

Welcome to...

Abdomen/Oncology!

During your time at BCH, you will spend about one week in the abdomen/oncology rotation (Abd/Onc). The majority of the studies you read will be radiographs of the chest and abdomen, and mostly of inpatients. You will also read MR and CT studies to evaluate for abdominal and pelvic pathology (including IBD, biliary abnormalities, gynecologic anomalies, appendicitis) and oncology studies (PET CT and MR for staging).

THE WORK DAY:

The work day begins at 7:30 AM. When you first arrive, use Allocade to identify which cross sectional studies belong to the Abd/Onc team. This often involves discussion with the Thoracic and MSK team to decide who is reading which case (For example a pelvic Ewing Sarcoma may be labeled as an Abdomen/Oncology case, but the preference would be for the MSK team to read it. Abdominal CTA for renal artery stenosis may go to the Thoracic team as it is a vascular study).

Working with your attending and co-resident or fellow, determine which cross sectional studies you are going to read that day, and begin investigating the indication for the exam, relevant clinical history and review prior studies. You can write helpful notes in the allocade notes window.

MR - All Sites (45) | MSK (13) | CT - All Sites (14) | FL Boston (10) | US Boston (26) | Body (13) | Fetal (1) | Neuro (31)

Body - Next Day (16) | MSK (13) | MSK - Next Day (20) | Body/MSK (22) | On Call (86) | Satellites - US, FL, XR (17) | Fetal (1) | Neuro (31)

File Patients Organize Settings

ALLOCADE On-Cue

Thu, Jun 2, 2016 13:44

Reschedule All CT Add On... Clean up

Time Status Location Patient Scanner Procedure Staff Lsh Notes

Body - Next Day

09:30 11:00 OP Doe, John M/Age: 11y MRN: 0000000 Inj PET/CT PET/CT Torso Inj Tech: RN: MD: RT/RN Comm: Choose "Body"

09:30 10:15 OP Doe, John F/Age: 13y MRN: 0000000 PET/CT PET/CT WB Tech: RN: MD: RT/RN Comm:

10:00 11:45 OP Doe, John M/Age: 9y MRN: 0000000 3T Trio MR Multi Mix MAC/... RN: SR: MD: RT: RM:5752 4 Abd/onc

10:00 11:00 OP Doe, John F/Age: 2y MRN: 0000000 CT1 CT Chest MAC/GA MD: RN: RT: SR: RM:CT1 RT/RN Comm:

11:00 11:00 OP (W) Doe, John F/Age: 22y MRN: 0000000 1.5 W MR Chest MD: RN: RT: RM:61152

11:00 11:00 OP Doe, John M/Age: 11y MRN: 0000000 PET/CT PET/CT Torso... Tech: RN: MD: RT/RN Comm:

Nothing Scheduled from 11:30 until 12:30 (60 minutes)

Ne/Danehy - 4164/ OD/Neuberger, Ilana MSK/Walters - #2497 Chest/CV Lee - 3571
Ab/Callahan - 1232 Fetal/Connolly - #1685 Anes 1 Anes 2
Bo Board RT/Margaret G - 6315 ROC RT Moonlighter

MR - All Sites (45)									
Body - Next Day (16)									
MSK (13)									
CT - All Sites (14)									
MSK - Next Day (20)									
Body/MSK (22)									
FL Boston (10)									
On Call (86)									
US Boston (26)									
Satellites - US, FL, XR (17)									
Body (13)									
Fetal									
Neuro (31)									
ALLOCADE On-Cue									
Body - Next Day									
Thu, Jun 2, 2016 13:44									
Reschedule All CT Add-On... Clean up									
Time	Status	Location	Patient	Scanner	Procedure	Staff	Lab	Notes	
Comm: Delay:									
09:30	OP		Doe, John	Inj PET/CT	PET/CT Torso Inj	Tech: RN: MD:			
09:30	OP		Doe, John	PET/CT	PET/CT WB	Tech: RN: MD:			
10:00	OP		Doe, John	3T Trio	MR Multi Mix MAC/...	RN: SR: MD: RT: RM:5752 4		Abd/onc	
10:00	OP		Doe, John	CT1	CT Chest MAC/GA	MD: RN: RT: SR: RM:CT1			
11:00	OP		Doe, John	1.5 W	MR Chest	MD: RT: RM:61152			
11:00	OP		Doe, John	PET/CT	PET/CT Torso...	Tech: RN: MD:			
Nothing Scheduled from 11:30 until 12:30 (60 minutes)									
Ne Danehy - 4164/	OD	Neuberger, Iana	MSK	Walters - #2497	Chest/CV	Lee - 3571			
Ab Callahan - 1232	Fetal	Cennolly - #1685	Anes 1		Anes 2				
Bo	Board RT	Margaret G - 6315	ROC RT		Moonlighter				
B2	B2/B7 Neuro	Robson -	B2 RT		GA Ascom				

Scanner column tells you where the study is happening. 1.5 W= 1.5 Tesla magnet in Waltham. 3T Trio= The Trio 3 Tesla magnet in Boston. Ask your attending/fellow to clarify this for you. This will affect which lists you subscribe to in Radstar.

MR - All Sites (45)									
Body - Next Day (16)									
MSK (11)									
CT - All Sites (14)									
MSK - Next Day (20)									
Body/MSK (19)									
On Call (84)									
US Boston (25)									
Satellites - US, FL, XR (17)									
Body (12)									
Fetal									
Neuro (30)									
ALLOCADE On-Cue									
Body - Next Day									
Thu, Jun 2, 2016 13:54									
Reschedule All CT Add-On... Clean up									
Time	Status	Location	Patient	Scanner	Procedure	Staff	Lab	Notes	
Comm: Delay:									
09:30	OP		Doe, John	Inj	PET/CT Torso Inj	Tech: RN: MD:			
09:30	OP		Doe, John	PET/CT	PET/CT WB	Tech: RN: MD:			
10:00	OP		Doe, John	3T Trio	MR Multi Mix MAC/...	RN: SR: MD: RT: RM:5752 4		Abd/onc	
10:00	OP		Doe, John	CT1	CT Chest MAC/GA	MD: RN: RT: SR: RM:CT1			
11:00	OP (W)		Doe, John	1.5 W	MR Chest	MD: RT: RM:61152			
11:00	OP		Doe, John	PET/CT	PET/CT Torso...	Tech: RN: MD:			
Nothing Scheduled from 11:30 until 12:30 (60 minutes)									
Ne Danehy - 4164/	OD	Neuberger, Iana	MSK	Walters - #2497	Chest/CV	Lee - 3571			
Ab Callahan - 1232	Fetal	Cennolly - #1685	Anes 1		Anes 2				
Bo	Board RT	Margaret G - 6315	ROC RT		Moonlighter				
B2	B2/B7 Neuro	Robson -	B2 RT		GA Ascom				

Right click here on the study for more information

MR - All Sites (45) | CT - All Sites (14) | FL Boston (10) | US Boston (26) | Body (13)
 Body - Next Day (16) | MSK (13) | MSK - Next Day (20) | Body/MSK (22) | On Call (86) | Satellites - US, FL, XR (17) | Fetal | Neuro (31)

File Patients Organize Settings **ALLOCADe On-Cue**

Body - Next Day Thu, Jun 2, 2016 13:44 [Reschedule] [All CT] [Add-On...] [Clean up]

Time	Status	Location	Patient	Scanner	Procedure	Staff	Lab	Notes
09:30	10:15	OP	Doe, John M/Age: 11y MRN: 0000000	Inj PET/CT	PET/CT Torso Inj	Tech: RN: MD:		sclerotic erosion...
09:30	10:15	OP	Doe, John M/Age: 11y MRN: 0000000	Inj PET/CT	PET/CT WB	Tech: RN: MD:		
10:00	11:45	OP	Doe, John M/Age: 11y MRN: 0000000	Inj PET/CT	MR Multi Mix MAC/...	Tech: RN: MD: SR: RT: RM: 5752 4		Abd/onc
10:00	11:00	OP	Doe, John M/Age: 11y MRN: 0000000	Inj PET/CT	CT Chest MAC/GA	Tech: RN: MD:		
11:00	11:50	OP	Doe, John M/Age: 11y MRN: 0000000	Inj PET/CT	MR Chest	Tech: RN: MD:		
11:00	11:50	OP	Doe, John M/Age: 11y MRN: 0000000	Inj PET/CT	PET/CT Torso...	Tech: RN: MD:		

3D imaging. Position patient prone and have patient void immediately before entering scan room. Injection rate 0.1 ml/sec.

Protocol Group: MR Body

Protocol: -- Add Protocol --

Sequence	Time (min)	Notes
MRU (MR Urography)	5	
Coll: Body, multich (GE)	5	
Breath-holding Not Required	5	
3 plane loc	5	
FSE T2 fs Sag	5	
FSE T2 fs Ax	5	
Inject Lasix (1mg/kg, max 20 mg)	5	
T1 fs Ax pelvis	6	
FSE T2 fs Cor	5	
DWI Ax (Pelvis)	5	

Please note the a the T1 fs Ax pelvis, DWI ax pelvis, T1fs Ax post contrast, T1fs Sag post contrast are all for the bladder and ideally should be done with a small field of view to access for residual tumor.

Change Log

05/27/16 15:40 - by CHOW, J - Notes

05/27/16 05:25 - by CHOW, J - Instructions, Series, Notes

Edited by: Enter Name

Total Sequence Time: 64

Additional Time: 0

Sed/Anes: Non-Sed 10

Total Time: 74

OK Cancel

Nothing Scheduled from 11:30 until 12:30 (60 minutes)

Ne Danehy - 4164/ - OD Neuberger, Iana MSK Walters - #2497

Ab Callahan - 1232 - Fetal Connolly - #1685 Anes 1

Bo Board RT Margaret G - 6315 ROC RT

B2 B2/B7 Neuro Robson - B2 RT

Left click on the "paper and pencil" to see the protocol for the study and the notes. Use this list to determine if all the desired sequences are complete before sending patient. The change log on the right gives the name of the radiologist who protocolled the study.

MR - All Sites (45) | CT - All Sites (14) | FL Boston (10) | US Boston (26) | Body (13)
 Body - Next Day (16) | MSK (13) | MSK - Next Day (20) | Body/MSK (22) | On Call (86) | Satellites - US, FL, XR (17) | Fetal | Neuro (31)

File Patients Organize Settings **ALLOCADe On-Cue**

Body - Next Day Thu, Jun 2, 2016 13:44 [Reschedule] [All CT] [Add-On...] [Clean up]

Time	Status	Location	Patient	Scanner	Procedure	Staff	Lab	Notes
09:30	10:15	OP	Doe, John M/Age: 11y MRN: 0000000	Inj PET/CT	PET/CT Torso Inj	Tech: RN: MD:		sclerotic erosion...
09:30	10:15	OP	Doe, John M/Age: 11y MRN: 0000000	Inj PET/CT	PET/CT WB	Tech: RN: MD:		
10:00	11:45	OP	Doe, John M/Age: 11y MRN: 0000000	Inj PET/CT	MR Multi Mix MAC/...	Tech: RN: MD: SR: RT: RM: 5752 4		Abd/onc
10:00	11:00	OP	Doe, John M/Age: 11y MRN: 0000000	Inj PET/CT	CT Chest MAC/GA	Tech: RN: MD:		
11:00	11:50	OP	Doe, John M/Age: 11y MRN: 0000000	Inj PET/CT	MR Chest	Tech: RN: MD: RT: RM: 61152		
11:00	11:50	OP	Doe, John M/Age: 11y MRN: 0000000	Inj PET/CT	PET/CT Torso...	Tech: RN: MD:		

Resident X-
Important clinical info....

OK Cancel

Nothing Scheduled from 11:30 until 12:30 (60 minutes)

Ne Danehy - 4164/ - OD Neuberger, Iana MSK Walters - #2497 Chest/CV Lee - 3571

Ab Callahan - 1232 - Fetal Connolly - #1685 Anes 1 Anes 2

Bo Board RT Margaret G - 6315 ROC RT Moonlighter

B2 B2/B7 Neuro Robson - B2 RT GA Ascom

Left click on the box to add more information (write your initials for ease of reference).

Remember to scroll to the bottom to work-up the unscheduled orders (usually urgent inpatients)

Time	Status	Loc	Staff
15:45 16:15 Orig 15:45	Comm:		Precautions:
16:15 16:45 Orig 16:15	Comm:	OP M/Age: 3y MRN: 0000000	PET/CT PET/CT WB w/Diagnost... MD: RN: RT: SP: CL:
Unscheduled Orders			
		7S ICU M/Age: 2y MRN: 0000000	3T Trio MR Chest MD: RN: RT: SP: CL:

THE WORKLIST:

On Radstar, you want to subscribe to

- 1) **ALL** radiographs. You will focus on the chest and abdomen radiographs performed in Boston, which should be read chronologically and treated equally (do not prioritize abdomen radiographs when you are on the Abd/Onc rotation. Once all of the abdomen and chest radiographs have been read, you should next read the MSK radiographs in Boston, then the radiographs performed at the satellite locations (Lexington, Peabody, Waltham)
- 2) Body CT and Body MR appropriate for the studies you have been assigned for that day.

There are two ways to accomplish this:

Organ System Subscribe Page - Windows Internet Explorer

http://radstar/OrganSystemSubscribe.aspx?RefreshPage=RadSubscribeReporting.aspx

RadSTAR Subscribe Page [Close](#)

Select the **Organ Systems** you wish to subscribe

Organ System	Boston	Lexington	BCH North	BCH South	Waltham	North Dartmouth	TeleRIS-BWH	TeleRIS-BIDMC	TeleRIS-HMH
CR (non MSK)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CT/MR (non MSK)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chest (CR)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fetal MR/US	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MSK (CR)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MSK (CT/MR)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MSK (MR Binney 2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Save

http://radstar/ModalitySubscribe.aspx?RefreshPage=RadSubscribeReporting.aspx

RadSTAR Subscribe Page [Close](#)

Select the **Modalities** you wish to subscribe

Patient Location: ☐ Inpatient ☐ Outpatient ☒ All Locations

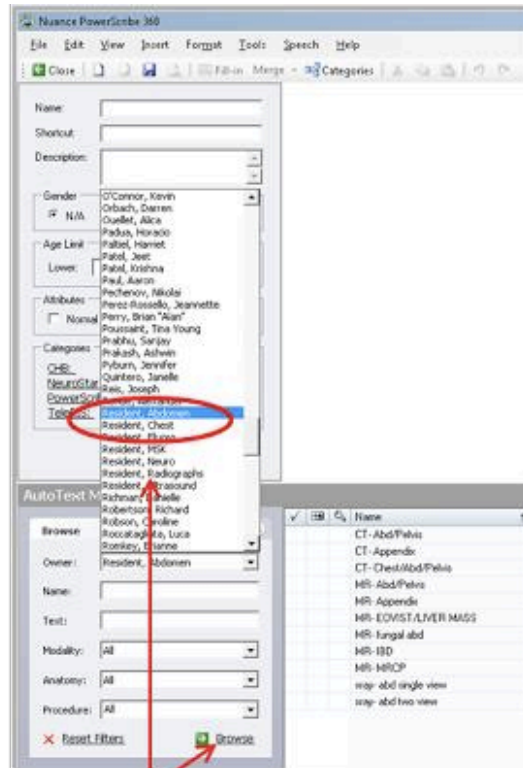
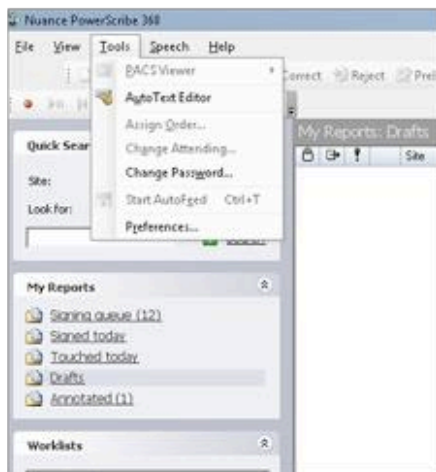
Modality	Boston	Lexington	BCH North	BCH South	Waltham	North Dartmouth	TELERIS-BWH	TELERIS-BIDMC	TELERIS-HMH
Body CT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Body MR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CR	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fetal MR/US	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GI	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GU	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NM	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Neuro CT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Neuro MR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Neuro MR Binney 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Neuro MR Binney 7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
US	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

[Save](#)

THE REPORTS:

Go to the "Auto Text Editor" tab and copy the macros from "**Resident, Abdomen**" and "**Resident, Chest**" Whenever possible use these macros for your reports unless specifically told not to do so by the attending of the day. If you are doing an uncommon exam with no appropriate macro available, try to structure your report in a similar manner.

Go to Auto Text Editor under tools



Choose owner: Resident, Abdomen. Click browse. Clone the abdomen macros. Do the same for Chest. Carefully read the bracketed fields which will instruct you on the content.

GOALS:

1) Cleveland Clinic Modules

By midweek of your abdomen/oncology rotation you should complete the following modules and email the Transcripts to Abby:

Omphalocele, Gastroschisis and Diaphragmatic Hernia
Neuroblastoma, Ganglioneuroblastoma, Ganglioneuroma
Wilms and other Renal Tumors
Leukemia and lymphoma

2) Radiographs: By the end of the week, you should be comfortable reading inpatient chest and abdomen films, aware of the different lines and tubes including their appropriate positioning, and comfortable with the radiograph appearance of the chest following cardiac surgery. You should be able to recognize proximal and distal obstruction in neonates and infants, and radiographic findings of necrotizing enterocolitis.

3) Cross- Sectional : During your relatively short time in the Abdomen/Oncology department, the types of CT and MR studies that you read and the breadth of pathology that you see will be highly variable. Ideally, you should be exposed to IBD

MR, congenital gyn anomalies, staging MR and CT for the more common pediatric abdominal tumors including neuroblastoma, Wilms tumor, and hepatoblastoma. For all follow-up studies, be sure to review the original imaging studies, so that you would be able to appropriately diagnose a patient if you saw them at initial presentation.

To help keep track of the breadth of cases you dictate during your time on Abd/Oncology, we would like you to complete a card with the diagnosis and accession number of the 5 most interesting/complex cases you saw on the rotation.

Abdomen/Oncology Case Log	
Diagnosis	Acc#/Date
1	_____
2	_____
3	_____
4	_____
5	_____

EDUCATIONAL MATERIALS:

Here are links to review articles you may find useful during your Abd/Onc rotation.

IBD

Imaging of Pediatric Patients with Inflammatory Bowel Disease

<http://www.ajronline.org/doi/pdf/10.2214/AJR.11.7966>

MR Enterography Findings of Inflammatory Bowel Disease

<http://www.ajronline.org/doi/pdf/10.2214/AJR.10.5474>

Rectal Imaging: Part 2, Perianal Fistula Evaluation on Pelvic MR – What the Radiologist Needs to Know

<http://www.ajronline.org/doi/pdf/10.2214/AJR.11.8361>

MR Imaging Evaluation of Perianal Fistulas: Spectrum of Imaging Features

<http://pubs.rsna.org/doi/pdf/10.1148/rg.321115040>

MRCP

Pediatric MR Cholangiopancreatography: Principles, Technique, and Clinical Applications
<http://pubs.rsna.org/doi/pdf/10.1148/rg.287085031>

Anorectal

Postoperative Pelvic MRI of anorectal malformations
<http://www.ajronline.org/doi/pdf/10.2214/AJR.07.3773>

Eovist & other contrast media

Targeted MRI contrast agents for pediatric hepatobiliary disease
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3744898/pdf/nihms491217.pdf>

Gadoxetate Disodium-Enhanced MRI of the Liver: Part 1, Protocol Optimization and Lesion Appearance in the Noncirrhotic Liver
<http://www.ajronline.org/doi/pdfplus/10.2214/AJR.10.4392?src=recsys&>

Pediatric Radiology

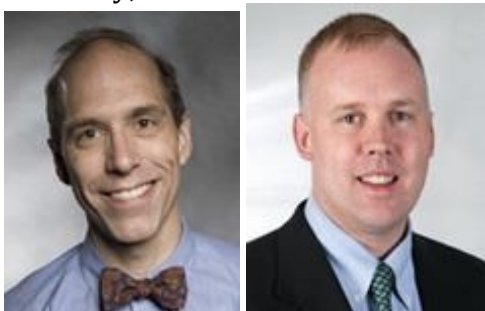
September 2011, Volume 41, Issue 9, pp 1183-1197
First online: 24 June 2011

Characterization of pediatric liver lesions with gadoxetate disodium

Arthur B. Meyers, Alexander J. Towbin , Suraj Serai, James I. Geller, Daniel J. Podberey

We hope that you have a fun and educational time during your Abdomen/Oncology rotation, and if you have any questions or concerns, don't hesitate to ask us.

Sincerely,



Stephan Voss and Michael Callahan