

Radical Views... from the Department of Radiology

Volume 5, Number 9
APRIL 2013



Beth Israel Deaconess
Medical Center



A teaching hospital of
Harvard Medical School



FROM THE CHIEF

Jonathan B. Kruskal, MD PhD

Peter Gordon, Vice Chair for Community Network Services, and I are pleased to announce that **Dr. Darren Brennan** has been appointed Radiologist-in-Chief at Harrington Hospital in Southbridge, including the satellite facilities of Harrington HealthCare at Hubbard in Webster and Harrington HealthCare in Charlton. For nearly six years our radiologists have provided excellent diagnostic and interventional services to the Harrington HealthCare System through an innovative system of onsite and remote radiologists. We anticipate continued expansion and growth with our partners at Harrington HealthCare under Darren's leadership. Note that Darren will continue to provide services here at BIDMC Boston. Darren came to BIDMC from Ireland and spent two years as an abdominal imaging fellow before joining us as staff in



2006. We'd also like to take this opportunity to thank **Dr. Marty Smith** for his dedicated service as interim director of Harrington radiology this past year.

- As we finally bid farewell to one of the snowiest Boston winters, I want to thank still more of you for going above and beyond during the storms of February by staying overnight when you had your own family and loved ones to care for: Nursing staff **Maryanne Humphrys, Robin Griggs, Michelle Perkins** and radiologist **Andrew Bennett**. Thank you all for your dedication!
- Quick reminder: Don't forget that the RSNA abstract submission deadline is Wednesday, April 10, 12 noon CST! **Please remember to let your section chief have a copy of every abstract that is submitted.** Thank you.

April heralds a round of comings and goings as we officially welcome three new members of our Radiology Community: Katie Armstrong, Jim Zheng and Ariella May Flower and bid farewell to Catherine Walsh, Paul Lin and Sandy Hurwitz.

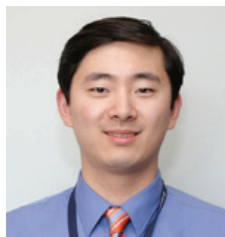
➤ **Katie Armstrong - New Medical Education Programs Manager**



Please welcome Katherine (Katie) Armstrong who is joining Radiology as Manager, Medical Education Programs. Katie was most recently a Program Coordinator for the Internal Medicine Residency Program at Boston Medical Center (Boston University). The BMC/BU program has 150 trainees and Katie was with them through multiple program cycles working on recruitment, credentialing, orientation, site visits, graduation and other events. Katie is a graduate of Northeastern University and completed coops with a public relations firm in Cape Town, South Africa and with the Massachusetts Convention Center Authority. Katie will work closely with Radiology's education leadership and Admins in the Department's extensive programs for residents, fellows and medical students. She will also coordinate with the BIDMC Office of Graduate Medical Education and liaisons in other education offices. Katie's office is located on Shapiro 483F, her email is kearmstr@bidmc.harvard.edu and she can also be reached by phone at 7-3532.

As we welcome Katie, I'd also like to recognize Laura Major who has taken on many responsibilities and continued as a valued member of the Residency/Fellowship Office. Thanks too to Linda Lintz and others who have helped while we have been short staffed in the education office. - Annamarie Monks, Chief Administrator

➤ **Jim Zheng - New Clinical MRI Day Supervisor**



Please welcome Clinical MRI Day Supervisor ShuangQi (Jim) Zheng, MS RT(MR). Jim earned a Master of Science degree in Radiologic Imaging Sciences from Thomas Jefferson University in Philadelphia in 2010 and will sit for his AHRA Certified Radiology Administrator exam in May 2013. Prior to joining BIDMC, Jim served as lead cardiovascular MRI technologist at the University of Pittsburgh Medical Center (Presbyterian Hospital) where he worked to expand and improve imaging protocols, operational management, and QA issues. Given his experience, enthusiasm and aptitude, there is little doubt that

Jim's talents will be put to good use in both the MRI section and the department. Note that Jim is an avid Bruins and Patriots fan and he also plays D-league recreational ice hockey! Jim can be reached at 4-2071.

➤ **Welcome Ariella Mae Flower**

Community/Emergency Radiologist Elisa Flower and family welcomed Ariella on Feb 13 at 6:08 pm. Ariella was 21 inches long and weighed 9 lbs 5 oz when she came in to this world. Both mother and child are doing fine!



➤ **Farewell Paul Lin**

Also in March, we had a jolly send off for Dr. Pei-jan Paul Lin, our Chief Medical Imaging Physicist, who leaves Boston to become Professor and Division Chairman of Radiation Physics and Biology, Department of Radiology, at Virginia Commonwealth University Medical Center in Richmond. Paul joins 15 former BIDMC Radiology faculty who have left BIDMC to become chief of a division or department and we wished him a fond farewell over the most scrumptious cupcakes thanks to Cynthia Webster!



Paul tries on the requisite Harvard tie to remember us by!



➤ **Good bye Catherine Walsh**

In March, we said good-bye and best wishes to Catherine Walsh, Administrative Assistant to HMFP Manager, Carl Nickerson. Catherine left BIDMC for an excellent advancement opportunity in the pharmaceutical industry. A passionate runner who trained for marathons in the worst weather, Catherine brought the same tenacity and dedication to her work!



***In memoriam:
Sandra Cheryl
Hurwitz (Sandy)***



On March 11, Sandy, one of our transcriptionists passed away at home at the age of 57 after a short illness.

Sandy started her career at the former Beth Israel Hospital 37 years ago in the radiology department and continued on as a BIDMC transcriptionist. She remembered many of our staff radiologists who started their careers as residents and fellows and witnessed all the changes in the department during those years to become quite a historian. Just trying to keep up with Sandy's speedy transcribing, her attention to detail and her ability to stay focused for hours was a challenge to all of us who worked with her and she made us better for that. She was a great asset to the radiology department and we in transcription were honored to have worked with her and called her our friend.

Sandy was the daughter of the late Edward and Isabelle Baker Hurwitz and had an adopted family of co-workers, Robin Young, Gail Johnson and Jeff Bernard, and she will be sorely missed by all those who were fortunate to have known her.
Rest in Peace Sandy.

Mon	Tues	Wed	Thurs	Fri
1 Weekly Mon Section Meetings: 12:00-1:00 MRI (monthly) [Ansin 2] 3:00-4:00 ED section meeting (monthly) [ED annex, WCC] 7:30 - 9:00 Board Review (Manjiri Didolkar) 12:00-1:00 Mentorship Meeting: What the radiologist needs to know about malpractice (R. Eisenberg) [Shapiro (TCC)-484]	2 7:30 - 9:00 Board Review	3 Weekly Wed Section Meetings: 11:00-12:00 MSK clinical conf 12:00-1:00 CardioThoracic, GI/GU Oncology 3:00-4:00 Mammo [TCC-484] 7:30 - 9:00 Board Review (Tony Parker)	4 Weekly Thurs Section Meetings: 12:00 - 1:30 Abd [WCC-354] 12:00-1:00 MSK 7:30 - 9:00 Board Review 2:00-3:00 West MedRads - Body Senior [TCC 484]	5 12:00-1:00 No Grand Rounds - NERRS
8 7:30 - 9:00 Board Review 1:00-2:00 Body MRI meeting [Ansin 2]	9 7:30 - 9:00 Board Review (Manjiri Didolkar) 7:15-8:00 US meeting [WCC Gallery 304A] 10:30-11:30 NMMI meeting [GZ-103]	10 7:30 - 9:00 Board Review (J. Romero) RSNA abstract submission deadline 1 pm EST	11 7:30 - 9:00 Board Review (J. Kruskal) 2:00-3:00 West MedRads - Body Senior [TCC 484]	12 12:00-1:00 Grand Rounds - Muneeb Amed [Sherman Auditorium]
15 117th Boston Marathon: Come support BIDMC staff runners Matt McMahon and Jackie Gatttonini (see pg 21)	16 7:30 - 9:00 Board Review 8:00-9:00 IR Meeting [West Recovery]	17 7:30 - 9:00 Board Review 7:15 - 8:00 US meeting (WCC-304A Gallery)	18 7:30 - 9:00 Board Review	19 12:00-1:00 Grand Rounds: QA [Sherman Auditorium]
22 7:30 - 9:00 Board Review	23 7:30 - 9:00 Board Review 10:30-11:30 NMMI meeting [GZ-103]	24 7:30 - 9:00 Board Review	25 7:30 - 9:00 Board Review 2:00-3:00 West MedRads - Body Senior [TCC 484]	26 12:00-1:00 Grand Rounds: Imaging Evaluation of ED Patients w/ suspected & unsuspected ingestion of toxic materials Laura Avery, MD (MGH ER Rad) [Clouse Conf rm]
29 7:30 - 9:00 Board Review	30 7:30 - 9:00 Board Review 10:30-11:30 NMMI meeting [GZ-103]			



Mentorship Meetings*: As the end of the academic year approaches, it's good to save the date for the following Mentorship Meetings, all held in Shapiro 484, 12 noon to 1:00pm:

April 1 - Ron Eisenberg - What the radiologist needs to know about malpractice

May 6 - Peter Gordon - Radiology: what is it like in the "real world"

June 3 - Mary Hochman - The One Hour MBA for MDs

**For those of you who missed Seth Berkowitz's Feb 25th Mentorship Meeting on Radiology and the iPad, see pg. 14 for a version of his talk published in the March ACER newsletter.*

*Consult the webpage for the most up-to-date schedule:

<http://home.caregroup.org/departments/radiology/residency/scheduling/conferences/displayMonthNew.asp>

DEPARTMENTAL Grand Rounds

Friday, April 26, 2013

12 noon - 1:00 PM • Clouse Conference Rm, WCC-3

Imaging Evaluation of ED Patients with Suspected and Unsuspected Ingestions of Toxic Materials.

Laura L. Avery, MD - Associate Division Head, Emergency Radiology, Massachusetts General Hospital (MGH); Instructor in Radiology, Harvard Medical School.



Dr. Avery graduated from Wayne State University School of Medicine in Detroit in 2000 and followed this with an internship in internal medicine at Beth Israel Medical Center in New York City, and radiology residency training at MGH with a year-long focus in musculoskeletal imaging. Continuing on at MGH, she completed a fellowship in abdominal imaging before joining the staff as an Assistant Radiologist in Emergency Imaging in 2006. A committed teacher, she established and maintains online self-guided teaching tutorials and more than 300 Interesting Cases in Emergency Radiology mainly for residents taking emergency night call and board preparation. She is currently Associate Fellowship Director for Emergency Radiology, Associate Director for two HMS Radiology clerkships and Coordinator for Radiology PCE Case conferences at MGH. In 2009, she also completed the AGFA Radiology Management Program in Academic Leadership at the AUR Annual Meeting in Arlington, VA. Her presentation at this month's Grand Rounds has also been well-received at the 2012 annual meeting of the American Society of Emergency Radiology (ASER) in New Orleans and at RSNA 2011 in Chicago.

DEPARTMENTAL UPDATES:

The Radiology Staff posters

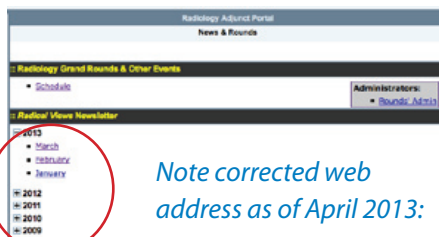
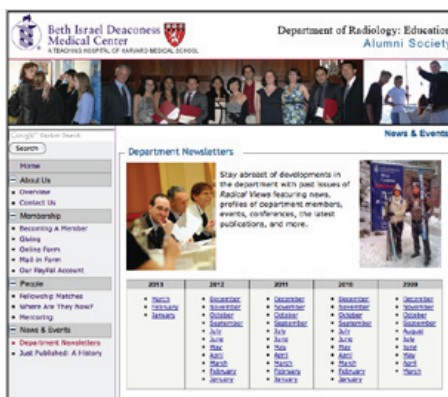
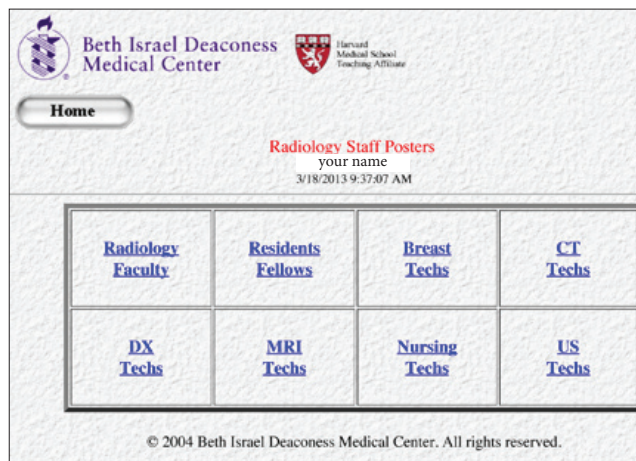
are now available on InfoRadiology in pdf format for viewing, downloading, and printing.

Log in to the portal: <https://portal.bidmc.org/>

If you don't already have InfoRadiology displayed in **My Applications**, Click on the **Applications** tab and then under **Clinical**, click on **Inforadiology**.

Log into Inforadiology, Click on **Staff Posters**

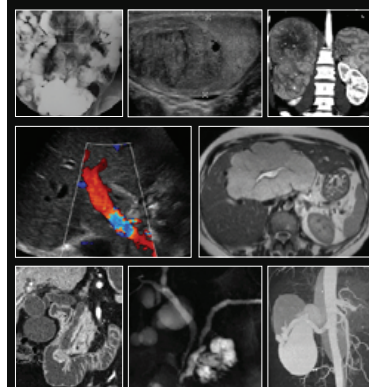
Managers please contact Michael Larson (mlarson1@bidmc.harvard.edu) to update rosters as needed.



Did you know that Radical Views turned four years old in March 2013? Thanks to Larry Barbaras, all four years of back issues are available on the portal under "News and Events": <https://apps.bidmc.org/departments/radiology/news/news.asp> and also on the alumni site: <http://radnet.bidmc.harvard.edu/education/newsletters.asp> in case you missed an issue! My apologies for listing the incorrect address in previous issues! - D. Wolfe, editor



Abdominal & Pelvic Imaging 2013



Monday - Wednesday

June 17 - 19, 2013

Boston Marriott Long Wharf
Boston, MA

Guest Faculty:
Federle • Gore • Levine • Megibow

Course Director
Koenraad J Morteel MD

Earn Up To 22.75 AMA PRA Category 1 Credit(s)™

DEPARTMENTAL NEWS, AWARDS & HONORS:

BIDMC Radiology Reunion in Hawaii

The Society of Abdominal Radiology (formerly known as SGR) held its 2013 inaugural* meeting in Maui, Hawaii with a (not surprising) record attendance of 690! BIDMC attendees Drs. Kruskal and Mortelet had even more to celebrate as they also got to spend some quality time with radiology residency 2010 alumni Jay Catena, Aaron Hochberg, Jay Pahade and Aarti Sekhar. (Also of note but not shown: 2006-2007 MRUI Fellow Nicole Hindman won the Case of Day 1st Place Award. Nicole is now an Assistant Professor of Radiology at NYU Center for Biomedical Imaging.)



*The Society of Abdominal Radiology (SAR) was created in 2012 out of the merger of the Society of Gastrointestinal Radiologists (SGR) and the Society of Uroradiology. The Society of Gastrointestinal Radiologists and the Society of Uroradiology first collaborated in 2000 to produce the First Abdominal Radiology Course, which will continue under the Society of Abdominal Radiology. The success of the Course was one of many reasons why the two organizations felt as if they could be stronger and provide more as one society. The Society of Abdominal Radiology was formed with a vision of being the organization in which the medical profession as a whole looked to for expertise in abdominal radiology.

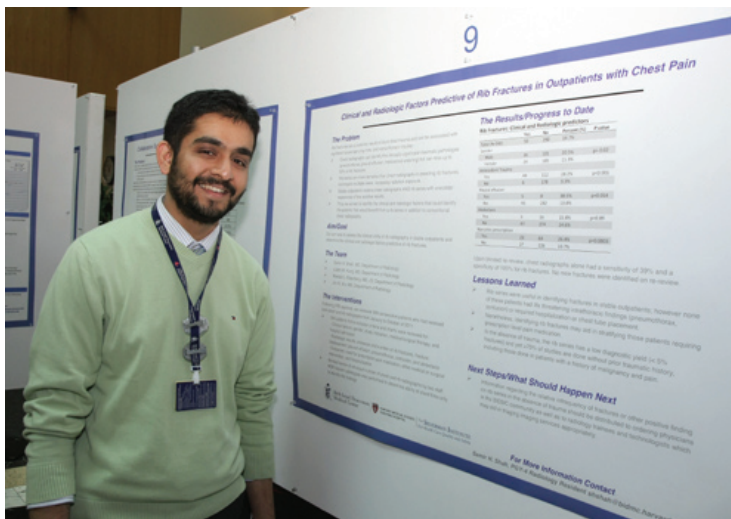


Above, L to R: Jay Catena - Kaiser Permanente Walnut Creek, CA, Aaron Hochberg- Kaiser Permanente Walnut Creek, CA, Aarti Sekhar (BIDC Abd fellow 2010) - Assistant Professor of Radiology, Emory University School of Medicine, Atlanta, GA, Jay Pahade (BIDMC Abd fellow 2010) - Assisatnt Professor of Radiology, Yale School of Medicine, New Haven, CT

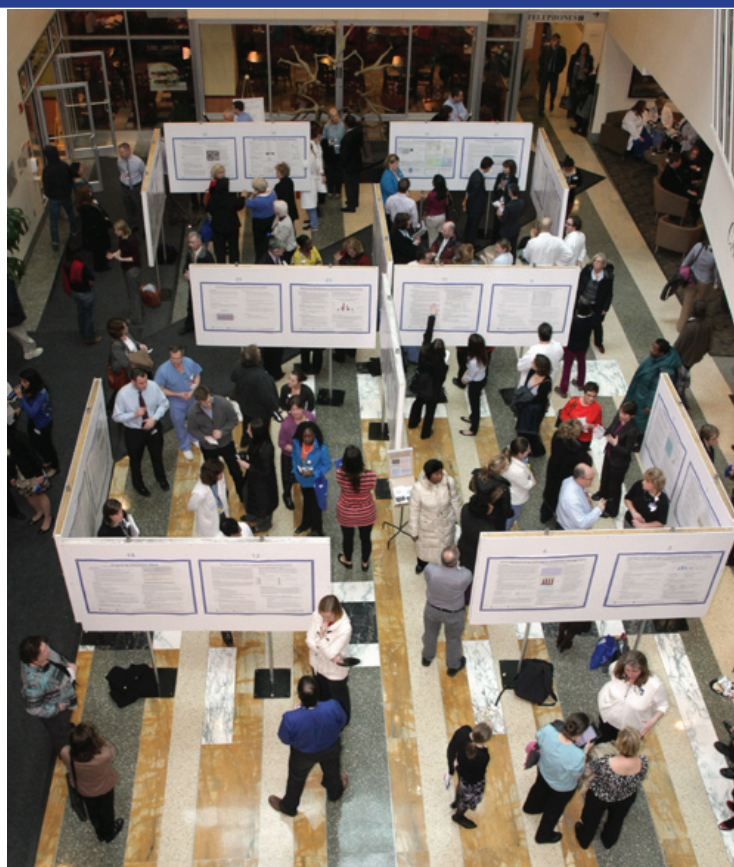
6th Annual Silverman Symposium

The Improving BIDMC Poster Session on March 28 featured the work of over 140 Improvement Project Teams from across the organization, demonstrating inclusiveness, innovation, alignment with the medical center's priorities, demonstrable performance improvement, spread, and sustaining change. In this celebration of BIDMC's efforts to improve quality and safety, the Department of Radiology personnel were involved in 12!

Clinical and radiologic factors predictive of rib fractures in outpatients with chest pain. Samir Shah, Justin Kung, Ron Eisenberg, Jim Wu



Coordination of OR booking with radiology team. Betsy Grady/Dottie Sarno (co-leaders), Donna Hallett, Stacy Lewis, Adnan Majid, Kevin McGuire, Beth Parson, Verna Rettagliati, Debra Rogers, Kevin Sands, John Schembri, Ross Simon



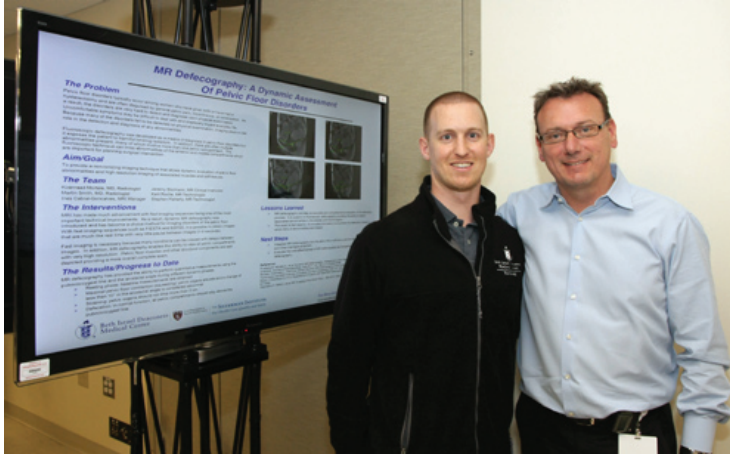
Non-invasive MR imaging of the prostate at 3 Tesla - establishing a desirable alternative to invasive endo-rectal coil approach. Koenraad Mortelet, Marty Smith, Maryellen Sun, Subhendra Sarkar, Ines Cabral-Concalves, Jeremy Stormann, Jason Mangosing, Menaka Raj, Cheryl Bunting, Feng Dong, Robert Beeman



Optimizing breast surgery/imaging interface. Tejas Mehta, Dottie Sarno, Michael Wertheimer, Jeff Jankun (co-leaders), Kevin Donohoe, Susan Dorian, Donna Hallett, Mary Jane Houlihan, Dace Jansons, April Isaac Jefferson, Katie Kilroy, Nancy Littlehale, Ross Simon.

Radiology personnel are underlined

MR defecography: A dynamic assessment of pelvic floor disorders. Koenraad Mortele, Marty Smith, Ines Cabral-Concalves, Jeremy Stormann, Kelli Roche, Stephen Flaherty



Targeted patient education: Does it improve outcome of minimally invasive breast biopsy? Shambhavi Venkataram, Valerie Fein-Zachary, Priscilla J. Slanetz

A sustainable approach to new nurse orientation. Diane Daley, Dorothy Ambrose, Kim Antonellis, Kristin Lundy, MaryEllen Johnson, AnnMarie Cathcart



CT urography dual phase protocol in the ED - Are both phases needed in the acute setting? Monica Agarwal, Robin Levenson, Marc Camacho, Vassilios Raptopoulos

Improved fat-water separated spine and dark blood arterial imaging in trauma, tumor and stroke - an "IDEAL" approach. Ines Cabral-Concalves, David Hackney, Subhendra Sarkar, Gul Moonis, Robert Greenman, Behroze Vachha, Stephen Flaherty, William Dunay, Jason Mangosing, Sue Nagle, Jackie DePeiza, Emelia Johnson, Krista Wolforth



MR elastography: A non-invasive technique for evaluation & management of liver fibrosis. Jesse Wei, Koenraad Mortele, Andrew Bennett, Jeremy Stormann, Jason Mangosing, Steve Flaherty

Use of CT and US for acute pelvic pain in women of reproductive age in the emergency department. Elizabeth Asch, Sejal Shah, Tarina Kang, Deborah Levine

Nuclear medicine appointments in CCC. Geoff O'Hara, Larry Barbaras, Dace Jansons, Dawn Federman, Caryn Franklin, Charles Rury



We anticipate that the 2013 Silverman posters will be posted on the following link:
<http://www.bidmc.org/Quality-and-Safety/Silverman-Institute.aspx>

Ultrasound IDEA Committee Progress Report

In June 2010 the MRI division launched an Idea System known as "What's the Big Idea" to generate input and collect feedback from the MRI staff about ideas that would reduce costs, improve the patient experience, improve efficiencies and improve staff work experience. This innovation showed that staff want to have a voice in the work place and that the idea system is a simple, yet valuable way for staff to make important contributions affecting how and what we do as a department. Managed locally by a committee of staff, it has had a very positive impact on morale and I am pleased to see the Idea System implemented now in Ultrasound. – JBK



Nora Sullivan Call,
BS, RDMS,RT
Ultrasound Idea
Committee Member

The Ultrasound Idea Committee was implemented to improve patient care, employee morale, workflow, and safety.



Ideas are submitted from all staff members electronically via email to the US Idea System. The staff who submit ideas receive a candy bar and a message that their idea was received and that it is currently being reviewed. All ideas – accomplished, in progress, and those beyond the scope of our group – are reviewed in a slideshow at quarterly department meetings.

Over the last year we have received over 38 ideas from staff, 29 of which have been or are in the process of being implemented. These have included reducing waste by repurposing or discontinuing the use of certain procedure trays, installing more hallway mirrors to improve safety when transporting patients, and reducing paper waste by discontinuing the printing of mobile requisitions. We have decluttered closets (allowing storage of personal items), and in doing so, we were able to donate a bag of unclaimed clothes and shoes to the EU for distribution to patients in need. We have reinstated Abdominal Interesting case conferences, implemented new policies to reduce patient fall risk, and are currently redecorating one of our patient conference rooms to make it a more comforting environment. These are just some of the many wonderful ideas our coworkers have come up with to improve our department.

We believe that by listening to our coworkers and implementing their ideas, we have strengthened our work environment. This recognizes our coworkers' experience and perspective while demonstrating that their input is valued and appreciated.

Great US Ideas:



IDEA committee members Bernie Kennedy, Rachel DeWitt, Kelsey Worcester, Nora Sullivan Call, and Juanita Cook, unveil one of two new hallway mirrors installed to help improve safety when transporting patients.



Reorganized Emergency Room scanning and tech rooms including a new white board, locked cabinet for personal belongings, and a more ergonomic exam room layout.



Reorganized procedure kits

*** HAVE YOU ASKED THE FLOOR TO OFFER THE BATHROOM TO THE PATIENT BEFORE TRANSPORT ARRIVES?***



To reduce patient falls, we now ask the floors, via this reminder to toilet the patient before they come down for their exam because when there is a fall, or near fall, it is often due to the patient needing to use the bathroom.



TIMEOUT,

ARE WE DOING IT RIGHT?!

To ensure maximum patient safety, Radiology follows a timeout script for all interventional procedures. Because the script is our standardized workflow, we need to make sure that we are all following it appropriately. The following are some important reminders:

- The **Technologist** leads the Timeout using the script.
- Every member of the team **STOPS** what they are doing and gives their full attention to the Timeout. No one should be putting on lead, gloves/gown, working with the procedure tray, or beginning the procedure in any way. STOP means STOP!
- **Every** element on the script should be addressed; if there is an element that doesn't apply to the procedure at hand such as specimen collection, the team would say "No specimens being collected in this procedure".
- The last element of the Timeout is for last checks. At this time the team should discuss any **equipment or devices** that will be used in the procedure.
- During the Correct Procedure element, the **technologist reads the entire order/requisition out loud to the team**. The purpose of this practice to ensure everyone on the team is aware of the entire requisition/order. *Note that it is not necessary for the requisition/order to be read within the patient's hearing, especially if it contains any language that the team is uncomfortable reading out loud in the presence of the patient.* The Team can perform this step in a "huddle" away from the patient.

- During the Timeout script reading, the team members should have the requisition/order in hand and the consent to **ensure that both agree**.

Remember, this is our standard process for interventional procedures regardless of procedure, campus, staff, physicians, or modalities. Please direct any questions or concerns about the timeout process to **Misti Mullins RN**, Radiology Quality Nurse; **Bridget O'Bryan-Alberts RN**, Radiology Nurse Manager; or **Dr. Bettina Siewert**, Vice Chair for Quality, Safety & Performance Improvement.

Please see our timeout video posted on the Radiology quality & safety portal page:

<https://portal.bidmc.org/Intranets/Clinical/Radiology/Safety.aspx>

<http://radnet.bidmc.harvard.edu/timeout.wmv>

BIDMC Radiology
TIME OUT - Immediately before procedure
 Updated 11/2012

	Tech states: If no Tech, then RN : If no Tech/RN, then MD :	PATIENT	MD	What Happens
Get Ready	"Ready to do a time out?"	"Yes" when possible	"Yes"	<input type="checkbox"/> RN/MD/Tech has consent and requisition in hand <input type="checkbox"/> All other activities stop for time out <input type="checkbox"/> Everyone participates in time out
ID/confirm allergies	Reads: "This is: <u>patient's name, DOB</u> ." Lists allergies. States MRN.	Confirms when possible: <input type="checkbox"/> Name <input type="checkbox"/> DOB <input type="checkbox"/> Allergies	"Yes" or "No" (if ID is not visible, MD must verify with consent form or other stamped record)	<input type="checkbox"/> RN/MD/Tech reviews name, MRN & DOB on consent and requisition <input type="checkbox"/> Team reviews allergies listed
Correct Procedure	"What interventional procedure is the patient having done?" Technologist reads entire order / requisition out loud	Confirms whenever possible	MD states the name of the procedure	<input type="checkbox"/> RN/MD/Tech confirms the procedure on the consent and requisition forms
Mark Site/side	"Does this interventional procedure involve a specific site or side?" <i>(If NO, skip to next question)</i> If yes, "Is the correct side/site identified or marked?"	Confirms whenever possible	MD verbally confirms that correct site and side is identified or to be marked using imaging or states no marking is needed.	<input type="checkbox"/> RN/MD/Tech confirms that laterality is correct on the consent and requisition forms. <input type="checkbox"/> All visualize and confirm correct marking if appropriate <input type="checkbox"/> All must agree to proceed (incl. patient, if possible)
Labs/Specimens	1) "Does this interventional procedure require any lab test results before proceeding?" 2) "Any specimens that must be collected?"		MD names any relevant lab tests and any specimens required.	<input type="checkbox"/> RN/MD verify any lab test results if applicable <input type="checkbox"/> Tech/MD verify any lab specimens to be collected
Patient Medications	1) "Has the patient been on any medication that should have been discontinued?" 2) "Are there any medications to be given prior to procedure?"		MD acknowledges that patients medications were reviewed and handled appropriately.	<input type="checkbox"/> RN/MD verify any relevant medications.
Last Check	"Is there anything else we need to discuss?" (This should include devices or equipment)	Patient responds when possible	MD responds as necessary	All respond as needed (may include special precautions)

*** It is the responsibility of all members to insure that the Time-Out is performed and everyone involved in the procedure must participate.**
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DEPARTMENTAL NEWS: Community Radiology - New Column!



Images of a recent trip to Outer Cape Health Services, Provincetown. The new addition on the back end of the building will house the radiology department...on the lower level. Diagnostic, mammo and DEXA equipment is to be delivered and installed in the next several weeks with the radiation physicists inspections to follow.

Kommunity Korner

We are pleased to share with you Outer Cape Health Services, an affiliated BIDMC community healthcenter, has expanded their radiology services. Currently, HMFP Radiology interprets plain film images from their Provincetown location. With the assistance of a federal grant, OCHS was able to build an addition to their already existing clinic. The addition houses more exam rooms, a laboratory, dental clinic and radiology suite. This is significant given the fact OCHS health center is farther away from a hospital than any other health center in the Commonwealth of Massachusetts.

The new radiology suite will house a new diagnostic x-ray unit, (replacing a 38 year old, single-phase generator machine), GE bone density and a GE digital mammography unit. This is welcomed news for referrers and patients alike since the nearest radiology department is 60 miles away in Hyannis. Infinitt PACS, the system OCHS currently uses to store and display images will also accommodate their new modalities. A new feature imbedded in their PACS is a voice recognition component which our radiologists will use to dictate OCHS studies.

Much time and energy has gone into the planning and implementation of their new department. In conjunction with the Medical Center, the HMFP Radiology sites, Chestnut Hill and 1101 Beacon St. were able to provide a mammography training program for their radiology technologists to get them to a point of proficiency and licensure in mammography.

A special thanks to Administration for their continued support of the community practices.

- Amanda and Jeff

*Jeffrey Bernard, RT
Manager, Community
Radiology Network Services
BIDMC*

*Amanda Rook RT(R)(M)
Community Manager,
Breast Imaging
HMFP Radiology*



DEPARTMENTAL NEWS, AWARDS & HONORS: Transporter Appreciation Week March 18-22, 2013



L to R: Supervisor Fritz Honore and transporters Francisco DoRosario, Sandro Vicente, Hope Lee, Samuel Senat and Joseph Eloi

Thank You Transporters!

Every year, Radiology hosts a week of festivities to show appreciation for our transporters. Each modality on the West Campus offers a breakfast, lunch or other tokens to recognize the hard work and dedication of:

Etsegenet Asamenew, Irvin Cruz, Rodrigue Dorcil, Francisco DoRosario Joseph Eloi, Jean Germain, Hope Lee, Richard LeMaitre, Dydier Parisien, Roosevelt Poulard, Samuel Senat, Joaquin Thomas, Samuel Senat and Sandro Vicente.

DEPARTMENTAL NEWS: Outreach

Dr. Rola Shaheen, who is on sabbatical and currently Acting Chair of Radiology & Chief of Women's Imaging at Mafrq Hospital, United Arab Emirates is wonderful to keep us abreast of her work in the Middle East:

In February 2013 - Dr. Stewart Schnit, Director of Anatomic Pathology at BIDMC, and I were invited to speak at the 1st Emirate Surgical Pathology Conference. Stu did a superb job covering at least 6 talks on Breast pathology and I presented Breast radiological pathological correlation. We both received awards in recognition of our efforts.

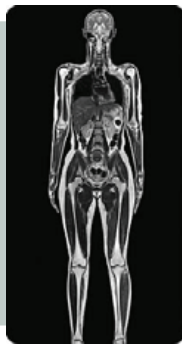
On Feb 18th, I was thrilled to launch our Breast screening clinic at Mafrq hospital where I now have a dedicated nurse that will examine patients and offer educational material before having their mammograms. A representative from The Komen Foundation attended the launch which was a great support and the event was featured on Abu Dhabi TV as well as the newspapers. In this link you can see the report about the new clinic <http://www.adtv.ae/keefalsa7a/episode/10291/> [Click on *Translate this page*]

Best wishes to all at BIDMC and remember that we are offering opportunities for medical students, residents and fellows to do clinical and research electives in Abu Dhabi and to participate in some NGO initiatives in the ME that will benefit mainly underserved areas. - Rola

Breaking news: March 28, 2013: On behalf of Susan G. Komen for the Cure®, I am pleased to announce that Dr. Shaheen's the application ***Comparative baseline needs assessment for breast cancer awareness and management in Middle East and North Africa*** was approved for funding in the amount of \$65,000 U.S. Dollars. Congratulations! We are very excited about this grant and the work that will be accomplished in our continued efforts to save lives and end breast cancer forever.

- Ana Teasdale, Susan G. Komen Foundation





MRI Case of the Month

Apr 2013

MR Case of the Month - A new educational tool for technologists:

Background: Monthly case presentations highlighting an exam that has been done particularly well and/or illustrates a teaching point. Exams can be chosen for a variety of reasons. It could be an excellent exam where the imaging was done really well; it could be a new type of exam not previously performed; the technologist altered the exam in some way to improve the imaging quality; or maybe the patient was difficult and the technologist pulled out all the stops to get the exam done. These cases have great learning potential for all technologists.

Thanks to Mary Hochman, Chief of Musculoskeletal Imaging for contributing this MR Case of the Month Apr 2013.

- Jeremy Stormann
B.S., RT(R) (CT) (MR)
MRI Clinical Instructor

Clinical History: 19-year-old male, wrestling with friend, had his body flipped to the ground, but with his foot still planted on floor.

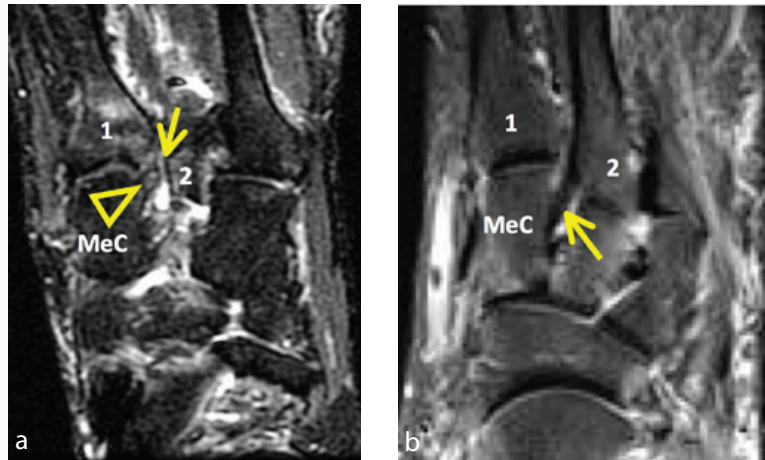


Fig 1. a. Axial fat saturated T2W image of the foot showing torn Lis-Franc ligament and **b.** A normal Lis-Franc ligament shown for comparison.

Findings:

Axial fat saturated T2W image of the foot shows high signal intensity fluid (arrow) interrupting the Lis-Franc ligament (open arrowhead) as it runs between the medial cuneiform bone and the base of the 2nd metatarsal bone. Marrow edema reflects bone contusions. MeC = Medial Cuneiform. 1 = base of 1st metacarpal. 2 = base of 2nd metacarpal. b. A normal Lis-Franc ligament is shown for comparison, showing the normal ligament as a thick black band, low signal on all sequences, running between the two bones (arrow). The Lis-Franc ligament also includes dorsal and plantar components, not shown here.

Diagnosis: Traumatic tear of the Lis-Franc Ligament.

Discussion:

The Lis-Franc joint refers to the joint in the mid-foot between the cuneiform bones and the base of the metatarsal bones, also known as the tarso-metatarsal joint (**Fig 2**). The Lis-Franc ligament, which runs between the distal lateral corner of the medial cuneiform bone and the medial base of the second metatarsal bone, plays a key role in maintaining normal alignment of the foot. The ligament can be injured in a number of ways: (i) by falls from a height, high energy motor vehicle collisions, direct crush injuries; (ii) in sporting injuries that involve sudden rotation about a stabilized, plantar flexed foot, as in this case. This can also be seen in football and board sports and when falling of a horse, with the foot still in a stirrup; (iii) as a complication of neuropathic (Charcot) osteoarthropathy in diabetic individuals.

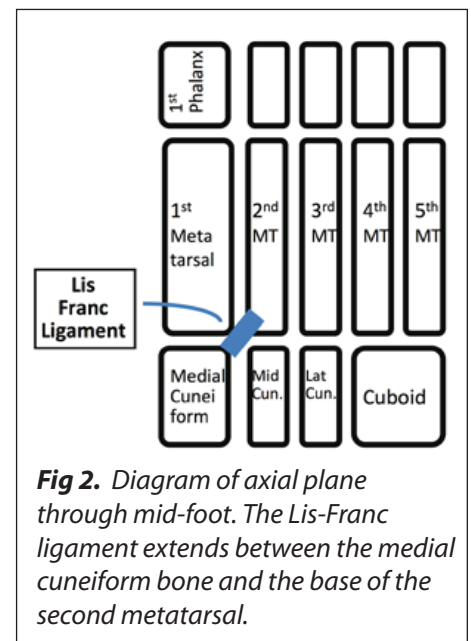


Fig 2. Diagram of axial plane through mid-foot. The Lis-Franc ligament extends between the medial cuneiform bone and the base of the second metatarsal.

The Lis-Franc ligament plays a major role in “holding the foot together”. While the bones may still be normally aligned early after an injury to the ligament, if the patient continues to walk on the foot, normal alignment can be disrupted. In this way, the injury risks being converted from one that can be treated with percutaneous pinning to an injury that requires more extensive open, reconstructive surgery.

Sometimes the ligament itself is torn and, at other times, the ligament is disrupted due to fractures involving the bony insertion sites of the ligament. Lis-Franc injuries can be occult on radiographs. A standing AP view of the foot, especially when compared to the uninjured contralateral side, may show lateral subluxation of the second metatarsal with respect to the middle cuneiform bone, with widening of the space usually seen between the base of the 1st and second metatarsal bones (Fig 3).



Fig 3. Standing AP radiograph of both feet. On the right, note widening of the space between the medial cuneiform bone and the base of the second metatarsal and, also, lateral subluxation of the second metatarsal bone with respect to the middle cuneiform bone, due to a tear of the Lis-Franc ligament.

At times, small fracture fragments may be visible on radiographs, but often these are better seen on CT images through the mid-foot. **MRI is the method of choice for direct visualization of the Lis-Franc ligament itself.** The appearance of a normal or abnormal Lis-Franc ligament is similar to ligaments elsewhere. (See Table 1).

Table 1. MR Appearance of Lis-Franc Ligament

	T1W, PDW	T2W, STIR
Normal	Low signal	Low signal
Degeneration	High signal	Low signal
Tear	High signal	High signal (fluid-like)
Sprain	Low signal	Surrounding +/- mild intra-ligamentous high signal (edema)

Post-traumatic bone marrow edema may also be present in the region of the ligament. Bone fractures may be visible, although small fragments may not be apparent by MRI because the thickness of the MR image sections may be larger than the size of the fracture itself.

They key to effective imaging of the Lis-Franc ligament is appropriate alignment of the axial sequence through the mid-foot. A targeted field of view allows for high spatial resolution, providing detail to visualize the small ligament. The axial sequence can be prescribed off a coronal sequence through the proximal metatarsals, by drawing a line between the middle of the 1st and 5th metatarsals and imaging parallel to that (Fig 4).

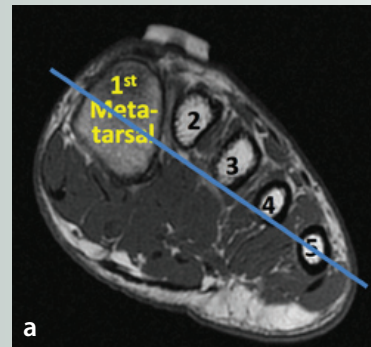
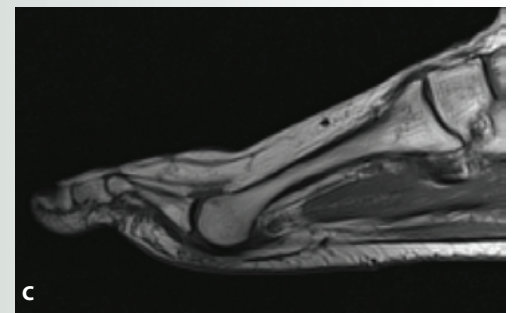


Fig 4. a. Cross-section through mid-foot at level of proximal metatarsals. Line indicates axial imaging plane, which runs parallel to a line between the 1st and 5th proximal metatarsal bones. Note that terminology for planes through foot at BIDMC is based on orientation to the body. (a) Coronal. (b) Axial. (c) Sagittal.



MID-FOOT							
Cover from talonavicular joint to base of proximal phalanx [coronal = coronal to body] [axial = axial to body = footprint]							
SEQ	FOV	ST	MATRIX	TR	TE	BW	FS
COR T1	12	3.5/0.6	256 X 256	400-500	10	32	
COR STIR	12	3.5/0.6	256 X 224	4000-5000	55-65	16	
AX T2	14	3/0.3	256 X 256	3000-5000	55-65	32	
AX STIR	14	3/0.3	256 X 224	4000-5000	55-65	16	
SAG T1	14	3.5/0.6	256 X 256	400-500	10	32	
SAG STIR	14	3.5/0.6	256 X 224	4000-5000	55-65	16	

Fig 5. BIDMC Protocol

Publication Call Out: ACER Newsletter features four articles by BIDMC Radiology staff, trainee and alumnus, respectively: Priscilla Slanetz, Seth Berkowitz and Harprit Bedi!



Alliance of Clinician-Educators in Radiology

Newsletter Volume 3, Issue 1

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Welcome!

This newsletter serves to highlight the current ACER goals and available resources, and to keep members informed of ongoing projects.

Members and potential new members are encouraged to get involved in the stimulating and worthwhile activities of ACER. One way this can be achieved is through committee membership and organizational leadership. If interested in being an officer in ACER or serving on a committee, please contact Jocelyn D. Chertoff, chair of nominating committee: (jocelyn.d.chertoff@hitchcock.org)

Members are also invited to send their contributions to the upcoming ACER newsletters. Contributions may be sent to Editor-in-charge Puneet Bhargava: (bhargp@uw.edu)

Novel iPad Teaching Apps by Seth J. Berkowitz, MD sberkowi@bidmc.harvard.edu



Radiology educators have been enthusiastic about the potential uses of the iPad as a teaching tool. Recently published survey data indicate that 33% of radiology residents own an iPad and 37% own any type of tablet (Korbage & Bedi, 2012). The utility of the iPad as an educational tool hinges on the unique applications, casually referred to as “apps”, which harness the iPad’s capabilities to produce compelling learning experiences. At the time of this writing, a search for “Radiology” iPad apps in the Apple App Store produces 171 results. Countless other medical and generalpurpose apps may be useful for the radiology educator and trainee. The following list is inherently incomplete and purposefully excludes the broad category of e-books.

The iPad excels as the ideal replacement for printed journals. Most of the major journals have dedicated apps, including Radiology

and Radiographics. However, many use these simply as a portal to download PDFs of the articles of interest. Although the iPad can display PDFs without additional software, there are better PDF readers that allow annotation of articles, organization, and full text searching. Two favorites are iAnnotate (\$9.99) and Goodreader (\$4.99).

The iPad is a terrific e-reader, but journal articles still represent old media. Numerous apps present content in dynamic, scrollable datasets that engage the learner and more closely mimic the experience at a PACS workstation. “Radiology 2.0: One Night in the ED” (free) is a collection of 65 classic body CT teaching cases. Cases are fully scrollable and accompanied by excellent descriptions ideal for the first year resident preparing for call.

“Radiology Assistant for iPad” (\$5.99) is a tablet version of the similarly named website. The content covers many high-yield topics across radiology sub-specialties. The application offers a few scrollable datasets complimenting the content available on the website. Another popular radiology website, “CTisus,” has four free

applications, "CTisus iQuiz," "CTisus iLecture Series," "CT Contrast Protocols," and "CTisus: CT of the Foot", which offer question based learning, video lecture links, and reference material.

The "AIRP Syllabus 2012" is a companion to the former AFIP course. The content consists of lecture notes with text content and images presented side by side in independent columns. Tools for highlighting, drawing, and searching the content are provided. The app is free, but lectures must be purchased individually or in section blocks. The entire syllabus costs \$199, but is given free to attendees of the course. However, many attendees of the course, this author included, opt to use the PDF version of the syllabus instead. PDFs can be annotated on the iPad and also viewed on a standard computer.

An App Store query for "Anatomy" returns 679 results at press time! These apps span a wide range of polish, price, and target audience. Many of these teach anatomy at the gross level, and are most appropriate for a medical student. Others are more conducive to teaching radiology. "IMAIOS e-Anatomy" (free download, \$69.99 each for Head and Neck, Body, and MSK modules or \$69/year membership) is a comprehensive radiographic anatomy atlas. Cross sectional datasets are scrollable, zoomable, and liberally annotated.

Monster Anatomy Lite – Knee (free) is a well-done app that correlates annotated multiplanar MRI images of the knee with semitransparent volume renderings. Similar presentations of upper and lower limb anatomy come at a premium (\$18.99 each). Stanford University School of Medicine has teamed up with the company 3D4Medical to create a series of visually stunning anatomy applications. Skeletal Head and Neck Pro III (free) focuses only on gross skeletal anatomy and really serves as an advertisement for the company's other offerings which range in price from \$1.99 to \$99.99. Several apps including Visual Anatomy Lite (free) and Gray's Anatomy Student Edition for iPad (free) provide access to

the now copyright free classic collection. "Brain MRI Atlas" (free) is an annotated collection of axial brain MRI images with an interface lacking the polish of other apps. "3D Brain" (free) focuses on surface and functional neuro-anatomy.

"Dynamic Approach to Abdominal Radiology" (free) offers a glimpse at the ultimate potential for the iPad in radiology education. This sample application contains only 1 case of malignant ascites. However, the case is presented as a fully scrollable multiplanar CT exam. What really sets this application apart is that the image annotations are provided in the context of the scrollable image set and hyperlinked from the textual description of the findings. Thus, the learner is freed from the traditional image / annotation model, and taught to think about pathology in multiple imaging planes. A paid version (\$44.99) contains 31 similarly presented cases of abdominal pathology.

The "Radiopaedia" App (free) contains 4 sample cases. Additional case packs containing 15-32 cases can be purchased a-la-carte from \$1.99 to \$4.99. Although cross sectional imaging sets are scrollable, annotations are not hyperlinked to the volumes

in the same way as in the app above. The "Case Review Series" (free) by Elsevier has an app with over 200 images. Images have annotations and multiple-choice questions, but there are no scrollable image sets. Additional discipline-specific apps are available for \$19.99 each.

The full list of radiology teaching apps available for the iPad is too extensive to cover in its entirety here. Although some paid resources are excellent, these apps can get expensive quickly, especially for the trainee.

Reference: Korbage AC, Bedi HS. Mobile technology in radiology resident education. Journal of American College of Radiology 2012, 9(6), 426-9.

[Seth will be a 4th yr radiology resident at BIDMC in July 2013]

Mobile Technology in Radiology Resident Education **by Harprit S. Bedi, MD** **hbedi@tuftsmedicalcenter.org**



All of us have experienced evolving technologies during and after our radiology training. For most of us, giant leaps in technology occurred with advancements in MRI, CT, and PET-CT. PACS came into the scene as another major technological advancement, which allowed us to tackle the new workflow required by the hundreds of images for each study. Although we have seen the benefits of technology in patient care and clinical workflow, we have not experienced the same rate of progression and incorporation of technology into teaching and academic environment. Advances in mobile technology and social media platforms have the potential to revolutionize teaching in the same way as advanced imaging and PACS did in the clinical practice. These techniques have already been utilized and proven

beneficial in other educational environments such as elementary grades to high school, universities, and graduate and medical schools. Yet education of radiology residents has been slow in taking advantage of these technological advancements.

Tablet devices, such as the iPad in particular, possess many strengths that are applicable to radiology training. The compact and mobile, can be readily carried to the workstation. The ability to read electronic textbooks and journals on a more convenient medium allows the trainees to study a larger volume of material more frequently. This reference material would also be more readily available for review at the workstation during read-out sessions. Trainees can also take advantage of portability of the device and read on a train or even while waiting in line at the grocery store. There are now a multitude of applications ("apps") and web-based resources available for radiologists. The mobility of a tablet allows a trainee to explore these resources away from a desk-top computer.

Another strength of most tablet devices is their superb image quality. The image resolution for viewing CT and MR imaging is within the same resolution parameters of diagnostic PACS screens. Although for now only few people attempt dictating studies from tablet devices, viewing images on these devices during call is becoming increasingly common.

But we as educators must go beyond the more obvious benefits of compactness, mobility, and resolution. We need to explore how the device can improve the ways we teach our trainees. Throughout our careers we have read numerous books, heard countless lectures, and dictated thousands of cases. In other words, we have been collecting and organizing content. This content is unique to our own interests, initiatives, and experiences. Traditionally this content would be delivered to our trainees in the setting of formal or at least semi-formal lectures with the hopes that they would retain the majority of the presented material. Gunderman et al. in a recent article described this method of learning as “teacher-centered”. They suggest that this method allows only for a shallow level of learning, and provides no real indication on how well the learner actually understands the material, or can effectively use it in the clinical setting. If the trainees can reiterate the three main points of our lecture, we feel they’ve learned the content, and more importantly, we have been able to successfully deliver the content. In reality, formal didactic lectures tend to be less effective in delivering content, and provide no real indication of the learner’s degree of understanding.

“Learner-centered” teaching challenges the degree of understanding of content by urging the learner to achieve a higher level of comprehension, analysis, and synthesis of the material. Learner-centered techniques foster discussions among learners as well as the learner and the educator. It is a better indicator of the learner’s degree of understanding and effective utilization of the material.

**Peer Observation –
A Tool to Enhance Teaching Skills
by Priscilla J. Slanetz MD, MPH; Justin
Kung MD; Ron L. Eisenberg MD.
pslanetz@bidmc.harvard.edu**



Whether in private or academic practice, all radiologists are teachers. Yet few radiologists receive any formal training on educational theory or teaching skills. Despite the need to develop radiologists with strong teaching skills, a recent survey of radiology residency programs indicated that less than one-third of programs offer dedicated programs to enhance the teaching skills of residents. In reality, residency programs focus most of their energy on residents as the learner rather than the teacher, even though most residents consider teaching to be an important component of their training. Hence, few residents feel adequately prepared to teach. Although most residency programs are building more robust resident-teacher programs, the most

Mobile devices promote learner-centered education through several useful tools, which allow trainees to more actively explore a deeper level of understanding of the educational material. Airsketch and similar apps permit trainees or the teacher to interact with images during a lecture. These apps allow trainees to “draw” on an image on their mobile device. Their annotations can then be projected on the lecture screen as well as everyone else’s tablets. A case-based exercise can also be facilitated by mobile devices. A large group of trainees can easily be divided into smaller groups and assigned a case. They can review pertinent information on their mobile devices and share their results with the rest of the group through a wireless environment. Audience-response system is another useful tool that can be utilized by a group of trainees during a lecture. There are currently numerous available apps for audience response such as eClicker, and Polleverywhere.

The possibilities are endless. We must embrace these advances in mobile technology and learn to apply them to improve trainee education. This can be accomplished by modifying our traditional teacher-centered curriculum to a more learner-centered model.

A decade from now, we may view our current teaching techniques similar to viewboxes in the age of PACS!

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[Dr. Bedi served as a Neuroradiology Fellow at BIDMC 2008-2009]

common approach is to create a didactic program based on educational theory and adult learning principles.

A newer approach to improving teaching skills focuses on peer observation. Peer observation allows a teacher to obtain constructive feedback on his teaching from a colleague in a safe, non-judgmental way. During the debriefing session, the teacher gains insight and new perspectives on his teaching, whereas the observer has the opportunity to reflect on his own teaching beliefs. Such a program has been shown to improve teaching skills of both the teacher and the observer.

Implementing a peer observation teaching program can be challenging, as the culture must be able to cultivate a level of openness that traditionally does not exist. Newman et al. published their peer observation handbook on MedEdPortal which can serve as a resource to ensure effective observation and exchange of ideas. In brief, there are four key components to a successful peer observation program. First, peer observers need to be

appropriately trained to identify and measure teaching behaviors in a standardized way, and to provide feedback constructively. Second, the teacher and observer must meet prior to the teaching session to identify specific goals and objectives for the observation. Third, using a validated observation form with well-defined criteria, the observer should provide non-judgmental feedback and be less influenced by his own teaching beliefs. Finally, ongoing peer observation must be supported in order to promote the continued exchange of ideas and the opportunity to reflect on each others' teaching.

Thanks to a recent RSNA grant, we are currently developing a peer observation teaching program in the diagnostic radiology residency at Beth Israel Deaconess Medical Center, Boston, MA. Formal assessment of our program is ongoing. However, based on other peer observation programs at institutions across the country,

we expect that by embracing peer observation, the quality of teaching by our residents and staff radiologists is sure to improve and that their teaching will become more satisfying.

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Reflective Practice as a Tool to Teach Professionalism **by Priscilla J. Slanetz MD, MPH; Justin Kung MD; Ron L. Eisenberg MD** **pslanetz@bidmc.harvard.edu**



As one of the core ACGME competencies, professionalism remains one of the most challenging components to teach and evaluate during radiology residency training. Unlike many medical subspecialties, radiology poses specific challenges to assessing professional capacities of residents, as trainees rotate through multiple services working with multiple attending physicians for relatively short periods of time and often have little patient and/or referring physician contact. Yet, fostering professional and humanistic behaviors is critical, since unprofessional behavior during medical school and residency training has been linked to disciplinary action by medical boards.

Professionalism can be defined as “a commitment to carrying out professional responsibilities, adherence to ethical principles and sensitivity to a diverse patient population” (ACGME 2004). Professional physicians need to embrace patient-centered care, paying particular attention to the following components: competency, commitment to continuous learning, honesty, empathy, respect and responsibility. Based on these principles, most residency programs foster professional behavior by employing a multi-faceted approach. Most often, role-modeling and targeted didactic and case-based sessions aim to cultivate residents with ethically appropriate behavior. Assessment of the effectiveness of these interventions is limited, but most residency programs have begun to incorporate multisource feedback from peers, attending physicians, nurses, and patients as a means to measure the level professionalism among its residents. Use of these 360° evaluations is time-consuming and labor intensive, and given that radiology residents often

have only brief encounters with multiple staff members, such evaluations may not be entirely reliable. However, this type of evaluative process has been linked to improved communication skills and more professional behaviors.

A promising approach to teach professional attributes is reflective practice, a process whereby an individual thinks critically about a thought, experience or action, with the ultimate outcome being increased self-awareness and professional competence. Several training programs have successfully implemented narrative writing as a means to reflect on clinical interactions and learning. By reflecting on specific clinical encounters, residents became more self-aware of their own values, priorities and learning needs. A recent study in which case-based reflection was incorporated into a family medicine residency showed that residents who participated in self reflection demonstrated greater clinical knowledge, deeper understanding of the patient-doctor relationship, and enhanced personal professional growth.

Thanks to a professionalism and ethics grant from the Association of University Radiologists, we recently developed and implemented a series of reflective case-based sessions to teach professional and ethical behaviors. Residents were provided the opportunity to reflect and openly discuss radiology-specific scenarios related to a wide array of professional dilemmas. Topics to date have included patient-centered radiology, unprofessional behavior within and outside of the department, impaired/incompetent colleague, informed consent, mentor-mentee relationships, managing the poor outcome, accountability, and digital professionalism. The sessions occur approximately every two months as part of the formal didactic curriculum, with discussion of cases over breakfast. Initially, residents were somewhat reluctant to participate, but now participation is high. Residents even offer topics for discussion based on their experiences during training. A detailed assessment of the

digital professionalism session can be found in the November 2012 issue of Academic Radiology. We also will be offering an interactive workshop at the annual meeting for those interested in learning more about the curriculum.

In summary, this reflective approach provides comprehensive strategies to navigate the multitude of ethical and professional challenges that residents, and even attending radiologists, may encounter during clinical practice. It provides an engaging way to “teach” professionalism and hopefully will lead to more empathetic and satisfied radiologists.

2013 BIDMC Radiology Publications [New Citations in Blue*]. We do a monthly PubMed search for new BIDMC publications and may miss those in which your affiliation is not noted. If we miss your paper, please send the reference to dwolfe@bidmc.harvard.edu.

Note that publications do not always appear in Pubmed in the same month they are actually published and publications listing an Epub date may be updated in the new year, thus their paper publication will appear in 2013.

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Did you know... that Dx Tech Jackie Gatttonini will be running in the Boston Marathon?



This year, I have been so fortunate to receive an opportunity of a lifetime: to represent BIDMC in the Boston Marathon on April 15th. This is my first marathon and I am so proud to be running 26.2 miles as a member of the BIDMC Grateful Nation Team. For this honor, I have pledged to run for Dr. Pollack's kidney research and Bowdoin Street's Health Champions Program.

I approached Dr. Deanglis at the end of my shift in the busy ortho clinic back in November and asked him what I needed to do to become a member of the 2013 BIDMC marathon team. He forwarded my name to Krissy Talevi the Associate Director of Marketing and the very next day she emailed me to tell me that someone had just been injured and had to drop out of the team. It was just pure luck in timing! She asked if I would like to be part of the Grateful Nation Team and I gratefully accepted! I am truly honored to work at BIDMC and to be given the opportunity to represent BIDMC for its world class care. So far I have been training 4 days a week, which includes a long run of 2 hours or more, and I can feel myself getting stronger every day. However, I am faced with the challenge of a very late start in my fundraising. **I have agreed to raise \$5,000 by April 16th*** Please help me reach my goal. With your help and generosity, BIDMC will continue its research to improve the lives of the hundreds of patients that come to BIDMC. All contributions will make a large impact. I have a crowdraise page set up online. To learn more and donate online, please visit:

<http://www.crowdrise.com/teamBIDMC/fundraiser/jackiegatttonini>



➡ To Donate in person, stop me in the halls at work! I am also hosting a bake sale on April 4th

*** My sincere thanks to those who have helped me to reach towards this goal. I am halfway there!**

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