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Thorwarth Joins RSNA Board of Directors

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- Communication Key in Avoiding Malpractice Minefields
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Hricak is 2010 RSNA President

HEDVIG HRICAK, M.D., PH.D., DR. H.C., an internationally recognized leader in radiologic research and public education, is RSNA president for 2010.

Dr. Hricak, chair of the Department of Radiology at Memorial Sloan-Kettering Cancer Center in New York, is a professor of radiology at Cornell University Medical College and an attending radiologist at Memorial Hospital in New York.

As RSNA president, Dr. Hricak vows to continue to pursue the use of imaging to advance personalized medicine. "Through the dedication and hard work of many volunteers, RSNA continues to innovate and lead radiology into the future. Integrated diagnostics, in which imaging plays a vital role, is one of the cornerstones of this leading-edge paradigm, necessary for implementing personalized medicine in any healthcare system," Dr. Hricak said. "As president of the RSNA, I shall carry this message around the world."

A member of the RSNA Board of Directors since 2002, Dr. Hricak served as liaison of publications and communications. Prior to her appointment to the Board, Dr. Hricak was chair of RSNA's Public Information Advisors Board and was a member of other RSNA public information committees.

Dr. Hricak's academic career began in 1979, when she



**Hedvig Hricak, M.D.,
Ph.D., Dr. h.c.**

was appointed clinical professor of radiology at the University of Michigan in Ann Arbor while serving as a senior staff member at Henry Ford Hospital in Detroit. From 1982 to 2000, she was at the University of California, San Francisco, where she became a professor of radiology, urology, radiation oncology, obstetrics, gynecology and reproductive sciences, as well as chief of the uro-radiology section and subsequently the abdominal imaging section.

Dr. Hricak is a member of the Institute of Medicine of the National Academies.

She has served as president of the Society for the Advancement of Women's Imaging (1997–1999), California Academy of Medicine (1999), Society of Uroradiology (2000–2003) and New York Roentgen Society (2004–2005). She is president-elect of the International Society for Strategic Studies in Radiology (ISSSR) and is on the executive committee of the Academy of Radiology Research. She also serves on the advisory boards of numerous local, national and international foundations.

Dr. Hricak was an associate editor of *Radiology* from 1985 to 1993 and a consultant to the editor of *Radiology* from 1993 to 1997. At present, she is the principal investigator of multiple grants, including two National Cancer Institute, two Department of Defense and two private foundation grants.

Drayer is RSNA President-elect

An advocate of global education and research initiatives, BURTON P. DRAYER, M.D., is RSNA president-elect/secretary-treasurer for 2010.

Dr. Drayer is executive vice-president for risk at The Mount Sinai Medical Center in New York and the Dr. Charles M. and Marilyn Newman Professor and chair of the Department of Radiology at The Mount Sinai School of Medicine. He also served as president of The Mount Sinai Hospital from November 2003 to September 2008.

As president-elect, Dr. Drayer is committed to advancing RSNA's efforts worldwide. "In addition to enhancing the effectiveness of RSNA's preeminent annual meeting, educational programs, research support, scientific journals and information technology activities, I hope to expand our collaborations with other imaging and medical societies both in North America and internationally," he said.

Dr. Drayer's academic appointments began in 1977 at the University of Pittsburgh Health Center. From 1979 to 1986, Dr. Drayer was at Duke University Medical Center in Durham, N.C., where he became professor of radiology and assistant professor of medicine (neurology). In 1986, he was appointed chair of the Division of Neuroimaging Research-



Burton P. Drayer, M.D.

Education at the Barrow Neurological Institute in Phoenix, where he remained until 1995. Dr. Drayer then moved to The Mount Sinai Medical Center where he practices today.

Since 1979, Dr. Drayer has been a manuscript reviewer for nine medical journals, including *Radiology*.

He is a past-president of the New York Roentgen Society and is active in many organizations, including the American College of Radiology (ACR), where he was chair of the Committee on

Appropriateness Criteria's Panel on Neurological Imaging from 1994 to 2003. In 2009, he began a three-year term on the ACR Board of Chancellors.

An RSNA member since 1980, Dr. Drayer served as first vice-president in 2003 and has been active on many committees including the Public Communications Committee, Public Information Advisors Network and the Research & Education (R&E) Foundation's Public Relations Committee. He now serves on the R&E Board of Trustees. Dr. Drayer was elected to the RSNA Board of Directors in December 2003, acting as liaison for the annual meeting and technology and serving as board chairman in 2009.

Bisset Becomes RSNA Board Chairman

GEORGE S. BISSET III, M.D., is the new chairman of the RSNA Board of Directors.

Dr. Bisset is vice-chair of the Department of Radiology and a professor of radiology and pediatrics at Duke University Medical Center in Durham, N.C. In April, he will become the chief of pediatric radiology at Texas Children's Hospital and professor of radiology at Baylor College of Medicine.

"I am very excited about assuming the new post as RSNA Board chairman," Dr. Bisset said. "Being able to work with the top leadership team of RSNA on such a grand scale is a great opportunity. I hope to be able to serve the members by converting RSNA's long-term vision into reality."

From 1980 to 1983, Dr. Bisset was an assistant professor of pediatrics at Tulane University School of Medicine in New Orleans. He was an assistant and associate professor of radiol-



George S. Bisset III, M.D.

ogy and pediatrics at the University of Cincinnati College of Medicine (UCCM). He was professor of radiology with tenure at UCCM from 1993 to 1994.

Dr. Bisset is currently a reviewer for *Radiology*, *American Journal of Roentgenology* and *Journal of Pediatric Gastroenterology*. He has been invited to lecture at nearly 100 medical schools and meetings throughout North America, Japan, Europe and South America. He has also been a visiting professor at numerous universities and medical schools across the U.S. and in Japan.

An RSNA member for 22 years, Dr. Bisset served on the pediatric subcommittee of the Scientific Program Committee from 1990 to 1998. He became chair of the Scientific Program Committee in 2001. In 2004, he was elected to the RSNA Board of Directors, serving as the education liaison.

Thorwarth Joins RSNA Board

A nationally recognized expert on radiology economics and reimbursement, WILLIAM T. THORWARTH JR., M.D., is the newest member of the RSNA Board of Directors. Dr. Thorwarth will serve as the liaison-designate for publications and communications under Sarah S. Donaldson, M.D., until she becomes RSNA Board chairman in 2011.

"Radiologists, radiation oncologists, medical physicists and all of the related professionals are at a pivotal time in reaffirming our critical role in high quality and cost effective healthcare delivery," said Dr. Thorwarth. "We all need to be active, not passive, participants in crafting the future and look for opportunities not only to expand our knowledge and improve our individual practices, but also to ensure our preeminence in the fields of diagnostic imaging, minimally invasive therapies and radiation oncology."

He has been an RSNA member since his residency and has been a longtime volunteer. Dr. Thorwarth helped found the Visionaries in



William T. Thorwarth Jr., M.D.

Practice (VIP) program for the RSNA Research & Education (R&E) Foundation and served as VIP committee chair from 2004 to 2009. He also has served on the R&E Fund Development and 25th Anniversary Campaign Committees and just completed a three-year term on the R&E Board of Trustees.

Dr. Thorwarth received his undergraduate degree from Dartmouth College and his M.D. degree from Dartmouth Medical School, both in Hanover, N.H. He completed an internal medicine internship and a junior resident year at the Milton S. Hershey Medical Center in Hershey, Pa., and his diagnostic radiology residency at the University of North Carolina School of Medicine in Chapel Hill.

Dr. Thorwarth's areas of expertise include radiology coding, nomenclature and the physician reimbursement relative value scale. In 2007, he became the first radiologist to chair the AMA Current Procedural Terminology (CPT) Editorial Panel and was recently appointed to a second term that ends in June 2011.

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RANZCR Bestows Honors

THE Royal Australian and New Zealand College of Radiologists (RANZCR) announced several awards at its recent annual meeting.

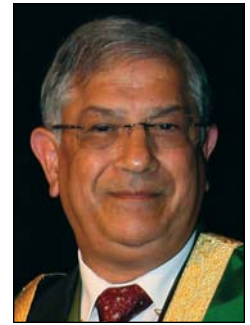
Honorary Fellowship was bestowed on **Bruce Hillman, M.D.**, and **Normand Laperriere, M.D.** Dr. Hillman is the Theodore E. Keats Professor of Radiology and Public Health Sciences at the University of Virginia in Charlottesville where he served as department chair from 1992 to 2003. In 2007, he was named RSNA Outstanding Researcher. Dr. Laperriere is associate director of the Gerry and Nancy Pencer Brain Tumour Centre at Princess Margaret Hospital in Toronto and associate professor of

the Department of Radiation Oncology at the University of Toronto.

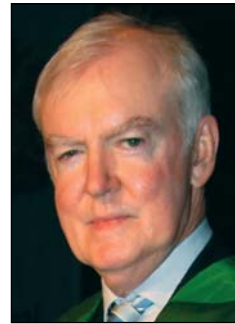
Gary O'Rourke, M.D., and **Kenneth Thomson, M.D.**, were awarded the Roentgen Medal. The former director of radiology at Mater Public Hospital in Brisbane, Dr. O'Rourke teaches medical students and registrars and has been partner at Queensland X-Ray hospital since 1985. Dr. Thomson is the professor and director of radiology at The Alfred Hospital in Melbourne and namesake of the Interventional Radiology Society of Australasia's Ken Thomson Award for best presentation at its annual scientific meeting.



Bruce Hillman, M.D.



Normand Laperriere, M.D.



Gary O'Rourke, M.D.



Kenneth Thomson, M.D.

ASTRO Awards Gold Medals

The American Society for Radiation Oncology (ASTRO) has awarded **Theodore Lawrence, M.D., Ph.D.**, and **William Shipley, M.D.**, its 2009 gold medal, the highest honor that ASTRO bestows. The awards were presented at ASTRO's recent annual meeting in Chicago.

An ASTRO past-president, Dr. Lawrence is an Isadore Lampe professor of radiation oncology, chair of the Department of Radiation Oncology and a professor in the Department of Environmental Health, School of Public Health at the University of Michigan in Ann Arbor. Dr. Shipley is chair of the genitourinary oncology unit at Massachusetts General Hospital and the Andres Soriano professor of radiation oncology at Harvard Medical School, both in Boston.



ASTRO presented awards at its recent annual meeting in Chicago. *From left:* Tim R. Williams, M.D., ASTRO chair, gold medalists Theodore S. Lawrence, M.D., Ph.D., and William Shipley, M.D., and Patricia Eifel, M.D., immediate past-chair.

RadioGraphics Seeks Editor for 2012

RSNA's journal of continuing medical education, *RadioGraphics*, is seeking an editor to take the torch from **William W. Olmsted, M.D.**, who concludes his term at the end of 2011. Interested physicians should submit their curricula vitae by the May 1 deadline.

The editor is responsible for developing the overall educational mission and editorial policies for the journal, soliciting high-quality educational man-

uscripts, developing policies and processes for and conducting peer review, releasing manuscripts on a timely basis for publication, and cooperating with the RSNA Board of Directors and staff in maintaining fiscal responsibility. The editor is expected to spend 60 percent of his or her time on *RadioGraphics*.

A search committee, chaired by Sarah S. Donaldson, M.D., plans to recommend finalists to the Board of Direc-

tors, who will select the new editor in December 2010. The new editor's term will officially begin in January 2012.

Interested physicians are invited to send their curricula vitae (marked "confidential") to:

Sarah S. Donaldson, M.D.
Radiological Society of
North America
820 Jorie Blvd
Oak Brook, IL 60523

Read All About It: *RSNA News* Celebrates 20 Years

WITH THIS EDITION, we begin a yearlong commemoration of our 20th anniversary. Since its inception, the unwavering mission of *RSNA News* has been to present interesting, relevant and timely information in an easy-to-read format. Readership now tops 44,000, a measure of popularity that can be credited to many dedicated *RSNA* staffers and volunteers over the years to whom we as *RSNA* members are greatly indebted.

As we look forward to the next 20 years, we are fortunate indeed to be part of a vibrant community of physicians and scholars, nurses and technologists, educators, allied health professionals and many others who contribute a steady stream of interesting news.

To celebrate the past and step into the future, the next 12 issues of *RSNA News* will feature past highlights and examine their impact on today's practice. Which ideas and technologies kept pace with these fast-moving times, which fell short of their mark and which were ahead of the curve?

On the lighter side, our 20th anniversary issues also include crossword puzzles to test your knowledge of

RSNA and radiology history as well as trivia from the past two decades. Have fun and try your hand at the first one on Page 21.

We also hope that

you, the readers, will help us keep *RSNA News* relevant and

continuing to present stories that inspire us all to focus on the thin edge of the wedge. Let us know what you'd like to hear more about. Even more to that end, I am extending an invitation to all *RSNA* members to submit entries to the My Turn column.

As you know, My Turn is a forum for addressing your peers, in which you can express your passions, perspectives and personal opinions about important aspects of our profession. Our specialty, as with a nation, is made stronger by diversity, so I encourage you to speak

My Turn ONE RADIOLOGIST'S VIEW



RSNA News Editors Recognized for Service

RSNA 2009 marked the changing of the guard for several key posts on *RSNA News*. Sarah Donaldson, M.D. (front right), presented a certificate of appreciation to Bruce McClellan, M.D. (front center), who served four years as *RSNA News* editor, and welcomed Vice-Chair David M. Hovsepian, M.D. (front left), as the new editorial board chair and *RSNA News* editor. Dr. Donaldson also extended her personal thanks to Contributing Editor Robert E. Campbell, M.D. (back right), and welcomed his successor, C. Leon Partain, M.D., Ph.D. (back left).

up. You can e-mail your entries to rsnanews@rsna.org.

On behalf of *RSNA News*, I wish you all the best in 2010.

David M. Hovsepian, M.D., is the editor of RSNA News. He is a professor of radiology and chief quality and safety officer for the Department of Radiology at Stanford University in California.

***RSNA News*—A 20-year Ascent from Newsletter to Award-winning Newsmagazine**

RSNA News made its debut in the fall of 1991 as an eight-page quarterly newsletter dedicated to informing members about *RSNA*'s programs, initiatives and events.

"It is hoped that *RSNA News* will not only better identify and explain the workings of the Society, but also provide a forum for member comment and reflect the spirit of volunteerism that is



essential to the success of all *RSNA* activities," wrote 1991 *RSNA* President Carl J. Zylak, M.D., in an introductory letter.

Among other items, the first issue reported on the progress of a demographic survey of *RSNA* members, announced the second year of the resident-focused *RSNA* educational program "Introduction to Research," now known as Introduction

to Academic Radiology, described a workshop sponsored by the Associated Sciences Consortium and heralded an *infoRAD*® demonstration showcasing computer applications in radiology—informatics—at the annual meeting.

The meeting's continual growth was also newsworthy as the assembly and exhibit halls spilled over into a second McCormick Place building. "Because of this growth, the *entire*"—italics included—"North Building of McCormick Place, which had been only

Continued on Page 8

Backlash Continues Against Breast Cancer Screening Guidelines

RADIOLOGISTS who reacted with shock and outrage to the U.S. Preventative Services Task Force's (USPSTF) revised guidelines recommending that women under age 50 not undergo annual mammography say the controversy shows no signs of waning.

"We are still outraged and this issue is not going away," said Mary C. Mahoney, M.D., director of breast imaging at the University of Cincinnati Medical Center and chair of the RSNA Public Information Committee.

Issued in November, the recommendations advising against routine mammography screening for women 40–49 and for every other year rather than annually for women between 50 and 74, unleashed a firestorm of opposition from organizations such as the American College of Radiology (ACR) and the Society of Breast Imaging (SBI), which said that the recommendations could result in countless unnecessary deaths each year. Both organizations urge adherence to American Cancer Society (ACS) guidelines recommending annual mammography for all healthy women beginning at age 40.

While not legally binding, the new guidelines could already be gaining a legislative foothold, radiologists fear. For instance, citing budget restrictions, California's Health and Human Services Agency in mid-December decided to temporarily halt enrollment in a state breast cancer screening program for low-income women and raise the eligibility age from 40 to 50.

That development disturbed Dr. Mahoney and colleagues. "Another

radiologist who e-mailed me an article about this development summed it up perfectly in the subject line: 'It's starting,'" she said.

In December, more than 20 members of Congress signed a letter to California Gov. Arnold Schwarzenegger urging him to rescind the decision. Regardless of the outcome, radiologists fear this is just the beginning.

"If Medicare stops covering breast screenings for women under 50, most insurance companies will follow immediately," said Dr. Mahoney.

Guidelines Deemed "Conflicting"

In establishing its guidelines, the USPSTF panel—an independent group of primary care physicians and non-

If Medicare stops covering breast screenings for women under 50, most insurance companies will follow immediately.

Mary C. Mahoney, M.D.

clinician scientists funded and staffed by the U.S. Health and Human Services Agency for Healthcare Research and Quality—examined the efficacy of film mammography, clinical breast examina-

tion, breast self examination, digital mammography and MR imaging in breast cancer screening.

The panel also analyzed the risks and benefits of screening and used computer modeling to estimate outcomes associated with annual vs. biennial screening that begins and ends at different ages. The analysis is published in the November issue of the *Annals of Internal Medicine*. (See sidebar)

Although recommending against routine screening mammography in



Mary C. Mahoney, M.D.
University of Cincinnati
Medical Center

women ages 40 to 49, the panel went on to explain that breast cancer mortality has been decreasing since 1990 by 2.3 percent per year overall and by 3.3 percent for women aged 40 to 50 years. "This decrease is largely attributed to the combination of mammography screening with improved treatment," the panel stated.

Nevertheless, the panel concluded that "the evidence reviewed by USPSTF indicates that a large proportion of the benefit of screening mammography is maintained by biennial screening, and changing from annual to biennial screening is likely to reduce the harms of mammography screening by half."

The message is ultimately conflicting, according to Carol Lee, M.D., an attending radiologist at Memorial Sloan-Kettering Cancer Center in New York and chair of the ACR Breast Imaging Commission.

"I don't understand how the task force reached this conclusion given the numbers they cited," she said. "To my mind, the risk/benefit ratio came out in favor of annual screening beginning at age 40. Apparently we looked at the same numbers and came up with different conclusions."

On Dec. 1, USPSTF member Bernadette Melnyk, Ph.D., of Arizona State University in Tempe, posted a statement on the university's Web site reading in part: "The task force recommends that women discuss with their primary care provider the age to start screening after understanding that the benefit of starting to be screened in the 40s compared with starting at 50 is small and that

this small benefit needs to be weighed against the possible risks, including false positives, unnecessary biopsies and anxiety.”

RSNA Panel Condemns Guidelines

Along with concurring on the lack of scientific evidence used as a basis for the guidelines, a panel of breast imaging experts at RSNA 2009 criticized USPSTF for its lack of even one breast imaging specialist on its 16-member panel. “There were no radiologists, surgeons, oncologists—no one specializing in breast cancer,” said Dr. Mahoney, who moderated the RSNA panel discussion. “That’s a real problem.”

Nor was the USPSTF panel receptive to outside advice from imaging experts, according to Daniel B. Kopans, M.D., who said he e-mailed the task force with research outlining the effectiveness of mammography but received no response.

“It’s hard for me to believe the task force thought about the implications of these guidelines,” said Dr. Kopans, a senior radiologist in the Breast Imaging Division at Massachusetts General Hospital and a professor of radiology at Harvard Medical School, both in Boston. “If they had used the actual available data and not computer modeling, by their own estimates mammography screening would be appropriate for women in their 40s.”

Dr. Kopans pointed out that the age of 50—the threshold used by USPSTF—has no basis in science. “It is meaningless with regard to screening since none of the parameters of screening change abruptly at the age of 50 or any other age,” he said. “It was only by grouping data together that USPSTF made it appear as if there was a sudden change at the age of 50 when no such change exists; rather the parameters of screening change gradually with increasing age.”

While acknowledging that mammography is not perfect, Stephen A. Feig, M.D., a professor of radiology at the University of California Irving



A panel of breast imaging experts at RSNA 2009, including Stephen A. Feig, M.D., above, criticized the U.S. Preventative Services Task Force’s revised guidelines recommending women under age 50 not undergo annual mammography.

School of Medicine in Irvine and president-elect of the American Society of Breast Disease, called it one of the greatest medical achievements of our time and shared statistics showing a 40 to 50 percent mortality reduction for women ages 40–75 in Sweden and British Columbia. Although task force members insist that cost was not a factor in their recommendations, Dr. Feig said women who follow them could end up paying the price.

“The net effect of the new guidelines is that screening would begin too late and its effects would be too little,” said Dr. Feig. “We would save money, but lose lives.”

Staying on Message Critical

Despite the backlash, Drs. Lee and Mahoney fear the USPSTF guidelines could influence women reluctant to get breast screenings and deter women already confused about the process. “The natural conclusion is that these guidelines will result in decreased utilization,” said Dr. Lee.

“We know that about 20 percent of patients diagnosed with breast cancer are in their 40s,” said Dr. Mahoney. “If you have a very official-sounding federally appointed group of doctors saying you don’t need to start screening until 50, some women will believe it.”

Radiologists can only continue to stress the importance of following

ACS guidelines and raise awareness about the decades of data supporting the benefits of mammography, said Dr. Mahoney. And new recommendations issued by ACR and SBI stating that breast cancer screening should begin at age 40 and earlier in high-risk patients were published in the January issue of the *Journal of the American College of Radiology*. (See sidebar)

“We definitely need to find better tests, that’s why we’re working in all of these other areas—digital imaging, tomosynthesis, molecular imaging and MR imaging,” she said. “We are constantly working to get better, smarter, improve sensitivity and reduce recall. But right now, mammography is the best test we have.” □

Learn More

- An abstract of the *Screening for Breast Cancer: U.S. Preventive Services Task Force Recommendation (USPSTF) Statement*, in the November issue of the *Annals of Internal Medicine*, is available at annals.org/content/151/10/716.full. USPSTF recommendations are available at AHRQ.gov/CLINIC/uspstfix.htm.
- To listen to the RSNA 2009 Expert Panel Mammography discussion, go to RSNA.org/Media/rsna/view_mammo_panel_video.cfm?streamer=1.
- An abstract of *Breast Cancer Screening With Imaging: Recommendations From the Society of Breast Imaging and the ACR on the Use of Mammography, Breast MRI, Breast Ultrasound, and Other Technologies for the Detection of Clinically Occult Breast Cancer*, is available at [jacr.org/article/S1546-1440\(09\)00480-3/abstract](http://jacr.org/article/S1546-1440(09)00480-3/abstract).

CT Reveals Pulmonary Embolism in Severely Ill Swine Flu Patients

UNIVERSITY OF Michigan researchers who discovered that some severely ill swine flu patients developed pulmonary embolism (PE) are recommending that radiologists examine the pulmonary arteries very carefully for signs of PE when evaluating contrast-enhanced CT scans of the chest.

Because most cases of swine flu are mild and don't require hospitalization, researchers are not recommending CT as a screening method.

Researchers were surprised to find some novel swine-origin influenza A (H1N1) virus (S-OIV) infection patients developed blood clots, said Prachi P. Agarwal, M.D., lead author of the study, "Chest Radiographic and CT Findings in Novel Swine-Origin Influenza A (H1N1) Virus (S-OIV) Infection," published online in October 2009 and in the December 2009 issue of the *American Journal of Roentgenology*.

"With most seasonal influenza infections, PE is not typical," said Dr. Agarwal.

In the study, Dr. Agarwal, Ella A. Kazerooni, M.D., and Sandro Cinti, M.D., retrospectively reviewed 222 patients with presumed/laboratory-confirmed H1N1 virus. Patients were admitted to the University of Michigan Health Services in Ann Arbor between May and July of 2009. Radiologists at the university typically review 90,000 chest radiographs and more than 8,000 chest CTs each year, according to the university's Web site.

Divided into two groups, the cohort comprised 66 H1N1 patients sick enough to require radiographs, said Dr. Agarwal, an assistant professor in the university's Department of Radiology. In Group One, 14 patients presented



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Richard Baron, M.D.
University of Chicago Medical Center

with extensive air space disease and were admitted to the intensive care unit (ICU) and placed on mechanical ventilation. In Group Two, the remaining 52 patients were either outpatients or briefly hospitalized but did not receive life support.

Researchers did not observe specific radiographic patterns, but Dr. Agarwal said the thoracic radiologists did observe abnormalities in the central and lower lung zones across all patient groups.

In Group One, X-rays were abnormal for all 14 patients, while in Group 2, 14 out of 52 patients exhibited abnormal chest radiographs, the study showed. Ten patients in Group 1 and five patients in Group 2 underwent a CT scan. In the ICU population, half of them were found to have PE, which Dr. Agarwal said was surprising to researchers.

Study Reveals Advancements, Limitations

Although the study provides an important finding for radiologists, it also has

limitations, Dr. Agarwal said.

"If H1N1 patients are severely sick, radiologists interpreting contrast CT scans must look at pulmonary arteries very closely for signs of PE," she said. "Clinicians should perform CT scans if patients begin to decompensate."

In the study, researchers indicated that knowledge of this complication is important, not only for the clinicians taking care of the patient but also for radiologist who may not be aware of

the high incidence of PE in this patient population.

In terms of limitations, the study is retrospective and did not include a control group of other ICU patients to determine

if the incidence of PE was higher than expected, said Dr. Agarwal. Also, some patients with influenza A were presumed to have H1N1 but did not get lab testing for the disease since the occurrences were outside the normal flu season. Additionally, radiologists did not have initial X-rays for all the patients because some were transferred from other hospitals.

With most seasonal influenza infections, PE is not typical.

Prachi P. Agarwal, M.D.

ICU Factor Raises Questions

The study left Pamela K. Woodard, M.D., wondering whether H1N1 patients have a higher rate of PE than their ICU age- and gender-matched controls without H1N1. Three things predispose a patient to thrombosis: Venous stasis, endothelial injury and hypercoaguability said Dr. Woodard, a professor of radiology and co-director of advanced cardiac imaging at Washington University School of Medicine in St. Louis.

“Are we merely looking at the phenomenon of PE caused by venous stasis in patients who are bedridden?” she asked. “At a rate of 36 percent, the answer seems to be that the PE does indeed occur more frequently in H1N1 patients in the ICU than in the general ICU population, although in this study we’re only looking at the incidence of PE in H1N1 patients who received CT imaging.”

Dr. Woodard speculated on the reasons for the high incidence of PE in very ill H1N1 patients.

“It is possible that various circulating inflammatory factors such as cytokines, for instance, could result in hypercoaguability or possibly direct endothelial damage creating deep venous thromboembolism embolizing to the lung or even causing the development of pulmonary thrombi in situ,” she theorized.

CT Not Recommended for H1N1 Screening

Concurring with study authors, Richard Baron, M.D., a professor of radiology and chair of the Department of Radiology at the University of Chicago Medical Center and RSNA Board Liaison for Education, agrees that CT should not be used to screen for H1N1.

“If people get severe chest illness, they need chest X-rays and less commonly CTs,” said Dr. Baron, noting that most patients with H1N1 do not end up hospitalized. “In fact, in this study of the 222 patients with presumed H1N1, only 66 even received a chest X-ray, which entered them into this study,” he said. “That means 156 patients weren’t sick enough to need a chest X-ray, let alone a CT scan.”

Dr. Baron pointed out other important nuances of the statistical findings in the study.

“Of the 222 patients, only 66 got a chest X-ray, so it really isn’t correct statistically to only look at the 66 patients and then determine their imaging findings,” he said. “It is potentially misleading to state that 28 of 66 patients with H1N1 had an abnormal radiograph, considering most of the 156 patients who didn’t get a chest X-ray probably had a normal chest examination,” Dr. Baron explained.

“I would put the incidence of abnormal chest X-ray as closer to 28 of 222 or just a little more than 10

percent, he said. “The fact that only 15 of 222 received a CT scan makes this even less of an argument for the utility of CT.”

Dr. Kazerooni disagrees with that assessment.

“We simply do not know whether the patients who did not get a chest X-ray would have had a normal or abnormal one, as we did not look at them with respect to disease severity-specific indicators,” she said. “We did not review why some outpatients underwent a chest X-ray and others did not. To presume they were less sick is just that, a presumption.”

“There are many variables introduced when evaluating for pneumonia that could influence requesting a chest X-ray, from a patient’s ability to pay to the presumption of diagnosis and lack of added value perceived from the chest X-ray that varies among health-care providers,” said Dr. Kazerooni. □

Learn More

- To read an abstract of the study, “Chest Radiographic and CT Findings in Novel Swine-Origin Influenza A (H1N1) Virus (S-OIV) Infection,” go to www.ajronline.org/cgi/content/abstract/193/6/1488.
- The study, “Swine-Origin Influenza A (H1N1) Viral Infection in Children: Initial Chest Radiographic Findings,” appears in the online edition of *Radiology* at radiology.rsna.org/content/early/2009/12/17/radiol.09092083.full.

RSNA News—A 20-year Ascent from Newsletter to Award-winning Newsmagazine

Continued from Page 4

partially used for the past two meetings, will be needed, along with the older East Building, to accommodate RSNA ’91,” reported a front-page announcement. As members know, the annual meeting now occupies multiple levels of the North, South and East (Lakeside Center) buildings.

RSNA News has since evolved into an award-winning newsmagazine that readers look to for not only the inner workings of RSNA but also issues affecting the profession at large.

“The Board of Directors determined that a quarterly newsletter could establish a regular line of communication with RSNA members and offer the Society the opportunity to inform other interested individuals and groups of its activities,” wrote Dr. Zylak in his letter.

RSNA members’ line of communication now extends across multiple dimensions. In the online version of *RSNA News*, members can search and bookmark issues via myRSNA, view videos and online-only features with *RSNA News Extras*, get monthly e-mail

alerts and explore the issue directly from their inboxes and hear radiologists discuss relevant topics in their own words with “Listen In.”

Twenty years ago, RSNA envisioned a publication that would keep its members in the know and spread the word about the Society’s mission. Today, *RSNA News* offers an insider’s perspective on how the radiologic sciences will help shape the future. □

International Panel Assesses Hybrid Imaging

THIRTY-FIVE radiology and nuclear medicine leaders representing national societies from around the world gathered at the RSNA 2009 International Radiology Trends Meeting. The topic was the global status of hybrid imaging, including the importance of continuous research and collaboration, and the critical need for certification and cross-training.

“RSNA provides a wonderful opportunity to bring together world leaders in imaging and gives us a forum to exchange ideas and address the challenges facing us all,” said RSNA President Hedvig Hricak, M.D., Ph.D., Dr. h.c., who moderated the session. “We learn from each other and, working together, we can advance biomedical imaging toward global imaging standards and harmonization. We hope the information exchanged will be of great value, not only to the attendees of the meeting, but also to a wider audience through a white paper that will be published later this year.”

Dr. Hricak thanked Byung Ihn Choi, M.D., Ph.D., for his help in organizing the 2009 trends meeting. Dr. Choi is a member of RSNA’s International Advisory Committee and president-elect of the Asian Oceanian Congress of Radiology, which chose the topic of the meeting.

Defined as the fusing of imaging technology, hybrid imaging has resulted in imaging modalities such as PET/CT, single photon emission computed tomography (SPECT)/CT, MR imaging/PET, ultrasound/CT and MR imaging/ultrasound, said Dr. Choi, one of seven

speakers at the event. “Hybrid imaging is a major enabling tool for the 4 ‘Ps’ of future medicine—predictive, preemptive, personalized and participatory,” he said. “Therefore, it is important to discuss the challenges facing hybrid imaging including training requirements and credentialing for interpretation and to propose global recommendations for the best clinical practice and innovative research in the future.”

Hybrid imaging is becoming more common in Asia, said Kazuro Sugimura, M.D., president of the Japan Radiological Society. He cited a survey of Asian trends in hybrid imaging showing that Japan and Korea have the most PET/CT and PET scanners.

While nuclear medicine physicians interpret PET and PET/CT scans in most countries, nuclear medicine physicians and radiologists often perform a joint reading in Japan and Hong Kong, Dr. Sugimura said. “As for the interpretation of MR imaging/PET,

We learn from each other and, working together, we can advance biomedical imaging toward global imaging standards and harmonization.

Hedvig Hricak, M.D., Ph.D., Dr. h.c.

specialization in both nuclear medicine and radiology are considered to be mandatory in most Asian countries,” he said. “When MR imaging/PET is widely applicable, relevant input from radiologists will become more important in the interpretation of PET/CT,” he said.

Molecular Imaging Key to the Future

In the future, linking diagnostics with therapeutics to create “theragnostics” will be critical to medicine, said Steven M. Larson, M.D., chief of nuclear medicine service in the Department of



Hedvig Hricak, M.D., Ph.D., Dr. h.c., moderated the RSNA 2009 International Radiology Trends Meeting.

Radiology at Memorial Sloan-Kettering Cancer Center in New York.

PET will be critically important in the next decade due to the growing importance of molecular imaging, said Dr. Larson. “In particular, there has already been an enormous influence of PET/CT in oncology.”

Fair reimbursement for PET/CT with FDG is a major advancement achieved in part due to the collaboration between nuclear medicine and radiology, according to Dr. Larson, who cited the National Oncology PET Registry as a success story. “There are numerous other radiotracers for which hybrid imaging can be used to disclose key biologic features of human tumors to the benefit of the oncology patient,” said Dr. Larson. “I’m absolutely convinced that we can do big things for individualized medicine through collaboration between nuclear medicine and radiology.”



The pros and cons of integrating nuclear imaging with CT and MR imaging were discussed by Gustav K. von Schulthess, M.D., Ph.D., Dr. h.c., who is director of the Division of Nuclear Medicine at University Hospital Zurich, Switzerland. Potential advantages include “one-stop shopping,” synergies in attenuation correction when CT is part of the system, cost reduction and reduced overall imaging time. Disadvantages include decreased flexibility of patient flow, less efficient use of equipment (one system is idling while the other is operating) and per patient cost, said Dr. von Schulthess, who pointed out the need for careful analysis before devising an integrated imaging system, especially when considering adoption of MR imaging/PET. Generally, a two-room shuttle system may be a good integrative solution for MR imaging/PET as well as SPECT/CT, he suggested.

Cross-training Critical to Progress

Hybrid imaging requires an in-depth understanding of physiology, anatomy, clinical medicine and technology, said Andrew M. Scott, M.D., director of the Ludwig Institute for Cancer Research and Centre for PET at Austin Hospital, both in Melbourne, Australia, who spoke on “Hybrid Imaging: Is Fear of a One-Specialty Takeover Slowing Progress?”

Cross-training and specialization are important considerations for new trainees, nuclear medicine physicians and radiologists, he said. “Integration with clinical care meetings is increasingly important,” said Dr. Scott. “Isolated imaging practices will have

difficulty integrating into patient care decision making.”

Health technology assessment and funding will be the key drivers of expansion of hybrid imaging, said Dr. Scott, who recommended that experience in basic translational research and clinical trials become part of specialty training.

Maximilian F. Reiser, M.D., a professor and chair of the Department of Clinical Radiology at Ludwig Maximilian University of Munich, Germany, discussed the debate in Europe concerning cross-training. A joint survey by the European Association of Nuclear Medicine and the European Society of Radiology found that a large number of respondents favored an interdisciplinary training program, he said.

A position paper on multimodality imaging issued by the two groups was initially not well received by nuclear medicine physicians concerned that the independence of their specialty was at risk, Dr. Reiser said. However, with ongoing communication between the two specialties, the concerns have been mitigated and the leaders of several European nuclear medicine societies asserted that the position paper could be used as a reference document by politicians, the medical field and financial lobbyists who have an interest in combining radiology and nuclear medicine.

“We must commit to work together, coordinate working practices, recognize each other’s skills and the importance of proper training, and plan to develop common procedural guidelines,” said Dr. Reiser.

Addressing future challenges, N. Reed Dunnick, M.D., Fred Jenner Hodges Professor and chair of radiology at the University of Michigan in Ann Arbor and science liaison for the RSNA Board of Directors, also reminded attendees of the importance of training.

“Despite the equipment we might have and its wonderful capabilities, we need to have people properly trained to operate it,” he said. “Technologists need to be trained and tested to make sure they have gained those skills and maintain that certification. The exact same thing goes for our physicians,” he added. “We need practical training programs,” he said. “We can’t just keep adding years and requirements.” He suggested a six-year integrated training curriculum combining radiology and nuclear medicine, but pointed out that such instruction would require major changes to existing programs.

The discussion following the presentations reemphasized the need for appropriate training curricula. While the curricula for training future generations of diagnostic or nuclear medicine physicians are very similar globally, the challenge is to figure out how best to train and retrain the present generation of nuclear medicine physicians and radiologists to enable them to use all of the information available from hybrid imaging. In the spirit of RSNA 2009: *Quality Counts*, it was agreed that while any strategy has to be adapted to the local environment, ensuring continuous, lifelong education is essential. □

Communication Key in Avoiding Malpractice Minefields

RADIOLOGISTS must be good stewards of communication with referring physicians as well as patients if they are to provide optimal care and avoid losing a malpractice claim.

That was the message attendees took from an RSNA 2009 refresher course “Malpractice Minefields in Radiology: Mammography, Interventional Radiology, and Failure to Communicate,” and a Mock Jury Trial case stemming from a malpractice lawsuit focusing on “the failure to communicate.”

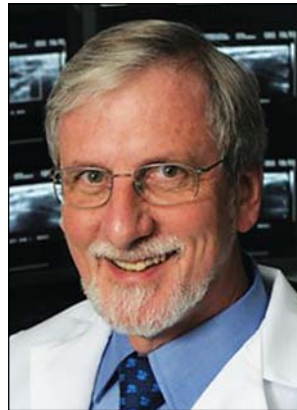
According to an annual claims survey, in nearly 60 percent of malpractice lawsuits involving radiologists, the referring physician has never been directly contacted with urgent or significant unexpected findings, said Leonard Berlin, M.D., chair of the RSNA Professionalism Committee who moderated the “Malpractice Minefields” presentation.

Dr. Berlin presented cases in which the referring physician failed to read a radiologist’s report, resulting in a delayed diagnosis—and occasionally even a patient’s death. “In malpractice cases, far more common than the urgent finding is the significant but non-urgent finding,” said Dr. Berlin, a professor of radiology at Rush University’s College of Medicine in Chicago and vice-chair of the Department of Radiology at NorthShore University HealthSystem, Skokie Hospital in Illinois. “Radiologists tend to treat non-urgent results as routine.”

Delay in breast cancer diagnosis is now the most common cause of medi-



Leonard Berlin, M.D.
NorthShore University HealthSystem



Robert A. Schmidt, M.D.
University of Chicago Medical Center



Robert Vogelzang, M.D.
Northwestern Memorial Hospital

cal malpractice suits, said presenter Robert A. Schmidt, M.D., a professor of radiology and director of breast imaging research at the University of Chicago Medical Center. “The radiologist is the specialist most frequently sued even though he’s the least likely to have had contact with the patient,” said Dr. Schmidt.

In almost 60 percent of those breast cancer cases, the patient discovered the lesion herself, Dr. Schmidt said. Most patients are young—under 40 years of age.

The radiologist is the specialist most frequently sued even though he’s the least likely to have had contact with the patient.

Robert A. Schmidt, M.D.

“These patients make up less than 5 percent of all breast cancer cases, but over a third of indemnity claims,” said Dr. Schmidt. “Palpable masses with a negative mammogram unequivocally require a tissue diagnosis. And with a palpable lesion, you should always, always, always do ultrasound.”

With no evidence showing mammography benefits patients under 40, those cases should be treated as diag-

nostic exams, he advised.

Simply talking to the patient can help identify palpable lesions, according to Dr. Schmidt who related a case of a woman whose mammogram revealed only fibrocystic breasts, when the woman herself indicated a lump in an entirely different area. “I asked her, ‘Is it like a grape?’ She said no. ‘Is it like a lima bean?’ She didn’t know what a lima bean is. I said, ‘Is it like a pea?’ She said no. Then I asked, ‘Is it like a dime?’ And she said yes. There was indeed a discoid lesion that the mammogram hadn’t found.”

Lawsuits Stem from Complications

Another presenter, Robert Vogelzang, M.D., director of vascular and interventional radiology at Chicago’s Northwestern Memorial Hospital, explained trends in malpractice suits resulting from complications after interventional procedures, using his own professional experience and mistakes as examples.

“Every one of these is a known complication—not one is out of the blue,” Dr. Vogelzang said. “I’m continually struck by the number of lawsuits

that come not from the complications themselves but by the failure of the staff to recognize or react," he said. "So often the staff will say, 'Oh, the pain is not related, it doesn't mean there's been a complication.' You should always investigate pain."

Dr. Schmidt recommended that radiologists familiarize themselves with American College of Radiology (ACR) guidelines and apply them to practice. "Those investigating your case love to be able to refer to written guidelines," he said. "You might not read them, but lawyers always do."

ACR guidelines are deliberately ambiguous, said Dr. Berlin, but they indicate that "in non-routine clinical situations, the delivery of a diagnostic imaging report should be expedited in a manner that reasonably ensures timely receipt of the findings."

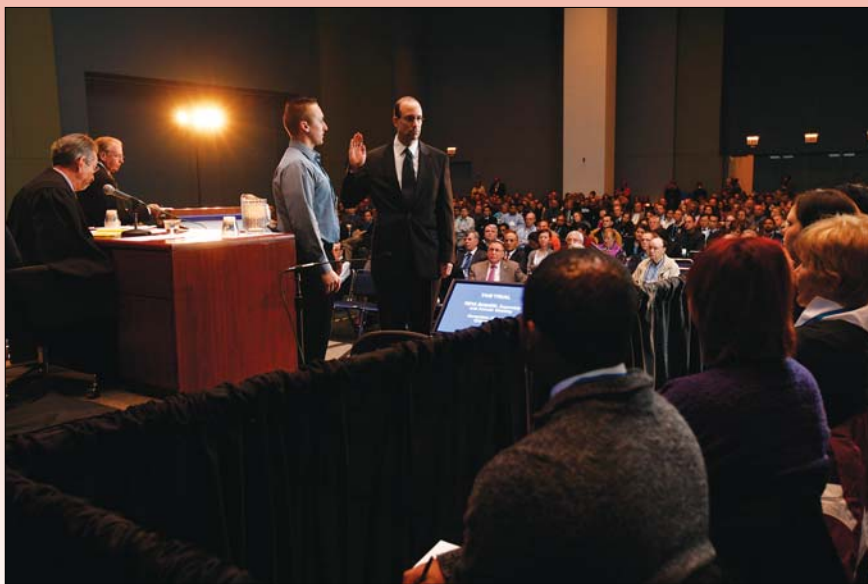
Mock Trial Reconstructs Real Case

Communication was also the key issue in the Mock Jury Trial presented at RSNA 2009, also moderated by Dr. Berlin.

The trial reconstructed a real-world malpractice case brought by the family of a 55-year-old Chicago patient who died of lung cancer about a year after a radiologist recorded a suspicious finding in the patient's radiology report but did not verbally communicate the finding to the referring physician.

The RSNA 2009 trial produced a "not guilty" verdict from its volunteer jury, which voted 10 to 2 in favor of the radiologist. Some jurors decided that by taking an additional step and sending a confirmed fax to the referring physician's office, the radiologist was more than dutiful.

"Reporting findings like this was what he had done every day for 10 years," one juror explained. "Some argued that the fax he sent—and he received confirmation that the fax went through—was an additional step. Also, there was no policy in place to say he should have done otherwise. How far should he have gone to police his co-



The RSNA 2009 Mock Jury Trial reconstructed a real-world case stemming from a lawsuit focusing on "the failure to communicate."

workers?"

"Although the jury found in favor of the radiologist in this particular mock trial, radiologists should realize that in the 'real world' one-way faxes without confirmation of receipt do not exempt the radiologist from liability," said Dr. Berlin. "The majority of lawsuits stemming from failed communication either end in the jury finding against the radiologist or are settled with payment made on behalf of the radiologist prior to trial."

Radiologists should go the extra mile in any situation in which communication is uncertain, said Dr. Berlin. "You can't go wrong with contacting the patient directly," he said. As stated in the ACR guidelines, "Regardless of the source of the referral, the diagnostic imager has an ethical responsibility to ensure communication of unexpected or serious findings to the patient. Therefore, in certain situations the radiologist may feel it is appropriate to communicate the findings directly to the patient."

In every case, radiologists should keep meticulous documentation of how, when and to whom their reports are communicated, Dr. Berlin said. "Put a name on the report," he urged. "Write the name of the person the findings

were communicated to. You can't just say 'communicated to the referring department.' If the referring physician says he never got a note from the radiologist, and the radiologist produces a note with a name on it, the jury will believe the radiologist."

Most PACS are adding features that can confirm, for example, whether an e-mail message with a radiologist's report has been opened and read, said Dr. Berlin. No matter what the method, he advised radiologists to use common sense to ensure communication is received.

"If you're not sure, make a call. If you don't get a hold of anyone at the referring office at 5:00 p.m. on a Friday, try again Saturday morning. If you don't get anyone Saturday, try again Monday," Dr. Berlin said. "We have a moral obligation to the patient, and the future of success in radiology will depend on that connection." □



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James B. Philipps, M.D.
Eliza R. Pile-Spellman, M.D.
Marc J. Pinchouck, M.D.
Clinton H. Pinto, M.B.Ch.B., M.Phil.

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 Jimmy A. Pizarro Porras Jr., M.D.
 Michelle Dombrowski &
 Stephen D. Plichta Jr., M.D.
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 Marialuisa Longhi & Paolo Potepan, M.D.
 Gail Margolis &
 Andrew K. Poznanski, M.D.
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 Vikash Prasad, M.D.
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 Sandra S. Pupa, M.D.
 Janet E. Purchase, M.D.
 Fahima A. Qalbani, M.D. &
 Askar A. Qalbani
 Daniel J. Quenneville, M.D.
 Bryan B. Quinn, M.D.
 Michael J. Quinn, M.D.
 Mahdokht M. Rabbani, M.D. &
 Ali Rabbani, M.D.
 Paul D. Radecki, M.D.
 Betty & Lee R. Radford, M.D.
 Vanessa M. Zayas-Colon, M.D. &
 Walter Radosta
 Dejana Radulovic, M.D. &
 Aleksander Radulovic
 Sameer Rafla-Demetrious, M.D.
 Andres Rahal, M.D.
 Keshav P. Raichurkar, M.D.
 Yammanuru Ramulu, M.D.
 Meera & Kishore G. Rao, M.D.
 Sheshagiri A. Rao, M.D.
 Robert Rapport, M.D.
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 Peter Reimer, M.D.
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 Douglas K. Rhodes, M.D.
 Stella & Joe C. Rice, M.D.
 Melvin J. Richards, M.D.
 Benoit Richoz
 Lloyd J. Ridley, M.B.B.S.
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 Roberto Rivera, M.D.
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 Lucinda & Michael E. Robbins, Ph.D.
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 Matthew Saady
 Kavita & Shyamsunder B. Sabat, M.D.
 Prateek Sahgal, M.D.
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 Mehran Salari, M.D.
 Mary & Anthony F. Salvo, M.D.
 Bassem M. Samaan, M.D.
 Ana M. Sanchez, M.D.
 Beatriz & Ricardo Sanchez, M.D.
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 Scott A. Sandberg, M.D.
 Mark J. Sands, M.D.
 Frederic G. Sanford II, M.D.
 Thomas R. Sanford, M.D.
 Lawrence A. Saperstein, M.D.
 Prasantha K. Sarcar, M.D.
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 Keith G. Schroeder, M.D.
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 Martin W. Schularick, M.D.
 Kimberly & Brian Schwartz, M.D., M.S.
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 Gerhard R. Schwarzl, M.D.
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 Geraldine Alba, M.D. &
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 Cynthia B. Stearns, M.D.
 Harry L. Stein, M.D.
 Phyllis & Mark A. Stein, M.D.
 Frieda & Leon H. Steinberg, M.D.
 Martin Steinhoff, M.D.
 Donna & Randall H. Stickney, M.D.
 James F. Stinchon, M.D.
 Jason M. Stoane, M.D.
In honor of Leonard Stoane, M.D.
In memory of Jack O. Haller, M.D.
 Thomas W. Stohrer, M.D.
 Alan H. Stolpen, M.D., Ph.D.
 Donna & Timothy L. Stoner, M.D.
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 Robert L. Stubbs, M.D.
 Min-Ying Su, Ph.D.
In memory of Peggy J. Fritzsche, M.D.
 Nital & Naveen Subhas, M.D.
 Kyung-Jin Suh, M.D., Ph.D.
Karen & Michael A. Sullivan, M.D.
In memory of Peggy J. Fritzsche, M.D.
 Yvonne T. Sun, M.D.
 William A. Supan, M.D.
 Ian S. Sutherland, M.D.
 Chikako Tanaka, M.D.
 Stephen T. Sweriduk Jr., M.D.
 Peter N. Swischuk, M.D.
 Gordon K. Sze, M.D.
 Marie Takasugi, M.D.
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 Lynne F. Taus, M.D.
 Chariya & Preecha Tawjareon, M.D.
 J.T. Telle, M.D.
 Elana & Mark J. Tenenzapf, M.D.
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In memory of Peggy J. Fritzsche, M.D.
 Carol & Thomas R. Thompson, M.D.
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 Thompson, M.D.*
 Kristi & William D. Tidwell, M.D.
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 Rojilek & Philip C. Trotta, M.D.
 Rene Truter, M.B.Ch.B.
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 George E. Wislo, M.D.
 Amy Wisnewski, M.D.
 John R. Wohlwend, M.D.
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In memory of Patti DiNitto, M.D.
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 Lynelle T. Yutani
 Dirk Zachow, M.D.
 Andrej J. Zajac, M.D.
 Jerahmie L. Zelovitzky, M.D.
 Ghislaine & Albert Zilkha, M.D.
 Peter T. Zimmerman, M.D.
 Karel J. Zuiderveld, Ph.D.

Journal Highlights

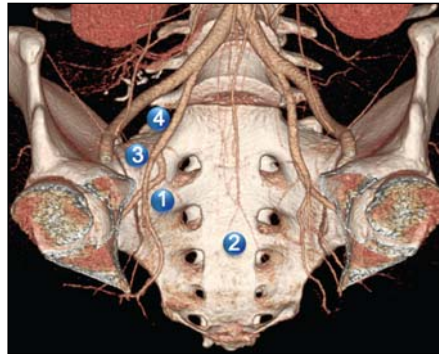
The following are highlights from the current issues of RSNA's two peer-reviewed journals.

Lymphatic Metastases from Pelvic Tumors: Anatomic Classification, Characterization and Staging

THE SPREAD OF pelvic tumors to lymph nodes is an important means of tumor dissemination and substantially affects prognosis and management. It is essential to have knowledge of the regional nodal spread of each tumor in formulating effective search strategies for cross-sectional imaging studies performed for staging and to be aware of the different regional nodes for each type of tumor and the N-stage categorization for each tumor.

In a review article in the January issue of *Radiology* (RSNA.org/Radiology), Colm J. McMahon, M.B., Neil M. Rofsky, M.D., and Ivan Pedrosa, M.D., of Beth Israel Deaconess Medical Center in Boston, present patterns of

Radiology



Internal iliac lymph nodes.

Axial contrast-enhanced CT image and volume-rendered reformation of contrast-enhanced CT image show location of named subgroups of internal iliac lymph nodes: 1 = lateral sacral, which are adjacent to lateral sacral artery (*arrow*); 2 = presacral; 3 = anterior, which are anterior to anterior division of internal iliac artery (*arrowhead*); 4 = hypogastric.

(*Radiology* 2010; 254:1:31-46) © RSNA, 2010. All rights reserved. Printed with permission.

regional nodal spread and N-stage classification for carcinomas of the anus, bladder, cervix, endometrium, ovary, penis, prostate, rectum, testis, vagina and vulva. The authors also review pelvic lymph node anatomy and nomenclature with schematic illustrations and clinical examples from patients with pelvic tumors.

“Routine cross-sectional imaging studies have less-than-optimal diagnostic test performance, but improvements are likely to be delivered by functional imaging modalities such as PET and ultrasmall superparamagnetic iron oxide-enhanced MR imaging, as well as by molecular imaging strategies,” the authors conclude.

When to Suspect Pulmonary Vasculitis: Radiologic and Clinical Clues

DIAGNOSIS OF the rare disorder pulmonary primary vasculitis is among the most challenging in medicine because signs and symptoms are nonspecific and overlap with those of infections, connective tissue diseases and malignancies. Diagnosis of vasculitis relies on recognition of characteristic combinations of clinical, radiologic and histopathologic features.

RadioGraphics

In a review article in the January-February issue of *RadioGraphics* (RSNA.org/RadioGraphics), Eva Castañer, M.D., of the Institut Universitari Parc Tauli in Barcelona, Spain, and colleagues describe the classification and clinical characteristics of the vasculitides and review their pathologic



Wegener granulomatosis in a 62-year-old woman. CT image shows extensive areas of consolidation in a predominantly perihilar distribution.

(*RadioGraphics* 2010;30:1:33-53) © RSNA, 2010. All rights reserved. Printed with permission.

This article meets the criteria for 1.0 AMA PRA Category 1 Credit™. CME is available online only.

and radiologic features that most frequently affect the thorax with emphasis on an integrated clinical and radiologic approach for accurate diagnosis.

“The diagnosis of vasculitis is often delayed because a number of other disorders can mimic the clinical

manifestations,” the authors conclude. “Chest radiographs and especially CT are valuable for noninvasive diagnosis in patients with pulmonary vasculitis; certain radiologic signs in combination with clinical features enable an earlier diagnosis.”

Radiology in Public Focus

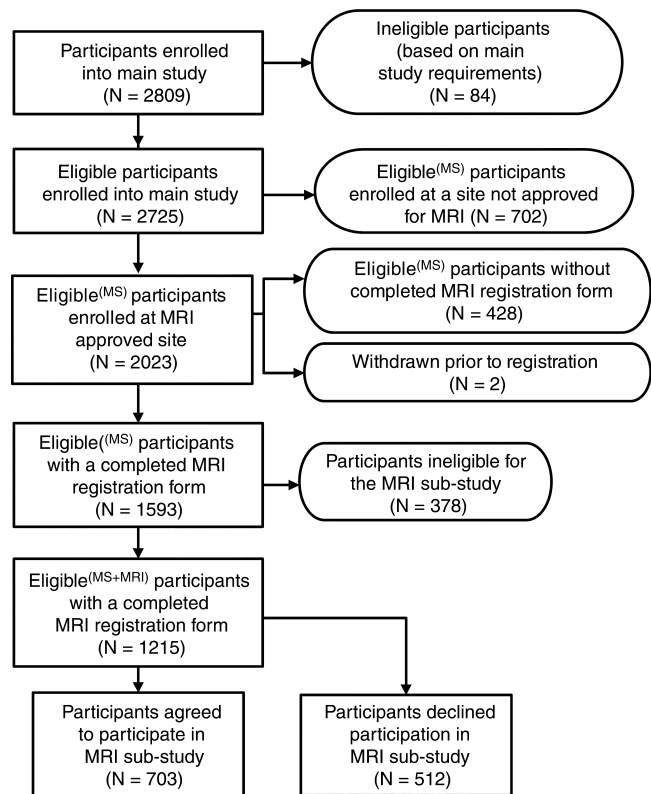
Reasons Women at Elevated Risk of Breast Cancer Refuse Screening Breast MRI: ACRIN 6666

FOR A significant number of women at elevated risk for breast cancer, MR imaging may not be an acceptable screening tool, researchers have found.

“In a population of 1,215 women at elevated risk of breast cancer offered a contrast-enhanced screening MR imaging examination, only 703 (57.9 percent) agreed, and only 51.6 percent of women approached actually completed a screening MR exam per protocol,” wrote Wendie A. Berg, M.D., Ph.D., of the American Radiology Services Department at Johns Hopkins Green Spring Center in Lutherville, Md., and colleagues.

The women studied had completed three yearly screenings with mammography plus ultrasound as part of the ACRIN 6666 trial. When the women were offered, in addition to these screenings, a single contrast-enhanced MR study at no initial cost, Dr. Berg and colleagues found that nearly half of them declined. Claustrophobia was the most common reason given for non-participation, followed by time constraints and financial concerns. Researchers also cited “lack of perceived benefit on the part of the patient or referring physician, among other factors.”

“For these women, consideration can be given to supplemental screening with ultrasound in addition to mammography,” researchers wrote, “provided the woman is informed of the high risk of false positives from screening ultrasound and reduced sensitivity to cancer detection compared to MR imaging.”



Flowchart shows overall ACRIN 6666 study population, including the women who agreed and those who declined to undergo a single contrast-enhanced MR screening examination. MS = mammographic screening. (*Radiology* 2010; 254; 1:79-87) © RSNA, 2010. All rights reserved. Printed with permission.

Media Coverage of Radiology

In November, media outlets carried 108 news stories generated by articles appearing in the print and online editions of *Radiology*. These stories reached an estimated 64 million people.

November coverage included the *Milwaukee Journal Sentinel*, *Diagnostic Imaging*, *Women's Health Weekly*, *Heart Disease Weekly*, *Daily Advance*, Reuters, Gannett News Service, HON News, KGUN-TV (Tucson), MSN Health, Yahoo! Health, *health.com*, *usnews.com*, *healthscout.com*, *forbes.com*, *dotmed.com* and *medicexchange.com*.



January Public Information Activities Focus on Brain Imaging

In January, RSNA's 60-Second Checkup radio program will focus on imaging of the brain, particularly for the evaluation of stroke.

Working For You

Associated Sciences Consortium

RSNA News continues its series highlighting the work of organizations working with RSNA in the Associated Sciences Consortium.

AHRA: The Association for Medical Imaging Management

AHRA offers a range of professional development programs, including education conferences and seminars, the AHRA Leadership Institute, networking opportunities, award-winning publications and the Certified Radiology Administrator (CRA) credential.

“The CRA credential has reached critical mass and is now recognized by employers as a statement of professional competence,” said AHRA President Debra A. Lopez, C.R.A., FAHRA. “Our plans for 2010 include campaigns to market the CRA to the hiring C suite levels as well as to administrators and managers who want to capitalize on their experience and knowledge.”

Since its development in 2002, more than 700 administrators have earned the credential which represents knowledge in fiscal, asset, communication and information, human resource and operations management.

Founded in 1973, AHRA has more than 4,200 members in the U.S. and

abroad. Members represent management at all levels for freestanding imaging centers, hospital imaging departments and group practices. AHRA’s onsite conferences and seminars, Webinars, and online Quick Credit™ tests are intended to meet the needs and schedules of busy imaging professionals.

In 2006, AHRA launched its Leadership Institute, which provides information targeted to all levels of management—from new and aspiring managers to seasoned executives. The 2010 Annual Meeting and Exposition will be held August 22–26 in Washington, D.C. More than 1,000 imaging leaders are expected to attend, said Cronin.

“Although we provide many opportunities for our members to easily earn CE credits throughout the year, there is nothing like our annual meeting to network with peers and develop life-long friendships,” said AHRA Chief Executive Officer Edward J. Cronin, Jr.

“Attendees come away with a real sense that they are part of a profession that cares about supporting each other.”

Realizing the need for maintaining professional excellence, AHRA developed the CRA credential in 2002. More than 700 administrators have earned this credential, which represents knowl-

edge in fiscal, asset, communication and information, human resource and operations management.

Member benefits include networking opportunities via forums including the AHRA list server. In addition, AHRA publishes a wide array of publications, including *Radiology Management*, the top-rated publication among administrators; its award-winning newsletter, Link; benchmarking surveys and the AHRA Professional Development Series of textbooks.

For more information on AHRA, please visit AHRAonline.org.



SAMs Offered Online

New self-assessment modules (SAMs) now available online at RSNA.org/education are:

- Invasive Lobular Carcinoma and Breast MR Imaging
- Pediatric Trauma

The modules have been qualified by the American Board of Radiology (ABR) in meeting its criteria for self-assessment toward fulfilling requirements of the ABR maintenance of certification program.

Each module qualifies for 1 SAM credit and 2.5 CME credits. To view all SAMs, which are offered free to RSNA members, visit the Web site. For more information, call 1-800-381-6660 x3733.

SAMs Results to be Issued in mid-February

RSNA 2009 attendees who participated in self-assessment modules (SAMs) will receive their certificates of participation, test answers, references and performance data no later than mid-February. Faculty contributors worked with RSNA to offer 33 SAMs attended by more than 2,000 RSNA 2009 registrants. Ten of this year’s SAMs were audience response-based.

RSNA Education Center Releases 2009–2010 Product Catalog

The RSNA Education Center has released its 2009–2010 product catalog which includes the new CD-ROM Collections of Refresher Courses from past RSNA meetings. Bundled into topical sets for easy reference, the Collections allow members to build a comprehensive education library at a reduced price.

Those who did not get a catalog in their RSNA 2009 bag this year can contact edctr@rsna.org for an e-mail copy. For additional information on courses or products, please contact the RSNA Education Center at 1-800-381-6660 x3753 or 1-800-272-2920.

Physics Modules Available Online

The physics modules introduced at RSNA 2009 are now available online free of charge to RSNA and AAPM members. Designed to educate radiology residents about important concepts in physics, these self-guided modules include a self-testing feature that creates a comprehensive learning experience for the viewer.

Modules were developed by teams that included at least one physicist and one radiologist and are peer reviewed for content and quality before being officially launched online. The goal is to provide a basic understanding of physics in the following areas: general imaging, radiography, mammography, fluoroscopy, interventional radiology and CT and imaging processing. RSNA will release additional online physics modules in 2010.

View these modules at RSNA.org/physics. For more information on the physics modules, call 1-630-368-3753 or email us at physics@rsna.org.

RFP Sought for RSNA/AAPM Modules on Science of Imaging

RSNA and the American Association of Physicists in Medicine (AAPM) are developing 50 Web-based instructional modules on the basic science underlying imaging. Created in two phases, these self-guided modules include self-testing features to create a comprehensive learning experience for the viewer.

With phase one nearing completion, a request for proposals (RFP) to develop educational content for the remaining physics modules in phase two will be released early this month, with a response deadline of February 28.

These modules are designed to educate radiologists and radiology residents about important concepts in physics as identified in AAPM physics curriculum and have been endorsed by the Association of Program Directors in Radiology. Each module will be developed by a team of at least one physicist and one radiologist.

These physics modules are available to RSNA and AAPM members as a benefit of membership.

The RFP is available at RSNA.org/physics and also through AAPM.

Program and Grant Announcements

RSNA Co-Sponsors SPIE Medical Imaging Conference

February 13-18 • Town and Country Resort and Convention Center, San Diego

RSNA will co-sponsor International Society for Optics and Photonics (SPIE) Medical Imaging 2010, a multidisciplinary conference featuring topics including medical physics, image processing, CAD, visualization and modeling, PACS, perception, ultrasonic imaging and biomedical research. For more information on SPIE, an international society advancing light-based research, go to spie.org/medical-imaging.xml.

RSNA-Sponsored Sessions at the Association of University Radiologists (AUR) Annual Meeting

March 23-26 • Hilton San Diego Bayfront Hotel, San Diego

Association of Program Directors in Radiology (APDR) and RSNA will co-sponsor the medical education research (MERC) workshop "Getting Started/Asking Questions" open to all AUR, APDR and SCARD members. The Tuesday, March 23, workshop is part of a series offered by the Association of American Medical Colleges (AAMC) and is part of an AAMC MERC program. The workshop targets clinicians and other educators who want to learn research skills enabling collaborative participation in medical education research projects. Workshop facilitator is Carol Hodgson, Ph.D., of the University of Colorado in Denver.

For more information, go to www.AUR.org.

RSNA Introduction to Research for International Young Academics

Deadline for Nominations—April 15

The RSNA Introduction to Research for International Young Academics program encourages young radiologists from countries outside the U.S. and Canada to pursue careers in academic radiology. The program consists of a special seminar held during the RSNA annual meeting.

Eligible candidates are residents and fellows currently in radiology training programs or radiologists not more than two years out of training who are beginning or considering an academic career. Nominations must be made by the candidate's department chairperson or training director. Fluency in English is required. Nomination forms can be found at RSNA.org/IRIYA.

TEST YOUR radiology knowledge with bimonthly crossword puzzles to appear in *RSNA News* in 2010 to mark the newsmagazine's 20th Anniversary. Answers will appear in the following month's issue.

Across

- 1 Won 1917 Nobel Prize in Physics for "discovery of the characteristic Roentgen radiation of the elements"
- 5 Localized form of radiation treatment: ___ beam therapy
- 9 "Miracle on ice" winners in 1980
- 11 Home to RSNA headquarters: ___ Brook, Illinois
- 13 Systems to automatically search digital images, abbreviated
- 14 *Radiology* editor, 1986 to 1997
- 15 Follower's suffix
- 16 Chinese basketball giant, Ming
- 17 He smashed world records in the 100 and 200 meters in Beijing in 2009
- 19 Astronaut turned politician returned to space in 1998
- 21 Skirmish
- 24 Gelatin substitute
- 25 1992 presidential candidate captured 19 percent of popular vote
- 27 Colloquial term for contrast
- 28 Front-to-back view, abbr.
- 29 Element commonly found in intravenous MR contrast (abbr.)
- 30 Deception
- 32 Object thought to be the most distant and most luminous in the universe
- 33 Mike Myers voiced his 2001 Best Animated Feature
- 36 Guitarist Nugent
- 38 Not rejecting out of hand (2 words)
- 41 Space shuttle Atlantis docked with this Russian space station in June 1995

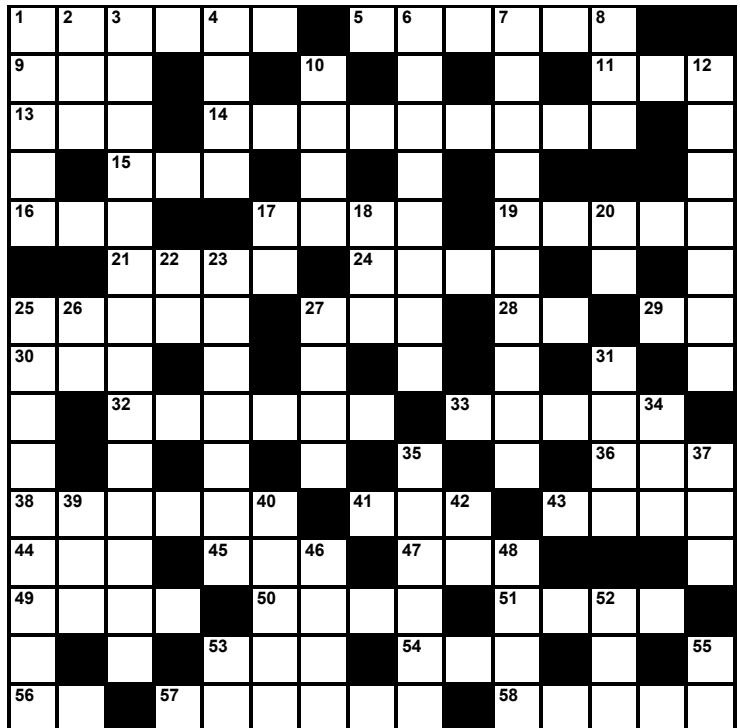
- 43 Site of the first CT installation in U.S.
- 44 A Bobbsey twin
- 45 Hung. neighbor
- 47 Downturn
- 49 Ancient Andean
- 50 Food-related e-mail pejorative entered the lexicon in 1994
- 51 Europeans agreed to this single currency in 1998
- 53 Ford muscle car
- 54 60s actress, Margaret
- 56 Short supply of this element's radioisotope adversely affects nuclear medicine, abbr.
- 57 City rejoiced as team ended 86 year World Series drought in 2004
- 58 NIH branch devoted to imaging, abbr.

Down

- 1 Grid absorbs scatter X-rays and improves image contrast
- 2 ___ rule (usually)
- 3 Procedure employs percutaneous applicator to heat tumor cells: ___ ablation
- 4 2004 TV pilot hooked millions on the plight of plane crash survivors trapped on a Pacific island
- 6 Known as father of the X-ray
- 7 Method of separating interference from area of interest by imaging a cut section of the object
- 8 Oui's opposite
- 10 In 1993, first female U.S. attorney general to be sworn in

- 12 Third longest serving Congressman left behind healthcare legacy when he died in 2009
- 17 "Walk on ___" by Dionne Warwick
- 18 Clapton's "___ down Sally"
- 20 Hospital room, abbreviation
- 22 Read only, abbreviation
- 23 Bombing shattered this city's Olympic park in 1996
- 25 Hanford's historic B Reactor was the world's first production reactor of this radioactive element
- 26 Emotional intelligence, abbreviation
- 27 Capped 2004 Iowa concession speech with memorable scream

- 31 Use statistical methods to combine results of different studies: ___ analysis
- 34 Essential
- 35 Portrayal of Virginia Woolf won her the 2002 Best Actress Oscar
- 37 In 1999, closed above 11,000 for the first time
- 39 Hook's nemesis
- 40 Forces out
- 42 Newport, state
- 46 Good name for a Dalmatian
- 48 Won first of two Oscars in 2003, for "Mystic River"
- 52 Turkey seasoning
- 53 Oriental game
- 55 King or gun?



MEETING WATCH RSNA 2010

For Fifth Straight Year, RSNA 2009 Draws More than 700 Exhibitors

More than 700 exhibitors, including 110 first-time companies, unveiled the newest imaging modalities at RSNA 2009, marking the fifth consecutive year in which the RSNA Technical Exhibition exceeded 700 exhibitors. The exhibition spanned three halls and 456,225 square feet.

Official audited attendance data will be available in the February issue of *RSNA News*.



News about RSNA 2010

Submit Abstracts for RSNA 2010

THE ONLINE system to submit abstracts for RSNA 2010 will be activated this month. **The submission deadline is 12:00 p.m. Central Time on April 15, 2010.** Abstracts are required for scientific presentations, education exhibits, applied science and quality storyboards.

To submit an abstract online, go to RSNA.org/abstracts.

The easy-to-use online system helps the Scientific Program Committee and Education Exhibits Committee evaluate submissions more efficiently. For more information about the abstract submission process, contact the RSNA Program Services Department at 1-877-776-2227 within the U.S. or 1-630-590-7774 outside the U.S.



RSNA 2010

PERSONALIZED MEDICINE:
In Pursuit of Excellence

NOVEMBER 28 – DECEMBER 3 · McCORMICK PLACE, CHICAGO

Important Dates for RSNA 2010

April 28	RSNA/AAPM member registration and housing open
May 26	General registration and housing open
June 30	Course enrollment opens
October 22	Deadline for international mailing
November 5	Deadline for final advance discounted registration, housing and course enrollment
November 28 – December 3	RSNA 96th Scientific Assembly & Annual Meeting

MEDICAL MEETINGS

January – April 2010

FEBRUARY 13–18

International Society for Optics and Photonics, (SPIE), Medical Imaging 2010, Town and Country Resort and Convention Center, San Diego
• www.spie.org/medical-imaging.xml

FEBRUARY 21–26

Society of Gastrointestinal Radiologists (SGR) and Society of Uroradiology (SUR), Abdominal Radiology Course, Omni Resort at Champions Gate, Orlando, Fla.
• www.sgr.org

FEBRUARY 28–MARCH 3

Society of Thoracic Radiology (STR), Annual Meeting, Hotel del Coronado, San Diego
• www.thoracicrad.org

MARCH 1–4

Healthcare Information and Management Systems Society (HIMSS), Annual Conference and Exhibition, Atlanta
• www.himssconference.org

MARCH 4–8

European Congress of Radiology (ECR), Austria Center, Vienna
• www.myesr.org/cms

MARCH 13–18

Society of Interventional Radiology (SIR) 35th Annual Scientific Meeting, Tampa Convention Center, Florida
• www.sirweb.org

MARCH 20–23

13th Asian Oceanian Congress of Radiology (AOOCR), Taipei International Convention Center, Taiwan
• www.aocr2010.org/congress.htm

MARCH 23–26

Association of University Radiologists (AUR), 58th Annual Meeting in Joint Sponsorship with RSNA, Hilton San Diego Bayfront Hotel
• www.aur.org

MARCH 24–27

American Institute of Ultrasound in Medicine (AIUM), Annual Meeting, San Diego Marriott
• www.aium.org

APRIL 9–12

International Congress of Radiology, Shanghai International Convention Center, China
• www.icr2010.org

APRIL 13–17

Society for Pediatric Radiology (SPR), Annual Meeting, Boston Park Plaza Hotel & Towers
• www.pedrad.org

APRIL 22–23

The Canadian Association of Radiologists (CAR), International Guidelines Symposium, Montréal, Quebec
• www.car.ca

APRIL 22–25

Canadian Association of Radiologists (CAR), 73rd Annual Scientific Meeting, Hyatt Regency Hotel, Montréal, Quebec
• www.car.ca

APRIL 29–MAY 1

American Brachytherapy Society (ABR), Annual Meeting, Hyatt Regency, Atlanta Towers
• www.americanbrachytherapy.org

NOVEMBER 28–DECEMBER 3

RSNA 2010, 96th Scientific Assembly and Annual Meeting, McCormick Place, Chicago
• RSNA2010.RSNA.org

Product News

NEW PRODUCT

Automated Breast Ultrasound

U-Systems (www.u-sys.com) announces the somo-v INSIGHT Class™ automated breast ultrasound system (ABUS) that advances U-Systems' ABUS technology leadership with a new ultra-broadband transducer and innovative tissue equalization algorithms (TEA). TEA includes a suite of advanced processing tools which improve diagnostic confidence and streamline clinical workflow. The somo-v INSIGHT Class system was developed specifically for the SOMO-INSIGHT clinical study to determine if ABUS combined with screening mammography improves visualization of breast lesions in women with dense breast tissue over having a screening mammogram alone.



NEW PRODUCT

C-arm Imaging for OR

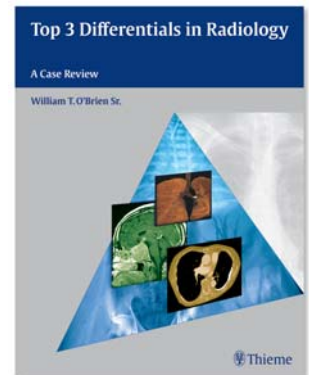
Ziehm Imaging (www.Ziehm.com) introduces Ziehm Solo C-arm, featuring versatile setup in the OR and exceptional image quality. This agile and versatile C-arm delivers excellent image quality while requiring minimal OR space. The system provides flexible image display options and exceptional flexibility in connecting to existing OR monitors. Ziehm Solo was designed to meet the needs of pain management and orthopedic imaging as well as trauma and spine surgery. Its attractive price point makes it an interesting option for more limited hospital budgets.



NEW PRODUCT

Case-based Reference Text

Top 3 Differentials in Radiology: A Case Review, published by Thieme Publishers (www.thieme.com), is a practical case-based reference that will enable radiologists and residents to hone their skills in developing differential diagnoses for common imaging findings. Presented as unknowns, the cases are arranged into 12 main sections based on subspecialties. The book presents each case as a two-page unit. The left page features clinical images and a brief description of the clinical presentation. The right page provides key imaging finding, "top 3" differential diagnoses, additional differential diagnoses, the final diagnosis and imaging pearls. The final section contains selected cases from all radiology subspecialties with distinctive imaging findings that should lead definitively to a single diagnosis.



NEW PRODUCT

Image Enhancement/Dose Reduction Software

ContextVision (www.contextvision.se) announces GOPView® XR2^{Plus}, an image enhancement and dose reduction software application for digital X-ray. GOPView XR2^{Plus} offers improved visualization of subtle details and new features that minimize tuning time, increase patient throughput and reduce the cost of digital X-ray image acquisition and enhancement. New noise reduction capabilities enable GOPView XR2^{Plus} to sharpen fine structures and edges while eliminating noise. It enables clinicians to minimize dose without sacrificing image quality or clinical benefit. Features including an automatic window level tool for immediate viewing and automatic collimation reduce the clinician's hands-on time.



RSNA News

Information for *Product News* came from the manufacturers. Inclusion in this publication should not be construed as a product endorsement by RSNA. To submit product news, send your information and a non-returnable color photo to *RSNA News*, 820 Jorie Blvd., Oak Brook, IL 60523 or by e-mail to rsnanews@rsna.org. Information may be edited for purposes of clarity and space.

RSNA.org

International Radiology Outreach Resources

Links to information on radiology-related programs impacting developing or newly developed countries are available through the International Radiology Outreach Resources (IROR) Web page at *RSNA.org*. The developing central repository offers information about international educational and outreach efforts by RSNA and other radiology societies, as well as medical and relief agencies throughout the globe. Access the IROR page in the International dropdown menu at *RSNA.org* or directly at *RSNA.org/International/IROR.cfm*.

- 1 Learn more about RSNA outreach programs such as the International Visiting Professor Program and research programs like the Derek Harwood-Nash International Fellowship.
- 2 Plan for meetings hosted by international organizations like the International Society of Radiology and International Society of Radiographers and Radiological Technologists.
- 3 Find out about international resources available from agencies such as the National Cancer Institute.
- 4 Discover teleradiology and international education programs offered by societies like the Royal College of Radiologists and Society for Pediatric Radiology.
- 5 Explore international teaching resources offered by various learning institutions.
- 6 Access the Web pages of international health-care organizations like the World Health Organization and Doctors Without Borders.

For more information about adding an organization and program to the IROR page, contact Fiona Miller at *fmliller@rsna.org* or 1-630-590-7741.

The screenshot shows the IROR website with a table of resources. A red circle highlights the 'Teaching Resources' section, which includes links to the International Society of Radiology (ISR), the International Society of Radiographers and Radiological Technologists (ISRT), the National Cancer Institute (NCI), the Royal College of Radiologists (RCR), and the Society for Pediatric Radiology (SPR).

E-connections

Your online links to RSNA

- RSNA.org**
- myRSNA**
myRSNA.org
- RSNA 2010**
RSNA2010.RSNA.org
- Membership**
RSNA.org/Membership
- Publications**
RSNA.org/Publications
- Science**
RSNA.org/Science
- Education**
RSNA.org/Education
- Quality Improvement Tools**
RSNA.org/Quality
- Informatics Solutions**
RSNA.org/Informatics
- RSNA Research & Education Foundation**
RSNA.org/Foundation



Filter Feature Aids File Search

Having a hard time finding one of your files on *myRSNA.org*? The Filter feature can aid the process. By clicking Filter under myFiles on the top of your list, you can show only files you have shared, files from your portfolio, images, PowerPoint presentations and more. If you know a little about what kind of file you're looking for, the Filter feature can make it much easier to find.

The screenshot shows the myRSNA file management interface. The 'Filter' dropdown menu is open, showing options for 'myFiles Application Filters' and 'myFile Asset Type Filters'. The 'myFile Asset Type Filters' section has 'Documents' and 'Image Files' selected.



HIS POTENTIAL INSPIRED A CT THAT USES LESS RADIATION.

Minimizing radiation exposure for every patient is important, especially children who may have multiple scans over the course of their lives. This potential inspired us to develop the Aquilion® ONE dynamic volume CT. With 16 cm of volume coverage, it can perform acquisitions 10 times faster than helical and with at least 30% less radiation. To lead, you must first listen.

medical.toshiba.com

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