

Welcome to...

Boston Children's Hospital!

General Information

For the next 8-13 weeks, you will be learning about the exciting field of pediatric radiology...but along the way you will have to learn a whole new PACS, new work flow, meet many new attendings, technologists....the list goes on and on. This document, as well as the other documents for each rotation and call, will hopefully make the process easier.

Here, I will go over general points about your rotations. You should review this on or before your first day at BCH, and be prepared to ask questions at orientation. The other documents should be reviewed by the weekend before starting a given rotation, or before starting call. This will help you hit the ground running and hopefully make the relatively short rotations higher yield for you.

THE WORK DAY:

The work day begins at 7:30 AM (except when there is 7:15 AM ORL conference). The conference schedule varies by the day, with on average 2 conferences per day. You will be emailed the monthly conference schedule and it will also be posted on the door of the Wittenborg Conference Room. When there is no morning conference, you will work in the reading room from 7:30 until noon conference time. If there is morning conference, after touching base at your scheduled rotation, you will go to AM conference, typically at 7:45. It is important to check the monthly conference schedule in advance so you have an idea how your day will flow.

Refer to the individual orientation guides for each rotation to determine your responsibilities when you arrive at 7:30. For the most part, you should plan on:

- 1) working up the patients for the day (i.e. researching the histories and protocols for the patients who are scheduled for MR, CT, Fluoro),
- 2) Start reading studies.

The three programs that we use are:

- 1) **Allocade**: A real-time board that tracks the studies on the MR/CT/US/Fluoro schedule for the day, and allows communication between radiologists and technologists.

Allocade On-Cue

MR - All Sites (30) | CT - All Sites (4) | FL Boston (2) | US Boston (2) | Body (3) | Body - Next Day (3) | MSK (9) | MSK - Next Day (3) | Body/MSK (12) | On Call (35) | Satellites - US, FL, XR (1) | Fetal | Neuro (18)

File Patients Organize Settings

Neuro Sat, Jun 11, 2016 11:55 [Reschedule] [All CT] [Add-On...] [Clean up]

Time	Status	Location	Patient	Scanner	Procedure	Staff	Lab	Notes
11:05 11:41 Orig 10:45	Start Scan	OP	M/Age: 12y MRN:	Binne y2	MR L Spine Non-...	RN: MD:MZ RM:5953 3	SR: RT:KM	B2
Comm: MD - Check Notes 11:54 Delay: Patient Movement 11:47 RT/RN Comm:								
11:45 12:45 Orig 10:00	Start Scan	Emergenc	F/Age: 8y MRN:	Binne y7	MR 3T Brain	RN: MD:EG RT:KNG RM:5899 1	SR: RT:KM	cd~ CALLED FOR AT 11:10 COMING UP FOR 11:45 SCAN....CD NEUROLOGY...
Comm: Approved/Protocolled 10:51 Delay: RT/RN Comm:								
12:00 12:45 Orig 12:30	Paperwork Complete	OP (W)	M/Age: 16y MRN:	1.5 W	MR Spine Entire	MD:MZ RT:		
Comm:								
12:00 12:55 Orig 11:30	Enter Prep Room	OP	M/Age:					
Comm: MD - Check Notes								
12:00 13:10 Orig 12:00		OP (W)	F/Age:					
Comm:								
12:00 13:00 Orig 12:00		B&W**	7/Age: <1m MRN:	Binne y7	MR 3T Brain	RN: MD:MZ RM:5899	SR: RT:	baby cannot be scanned until at least 11:30. He
Comm:								

Allocade provides daily and next day schedules, allows communication with technologists and places to add notes about history and protocol.

OD: MSK Chest/CV
Fetal: Anes 1
Board RT: ROC RT
B2/B7 Neuro: B2 RT Moonlighter: GA Ascom

2) **Radstar**: A program that gives us the reading list, has links to the electronic medical records, and allows programs to be launched from Synapse PACS.

RadSTAR - Radiology Status Tracking And Reporting

Home | Profile | Log Out

Schedule Monitor Dashboard Subscription Unsigned(0) Dictated Protocol(C=1 F=10 AC=12 M=3 N=0) 3D/PP Orders(1) Consult Service Q1/Peer Review Quick Links

PowerChart Med Orders: 0

Subscription Type: [Subscribe] Modality Based

Exam Status: [All UnReported]

Time Period: [Last 24 Hrs]

Refresh In: 4 Refresh Now

Query Synapse [MRN/Name/Date] Search

Modality: CR-BOS, US-BOS

Patient Name (Documents Only)	MRN	DOB	Age	Sex	Loc	Order Nbr	Exam Name (Documents and Synapse)	Read	Img/Req	Service	Priority	Elapsed	Status
1			4y	F	BOS		XR Elbow 24653234		0	REQ	Emergency Department	Ref Wait 14 Mins	ArrUnRep
2			9y	M	BOS		XR Knee 24653228		0	REQ	Emergency Department	Ref Wait 47 Mins	ArrUnRep
3			8m	M	BOS		XR Chest 24653231		0	REQ	Emergency Department	Ref Wait 25 Mins	ArrUnRep
4			3y	M	BOS		US-Soft Tissue Head and Neck 24653193		1099	REQ	Emergency Department	Ref Wait 1 Hr	Co/URep
5			21y	M	BOS		US-Pelvis Non-Obstetric Limited 24653209		561	REQ	Emergency Department	Ref Wait 3 Mins	Co/URep
6			11y	M	BOS		XR Chest 24653236		0	REQ	Emergency Department	Ref Wait 3 Mins	ArrUnRep
7			9y	M	BOS		US-Soft Tissue Head and Neck 24653204		352	REQ	Emergency Department	Ref Wait 5 Mins	Co/URep
8			19y	F	BOS		XR-Chest 2 Views 24653227		2	REQ	06 NE HEME/ONC/RESEARCH	37 Mins	Co/URep
9			13y	F	BOS		XR-Chest 1 View 24653230		1	REQ	06 NE HEME/ONC/RESEARCH	5 Mins	Co/URep
10			36d	F	BOS		XR-Abdomen AP View 24653201		1	REQ	07 North	2 Hrs	Co/URep
11			20d	F	BOS		XR Chest 24653235		0	REQ	07 North	4 Mins	ArrUnRep
12											6.2 Hrs	ArrUnRep	
13											51 Mins	Co/URep	
14											2.7 Hrs	ArrUnRep	
15											52 Mins	Co/URep	
16											10 Mins	Co/URep	
17											1.6 Hrs	Co/URep	
18											25 Mins	Co/URep	
19											26 Mins	Co/URep	
20											1 Min	Co/URep	

Radstar allows you to subscribe to specific reading lists. If you click on the patient's name in the first column, you have access to their medical record (though not as complete as the EMR in Citrix).

RadSTAR - Radiology Status Tracking And Reporting

Home | Profile | Log Out

Schedule Monitor Dashboard Subscription Unsigned(0) Dictated Protocol(C=1 F=10 AC=12 M=3 N=0) 3D/PP Orders(1) Consult Service QI/Peer Review Quick Links

PowerChart Med Orders: 0

Subscription Type: Modality Based Exam Status: All Unreported Time Period: Last 24 Hrs Refresh In: 4 Refresh Now Query Synapse MRN/Name/Date Search

Modality: CR-BOS, US-BOS

BCH All Unreported Last 24 Hours

Patient Name (Documents Only)	MRN	DOB	Age	Sex	Loc	Order Nbr	Exam Name (Documents and Synapse)	Read	Img/Req	Service	Priority	Elapsed	Status
1			4y	F	BOS		XR Elbow 24653234	<input type="checkbox"/>	0 REQ	Emergency Department	Ref Wait	14 Mins	ArrUnRep
2			9y	M	BOS		XR Knee 24653228	<input type="checkbox"/>	0 REQ	Emergency Department	Ref Wait	37 Mins	ArrUnRep
3			8m	M	BOS		XR Chest 24653231	<input type="checkbox"/>	0 REQ	Emergency Department	Ref Wait	25 Mins	ArrUnRep
4										Department	Ref Wait	1 Hr	Co/URep
5										Department	Ref Wait	3 Mins	Co/URep
6										Department	Ref Wait	3 Mins	ArrUnRep
7										Department	Ref Wait	5 Mins	Co/URep
8										E/ONC/RESEARCH	37 Mins	Co/URep	
9										E/ONC/RESEARCH	5 Mins	Co/URep	
10											2 Hrs	Co/URep	
11											4 Mins	ArrUnRep	
12											6.2 Hrs	ArrUnRep	
13											51 Mins	Co/URep	
14											2.7 Hrs	ArrUnRep	
15											52 Mins	Co/URep	
16											10 Mins	Co/URep	
17											1.6 Hrs	Co/URep	
18											25 Mins	Co/URep	
19											26 Mins	Co/URep	
20											1 Min	Co/URep	

Orders: 22

One note about Exam Status:
You should subscribe to "All Unreported" studies when you are doing US, CT, MR, so you can track the studies as they are happening. For XR, only read "completed studies" (which are red in the status column.) If you read uncompleted studies (in black) the technologists may add additional images to the jacket that you won't see.

3) Powerscribe - Dictation System.

GETTING TO CONFERENCE ON TIME

Try to time your readouts so that you can be on time for noon conference. Ideally, preliminary reports should be in the system before conference in case the clinical team is looking for it. Discuss with your attending before you leave.

On Mondays there is a 5PM GU conference every week, and once a month, there is a 5 PM surgery or trauma conference. On these days, you should be excused promptly at 5PM and attend conference. Otherwise, you are responsible for all studies done up to 5PM. This means you will typically be done with your rotation by 5:30, but can go longer if complex studies happen late in the day. You can not assume that you will be excused for the day at 5PM.

THE ROTATIONS:

The core radiology rotations are:

- Thoracic
- Abdomen/Oncology
- Musculoskeletal
- Fluoroscopy (GU/GI)
- Ultrasound
- Neuroradiology

You will spend approximately 1 week on each core rotation, with the exception of ultrasound, where you will likely spend 2 weeks.

Based on your unique schedule, if elective time is available you may be able to spend this time in:

Nuclear Medicine

Interventional Radiology

Fetal Imaging

A Core rotation of your choice

We will try to accommodate your preferences for the elective weeks, but it is not guaranteed that you will get your first choice depending on timing/availability.

Also, if you have any unexpected absences during your core rotations, we will try to use your elective time to make up those missed days.

There are separate documents describing your responsibilities and goals for each of the core rotations. Please review them before beginning each rotation.

WHICH STUDIES TO READ?...

RADIOGRAPHS

Priority studies appear at the top of the Radstar list with their priority level in **RED**:

STAT – usually inpatients.

ED – Emergency room patients.

Patient Waiting – Outpatient instructed to stay in radiology waiting room until the report is read and communicated to referring doctor.

MD-Call Back – The patient may leave, but the referring doctor is actively waiting for the results to be called to the office.

Patient Name (Documents Only)	MRN	DOB	Age	Sex	Loc	Order Nbr	Exam Name (Documents and Synapse)	Read	Img/Req	Service	Priority	Elapsed	Status
1			4y	F	BOS		XR Elbow 24653234	<input type="checkbox"/>	0 REQ	Emergency Department	Ref Wait	14 Mins	ArrUnRep
2			9y	M	BOS		XR Knee 24653228	<input type="checkbox"/>	0 REQ	Emergency Department	Ref Wait	47 Mins	ArrUnRep
3			8m	M	BOS		XR Chest 24653231	<input type="checkbox"/>	0 REQ	Emergency Department	Ref Wait	25 Mins	ArrUnRep
4			7y	M	BOS		US-Soft Tissue Head and Neck 24653193	<input type="checkbox"/>	1009 REQ	Emergency Department	Ref Wait	1 Hr	Co/URep
5								<input type="checkbox"/>	561 REQ	Emergency Department	Ref Wait	3 Mins	Co/URep
6								<input type="checkbox"/>	0 REQ	Emergency Department	Ref Wait	3 Mins	ArrUnRep
7								<input type="checkbox"/>	352 REQ	Emergency Department	Ref Wait	5 Mins	Co/URep
8								<input type="checkbox"/>	2 REQ	06 NE HEME/ONC/RESEARCH	Ref Wait	37 Mins	Co/URep
9								<input type="checkbox"/>	1 REQ	06 NE HEME/ONC/RESEARCH	Ref Wait	5 Mins	Co/URep
10								<input type="checkbox"/>	1 REQ	07 North	Ref Wait	2 Hrs	Co/URep
11								<input type="checkbox"/>	0 REQ	07 North	Ref Wait	4 Mins	ArrUnRep
12								<input type="checkbox"/>	0 REQ	07 South	Ref Wait	6.2 Hrs	ArrUnRep
13								<input type="checkbox"/>	1 REQ	07 South	Ref Wait	51 Mins	Co/URep
14			19m	F	BOS		XR Chest 24653197	<input type="checkbox"/>	0 REQ	07 South	Ref Wait	2.7 Hrs	ArrUnRep
15			13m	F	BOS		XR-Chest 1 View 24653213	<input type="checkbox"/>	1 REQ	07 South	Ref Wait	52 Mins	Co/URep
16			19d	M	BOS		XR-Chest 2 Views 24653232	<input type="checkbox"/>	2 REQ	08 East	Ref Wait	10 Mins	Co/URep
17			3m	M	BOS		XR-Chest 1 View 24653207	<input type="checkbox"/>	1 REQ	08 South	Ref Wait	1.6 Hrs	Co/URep
18			4d	M	BOS		XR-Chest 1 View 24653225	<input type="checkbox"/>	1 REQ	08 South	Ref Wait	25 Mins	Co/URep
19			21y	M	BOS		XR-Chest 1 View 24653226	<input type="checkbox"/>	1 REQ	08 South	Ref Wait	26 Mins	Co/URep

Attending radiologist policy may differ as to whether or how these studies should be read by residents.

Between 7:30A and 5P when the attending is typically available, a common policy is for residents to review these type of studies immediately with their attending before approving the report in Powerscribe.

Between 5P and 9P, you may be instructed to go ahead and submit a preliminary report on these studies, with the understanding that the appropriate person will be called if there are any changes after attending review. Again, try to review these studies with your attending in the short interval.

With the exception of the **RED** priority reads, you are free to read any x-ray on the list, focusing on the either Chest/Abdomen or MSK, depending on which rotation you are on, and going in chronologic order (no cherry picking!).

CT/MR

Typically, we assign specific CT and MR studies to trainees, so check with your attending before you begin reviewing a CT or MR.

Ultrasound

We work closely with the sonographers on the ultrasound rotation, so you will only dictate ultrasound studies if you have reviewed the images with the sonographer and the attending.

ROTATION GOALS:

CLEVELAND CLINIC MODULES

Cleveland Clinic Modules are a series of high quality, on-line learning modules for pediatric radiology. Go to the website below and create an account:

- <https://www.cchs.net/pediatricradiology/>

During your weekly rotation, you should complete the assigned modules relevant to your rotation by the specified day, typically Tuesday or Wednesday. Email the completed transcripts to Abby by the due date. Feel free to complete them sooner if you prefer.

By the end of your first week , please complete the modules for:

- **Lines and Catheters**
- **Radiation Safety**
- **Childhood Pneumonia**
- **Childhood Fractures**
- **Neonatal Chest**
- **Malrotation and Midgut Volvulus**

Email the Transcripts to Abby by your first Friday at BCH.

RADIOGRAPHS

It can be challenging to balance the complexity of the studies at BCH with reading a decent volume of cases. It is important that you take your time, adequately research patient history in the EMR/Radstar, review prior imaging, and understand the underlying medical problem of your patient. However...the more you see, the more you'll learn. We will send up updates every few weeks with the number of radiographs you have read compared to the mean for your group, so you can have a sense of your relative pace (keeping in mind that the specific rotations done and in which order will greatly affect these numbers). .

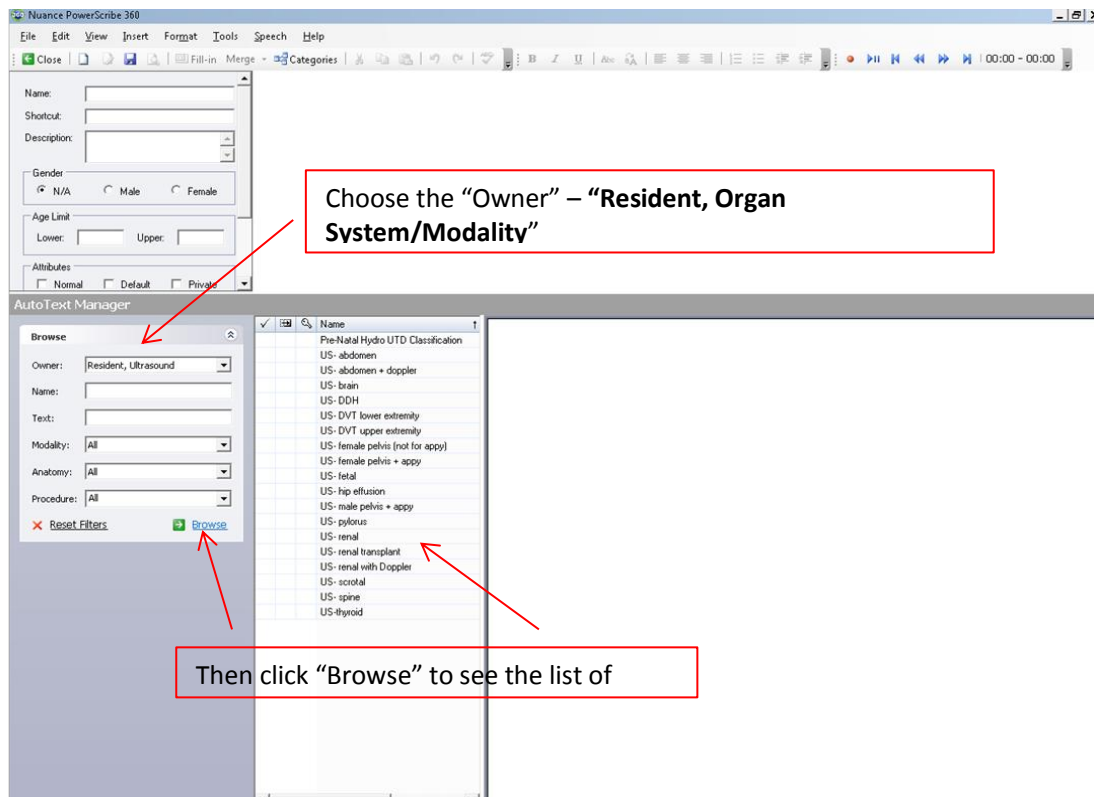
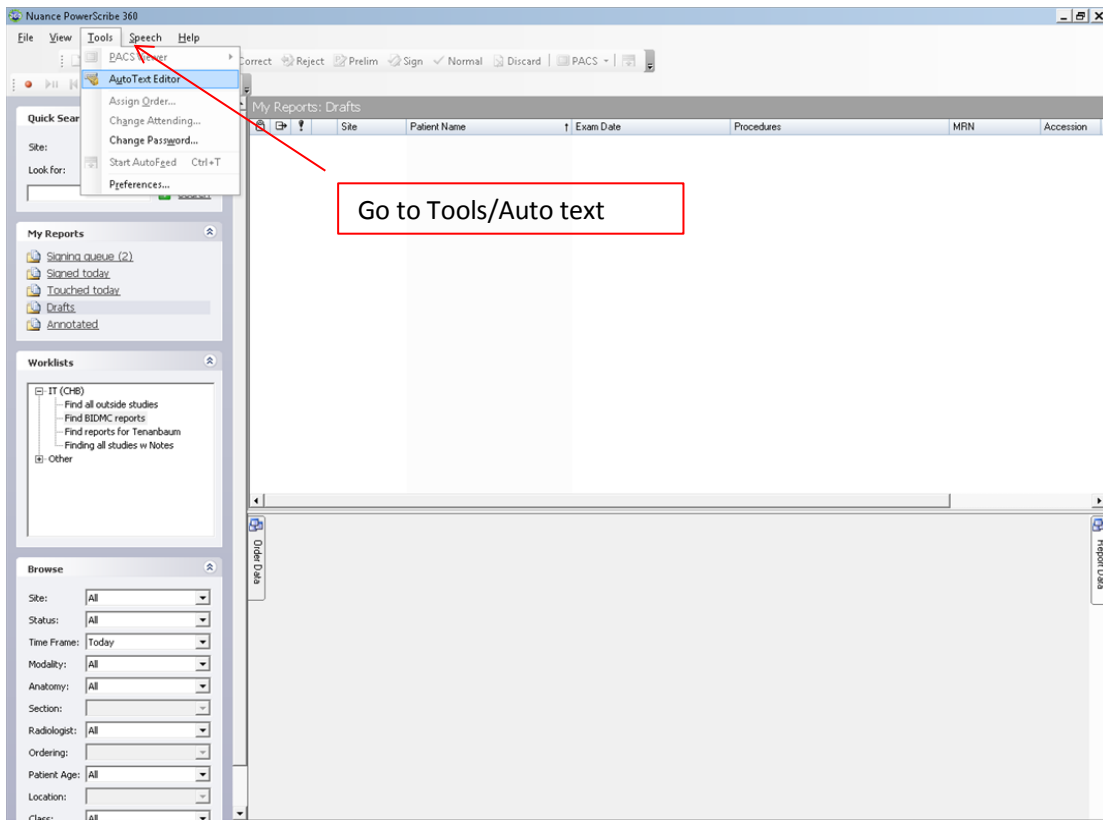
ROTATION SPECIFIC GOALS

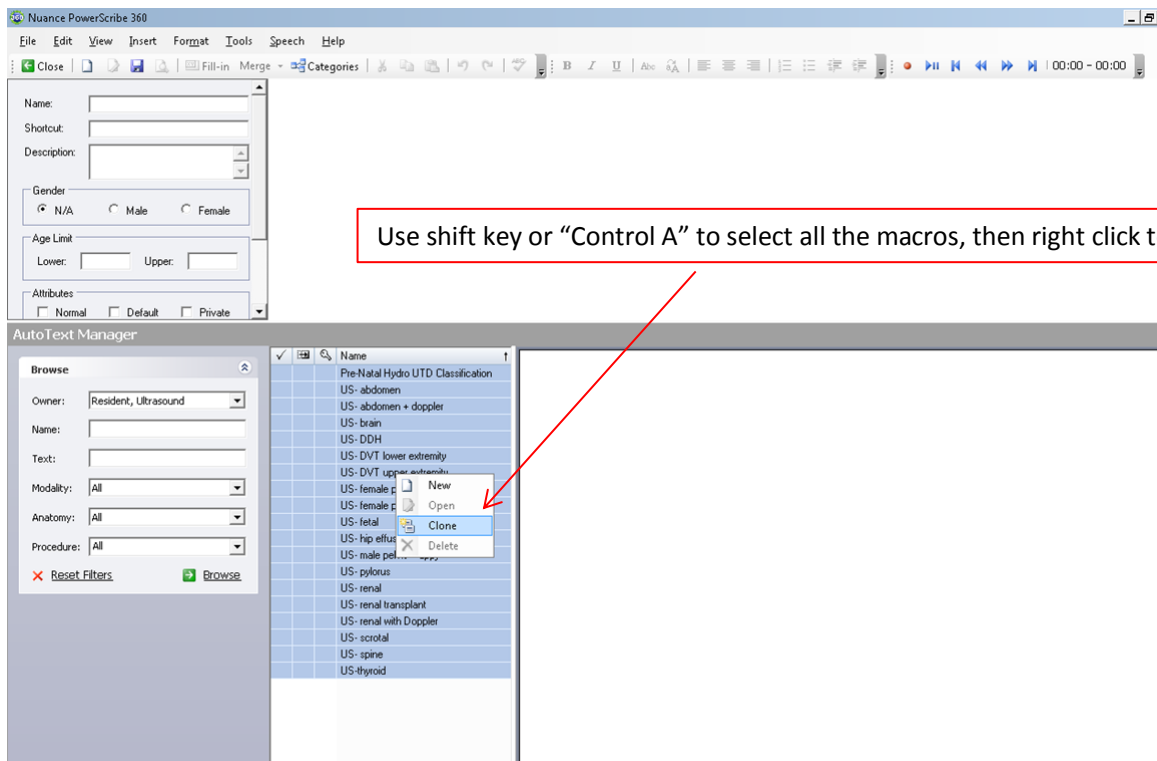
Each Department Chair has defined rotation specific goals, explained in the orientation document for each rotation and listed on your cards.

REPORTS

Each organ system has created a set of resident specific macros in Powerscribe. It is important that you USE THESE MACROS. There are hundreds of macros in the dictation system, many of which are inaccurate. So STICK TO THE RESIDENT MACROS UNLESS AN ATTENDING SPECIFICALLY TELLS YOU OTHERWISE. We are working to improve them, and this is better accomplished if we know that the reports that we see are from the macros.

The user name for the macros is "Resident, Organ System" i.e. "Resident, Neuro",





- Some fields are default normal...some are guides to what to say.
- Read the default fields carefully to make sure they are true, from the protocol to the impression.
- Let me know if you find any mistakes or have recommendations for improvement.

You can clone and delete the macros as you need, since they will always be there.

ATTENDANCE

General attendance.

13-week residents are allowed to take 5 days of planned vacation AND conference time during your rotation at BCH. 9-week residents are allowed to take 3 days. The time you spend with us is short and can not be made up at a later date. If you miss 1 day during your MSK or Neuro week, you are losing 20% of your pediatric MSK or pediatric neuro experience. As such, we expect you to keep absences to a minimum. Anything voluntary should be done on your own time. Even if it's a worthwhile research meeting or a lecture to medical students, these should be scheduled either after working hours, during your post-call time, or during time off.

Again, working hours are 7:30 until somewhere between 5P and 6P everyday. If you are planning a trip, you can confidently make a 7PM flight. Please do not make plans

in advance that necessitate you leaving your rotation hours early, and inform us the day of, assuming that this will be okay.

Emergencies and illness are inevitable, and if something does suddenly arise and you would like to be excused from your rotation for any amount of time, you are to ask the permission of your attending for the day. If he/she says that it is okay for you to leave, you must notify Delma Jarrett by email, cc'ing your attending, before you leave.

Sick Call

Illness happens. Your health and the health of our patients is important. It should go without saying...but sick call is for when you are sick. If you must call in sick, email Abby (Abigail) Polkinghorn and Delma Jarrett as soon as possible. All sick calls will be reported to your home institution.

Conference attendance

Attendance at conference and New England Roentgen Ray is monitored. For conferences in the Wittenborg, you are to swipe your ID badge when entering the conference, at the computer by the door. Repeat absences will be reported to your home institution.

For NERR meetings, there will be a picture sign-in sheet for BCH radiology residents. If you want to attend NERR, you must attend the entire conference which goes until after 6PM, and sign out when you leave. If you would like to go home closer to 5 PM on the Friday of NERR, you can opt to stay at your rotation.

STUDY MATERIALS

- **Pediatric Radiology: The Requisites, 4e (2016), Michele Walters and Richard L. Roberson.**
 - Issued by Abby for use during rotation.
 - You are required to return the book at the end of the rotation, or replace if lost/damaged.
- Online Curriculum: Cleveland Clinic Modules
 - <https://www.cchs.net/pediatricradiology/>
 - see the GOAL section above.

RESIDENT PRESENTATIONS

- Dates TBA
- 2 cases to be presented in 20 minutes
 - SUCCINCT
 - Give cases to co-residents
 - Format:
 - Brief history
 - Key images
 - Differential diagnosis

- Final diagnosis
 - Short discussion
- 1 week prior to presentation:
 - Review presentation with staff.
 - Preliminary discussion at least 1 week before presentation, in case major changes should be made.
 - If there is any Neuro MR/CT in your case, must review with a Neuro attending.
- Two days prior to presentation
 - Send Abby an email with
 - The MRN and diagnoses you are presenting with the name of the attending your reviewed the cases with
 - Your presentation slides in PDF format.
- Evaluations:
 - Completed by faculty and fellows.
 - Compiled and sent out via e-mail by Abby

ON YOUR WAY OUT...

Complete program, staff, and fellow evaluations online – 1 week prior to end of rotation.

Exit day - Turn in ID badge, radiation badge, book, and locker key to Abby.

FINAL THOUGHTS

We are constantly striving to improve the educational experience for you. If you have any thoughts or concerns, please email us or track us down in the hallways. The pediatric radiology fellows may also be an excellent resource during your time at Boston Children's Hospital. We look forward to working with you for the next several weeks.

Sincerely,
Delma Jarrett and Abby Polkinghorn