

Radical Views...

from the Department of Radiology

Volume 6, Number 9
APRIL 2014



Beth Israel Deaconess
Medical Center

A teaching hospital of
Harvard Medical School



FROM THE CHIEF

Jonathan B. Kruskal, MD PhD

➤ On Friday March 14th, we celebrated the extraordinary life of Sven Paulin and his more than 40 years of service at Beth Israel Hospital/Beth Israel Deaconess Medical Center. In a Memorial presentation in the Sherman Auditorium, we also welcomed among the speakers **Dr. Herbert Abrams**, the Philip H. Cook Professor and BIH Chairman of Radiology (1967-1985). Dr. Abrams joined us from Stanford where he has been directing a Project on Disabled Leadership at the Stanford University Center for International Security and Cooperation. It was Dr. Abrams who first invited Sven to come to Boston in 1969. Also sharing his fond memories of Sven was **Dr. Mitchell Rabkin**, BIH/BIDMC CEO (1966-1996) and now a Distinguished Institute Scholar at The Institute for Education and Research at BIDMC. We enjoyed

Beth Israel Deaconess Medical Center
celebrates
The Extraordinary Life of
Sven Paulin
October 18, 1926 – January 10, 2014



Beloved Husband, Father & Grandfather
Exceptional Physician, Mentor & Friend

Friday, March 14th, 2014
12 noon - 3:30 pm
Sherman Auditorium • Shapiro 10



Dr. Kruskal



Susanne Portanova



Dr. Abrams



Dr. Rabkin



Dr. Kressel



Dr. Hall



Dr. Bankier



Zina Schiff





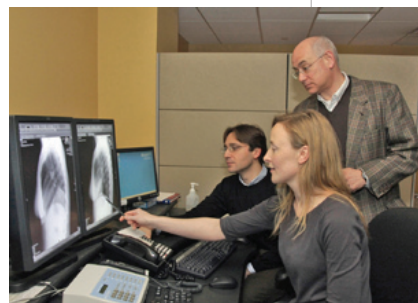
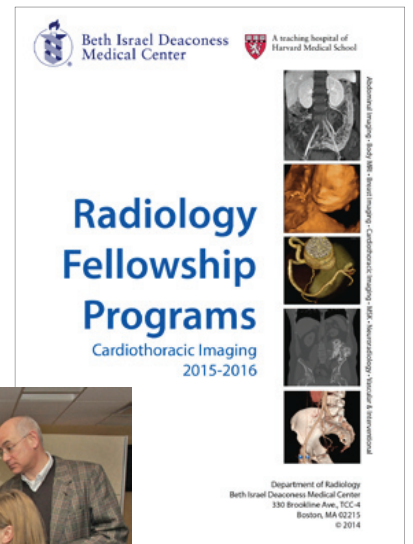
several insights into Sven's unique style of leadership from **Dr. Herbert Kressel**, former BIDMC Radiologist-in-Chief who succeeded Sven in 1996 (and now current editor of *Radiology*), and **Dr. Alex Bankier**, current Director of Cardiothoracic Radiology, and the program concluded with a violin solo by **Zina Schiff**, professional musician and spouse of our own Ron Eisenberg, whose concerts Sven attended as often as possible. Sven's daughter **Susanne Portanova** spoke with great eloquence on behalf of the family and we were proud to welcome Sven's family: his wife Birgit and children Susanne, Magnus, Helena and Viveca, and grandchildren Magnus, Mattias and Axel. At the reception in the Trustman Board Room afterwards, we handed out a series of book marks honoring various incarnations of Sven. Thank you Andrea Baxter, Clotell Forde, Donna Wolfe and Michael Larson for working so well with the Paulin family to create such a fitting event. Thank you all for coming to help us honor the passing of our beloved colleague, mentor and friend.

- Jonny



L to R: Paulin siblings Magnus Paulin and Susanne Portanova welcome our newest Cardiothoracic Imaging Research Fellow Benedikt Heindinger, who along with Mariaelena Occhipinti (not shown) will spend a year with us at BIDMC.

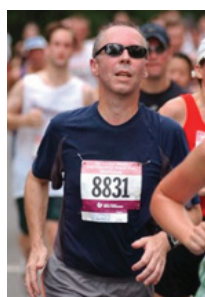
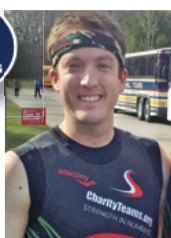
In lieu of flowers,
donations can be made to:
**Dr. Sven Paulin
Research Fellowship in
Cardiothoracic Imaging**
Contact Trudy Howard at
617-667-3393



*Radiology Calendar APRIL 2014

Mon	Tues	Wed	Thurs	Fri
Weekly Mon Section Meetings: 3:00-4:00 ED section meeting (monthly) [ED annex, WCC]		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]	Weekly Thurs Section Meetings: 12:00 - 1:30 Abd [WCC-354] 12:00-1:00 MSK	Friday Grand Rounds: Sherman Auditorium, East Campus (unless stated otherwise)
	1 7:30 - 8:15 QA/QC - what the radiologist needs to know (Shambhavi Venkataraman) 8:15 - 9:00 Breast Cases (Shambhavi Venkataraman)	2 7:30 - 9:00 Rad-Path Correlation (Tejas Mehta)	3 7:30 - 8:15 Surgical Management of Breast Disease (Ranjana Sharma) 8:15 - 9:00 Interesting Breast Cases (Francesca Proulx) 2:00-3:00 West MedRads - Senior Resident	4 12:00-1:00 Grand Rounds: BIDMC MRI Safety Update (Martin Smith)
7 7:30 - 8:15 Spine - Misc (David Hackney) 8:15 - 9:00 Emergency Spine - MRI cases (Gul Moonis)	8 7:30 - 8:15 Neurocutaneous Syndromes (Douglas Teich) 8:15 - 9:00 Neuroradiology - Case Conference (Fellow) 10:30-11:30 NMMI meeting [GZ-103]	9 7:30 - 9:00 Physics (Matthew Palmer) [MRI - Instrumentation] 7:15 - 8:00 US meeting (WCC-304A Gallery)	10 7:30 - 8:15 Orbit Imaging (Gul Moonis) 8:15 - 9:00 Orbit Cases (Gul Moonis)	11 12:00-1:00 pm Grand Rounds: Stroke Imaging: Where do we stand and Where are we going? (Max Wintermark)
14 7:30 - 8:15 Hepatobiliary cases (Martin Smith) 8:15 - 9:00 Imaging of HCC (Jesse Wei) EVENT: ED EXAM! - ED 12:00-1:00 MRI meeting [Ansin-2]	15 7:30 - 8:15 Gallbladder and biliary system on ultrasound (Robert Kane) 8:15 - 9:00 Gallbladder and biliary system - cases (Robert Kane) 8:00-9:00 IR Meeting [West Recovery]	16 7:30 - 8:15 Benign liver lesions (Koenraad Mortelet) 8:15 - 9:00 Malignant biliary disease (Olga Brook)	17 7:30 - 8:15 Liver Doppler (Jonathan Kruskal) 8:15 - 9:00 Doppler - case conference (Jonathan Kruskal) 2:00-3:00 West MedRads - Senior Resident	18 12:00-1:00 Grand Rounds: Risk Management (Margaret Janes, Program Dir., Patient Safety, Risk Management Foundation)
21 7:30 - 8:15 No Conference - Patriot's Day / Boston Marathon	22 10:30-11:30 NMMI meeting [GZ-103]	23 7:30 - 8:15 Nephroureteric Interventions (Olga Brook) 8:15 - 9:00 Biliary Interventions (Olga Brook)	24	25 12:00 - 1:00 Grand Rounds: Imaging Musculoskeletal Transplantation (Felix Chew)
28	29	30		

BIDMC Radiology at this year's Boston Marathon
Best wishes for a safe and happy run for (L to R): Nuc Med Tech **Matt McMahon**, Nuc Med Faculty **Matt Palmer**, and Dx Tech **Nick Bucci!**



* As usual, Consult the webpage for the most up-to-date schedule:
<https://apps.bidmc.org/departments/radiology/residency/conferences/displayMonth.asp>

DEPARTMENTAL GRAND ROUNDS - Guest Speakers



Friday, April 11, 2014

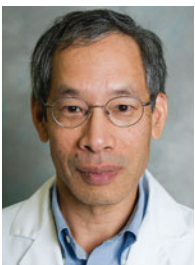
12 noon - 1:00 PM • Sherman Auditorium

Stroke Imaging: Where do we stand and Where are we going?

Max Wintermark, MD, MAS - Chief of Neuroradiology; Medical Director of CT and MRI Neuroimaging; and Director, Neuroradiology Fellowship Program, Department of Radiology, University of Virginia Hospital Medical Center, Charlottesville, VA • Associate Professor of Radiology, Neuroradiology, Neurosurgery and Biomedical Engineering, University of Virginia School of Medicine

Dr. Wintermark received his medical degree from the University of Lausanne, Switzerland in 1998 and earned a PhD in Biomedical Engineering from the Swiss Federal Institute of Technology. He completed radiology residency training at the University Hospital in Lausanne and two research fellowships, the first in neuroradiology at the University of California, San Francisco (UCSF) and the second in emergency radiology at the University of Maryland, Baltimore. After spending one year as an Instructor in Radiology at University Hospital in Lausanne, he returned to America to complete an ACGME Clinical Fellowship in Neuroradiology and a Master's Degree in Clinical Research (Epidemiology and Biostatistics) at UCSF. In 2014, he expects to complete a Master's in Business Administration (Medical Management focus) at the American College of Physician Executives, UMASS Amherst Isenberg School of Business.

Dr. Wintermark's research focuses on imaging of stroke, intracranial hemorrhage, aneurysms, vasospasm and atherosclerosis using advanced neuroimaging techniques such as perfusion imaging, susceptibility-weighted imaging, diffusion tensor imaging, spectroscopy and functional MRI. His goal is to develop these imaging techniques in biomarkers for cerebrovascular disorders, which can be used to select patients for a specific treatment, or to monitor the efficacy of treatment, ultimately, to individualize the care of patients with cerebrovascular conditions and improve their outcome. Other research interests include: Standardization of Stroke Perfusion-CT for Reperfusion Therapy; CAPRISK Study - Carotid Plaque imaging to Predict Ischemic Stroke; and VIPs study - Vascular Effects of Infection in Pediatric Stroke.



Friday, April 25, 2014

12 noon - 1:00 PM • Sherman Auditorium

Imaging Musculoskeletal Transplantation

Felix S. Chew, MD - Chief of Musculoskeletal Radiology, Director of Musculoskeletal Radiology Fellowship Program, Department of Radiology, University of Washington Medical Center, Seattle, WA • Professor of Radiology and Vice Chair for Academic Innovation, University of Washington School of Medicine

Dr. Chew earned his AB in Biochemical Sciences from Princeton University and his MD from the University of Florida School of Medicine, Gainesville FL. He also completed a Master's in Education from Harvard University, Cambridge, MA and an MBA from Duke University, Durham, NC. His postgraduate clinical training included an internship in diagnostic radiology at the University of Florida School of Medicine. From 1980 to 1984, Dr. Chew served on active duty as a general medical officer in the US Army Medical Corps. Returning to civilian life, he completed a residency in diagnostic radiology at Upstate Medical University in Syracuse, NY. We welcome Dr. Chew back to Boston where he previously served as an Associate Radiologist at Mass General and Associate Professor of Radiology, HMS between 1989-1998.

Dr. Chew is currently Professor and Section Chief of Musculoskeletal Radiology at the University of Washington School of Medicine, and also serves as Vice Chair for Academic Innovation. He is the author of two popular textbooks of skeletal radiology, *Musculoskeletal Imaging: A Teaching File*, and *Skeletal Radiology: The Bare Bones* (both are available in third editions). He also serves as section editor of the journal AJR American Journal of Roentgenology, executive associate editor of the journal Academic Radiology, chief editor of eMedicine: Radiology, and is former editor-in-chief of Radiology Case Reports. Active in organized radiology, he is a past president of the Association of University Radiologists and is an examiner for the American Board of Radiology. He also chaired the musculoskeletal section of the Committee for the Written Examination. He is a 3-time winner of the AUR Whitely Award for Research in Radiology Education and was awarded the Melvin M. Figley Fellowship in Radiology Journalism by AJR and the American Roentgen Ray Society.



DEPARTMENTAL NEWS - Call Center Celebrates its 2nd Year Anniversary



Call Center Supervisor Deolinda DePina and Suzanne Albright from Human Resources.

The Call Center celebrated its 2nd Anniversary at our new premises in the Renaissance Center on March 7th and we were glad that Dr. Kruskal as well as numerous managers were able to make the trek out to recognize our milestone! The staff has enjoyed working from this location, the convenience, much more room to operate and most of all a space they can call their own. Over the past two years the staff has moved from just being good at what they do, to a very efficient and skilled group of schedulers. As Call Center Supervisor Deolinda DePina says, *"They are my left and right team in the Call-Center. I appreciated every single one of them because without them the call center will not function."*

– Peter Cousins
Radiology Support Services Manager



Eboni Baptiste, Scheduler



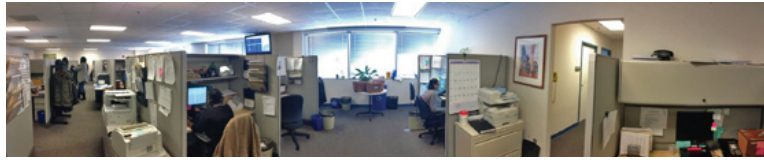
Dr. Kruskal, Cherefant Macarthur, Jackie Vernon, Linda Depina, Bernadette Kennedy, Peter Cousins and Donna Hallett.



***Check out the monitor in the image above:** "The Monitor is divided into two sections: Radiology Schedulers and Radiology Breast Schedulers; it tells me what people are doing on the floor, it tells me who is available or unavailable and how long they are unavailable for. It shows us real time data on the service level %, and the number of abandoned calls and %. This monitor is crucial to the daily workflow as it's an incentive tool for staff to see how well they are doing or not doing and if more effort is needed to meet the expected goal. In addition, the supervisor is able to monitor all of this activity from her office." – Peter Cousins

DEPARTMENTAL NEWS - Call Center 2nd Year Anniversary at the Ren Center ➡

Happy Anniversary!



Jackie Joseph, Managed Care



Walter Smith, Scheduler



Erica Johnson, Breast Imaging Scheduler



Sheldene Hope-Spencer, Scheduler



Carol Norman, Breast Imaging/Diagnostic Scheduler



Gloria Martinez, Scheduler

DEPARTMENTAL NEWS

Welcome Cardiothoracic Imaging Research Fellows



On January 8th, 2014, **Dr. Mariaelena Occhipinti** from the Department of Radiology, Catholic University of Rome, Italy, joined our Cardiothoracic Imaging Section as a Research Fellow. Originally reported to be staying with us for six months, Mariaelena will now be with us for a whole year. Most recently, Dr. Occhipinti presented "Role of MDCT-virtual lobectomy in the prediction of post-operative lung function in patients undergoing surgical lobectomy" at RSNA 2013.

Benedikt Heidinger, started in mid-March and will also spend a year in Cardiothoracic Imaging. Benedikt comes to us from Graz, Austria where he is pursuing his doctorate at the Medical University of Vienna. In the course of his medical training, Benedikt also worked as a research assistant in Emergency Medicine at the Medical University of Vienna where he worked on "Push as hard as you can" an instruction guide for telephone-assisted bystander CPR! We first met him when he came to BIDMC as a Clinical Observer in Cardiothoracic Imaging in the autumn of 2012.



- Alex Bankier, Chief, Cardiothoracic Imaging

Radiology in the Community

Did you know.... that our HMFP Radiology Practice Sites are also members of the Newton/Needham and Brookline Chambers of Commerce? The Newton/Needham Chamber has an extension called "**Women in Networking**" and on January 29, this group kicked the new year off with a "Healthier You" focus in which **Mass Vein Care** and **HMFP Radiology** participated. Held at the West Suburban YMCA in Newton, we had a table with information on bone density (DXA scans) as well as body composition (Marian Howes spoke to these services). Mass Vein Care information was also offered; however, the Chamber wanted us to think in terms of "fun, interactive, engaging" so...*we brought the ultrasound machine and performed complimentary vein evaluations!* The fair was from 11:30 – 2 pm and we had to turn folks away!



Marian Howes, RN, Linda Paul, NP and Jane Corey at the Healthier You Fair in Newton 2014

75 Chamber members registered and had the opportunity to visit up to 14 Stations as well as 5 breakout sessions. Some of the other participating health/wellness providers included:

- Newton Wellesley Women's Health – Dr. Stephanie Morris
- BID Needham – Flu Shots – table staffed by Occupational Health Nurse and a member of BID Marketing
- Marathon Sports – Pelvic Floor Health
- Newton HealthCare – Blood pressure checks
- Newton Chiropractic – Posture checks
- The Wellness Room – Stress Reduction and Reiki
- Whole Foods with cooking demonstrations and provided LUNCH

- Jane D. Corey
Manager, HMFP Radiology Outpatient Practices

Healthier You - Jan 29, 2014

Get 2014 off to a healthy start at a health fair for women, organized by the Chamber's Women In Networking Committee. There will be health stations throughout the room hosted by diverse group of the area's leading alternative and traditional health care practitioners. From BMI (Body Mass Index) testing, to blood pressure, to posture checking, to acupuncture and more.

We'll help you kick off the new year with practical advice about feeling better, eating better and moving better. We'll also have a series of short breakout sessions on eating healthier, the benefits of hiring a personal trainer, the top ten ways to reduce your stress today and answers to questions you're too afraid to ask your doctor.

Radiology in the Community

We did the stair climb again this year!

Several residents, fellows, staff and friends of the BIDMC Radiology department competed in the Race up Boston Place Stair Climb again this past February. This is the 5th year the department has participated and we raised \$945 for the American Lung Association. Our team performance took 5th place out of 55 overall teams and 1231 climbers. First year resident, **Amanda Trotter**, was 2nd overall for women with a time of 5:56 missing first place by just 3 seconds. Moreover, Amanda was the top healthcare worker which makes 5 years in a row that our department has won this top honor (**Colm McMahon** 2010 & 2011, **Mike Acord** 2012 & 2013). **Ferris Hall** dominated the 70 and over age division with a blistering time of 10:07. The second place guy did it in 25:47 and was 6 years younger!! **Laura Perry** was second in her age division and **Alex Wu** was second in the 18 and younger age division with a time of 7:46 which is great for being only 11 years old! **Justin Kung** was able to finish again this year.

Please join us next year and keep climbing!

- Jim Wu



From left to right: Jenny Ní Mhuirheartaigh, Laura Perry, Jim Wu, Alex Wu, David Glazier, Justin Kung, Ferris Hall, and Amanda Trotter

Radiology Celebrates Transporter Week

As part of Transporter week, there was a Pizza and cake luncheon celebration along with Dunkin Doughnut gift certificates and pedometers (to walk off the doughnuts someone joked!). Since it was such a busy day, we were only able to grab a few quick photos as our transporters were called to do their job all through lunch.



(Above left) Ana Cordero and Betsy Grady congratulate Francisco DoRosario and (above right) Irvin Cruz, who is off to Missouri for Army basic training in Civil Engineering on Monday.



Ana Cordero models the pedometers given to the transporters in appreciation of -- and to document all -- of their transporting!

PUBLICATION CALL OUT: Aunt Minnie recognizes Seth Berkowitz, Justin Kung, Ron Eisenberg, Kevin Donohoe, Leo Tsai, Priscilla Slanetz

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Radiology residents love their iPads -- most of the time

By [Eric Barnes, AuntMinnie.com staff writer](#)

February 20, 2014 -- Is the iPad making a big difference in the lives of radiology residents who have them? For education, definitely. For clinical use, not quite yet, though the situation is evolving rapidly, according to a survey in the Journal of the American College of Radiology.

Researchers from Beth Israel Deaconess Medical Center found that a whopping 86% of residents given Apple iPads were using them daily or weekly for their residency education and clinical work. The devices are especially popular for reading journal articles, with more than three-fourths of respondents saying they preferred the iPad over other reading methods. However, the issue of textbooks was a mixed bag, with about half of respondents favoring old-fashioned paper books.

At the time of the survey, the use of iPads for readouts and report editing was still very limited (JACR, February 2014, Vol. 11:2, pp. 180-184). Technology has improved access to PACS images since the survey was completed, and the data show that most residents have incorporated the iPad as an important educational tool and learning aid, lead author and PGY-5 resident Dr. Seth Berkowitz told AuntMinnie.com.

"The iPad has definitely had a very positive impact on residents in our department," he said. "What was interesting about the study is that it shows us that like any tool, it's particularly well-suited for certain things and maybe not as useful in other areas."

The iPad has yet to be as incorporated into clinical workflow, perhaps due in part to the need for a larger screen when reading studies on the PACS, he said.

Not your grandfather's residents

Radiology educators are figuring out that a new crop of "millennial learners" have different needs and preferences than the last generation -- inasmuch as those born after 1980 prefer reading and communicating online.



Beth Israel Deaconess residents pull up images on their iPads. All images courtesy of Dr. Seth Berkowitz.

The following has been reformatted from AuntMinnie.com for Radical Views regarding the original article:

[Berkowitz SJ, Kung JW, Eisenberg RL, Donohoe K, Tsai LL, Slanetz PJ. Resident iPad Use: Has It Really Changed the Game? J Am Coll Radiol. 2014 Feb;11\(2\):180-4. doi: 10.1016/j.jacr.2013.04.017. Epub 2013 Jun 25. PMID: 23809171.](#)

These learners typically respond well to teaching methods that emphasize multimedia and technology, wrote Berkowitz, along with co-authors Dr. Justin Kung, Dr. Ronald Eisenberg, Dr. Kevin Donohoe, Dr. Leo Tsai, PhD, and Dr. Priscilla Slanetz.

Some members of the healthcare community consider the iPad to be a "revolutionary tool" in healthcare delivery, especially in medical imaging, where it has been used for interoperative procedure planning guidance and mobile interpretation of imaging studies.

Radiology educators have also shown enthusiasm for the device, and recent surveys have found that one-third of all radiology residents own one, Berkowitz and colleagues wrote. What's not quite clear yet is whether the iPad will turn out to be a real tool or more of a toy -- "a gadget or a medical godesend," as the authors put it.

"At our institution, we're very excited about trends in technology, especially mobile computing," Berkowitz said. "But we wanted to assess the impact it was having after we deployed the iPad to actually see what people were doing with it," both for educational and clinical tasks.

iPads for all

The residency program purchased iPad 2 models (64 GB, flash storage, Wi-Fi only) for each of its 38 residents and trained them on the device's security features. The participants were also instructed on applicable HIPAA policies.

Six months after they started using the devices, the survey was conducted anonymously online (SurveyMonkey) to probe use patterns and preferences. It included multiple choice and Likert-style questions; for the latter, 1 indicated "strongly disagree" and 5 meant "strongly agree."

Thirty-six (95%) of the 38 residents responded to the survey. The results were surprising in a few different ways, according to Berkowitz and colleagues. For example, when students were asked whether they prefer to read journal articles on paper, a computer, or the iPad, 70% (23 of 33) preferred the iPad. However, textbooks were a different story: half preferred the iPad (48%, 16 of 33) and half preferred traditional textbooks.

Education, not workflow

Overall, residents considered the iPad a valuable tool in their education (4.1 Likert score). They mostly agreed the iPad was useful during didactic and case-based conferences (3.6), and they felt the iPad enhanced learning during conferences (3.9) and was not a distraction (2.1). However, it's possible that residents were underestimating the level of distraction, the authors noted.

Image interpretation results were a little trickier. Respondents generally felt they could identify important radiographic abnormalities on their iPads (3.5 score) -- but 75% said they had never attempted to do so.

Berkowitz noted a couple of important issues that hampered residents' ability to use the iPad clinically.

"During our normal workday, we're in front of PACS workstations with three or four monitors, so an additional 9.7-inch screen isn't necessarily useful in that situation," he said. Even then, though, the iPad is "sometimes useful if your attending is using the PACS station and you want to look up an article or images on a secondary screen."

Another issue that might have prevented wider clinical use was the difficulty of actually accessing PACS images on the device during the study -- a problem that has since been corrected.

"We did not have an easy way to access images from our iPads," he said. "It was possible, but only through a remote desktop solution using Citrix." In fact, just over 6% of residents reported using this solution to view images.

"In mobile, we're used to things being very user-friendly; modern users don't have the patience to jump through several hoops," Berkowitz said.

But things have gotten easier since the study ended: The group deployed a homegrown app that is yielding "huge growth in residents using the iPad for clinical purposes," he said.

These days, another key clinical use is when residents are at home signing radiology reports. They're able to easily reference and double-check images while they're producing the reports.

Finally, iPads are also gaining ground in his residents' radiologist-patient conferences. "Residents are using the iPad to meet with patients and discuss the images with them, and really put a face on the process and what we do," Berkowitz said.

Popular apps

The most popular radiology application was e-Anatomy, a subscription service that replaces traditional cross-sectional anatomy atlases with scrollable, annotated, cross-sectional images, the authors wrote. Other popular radiology applications included the RadioGraphics and Radiology journals, used at least once by more than 70% of residents; the diagnostic reference STATdx (Amirsys), used daily by nearly one-fourth of residents; and several applications for annotating, organizing, and searching through PDF files.

Note-taking applications such as Evernote remain popular with residents for taking notes during lectures, but there's peril in the potential to include protected health information (PHI) in nonencrypted note-taking apps, Berkowitz said.

"One of the challenges in mobile is that we're inundated with really fantastic and useful consumer services like cloud storage apps [e.g., Dropbox] and note-taking services," he said. "There's a temptation to use these services in our work, and there is a need for constant education not to use the apps for PHI even though they're incredibly useful." Dropbox was used daily by one-fourth of all residents; note-taking software was used daily by 25%.



PGY-5 resident Dr. Seth Berkowitz.

Regarding the preferences for reading journals or textbooks on an iPad or in print, the potential for eyestrain perhaps was a factor, Berkowitz said. Also, many textbooks were available in the traditional print form in the resident library.

"The prices of e-books, although slightly lower at this point, are not dramatically so," Berkowitz said. "So there's some reluctance for students to spend that much for e-books when for a little more they can have a copy. In a perfect world, you would have access to the e-version when you purchase a physical book."

An all-digital world

The study represents changing trends in how people get information -- even in radiology.

"There's a generational shift happening: The current generation of residents is in the midst of a transition to an all-digital world," Berkowitz said. "As we get residents who have been living their whole lives in the digital world, they'll be comfortable with making digital-only purchases."

In fact, each year, the trend toward digital learning is stronger, with the latest crop of first-year residents quite different from the seniors in terms of their desire learn 100% digitally, he said. And thanks to continued funding, the program will continue furnishing residents with iPads and studying the effects.

Related Reading

[iPads for radiology residents? Yes. Yes. Yes., September 27, 2013](#)

[JACR: Residents mostly use iPad for education, June 26, 2013](#)

[Specialized iPad toolkit wins over resident trainees, May 10, 2013](#)

[iPad up for task of assessing pulmonary nodules, November 29, 2011](#)

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Consensus Report on the Detailed Fetal Anatomic Ultrasound Examination

Indications, Components, and Qualifications



Consensus guidelines are important to set multi-subspecialty standards for studies. In this document we give specific details about performance and interpretation of high risk obstetric ultrasound studies. This has important consequences for appropriate training, ongoing QA, and study reimbursement.
– Debbie Levine

76811 Task Force

AIUM

Joseph Wax, MD, Cochair

ACOG

Howard Minkoff, MD

ACOGG

Anthony Johnson, DO

ACR

Beverly Coleman, MD

Deborah Levine, MD

SMFM

Andrew Helfgott, MD, Cochair

Daniel O'Keefe, MD

SDMS

Charlotte Henningsen, MS, RT, RDMS, RVT

SRU

Carol Benson, MD

The following has been reformatted for Radical Views. Please visit www.aium.org for the complete article.

Initially developed for detailed ultrasound studies performed for pregnancies with increased risk of fetal anomalies, there has been little consistency in the application of *Current Procedural Terminology* (CPT) code 76811 (“ultrasound, pregnant uterus, real time with image documentation, maternal evaluation plus detailed fetal anatomic examination, transabdominal, single or first gestation”) since it was first included in the 2003 edition of CPT.^{1,2}

On April 9, 2013, the American Institute of Ultrasound in Medicine (AIUM) and the Society for Maternal-Fetal Medicine (SMFM) hosted a meeting in New York, New York, to develop the appropriate indications for performing a detailed fetal anatomic ultrasound examination, the components of the examination, and the training required to interpret it. Participants included representatives from the AIUM, SMFM, American College of Obstetricians and Gynecologists (ACOG), American College of Osteopathic Obstetricians and Gynecologists (ACOGG), American College of Radiology (ACR), Society of Diagnostic Medical Sonography (SDMS), and Society of Radiologists in Ultrasound (SRU).

Indications

The detailed fetal anatomic examination (CPT 76811) is not intended to be the routine ultrasound examination performed for all pregnancies. Rather, it is an indication-driven examination performed for a known or suspected fetal anatomic abnormality, known fetal growth disorder, genetic abnormality, or increased risk for a fetal anatomic or genetic abnormality. Thus, the performance of the detailed fetal anatomic examination should be rare outside referral practices with special expertise in the identification and diagnosis of fetal anomalies. Only 1 such medically indicated study per pregnancy per practice is appropriate. If 1 or more required structures are not adequately demonstrated during the 76811 examination, the patient may be brought back for a focused assessment (76816). A second detailed fetal anatomic survey should not be performed unless there are extenuating circumstances.

Conclusions

The goal of any diagnostic medical procedure is to improve patient care. Adherence to these recommendations may promote the performance of appropriately detailed ultrasound examinations when medically indicated, improve diagnostic accuracy when interpreted by a qualified physician, and reduce excess charges and patient copayments for more expensive examinations when a complete basic examination is sufficient.

This consensus report was developed by the 76811 Task Force, under the leadership of the American Institute of Ultrasound in Medicine (AIUM) and the Society for Maternal-Fetal Medicine (SMFM). The document was developed with the assistance of and reviewed by the American College of Obstetricians and Gynecologists (ACOG) and has been reviewed and endorsed by the AIUM, SMFM, American College of Osteopathic Obstetricians and Gynecologists (ACOGG), American College of Radiology (ACR), Society of Diagnostic Medical Sonography (SDMS), and Society of Radiologists in Ultrasound (SRU).

Address correspondence to Joseph Wax, MD, MMC Ob/Gyn Associates, 887 Congress St, Suite 200, Portland, ME 04102 USA.

E-mail: waxj@mmc.org

Abbreviations

ACOG, American College of Obstetricians and Gynecologists; ACOOG, American College of Osteopathic Obstetricians and Gynecologists; ACR, American College of Radiology; AIUM, American Institute of Ultrasound in Medicine; CPT, Current Procedural Terminology; SDMS, Society of Diagnostic Medical Sonography; SMFM, Society for Maternal-Fetal Medicine; SRU, Society of Radiologists in Ultrasound

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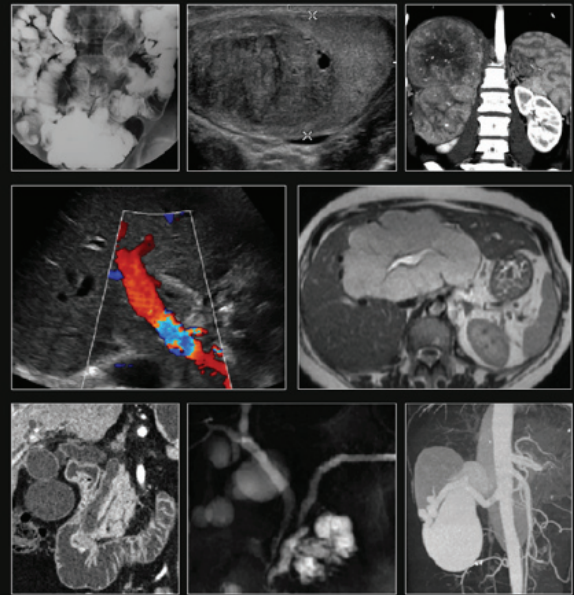


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