_list />
    </l_person_address>
</requested_by_address_key>
<indication>DAT</indication>
        <report_cc_delivery_emr_flag>N</report_cc_delivery_emr_flag>
        <report_delivery_do_not_deliver_flag>N</report_delivery_do_not_deliver_flag>
        <report_cc_delivery_do_not_deliver_flag>N</report_cc_delivery_do_not_deliver_flag>
        <report_delivery_email_flag>N</report_delivery_email_flag>
        <report_cc_delivery_email_flag>N</report_cc_delivery_email_flag>
        <affiliation_list>
            <affiliation_code>1</affiliation_code>
        </affiliation_list>
    </l_person_address>
</requested_by_address_key>
<indication>DAT</indication>
        <report_cc_delivery_emr_flag>N</report_cc_delivery_emr_flag>
        <report_delivery_do_not_deliver_flag>N</report_delivery_do_not_deliver_flag>
        <report_cc_delivery_do_not_deliver_flag>N</report_cc_delivery_do_not_deliver_flag>
        <report_delivery_email_flag>N</report_delivery_email_flag>
        <report_cc_delivery_email_flag>N</report_cc_delivery_email_flag>
        <affiliation_list>
            <affiliation_code>1</affiliation_code>
            <affiliation_code>109</affiliation_code>
        </affiliation_list>
    </l_person_address>
</requested_by_address_key>
<indication>DAT</indication>
```

Interface to Create Internal System ID for External ID via External System

The RIS Services were updated so that if the c_child_patient node has an attribute called create_internal set to Y then if no internal patient is found or is already associated to the external MRN, a new row will be created.

The MIRTH mapping line required to create the attribute looks like:
```
tmp['Patient']['c_child_patient'].@create_internal = 'Y';
```

With this attribute on (Y), and the message sent to RIS with only the external identifier and a match is not found we will create an internal MRN for this patient. Alternatively if the attribute is "N" it will behave as it does today, sending the message to RIS and an internal ID will not be created.

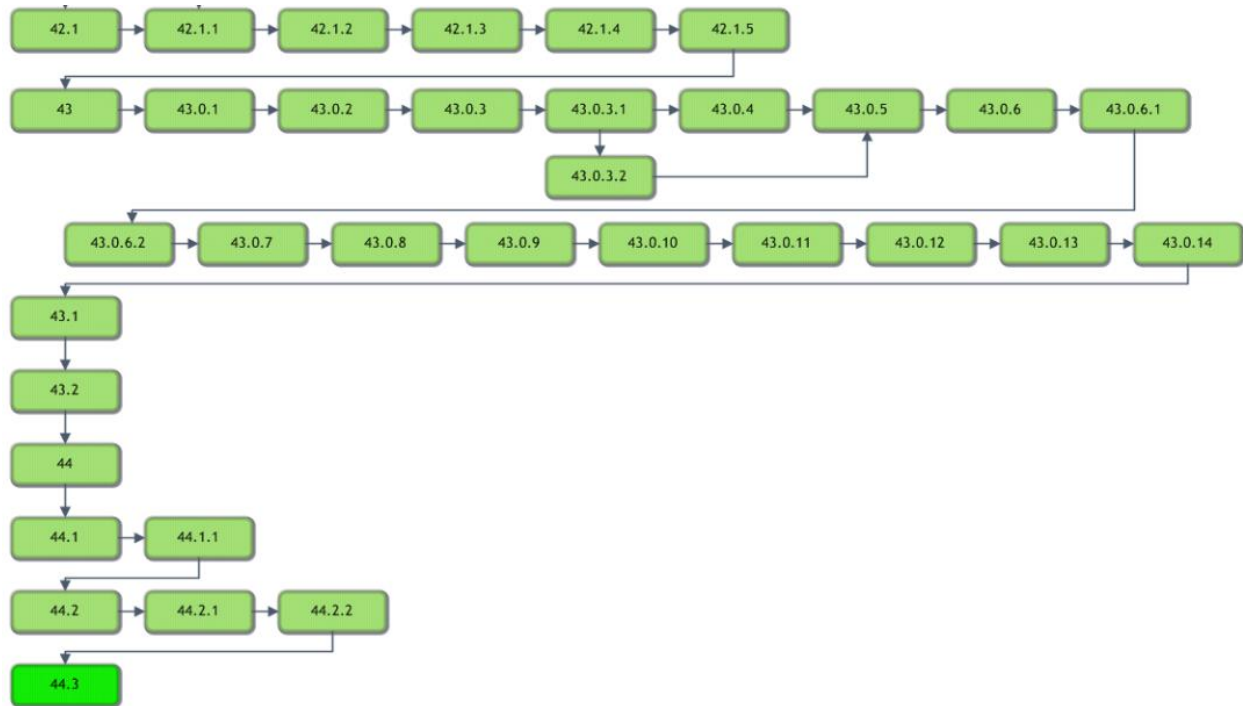In addition to the create_internal attribute, we also included the attributes of require_phone_match and require_gender_match, both valued with 'N'.
Examples:
```
tmp['Patient']['c_child_patient'].@require_phone_match = 'N';
tmp['Patient']['c_child_patient'].@require_gender_match = 'N';
```

6. Code Stream

Legend:

Light Green = Released software

Gray = Will not be released

Bright Green = Current Release

7. eRAD RIS Release Version Numbers

Build	Patch	UI Version	Core Version	WS Version	DB Version	Notes
43	-	2.43.0.0.23715(3GB)	2.43.0.0.23171	2.43.0.0.23715	2.43.0.0.23743	Full Version Release
43	1	2.43.0.1.23798(3GB)	2.43.0.0.23171	2.43.0.1.23798	2.43.0.1.23770	GUI.zip, Web Service, DB updates
43	2	2.43.0.2.24017(3GB)	2.43.0.0.23171	2.43.0.2.24017	2.43.0.2.24023	GUI.zip, Web Service, DB updates and Management Report Deployment
43	3	2.43.0.3.24298(3GB)	2.43.0.0.23171	2.43.0.3.24298	2.43.0.3.24283	GUI.zip, Web Service, DB updates and Management Report Deployment
43	3.1	2.43.0.3.24450(3GB)	2.43.0.0.23171	2.43.0.3.24298	2.43.0.3.24421	GUI.zip, and DB updates
43	3.2	2.43.0.3.24450(3GB)	2.43.0.0.23171	2.43.0.3.24298	2.43.0.3.24421a	DB updates
43	4	2.43.0.4.24447(3GB)	2.43.0.0.23171	2.43.0.4.24447	2.43.0.4.24442	GUI.zip, Web Service, DB updates and Management Report Deployment
43	5	2.43.0.4.24632(3GB)	2.43.0.0.23171	2.43.0.4.24632	2.43.0.4.24560	GUI.zip, Web Service and DB updates
43	6	2.43.0.4.24(3GB)	2.43.0.0.23171	2.43.0.4.24	2.43.0.4.24	GUI.zip, Web Service and DB updates
43	6.1	2.43.0.6.24937(3GB)	2.43.0.0.23171	2.43.0.6.24937	2.43.0.6.24914	GUI.zip, Web Service
43	6.2	2.43.0.6.24970(3GB)	2.43.0.0.23171	2.43.0.6.24970	2.43.0.6.24914	GUI.zip, Web Service
43	7	2.43.0.7.25258(3GB)	2.43.0.0.23171	2.43.0.7.25258	2.43.0.7.25226	GUI.zip, Web Service, DB updates and Management Report Deployment
43	8	2.43.0.8.25440(3GB)	2.43.0.0.23171	2.43.0.8.25440	2.43.0.8.25425	GUI.zip, Web Service, DB updates and Management Report Deployment
43	9	2.43.0.9.25477(3GB)	2.43.0.0.23171	2.43.0.9.25477	2.43.0.8.25425	GUI.zip and Web Service
43	10	2.43.0.9.25477(3GB)	2.43.0.0.23171	2.43.0.10.25477	2.43.0.8.25425	Web Service
43	11	2.43.0.11.25512(3GB)	2.43.0.0.23171	2.43.0.11.25512	2.43.0.8.25425	GUI.zip and Web Service
43	12	2.43.0.12.25554(3GB)	2.43.0.0.23171	2.43.0.12.25554	2.43.0.12.25536	GUI.zip Web Service and DB Updates
43	13	2.43.0.12.25610(3GB)	2.43.0.0.23171	2.43.0.12.25610	2.43.0.12.25536	GUI.zip and Web Service
43	14	2.43.0.14.25644(3GB)	2.43.0.0.23171	2.43.0.13.25610	2.43.0.12.25536	GUI.zip
43.1	-	2.43.1.0.25850(3GB)	2.43.0.0.23171	2.43.1.0.25850	2.43.1.0.25771	GUI.zip Web Service and DB Updates
43.2	-	2.43.2.0.26864(3GB)	2.43.0.0.23171	2.43.2.0.26864	2.43.1.0.25771	GUI.zip and Web Service
44	-	2.44.0.0.26570(3GB)	2.44.0.0.26405	2.44.0.0.26570	2.44.0.0.26475	Full Version Release
44.1	-	2.44.0.0.26984(3GB)	2.44.0.0.26405	2.44.0.0.26984	2.44.0.0.26906	Gui.zip, Web Service, and DB
44.1	1	2.44.1.1.27093(3GB)	2.44.0.0.26405	2.44.1.0.26984	2.44.1.0.26906	Gui.zip
44.2		2.44.2.0.27410(3GB)	2.44.0.0.26405	2.44.2.0.27410	2.44.2.0.27365	Gui.zip, Web Service, and DB
44.2	1	2.44.2.1.27959(3GB)	2.44.0.0.26405	2.44.2.1.27959	2.44.2.1.27909	Gui.zip, Web Service, and DB
44.2	2	2.44.2.1.27959(3GB)	2.44.0.0.26405	2.44.2.2.28094	2.44.2.1.27909	Web Service
44.3	**-**	**2.44.3.0.28292**	**2.44.0.0.26405**	**2.44.3.0.28277**	**2.44.3.0.28138**	**Gui.zip, Web Service, and DB**

8. Resolved Defects

Bugs Suggested Features and Support Issues resolved in build 2.44.3. The extract is taken from Redmine bug tracking system and only displays defects resolved in 2.44.3.

Bug #	Priority	Subject	Category	Found Version
6032	Normal	Scheduling - New Appointment Calendar - Selecting time on calendar does not check for room availability.	Thick Client GUI	1.42
7270	Normal	Note column in personel causing errors	Admin-Clinical Data	2.43
7497	Normal	biopsy surgeon selection shows referrings and other personnel that are not surgeons	Mammography	2.43.0.5
7932	Normal	An error in the image caching process can terminate RIS	PACS (eRAD) Int - RIS only	2.43.0.12
8428	High	Collection was modified error related to worklist views	Radiology Reporting	2.43.1
9150	High	Insurance Eligibility - CPT costs needed to be multiplied by units		43.1
9323	High	IVT - MRN isn't read-only on patient tab.	Thick Client GUI	2.43.2
9425	Normal	Amount to collect not updating on Schedule Order/Review screens when blanked out	Billing	2.44
9448	High	Review Tab - Estimated responsibilities when zero should be handled better	Billing	43.1
9471	Normal	Warning needed if selected insurance has a blank policy number	Insurance Eligibility	43.1
9480	Low	Reporting Radiologist - PowerScribe error and crash opening report with powerscribe integration	Radiology Reporting	2.43.1
9513	Normal	AppointmentBook is showing cancelled studies	Scheduling	2.44.2
9523	Urgent	Old layout for dictation/editing are not maintained into the 44 upgrade.	Radiology Reporting	44
9524	Urgent	Bacode scanner not opening PS360 report when set to Diagnose on accession number	Powerscribe Integration	2.44.2
9525	Normal	Assigned Radiologist is not recognized as assigned in the Assign to Radiologist window	Radiology Reporting	2.44

9530	High	Error arriving studies from same order	Reception	2.44.2
9532	Normal	error changing pre-cert info on registration	Reception	2.44.2
9543	High	Reporting Radiologist - M*Modal interactive dictation performance issues when using encrypt audio method	Radiology Reporting	2.44.2
9554	High	the wedge should not expand the virtual table c_order_ref_addresses	Web Services/DB	2.44.2
9555	Urgent	Post message routine in RIS Services (wedge) fails	Web Services/DB	2.44.2
9559	Normal	validate MS-SQL Server 2008 R2 SP3	DB	2.44.2
9574	High	Insurance Eligibility - Performance issue as we add more eligibility configurations		44.2
9586	Normal	DD Engine updates pending lay letters to be cancelled is a causing database blocking	DB	2.44.2
9608	Normal	Reporting Radiologist - Exception on application exit using Powerscribe	Radiology Reporting	2.44.2
9632	Normal	Assigning an exam to a chair in Pending Dictation WL produced an error.	Chair/County workflow	2.44.3
9646	High	Insurance Eligibility - Amount to collect issue in "Perform Exam"		44.2

9. Known Limitations

The following are Bugs Suggested Features and Support Issues found in build 2.44.3. Bugs reported in previous versions are not captured as Known Limitation in this document.

#	Status	Priority	Subject
9634	New	High	Contrast is being deleted when View/Edit is opened