User Pre-Release Notes

for RADNET rRIS
Build 1.16

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Table of Contents

1. Purpose ... 3
2. Intended Audience ... 3
3. Installing/Accessing the Application ... 3
4. New Features and Enhancements ... 4
   Patient Search on Previous MRN, First Name, and Last Name ... 4
   Patient Search on Phone Number ... 4
   Patient Name Prefix and Suffix ... 5
   Smoking Status ... 6
   Open Versus Closed Enclosure Modalities ... 6
   Additional Details on the Appointment Book ... 8
   Study Suspended Flag ... 9
   Enhanced Form Generation Criteria ... 10
   Foot Pedal Support and Configuration ... 12
   SpeechMike Configurable Buttons ... 13
   Optimizing Dictation Playback ... 13
   Playback Speed per Radiologist ... 15
   Show Paragraph Line Breaks in the Report Editor ... 15
5. Known Limitations ... 17

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1. Purpose

This document describes some of the new features and changes implemented in rRIS as of the end of Sprint 16. This pre-release version of rRIS is referred to as Build 1.16.

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 rRIS Development team for the RadNet RIS management team.

3. Installing/Accessing the Application

The installation instructions for the rRIS 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 1.16 is considered a new core release of the application and will require a reinstallation of rRIS. This is accomplished by navigating to the rRIS 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 Spencer MacDougall with the PEI RIS Development Team.

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4. New Features and Enhancements

Patient Search on Previous MRN, First Name, and Last Name

Build 1.16 supports the ability for a user to perform a search on the patient's previous MRN and/or name. For example, Jennifer Anthony (95079) has been merged into Jennifer Griffin (95576). Jennifer had been married and a new MRN had been improperly added for her and the merge had to take place. The user is still able to search for "Jennifer Anthony" or "95079" and Jennifer Griffin will be returned in the search results. The Previous MRN is also included in the search results.

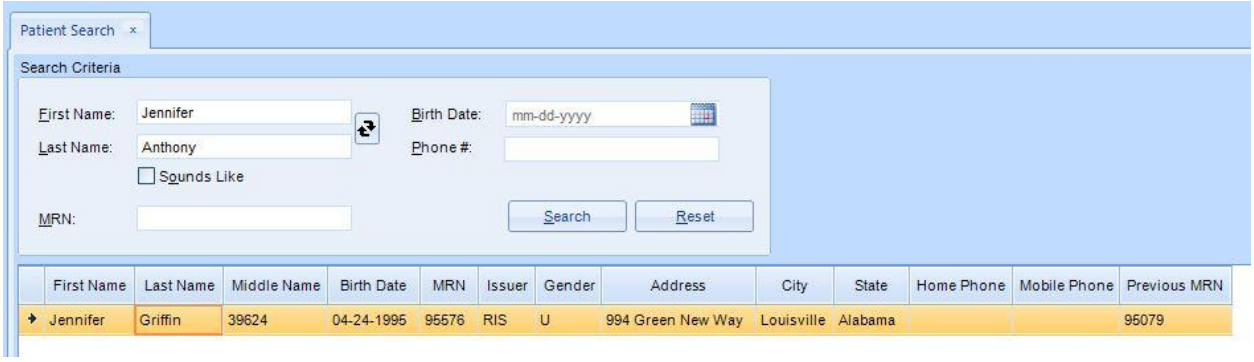

Figure 4.1 – Patient Search on Previous Name

Patient Search on Phone Number

The application now supports the ability to search for a patient using phone number as search criteria. In a future release rRIS will support a partial phone number search (ex: the last 4 numbers) but currently the user will be required to enter all 10 digits.

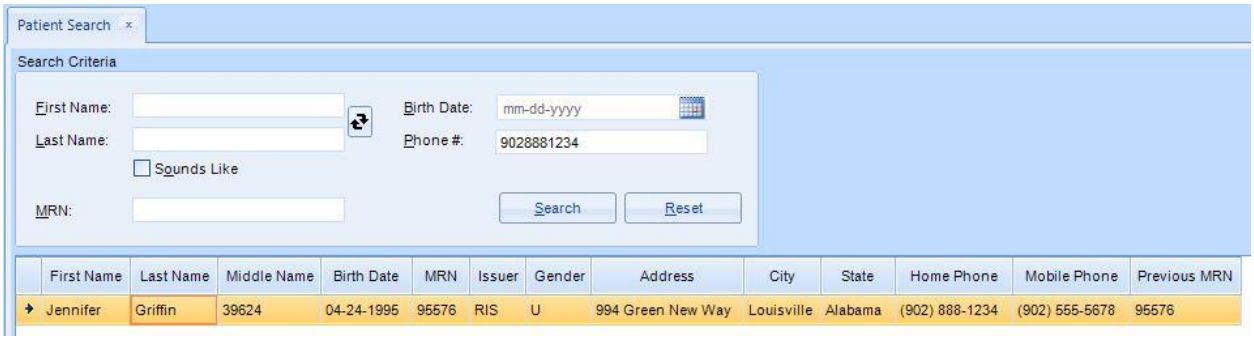

Figure 4.2 – Patient Search on Phone Number

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Patient Name Prefix and Suffix

rRIS is required to support the storing of the patient's prefix and/or suffix. The patient tab has been updated with dropdowns for both prefix and suffix to accommodate this feature. Lookup tables have been added for both PatientPrefix and PatientSuffix, making the lists configurable.

Figure 4.3 – Patient Tab showing Prefix and Suffix Dropdowns

Figure 4.4 – Patient Prefix Lookup

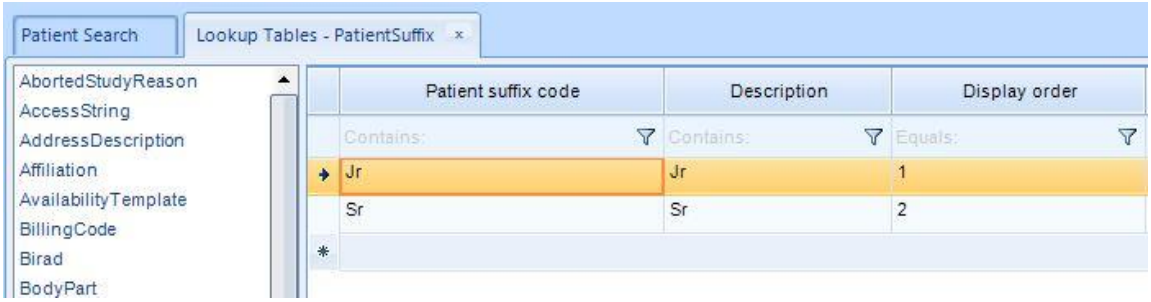

Figure 4.5 – Patient Suffix Lookup

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Smoking Status

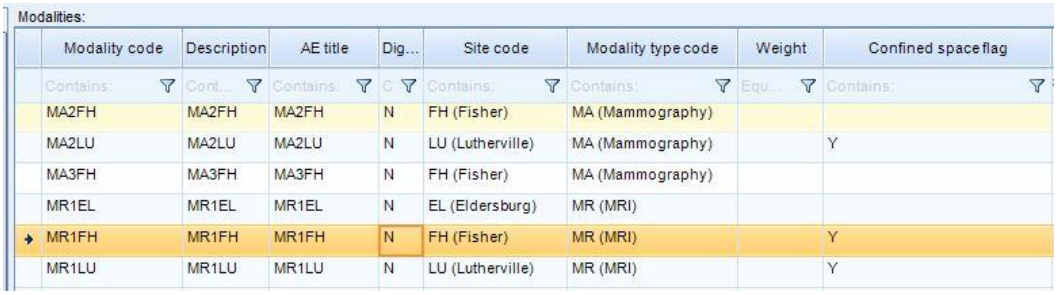
rRIS is required to meet all Meaningful Use Requirements. One requirement is tracking smoking status for 50% of patients that are thirteen years old and older. A Smoking Status lookup has been added to the system and will eventually be reflected on the Patient Tab via a dropdown selection. Storing this data will allow administrators to run the required statistics to meet Meaningful Use Certification criteria.

Smoking status code	Display order	Description
Contains:	Equals:	Contains:
ED	1	Current Every Day Smoker
FS	3	Former Smoker
NS	4	Never Smoked
SD	2	Current Some Day Smoker
SM	5	Smoker
SU	6	Current Status Unknown
UN	7	Unknown if Ever Smoked

Figure 4.6 – SmokingStatus Lookup

Open Versus Closed Enclosure Modalities

When a patient is claustrophobic, it is important to distinguish between open modalities and closed modalities (confined space) when scheduling. rRIS now supports this with data flags at both the Modality and Visit level. When configuring rooms, the Confined Space Flag need to be set to "Y" to specify it as a closed modality.



Modality code	Description	AE title	Dig...	Site code	Modality type code	Weight	Confined space flag
Contains:	Cont...	Contains:	C	Contains:	Contains:	Equ...	Contains:
MA2FH	MA2FH	MA2FH	N	FH (Fisher)	MA (Mammography)		
MA2LU	MA2LU	MA2LU	N	LU (Lutherville)	MA (Mammography)		Y
MA3FH	MA3FH	MA3FH	N	FH (Fisher)	MA (Mammography)		
MR1EL	MR1EL	MR1EL	N	EL (Eldersburg)	MR (MRI)		
MR1FH	MR1FH	MR1FH	N	FH (Fisher)	MR (MRI)		Y
MR1LU	MR1LU	MR1LU	N	LU (Lutherville)	MR (MRI)		Y

Figure 4.7 – Modality Configuration showing Confined Space Flag

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There is now a Claustrophobic checkbox available on the Patient tab. When this is specified, the system will know to describe the rooms as open or closed modalities.

Figure 4.8 – Patient Tab showing Claustrophobic Checkbox

In the example below, the scheduling user is attempting to schedule a MR Chest for a Claustrophobic patient. The system will present three rooms as a scheduling solution, but two of the rooms will be listed as "Confined Space".

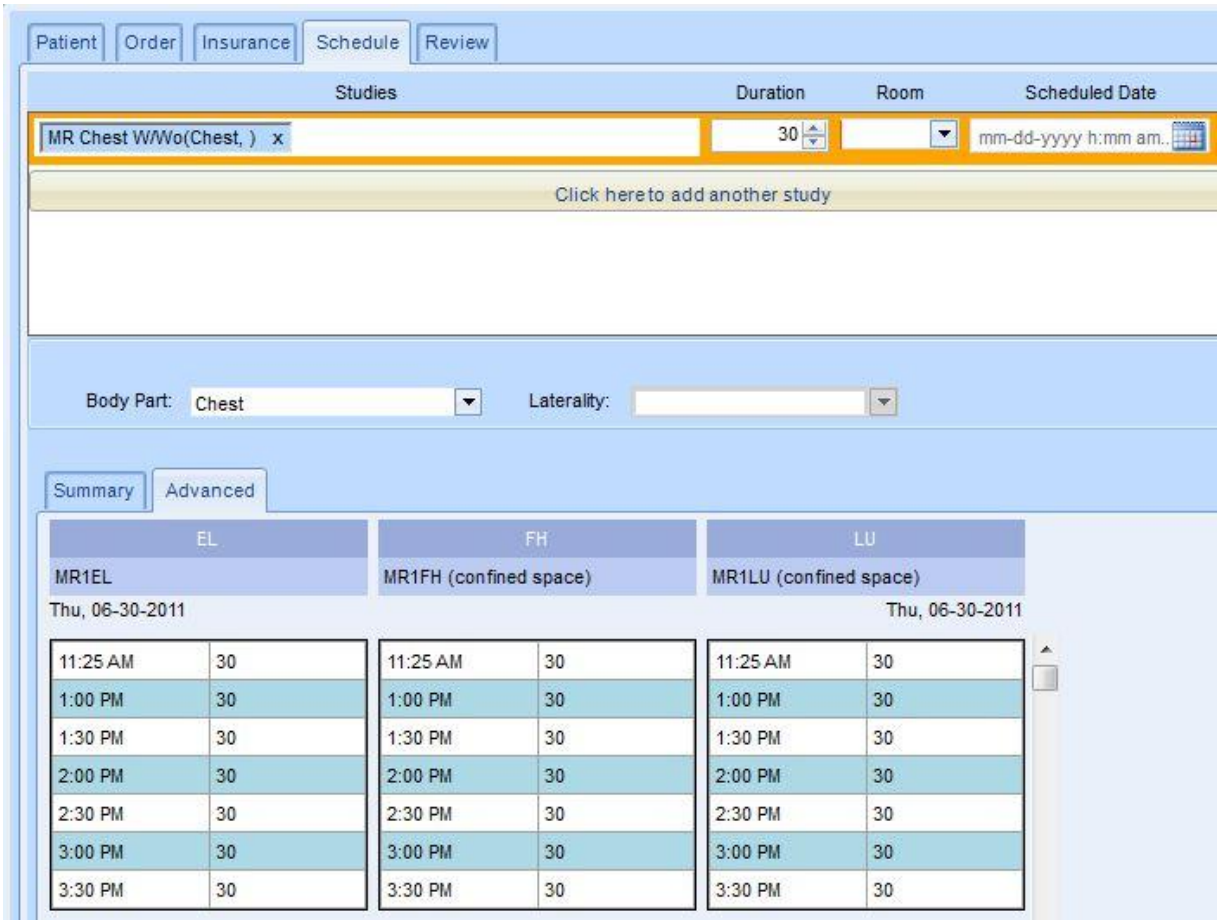

Figure 4.9 – Scheduling Solution showing Rooms Flagged as Confined Space

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Additional Details on the Appointment Book

The Appointment Book has been enhanced to also show the referring physician with the patient name, procedure, status, and time.

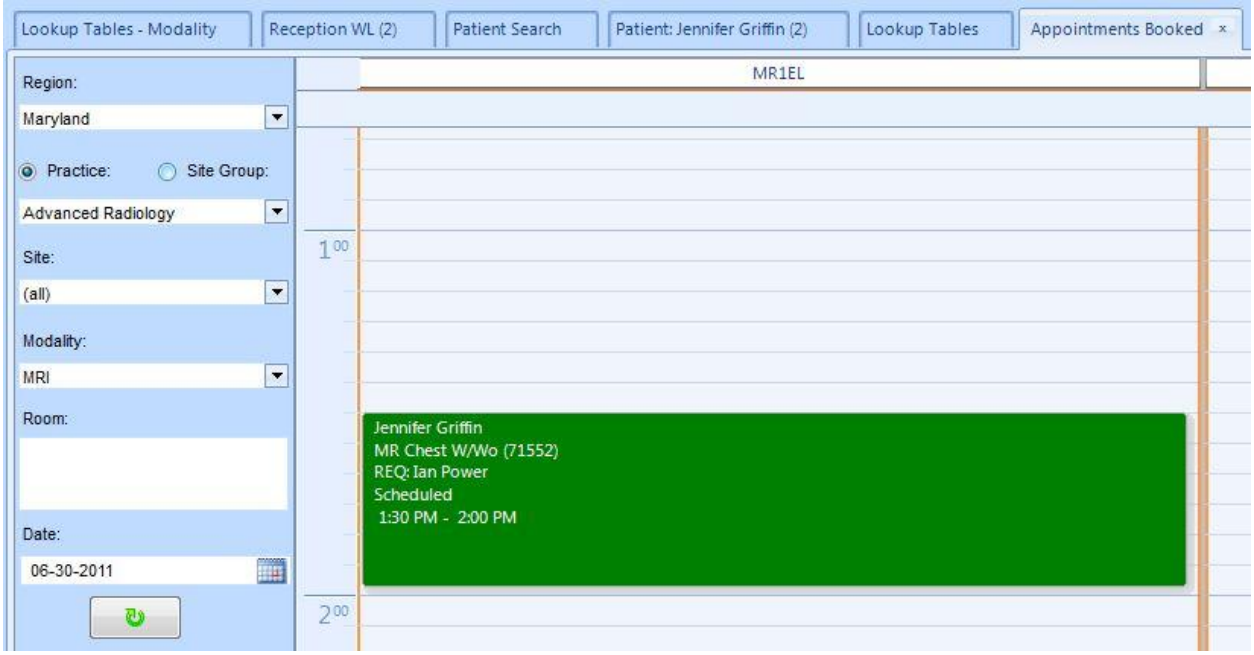

Figure 4.10 – Appointment Book showing Referring Doctor in Appointment Details

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Study Suspended Flag

In the previous release when the technologist suspended a study, the study's status would change to Suspended. It has been determined that Suspended is better suited as a Flag and not a Status. In the example below, the technologist has Started the procedure and then Suspended it. The procedure remains in the Started status, with the Suspended flag enabled on the worklist. Once the technologist clicks the Resume button, the Suspended flag will be removed.

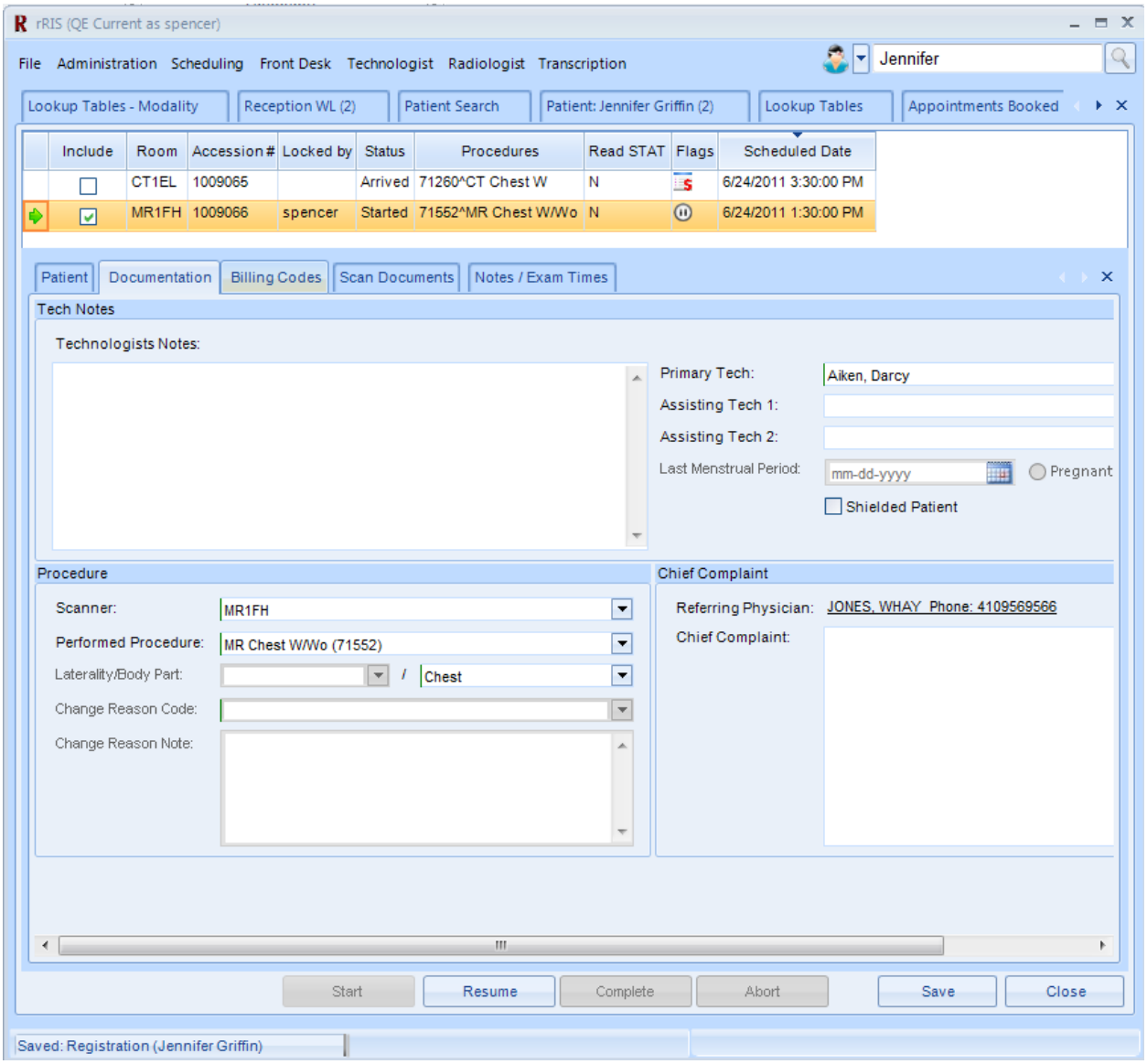

Figure 4.11 – Study Started but Flagged as Suspended

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Enhanced Form Generation Criteria

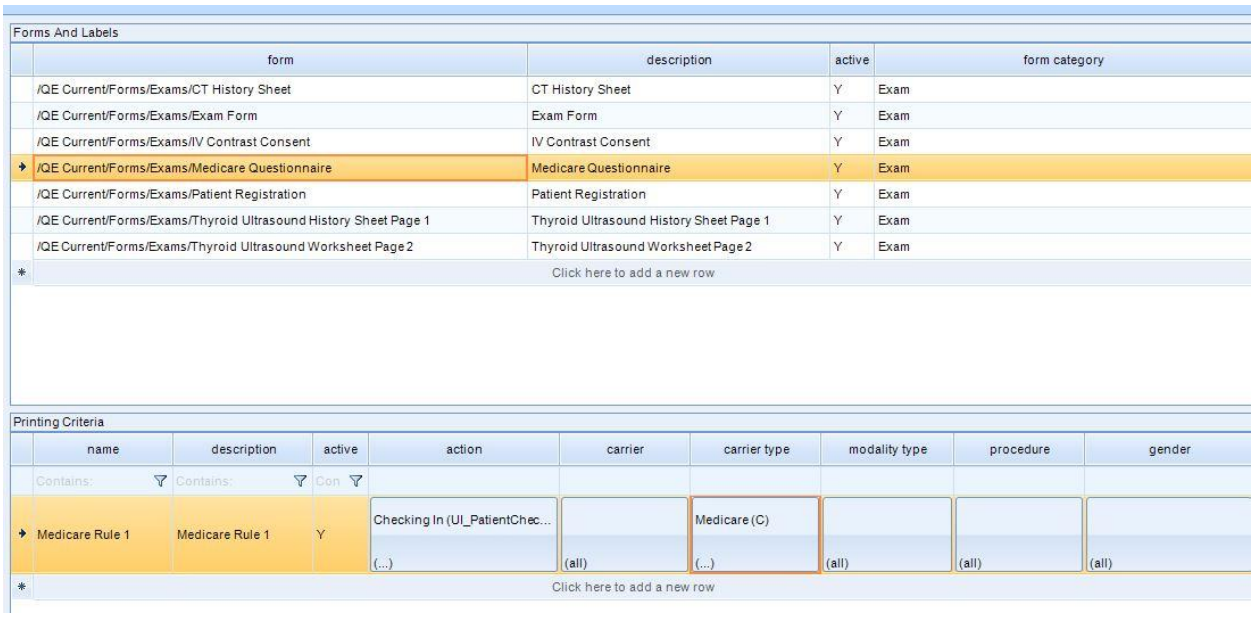
Additional criteria were identified as requirements for Label and Form generation. Forms can now be associated with one or more of each of the following:

- Actions - Patient Arrived, Order Created, Study Completed, etc.
- Carrier(s) – The insurance carrier of the patient
- Carrier Type(s) – The type of insurance carrier such as Blue Cross, Tricare, etc.
- Modality Type(s) – The modality type of the scheduled procedure such as MR, CT, etc.
- Procedure(s) – The actual procedure code such as 76536 – US Thyroid
- Gender(s) - The gender of the patient

With the additional criteria stated above, rRIS can be configured to take much of the guess-work out of labels and forms and greatly reduce the chances of user error. This will also reduce the amount of wasted paper as only the required forms will be generated.

Consider the following test case. A Medicare Questionnaire should only be generated if:

- The patient is being checked in
- The carrier type is Medicare
- All modality types and procedure codes
- All genders



Forms And Labels

form	description	active	form category
/QE Current/Forms/Exams/CT History Sheet	CT History Sheet	Y	Exam
/QE Current/Forms/Exams/Exam Form	Exam Form	Y	Exam
/QE Current/Forms/Exams/IV Contrast Consent	IV Contrast Consent	Y	Exam
/QE Current/Forms/Exams/Medicare Questionnaire	Medicare Questionnaire	Y	Exam
/QE Current/Forms/Exams/Patient Registration	Patient Registration	Y	Exam
/QE Current/Forms/Exams/Thyroid Ultrasound History Sheet Page 1	Thyroid Ultrasound History Sheet Page 1	Y	Exam
/QE Current/Forms/Exams/Thyroid Ultrasound Worksheet Page 2	Thyroid Ultrasound Worksheet Page 2	Y	Exam
Click here to add a new row			

Printing Criteria

name	description	active	action	carrier	carrier type	modality type	procedure	gender
Contains:	Contains:	Con						
Medicare Rule 1	Medicare Rule 1	Y	Checking In (UI_PatientChec... (...)	(all)	Medicare (C) (...)	(all)	(all)	(all)
Click here to add a new row								

Figure 4.12 – Configuring Rule to Generate Medicare Questionnaire

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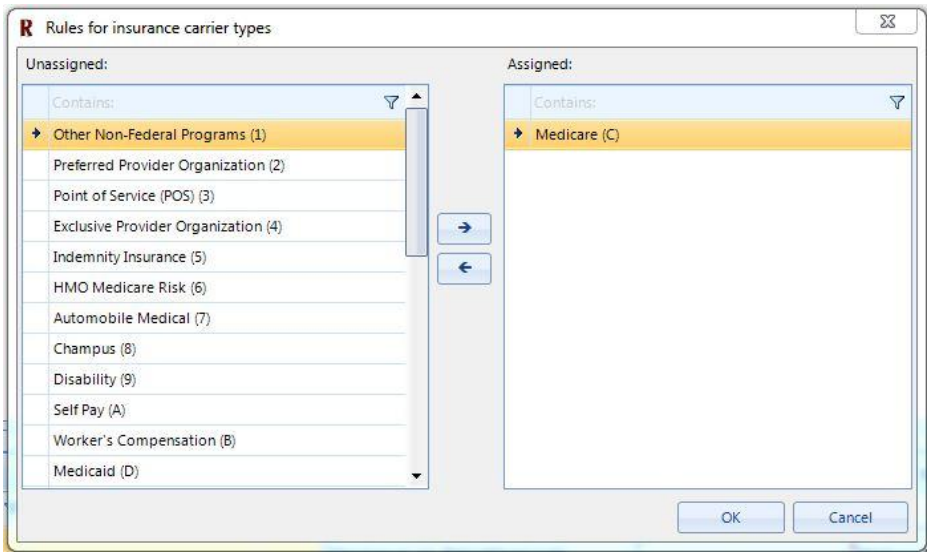
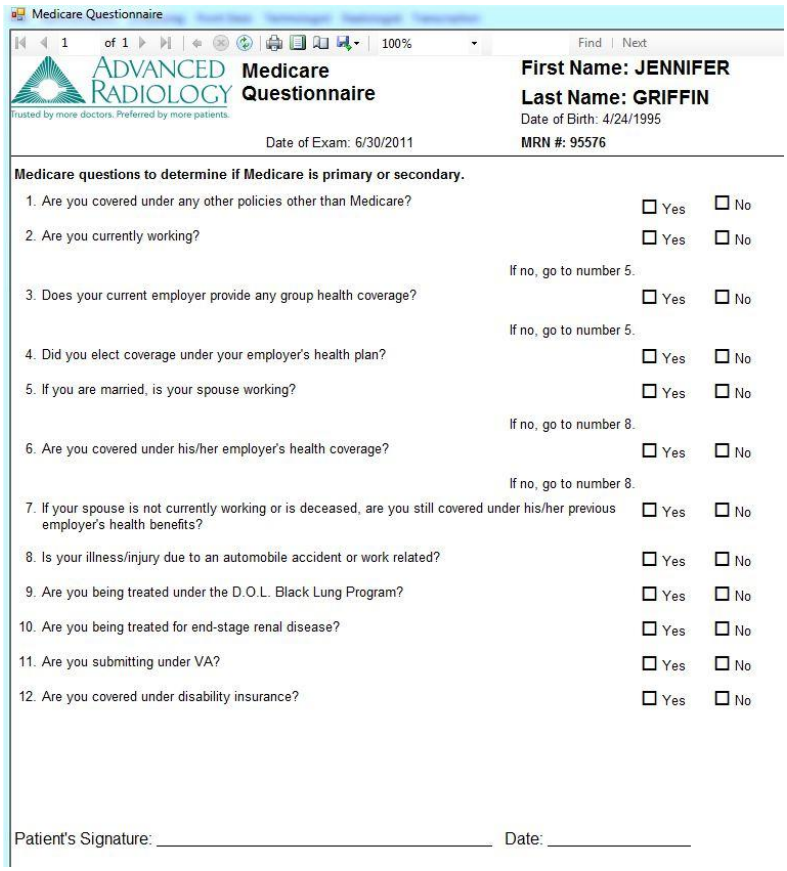


Figure 4.13 – Assigning an Insurance Type to the Medicare Form Rule



Medicare Questionnaire

1 of 1 100% Find | Next

ADVANCED RADIOLOGY
Trusted by more doctors. Preferred by more patients.

Medicare Questionnaire

Date of Exam: 6/30/2011

First Name: JENNIFER
Last Name: GRIFFIN
Date of Birth: 4/24/1995
MRN #: 95576

Medicare questions to determine if Medicare is primary or secondary.

1. Are you covered under any other policies other than Medicare? ☐ Yes ☐ No
2. Are you currently working? ☐ Yes ☐ No
   If no, go to number 5.
3. Does your current employer provide any group health coverage? ☐ Yes ☐ No
   If no, go to number 5.
4. Did you elect coverage under your employer's health plan? ☐ Yes ☐ No
5. If you are married, is your spouse working? ☐ Yes ☐ No
   If no, go to number 8.
6. Are you covered under his/her employer's health coverage? ☐ Yes ☐ No
   If no, go to number 8.
7. If your spouse is not currently working or is deceased, are you still covered under his/her previous employer's health benefits? ☐ Yes ☐ No
8. Is your illness/injury due to an automobile accident or work related? ☐ Yes ☐ No
9. Are you being treated under the D.O.L. Black Lung Program? ☐ Yes ☐ No
10. Are you being treated for end-stage renal disease? ☐ Yes ☐ No
11. Are you submitting under VA? ☐ Yes ☐ No
12. Are you covered under disability insurance? ☐ Yes ☐ No

Patient's Signature: _____ Date: _____

Figure 4.14 – Medicare Questionnaire Automatically Generated

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Foot Pedal Support and Configuration

rRIS supports the use of foot pedals to playback and navigate dictations. It also allows the configuration of the foot pedals at a user level. For example, a transcription user may want Pedal 1 to be Fast Rewind, Pedal 2 to be Play, and Pedal 3 to be Fast Forward.

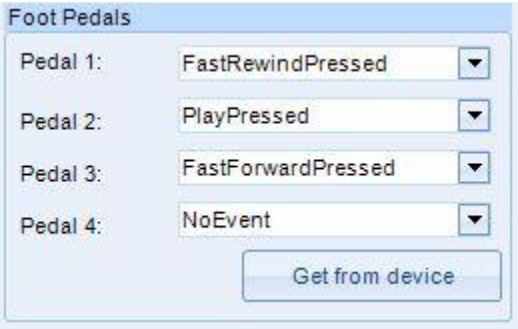

Figure 4.15 – Foot Pedal User Configuration

To help the ris administrator configure the foot pedals, the rRIS user preference screen will indicate which pedal is being pushed by highlighting the event in green.

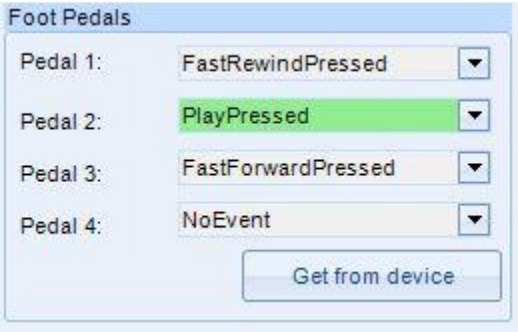

Figure 4.16 – User Selecting Pedal 2

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SpeechMike Configurable Buttons

Similar to foot pedals, rRIS also supports the configuration of the Philips SpeechMike buttons at a user level.

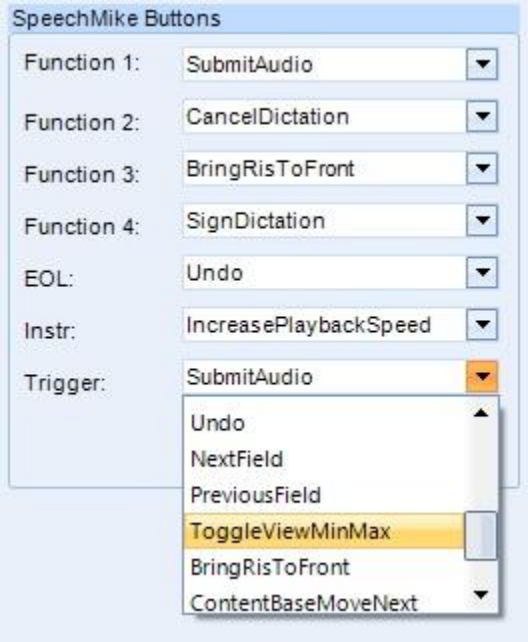

Figure 4.17 – Sample SpeechMike Configuration

Optimizing Dictation Playback

When a radiologist is dictating sometimes they have long pauses between words which create "dead" space in the dictation. This dead space is useless and time consuming to the transcription user. rRIS has the ability to skip this dead space in the dictation during editing and playback for transcriptionists.

On the reporting control there is an Optimize Playback toggle button . When this button is enabled, rRIS will skip any dead space in the report/dictation. The button state is stored at the user level so the application will remember the setting when the next report is loaded.

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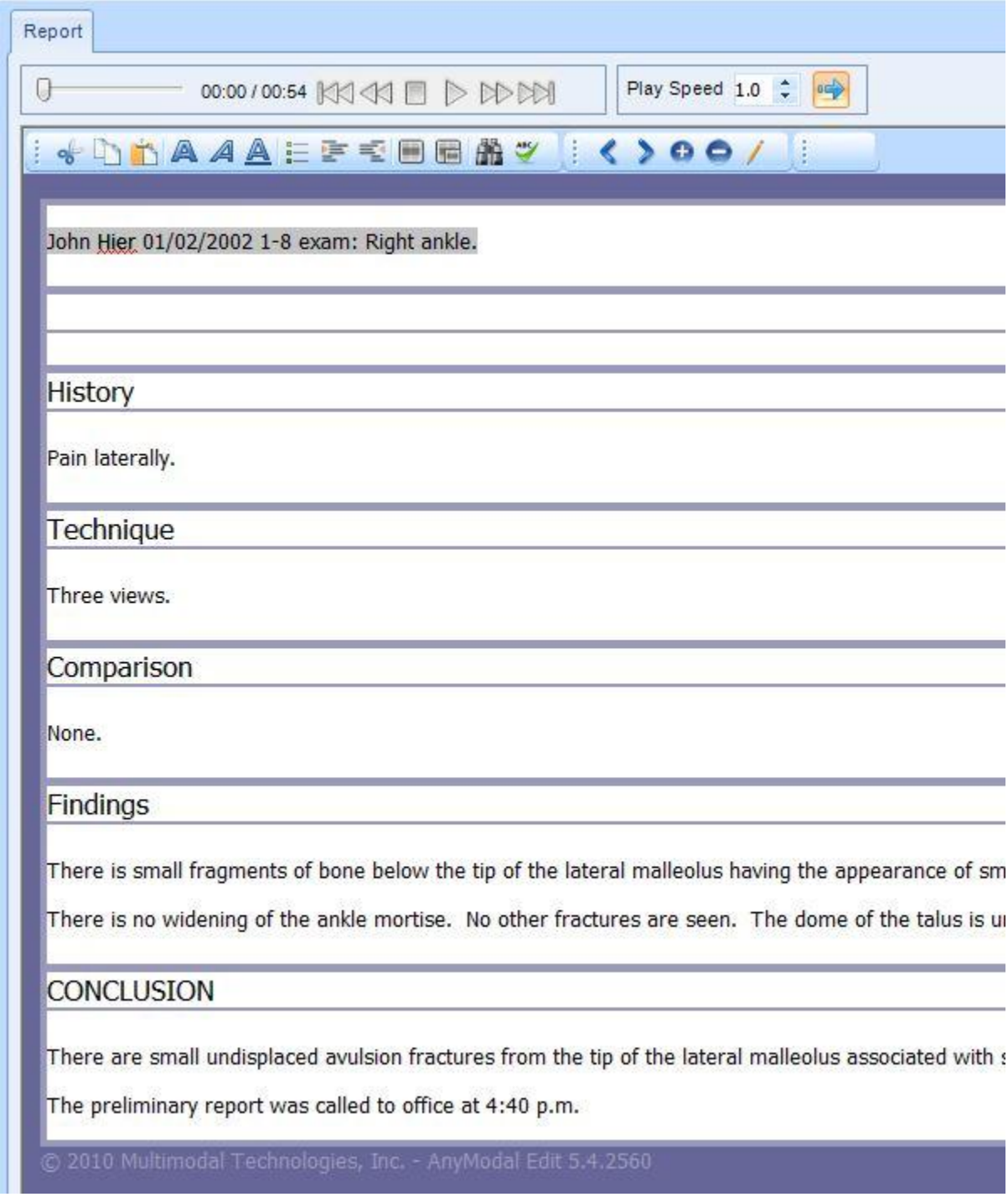

Figure 4.18 – Drafted Report with Optimize Playback Button Enabled

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Playback Speed per Radiologist

Each radiologist talks at a different speed while dictating. Some very fast and others too slow. The transcription user will need to adjust the playback speeds to optimize editing performance in rRIS. This setting is stored per author. A transcriptionist can have a playback speed of 1.5 for radiologist A and a separate speed of 1.7 for radiologist B. The system will recognize the author and automatically playback at the specified speed saving the transcriptionist from having to change the playback with each dictation.

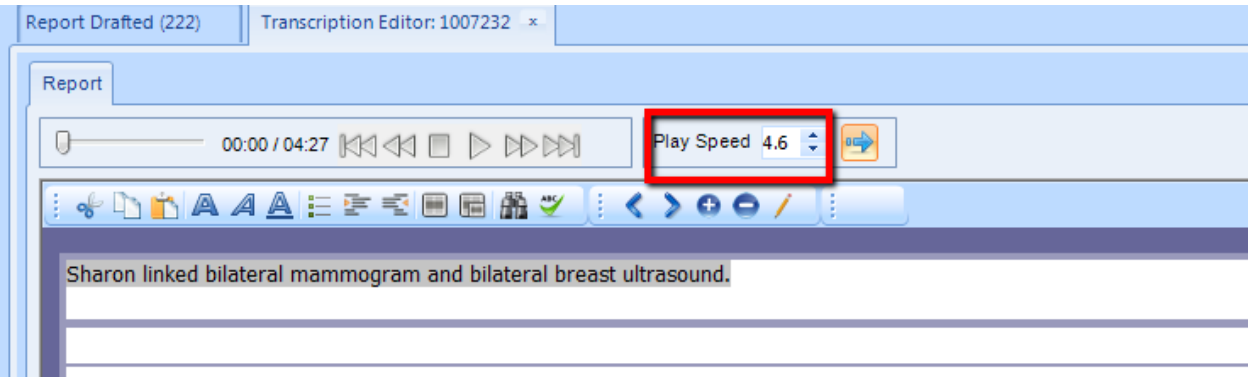

Figure 4.19 – Drafted Report showing Playback Speed Control

Show Paragraph Line Breaks in the Report Editor

In Build 1.16, a user preference for showing paragraphs in the report editor has been added to the application. This is stored at a user level and is disabled by default.

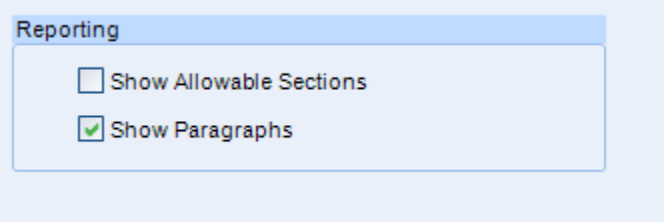

Figure 4.20 – Show Paragraphs User Preference

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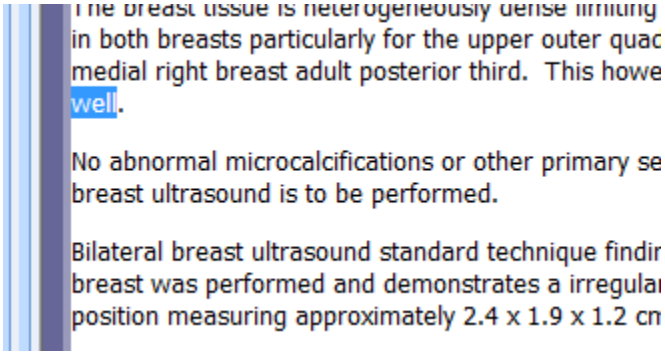

Figure 4.21 – Show Paragraphs Enabled

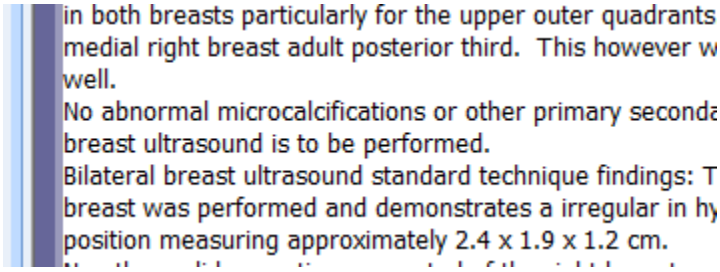

Figure 4.22 – Show Paragraphs Disabled

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5. Known Limitations

Bugs, Suggested Features, and Support Issues are now tracked in a web based system called Redmine. The following is a snapshot of the issues found in Build 1.15.

#	Status	Subject	Category	Found	%Done	Resolved
441	New	Add Patient - Age calculation	Thick Client GUI	1.16	0	
440	New	Forms and Labels - Exception adding printing criteria	Admin Tools	1.16	0	
439	New	User Preferences - Foot pedal config modification requires application restart	Admin Tools	1.16	0	
438	New	User Preferences - Should enable or disable speech preferences based on resource type	Admin Tools	1.16	0	
437	Resolved	Personnel - Search Issues when searching by "Type" only	Admin Tools	1.16	100	1.17
436	Resolved	Personnel - Exception when adding multiple addresses	Admin Tools	1.16	100	1.17
435	Resolved	Personnel - Exception when searching with no criteria specified	Admin Tools	1.16	100	1.17
434	Resolved	Personnel - Exception when searching	Admin Tools	1.16	100	1.17
433	New	Appointment Book - Exception when leaving appointment book open	Thick Client GUI	1.16	0	
432	New	Modality Lookup - Exception when filtering by Modality Type Code	Admin Tools	1.16	0	
431	New	Lookups Tables - Lookups are being painted poorly when loading	Admin Tools	1.16	0	
429	New	Patient Search - Issue displaying previous MRN(s)	Thick Client GUI	1.16	0	
428	New	Insurance - Claim Number is showing as required	Thick Client GUI	1.16	0	
427	Resolved	Management Reports - Report Turnaround threshold	Mgt Reports	1.16	100	1.17
426	Resolved	Management Reports - Daily Schedule additional information required	Mgt Reports	1.16	100	1.17
425	New	Add Patient - Gender is defaulting to Male	Thick Client GUI	1.16	0	
424	Resolved	Management Reports - Technologist Activity Report needs procedure category breakdown	Mgt Reports	1.16	100	1.17
423	New	IVT Worklist - Issue with Pre-cert required status	Thick Client GUI	1.16	0	
422	Resolved	Installer - Issue upgrading from B1.15 to B1.16	Thick Client GUI	1.16	100	1.17
421	New	Exam Done - Diagnose	Thick Client GUI	1.16	0	
420	New	Scheduling - Manage policies - claim number	Thick Client GUI	1.16	0	
419	New	Scheduling - Manage policies	Thick Client GUI	1.16	0	

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