# RadExam FAQ

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# If you have problems with access, faculty or resident registration, contact <u>radexamsupport@acr.org</u>

RadExam is a high-quality question item and exam database developed by the APDR and ACR for Radiology programs to be able to provide R level specific (R level = resident year, R1=PGY2), formative knowledge-based assessment of their residents.

The APDR/ACR RadExam system is available to all residents whose programs have paid for the DXIT-RadExam package. Residents may use both or either exam system.

#### Exam content currently available

- 107 Clinical exams, at least two per R level per specialty
- 1 (two part) comprehensive R3 level exam (RECR3ATE) with 340 Q
- 11 Modality specific exams in physics
- 13 Non-interpretative skills exams (3 general NIS, 3 general patient safety, 1 MRI safety, 2 radiation safety, 2 contrast safety, 1 informatics and 1 health economics)

#### Features include the ability to:

- Review exam content
- Schedule exams to appropriate residents to be taken during a specified period
- Immediately review the results, with comparisons to other R level equivalent residents at your institution and nationally (as soon as sufficient examinees have taken the exam)
- Track results over time, within specialty and modality
- Compare your institutional overall results with other institutions
- Automatic emails to inform your residents that exams are scheduled and available
- Residents can review their exam and results, including explanations and comparative responses
- Make your own exams from the database of questions

The following are currently NOT available (planned release 2021):

- Alter resident demographics (R level, add and remove residents) from within RadExam
- Assign specific access permissions to your faculty

## RadExam deployment and reporting summary

- 1. Use <u>The Library Page</u> to select the R level and specialty appropriate exam for a resident to take; exam content can be reviewed on the <u>Exam details Page</u>.
- 2. Use the "<u>The Assign Exam Page</u>" to assign the exam to a resident(s) and select the date range that they will take it within.
- 3. Residents should receive automatic emails that they will find exams on their <u>Institutional Portal</u> <u>Interface</u> available to be taken within those dates (<u>https://cortex.acr.org/RESRadExam</u>).

- 4. Track exam completion via the "The Dashboard Page."
- 5. Check results of all exams with institutional and national comparisons via the "The Reports Page."

## Anticipated use

We anticipate that programs will assign the R level appropriate exam to residents during their last few days of a rotation. This timing will be at the program's discretion, for example, this could be a window from Wed-Fri in the last week of the rotation or a set day each rotation (see <u>The Assign Exam Page</u>).

- Residents will be sent automatic emails on the day that their exam opens, the last day and also when overdue.
- All exams can be found on the <u>Institutional Portal Interface</u>, under 'Not Started' when available to be taken, and 'In Progress' when started or incomplete.
- Proctoring is not required although suggested, but please see the honor code below.
- Programs can use any or all exams as they feel appropriate.
- We HIGHLY recommend that you schedule exams according to the block resident schedule rather than
  scheduling all residents for a wide window (e.g for all their R level specific exams to be taken anytime in the next
  4 months). This is more work up front but will entail much less tracking and chasing later on and will likely result
  in much higher compliance by your residents who otherwise will not know when to take specific exams. It will
  also limit the use of these results for end of rotation evaluations.
- Narrow exam windows allow the <u>automatic emails to work correctly</u>
- If you do not link the exam schedules with resident rotations, you will not be able to use the Dashboard to track compliance and will have to keep checking against individual resident schedule.

## USING THE RESULTS OF RADEXAM

RadExam results can be used for continuous resident evaluation, assessing residents that need remediation, CCC and PEC meetings to evaluate both the programs and the individual residents. For more information watch <u>this brief video</u>.

## Example of using block schedules with RadExam

Resident	R level	Rotation	Rotation	Exam	RadExam
			finishes		scheduled dates
Jones	1	Ultrasound	3/2/18	Ultrasound R1a V1	2/26-3/4
Davis	1	Nuclear	3/2/18	Nuclear R1a V1	2/26-3/4
Lewis	3	Chest	3/9/18	Chest R3a V1	3/7-3/10
Nyberg	2	Neuro	3/9/18	Neuro R2a V1	3/7-3/10
Lewis	3	Neuro	4/6/18	Neuro R3a V1	4/4-4/8
Jones	1	Chest	4/6/18	Chest R1a V1	4/4-4/8

In this example Residents have 6-day windows to complete exams

An important note: Please only assign R level appropriate exams or it will invalidate our ability to assess exam and question difficulty effectively and maintain the quality and value of the tool to programs (e.g. only allow R3 residents to take R3 exams). Only assign an exam one time to a resident. RadExam is NOT meant as a selfassessment or learning tool by residents but as a formative evaluation tool by the program.

### **Resident benefits**

RadExam gives residents the ability to regularly assess their specialty specific knowledge base as they complete each rotation and compare their results with other R level comparable residents locally and nationally. The questions are of similar format to the ABR questions and should provide good practice opportunities. Note: RadExam is NOT intended as a self-study resource but the residents do get 30 minutes at the end of their exams to review answers and explanations.

#### Exam duration

**Exam duration is 60 minutes**. The only exception currently is the 100 question precall quiz which is 2 hours and the RECR3ATE exams which are 3.5 hours per section. Exams can be reset by the program coordinator if necessary. Residents should be encouraged to allow time to complete these exams once started. If the time expires, the exam will auto-submit.

#### Support

Clicking the green 'Support' tab on the right of each page will bring up a form which can be completed and submitted.

Urgent support can be obtained by calling 703-648-8373 9am-4pm Eastern Time or emailing radexamsupport@acr.org

Support & Fee	edback	Search Articles	Use this to find	
📀 problems addi	ng residents		information	
B I <u>U</u> ≔ How do I add a re	i≡ <u>A</u> K1 co esident			Complete for non- urgent problems
Ø		Ô		
Service Group	RadExam	~	Screenshot the s	pecific page
Issue Type	Problem	\$		
		Send Feedback	Send us feedback a help improve	about RadExam to the system

- If program staff are having issues getting their residents into the Program and Practice Management (PPM) contact the In-Training Exam team at InTrainingExam@acr.org.
- If residents are having trouble with their username or login information contact ACR membership department (by phone at 1-800-347-7748 or by email at <u>membership@acr.org</u> from 8:30am to 5:00 pm Monday Friday). Additionally, if residents have issues with passwords they can reset their password in using this link <u>Reset password</u>.

If the list of residents in RadExam is not the same as the Program and Practice Management or any issues with RadExam – contact <u>RadExamsupport@acr.org</u> with the list of residents and resident level.

### Incomplete exams and exam resets

Please encourage all residents to answer every question. Currently, if not all questions were answered and the time expired, the exam will remain 'in progress'. To reset an exam, click the status icon beside the resident's name on the schedules page, then click reset in the bottom left.



				MSK R1a Version	2 (E324)					×
	Name	<b>^</b>	Examinee Level	Institution Name	Status	¢	Review	¢	Score (%)	¢
			R1	Dartmouth Hitchcock Med	Completed		Review		-	
									Show Sco	res
Reset Exa	am 🔶									1.

Similarly, if an exam needs to be completely deleted (wiped out of system), e.g. if a resident only answered a handful of questions before being interrupted, you can do it via the scheduling page (see later)

## Checking resident registrations

Eventually this will be done within RadExam itself, but currently please use the Program and Practice Management (PPM) application (as for DXIT) to ensure that your residents are registered and correctly assigned <u>https://ppm.acr.org/</u>.

## How to videos

Short orientation videos of each section can be found here:

- 1. Dashboard Page (3 mins)
- 2. Library Page (6 mins)
- 3. Scheduling exams (2 mins)
- 4. Schedules Page (5.5 mins)
- 5. <u>Reports Page (10 mins)</u>
- 6. Make Your Own Exam (5 mins)
- 7. Resident Portal (5 mins)

## Accessing RadExam

**Program director/Program coordinator site** to assign exams and get reports: <u>https://cortex.acr.org/RadExam</u> To access, use your ACR login and password. If you have forgotten your password, you can request one <u>here</u>. You can also access the system by using the institutional portal link <u>https://cortex.acr.org/resradexam</u> and then selecting RadExam from the top right drop down menu.



When **Faculty and Program Coordinators** first sign into RadExam they will be asked to accept the following agreement. If you are not willing to agree to this, please contact Petra Lewis at <u>petra.lewis@hitchcock.org</u>

#### FACULTY HONOR CODE

RadExam has been developed as a non-proctored assessment resource and should be administered and taken under an honor code. This applies to both faculty and residents involved in administering or taking RadExam, who are subject to separate honor codes. By clicking below, you agree that you will not download, photograph, or convey the exam content in any form other than via the RadExam interface to your residents or others. You agree that you will not share your username/password with other faculty or residents. You also agree that if your residents violate the Resident Honor Code your program will treat this as a breach of professionalism standards, notify the RadExam officials, and manage the violation according to your local departmental and GME protocols. The APDR (in consultation with the RadExam Executive Committee) also reserves the right to refuse access to RadExam to the entire or part of, a program involved in a violation for a period of time (1 year or more) after a serious infraction of this honor code.

Data from RadExam may be used for research purposes and for improving question and exam item quality and performance. All such data will be anonymized as to resident name and medical student program name, but grouped data (e.g., by program size or geography) may be used. No identifiable program data will be distributed to other programs or individuals unless specific written consent is given by both parties.

RadExam provides standardized formative exams to enable residents and Program Directors to evaluate the resident's progress and knowledge gaps. These exams also allow Program Directors to analyze their program for sectional educational strengths and areas of educational weakness. The exam is intended to be a measure of general achievement in diagnostic radiology. It should not be used as the primary measure of examinees' performance in any postgraduate program or qualification for promotion to the next level of training or certification.

When residents start an exam, they will be required to agree to the following statement:

#### **RESIDENT HONOR CODE**

RadExam has been developed as a non-proctored assessment resource and is administered under an honor code as a <u>closed</u> book examination. By clicking below, you agree that you will not download, photograph or convey the exam content in any form to others or seek or accept such content from others. You also understand that if you violate this agreement, that it will be seen as a significant professionalism issue by your Program Director and the APDR. It may result in you or your program being denied access to RadExam for a period of time that would be defined by the APDR (in consultation with the RadExam Executive Committee).

RadExam provides standardized formative exams to enable residents and Program Directors to evaluate the resident's progress and knowledge gaps. These exams also allow Program Directors to analyze their program for sectional educational strengths and areas of educational weakness. The exam is intended to be a measure of general achievement in diagnostic radiology. It should not be used as the primary measure of examinees' performance in any postgraduate program or qualification for promotion to the next level of training or certification.

# Exam content currently available

Section	Exams	Comments
Body	R1, R2, R3, R4 (2-3 versions of each)	Includes fluoro, GI, GU
Breast	R1, R2, R3 R4 (two versions of each)	Versions 1 and 2 cover same
		content to allow for repeat
		exams/increase exam security
Cardiac	R1, R2, R3, R4 (2 versions of each)	All of the Cardiac exams, have
		greater weighting of cardiac
		content, but still incorporate
		some non-cardiac content.
		Versions 1 and 2 cover same
		content to allow for repeat
		exams/increase exam security
Emergency radiology	R1, R2, R3, R4 (two versions of each)	Versions 1 and 2 cover same
	100Q precall exam R1 – all modalities	content to allow for repeat
	30Q precall R1 - radiology only	exams/increase exam security
Fluoroscopy	R1,R2, R3, R4 (one version of each)	
GI	R1,R2, R3, R4 (one version of each)	Do not give with the body exams
GU	R1,R2, R3, R4 (one version of each)	Do not give with the body exams
Interventional	R1, R2, R3, R4 (two versions of each)	Versions 1 and 2 cover same
		content to allow for repeat
		exams/increase exam security
Musculoskeletal	R1, R2, R3, R4 (two versions of each), Fellow	Versions 1 and 2 cover same
	(one version)	content to allow for repeat
		exams/increase exam security
Neuroradiology	R1, R2, R3, R4 (two versions of each)	Versions 1 and 2 cover same
		content to allow for repeat
		exams/increase exam security
Non-interpretative	General (two versions),	Versions 1 and 2 cover same
skills	Patient safety (three versions)	content to allow for repeat
	Radiation safety (two versions)	exams/increase exam security
	MRI safety (one versions)	
	Contrast safety (two versions)	
	Informatics (one version)	
	Health economics (one version)	
Nuclear radiology	R1, R2, R3, R4 (two versions of each)	
Pediatric radiology	R1, R2, R3, R4 (two versions of each)	Versions 1 and 2 cover same
		content to allow for repeat
		exams/increase exam security
Physics	CT. IR/Fluoro, Mammo, MRI. Nuclear.	
,	Radiology, US (one version of each)	
Thoracic	R1, R2, R3, R4 (two versions of each)	Thoracic Version 1 exams were
	, , ,,	designed for programs in which
		the Thoracic and Cardiac rotations

		are separate and focus on non- cardiac content Thoracic Version 2 exams were designed for programs with more integrated Thoracic and Cardiac rotations.
Ultrasound	R1, R2, R3, R4 (two versions of each)	

RadExam has 6 tabs on the top, select each to move to that section



## The Dashboard Page







## The Library Page

## EXAM DETAILS MODE

Selecting Exam Library in the top left menu will bring up details of the available exams.



# EXAM STATISTICS MODE

Clicking on "Exam Statistics" in the top left of the Library page will bring up more detailed statistics of the exams (when available).



# EXAM DETAILS

Accessed by clicking the "..." on the Library table above then "Details".



## **Question details**

Accessed by clicking on the bolded question topic name on the Exam Details page





## The Assign Exam Page

Accessed through Exam Library...Assign

You can assign exams ahead of time according to the block schedule, but we recommend only doing within the current academic year.

\*\*NOTE: ALL EXAMS MUST BE TAKEN WITHIN 60 MINUTES EXCEPT THE PRECALL EXAM (120 MINS) AND RECR3ATE (3.5 hours each). IF THE RESIDENT LOGS OUT, THE CLOCK DOES NOT STOP\*\*



# The Schedules Page



## **EMAILS TO RESIDENTS**

- 1. Day the exam starts
- 2. Last day of the exam
- 3. When exam is overdue (they can ask the PC for an extension which you can change on the table above)

# TO SEE INDIVIDUAL RESIDENT ASSIGNMENTS

Click on 'Show Assignees'

			Show Assigne	es 🔲 Archiv
		Exam Name	Assigned To	Status
Assign	•••	US R1a Version 1 (E305)	(R1) ühchmuis, Jochus	
Assign	•••	Neuro R1a Version 1 (E25	(R1) 5 Treate	
Assign	•••	Thoracic R1a Version 1 (	(R1) Canche c, Jecola	
Assign	•••	Cardiac R1a Version 1 (E	(R1) Canadana, Janala	
Assign	•••	Body R1a Version 1 (E167)	(R1) Calamita, Steven	
Assign	•••	Neuro R2a Version 1 (E25	(R2) 5 <b>nbarg, Kyan</b>	
Assign	•••	Thoracic R2a Version 1 (	(R2) Franci, State	

# TO SEE RESIDENT RESULTS OF COMPLETED EXAMS



		Body R2a Version	1 (E170)		×
<u>Name</u> ~	Examinee Level	Institution Name	<u>Status</u>	<u>Review</u>	<u>Score (%)</u>
Winking, Kyle	R2	Dartmouth-Hitchco	Completed	Review	82
	Click to quest ans	o see what ions were swered	Click to review exam with resident (see later section)	3	Hide Scores
				Show	w and hide scores

# **REMOVING AND EDITING SCHEDULES**

Schedules can be edited (dates, times, residents) by clicking on the start or due date on the schedules table. Exams can be deleted by clicking on the 3 dots...delete. If the exam is currently active you will be given a warning as you may erase all examinee data for that schedule



# The Reports Page

This can take a few seconds to load as it has to process the data

NOTE: on all reports pages, the date selection also affects the comparative national data (means, SD and percentile rank). To give a more accurate comparison, we recommend that you widen the date window to 6-12 months.

## INDIVIDUAL

Filter the dates this report applies to	Switch between individual and institutional reports	Filter exam o reset f	by section, or level, note filters button	
Individual Reports	Individual	Institutional		Reset Filters
	* Percentile ranks are reported for each ind	lividual within their resident year or fellow nip		
August 09, 2019 - September 08, 2020	Score (Ava)	Select Section	All Exams(Avg) ▼	Select Exam Level 👻
(R1)	59	15.2 (831)	•	
( <u>R1)</u>	37	0.4 (831)		Export
<u>(R1)</u>	53	6 (831)		
(R1)_	69	44 (831)		
(R1).	80	84.8 (831)		
(R2)_	83.2	90.6 (972)		
( <u>R2</u> )_	70.4	33.8 (972)		
( <u>R2)</u>	73.6	51.3 (972)		
( <u>R2</u> )_	76.8	68.3 (972)		
( <u>R2</u> )	74.1	54.9 172)		Export the data
( <u>R3)</u>	.7	25.4 2)		on this screen as a PDF or Excel
Click on resident names to get details of all exams	Mean score across ALL exams unless filters are used	Percentile rank nationally for their level. Only reported if >100 exams taken nationally		file

## Individual Detail Report

Accessed by clicking on Report...Individual...Resident's name Data can be looked at in 4 different views by selecting the top right button

#### Grouped by Exam

NOTE: on all reports pages, the date selection also affects the comparative national data (means, SD and percentile rank). To give a more accurate comparison, we recommend that you widen the date window to 6-12 months.





## Exam means by section

Note, the date range and comparison criteria apply



## Exams grouped by section



## Exam means by modality



## Exam means by Pathology, Anatomy and Primary Content

Similar graphs can be obtained by clicking on the Pathology, Anatomy or Primary Content tabs on the top bar

Exam	Section	Section Grouped	Pathology	Anatomy	Modality	Primary Content

# INSTITUTIONAL REPORTS

#### Accessed by Reports...Institution

NOTE: on all reports pages, the date selection also affects the comparative national data (means, SD and percentile rank). To give a more accurate comparison, we recommend that you widen the date window to 6-12 months.



## Make Your Own Exam Page

You can make your own exam using the database of questions. These exams will only be available to residents and faculty at your institution. **They will not have national comparative data, only institutional**. Draft exams are under 'My Exams' and can be moved to the regular library when completed. They can be removed from the library back into drafts (My Exams) for further editing if required.



## MAKING A NEW EXAM

Click Create New Exam button.			
New Exam			×
Name: *	Breast MRI		
Description: *	Breast MRI only		
		2	
Exam Rotation: *	Breast ~	Complete all fields	
Exam Difficulty: *	R4 ~		
Timed Exam:	HH 01 • : MM 00	0 •	
		3 Add Question Canc	cel

# ADDING/REMOVING QUESTIONS

Use the filters on the right to bring up questions in the database. Multiple filters can be added. NOTE: These filters are in process of being refined, and you may need to select several to come up with the questions you want (e.g. MRI versus Magnetic Resonance Imaging)



# MOVING A PERSONAL EXAM FROM LIBRARY TO DRAFTS



## **Reviewing resident exams**

Residents have 30 mins to review exams after they complete the exam. After they logout they cannot go back into review exams. The following instructions should *only* be used with faculty login under supervision. Residents should NOT be given faculty login details.

The interface can be accessed from 2 places:

- 1. The schedules page
- 2. The individual reports pages (Exam, Section or Section Grouped).

To review the exam, click on the result bar...then review



This will bring up the resident's exam in a new tab for them/you to review



## Institutional Portal Interface

The institutional portal is where both residents and faculty will take exams and other activities. This can be found at <u>https://cortex.acr.org/RESRadExam</u>

Login is via the same ACR login and Password (retrieve at: <u>https://login.acr.org/ForgotPasswordLookup.aspx</u>).



## Status levels

Currently 'In progress" can mean that you are still taking the exam (within the time allotted), or that you did not answer all the questions. This will be remedied in future upgrades.



\*\*NOTE: ALL EXAMS MUST BE TAKEN WITHIN 60 MINUTES EXCEPT THE 2 HOUR PRECALL EXAM AND RECR3ATE EXAMS (3.5 hours each for A and B). IF THE RESIDENT LOGS OUT, THE CLOCK <u>DOES NOT</u> STOP\*\*

## HONOR CODE

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## QUESTION INTERFACE

After **ALL** questions have been answered, a **SUBMIT** button will become available. If you do not submit the exam before the time is up, then it will autosubmit after the one-hour time period.



# Image functions



# **RESIDENT EXAM REVIEW**

Residents have 30 mins to review exams with correct answers and explanations at the end of the exam. A minority of questions in RadExam do not have explanations but they are being gradually updated. If you logout, you cannot get back in to review exams, but will have to be reviewed with a faculty member.

## **RESIDENT ACCESS TO THEIR REPORTS**

Only scores can be obtained, answers cannot be reviewed here for security reasons. Accessed through the 'Reports' tab on the main page.





# Report detail



Accessed by the green tabs. Please tell us the exam you are having an issue with by emailing <u>cortexsupport@acr.org</u>



Updated August 2023 petra.lewis@hitchcock.org