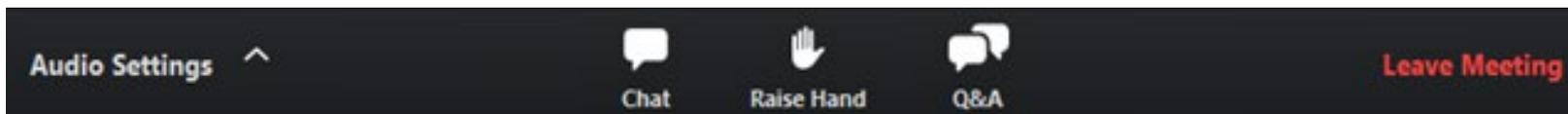
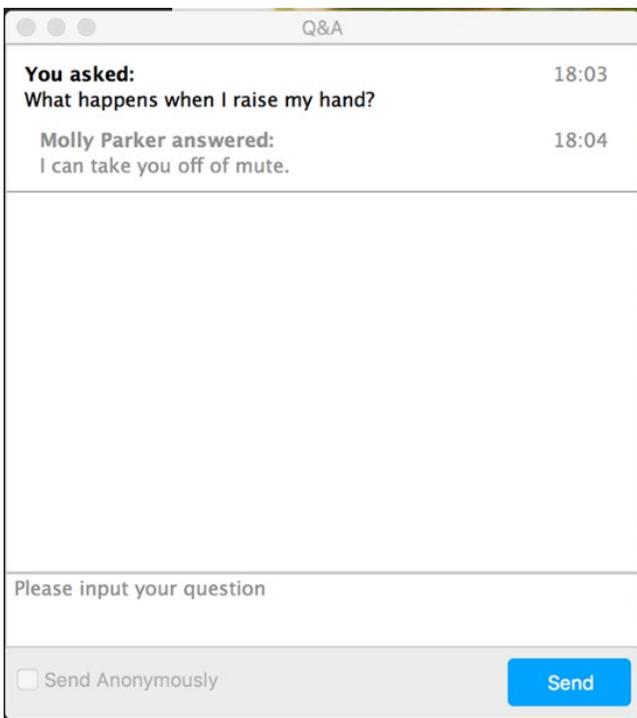


Welcome to the meeting. We will begin shortly.



Type a comment/question in Q&A (only seen by organizers)

Type a comment/question in the chat (can be seen by all)



Questions and comments can be entered in the Q&A field

A woman with curly hair, wearing blue scrubs, is seated at a desk in a clinical or office environment. She is looking down at a keyboard, appearing to be working. The background shows a window with light coming through, and various pieces of office equipment like a monitor and a printer are visible.

DIR Training Webinar Series

Dose Index Registry:
All About Mapping

NRDR
DIR[®]
DOSE INDEX
REGISTRY

AMERICAN COLLEGE OF RADIOLOGY

Moderator



Zach Smith

Sr. Quality Programs Assistant, ACR

Speakers



A. Kyle Jones, PhD, FAAPM

Professor, University of Texas, MD Anderson Cancer Center

Chair, DIR Education and QI Subcommittee

Co-Chair, DIR Fluoroscopy Subcommittee

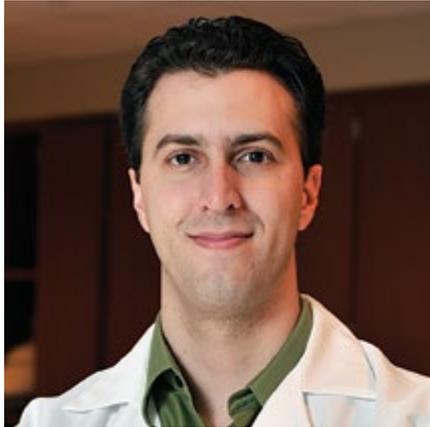


Kevin A. Wunderle, PhD, DABR

Diagnostic Medical Physicist, Associate Professor of Radiology, Cleveland Clinic

Co-Chair, DIR Fluoroscopy Subcommittee

Speakers



Ryan Bosca, PhD

Physicist, Imaging Physics Department, Sanford Health



Michael A. Bohl, MPH

Founder, Dose Registry Support Services

Speakers



Mike Simanowith

Director of Registries, ACR



Mythreyi Chatfield, PhD

EVP for Quality and Safety, ACR



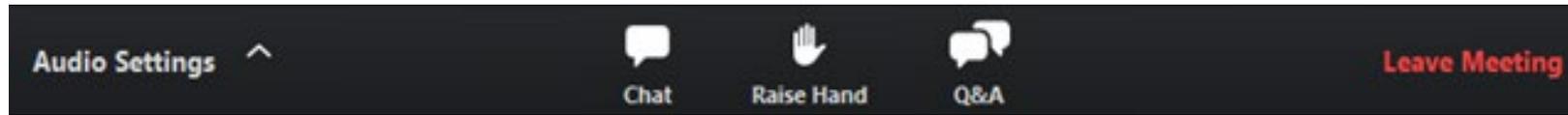
Dustin A. Gress, MS, DABR, DABSNM

Senior Advisor, Medical Physics, ACR

Disclosures

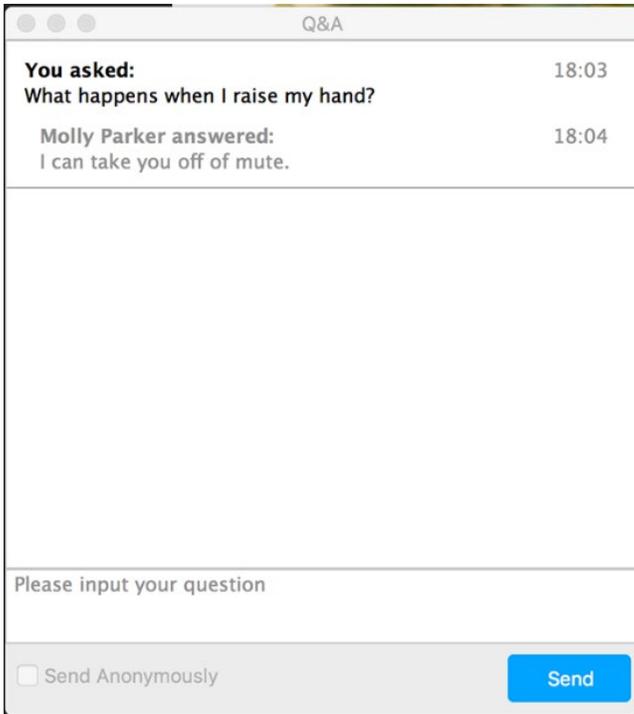
- None

Using the Zoom Interface



Type a comment/question in Q&A (only seen by organizers)

Type a comment/question in the chat (can be seen by all)



Questions and comments can be entered in the Q&A field

Introducing the DIR Training Webinar Series

This webinar is second in a series that will continue through 2022:

- Webinar 1: Maximizing the Value of Participation
 - View the recording at <https://www.acr.org/Practice-Management-Quality-Informatics/Registries/Dose-Index-Registry/Training-Webinar>
- Webinar 2: All About Mapping
- Webinar 3: Cashing in on Your Investment: Getting the Most from Your DIR Reports

Webinar Agenda

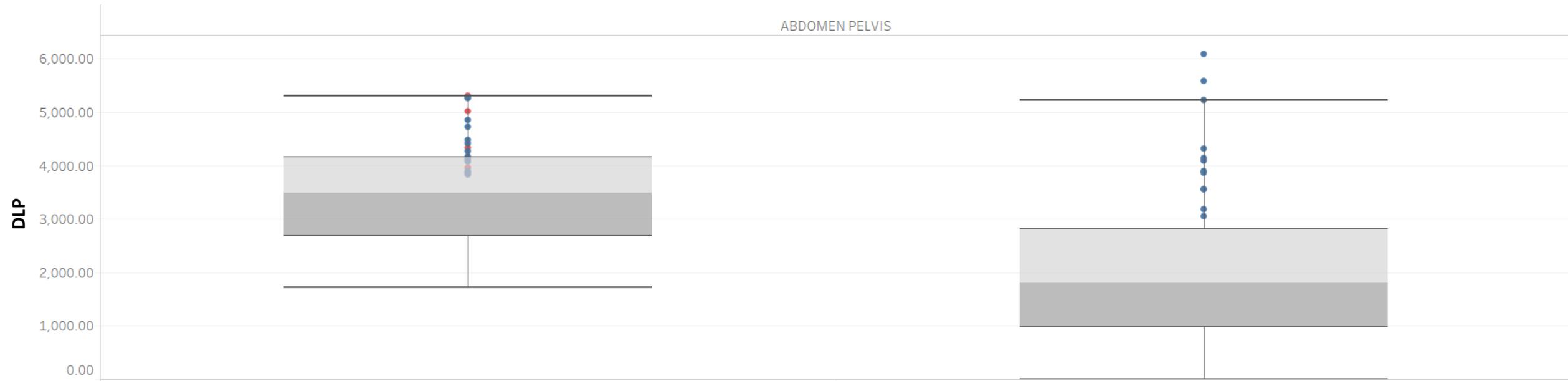
- Overview of mapping and its importance
- Update on mapping lexicons
- Strategies for coordinating mapping roles
- Mapping tools
 - DIR mapping tool
 - Excel bulk mapping upload
- Best practices and avoiding pitfalls
- Q&A
 - We answer your most asked questions and take live questions



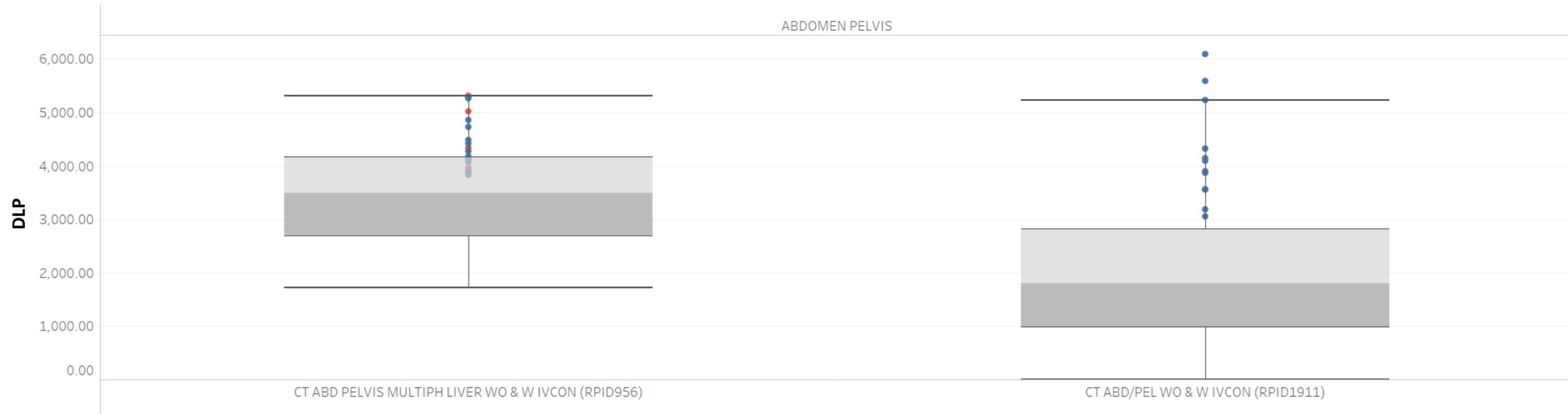
Why Mapping is Important

- Apples to apples comparison for national benchmarking with peers
 - Still allows for local customization
- Identify true outliers – protocol issues, scanner/device issues
- Promotes protocol consistency between sites
 - Benefit for technologists who work at multiple locations

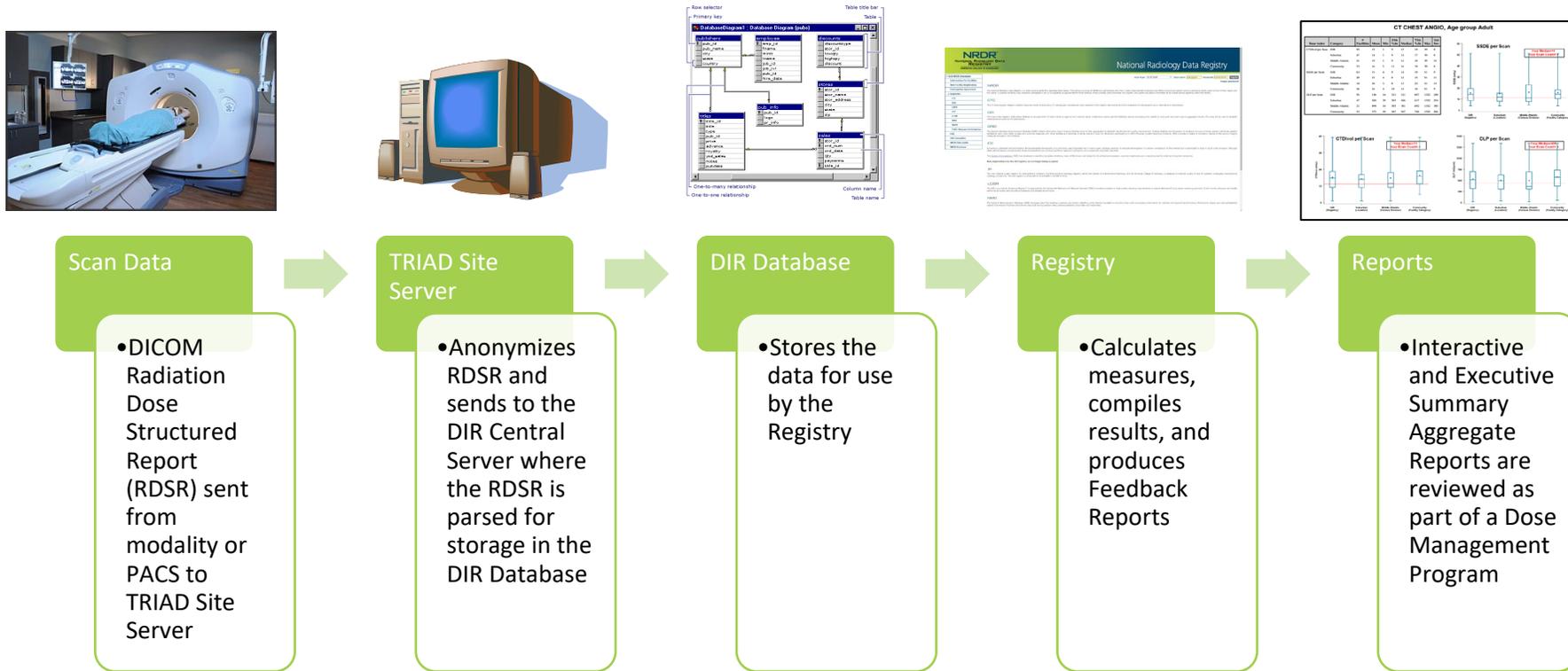
Why Mapping is Important



Why Mapping is Important



Life Cycle of a Mapped Exam



Mapping Terminology

- RadLex Playbook
 - What it is and why we chose to use it when DIR started
- ACR Common
 - Why it was developed and how it is relevant to DIR



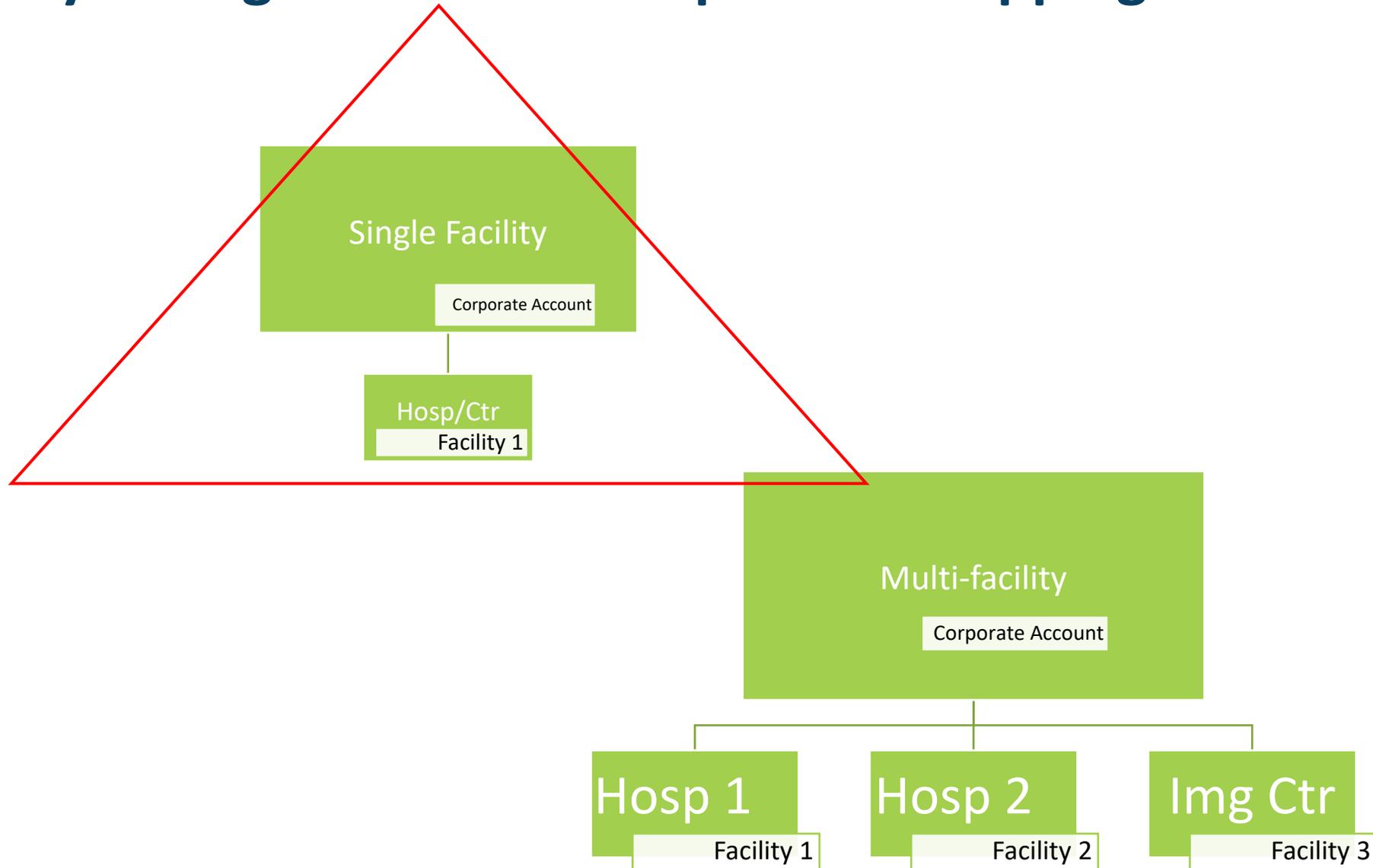
Ask the Experts

What strategies do you recommend for managing mapping?



Michael A. Bohl, MPH

Facility Configurations and Impact on Mapping

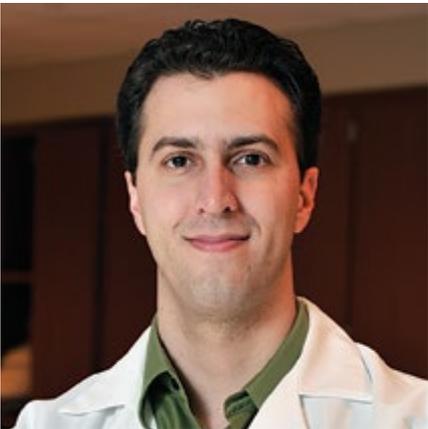


Recommendations for Mapping Roles

	Recommended	Alternative	
Corporate Admin	Radiology Dept Manager	IT	Only 1 Person Allowed
Facility Admin	Radiology Dept Manager		Only 1 Person Allowed
Registry Admin	CT Director / CT Lead	Dept Mgr or Pacs Admin	Multiple People Allowed
Facility User	CT Technologist		
Service User*	CT Director / CT Lead / Outside Support Person		Multiple People Allowed
*Most Useful in accounts with Multiple Facilities for Mapping			

Ask the Experts

What are some ways in which multi-facility institutions manage the mapping process?

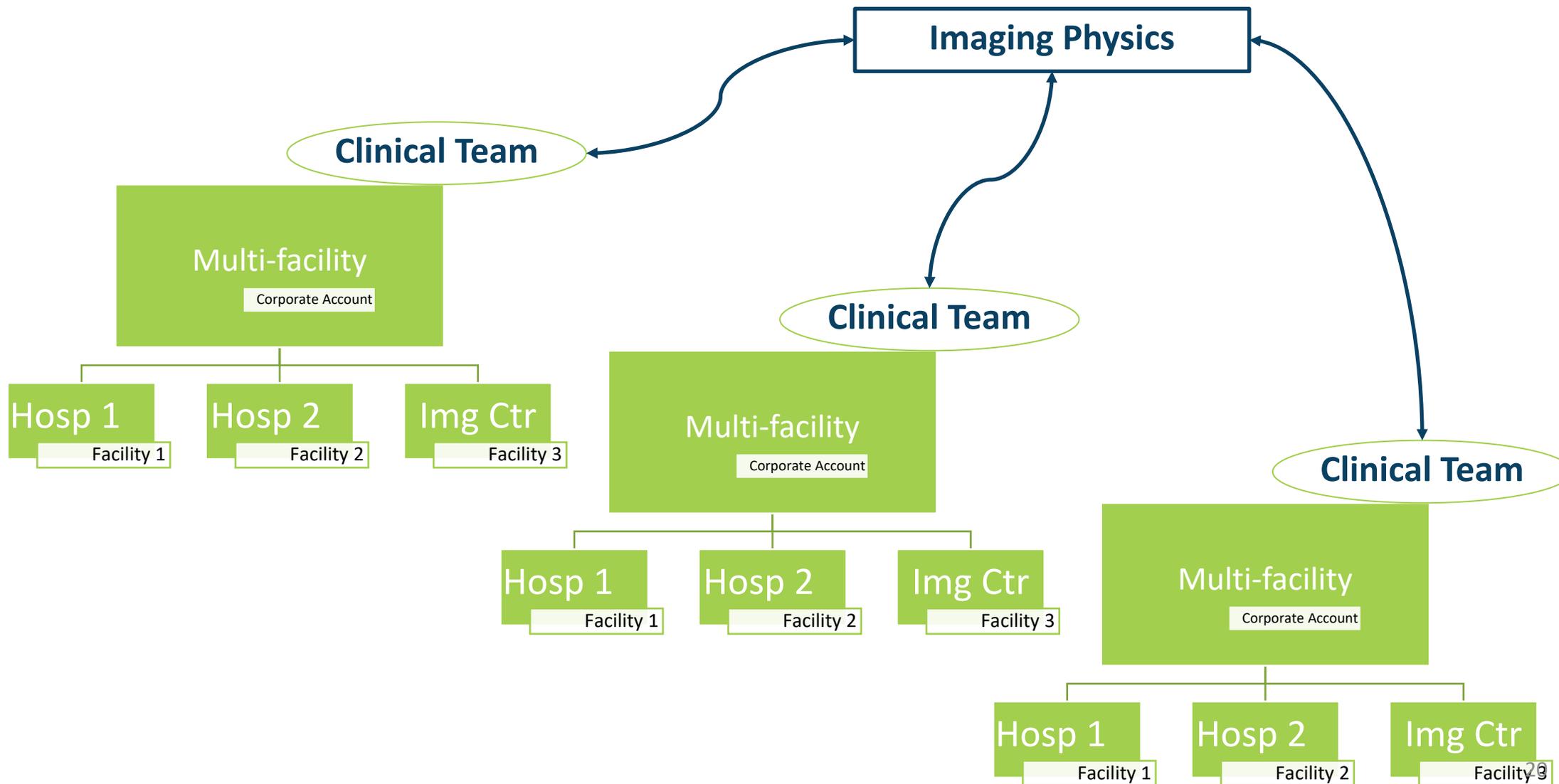


Ryan Bosca, PhD



Kevin A. Wunderle, PhD,
DABR

Managing a Multi-Facility Institution



What Has Been Most Useful in the Fluoro DIR for Cleveland Clinic

- Foremost it must be a team effort
 - Physicist asked to lead and coordinate the effort
 - Physician, Lead X-ray Tech, and RIS team member also formally included
 - The assistance is primarily needed to determine the type and extent of the performed procedure descriptions

Ask the Experts

What options do DIR participants have for mapping their exams?



Dustin A. Gress, MS, DABR,
DABSNM

DIR Exam Name Mapping

Home Logout

Welcome to CT Exam Name Mapping

Change Facility

Change Modality

Facility ID:100000/UserName:tfruscello_acr

At a Glance: Not Tagged : 3 / Tagging in Process : 0 / Tagging Suggested : 2 / Tagging Completed : 2 / Invalid Tag : 0 / Guidance : 0 / Unwanted : 0

UploadFile Choose File No file chosen

Upload

Export All To Excel

Export Audit Log

Search Exam

Exam:

Status:

✓ Show Everything

RPID:

Search

Clear

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

<input type="checkbox"/>	Exams	RPID or Predicate values	Status	Change Status	Comments	Audit Log	Actions
<input type="checkbox"/>	CT ABD/PEL W CONT	RPID145 CT ABD PELVIS W IVCON	Tagging Suggested		Comments	AuditLog	Build your own mapping
<input type="checkbox"/>	CT ABDOMEN PELVIS WITH	RPID981 CT T SPINE C SPINE L SPINE WO IVCON	Tagging Completed	Mark As NotTagged	Comments	AuditLog	
<input type="checkbox"/>	CT CT ABDOMEN PELVIS W CONTRAST.		Not Tagged		Comments	AuditLog	Build your own mapping
<input type="checkbox"/>	CT HEAD W/O	RPID105 CT HEAD SELLA W IVCON	Tagging Completed	Mark As NotTagged	Comments	AuditLog	
<input type="checkbox"/>	CT Lumbar WO (Unpaired	RPID31 CT L SPINE WO IVCON	Tagging Suggested		Comments	AuditLog	Build your own mapping
<input type="checkbox"/>	RAD ORDER CT ABD PELVIS W IVCON		Not Tagged		Comments	AuditLog	Build your own mapping
<input type="checkbox"/>	SCANNER ABDOMINO PELVI		Not Tagged		Comments	AuditLog	Build your own mapping

Page 1 of 1 20 View 1 - 7 of 7

Note: You can tag the selected exams by :

- 1) assigning an RPID using the 'Search RPID' button or
- 2) building your own mapping using the 'Build your own mapping' button

Search RPID

Build your own mapping multiple

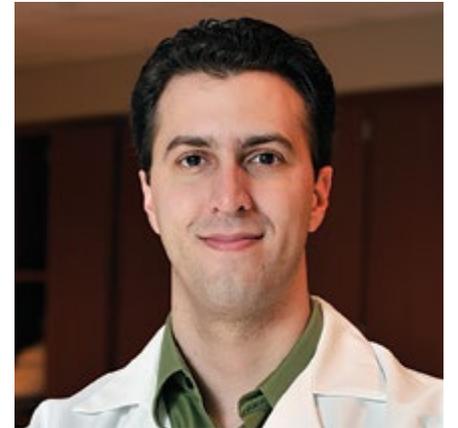
Mark selection as tagging completed

Ask the Experts

What have our pilot sites learned about the use of the different mapping methods?



Kevin A. Wunderle, PhD,
DABR



Ryan Bosca, PhD

Insight for Cleveland Clinic's Mapping Approach

- Because of our size, we almost exclusively batch process
- Extract both the Excel of site procedure names and ACR Common Names
- Put both side by side and copy and paste over

Ask the Experts

How often do you advise reviewing and updating your mapping?



Kevin A. Wunderle, PhD,
DABR

Mapping Update Frequency

- At the beginning, frequent ~ weekly
- After the first month ~ monthly
- After the first quarter ~ quarterly

Ask the Experts

What do you suggest for mapping pediatric exams?



Dustin A. Gress, MS, DABR,
DABSNM

Ask the Experts

What are some of the most common mapping errors you've seen and what advice do you have for sites to avoid those errors?



Michael A. Bohl, MPH

Exam Name Mapping Review

- Mismapping occurs!

DIR Exam Name Mapping

Facility ID: [redacted] Role: FacilityAdmin

ed : 193 / Invalid Tag : 0 / Guidance : 0 / Unwanted : 0

Upload File [] Browse...

Show Everything [x] RPID: []

E F G H I J K L M N O P Q R S T U V W X Y

Exams
<input type="checkbox"/> Abdomen 01_ABD_PEL_PV_MEDIUM_1
<input type="checkbox"/> Abdomen 01ABD_PEL_XTRALARGE_20
<input type="checkbox"/> Abdomen 53_ABD_PEL_WITH (Adult)
<input type="checkbox"/> Abdomen^01_ABD_1PHASE (Adult)
<input type="checkbox"/> Abdomen^01_ABD_2PHASE (Adult)
<input type="checkbox"/> Abdomen^01_ABD_ADRENAL (Adult)
<input type="checkbox"/> Abdomen^01_ABD_ADRENAL_3_PH
<input type="checkbox"/> Abdomen^01_ABD_ADRENAL_3_PH

Thorax^LOW_DOSE_LUNG_SC
Thorax^LowDoseLungSc

<input type="checkbox"/> Abdomen^01_ADRENAL_PRO
<input type="checkbox"/> Abdomen^01_COLONOGRAP
<input type="checkbox"/> Abdomen^01_CXABDPEL_W
<input type="checkbox"/> Abdomen^01_XLARGE_ABD (Adult)
<input type="checkbox"/> Abdomen^01_XLARGE_BIP (Adult)
<input type="checkbox"/> Abdomen^01_XLARGE_PV
<input type="checkbox"/> Abdomen^01ABD_ART_PV (Adult)
<input type="checkbox"/> Abdomen^01ABD_PEL_PV

Upper Extremities FINGER(Adult)

Row Labels

- RPID150 CT CHST LO DOSE CANCER WO IVCON
 - Thorax 01_LOW_DOSE_LUNG_FOLLOW UP (Adult)
 - Thorax^01_LOW_DOSE_LUNG_CA_SCREENING (Adult)
 - Thorax^01_LOW_DOSE_LUNG_SCREENING (Adult)
 - Thorax^LOW_DOSE_LUNG_SCREENING (Adult)
 - Thorax^LowDoseLungScreening (Adult)
- RPID16 CT CHST WO IVCON
 - Thorax^01_CHEST_WO (Adult)
 - Thorax^02_CHEST_WO (Adult)
 - Thorax^53_CHEST_WITHOUT (Adult)
 - Thorax^CHEST_WITHOUT (Adult)
 - Thorax^CHEST_WO (Adult)
- RPID18 CT CHST W IVCON
 - Thorax^01_CHEST_WITH (Adult)
 - Thorax^02_CHEST_WITH (Adult)
 - Thorax^53_CHEST_ROUTINE (Adult)
 - Thorax^CHEST_WITH (Adult)
- RPID21 CT C SPINE WO IVCON
 - Spine^01_CERVICAL_SPINE (Adult)
 - Spine^01_SPINE_CERVICAL (Adult)
 - Spine^C_SPINE (Adult)
 - Spine^CERVICAL (Adult)
 - Spine^CERVICAL_SPINE (Adult)
- RPID22 CT HEAD WO IVCON
 - Head 01_BRAIN_WO(Adult)
 - Head^01_BRAIN_500FOV (Adult)
 - Head^01_BRAIN_SPIRAL (Adult)
 - Head^01_BRAIN_WO (Adult)
 - Head^BRAIN_WO (Adult)
 - Head^ROUTINE_BRAIN (Adult)
 - Head^SPIRAL_BRAIN (Adult)

CANCER WO
WO & W
IVCON
IVCON
IVCON
Not Tagged
Not Tagged
Not Tagged
Not Tagged
Not Tagged

Hint: Export Exam Name Mappings into Excel the create a pivot table to group study names by RPID

Hint: Maintain Consistency

22	RPID22 CT HEAD WO IVCON	CT Head w/o contrast CT Or/Sei/Fos vs C
		Head 01_BRAIN_WO(Adult)
		Head BRAIN_WITH OUTAdult)
		Head BRAIN_WITHOUT(Adult)
		Head^BRAIN_WO (Adult)
		Head^BRAIN_WO_W (Adult)
		Head^CRANIOSYNOSTOSIS (Child)
		Head^HEAD_ROUTINE_WITH_BONE_UP_TO_AGE6 (Child)
		Head^HEAD_SPIRAL_AGE_3_TO_6 (Child)
		Head^IAC_CHILD (Child)
		Head^IAC_CHILD_UNDER7 (Child)
		Head^ROUTINE_BRAIN (Adult)
		Head^ROUTINE_HEAD_AGE_3_TO_6 (Child)
		Head^ROUTINE_HEAD_AGE6MO_TO_3YR (Child)
		Head^ROUTINE_HEAD_UP_TO_AGE_6 (Child)
		Head^SPIRAL_BRAIN (Adult)
23	RPID23 CT HEAD WO & W IVCON	CT Head w & w/o contrast
		Head^01_BRAIN_WO_W (Adult)
24	RPID24 CT HEAD W IVCON	Head 01_BRAIN_W(Adult)
		Head^01_BRAIN_WITH (Adult)
		Head^BRAIN_WITH (Adult)

265	RPID265 CT HEAD BRN W IVCON	CT Head w/ contrast Head^HEAD_WITH_CONTRAST (Adult)
266	RPID266 CT HEAD BRN WO IVCON	CT Head Stroke Alert CT Head w/o contrast Head^01_HEAD_ROUTINE (Adult) Head^ROUTINE_HEAD (Adult) Head^SPIRAL_HEAD (Adult) Specials^HeadTrauma (Adult)
267	RPID267 CT HEAD BRN WO & W IVCON	CT Head w & w/o contrast Head^01_HEAD_WO_WITH (Adult) Head^HEAD_SPIRAL_WO_W (Adult) Head^HEAD_W_WO (Adult) Head^HEAD_WO_W (Adult) Head^HEAD_WO_WITH (Adult) Head^PITUITARY_W_WO (Adult) Head^SPIRAL_HEAD_W_WO (Adult)

Hint: Download Radlex; Create Cheat Sheets

- CT Only
- Upper Extremity
- Lower Extremity
- Angiography
- Interventional
- Combination Studies
- Trauma

<https://doseregistry.com/resources/>

Type	RPID# RPID or Predicate values
ANGIO	2 RPID2 CT ABD ANGIO WO & W IVCON 6 RPID6 CT CHST ANGIO WO & W IVCON 7 RPID7 CT HEAD ANGIO WO & W IVCON 8 RPID8 CT CHST ANGIO HEART WO & W IVCON 11 RPID11 CT NECK ANGIO WO & W IVCON
	997 RPID997 CT NECK CHST ANGIO W IVCON 1018 RPID1018 CT UE ANGIO WO & W IVCON 1522 RPID1522 CT ABD ANGIO AORTA 1829 RPID1829 CT UE ANGIO W IVCON 1895 RPID1895 CT ABD/PEL LE ANGIO WO & W IVCON 1903 RPID1903 CT LE ANGIO AORTA W IVCON
BODY	3 RPID3 CT ABD WO IVCON 4 RPID4 CT ABD WO & W IVCON 5 RPID5 CT ABD W IVCON 16 RPID16 CT CHST WO IVCON 17 RPID17 CT CHST WO & W IVCON 18 RPID18 CT CHST W IVCON 46 RPID46 CT PELVIS WO IVCON 47 RPID47 CT PELVIS WO & W IVCON
	356 RPID356 CT CHST ABD WO IVCON 362 RPID362 CT CHST HI RES WO IVCON 4932 RPID4932 CT CHST HI RES LUNG PARENCH W IVCON
COMBO	357 RPID357 CT CHST ABD PELVIS WO IVCON 931 RPID931 CT NECK CHST ABD PELVIS W IVCON 936 RPID936 CT NECK CHST W IVCON 937 RPID937 CT NECK CHST WO IVCON 1167 RPID1167 CT HEAD NECK CHST ABD PELVIS ANGIO W IVCON
HEAD/NECK	1510 RPID1510 CT NECK ABD PELVIS W IVCON 22 RPID22 CT HEAD WO IVCON 23 RPID23 CT HEAD WO & W IVCON 24 RPID24 CT HEAD W IVCON 34 RPID34 CT HEAD MAX FACIAL WO IVCON 35 RPID35 CT HEAD MAX FACIAL WO & W IVCON 36 RPID36 CT HEAD MAX FACIAL W IVCON 37 RPID37 CT NECK WO IVCON 38 RPID38 CT NECK WO & W IVCON 39 RPID39 CT NECK W IVCON
	215 RPID215 CT HEAD PERFUS 241 RPID241 CT HEAD LTD SINUSES 416 RPID416 CT HEAD NECK W IVCON

Type	RPID# RPID or Predicate values
INTERVENTIONAL	75 RPID75 CT GUIDE ABLAT 76 RPID76 CT SPINE GUIDE VPLASTY 80 RPID80 CT GUIDE NEEDLE PLCMNT 95 RPID95 CT GUIDE BX 97 RPID97 CT GUIDE ASP 99 RPID99 CT GUIDE DRAIN 137 RPID137 CT CHST GUIDE THOR CENT
LE	376 RPID376 CT LE HIP WO IVCON 888 RPID888 CT LE W IVCON 908 RPID908 CT PELVIS LE HIP W IVCON 912 RPID912 CT LE WO IVCON 913 RPID913 CT LE WO & W IVCON
MULTIPHASE	949 RPID949 CT ABD PELVIS MULTIPH WO & W IVCON 953 RPID953 CT ABD MULTIPH WO & W IVCON 1052 RPID1052 CT ABD PELVIS ENTERO MULTIPH WO & W IVCON 1181 RPID1181 CT CHST ABD PELVIS MULTIPH WO & W IVCON 1296 RPID1296 CT CHST ABD MULTIPH WO & W IVCON 1867 RPID1867 CT ABD PELVIS MULTIPH W IVCON 4917 RPID4917 CT ABD MULTIPH W IVCON
SPINE	19 RPID19 CT C SPINE WO & W IVCON 20 RPID20 CT C SPINE W IVCON 21 RPID21 CT C SPINE WO IVCON 31 RPID31 CT L SPINE WO IVCON 32 RPID32 CT L SPINE WO & W IVCON 33 RPID33 CT L SPINE W IVCON 51 RPID51 CT T SPINE WO IVCON 52 RPID52 CT T SPINE WO & W IVCON 53 RPID53 CT T SPINE W IVCON 1527 RPID1527 CT SPINE
UE	107 RPID107 CT UE WO & W IVCON 108 RPID108 CT UE W IVCON 109 RPID109 CT UE WO IVCON 342 RPID342 CT UE BILAT WO IVCON 348 RPID348 CT UE SHLDR

Ask the Experts

How will DIR Link – the next generation of TRIAD – impact mapping?



Mike Simanowith

DIR Updates

- DIR Link
 - New means of transmitting data from site to ACR (replacing TRIAD)
 - No longer support secondary capture
 - Automatic software updates
 - Enhanced security protocols and local ID management
 - Future data linking projects
 - Existing mapping/configurations maintained
 - Early adopters (10 trial sites) – mid April 2022
 - Phased roll-out to all participants starting in June 2022 completing in late 2022
 - For more details visit the [DIR Link Knowledge Base article](#)

DIR Updates

- AI-Guided Mapping
 - Algorithm suggested mapping provided for site to confirm / customize
 - Ongoing improvement of algorithm through ‘retraining’ based on continued site mapping

Study Description Requested Procedure Description	Suggested Mapping – Please Select or Custom Map (% match) Common ID: Exam Name	Confirm Selection <i>Confirm all</i> <input type="checkbox"/>	Final Mapping Value	Mapping Status
DR Right Foot – Big Toe Dig Rad Big Toe	<ul style="list-style-type: none"> ● (85%) ID 123: Exam DR Toe ○ Custom Mapping <input type="text" value="V Exam List"/> 	Confirm? <input type="checkbox"/>		Mapping Not Confirmed
DR Head Brain DR Head Br	<ul style="list-style-type: none"> ○ (92%) ID 879: Exam DR Head ○ Custom Mapping <input type="text" value="V Exams List"/> 	N/A – Not Selected <input type="checkbox"/>		Not Mapped
DR Abdomen GU Null	<ul style="list-style-type: none"> ○ (55%) ID 888: Exam DR Abdomen ● Custom Mapping <input type="text" value="ID 555: DR Kidneys"/> 	Confirmed <input checked="" type="checkbox"/>	ID 555: DR Kidneys	Mapping Confirmed
DR Abdomen GI Null	<ul style="list-style-type: none"> ○ (55%) ID 888: Exam DR Abdomen ○ Custom Mapping <input type="text" value="V Exam List"/> 	N/A – Not Selected <input type="checkbox"/>		Not Mapped

DIR Updates

- NRDR User Focus Group
 - Provide feedback/modifications to reports and online tools, review measures under development, suggest enhancements to improve usability
 - Participation in quarterly meetings and periodic surveys
 - To sign up for the focus group, please submit contact information here or use **QR code**
<https://app.smartsheet.com/b/form/36f1052c4e0b42edbb22740e05bb1719>



Volunteer Here

Q&A



Opportunities for Engagement

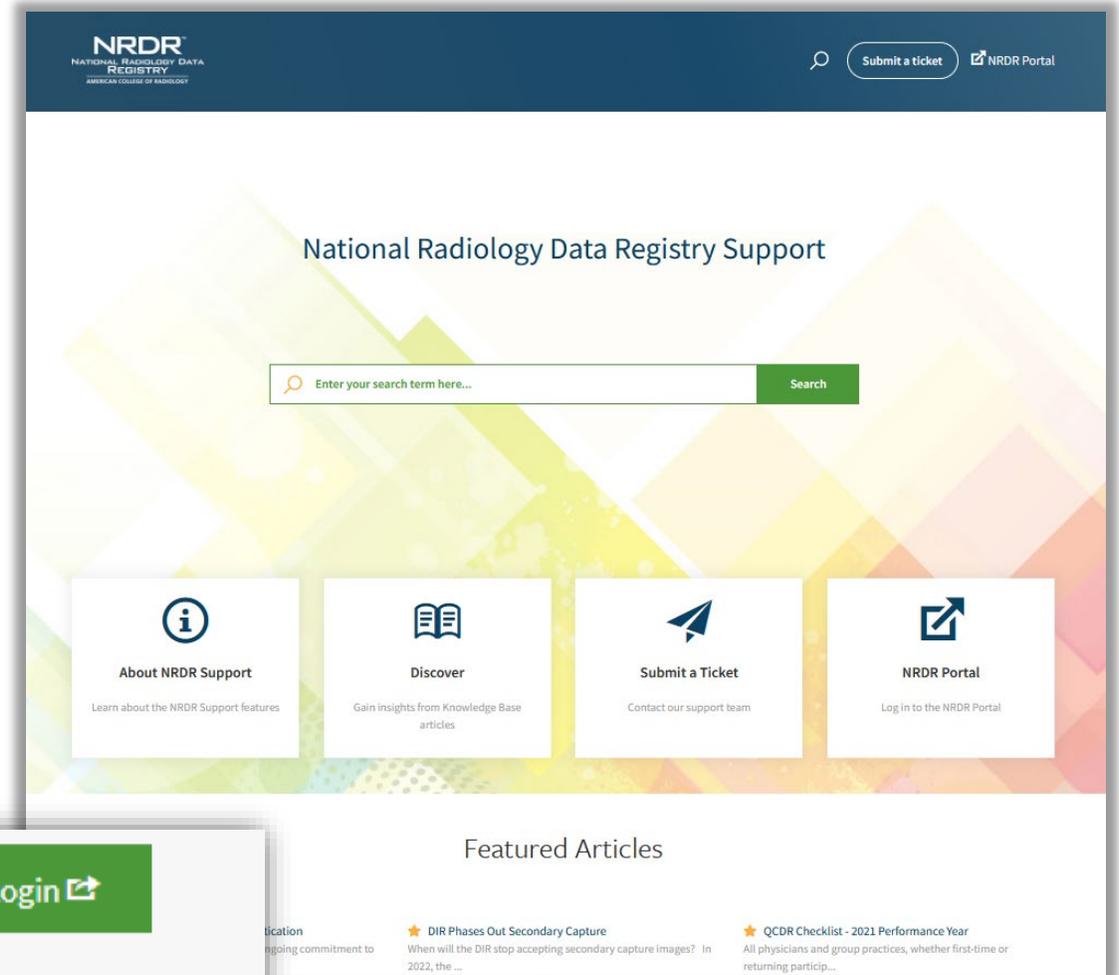
- Join the DIR and expansions
 - <https://nrdrsupport.acr.org/support/solutions/articles/11000101826-dose-index-registry-dir-start-up-guide>
- Future webinars
 - Stay tuned for the last webinar in the DIR Training Series later this year: Cashing in on Your Investment: Getting the Most from Your DIR Reports

NRDR Support

- Access detailed information
 - Pertaining to all registries
 - Registry specific
- Submit a ticket for customer service support

nrdrsupport.acr.org

acr.org/DIR



[NRDR Portal Login](#)

Need assistance?
[Visit NRDR Support](#) to view the Knowledge Base user guide or place a help ticket

NRDR Help Desk



WHEN YOU GET TO THE
END OF YOUR ROPE

- **Email:** NRDRSupport@acr.org
- **Phone:** 1-800-227-5463 x3535
- **Web:** <https://nrdrsupport.acr.org>

Presented by:



Michael Bohl

Founder, Dose Registry Support Services

Michael Bohl is a radiology executive with broad experience in radiology management and operations. A past President of the Radiology Business Management Association and nationally known speaker and author, Mr. Bohl has spent many years providing facilities with innovative solutions for using the Dose Index Registry and meeting The Joint Commission Dose Incident Identification requirements.