

RSNA *News*

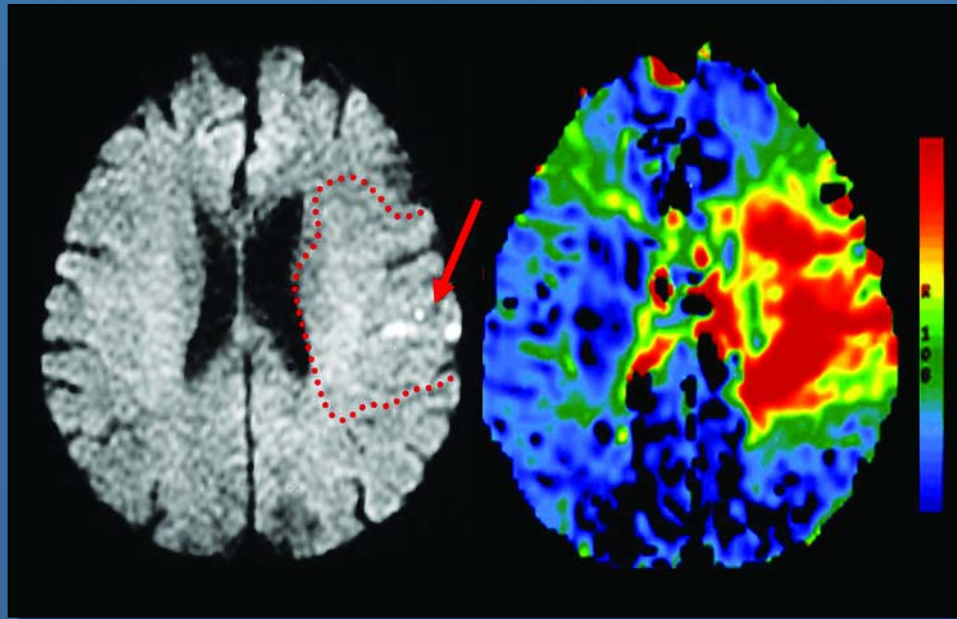


Image courtesy of Howard A. Rowley, M.D.

Radiologists Play More Prominent Role in Stroke Triage

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- Maximize Productivity Before Outsourcing, Expert Says
- Scientific Abstract and Journal Manuscript Submissions from Overseas Increase
- Medical-Legal Jury Trial at RSNA 2004
- RSNA Hosts Media Briefing on Women's Breast Health
- Private Practitioner Touts Value of Academic Radiology

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RSNA *News*

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RSNA News

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Osborn Earns Distinguished Service Award

Anne G. Osborn, M.D., has earned a distinguished service award from the University of Utah School of Medicine Alumni Association. “She was cited for her service to radiology and neuroscience clinicians around the world, exemplified, in part, by the more than 100 invited lectures she’s given around the globe, membership in many international societies

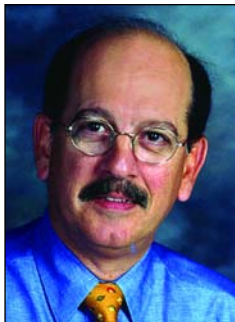
and in the far-reaching impact of her textbooks,” according to a university statement.

Dr. Osborn’s 1994 textbook, *Diagnostic Neuroradiology*, is a best-seller. She recently published *Diagnostic Imaging: Brain*.

Dr. Osborn is a member of the RSNA Research & Education Foundation Board of Trustees.



Anne G. Osborn, M.D.



Diego B. Nunez, M.D., M.P.H.

Nunez Receives Two Gold Medals

Diego B. Nunez, M.D., M.P.H., was awarded the gold medal of the Inter-American College of Radiology during the International Congress of Radiology (ICR) meeting in Montreal. The award was given in recognition to his “academic achievements and contributions to international radiology education.”

Dr. Nunez is the chairman of the Department of Radiology at the Hospital of Saint Raphael and a clinical professor of radiology at Yale University School of Medicine in New Haven, Conn. He is also an RSNA international visiting professor and a member of the RSNA Scientific Program Committee.

This month, Dr. Nunez will receive the gold medal of the American Society of Emergency Radiology during its scientific session in Montreal.

Five Radiology Leaders Receive Beclere Medal

The International Society of Radiology has awarded five Beclere medals—the society’s highest honor. The recipients are:

- **Harald Ostensen, M.D.**, chief of the radiologic imaging branch of the World Health Organization
- **Carl-Gustaf Standertskjöld-Nordenstam, M.D., Ph.D.**, immediate past-president of ICR
- **Mutsumasa Takahashi, M.D.**, past-president of the Japanese Society of Radiology
- **Pablo Ros, M.D., M.P.H.**, immediate past-chairman of the RSNA Committee on International Relations and Education
- **Barry B. Goldberg, M.D.**, chairman of the RSNA Committee on International Relations and Education

IN MEMORIAM:

Godfrey Hounsfield, D.Sc.

Sir Godfrey Hounsfield, D.Sc., who helped develop computed tomography, died in August at the age of 84.

Dr. Hounsfield shared the Nobel prize in medicine in 1979 with nuclear physicist Allan M. Cormack, M.Sc.

“With an unusual combination of vision, intuition and

imagination, and with an extraordinarily sure eye for the optimal choice of physical factors in a system that must have offered very great problems to construct, he obtained results which in one blow surprised the medical world. It can be no exaggeration to maintain that no other method within x-ray

diagnostics has, during such a short period of time, led to such remarkable advances, with regard to research and number of applications, as computer-assisted tomography,” the Nobel committee wrote.

Dr. Hounsfield was awarded the RSNA Gold Medal in 1980.



Sir Godfrey Hounsfield, D.Sc., at RSNA 1980

RSNA News

Send your submissions for *People in the News* to rsnanews@rsna.org, (630) 571-7837 fax, or *RSNA News*, 820 Jorie Blvd., Oak Brook, IL 60523. Please include your full name and telephone number. You may also include a non-returnable color photo, 3x5 or larger, or electronic photo in high-resolution (300 dpi or higher) TIFF or JPEG format (not embedded in a document). *RSNA News* maintains the right to accept information for print based on membership status, newsworthiness and available print space.

Steinberg to Serve on Prominent CMS Committee

Michael S. Steinberg, M.D., from the Santa Monica Cancer Treatment Center, has been appointed to the Medicare Coverage Advisory Committee (MCAC) for the Centers for Medicare and Medicaid Services.

Six groups make up MCAC. Dr. Steinberg is in the group that conducts reviews of medical literature, executes technical assessments and evaluates specific data sets on topics regarding effective and appropriate medical services, and items covered or eligible under Medicare.

Dr. Steinberg is also a member of the board of directors for the American Society for Therapeutic Radiology and Oncology.



Michael S. Steinberg, M.D.

Knopp New Chair at Ohio State

Michael V. Knopp, M.D., Ph.D., is the new chairman of the Department of Radiology at the Ohio State University College of Medicine & Public Health.

Dr. Knopp is also a professor of radiology and the Novartis Chair of Imaging Research. He succeeds Dimitrios Spigos, M.D., who stepped down after 12 years as chair of the Department of Radiology to devote his time to research and clinical care.



Michael V. Knopp, M.D., Ph.D.

Schultz to Head FDA Devices and Radiological Health Center

The Food and Drug Administration (FDA) has named Daniel G. Schultz, M.D., as director of the agency's Center for Devices and Radiological Health (CDRH). He will be responsible for FDA's review of all medical devices, as well as oversight of radiation-emitting products. Dr. Schultz is board certified in general surgery and family practice. He has been acting CDRH director since April.

Italian Society Honors Three Radiologists

The Italian Society of Medical Radiology has awarded honorary membership to three distinguished radiologists for "their expertise and for their continuous and effective relations with Italian radiology. They are:

- **Giovanna Casola, M.D.**, San Diego
- **Francisco Arredondo, M.D.**, Guatemala City
- **Philippe Grenier, M.D.**, Paris

Borrelli New VP at Guardian

Guardian Technologies International, Inc., a developer of imaging technologies for healthcare radiology and homeland security, has appointed Richard Borrelli as vice-president of business development of its Healthcare Systems division.

Borrelli, who most recently was a business consultant to entrepreneurial imaging and radiology companies, will be responsible for building Guardian's radiology informatics business and managing strategic alliances and partnerships in the United States and Europe.

ANNOUNCEMENTS

FDA Creates New Cancer Office

The Food and Drug Administration (FDA) is changing its organizational structure to provide for a stronger and more consistent approach to the review process for drugs and most therapeutic biologics used to diagnose, treat and prevent cancer.

"This initiative by the FDA will benefit cancer

patients in the future by helping important cancer drugs reach the community," said National Cancer Institute (NCI) Director Andrew C. von Eschenbach, M.D. "As NCI promotes research to develop new interventions to prevent,

detect and treat cancer, we look forward to supporting FDA's efforts."

FDA will create a new oncology office, called the Office of Oncology Drug Products, to be housed in the Center for Drug Evaluation and Research (CDER). This new

office will be a consolidation of three existing areas within CDER and will also include drugs and certain therapeutic biologics used in medical imaging.



Cohen Named RSNA Editorial Fellow

Harris L. Cohen, M.D., director of the Division of Body Imaging (CT/US/MR), chief of pediatric body imaging and vice-chairman of research affairs at the State University of New York Health Sciences Center at Stony Brook, is the 2004 RSNA Editorial Fellow.

In 2002, Dr. Cohen was

named editor-in-chief of the American College of Radiology's professional self-evaluation syllabi series.

During his one-month RSNA fellowship, Dr. Cohen will work closely with *Radiology* Editor Anthony V. Proto, M.D., at the *Radiology* office in Richmond, Va., with *Radio-*

Graphics Editor William W. Olmsted, M.D., at the *Radio-Graphics* office in Bethesda, Md., and with the publications, advertising, and marketing and communications staff at RSNA Headquarters in Oak Brook, Ill. Dr. Cohen will also work with the RSNA editors at RSNA 2004 in Chicago.



Harris L. Cohen, M.D.

Maintenance of Certification White Paper

The American Board of Radiology (ABR) has released a white paper on its new Maintenance of Certification (MOC) program. The process is designed to facilitate and document professional development through its focus on the essential elements of quality care in diagnostic radiology, radiology oncology and radiologic physics.

The document is available at www.theabr.org/MOC_overview.htm.

"Over the next 10 years, ABR-MOC will continue to develop into a comprehensive vehicle through which all diplomates can ensure the public and the radiologic community that they are incorporating new information into their practices, thereby delivering excellence in care," the white paper states.

The screenshot displays the ABR MOC website. At the top is the ABR logo and the text "ABR MOC". Below this is a paragraph explaining the program's purpose: "The American Board of Radiology has a historic background of ensuring excellence in the professionals who practice in our field...". It then lists the components of the MOC program: "Our new Maintenance of Certification process (ABR-MOC) is designed to facilitate and document the professional development of each diplomate through its focus on the essential elements of quality care in Diagnostic Radiology and in Interventional, Radiation Therapy, and Radiologic Physics." A section titled "Here's how it works:" lists four components: Professional Standing, Medical Knowledge, Communication & Communication Skills, and Practice-based Learning & Improvement. Below this are several links for more information, such as "Diagnostic Radiology and Interventional Radiology" and "Radiologic Physics".

RSNA Earns Six-Year Reaccreditation to Provide CME

The Accreditation Council for Continuing Medical Education (ACCME) has announced that RSNA has fulfilled the requirements for Accreditation with Commendation. As a result, ACCME has extended RSNA's accreditation as a CME provider until March 2010. This six-year accreditation period is one that is awarded rarely and should be regarded as a sign of RSNA's commitment to educational excellence.



New Database on Genetic Policy and Laws

The National Human Genome Research Institute (NHGRI) has launched a free Web-based resource that will help researchers, health professionals and the general public easily locate information on laws and policies related to a wide array of genetic issues.

The NHGRI Policy and Legislation Database is at www.genome.gov/LegislativeDatabase.

It currently includes information on:

- Genetic testing and counseling
- Insurance and employment discrimination
- Newborn screening

- Privacy of genetic information and confidentiality
- Informed consent
- Commercialization and patenting

This fall, NHGRI plans to add more content categories, primarily in the areas of foreign statutes and laws, foreign policy, treaty and international agreements, and policy material from international organizations.

"This is a tremendous resource for anyone interested in learning more about the laws, regulations and policies pertaining to genetics and genomics. It will serve as a valuable tool for all Americans, from academic researchers seeking to patent genetic technologies

The screenshot shows the NHGRI Policy and Legislation Database website. The header includes the NHGRI logo and navigation tabs for "Home", "Policy & Ethics", "Research", "Grants", "Health", "Education", "Public & Outreach", "International", "Current & Future". The main content area is titled "Welcome to the NHGRI Policy and Legislation Database" and provides information about the database's scope and search options. It lists search criteria such as "With the Search Boxes" and "By Keyword".

to average citizens trying to determine what protections exist in their states against genetic discrimination," said NHGRI Director Francis S. Collins, M.D., Ph.D.

Radiologists Play More Prominent Role in Stroke Triage

Advanced CT and MR imaging technology, along with new clinical research, has made the radiologist an integral part of the medical team, diagnosing and treating stroke—the third leading cause of death and the leading cause of serious, long-term disability in the United States.

A growing number of medical authorities want to expand the radiologist's role on the stroke team. Two radiologists who will teach courses on the subject at RSNA 2004 agree.

Vincent P. Mathews, M.D., and Howard A. Rowley, M.D., point out that sophisticated imaging can improve the selection of patients eligible for thrombolysis, as well as expand the window of treatment opportunity beyond the current tissue plasminogen activator (tPA) limit of three hours. tPA, a safe and effective clot-buster that has been available for more than a decade, is being used in fewer than four percent of the 750,000 *new* stroke patients each year.

Dr. Rowley, chief of neuroradiology and the Joseph Sackett Professor of Radiology at the University of Wisconsin in Madison, says radiologists can play a more prominent role in the triage of stroke patients. "One of the major directions of stroke therapy is the triage of stroke patients using CT and MR," he says.

Dr. Mathews, a neuroradiologist with Northwest Radiology Network and a professor of radiology at the Indiana University School of Medicine in



Vincent P. Mathews, M.D.
Northwest Radiology Network



Howard A. Rowley, M.D.
University of Wisconsin in Madison

Indianapolis, says that while imaging has been helping to improve stroke survival and reduce disability, there's a lot of room for improvement. "One thing we learned from the European Cooperative Acute Stroke Study was that if you saw low density in more than a third of a vascular territory on an initial CT scan, that patient was at increased

Radiologists need to be comfortable in quickly obtaining and interpreting the information needed for stroke management decisions.

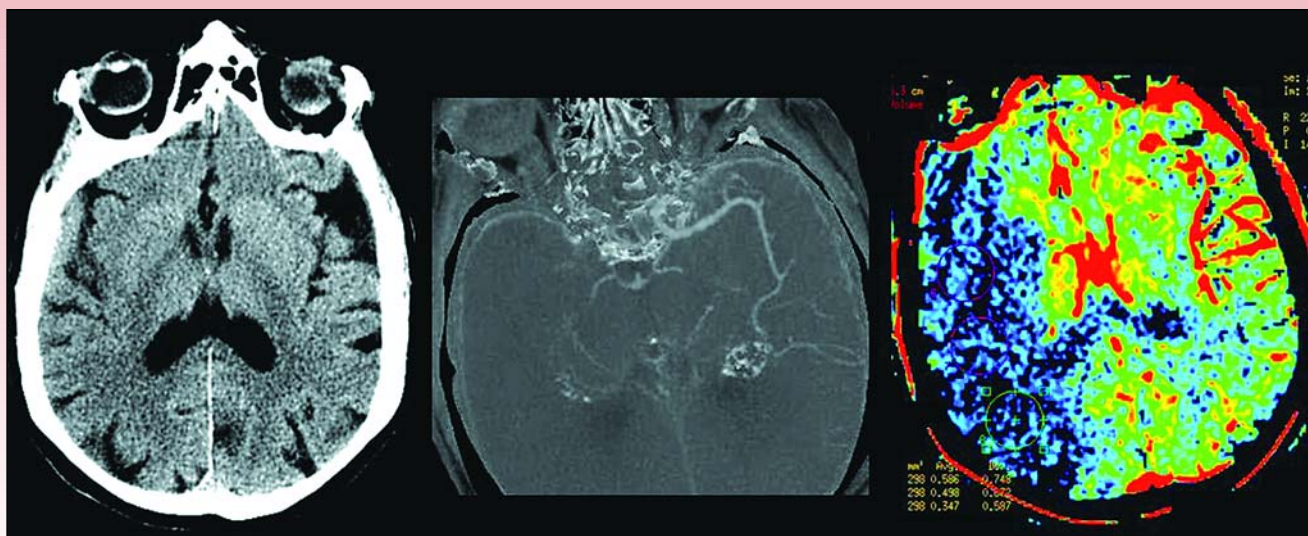
Vincent P. Mathews, M.D.

risk to have hemorrhage and a potentially bad outcome," he says. "Clinical researchers have extrapolated from those findings when evaluating MR images. For example, when MR shows that there's not a perfusion-diffusion mismatch, we may conclude that we don't have anything to gain because the diffusion defect is already as big as the perfusion defect. This indicates that there may be no brain tissue to salvage, so we would opt not to give such a

patient thrombolytic therapy."

Dr. Mathews says the field is in a state of flux as far as determining the best imaging modalities to use in the acute stroke setting. "At St. Vincent Hospital in Indianapolis, we rely primarily on CT to look at the brain parenchyma of the acute stroke patient," says Dr. Mathews. "Then we perform CT angiography of the head and neck, and a CT perfusion scan, which is faster and more quantitative than MR perfusion."

He adds that whether radiologists use CT or MR imaging, it's important that they learn how to use the more advanced imaging tools to manage stroke patients. "Radiologists need to be comfortable in quickly obtaining and interpreting the information needed for stroke management decisions, because clinicians rely on us to tell them when patients may benefit from appropriate treatment," Dr. Mathews says.



The CT scan (left) in this patient with acute hemiplegia is relatively unremarkable. The CT angiogram (middle) shows an occluded right middle cerebral artery (MCA) and the

CT perfusion image (right) shows a large area of very low cerebral blood volume in all of the right MCA territory.

Images courtesy of Vincent P. Mathews, M.D.

DIAS and DEDAS

Recent clinical trials show encouraging evidence that better neurologic outcome can be achieved when treatment protocols are based on physiologic imaging criteria, not just clinical features or arbitrary time cut-offs, according to Dr. Rowley. The recently completed Desmoteplase in Acute Ischemic Stroke (DIAS) trial used desmoteplase, a new type of intravenous clot-busting drug derived from bat saliva.

“This trial was novel, not only because it used this very fibrin-specific clot-buster, but also because it was set up so that patients could not be randomized unless they had appropriate MR imaging findings and unless they had a perfusion-diffusion mismatch of at least 20 percent (mean transit time vs. trace diffusion-weighted imaging),” he says. DIAS was also novel because the treatment window was extended from three hours to nine hours.

In the DIAS trial, the bleeding

complication rate was less than five percent, which Dr. Rowley says is another improvement over tPA.

“What’s key here is not only that desmoteplase looks promising, but also that, in the first moments of stroke, radiologists are being asked to step in with advanced imaging to provide risk stratification and patient selection,” he

What’s key here is not only that desmoteplase looks promising, but also that, in the first moments of stroke, radiologists are being asked to step in with advanced imaging to provide risk stratification and patient selection.

Howard A. Rowley, M.D.

says. “To me, this is where a lot of future trials should go.”

Dr. Rowley was among those presenting information from Phase II of the DIAS trial at the American Stroke Association meeting this past spring. “We’ve just finished the North American Dose Escalation Study of Desmoteplase in Acute Ischemic Stroke (DEDAS) trial, which hopefully will confirm DIAS,” he says. “An even larger trial is planned for this fall.”

In addition to MR imaging used in these studies, other researchers are looking at the use of CT in trials of IV tPA and IV desmoteplase with patients

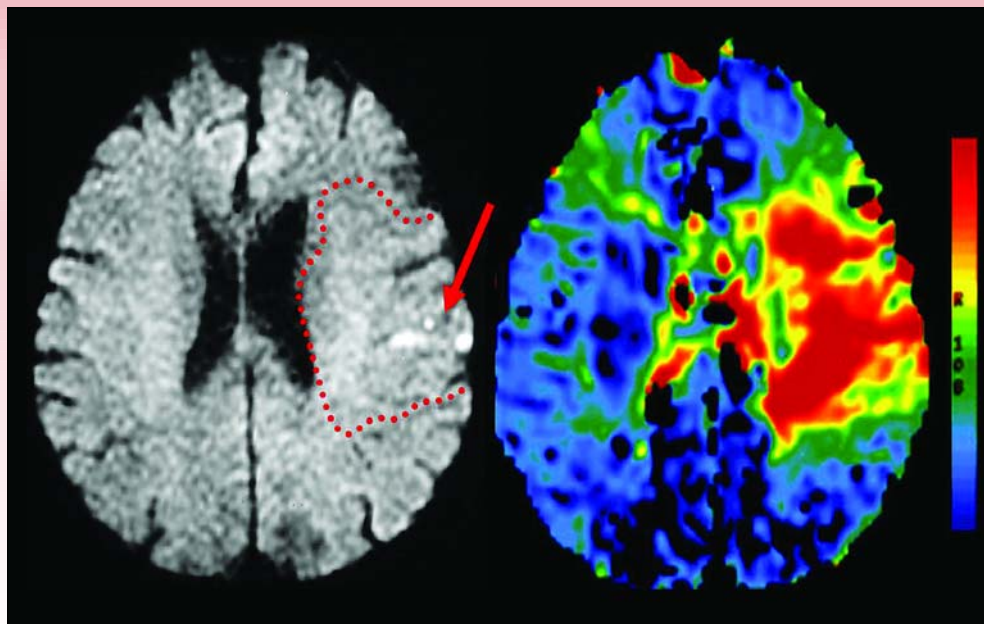
triaged by CT angiography, CT perfusion and standard CT. “Through research, education and the will to improve, clot-busting therapy can be made available to more acute stroke patients,” says Dr. Rowley.

As evidence, he points to sophisticated stroke programs in Calgary, Cleveland and Houston, where centers are reporting in excess of 10 percent of patients getting thrombolysis.

Stroke Prevention

Researchers at Massachusetts General Hospital (MGH) are using positron emission tomography (PET) in an attempt to identify vessels that are at high risk to cause stroke. “We want to stop stroke before it occurs,” says Ahmed Tawakol, M.D., associate director of nuclear cardiology at MGH. “We believe the highly inflamed plaques—the metabolically active plaques—are the ones that go on to progress rapidly or to rupture altogether and cause thrombosis. PET imaging identifies these highly inflamed plaques and we hope that, in the future, we can tailor therapy for those who have these vulnerable plaques compared to those who have fibrous, stable plaques.”

Continued on next page



Acute left hemisphere stroke, diffusion-perfusion mismatch on MR image. Although there is only a small ischemic lesion on DWI (arrow), there is a much larger region at risk (dotted line) shown by PWI (mean transit time map, longer times in red). The goal of urgent treatment is to quickly restore blood flow to prevent further injury within the tissue at risk.

Image courtesy of Howard A. Rowley, M.D.

Continued from previous page

Dr. Tawakol and his colleagues assess the biology of plaques using fluorodeoxyglucose (FDG) radio-labeled with the positron emitter F-18. “We’ve looked at a population of patients undergoing carotid endarterectomy. All the patients that entered the study had been identified by clinicians as having very tight narrowings of their carotid arteries and therefore were deemed appropriate for surgery,” he explains. “We used either CT or MR imaging to help with localization. At the end of the study we were able to compare the amount of FDG uptake that we were able to see noninvasively with what was actually removed surgically. We found that the higher the FDG uptake, the more inflammation we saw. The lower the uptake, the more fibrosis we saw.”

Dr. Tawakol hopes that this technology, once validated, will allow physicians to ferret out those who truly need surgery from those who do not need surgery, and, more important, to noninvasively identify dangerous plaques before they rupture and cause a heart attack or stroke. □

New Stroke Device Cleared

The Food and Drug Administration (FDA) has approved the first medical device to remove blood clots from the brain in patients experiencing an ischemic stroke.

On August 16, the FDA cleared the Merci® Retriever after reviewing patient data obtained in the Mechanical Embolus Removal in Cerebral Ischemia (Merci) Trial conducted at 25 medical centers in the United States. The device was used for 141 patients who were ineligible for thrombolysis.

Interim data from the Merci Trial show that 47 percent of patients treated only with the device were successfully revascularized. Of those patients, about half had good functional outcomes

measured at 90 days post treatment.

The Merci Retriever is a flexible, tapered Nitinol wire with a helical tip that is used in conjunction with a balloon guide catheter and a microcatheter. One of the safety features of the device is that if it encounters resistance, the coil straightens out.

“This is a very exciting result for all of our patients and stroke research,” said Merci Trial principal investigator Wade Smith, M.D., Ph.D. “We experienced some remarkable outcomes during the trial and look forward to having this available for patients experiencing devastating strokes.”

Courses at RSNA 2004

Drs. Rowley and Mathews will teach refresher course 805, “Comprehensive Imaging for Acute Stroke Treatment,” at RSNA 2004. Dr. Rowley will also teach the stroke portion of the “Essentials of Brain MR” course. To register for

these or any other courses for RSNA 2004, go to www.rsna.org. Click on the annual meeting logo and then on Registration, Housing and Courses in the left-hand navigation bar.



90th Scientific Assembly and Annual Meeting
November 28 – December 3, 2004
McCormick Place, Chicago

Maximize Productivity Before Outsourcing, Expert Says

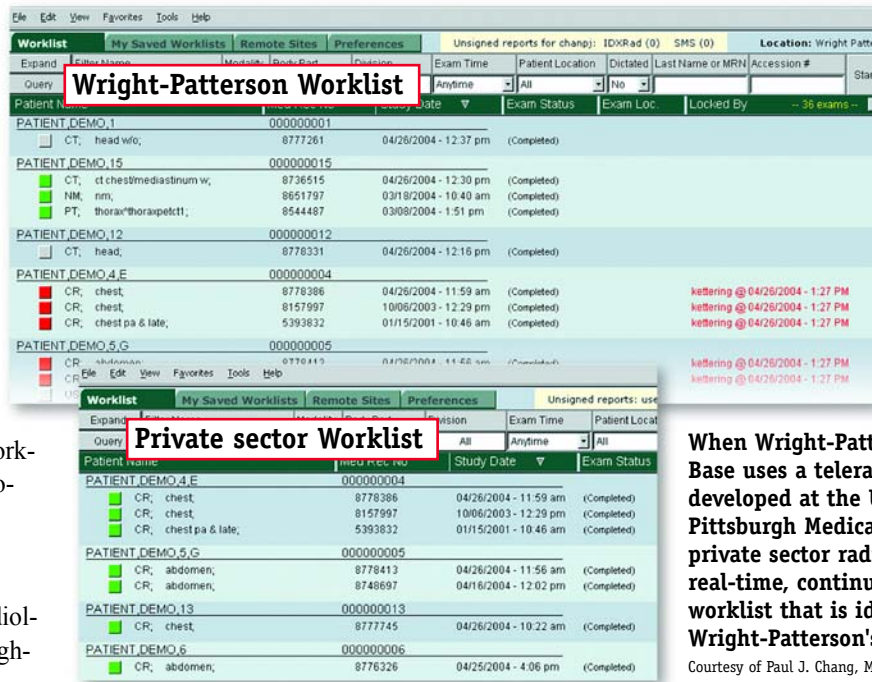
Outsourcing radiologic services can be a successful and productive experience, if productivity is first maximized and then local and off-site radiologists function as members of the same team.

The University of Pittsburgh Medical Center (UPMC) and Air Force Medical Services (AFMS) have joined forces in a teleradiology initiative now under way at Wright-Patterson Air Force Base in Dayton, Ohio. It is based on a workflow model designed to increase productivity and enhance patient care across AFMS sites.

The model, created by Paul J. Chang, M.D., UPMC director of radiology informatics, is also in use throughout the UPMC health system, which includes 19 hospitals. “We don’t have nearly enough radiologists at each of these sites, and yet, we’ve not had to significantly increase radiologist staffing and we don’t outsource,” says Dr. Chang, a member of the RSNA Electronic Communications Committee.

UPMC performs 1.3 million studies a year. Each radiologist is electronically linked to a system that provides access to all cases across radiology departments throughout the system. “It

doesn’t matter where we are, because we have a global view of all the studies that need to be interpreted throughout our 19 hospitals,” Dr. Chang explains. “So, after you’ve finished the few cases



When Wright-Patterson Air Force Base uses a teleradiology model developed at the University of Pittsburgh Medical Center, the private sector radiologist gets a real-time, continuously updated worklist that is identical to Wright-Patterson's worklist.

Courtesy of Paul J. Chang, M.D.

at your satellite clinic, this shared context model allows you to cooperate and look at studies throughout our system, no matter where you’re located.”

First leverage your existing radiologist full-time equivalents by fully exploiting the electronic management of images. Before you think of outsourcing, let's talk about maximizing productivity with existing personnel.

Paul J. Chang, M.D.

Dr. Chang says UPMC recommended the same approach to the Air Force. “The Air Force has a severe problem with a shortage of radiologists,” he says. “What we’ve been telling them is, ‘First leverage your existing radiologist full-time equivalents by fully exploiting the electronic management of images.

Before you think of outsourcing, let’s talk about maximizing productivity with existing personnel.’”

Dr. Chang has the same advice for

hospitals. “First do everything possible to avoid outsourcing by maximizing efficiency within your own shops, fully leveraging PACS and getting rid of film and paper. Then and only then do you outsource,” he says. “And do it in a way that the outsource group feels more integral by having the workflow model be cooperative, rather than sending piecemeal work out to another country.”

Dr. Chang says the Air Force teleradiology initiative is a symmetrical outsourcing model. “For instance, when Wright-Patterson Air Force Base uses our system to outsource to the private sector, instead of just sending a bunch of image studies, the private sector radiologist gets a real-time continuously updated worklist that is identical to Wright-Patterson’s worklist,” he explains.

This shared workflow allows radiologists at Wright-Patterson and those in the private sector to work cooperatively,

Continued on next page

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as part of the same team. "So even though they may be outsourcing to a different economic entity, from a patient care workflow perspective, it's as if they're colleagues just across the hall," Dr. Chang says.

"The vision I have is that you outsource, not because you can't handle the workload, but because you want to optimize the quality and value of the interpretation to your patients," he concludes.

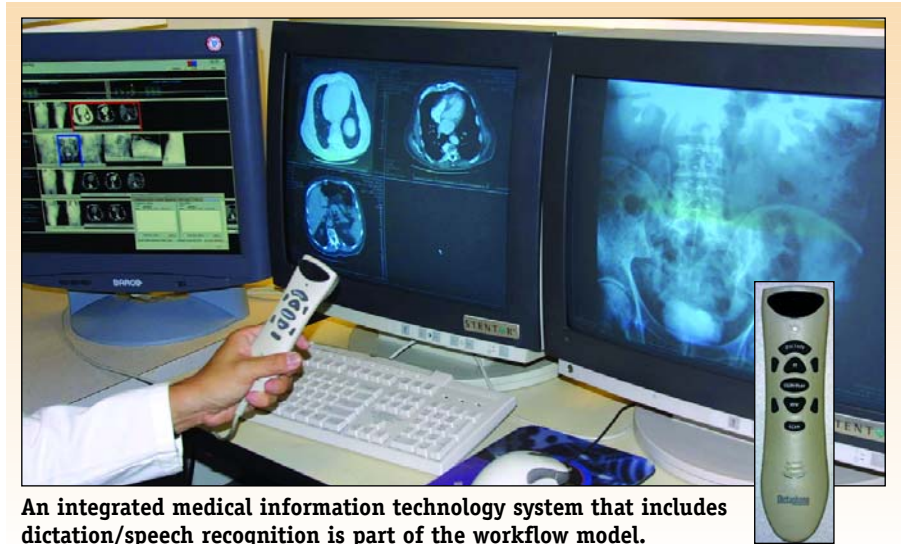
Quality is the Key

The American College of Radiology (ACR) issued a statement last May on the interpretation of radiology images outside the United States. The statement is available at www.acr.org/media/statement_teleradiology.html.

ACR believes that physicians who interpret images by teleradiology should meet or exceed the same standards met by physicians practicing within the United States. That includes being appropriately trained, licensed, credentialed and accountable for the service they provide.

"Outsourcing to non-credentialed radiologists overseas is not good medicine," says E. Stephen Amis Jr., M.D., ACR president and chairman of the Department of Radiology of Montefiore Medical Center, Bronx, N.Y.

Some small community hospitals in rural areas that do not have a radiologist on board during evening and weekend hours send satellite transmission of images to sites overseas, where non-board-certified, non-U.S.-trained radiol-



An integrated medical information technology system that includes dictation/speech recognition is part of the workflow model.

ogists read or give preliminary interpretation of a study.

ACR also warns that these "off-shore" radiologists are not licensed in the state in which they are practicing. "If an image is being sent from Iowa to India, the interpreting physicians don't have a license in Iowa—and they should," says Dr. Amis. "If it's a hospital practice sending the image, the interpreting physician should be credentialed by that hospital to provide the service."

"We feel they should be subject to litigation," he says. "They should be held accountable if they miss something."

Dr. Amis says the ACR statement is not directed at practices that have sent a member of their group to another country, such as Israel or Australia, so they can read during off-hours. Nor is the statement directed at "nighthawks" who provide service within the United States. Nighthawks are radiologists who

are licensed in the states for which they are reading images, who have malpractice insurance and who provide a real service to hospitals that are without a radiologist 24/7.

"That type of service is to be commended," Dr. Amis says.

Nighthawk service is available for small hospitals, but some still choose to have images read overseas. "I think it's wrong to buy from the lowest bidder when more appropriate services are available," Dr. Amis says. "We strongly discourage these discount, no-name radiology services from overseas."

He says the best possible scenario is to have the radiologists in practices or in hospital groups providing the coverage necessary for that facility. "The second alternative would be appropriately trained and board-certified, credentialed nighthawk services available in this country," he says. □

Courses at RSNA 2004

At RSNA 2004, the RSNA Medical-Legal Committee is sponsoring refresher course 416, "Contracting for On-Call Coverage: Should You Sweat While You Sleep?" Included in the refresher course are presentations on:

- Reviewing Contracts for On-Call Coverage: What You Need to Know
- International Teleradiology:

Legal Aspects

- State Licensure and Medical Staff Credentialing Issues
- Preliminary versus Final Interpretation Medical Liability: Who Is Responsible?
- Communication: Reporting and Consulting by Remote Radiologists

In addition, the Associated Sciences Consortium is hosting

the symposium, "Emergent Trends—Global Perspectives: Strategic Considerations in Global Teleradiology."

For more information on the courses available at RSNA 2004, go to www.rsna.org. Click on the annual meeting logo, and then on Registration, Housing and Courses in the left-hand navigation bar.



90th Scientific Assembly and Annual Meeting

November 28 – December 3, 2004
McCormick Place, Chicago

Scientific Abstract and Journal Manuscript Submissions from Overseas Increase

“U.S. is Losing Its Dominance in the Sciences,” read the headline in *The New York Times* on May 2, 2004. The article reported concerns at the National Science Foundation that “the rest of the world is catching up” in such areas as scientific doctorate degrees, new patents and published research. The article noted that scientific papers by Americans peaked in 1992 and then fell roughly 10 percent.

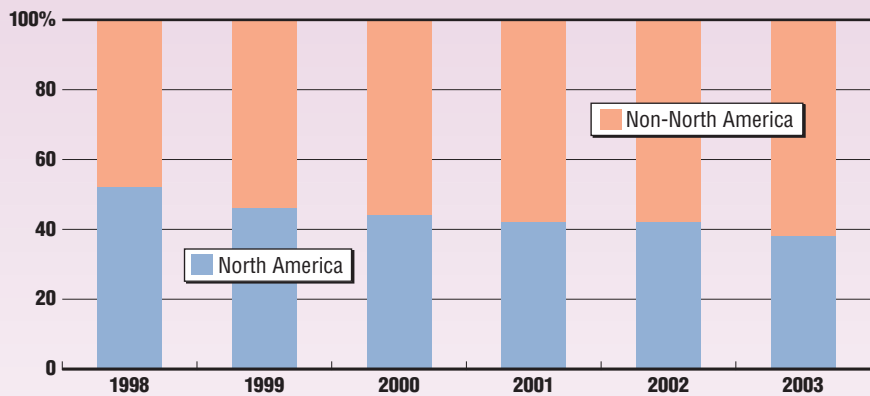
RSNA has seen an evolution in the percentage of submissions by authors in North America versus authors outside of North America to its peer-reviewed science journal *Radiology* and to its scientific assembly and annual meeting.

“In 1986, of about 1,600 submissions that we received, 1,300 were from North America and 300 were from outside of North America,” says *Radiology* editor Anthony V. Proto, M.D. “During 2003, about 61 percent of submissions came from 43 countries outside North America.”

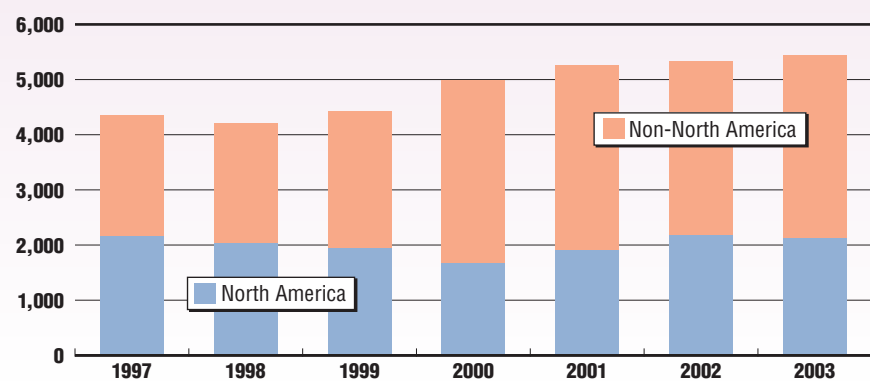
However, Dr. Proto says that while North American submissions to *Radiology* represented a smaller percentage of the total submissions over the last three years, it was not because of a decline in the number of North American submissions. It was because of an increase in the number of submissions from overseas.

Dr. Proto is optimistic that this trend demonstrates the globalization of medical science, rather than a decline in the quality of U.S. radiology research. “I’m delighted that we have so much excellent material being sent to us from North America and outside North America, and I think people recognize that this change is occurring,” he says.

Radiology Manuscript Submissions 1998–2003



Scientific Abstract Submissions for RSNA Annual Meeting 1997–2003



George S. Bisset III, M.D., chairman of the RSNA Scientific Program Committee, agrees that the decline in U.S. dominance is not the bad news that many are making it out to be. “I think that the science of radiology should be a global pursuit,” Dr. Bisset says. “If researchers are successful in China or Japan at enhancing our pace of discovery, then we all win. When they come up with innovative ideas and we build on those innovations, then we all win again. We have a worldwide scientific community and computer networks that allow us to communicate with col-

leagues everywhere.”

Dr. Bisset says that over the four years that he has chaired the committee that reviews abstracts submitted for presentation at the RSNA Scientific Assembly and Annual Meeting, North American submissions have held steady while submissions from other nations—most notably Asian countries—have skyrocketed. “In 1988, 25 percent of the scientific program submissions came from outside North America. Last year, the figure was 56 percent,” he says.

Dr. Proto says the trend toward a

Continued on page 20

Medical-Legal Jury Trial at RSNA 2004

The idea of weathering a malpractice trial is something that makes any medical professional jittery. But at this year's RSNA Scientific Assembly and Annual Meeting, members will have a chance to get a glimpse inside a medical-legal jury trial, learn about the proceedings and form their own opinions—without spending a dime on legal advice. It's part of a special session to be held on Sunday, November 28 from 10:30 a.m. to 3:30 p.m. in room S100AB in the South Building at McCormick Place.

The mock trial involves the case of a lung lesion missed in a previous chest examination. The unscripted trial will include two attorneys, expert witnesses and a Chicago-area judge who regularly presides in medical malpractice litigation. Leonard Berlin, M.D., chairman of the Department of Radiology at Rush North Shore Medical Center in Skokie, Ill., is coordinating the session.

"It's a malpractice case concerning a 60-year-old man who presented with a cough. The chest x-ray was read as normal by the radiologist. The symptoms get a little better, then they get a little worse," explains Dr. Berlin. "Ten months later, another chest x-ray shows a lung tumor. Sure enough, it's cancer and a year later the patient dies, leaving a wife and four kids."

Dr. Berlin says he picked this particular scenario because of the sym-



Posteroanterior chest radiograph obtained when a 60-year-old patient presented with a cough. The radiograph was read as normal by the radiologist. The lawsuit claims the radiologist was negligent for missing a lung carcinoma.

Image courtesy of Leonard Berlin, M.D.

thly elicited by the patient involved, a man with a family, and also because the facts in the case leave plenty of gray areas. "The x-ray shows a subtle shading. It's not going to be a blatant case. A reasonable person could see both sides," says Dr. Berlin.

Who are those "reasonable people?" The RSNA meeting staff is sending out questionnaires to RSNA 2004 contractors working at McCormick Place. Florists, booth decorators, audiovisual crews and phone company workers will be asked whether they'd like to spend part of their day participating as potential jurors. They will have no familiarity with the case being presented and will go through a "jury

selection" process that will be similar to, albeit quicker than, that of a typical malpractice case.

In addition to assembling a jury similar to one that might actually hear the facts in the suit, session attendees will also benefit from the experience of two seasoned medical malpractice attorneys. Timothy B. Nickels, J.D., of the nationally recognized Chicago law firm Swanson, Bell and Martin will act as the counsel for the defense. Nickels has represented some of the largest corporations and prestigious institutions in cases pending in Illinois, Indiana, and other jurisdictions throughout the United States. Keith A. Hebeisen, J.D., a partner in Chicago's Clifford Law

Firm, will act as plaintiff's attorney. Hebeisen specializes in complex and highly technical areas of medical malpractice, winning multi-million dollar awards for his clients.

Dr. Berlin says the veteran attorneys will have approximately two hours in the morning to make their cases before Cook County Circuit Judge Stuart Nudelman, who has served as president of the Illinois Judges Association. The Chicago Bar Association calls Judge Nudelman "well-respected for his legal skill and ability," and says he is "praised for his innovative ideas."

It will take a little innovation, inspiration and improvisation to bring all the facts in the case to the jury and audience in just a few hours. Both sides are scheduled to present their evidence and witnesses before lunch. Judge Nudelman will instruct the jury, the group will break, and then come back after lunch to deliver its verdict.

"We'll ask the jury why they came to their conclusion, they can explain how they as lay people view everything. We'll have the two attorneys talk about their strategies and the judge will address the audience to talk about his role and answer questions," says Dr. Berlin.

Hebeisen, acting as attorney for the plaintiff, says he hopes to change what he feels are preconceived notions many physicians may have when it comes to malpractice litigation. "Just because there's sympathy for the patient, doctors feel they're on the short end of the stick. That notion is the exact opposite of reality," he says. "Sympathy is hardly ever the deciding factor in a malpractice case. They're won on the medicine. The odds are actually stacked in favor of the physician."

Hebeisen says only about 35 percent of cases that go to trial are won by

the plaintiffs. He says many cases that are clear-cut malpractice situations are settled out of court. "The reality is that people put doctors on a pedestal. They have respect for them. They believe doctors are under siege and they don't want to hurt them. Juries are very skeptical of medical malpractice cases, and they are getting more skeptical as time goes by," he says.

When it's time to select a jury at RSNA 2004, Hebeisen says there will be

Sympathy is hardly ever the deciding factor in a malpractice case. They're won on the medicine. The odds are actually stacked in favor of the physician.

Keith A. Hebeisen, J.D.

no such thing as an ideal juror, "You're just able to get rid of the bad ones if you're lucky." He'll be looking for people to serve who have open minds, no prejudice against someone who would file a malpractice

suit, and jurors who would have no preconceived notion about awards that could be given to a plaintiff.

Dr. Berlin says that in addition to the legal professionals, he's recruited two well-known medical oncologists to act as witnesses. Larry Milner, M.D., will testify for the plaintiff and Jacob Bitran, M.D., will testify for the defense. Dr. Berlin will assume the role of expert radiology witness for the plaintiff and Lawrence R. Muroff, M.D., for the defense. Radiologist Ruth Ramsey, M.D., will be the defendant.

Dr. Berlin hopes the mock trial helps radiologists gain a greater understanding of the malpractice litigation process. And he thinks the session at the RSNA annual meeting creates a unique opportunity. "The bottom line is to educate radiologists and to improve patient care and minimize malpractice exposure. They go hand in hand," he concludes.

To register for this session at RSNA 2004, go to www.rsna.org. Click on the annual meeting logo, and then on Registration, Housing and Courses in the left-hand navigation bar. □

Malpractice, Turf Top Concerns for RSNA Members

Six issues are primary professional concerns for RSNA members, according to a new survey.

When given a list of workforce issues and asked about their level of concern, a majority of RSNA members said they were extremely concerned or very concerned about:

- **Cost of malpractice insurance (76.2%)**
- **Turf issues (71.7%)**
- **Ability to balance work with personal time (66.0%)**
- **Long work hours (62.7%)**
- **Shortage of technologists (59.7%)**
- **Shortage of academic radiologists (52.1%)**

Other items listed but not ranked as primary concerns by a majority of members surveyed are the proliferation of physician extenders, shortage of board certified radiologists, shortage of trained radiologist researchers and a shortage of physician extenders. Members were surveyed as part of the 2003 RSNA Membership Needs Assessment Survey.

RSNA Hosts Media Briefing on Women's Breast Health

Nearly 40 medical news reporters participated in RSNA's media briefing on women's breast health in late July at Mount Sinai Hospital in New York City as five imaging experts presented the latest information about breast cancer screening, diagnosis and treatment.

Some of the reporters, from organizations including *The Wall Street Journal*, *New York Daily News* and *Fitness* magazine attended the briefing onsite, while others, including reporters from *CNN*, *The Chicago Tribune* and *Atlanta Journal Constitution*, participated in the Webcast or audio conference.

Hedvig Hricak, M.D., Ph.D., RSNA Board Liaison for Publications and Communications, told the reporters that through their stories, the public will understand that quality care begins with quality diagnosis, and that radiology is the driving force behind the rapid development of image-guided radiation treatment and follow-up. "Radiologists and breast imagers are the unsung warriors of finding cancer. Together, they have changed the course of breast cancer diagnosis and treatment," she said.

Philip O. Alderson, M.D., vice-chairman of RSNA's Public Information Committee, moderated the briefing.

Breast Cancer Screening

Stephen A. Feig, M.D., a professor of radiology at the Mount Sinai School of Medicine and director of breast imaging at Mount Sinai Hospital, explained the importance of annual screening mammography for women over the age of 40.

"The stage of breast cancer at diagnosis has changed remarkably," he said. "Ductal carcinoma in situ (DCIS) used to be almost a rarity. In 1980, DCIS



(from left) Stephen A. Feig, M.D., Philip O. Alderson, M.D., Etta D. Pisano, M.D., Steven A. Harms, M.D., Stamatia V. Destounis, M.D., and Robert R. Kuske, M.D.

accounted for only three percent of all breast cancers. In the latest survey, 2001, 21 percent of all new breast cancers in the United States were DCIS."

Dr. Feig explained that as a result of diagnosing breast cancer early, the mortality rate from breast cancer has gone down. While the latest figures show that 70 percent of American women age 40 and over have undergone mammography in the past two years, Dr. Feig urged healthcare providers, including primary care physicians and employees of mammography centers, to get the word out to more women about the importance of screening mammography. "Initiatives need to be explored, such as annual reminder cards like the ones received from the dentist," he said, adding that more also needs to be done about increasing reimbursement, increasing the number of breast imaging specialists and increasing the number of mammography centers.

New Screening Technologies

Etta D. Pisano, M.D., director of the Biomedical Research Imaging Center at the University of North Carolina in Chapel Hill, described ongoing trials of imaging technologies being considered for breast cancer screening.

Among those trials is the Digital Mammographic Imaging Screening Trial, the largest trial to compare digital mammography with screen-film mammography. Dr. Pisano said the results of this trial will be available next spring. "We are looking very carefully at those results. We are in a follow-up period right now," she explained. "We believe this study will be powerful enough to tell whether digital mammography is better, the same or worse than film in finding breast cancer in an average-risk population."

Investigators also will determine cost-effectiveness and quality-of-life measures. "It is possible that digital may not be significantly better than film in finding breast cancer, but if we



Hedvig Hricak, M.D., Ph.D. (at podium), RSNA Board Liaison for Publications and Communications, welcomed about 40 medical news reporters to the RSNA media briefing on women's breast health. Reporters participated in person at Mount Sinai Hospital in New York, by audioconference and by Webcast.

can reduce false-positives or we can reduce costs, that might be an important reason to implement screening with digital mammography even if the diagnostic accuracy is no different," she said.

Dr. Pisano also described the Contralateral Breast Screening with MRI trial, the Screening Breast Ultrasound in High-Risk Women trial and the Treatment Monitoring with Dynamic MRI trial. These trials are sponsored by the National Cancer Institute through the American College of Radiology Imaging Network.

CAD for Mammography

Stamatia V. Destounis, M.D., a radiologist at the Elizabeth Wende Breast Clinic in Rochester, N.Y., released the results of a retrospective study appearing in the August issue of *Radiology* showing that a computer-aided detection (CAD) system helped radiologists detect 71 percent of the cancers that were considered missed during a double reading.

"Out of the 52 cancers that we felt we missed, the computer marked 37 (71 percent) one year or more before we found it," Dr. Destounis explained. "Why didn't we find the cancers? About 65 percent were in dense breasts. Identifying breast cancer in

dense breasts is challenging—it's like looking through a snowstorm."

Dr. Destounis says CAD has some downsides. For every mark CAD made that turned out to be a cancer, there were two marks that were false-positives. Also, the radiologists consistently found a lot of cancers that CAD didn't even mark. "CAD cannot stand alone. It cannot replace the doctor," she said.

Dr. Destounis and her colleagues are now writing a paper on a prospective study they conducted using CAD.

Brachytherapy

During the last portion of the two-hour briefing, two leading breast cancer specialists described new breast-conserving treatments.

Robert R. Kuske, M.D., from Arizona Oncology Services in Scottsdale, described a technique he pioneered in 1991 that is now gaining a lot of national attention—breast brachytherapy.

Dr. Kuske says brachytherapy has presented "the first paradigm shift in the treatment of localized breast cancer in more than a century." Brachytherapy

involves placing tiny radioactive seeds in and around the lumpectomy site after a successful surgical removal.

"By putting radiation snug up against the tissues that harbored the cancer, you can deliver a very highly

Thermal ablation provides, perhaps, a glimpse at the end of the tunnel of what might happen in the treatment of breast cancer, combining two very important emerging technologies—high quality breast MRI and minimally invasive therapy.

Steven A. Harms, M.D.

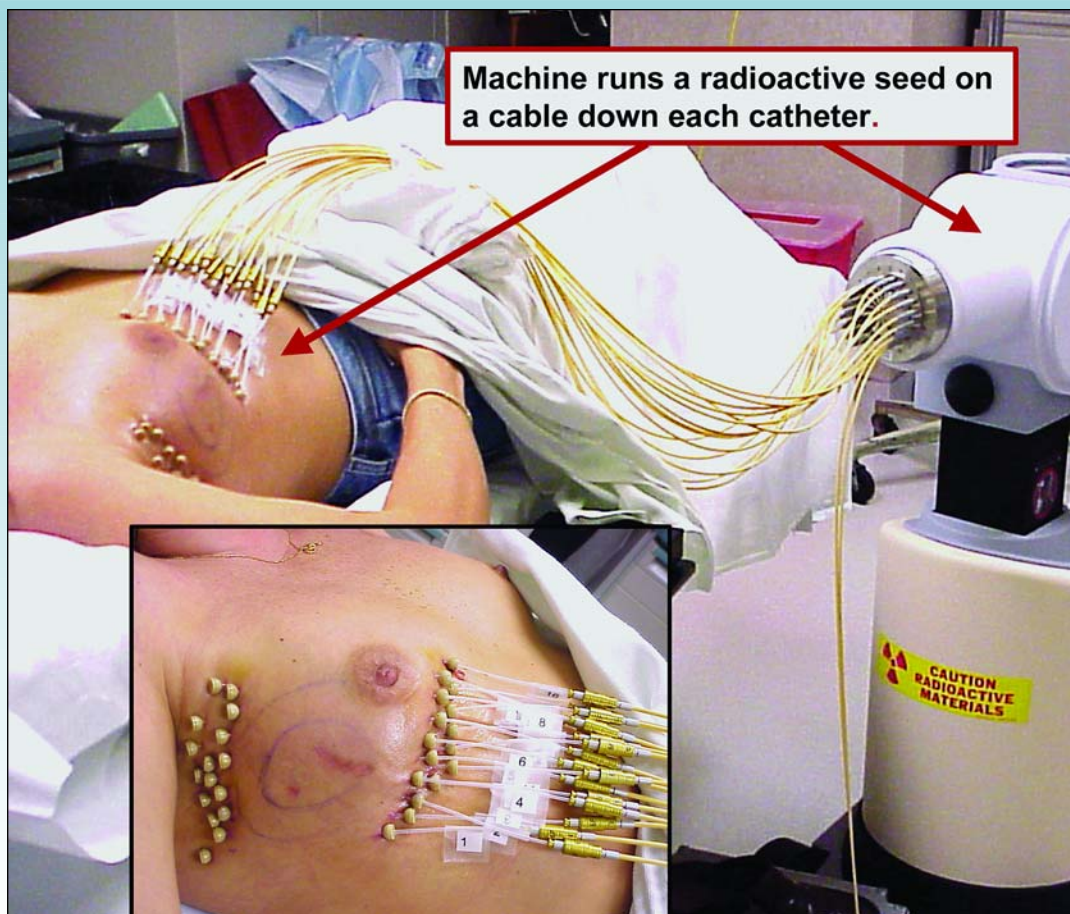
effective dose of radiation that conforms to the tissues that need it, and avoids exposure to surrounding tissues that do not need it," he explained.

"Since the radiation is inside the breast, you can deliver six-and-a-half weeks worth of radiation treatment in four or five days. Brachytherapy has the

dual advantage of not just reducing radiation exposure but also shortening treatment time."

Results of a national trial on breast brachytherapy, recently presented at the American Society of Clinical Oncology meeting, showed a three-percent recurrence rate at four years with brachytherapy. "The usual recurrence rate with breast-conservation therapy is one percent per year with

Continued on next page



Machine runs a radioactive seed on a cable down each catheter.

Robert R. Kuske, M.D., will serve as co-principal investigator of an upcoming Phase III clinical trial comparing breast brachytherapy (left) with external beam radiation therapy.

Continued from previous page

external radiation,” says Dr. Kuske.

While the results have been very promising thus far, longer follow up and clinical trials, including comparison with other techniques are essential. Dr. Kuske will serve as co-principal investigator of an upcoming Phase III clinical trial comparing brachytherapy with external beam radiation therapy.

Ablation Therapy

Steven A. Harms, M.D., from the University of Arkansas for Medical Sciences, and colleagues have successfully performed more than 50 thermal ablations of breast cancer in patients over the past few years with very positive results.

“Thermal ablation provides, perhaps, a glimpse at the end of the tunnel of what might happen in the treatment of breast cancer, combining two very important emerging technologies—high

quality breast MRI and minimally invasive therapy,” explained Dr. Harms.

“The combination of these two is very powerful in the detection of breast cancer and the treatment of breast cancer without disfigurement.”

Thermal ablation is an outpatient procedure that uses local anesthesia. “Most of the patients we treated resumed normal activities the next day,” he said. “This is a far cry from what we think of as traditional breast cancer treatment.”

There are three types of thermal ablation: radiofrequency ablation, laser ablation and cryotherapy. Dr. Harms’ work mainly includes laser ablation guided by MR imaging.

Fifty of the patients Dr. Harms has treated with ablation therapy also underwent subsequent lumpectomy or mastectomy as part of the experiment protocol. Three patients were treated with laser lumpectomy and did not

have surgery; there has been no cancer recurrence in these patients at four to five years post follow-up.

Dr. Harms says additional tools, clinical trials and physician training are needed before thermal ablation therapy for breast cancer can become a routine treatment.

The Webcast of the media briefing has been archived and is available on the Internet until the end of October at www.rsna.org/media/briefings/2004/index.html. The press releases, photos and PowerPoint presentations from the media briefing also are available on the Web. □

Note: The Institute of Medicine of the National Academies recently released the report, “Saving Women’s Lives: Strategies for Improving Breast Cancer Detection and Diagnosis.” For more information, go to www.iom.edu/report.asp?id=20721.



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Continued on next page

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B O O K

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Jurgen W. Spranger, Paula W. Brill and Andrew K. Poznanski

Many advances have been made in understanding skeletal dysplasias since the first edition of this classic text appeared in 1974. The second edition has been completely renovated, with the help of two new co-authors, to incorporate these advances. The book's format is similar to the original but the number of conditions covered has almost doubled and molecular information has been added wherever available. The number of figures has been increased to the limit of economic wisdom. As in the first edition, the illustrations have been selected and sequenced to illustrate both the degree of variability of a given disorder and its changes with age.

This book is designed for physicians involved in the evaluation and treatment of patients with skeletal dysplasias, including radiologists. Its main goal is to assist in the diagnosis of specific conditions and the care of affected individuals. Though mutations of specific genes can produce dysplasias with very different phenotypes and prognoses, the primarily clinical aim of this book dictated a phenotypic classification in general, with compromises on etiologic grounds where necessary.

Hardback, 632 pp., 2002

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RSNA member price: \$72.00

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Published in January 2004, this state-of-the-science overview of the new field of positron emission tomography fused with computed tomography (PET/CT) features current information from the experts. Earn up to 10 Category 1 CME credit hours by reading and taking the test for each article at www.snm.org/education/ce_online.html. Softcover, 103 pp., 2004

RSNA member price: \$45.00

B O O K

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Andrew Taylor, M.D., David M. Schuster, M.D. and Naomi Alazraki, M.D.

This book builds on and expands the basic concepts found in *Fundamentals of Nuclear Medicine*. This introduction to the diagnostic and therapeutic uses of nuclear medicine procedures is a must have for clinicians, residents, interns, medical students and referring physicians. It

reviews nuclear medicine procedures, available alternatives, advantages and limitations of each, and provides patient information to aid in preparing patients. Softcover, 410 pp., 2000

RSNA member price: \$40.50

B O O K

Self-Study Program III: Nuclear Medicine Cardiology

Series Editor: Elias H. Botvinick

Whether you're a nuclear medicine resident preparing for your board exams or a veteran clinician, the *Nuclear Medicine Self-Study Program Series in Nuclear Medicine Cardiology* will meet your self-assessment needs. Each book includes an extensive list of annotated references, questions and answers with critiques, along with an authoritative syllabus review of the topic.

Topic 1: Physical and Technical Aspects of Nuclear Cardiology

Softcover, 95 pp., 1997

RSNA member price: \$31.50

Topic 2: Pharmacologic Stress

Softcover, 195 pp., 1998

RSNA member price: \$56.70

Topic 3: Cardiac PET Imaging and Topic 4: Radionuclide Assessment of Congenital Heart Disease

Softcover, 127 pp., 1998

RSNA member price: \$44.10

Topic 5: Myocardial Perfusion Scintigraphy—Technical Aspects

Softcover, 218 pp., 2001

RSNA member price: \$107.10

Topic 6: Myocardial Perfusion Scintigraphy—Clinical Aspects

Softcover, 396 pp., 2001

RSNA member price: \$163.80

B O O K

Self-Study Program IV: Oncology

Series Editor: Thomas P. Haynie, M.D.

Management of cancer patients has significantly grown with better diagnostic techniques and chemotherapeutic agents. Learn about these exciting advances in nuclear oncologic imaging and therapy with SNM's *Self-Study Program Series in Oncology*. Each book includes an extensive list of annotated references, questions and answers with critiques, along with an authoritative syllabus review of the topic. This series is ideal either for residents preparing for board examinations or for veteran clinicians seeking to enhance their knowledge.

Topic 1: An Overview of Nuclear Oncology

Softcover, 50 pp., 1997

RSNA member price: \$18.00

Topic 2: Conventional Tumor Imaging

Softcover, 74 pp., 1997

RSNA member price: \$31.50

Topic 3: Antibody Tumor Imaging

Softcover, 49 pp., 1998

RSNA member price: \$18.00

Topic 4: PET Tumor Imaging

Softcover, 88 pp., 1999

RSNA member price: \$25.20

Topic 5: Bone Cancer Therapy and Topic 6: Radioimmunotherapy

Softcover, 83 pp., 2000

RSNA member price: \$18.00

B O O K

A Tabulated Summary of the FDG PET Literature

Sanjiv S. Gambhir, M.D., Ph.D., Johannes Czermin, M.D., Judy Schwimmer, M.B.A., M.A., Daniel H.S. Silverman, M.D., Ph.D., R. Edward Coleman, M.D. and Michael E. Phelps, Ph.D.

This supplement to *The Journal of Nuclear Medicine* provides a comprehensive literature review of the use of FDG PET in oncology, cardiology and neurology. This supplement has proven useful for healthcare providers, administrators and health economists who wish to better understand the role of FDG PET in the medical management of patients. Softcover, 93 pp., 2001
RSNA member price: \$13.50

B O O K

SNM Procedure Guidelines Manual

Commission on Health Care Policy and Practice Guidelines and Communications Committee

The guidelines were developed in response to requests for standardized protocols for nuclear medicine procedures and will keep your department up to date on the latest technologies and recently approved radiopharmaceuticals used in nuclear medicine. Softcover, 180 pp.

RSNA member price: \$67.50

B O O K

Guide for Diagnostic Nuclear Medicine

Jeffrey Siegel, Ph.D.

New SNM/ACNP Guidance on Revised 10 CFR Part 35

The newly published *Guide for Diagnostic Nuclear Medicine* is a one-stop reference for nuclear medicine professionals who want to bring their departments and institutions into compliance with the recently revised requirements of 10 CFR Part 35. Working closely with representatives from the Nuclear Regulatory Commission (NRC), Jeffrey A. Siegel, Ph.D., compiled this useful resource that covers all pertinent regulations, addresses compliance concerns and standards, and provides "At a Glance" and summary features. Siegel is chair of the Joint Government Relations Committee of the American College of Nuclear Physicians and the Society of Nuclear Medicine (SNM), which recognized the need for such a volume and initiated its preparation. The book is intended to serve as a useful bridge between the new regulations and nuclear medicine practitioners who want to ensure continued compliance and thereby maintain the security and safety of licensed materials in clinical and research settings. Softcover, 86 pp., 2002

RSNA member price: \$39.60

C D - R O M

Basic Science Module

The Basic Science Module CD-ROM offers 22 hours of education toward the requirement mandated by the Nuclear Regulatory Commission for program requirements for residency education in nuclear medicine. This training module covers the basic science associated with the field of nuclear medicine including radiation

science, radiation detection and instrumentation, the operation of the gamma camera, emission tomography, radiochemistry and radiopharmacy, radiation biology and radiation safety.

RSNA member price: \$17.95



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B O O K

Pocket Atlas of Cranial Magnetic Resonance Imaging

S. Atlas, M.D.

Featuring 96 sharp, new images obtained with state-of-the-art technology, the second edition of this popular pocket atlas is a quick, handy guide to interpreting cranial magnetic resonance images. It shows readers how to recognize normal anatomic structures on MRI scans, and how to distinguish these structures from artifacts. Each page presents a high-resolution image, with anatomic landmarks clearly labeled. Directly above the image are a key to the labels and a thumbnail illustration that orients the reader to the location and plane of view (sagittal, axial, or coronal). This format—sharp images, orienting thumbnails, and clear keys—enables readers to identify features with unprecedented speed and accuracy. 66 pp.

RSNA Member Price \$17.96

B O O K

Diagnostic Medical Sonography: Obstetrics and Gynecology

M. Berman

The goal of this book is to provide a comprehensive discussion of each topic including anatomy, pathophysiology, sonographic theory, and sonographic technique along with representative ultrasonographic images. This text is intended to serve as both an introduction to obstetrical/gynecologic ultrasound and as a long-term on-your-shelf reference. 701 pp.

RSNA Member Price \$111.56

B O O K

MRI of the Musculoskeletal System

T. Berquist

This is a comprehensive guide to the use of MRI in evaluating musculoskeletal disorders. Leading experts show the reader how to select appropriate imaging techniques and use MRI to greatest effect for specific clinical problems. This edition includes new techniques and applications, expanded coverage of pediatric disorders, and more information on use of gadolinium contrast agents to enhance images. The text is written in an exceptionally clear and easy-to-read style and illustrated by 2,200

detail-revealing scans that show normal bone and soft-tissue anatomy and pathologic findings. 1,100 pp.

RSNA Member Price \$179.10

B O O K

Musculoskeletal Imaging

F. Chew

Introducing a brand-new volume of *The Core Curriculum*—a series of textbooks that are indispensable as both guides for radiology residents' rotations and study tools for written boards or recertification exams. Each volume of *The Core Curriculum* examines one key area—such as ultrasound, neuroradiology, musculoskeletal imaging, cardiopulmonary imaging, head-and-neck imaging, or interventional radiology—and focuses on the essential information readers need to do well on the boards. The user-friendly presentation includes chapter outlines, tables, bulleted lists, boxed text, margin notes, key review points, hundreds of illustrations, and an easy-to-follow layout. 594 pp.

RSNA Member Price \$89.10

B O O K A N D C D - R O M

Atlas of Ultrasound in Obstetrics and Gynecology.

P. Doubilet

This four-color atlas, with accompanying CD-ROM, depicts key elements of sonography, including its dynamic real-time aspect. Intended to complement existing textbooks in the field, the atlas serves as a tutorial for the use of ultrasound in both normal and abnormal OB/GYN imaging. The CD-ROM offers realtime video, interventional procedures, a complete review of OB/GYN, and more. The book can be used as a clinical reference, while users can go to the CD-ROM to see how procedures are performed and how scans appear in actual, day-to-day practice. 352 pp.

RSNA Member Price \$144.00

B O O K

Textbook of Uroradiology

N. Dunnick

The thoroughly revised, updated third edition of this acclaimed text is an ideal reference for radiologists throughout their careers—from residents reviewing for boards to seasoned practitioners evaluating urogenital scans. In a user-friendly format enhanced by more than 1,000 illustrations, the book covers every aspect of uroradiology, including anatomy, embryology, congenital anomalies, diagnostic imaging techniques, renal pathology, trauma, and much more. This edition's format is better suited for board review, with summary tables and boxes to highlight essential information. The up-to-date coverage incorporates all current imaging modalities—including CT, MRI, ultrasound, and nuclear medicine—and includes new information on hysterosalpingography and imaging of the female pelvis. 532 pp.

RSNA Member Price \$125.10

B O O K

Clinical Imaging: An Atlas of Differential Diagnosis

R. Eisenberg

Dr. Eisenberg's best seller is now in its Fourth Edition—with sharp, new CT and MRI images and expanded coverage of ultrasound. Featuring 3,700 illustrations, this atlas guides readers through the interpretation of radiographic appearances. The emphasis on pattern recognition reflects radiologists' day-to-day needs and is invaluable for board preparation. Organized by anatomic area, the book has a convenient format that makes information very easy to follow. Tables on the left-hand pages outline conditions and characteristic imaging findings and offer comments to guide diagnosis. Images on the right-hand pages illustrate the major findings noted in the tables. 1250 pp.

RSNA Member Price \$161.10

B O O K

Freyschmidt's "Koehler/Zimmer" Borderlands of Normal and Early Pathologic Findings in Skeletal Radiography

Freyschmidt

Thieme proudly presents the updated and expanded fifth edition of the landmark text generations of physicians have used to differentiate borderline findings. Redesigned for optimal use, the book is organized according to diagnostic questions raised by clinical findings, radiographic findings, or both. You'll find all possible variants in five pathologic categories: anomaly; trauma; necrosis; inflammation; and tumor. The book provides imaging examples of the entire body, from the skull base, shoulder, and clavicle, to lower spine, knees, and the feet. More than 4,200 high-quality illustrations give clear examples of potential findings. 1,120 pp.

RSNA Member Price \$224.10

B O O K

Radiobiology for the Radiologist

E. Hall

Written by a practicing, active radiobiologist, the book brings together basic laboratory research and practical, clinical applications. The single-authored, easy-to-read text and informative illustrations ensure comprehension, and summaries at the end of each chapter facilitate quick review. This edition has been reorganized for convenient reference. Brand-new chapters address cancer biology, the clinical response of normal tissues, and gene therapy. Molecular biology is thoroughly integrated into this edition. 588 pp.

RSNA Member Price \$85.50

B O O K

Ultrasound Atlas of Disease Processes

C. Krebs

This is a comprehensive atlas of disease processes as they appear on ultrasound. The book covers normal anatomy and variants, as well as disorders. 432 pp.

RSNA Member Price \$170.10



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BOOK

An Atlas of Contrast-Enhanced Angiography: Three-Dimensional Magnetic Resonance Angiography

Nicholas Bunce, Raad Mohiaddin
A clinical aid to diagnosis and a review text containing bibliographic references and index, *An Atlas of Contrast-Enhanced Angiography* uses images taken directly from the magnetic resonance scanner to illustrate the application of CEA to all the common pathologies and anomalies seen in the cardiovascular system. It contains tables, charts, and line diagrams that delineate the angiograms. Authors Mohiaddin and Bunce supply explanatory text supporting and complementing the figures and providing clinical diagnoses and investigations of a multitude of normal and abnormal findings. In addition, it serves as a visual aide to the diagnosis and management of vascular disease. 96 pp.

RSNA Member Price \$98.96

BOOK

Imaging in Oncology

Janet Husband, Rodney H. Reznick
Building on the foundations laid by the first edition, the second edition of this widely acclaimed book addresses all aspects of cancer imaging, from diagnosis through to long term follow-up. It is a state-of-the-art text covering the application of imaging in all tumors. The authors provide an extensively referenced, evidence-based analysis of the role of imaging in planning treatment and expert opinions on the advantages and limitations of all relevant imaging modalities, including ultrasound, CT, MRI, PET/CT, and other nuclear medicine techniques. *Imaging in Oncology, Second Edition* is essential reading for radiologists and all members of a multidisciplinary cancer team. 1,800 pp.

RSNA Member Price \$445.50

BOOK

Nuclear Medicine in Radiological Diagnosis

A. Michael Peters
Nuclear medicine continues to expand as a key medical imaging specialty both in clinical service and as a tool for non-invasive clinical research. *Nuclear Medicine in Radiological Diagnosis* is an attempt to reflect the interdependence of the two disci-

plines, nuclear medicine and radiology. This new clinical reference is essential for all those working in the field of nuclear medicine and clinical imaging. Although it is meant to illustrate nuclear medicine as a radiological discipline and illustrate its value alongside complementary imaging, it is also intended for nuclear medicine trainees. They can learn to appreciate the contribution that radiology makes to the practice of nuclear medicine. 832 pp.

RSNA Member Price \$269.96

BOOK

The Year in Radiology: Advances in MDCT Volume 1

S. Saini
Rapid advances in CT imaging technology have led to significant increases in both the speed and resolution of images captured. The latest generation of multi-detector CT scanners are finding new applications in a variety of fields, making this one of the most exciting imaging modalities currently available. In this volume a prestigious team of specialists bring their expertise in MD-CT to a series of reviews of selected applications in imaging the head and neck, thorax and abdomen. Topics include emergency CT imaging, CT angiography and perfusion CT, and gynecologic and genitourinary imaging, with additional sections dedicated to scanning protocols and contrast media. 400 pp.

RSNA Member Price \$80.96

BOOK

Donald School Textbook of Ultrasound in Obstetrics & Gynecology

Asim Kurjak, Frank A. Chervenak
Featuring more than 650 color illustrations, this definitive volume provides comprehensive and expert coverage on the practical applications of ultrasound. The text is divided into three parts: general aspects, obstetrics, and gynecology. It includes recent technological breakthroughs in diagnostic ultrasound, including the advent of color Doppler, power Doppler, and three-dimensional and four-dimensional imaging. All contributors are either present or former teachers at the 8 branches of the Ian Donald school. A comprehensive text with state-of-the-art images, the book is of value to obstetricians, gynecologist, and medical ultrasonographers. 819 pp.

RSNA Member Price \$134.96

BOOK

Bioelectromagnetic Medicine

Paul J. Rosch, Marko S. Markov
The only comprehensive resource that reviews clinical applications of evidence-based bioelectromagnetic therapies for disorders ranging from cancer, coronary disease and obesity to neuropsychiatric disturbances, including Parkinson's disease; epilepsy; multiple sclerosis; tinnitus; macular degeneration; migraine; mus-

culoskeletal pain syndromes; depression; insomnia; and anxiety. The 86 internationally recognized contributors to *Bioelectromagnetic Medicine* have strived to insure that it will remain the gold standard in the field for many years. 850 pp.

RSNA Member Price \$175.50

BOOK

An Atlas and Manual of Coronary Intravascular Ultrasound Imaging

Paul Schoenhagen, Steven E. Nissen
Intravascular ultrasound (IVUS) is an imaging technique used during coronary angiography. This book provides a systematic introduction to coronary imaging with (IVUS). It is divided into two integrated and extensively cross-referenced parts, the Atlas and the Manual. The Manual describes the rationale, method, and interpretation of IVUS imaging for therapeutic and diagnostic purposes. It also presents a range of both established and evolving clinical and research applications. The Atlas features non-illustrated IVUS images together with corresponding illustrated figures. The reference list and subject index are connected to the Atlas and the Manual, allowing for rapid and easy access to information. 168 pp.

RSNA Member Price \$89.96

BOOK

An Atlas of 3D and 4D Sonography in Obstetrics and Gynecology

Asim Kurjak, David Jackson
As the use of three-dimensional ultrasound in clinical practice increases, the need for a reference covering this and other emerging technologies also increases. Edited by acknowledged leaders in the field, with contributions from international experts, *An Atlas of Three- and Four-Dimensional Sonography in Obstetrics and Gynecology* is just that. The book presents three-dimensional ultrasound images in full color accompanied by extensive captions and expert textual commentary. It provides authoritative coverage of the latest developments in three-dimensional ultrasound and highlights cutting-edge technology such as four-dimensional ultrasound. 214 pp.

RSNA Member Price \$152.96

BOOK

Atlas of Multiplane Transesophageal Echocardiography, Two Volume Set

Martin G. St. John Sutton
In recent years, transesophageal echocardiography has become one of the most exciting imaging modalities in modern clinical cardiology. Single plane and biplane transducers are now making way for multiplane transesophageal echocardiography. *Atlas of Multiplane Transesophageal Echocardiography* provides cardiologists, anesthesiologists, and cardiac surgeons with a comprehensive analysis

of cardiac imaging. The text explains how to measure and interpret cardiac chamber sizes and function. Transesophageal echocardiographic images are juxtaposed with top-quality anatomic specimens, nearly 3,000 images in total, to give a clear understanding of normal and abnormal cardiac anatomy. 984 pp.

RSNA Member Price \$476.10

BOOK

New Techniques in Gastrointestinal Imaging

Steve Halligan, Helen M. Fenlon
As continuing advances in computed tomography, ultrasound, magnetic resonance imaging, and nuclear imaging spur the development of more accurate, safer, and less invasive modalities for gastrointestinal imaging—quickly rendering traditional procedures obsolete—medical professionals need only look to this definitive step-by-step guide for introduction, clear illustration, and comprehensive coverage of cutting-edge techniques ranging from virtual colonoscopy to dynamic imaging of the pelvic floor. Relates the very latest imaging techniques for the gastrointestinal tract, including the liver, small bowel, colon, rectum, anal canal, and pelvic floor. The most up-to-the-minute reference on CT, MR, PET, and ultrasound imaging methods, pairing clearcut methodological summaries with over 250 corresponding images. 448 pp.

RSNA Member Price \$157.50



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JOURNAL International Medical Devices (IMD)

International Medical Devices (IMD) furnishes China's healthcare field with vital information on the latest developments in this vibrant industry. IMD is distributed to general and military hospitals across China. It is supported by the Department of Pharmaceutical Administration of State Economic and Trade Commission and the Bureau of Drugs and Medical Instruments of Health Department of General Logistics Department of the PLA, etc. (12 issues)

RSNA Member Price: \$58.80

Program and Grant Announcements

Personal Financial Management Strategies Sessions Prior to RSNA 2004

The RSNA Education Center is offering two personal financial management strategy sessions on Saturday, November 27, 2004, at McCormick Place in Chicago. These sessions are prior to RSNA 2004. **There will be no sales pitch.** These seminars do not qualify for AMA category 1 credit. For more information, go to www.rsna.org/education/shortcourses/index.html.



Protecting Assets from Creditor Claims, Including Malpractice Claims

10:00 a.m. – 12:00 p.m.

Includes textbook written specifically for the course!

Presented by Barry Rubenstein, B.S., J.D., L.L.M., this seminar includes comprehensive illustrations to help physicians decide when and how to use asset protection techniques, as well as distinguish the advantages, disadvantages, benefits and risks of numerous strategies.

Protecting Assets From Creditor Claims..... \$129

Both Courses..... \$269

Effective Real Estate Investment Strategies

1:00 p.m.– 5:00 p.m.

Includes textbook written specifically for the course!

Whether your interest is passive, low involvement investing or hands-on, fully involved investing, you will leave this course with the confidence and skills needed to identify investment real estate that meets your goals. The course, presented by J. Michael Moody, M.B.A., demonstrates that the opportunities and benefits of real estate far outweigh the effort and risk.

Effective Real Estate Investment Strategies \$159

Register for these seminars online at www.rsna.org.

RSNA Leadership Strategies for Radiology Practices

Nearly 100 people attended RSNA's Leadership Strategies for Radiology Practices in Chicago in late July. In this session, course director Lawrence R. Muroff, M.D., presented, "Partial Retirement Call and Dealing with the Problematic Partner."



Radiology in Public Focus

A press release has been sent to the medical news media for the following scientific article appearing in the September issue of *Radiology* (rsna.org/radiologyjnl):

Estimated Radiation Risks Potentially Associated with Full-Body CT Screening

As the healthcare community debates the pros and cons of full-body CT screening, a special report outlines the potential cancer risks associated with these scans.

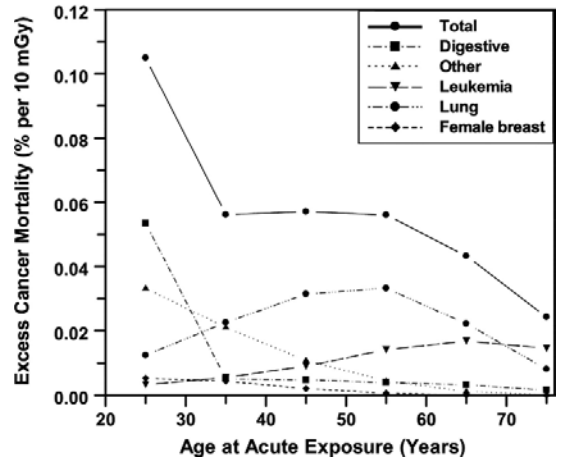
David J. Brenner, Ph.D., D.Sc., and Carl D. Elliston, M.S., from the Center for Radiological Research at Columbia University in New York City, estimated the lifetime cancer mortality risks from single full-body scans and from annual full-body scans.

Using a standard radiation risk estimation methodology, they determined that the typical effective dose from a single full-body scan is about 12 mSv.

Using A-bomb cancer mortal-

ity data, they found that a single full-body scan to a 45-year-old would result in an estimated lifetime attributable cancer mortality risk of around 0.08 percent. A 45-year-old who plans to have annual full-body CT up to age 75 (30 scans) would accrue an overall estimated lifetime attributable risk of cancer mortality of about 1.9 percent.

The researchers write: "Radiation-induced lung cancer is estimated to be the dominant cause of cancer mortality from full-body CT scans. This is not unexpected because, while radiation-related cancer risks generally decrease markedly with increasing age at

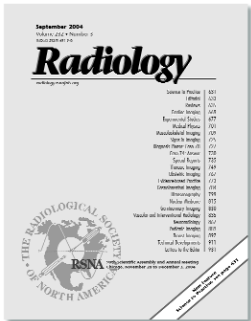


Graph shows estimated excess cancer mortality risk according to age at time of exposure in a stationary population, with U.S. mortality risk rates, that is exposed to a radiation dose of 10 mSv. Data are averages between the sexes.

(*Radiology* 2004;232:735-738) © 2004 RSNA. All rights reserved. Printed with permission.

exposure, radiation-induced lung cancer does not apparently show this decrease in risk until approximately age 55."

RSNA press releases are available at www.rsna.org/media.



Scientific Abstract and Journal Manuscript Submissions from Overseas Increase

Continued from page 9

global scientific community should not distract from the real problems facing academic medical research. He draws attention to the newly published special report, "Enhancing Research in Academic Radiology Departments: Recommendations of the 2003 Consensus Conference," which says, "In 2002, fewer than half of all university radiology departments had any NIH grants ... a major imbalance [that] raises concerns about the vitality and future of research in most medical school-based radiology departments."

Dr. Proto says the staffing shortage

in radiology is partially responsible. "Individuals who are in academic departments, from which the lion's share of research comes, have less and less time to devote to their research interests," he says. "They're spending more time doing clinical work and don't have as much academic time to do research."

The consensus panel, led by Philip O. Alderson, M.D., James Picker Professor and chairman of the Department of Radiology at Columbia University Medical Center in New York, outlined 11 strategies for building research programs in academic radiology depart-

ments, beginning with "The need to develop a research-supportive culture in radiology departments through leadership of the chair that is based on a vision, incentives and rewards system."

The complete consensus conference report was published in the August issues of *Radiology*, *Academic Radiology*, *American Journal of Roentgenology* and *Journal of the American College of Radiology*. RSNA members and *Radiology* subscribers can access the report at radiology.rsna.org/cgi/content/full/232/2/405. □

Journal Highlights

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

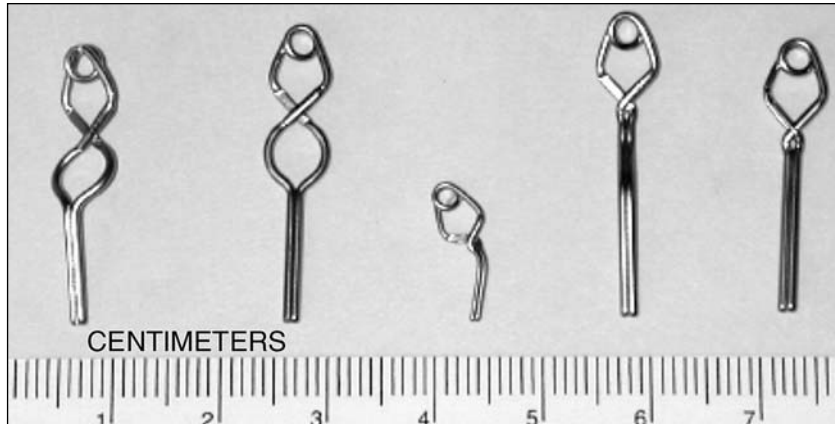
MR Imaging Procedures and Use in Cardiac Care

MR imaging technology has greatly evolved over the past two decades and has increasingly been used for diagnostics. Two review articles in the September issue of *Radiology* (rsna.org/radiologyjnl) provide an overview of MR imaging—one on procedures, the other on use in cardiac care.

In the first article, "MR Procedures: Biologic Effects, Safety, and Patient Care," Frank G. Shellock, Ph.D., and John V. Crues, M.D., from Los Angeles, discuss the effects of changing technology. The article:

- Provides an overview of and update on MR biologic effects
- Discusses new or controversial MR safety topics and issues
- Presents evidence-based guidelines to ensure safety for patients and staff members
- Describes MR safety information for various implants and devices that have recently undergone evaluation

In the second review article, "Con-



Examples of aneurysm clips with a variety of shapes and sizes (different versions of Spetzler Titanium Aneurysm Clips; Healthcare Corporation, V. Mueller Neuro/Spine, San Carlos, Calif). Aneurysm clips may be made from various materials, including ferromagnetic and nonmagnetic metals.

(*Radiology* 2004;232:635-652) © 2004 RSNA. All rights reserved. Printed with permission.

trast-enhanced MR Imaging of the Heart: Overview of the Literature," Robert R. Edelman, M.D., from Chicago, provides an overview of the principles and utility of cardiac MR imaging, with emphasis on the use of contrast media, including:

- Contrast agents used experimentally and in humans

- Methods for contrast agent administration and data acquisition
- Promising new developments

These articles also include "Essentials" or highlighted points to help busy readers recognize important information at a glance.

Radiology

Principles of Adult Learning

Understanding the principles of adult learning can help teachers become better facilitators of learning.

In the September-October issue of *RadioGraphics* (rsna.org/radiographics), Jannette Collins, M.D., M.Ed., from Madison, Wisc., provides her third in a series of articles on adult learning.

In this article, "Education Techniques for Lifelong Learning," Dr. Collins discusses the differences in how

adults and pre-adults learn, the science of adult learning principles and how these principles can be applied to radiologic education.

She writes: "Teaching is not something that should be done to the learner. The learner should be actively involved in learning and encouraged to be active. ... Active participation engages learners in the learning process and enhances

retention of new concepts."

Dr. Collins will also present the information this month at an RSNA faculty development workshop.

RadioGraphics

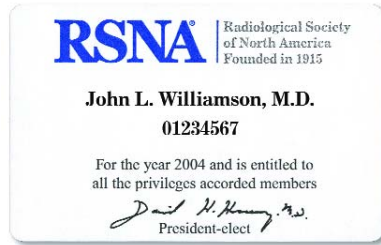
(*RadioGraphics* 2004;1483-1489)

Working For You

NEW!

RSNA Membership Cards

All RSNA members were recently sent RSNA membership cards. These new cards display your name and membership number. Keeping this number handy will help provide you with easy online access to RSNA benefits, such as *Radiology* and *RadioGraphics*, the RSNA CME Credit Repository and annual meeting registration.



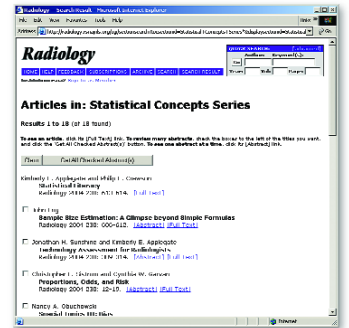
Important RSNA contact information is printed on the back of the cards, including the toll-free membership number, e-mail address and Web site information.

Statistical Concepts Series Available Online

The 18 articles that made up the Statistical Concepts Series printed in *Radiology* from November 2002 until March 2004 are available online.

To view the articles, go to rsna.org/radiologyjnl, click on Browse by Subspecialty and Category in the center of the page, and then click on Statistical Concepts Series.

Kimberly E. Applegate, M.D., M.S., and Philip E. Crewson, Ph.D., coordinated the series, which includes topics such as an introduction to biostatistics, describing data, probability in radiology and hypothesis testing.



SERVICE TO MEMBERS:

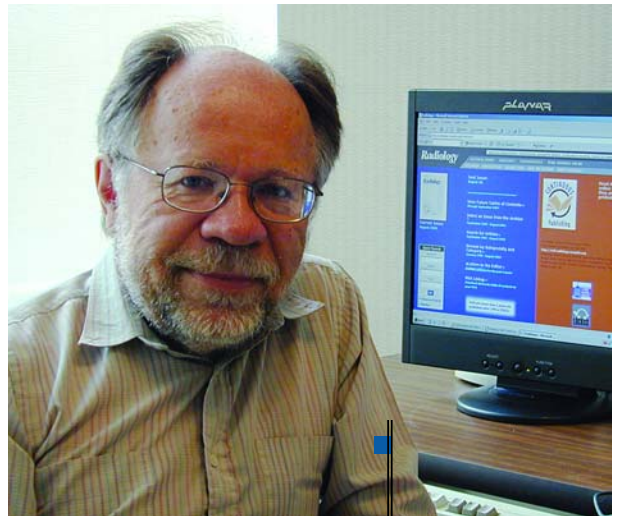
I have held several editorial positions since joining RSNA. I started as a manuscript editor for *Radiology*, and then was promoted to managing editor of the *Journal of Magnetic Resonance Imaging*. After five years, I was named managing editor of *RSNA EJ*, the innovative online-only journal that RSNA published until the print journals went online in January 1999—and that opened up a new world for me.

As manager of the online journals, now the official RSNA versions, it is my job to make sure they go online on time and that they match the print versions. More exciting for me is that they can offer supplemental material that the

print versions cannot offer, such as animation, computer programs, and figures and tables beyond the scope of print. *RadioGraphics* also offers in its “E-Zone” entire articles that do not appear in print. I have worked with the rest of the publications staff and HighWire Press to add features to the online journals that make learning and research easier and faster, such as publishing articles before print, robust searching features, eLetters, PDA linkup, and e-mail alerts. It seems that every day brings a new improvement for members and subscribers.

WORK PHILOSOPHY:

I learned long ago that if you can't take pride in your work, you had better let someone



else do it. I take pride in my work, and I hope it shows to members and subscribers who read our journals online. I trust that by putting my best into my job, I can play a small part in helping physicians help their patients.

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Private Practitioner Touts Value of Academic Radiology

Thomas R. McCauley, M.D., sees the big picture when it comes to the value of academics and research. “There is an exponential impact on patient care,” he says. “In clinical medicine, I treat my patients. When I teach, my students learn and then use that information to treat their patients. When I perform and publish research, thousands of physicians learn new information to help treat their patients.”

Dr. McCauley may think he’s left full-time academics, but he always thinks like a teacher and a researcher.

Today, the 1992-1994 RSNA Research & Education Foundation Research Scholar works in private practice for Radiology Consultants, P.C., in New Haven, Conn. He is also a clinical associate professor of diagnostic radiology at the Yale University School of Medicine, teaching MR physics and clinical topics to residents and fellows.

As an RSNA Research Scholar, Dr. McCauley was the principal investigator of “Assessment of Peripheral Vascular Disease with Quantitative Magnetic Resonance Flow Measurement and Spectroscopy.”

“The RSNA Research Scholarship got my academic career going. It was very helpful because it gave me time to do in-depth research, especially as a junior attending,” he says. “I could do the time-consuming work of vascular imaging and quantification of flow. As a junior investigator, I got to work with the physics group at Yale, and that’s something most young investigators would never have the time to do.”

Literature Research

Dr. McCauley says one of the primary benefits of his scholarship was learning how to conduct literature searches. “I learned excellent research habits early on including how to look things up and how to weed through the volumes of material. The ability to find information in the literature quickly is not only important for my academic work, but also is invaluable for my clinical work,” he says.

Dr. McCauley uses these techniques in his other role as an associate editor of MR imaging for *Radiology*. “As I review submissions to *Radiology*, I ask myself, ‘How do you make a good project or conduct a good study? Is it written well? Is the research designed well? Does the paper help me understand scientific methods better? Is it a novel study?’”

I would not be as good a clinical radiologist without my academic background. It taught me the value of research and keeping up to date.

Thomas R. McCauley, M.D.

Shirley McCarthy, M.D., a professor of diagnostic radiology and obstetrics/ gynecology at Yale, is one of Dr. McCauley’s clinical mentors. “Tom is a great guy. He is a very dedicated doctor. He is very knowledgeable in his MR techniques. He’s highly ethical and conscientious,” she says.

Concerns for the Future of Radiology

Two years ago, after 12 years in full-time academics, Dr. McCauley took a position in private practice. He says he had to look at his whole life, especially his time commitments, his family and financing college for his three children. He says he felt torn because he enjoys



Thomas R. McCauley, M.D.
1992-1994 RSNA Research Scholar

the academic work so much.

“Unfortunately, changes in health-care reimbursement and the academic environment have increased the time demands on academic radiologists, decreased time available for research, and decreased financial support in many academic departments. Radiology must work to figure out how to solve this problem in the future because research and teaching are the foundation for clinical radiology,” Dr. McCauley says.

As for young radiologists planning a career in private practice, Dr. McCauley suggests they spend a lot of time in academics before going into private practice. “I would not be as good a clinical radiologist without my academic background. It taught me the value of research and keeping up to date.” □



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THE BOARD OF TRUSTEES of the RSNA Research & Education Foundation and its recipients of research and educational grant support gratefully acknowledge the contributions made to the Foundation **June 29 – July 28, 2004.**

For more information on Foundation activities, a quarterly newsletter, *Foundation X-aminer*, is available online at www.rsna.org/research/foundation/newsletters/x-aminer/x-aminer.pdf.

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Online donations can be made at
www.rsna.org/research/foundation/donation.

Product News

FDA APPROVAL

Imaging Agent for Diagnosis of Equivocal Appendicitis

Mallinckrodt and Palatin Technologies have received Food & Drug Administration (FDA) approval to market and distribute NeuroSpec™ imaging agent, an in vivo radiopharmaceutical that labels white blood cells and myeloid precursors. The FDA approval specifically indicates NeuroSpec for scintigraphic imaging of patients with equivocal signs of appendicitis who are five years of age or older.

NeuroSpec is a radiodiagnostic agent consisting of a murine IgM monoclonal antibody formulated to be labeled with Technetium-99m.

The companies report that during Phase III trials, 98 percent of positive appendicitis cases were diagnosed within one hour after injection of NeuroSpec.

NEW PRODUCTS

New Ultrasound Accessories

CIVCO Medical Instruments has introduced accessories compatible with the new Philips iU22 ultrasound system.

The accessories include several needle guidance systems (Ultra-Pro II™, Multi-Pro 2000™ and Infiniti™) and a full line of transducer covers.

The advanced iU22 ultrasound system is equipped with a wide range of high-performance features including real-time 4D imaging, voice activated control and annotation, and automated image optimization technologies.



FDA APPROVAL

Moveable, Digital C-arm System

Siemens Medical Solutions has received FDA marketing clearance for the new AXIOM Artis U, a moveable, digital C-arm imaging system. The system offers four times more generator power than any mobile C-arm system on the market and is intended to support a wide variety of examinations.

The AXIOM Artis U combines a fixed generator, a high capacity x-ray tube and the flexibility of a movable C-arm in a compact area. It also includes the ability to reduce radiation exposure for both the physician and the patient, and addresses the challenges encountered with large (obese) patients.

“As the complexity of cases and the variation in patient types continues to increase, so does the need for an imaging system that is flexible, easily configured yet capable of providing the highest standard image quality,” said Manfred Fink, vice-president of the Angiography and X-ray Division at Siemens Medical Solutions USA, Inc.



NEW PRODUCT

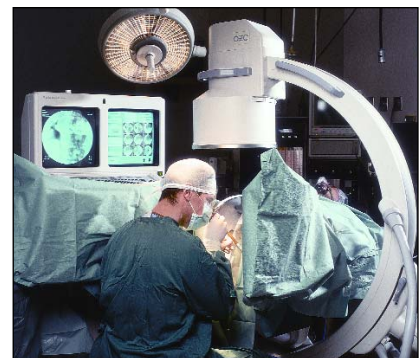
New System Helps to Reduce Medical Errors, Increase Productivity

GE Healthcare has introduced OEC® 9800 MD, a digital mobile imaging system with a fully motorized C-arm and 12-inch image intensifier for larger field of view.

OEC 9800 MD offers flexibility without compromising accuracy. The system features:

- Proven 1k x 1k image resolution for exceptional detail
- Fully motorized C-arm movements
- Tableside user interface
- Collision protection system
- Heat management and output
- DICOM 3.0 compatible

“For years we have focused on inventing technologies that reach new levels of image quality and user inter-



face to support the growing number of minimally invasive procedures performed each year,” said Laura King, global vice president and general manager of interventional, cardiology and surgery at GE Healthcare. “Having control of the C-arm changes the game.”

News about RSNA 2004

International Delegates

International attendees are strongly encouraged to apply now for a visa.

The U.S. Visit Program was launched in January 2004 to protect the safety of U.S. citizens and international visitors.

Beginning September 30, 2004, foreign visitors (including the 27 countries in the Visa Waiver Program) will be photographed and fingerprinted upon arrival at a U.S. airport or seaport. The processes take only a few seconds in most cases.

For more information, go to www.dhs.gov/us-visit.

NEW!

Visa Waver Nations Update

The U.S. government has extended the machine readable passport deadline to October 2005. For more information, go to www.travel.state.gov/vwp.



The popular Image Interpretation Session guides attendees on how to identify abnormal findings on imaging studies, how to construct a list of differential diagnoses based on the imaging findings, and how to make recommendations for further procedures or treatment, if necessary. The RSNA 2004 moderator is Burton P. Drayer, M.D.

Important Dates for RSNA 2004

Nov. 8	Housing deadline
Nov. 12	Advance registration deadline
Nov. 28–Dec. 3	RSNA 90th Scientific Assembly and Annual Meeting

Welcome.

US-VISIT Procedures: For Visa Holders Only

1: Left Index Finger
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 右手食指
 Indicador Derecho

3: Look at Camera
 Mire la Cámara
 카메라를 보십시오.
 注視相机
 Olhe para a Câmera

Have You Registered Yet for RSNA 2004?

To begin the registration process, download the advance registration information from www.rsna.org. Click on the annual meeting logo, then on Registration, Housing and Courses in the left-hand column, then on Brochure.

You can also have the information faxed to you:

- Dial the fax-on-demand server at (847) 940-2146
- Select a document:
 - a) Enter 1300 for the entire brochure
 - b) Enter 1350 for course listings only
 - c) Enter 1375 for registration forms only
- Enter your fax number (including 1 or 011 plus city and country codes)
- Enter your telephone number and extension

Once you have the registration information, there are four easy ways to complete the registration process:

1 Internet

Go to www.rsna.org. Click on the annual meeting logo. Click on Registration, Housing and Course Enrollment, and then click on Internet Registration.

Use your member ID# from the *RSNA News* label or registration brochure sent to you, or search by your last name and zip code. If you have questions, send an e-mail to reginfo@rsna.org.

2 Fax

(24 hours)
 (800) 521-6017
 (847) 940-2386

3 Telephone

(Monday– Friday, 8:00 a.m.–5:00 p.m. CT)
 (800) 650-7018
 (847) 940-2155

4 Mail

ITS/RSNA 2004
 108 Wilmot Rd., Suite 400
 Deerfield, IL 60015-0825 USA



Badge Wallets

North American attendees who register by **November 12, 2004**, will receive their badge wallets in the mail prior to RSNA 2004. Badge wallets contain a name badge, course tickets and attendance vouchers.

Badge wallets will be sent to attendees from outside of

North America if their registration forms are received by **October 29, 2004**. International registration forms received October 30 – November 12 require badge wallet pick-up at McCormick Place, Desk A, Lakeside Center, Level 2, Hall E.

Earn up to 80.5 category 1 CME credits at RSNA 2004

Registration Fees

BY 11/12	ONSITE	
\$0	\$100	RSNA Member, AAPM Member
\$0	\$0	Member Presenter
\$0	\$0	RSNA Member-in-Training, RSNA Student Member and Technical Student
\$0	\$0	Non-Member Refresher Course Instructor, Paper Presenter, Poster Presenter, Education or Electronic (<i>infoRAD</i>) Exhibitor
\$110	\$210	Non-Member Resident/Trainee
\$110	\$210	Radiology Support Personnel
\$520	\$620	Non-Member Radiologist, Physicist or Physician
\$520	\$620	Hospital Executive, Commercial Research and Development Personnel, Healthcare Consultant, Industry Personnel
\$300	\$300	One-day badge registration to view only the Technical Exhibits area

For more information about registration at RSNA 2004, visit rsna.org, e-mail reginfo@rsna.org, or call (800) 381-6660 x7862.

RSNA 2004 Exhibitor News

Exhibitor Profile Changes Online

Technical Exhibitors at RSNA 2004 should update their company contact information by **September 30, 2004**, to ensure the latest information is printed in the new Meeting Guide section of the *RSNA Daily Bulletin*.

The Meeting Guide is the center section of the daily newspaper that is distributed throughout McCormick Place.

The Meeting Guide will include the company name, address, phone and fax numbers, Web site address and booth number. The Meeting Guide will also

include floor maps of McCormick Place.

To update a company profile, go to www.rsna.org. Click on the annual meeting logo, click on Technical Exhibition in the left-hand column, click on Already an Exhibitor in the left-hand column, and then click on Exhibitor Profile in the center of the page. Exhibitors will need to enter their log-in and password to make changes to their profiles. The log-in and password have been sent to the main contact of an exhibiting company.



90th Scientific Assembly and Annual Meeting

November 28 – December 3, 2004
McCormick Place, Chicago

Continued on next page

RSNA 2004 Exhibitor News

NEW!

Online EAC Registration

The Exhibitor Appointed Contractor Association (EACA) has been selected to assist RSNA with the registration and badging of exhibitor-appointed contractors (EACs) at RSNA 2004. The process of filling out EAC notification forms and insurance certification

will be greatly enhanced and simplified by registering online. Go to www.eaca.com and click on EAC Registration on the right-hand side. Log in with your RSNA customer number as your show ID and your booth number as your password.

Submission Deadline for New Products

All exhibitors can take advantage of a free promotional outlet for the new products they will be displaying at RSNA 2004.

The RSNA *Daily Bulletin* features a daily New Products section.

The deadline to submit materials for the New Products section is **October 13, 2004**.

For specific details, see the Technical Exhibitor Service Kit. Go to www.rsna.org. Click on the annual meeting logo, click on Technical Exhibition in the left-hand column,



click on Already an Exhibitor in the left-hand column, and then click on Service Kit in the center of the page.

Important Exhibitor Dates for RSNA 2004

- September 20** Target Move-in assignments released
Block housing rooming lists due
- September 30** Exhibitor Profile changes due
- October 13** Deadline for submission to *Daily Bulletin* New Products section
RSNAnet Early-Bird Deadline
- October 15** Exhibitor-appointed Contractor request deadline
- October 29** Exhibitor advance badge request deadline
- Nov. 28–Dec. 3** RSNA 90th Scientific Assembly and Annual Meeting



90th Scientific Assembly and Annual Meeting
November 28 – December 3, 2004
McCormick Place, Chicago



The RSNA Scientific Assembly and Annual Meeting attracts more than 25,000 medical imaging professionals.

■ For more information, contact RSNA Technical Exhibits at (800) 381-6660 x7851 or exhibits@rsna.org.

RSNA.org

Update Your Member Profile

Make sure your RSNA member profile is up to date to ensure you receive important RSNA information in a timely manner. To view or make changes to your member profile, go to www.rsna.org and click on Member's LOGIN at the top of the page. ❶

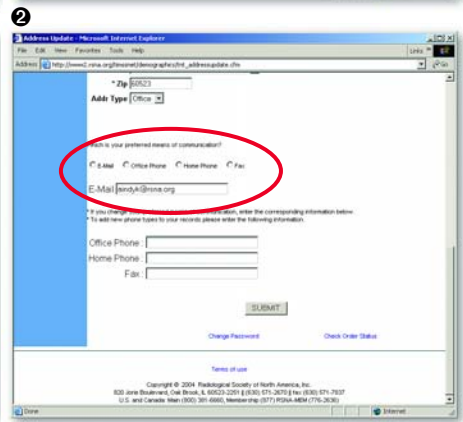
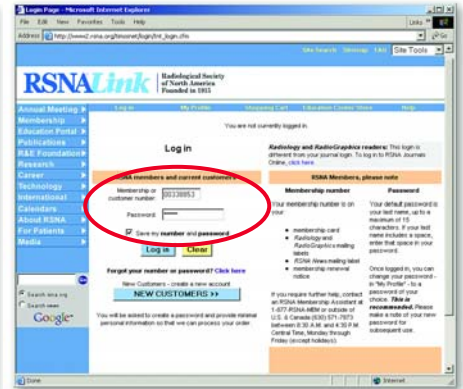
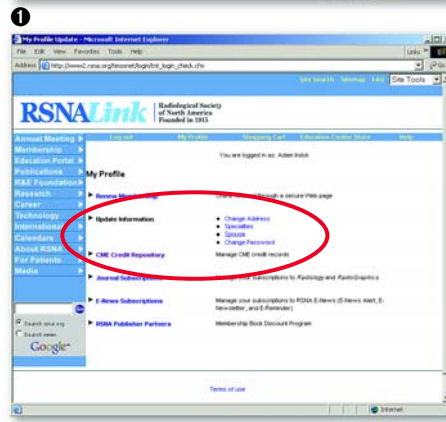
Type in your member number (found on the *RSNA News* label) and your password. ❷

Under Update Information ❸, you can view, add or change your:

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Once each month, RSNA sends an e-mail to members notifying them of some of the stories in *RSNA News*. Also monthly, RSNA sends a reminder to members about RSNA member benefits and some of the upcoming RSNA education programs. Occasionally, RSNA will notify members about important medical imaging news, such as when a new scientific study gets national attention or when the Nobel Prize was awarded for discoveries concerning MR imaging.

To ensure that you get this timely information, make sure your e-mail address



information is included in your profile. You can add or change your e-mail address at the bottom of the Update Address section. ❹

OTHER WEB NEWS:

ClinicalTrials.gov Wins Prestigious Award

ClinicalTrials.gov is the recipient of Harvard University's Innovations in American Government Award. The Web site, developed by the National Library of Medicine, gives patients and

families facing life-threatening illnesses access to centralized information on clinical trials.

"We are extremely proud of this resource. It is accessible to all and written in a manner that patients can understand," says National Institutes of Health Director Elias A. Zerhouni,

M.D. "The site tells the public about the location of clinical trials, what they are trying to do, where they are located and how any member of the public can volunteer to participate. Even more, it links to additional information about diseases and disorders. We are delighted by this recognition."

connections Your online links to RSNA

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Radiology Online
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History of the RSNA Series
rsna.org/history
Membership Applications
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Medical Meetings

October – November 2004

OCTOBER 1-5

North American Society for Cardiac Imaging (NASCI), Cardiovascular Imaging 2004, Ritz-Carlton, Amelia Island, Fla.
• www.nasci.org

OCTOBER 2-6

French Society of Radiology (SFR), Annual Meeting, Paris
• www.sfr-radiologie.asso.fr

OCTOBER 3-7

American Society for Therapeutic Radiology and Oncology (ASTRO), 46th Annual Meeting, Georgia World Congress Center, Atlanta • www.astro.org

OCTOBER 6-9

International Skeletal Society (ISS), 31st Annual Refresher Course, Westin Dragonara Resort, St. Julian's, Malta
• www.internationalskeletalsociety.com

OCTOBER 6-9

Association of Community Cancer Centers 21st National Oncology Economics Conference, Oncology Economics: How to Survive in 2005, Salt Lake City Marriott Downtown, Salt Lake City • www.accc-cancer.org/2004Fall

OCTOBER 7-10

American College of Radiology Imaging Network (ACRIN), Semi-Annual Meeting, Ritz-Carlton, Pentagon City, Arlington, Va. • www.acrin.org

OCTOBER 10-14

International Federation of Science Editors, 12th Annual Conference, Merida Yucatan, Mexico • bvs.insp.mx/ifse/index.htm

OCTOBER 16-17

American Institute of Ultrasound in Medicine (AIUM), Ultrasound: The Complete Perspective and Doppler Imaging 2004—From Basic Applications to New Frontiers, Le Centre Sheraton, Montreal, Quebec • www.aium.org

OCTOBER 18-22

American Osteopathic College of Radiology (AOCR), Advances in Body MR, The Wyndham New Orleans at Canal Place, New Orleans • www.aocr.org

OCTOBER 20-23

American Medical Group Association (AMGA), 2004 Institute for Quality Leadership Annual Meeting, Hyatt Regency, Minneapolis • www.amga.org

OCTOBER 21-24

Royal Australian & New Zealand College of Radiologists (RANZCR), 55th Annual Scientific Meeting, Perth Convention & Exhibition Centre, Perth, Western Australia
• www.ranzcr.edu.au

OCTOBER 29-31

Society of Radiologists in Ultrasound (SRU), 14th Annual Meeting, Marriott Wardman Park Hotel, Washington, D.C.
• www.sru.org

OCTOBER 30-31

Hong Kong College of Radiologists, 12th Annual Scientific Meeting, Hong Kong Academy of Medicine, Aberdeen, Hong Kong • www.hkcr.org

NOVEMBER 2-5

British Society of Interventional Radiology (BSIR), BSIR Annual Meeting, Harrogate International Convention Centre, North Yorkshire, U.K. • www.bsir.org

NOVEMBER 9-10

Cancer Imaging Program at the National Cancer Institute, High-throughput Technologies for in vivo Imaging Agents, Watergate Hotel, Washington, D.C.
• <https://cms.palladianpartners.com/cms/1087848422/>

NOVEMBER 27

RSNA Education Center, Personal Financial Management Strategies Sessions, McCormick Place, Chicago
• www.rsna.org/education/shortcourses/index.html

NOVEMBER 28-DECEMBER 3

RSNA 2004, 90th Scientific Assembly and Annual Meeting, McCormick Place, Chicago • www.rsna.org

APRIL 19-22, 2005

10th International Conference on Occupational Respiratory Diseases (10th ICORD), Occupational Respiratory Hazards in the 21st Century: Best Practices for Prevention and Control, Beijing, China • www.ICORD2005.com

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