

Bulletin

CRISIS MANAGEMENT



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FEATURE**10 Crisis Management**

Within an ever-changing radiology landscape, crises can make or break a leader. However, in a time of crisis, leaders must balance three pillars: quality, service, and efficiency.

OUR MISSION: The *ACR Bulletin* supports the American College of Radiology's Core Purpose by covering topics relevant to the practice of radiology and by connecting the College with members, the wider specialty, and others. By empowering members to advance the practice, science, and professions of radiological care, the *Bulletin* aims to support high-quality patient-centered healthcare.



QUALITY IS OUR IMAGE

QUESTIONS? COMMENTS? Contact us at bulletin@acr.orgArchives of past issues are available at ACRBULLETIN.ORG

Check out the digital edition!
Read more at acrbulletin.org

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FROM THE CHAIR OF THE BOARD OF CHANCELLORS

Geraldine B. McGinty, MD, MBA, FACR, Chair



Rules of Engagement

Our ability to come together to express a diversity of opinions is vital to improving the care we give our patients.

As ACR members, we work across the country and in a wide variety of practice situations and areas of focus. We span generations, and our ethnic and cultural backgrounds vary widely, not to mention our political affiliations. Can we really think of ourselves as a team? I'd argue that we must if we are to achieve our organization's goal: that ACR members are universally acknowledged as leaders in the delivery and advancement of quality healthcare.

The evidence that successful teams are more diverse is overwhelming, and we're working hard to ensure that our profession reflects the patients we serve. But equally important is that we are able to express a diversity of opinions as we consider how to improve the care we give our patients.

We're fortunate to meet face-to-face once a year at our annual meeting in Washington, D.C. Our speaker and vice speaker work with the CSC to ensure that the Council meeting and open-mic sessions allow for a variety of opinions to be expressed (see page 15). But in our rapid-paced world, we need to be able to engage in an ongoing conversation between annual meetings to ensure that we are innovating and responding appropriately to changes in our practice environment. Engage, ACR's member-only discussion forum, which launched in 2016, was designed to do just that. With communities that include subspecialty commissions, state chapters, interest groups such as the RFS, and a variety of ACR committees, there should be a place for every member to have their voice heard. I use the Engage daily digests as a substitute for the face-to-face conversations that I wish I could have with you all. The threads have been almost unanimously collegial and productive. At a time when there is an unfortunate amount of rancor in our political discourse, our community has shown itself to be thoughtful and tolerant of divergent opinions.

But I've heard that some members, especially younger colleagues, feel as if they cannot express themselves openly for fear that their opinions might cause them to be viewed negatively. While other platforms allow for anonymous postings, we've considered and, so far, rejected that option given the less collegial tone it can promote.

The question of how we enable our ACR team to perform optimally may hinge on our finding a solution to this issue. Research at Google showed that psychological safety (a sense of confidence that the team will not

embarrass, reject, or punish someone for speaking up) was critical to a team's success.¹ Every business school student learns the tragic story of the group think that caused the Challenger disaster.² We are familiar with President Abraham Lincoln's team of rivals — a cabinet containing men who had run against him, were unafraid to take issue with him, and were confident in their own leadership abilities.³

True innovation requires us to think not just outside the box but outside the room.

The Engage Steering Committee has been ably led by former ACR Vice President Lawrence A. Liebscher, MD, FACP, and his team (see full committee roster at acr.org/ESC), and the expert staff support of Bill Shields, JD, LLM, CAE, Brad Short, MLA, CAE, Trina M. Behbahani, CAE, Katie Kuhn, and Kristin Barnard.

I am committed to hearing what our members have to say even if I don't agree with it. I will feel as if I have failed as a leader if I do not enable discussions on important topics that are diverse and not always comfortable. I'm approaching this, as is the Engage Steering Committee, with humility. Your ideas on how we can do this better are welcomed, ideally on Engage. But we cannot allow ourselves to be lazy. True innovation requires us to think not just outside the box but outside the room; if we don't open the door and welcome in those who don't agree with us, we risk being boxed in to a narrow definition of success. As Marie Curie, a twice-decorated Nobel Laureate and ACR Gold Medal recipient, so wisely said, "Be less curious about people and more curious about ideas." B

ENDNOTES

1. Duhigg C. What Google learned from its quest to build the perfect team. *The New York Times*. February 25, 2016. Available at bit.ly/PerfectTeam_NYT. Accessed Nov. 5, 2018.
2. Gaskins JY. A case study of small group decision-making as influenced by the Abilene Paradox: The Challenger Mishap. Air War College. May 1998. Available at bit.ly/Challenger_Report. Accessed Nov. 5, 2018.
3. Couto D. Leadership lessons from Abraham Lincoln. *Harvard Business Review*. April 2009. Available at bit.ly/Lincoln_lessons. Accessed Nov. 5, 2018.



Engage is a dynamic community designed and built just for members to exchange knowledge, share solutions, develop ideas, and network with your colleagues. Join the discussions at engage.acr.org.

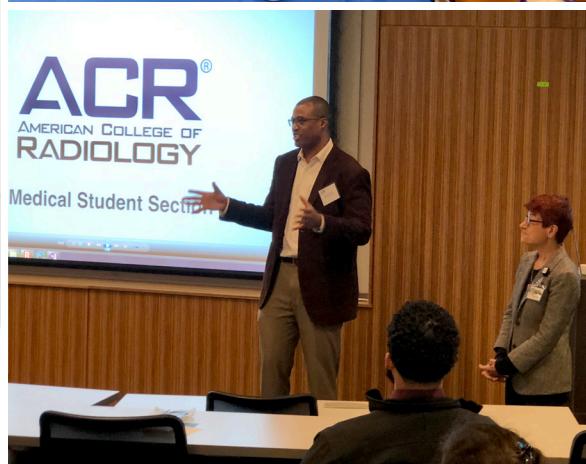
Inspiring the Next Generation

On Oct. 23, 2018, ACR hosted its first solo radiology/radiation oncology workshop at a medical school. Carolyn C. Meltzer, MD, FACR, and Derek L. West, MD, MS, of Emory University, provided Morehouse School of Medicine students with an overview of radiology by highlighting subspecialties and modalities. Sagine Berry-Tony, MD, Pallavi Nadendla, MD, and Shreyas R. Patel, MD, of Emory's department of radiology and imaging sciences, provided hands-on procedural demonstrations for the students.

Learn more about the ACR's outreach to medical students at acr.org/MedicalStudent.



Shreyas R. Patel, MD, (far right) a vascular and IR fellow at Emory University, gives Morehouse students James Tran (far left) and Nikka Jones (center) a demonstration on how to place and retrieve an IVC filter using a vasculature model.



▲ (Left to right) Sagine Berry-Tony, MD, demonstrates an ultrasound-guided biopsy procedure to Nikka Jones and Kelara Samuel.

◀ Derek L. West, MD, MS, and Carolyn C. Meltzer, MD, FACR, provide Morehouse students with an overview of the specialty.

CMS Releases QPP and MPFS Final Rules

CMS released the 2019 Quality Payment Program (QPP) final rule and the 2019 Medicare Physician Fee Schedule (MPFS) final rule in early November. In the QPP final rule, CMS described changes to policies for implementation of the third year for the Merit-Based Incentive Payment System and for Advanced Alternative Payment Models expansion of the Cost category to 15 percent, required use of the 2015 Comprehensive Error Rate Testing, and the implementation of facility-based measures. The MPFS final rule further clarified the two-phase rollout of required clinical decision support use previously mandated by PAMA. It dictated that referring providers must consult Appropriate Use Criteria prior to ordering advanced medical imaging for Medicare patients beginning Jan. 1, 2020.

For a summary of the final rule, visit acr.org/MPFSFinalRule_Summary.

It's Time to Apply for the FACR

Interested in becoming an ACR Fellow? It's time to complete and submit your application. Being selected as a fellow is one of the most prestigious honors bestowed upon long-time ACR members and recognizes exceptional achievements in the fields of radiology, radiation oncology, or medical physics. Fellows have distinguished themselves through lifelong service to the College, organized radiology, medicine, research, and/or teaching. Physicians and medical physicists with at least 10 consecutive years of membership may apply now for 2020 fellowship. New fellows are inducted during the convocation ceremony at the ACR Annual Meeting in May.

Visit acr.org/facr for your chapter's deadline.

“
Providing valuable care shouldn't end at the U.S. borders. The more we can do collaboratively to reach out to other parts of the world, the better off we will all be.

— Sughra Raza, MD, FACP,
at acr.org/Imaging3-Rwanda



Providers in Rwanda are now using ultrasound to detect breast abnormalities.

New Imaging 3.0 Case Study: Radiology in Rwanda

A new Imaging 3.0® case study explores how Sughra Raza, MD, FACP, a breast imaging radiologist at Brigham and Women's Hospital, has been leading breast ultrasound and image-guided biopsy training as part of her volunteer work with a healthcare nonprofit in Rwanda for the past several years. Raza's efforts have saved more than 100 women from unnecessary biopsies.

Read the case study at acr.org/Imaging3-Rwanda.



ACR Names New EVP of Center for Research and Innovation

The ACR has named Charles K. Apgar, MBA, as executive vice president of the ACR Center for Research and Innovation™. Previously the chief operations director of the center, Apgar has supervised operations and strategy for many landmark clinical trials during his 15 years with ACR — including the National Lung Screening Trial and the Digital Mammography Screening Trial, as well as the National Oncologic PET Registry. “Charles has been a central figure in the management and direction of large-scale radiology clinical research for more than a decade,” says William T. Thorwarth, Jr., MD, FACP, ACR CEO. “His expertise and experience has helped make the Center for Research and Innovation the force that it is. We look forward to many more years of his effective leadership as EVP.”

To read more, visit acr.org/CRIEVP-Apgar.



Imaging 3.0 Debuts Adaptable Presentations

The practice of radiology is transitioning from volume-based to value-based imaging care. One way ACR members are working to ensure the future viability of the field is by sharing knowledge and best practices for aligning with this shift in the form of Imaging 3.0® case studies. As part of this effort, ACR has partnered with the Association for Medical Imaging Management and RBMA to release case study-based presentations that can easily be plugged into practice, committee, and executive leadership meetings to help tell the Imaging 3.0 story. Each presentation comes with a script, notes, case study and other resource links, and downloadable slides.

To access the presentations, visit acr.org/Imaging3Resources.

To Avoid Lawsuits, Radiologists Should Be More Clear With Referring Physicians

According to a recent *JACR*® article, radiologists would do well to have a conversation with referring physicians whenever possible in cases of unexpected findings in their patients. The study examines the legal outcomes in a case in which unexpected cancer findings were not verbally communicated by a radiologist to a patient's referring physician and the patient died of cancer months later. According to study author Leonard Berlin, MD, FACP, “Failure to directly communicate a significant unexpected finding to a referring physician that results in severe harm or death to a patient may not only violate the radiologist's legal duty but even more important his or her ethical and moral duty as well.”

To read the full study, visit bit.ly/JACR_Berlin.

ABR Launches New Online Longitudinal Assessment

This month, the ABR debuted its new Online Longitudinal Assessment (OLA) for diagnostic radiology. According to ABR President Brent J. Wagner, MD, the OLA is designed to meet the requirements of Maintenance of Certification Part 3 — Assessment of Knowledge, Judgment, and Skills. Wagner says, “The OLA is not an examination, but a tool for both assessment and education.” The OLA is also meant to have minimal impact on a diplomate's workday, finances, and personal life, in contrast to the previous in-person exam, which incurred expense and time away.

For more information about the OLA, visit theabr.org.



Renew Your Pledge to Radiation Safety

Image Wisely® is a joint program of ACR, RSNA, AAPM, and ASRT that provides current information and guidelines on radiation safety with the objective of lowering the amount of radiation used in medically necessary imaging studies and eliminating unnecessary procedures. Now is the time to renew your annual pledge. Be sure to check out the latest radiation safety case for free CME.

Visit imagewisely.org today to renew.

Practice Leaders Forum Offers Practical Management Solutions

The 2019 ACR-RBMA Practice Leaders Forum, taking place Jan. 11–13 in Houston, will help radiologists and medical imaging business managers overcome professional challenges related to evolving healthcare. The sessions will focus on new practice models, leadership succession planning, employee engagement, conflict resolution, Quality Payment Program readiness, and ways to prepare for the coming integration of AI.

To register, visit acr.org/practiceleadersforum.

AI Can Triage Chest X-Rays, but Can't Replace Radiologist Reads

According to a recent study published in *PLOS One*, an AI algorithm is helpful in assisting radiologists with interpreting routine chest X-rays and detecting changes on serial studies, but the technology is limited in its ability to actually read exams. Researchers found that a “DL [deep learning] algorithm can aid in interpretation of CXR (chest radiographs) findings and their stability over follow up CXR,” but that “in its present version, it is unlikely to replace radiologists due to its limited specificity for categorizing specific findings.” Study results demonstrate AI’s potential usefulness in expediting image interpretation in “emergent situations where a trained radiologist is either unavailable or overburdened in busy clinical practices” and that AI “may also serve as a second reader for radiologists to improve their accuracy.” But ultimately, because of its limited functionality, AI can’t categorize or interpret specific findings — we still need a radiologist for that.

For more information, visit bit.ly/CXR_DL.

The common hype of radiologist being rendered redundant is unfounded. The radiologist and AI algorithms will work in tandem and synergistically may provide a diagnosis which will be closer to the truth.

— Adarsh Ghosh, MD, at bit.ly/AIUnderRads

CALENDAR

January

- 10–11 CT Colonography, ACR Education Center, Reston, Va.
11–13 ACR-RBMA Practice Leaders Forum, Hyatt Regency, Houston
11–13 Emergency Radiology, ACR Education Center-University of Arizona Cancer Center, Tucson
14–16 Abdominal Imaging, ACR Education Center-University of Arizona Cancer Center, Tucson
17–19 Body and Pelvic MR, ACR Education Center-University of Arizona Cancer Center, Tucson
24–26 Breast Imaging Boot Camp With Tomosynthesis, ACR Education Center, Reston, Va.
28–29 Breast MR With Guided Biopsy, ACR Education Center, Reston, Va.

February

- 1–3 SPR Pediatric MSK Imaging Course, Denver
4–6 ACR-Dartmouth PET/CT, ACR Education Center, Reston, Va.
8–10 Musculoskeletal MR of Commonly Imaged Joints, ACR Education Center, Reston, Va.
11–13 High-Resolution CT of the Chest, ACR Education Center, Reston, Va.
25–27 Coronary CT Angiography, ACR Education Center, Reston, Va.
28– March 1 Transcatheter Aortic Valve Replacement, ACR Education Center, Reston, Va.

March

- 4–5 Nuclear Medicine, ACR Education Center, Reston, Va.
11–13 Neuroradiology, ACR Education Center, Reston, Va.
15–17 Cardiac MR, ACR Education Center, Reston, Va.
18–12 AIRP® Correlation Course, AFI Silver Theatre and Cultural Center, Silver Spring, Md.
28–29 Prostate MR, ACR Education Center, Reston, Va.



Here's What You Missed

The *Bulletin* website is home to a wealth of content not featured in print. You'll find blog posts, extra articles, and other updated multimedia content at acrbulletin.org.

Price Transparency and Quality in Imaging

The executive director of a radiology practice discusses better ways to help healthcare consumers understand the cost and quality of their imaging services before their encounters at bit.ly/PriceTransparency_Coleman.

A Brief History of Image Wisely®

Thomas A. Reher, MD, discusses the ways in which Image Wisely® promotes patient safety through reduction of radiation exposure at bit.ly/TimetolImageWisely.

When Patients Can't Afford Cancer

Chelsea J. Miller, MD, shares her perspective on the role radiation oncologists play in striving for health equity and ensuring cancer treatment isn't cost prohibitive for patients. Read more at bit.ly/FinancialToxicityofCancer.

ACR Announces New Population Health Management Committee

The ACR's Commission on Patient- and Family-Centered Care recently announced the formation of a new committee dedicated to population health management. The Population Health Management Committee will work to ensure that high-quality patient care is an integral part of the effort to improve the overall health of populations.

"We will strive to help guide ACR members in avenues of engagement with population health management, whether it's through adoption of low-dose chest CT, opportunities to increase screening, or following up on important findings such as abdominal aortic aneurysms and lung nodules," notes Syed F. Zaidi, MD, chair of the new committee. "We must make sure patients don't fall through the cracks of our fragmented health system."

For more information, visit acr.org/PHMCommittee.



ACR: Your Career Partner

At the ACR Career Center, the premier recruitment resource for radiology employers, you can secure your next position or help top employers find you. Post your CV, sign up for job-related emails, and access online tools and resources to boost your job-seeking success. You can also browse more than 600 new postings each month, update your CV, and sign up for customized alerts to get the positions you want delivered to your inbox.

Learn more and register at jobs.acr.org.

The QPP in Year 2

CMS has released an infographic outlining details about provider participation in year 2 of the Quality Payment Program (QPP). Within the infographic you can find a link to the CMS QPP Participation Status Tool, as well as all of the important dates and deadlines, performance categories and weights, linked overview articles, and technical assistance related to the Merit-Based Incentive Payment System and Advanced Alternative Payment Models.

For more information, visit acr.org/QPPor. To access the infographic, visit bit.ly/QPPY2_Infographic.

Power Up With RLI

The Radiology Leadership Institute® Power Hour webinar series, chaired by Geoffrey D. Rubin, MD, MBA, FACR, and Jennifer Nathan, MD, is a selection of quarterly webinars that provides radiologists at all career stages with valuable insights on a host of leadership and healthcare topics. The next in the series, "Achieving Alignment with the Healthcare System," will take place on Thursday, Jan. 24, 2019, at 8:00 p.m. EST, and will focus on how a radiology department can better understand its place within the larger healthcare ecosystem.

For more information and to register, visit acr.org/RLI_PowerHour.

The increasing commercial and entertainment demand for augmented and virtual reality presents us with the opportunity to completely rethink our image interpretation environment.

— Eliot L. Siegel, MD, FACR, at bit.ly/Top5-RSNA2017



New Year, New Codes

Radiology has the greatest number of new CPT® codes in recent years.

The New Year brings a new outlook, new opportunities, and new challenges for our profession. It also brings new Current Procedural Terminology (CPT®) codes. For 2019, radiology has the greatest number of new CPT codes in recent memory. When I say “new,” I mean CPT codes describing new services — innovative services not previously reported. I do not mean revised CPT codes to describe existing services, such as services that are revised due to bundling or in response to the potentially misvalued initiatives. Among the new codes are contrast-enhanced ultrasound, ultrasound elastography, MR elastography, bone density ultrasound, and 3D anatomic modeling (see sidebar).

These new CPT codes are the result of a lengthy process involving dozens of radiology professionals. The ACR’s CPT and RVS Update Committee (RUC) teams of volunteers and staff, led by Mark D. Alson, MD, FACR, and Kurt A. Schoppe, MD, respectively, assumed critical roles. In addition, contributions came from outside the ACR Commission on Economics, outside the College, and even outside radiology. To understand the depth of contributions, we must delve into the requirements for an innovative new service to become a CPT code and achieve valuation:

1. The literature must be robust and supportive. The presence of such literature for these new codes occurs thanks to our researchers, our clinical trials, and our academic institutions.
2. The service must be widely performed. This is a credit to our physicians bringing new services to their patients, even when payment for those services may be uncertain. This is also a credit to our academic and community radiologists willing to provide the service despite the lack of a CPT code and uncertainty regarding payment.
3. Valuation is an important next step. Valuation prompts me to thank the randomly chosen members of our profession who completed the surveys indicating the relative work involved.

New code creation is an important step in expanding new services. But additional effort remains. The ACR will monitor government and private payer coverage policies closely. Payment to physicians is important, but so is payment within such parallel payment systems as the Hospital Outpatient Prospective Payment System (which pays hospitals for outpatient services) and the Inpatient Prospective Payment System (which pays hospitals for

inpatient and acute care services). Further, how these new services factor into the Quality Payment Program is relevant. For instance, are there opportunities to propose related and meaningful quality measures within the Merit-Based Incentive Payment System (MIPS)? Where do these services fit in evolving clinical episodic bundles of care? How will they influence MIPS performance categories such as Cost?

The recent CMS and RUC potentially misvalued initiative has disproportionately affected radiology, with an astonishing 46 percent of our codes subject to revision in recent years.¹ The consequence in recent years has been a concordant and understandable hesitation to bring forth new codes. We see this trend changing in 2019 as new codes for innovative services are created, making those services available to our patients. The ACR Commission on Economics remains committed to continuing this trend. **B**

ENDNOTE

1. Rosenkrantz A, Silva E, Hawkins M. Relativity screens for misvalued medical services: impact on noninvasive diagnostic radiology. *J Am Coll Radiol.* 2017;14(11):1412–1418. Available at bit.ly/Relativity_Screens.



2019 Codes

The following codes were introduced this year.

Contrast-Enhanced Ultrasound

76978 Ultrasound, targeted dynamic microbubble sonographic contrast characterization (non-cardiac); initial lesion

76979 Each additional lesion with separate injection (List separately in addition to primary procedure)

Ultrasound Elastography

76981 Ultrasound, elastography, parenchyma (e.g., organ)

76982 First target lesion

77983 Each additional target lesion (list separately in addition to code for primary procedure)

Magnetic Resonance Elastography

76391 Magnetic Resonance (e.g., vibration) Elastography

Bone Density Ultrasound

0508T Pulse-echo ultrasound bone density measurement resulting in indicator of axial bone mineral density, tibia

3D Anatomic Modeling

Codes will be effective July 1, 2019.

CRISIS MANAGEMENT

Within an ever-changing radiology landscape, leaders must prepare, stay collected, and delegate.

Retired U.S. Army General Colin L. Powell once said, “The day soldiers stop bringing you their problems is the day you have stopped leading them. They have either lost confidence that you can help, or concluded you do not care. Either case is a failure of leadership.”

Crises can make or break a leader. For some leaders, it may feel like they are constantly navigating crises. Within an ever-changing radiology landscape, a crisis may present as an imposing merger or the threat of a cancelled contract. There are IT calamities and staffing shortages to deal with. Billing disasters and reimbursement pitfalls abound. Crises can come in financial, political, organizational, and legal forms — and many defy easy classification. In extreme cases, a natural disaster or terror attack could bring an influx of critical patients. Whatever the manifestation, a crisis is often unexpected, and swift action is always critical in the absence of a contingency plan. Surviving a crisis requires empathy, decisiveness, and nimble problem-solving.

The first step is to acknowledge that you have a problem and share what you know with staff as soon as possible, says Kimberly E. Applegate, MD, MS, FACR, division chief of pediatric radiology at the University of Kentucky in Lexington. “As the leader, you need to tell them, ‘We’re all in this together; we’re a team,’ and that together you’re going to find a solution,” she says.

Damaging rumors and misinformation spread quickly during a crisis, particularly when leaders don’t communicate information and next steps. A common misconception is that leaders should withhold bad news. “You don’t have to say the situation is horrible,” Applegate says. “But be transparent and don’t lie about what has happened.”

“If there is a crisis, take your own pulse first,” says Carolyn C. Meltzer, MD, FACR, chair of the department of radiology and imaging sciences at Emory University School of Medicine. “As a leader, if you overreact, you can set off others — who will in turn assign blame and fuel worries about secondary issues.”

Leaders Prepare

It’s been said that the first step toward becoming a great leader during a crisis is, paradoxically, not having to lead in a crisis.¹ Good leaders adopt a team mentality, lead by example, earn the trust and respect of the group, and identify opportunities amidst chaos. While no leader can foresee every hidden hazard, great leaders anticipate and actively manage with a crisis prevention mindset.



"You need a strategic plan that lets your radiologists know where they are headed in one year, three years, and even five years," says Ricardo C. Cury, MD, FACR, chairman and CEO of Radiology Associates of South Florida. "That makes execution during a crisis easier. When your overall goals are well-delineated, everyone's focus is steady when a problem is at hand."

Not communicating your plan in advance will aggravate a bad situation. "If a clear plan is not presented to staff before a crisis occurs, you'll have a lot of background noise and people who aren't really focused on solving the problem," Cury says.

"Good leaders have a disaster plan for seemingly common problems," Meltzer says. "What happens when the PACS goes down or an EHR isn't available?" Radiologists must be ready to act, she says, and to work with others to coordinate preliminary reads and record findings.

Leaders Deliver

Many groups focus a great deal on planning, only to fall short when attempting to visualize a clear path during the crisis, says Cury. During a crisis, you may not see progress on a daily or even weekly basis, Cury notes. But part of execution is to assess your progress little by little and to focus on decisions that keep edging you toward positive outcomes. Whether you're talking about revenue challenges, quality of care problems, or potential staffing shortages, you must maintain a balance while navigating the crisis, he points out. In a time of crisis, leaders must balance three pillars: quality, service, and efficiency. "Those amount to patient-centered care," he says.

"Say you have an issue with staffing. If you focus only on productivity, pushing to read more cases and putting in longer hours, then you are potentially compromising quality," Cury says. You have to be mindful of turnaround times, but jeopardizing quality and service won't solve your problem, he says.

The focus on quality and safety can be particularly strong in stand-alone children's hospitals, Applegate says. "Many quality and safety leaders in medicine come out of the pediatric community," she points out, and that unique culture of shared decision-making can help maintain a balance in times of crisis. "Leaders must be mindful of — and keep staff focused on — the mission at hand. When things get frustrating, we have to remember that we're here together to take care of patients."

Crisis situations can sometimes come down to skill versus will. Applegate says: "If asked which I'd rather have in a leader during a crisis, I'd say the will to make (sometimes difficult or unpopular) decisions and implement a plan." With any crisis — perceived or real — a willingness to act for the good of the community is more important than any learned skill set, she believes.

Leaders Share Hardships

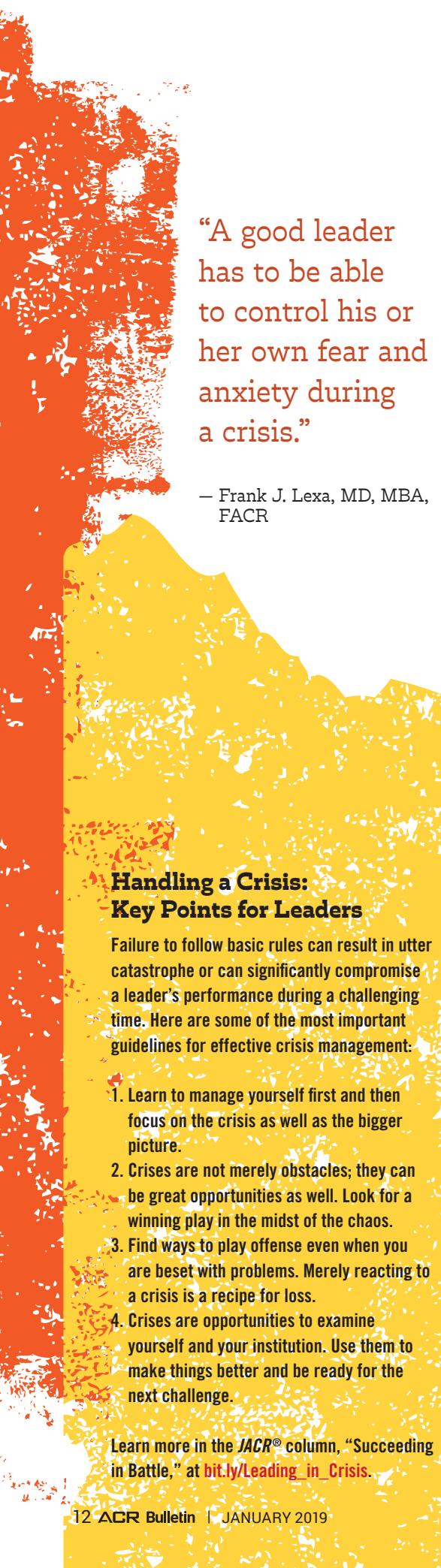
Team members are more willing to take action when they see someone leading by example, and with a comforting confidence. "A good leader has to be able to control his or her own fear and anxiety during a crisis," says Frank J. Lexa, MD, MBA, FACR, professor and vice chair of clinical affairs and operations in the department of medical imaging at the University of Arizona Medical Center, and chief medical officer of the Radiology Leadership Institute®. "It's critical when bad things happen that the leader shares in the hardship, whether it's a need for extra staff or a financial strain," he says. "If the leader gets a bonus and everybody else gets a pay cut, that's not leadership."

Meltzer offers an example of a CEO who held multiple town hall meetings to discuss salary cuts. This type of leadership prepared staff for a pay reduction by giving them an opportunity to voice their concerns over how the reduction would occur.

"Leaders must be mindful — and keep staff thinking — of the mission at hand. When things get frustrating, we have to remember that we're all here together to take care of patients."

— Kimberly E. Applegate, MD, MS, FACR





“A good leader has to be able to control his or her own fear and anxiety during a crisis.”

— Frank J. Lexa, MD, MBA,
FACR

Handling a Crisis: Key Points for Leaders

Failure to follow basic rules can result in utter catastrophe or can significantly compromise a leader's performance during a challenging time. Here are some of the most important guidelines for effective crisis management:

1. Learn to manage yourself first and then focus on the crisis as well as the bigger picture.
2. Crises are not merely obstacles; they can be great opportunities as well. Look for a winning play in the midst of the chaos.
3. Find ways to play offense even when you are beset with problems. Merely reacting to a crisis is a recipe for loss.
4. Crises are opportunities to examine yourself and your institution. Use them to make things better and be ready for the next challenge.

Learn more in the *JACR*® column, “Succeeding in Battle,” at bit.ly/Leading_in_Crisis.

The group didn't like the news, but communicating transparently prevented them from panicking and fleeing their positions. “It was a chance to let them know that maybe things weren't as bad as they thought,” Meltzer says.

Crises are the test and measure of a leader, Lexa says. When leading your group through a trying merger or practice consolidation, for example, let staff know that the goal is to benefit everyone. “You can't just say, ‘Good luck with that’ and hope for the best,” he says. “A strong leader tells the group, ‘Let's not just put out the fires; let's not just get through this. Let's build something stronger and come out on the other side better than we were.’”

Leaders Evaluate

The noblest inspiration won't mitigate bad outcomes when team members aren't willing and committed to doing their individual parts. “Good leaders are constantly looking at how well people react during a crisis,” Lexa says. “You may notice some people stepping up, some people doing just fine, and some who just can't handle it — or get worse.” Following a crisis, it may become clear that you need to reexamine your team, your contracts, or other aspects of your organization's operations, Lexa says. Consider it an opportunity to make changes that allow you to perform even better during the next crisis.

Assess what happened once a crisis is resolved, Meltzer urges. Identify what you learned and ask the important questions. How can you better prepare? Were you transparent in your communication with the team? Who did their part and who could have done more? Staff and patients notice when something goes wrong. “People want follow-up,” she says, “and want to know that you have acted and that you're prepared to act if something happens again.”

The next crisis is really more a question of “when” than “if.” If it presents in an extreme form, a leader's resolve will truly be tested as lessons learned translate to lives saved.

Leaders Survive

The radiologists in a busy, level-one trauma center in downtown Fort Lauderdale have performed tirelessly through disaster situations, says Heather C. Sher, MD, a musculoskeletal radiologist. She has seen leaders emerge to care for patients during several major hurricanes since 2005, responding to victims of Hurricane Katrina, the Haiti earthquake in 2010, and Hurricane Irma in 2017.

Because of their relative frequency in South Florida, Sher says, “hurricanes are something we can prepare for with an appropriate action plan. And that's a plan we evaluate each and every year.” Still, she says, Hurricane Katrina was one of the most stressful weeks of her career. “I was on in-house, overnight call during the entire week of the storm. I had no electricity at home for the entire week and was running out of gas on the way to the hospital as the week progressed.”

Her team learned from that experience, and now have one radiologist in-house at each facility within their health system during a storm. “The leader of our practice is in close touch with all of the radiologists in the group throughout a storm and delegates relief teams to come in as soon as possible once a storm has cleared. We spread the stress of the work out among all of the doctors in the practice.”

According to Sher, surviving a crisis requires planning, delegation, and clear lines of responsibility so that radiologists can perform at the top of their game when the community needs them most. She says, “Good leaders instill a sense of teamwork, dedication to the cause, experience, and commitment that sees everyone through challenging times while providing the best of care to our patients.” **B**

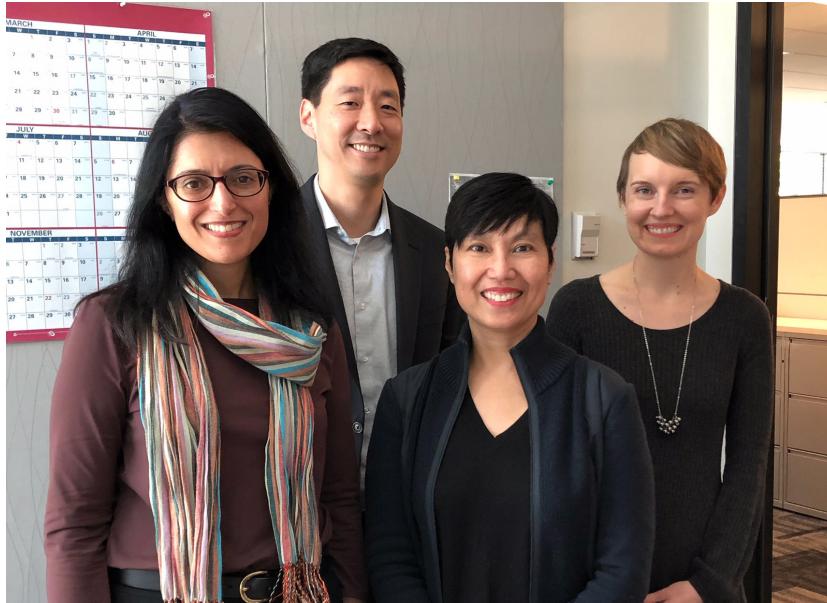
By Chad Hudnall, senior writer, ACR Press

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The Journal of the Future

The incoming editor of the *JACR*® shares her vision for the scholarly publication and its success in the digital age.



(Left to right) Hanna Zafar, MD, the 2018 Bruce J. Hillman, MD, Fellow in Scholarly Publishing, takes a break from fellowship activities at ACR headquarters to pose for a photo with Christoph I. Lee, MD, *JACR*® deputy editor, Ruth C. Carlos, MD, MS, FACR, *JACR* editor-in-chief, and Lyndsee Cordes, senior managing editor, ACR Press.

This month, Ruth C. Carlos, MD, MS, FACR, formally assumed the role of editor-in-chief of the *JACR*®, ushering in new leadership at the journal, succeeding Bruce J. Hillman, MD, FACR, the founding editor of the *JACR*.

A professor of radiology at the University of Michigan in Ann Arbor, Carlos shares with the *Bulletin* her views on current issues in radiology and scholarly publishing and her vision for the journal.

What has been your involvement with the journal to date?

I've been involved with the journal for at least 11 years. I started as a writer and reviewer and joined the editorial board early on. One year, I came up with the idea that I'd get others to write articles, rather than writing my own, and that led to a 10-year series of special issues, many of which have become really well known both within and outside of radiology.

Five years ago, when I became deputy editor, the role was crafted to expand our digital footprint. We began a monthly Tweet chat. We started a podcast called the Radiology Firing Line. Our 2016 hackathon (an event where medical personnel, IT professionals, and patient advocates came together to create innovative solutions to

an industry challenge) was our first large-scale event and that resulted in some innovations on the journal level, including integrating a patient advocate, Andrea Borondy Kitts, MS, MPH, onto the editorial board.

These roles have helped me understand the perspectives of each editorial position and what constitutes a successful journal. Being deputy editor gave me a unique understanding of what it means to be an editor-in-chief, and that knowledge has been particularly useful during the transition.

What is your vision for the journal moving forward?

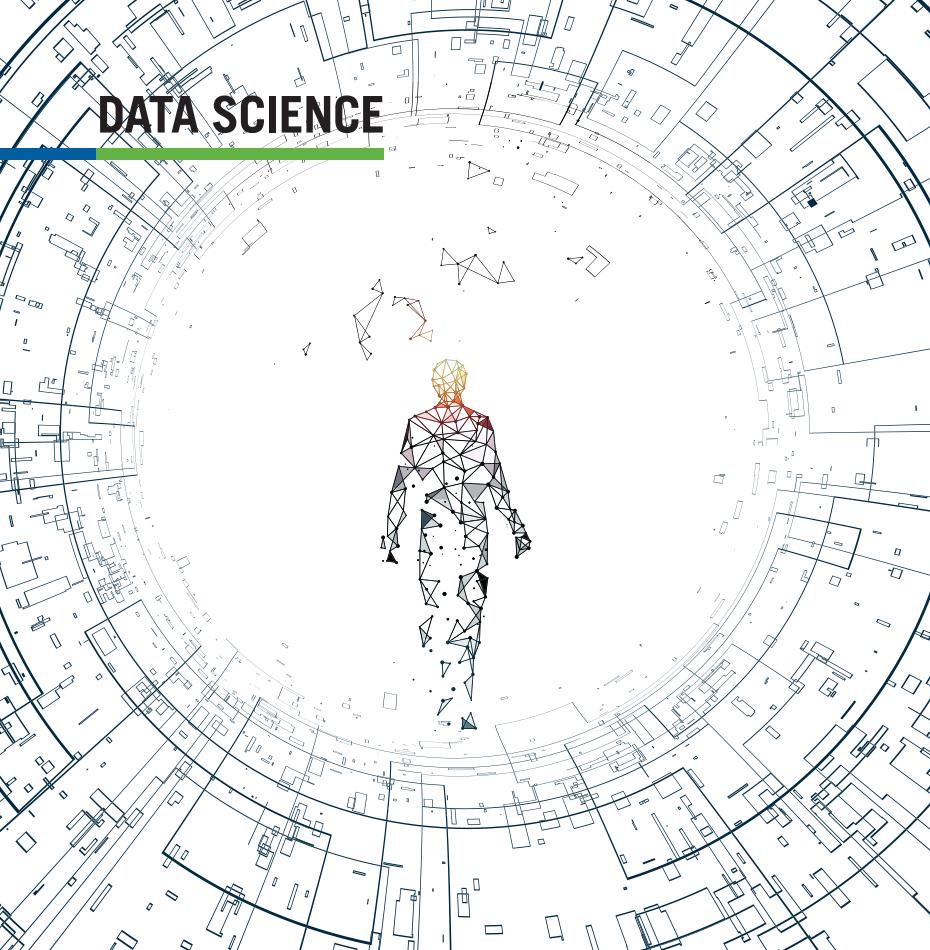
The initial goal of the journal was to promote and capture evidence-based content that could help inform imaging practice. Dr. Hillman has achieved the goal of being a leader within this niche. Moving forward, I encourage authors to continue to think of us first when they decide where to submit an article related to any of our five pillars: health services policy and research, clinical practice management, training and education, leadership, and data science. I want us to be the first destination for readers looking to learn more about these topics.

It has also been exciting to see the *JACR* become an innovative scholarly publication, from increasing our digital footprint to expanding the types of manuscripts we present to our readers (as shown in our special issues on patient- and family-centered care, data science, and social media). I would like for us to continue to be known for our innovations and for what a scholarly publication can do to support the field.

What is your perspective on the current state of scholarly publishing?

There continue to be economic pressures, but scholarly publishing has been relatively resilient as an industry compared to other forms of journalism. This environment, however, has also led to the growth of online journals, some of which are legitimate and others that are predatory and do not necessarily enhance the science. I would encourage all authors to look closely at these journals before submitting and to have a better understanding of what open access is and isn't.

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Future Proof

How can radiologists go beyond AI buzzwords to advance their careers?

If you think you still have plenty of time to prepare for AI, think again. The future is now, and radiologists need to get in the game or risk winding up on the sidelines.

"Rather than man versus machine, the future is man plus machine," says Jeffrey D. Rudie, MD, PhD, diagnostic radiology resident at the University of Pennsylvania. "Radiologists are only going to get better and faster with AI, so if you don't use it in the future, you're going to be left behind." Rudie likens AI to the advent of MRI in the 1980s. "Some radiologists never learned to read MRIs. You may be good at what you do, but if you don't know how to use a new tool or method, your career options may become limited," he says.

AI is taking the medical world by storm, and the need for medical professionals with an understanding of it is only expected to grow. Thomas A. Kim, MD, MBA, a neuroradiologist at the Carle Physician Group in Urbana, Ill., believes that within the next 10 years, radiologists will be using AI algorithms as a part of their daily workflow. "I don't think any of us will have a choice in the matter," he says. "We simply have to learn to work side by side with AI."

Seizing the Opportunity

According to Sanjay Aneja, MD, now more than ever, radiologists need to gain experience in AI to remain relevant in the face of change. Unfortunately, says Aneja, an assistant professor in the department of therapeutic radiology at Yale School of Medicine's Center for Outcomes Research and Evaluation, not many radiologists are seasoned in AI.

"Having that experience on your CV helps you stand out," Aneja says. "In academic institutions, it lets leaders know that you can help expand their cutting-edge research and development programs. On the clinical side, you can be the one to bring the practice into the future and help it adapt to new systems and adopt emerging best practices."

So, if applied mathematics, computational programming, and big data aren't already in your wheelhouse, how do you get that AI experience to bolster your resume? According to Rudie, there are lots of opportunities for both academic and private practice radiologists to become leaders in AI without experience in coding. "For radiologists in a teaching hospital or academic center, find somebody who's doing image-related research in an area that interests you and volunteer to collaborate by lending your domain expertise in medical images," suggests Rudie. "You can guide them to develop and customize algorithms that work in a clinical setting."

Taking the Plunge

To help radiologists navigate the brave new world of AI, Aneja suggests the ACR Data Science Institute™ (DSI) as a good place to start. According to Aneja, a volunteer on one of the DSI's subspecialty panels that developed the inaugural release of 50 standardized AI use cases (see sidebar), radiologists from all practice sizes, locations, and settings are involved in every aspect of the DSI's work.

"The TOUCH-AI use cases are designed so that anyone at any level of training can understand the ways AI can be applicable in a radiology practice," Aneja says. "The DSI is where clinicians can turn to gain a

continued on page 21

Each TOUCH-AI use case provides narrative descriptions and flow charts that specify the healthcare goal of the algorithm, the required clinical input, how it should integrate into the clinical workflow, and how it will interface with users and tools. In coming years, the TOUCH-AI Directory will continue to grow. Find out how you can get involved at acrsi.org.

By Timothy L. Swan, MD, FACP, Speaker, and
Richard Duszak Jr., MD, FACP, Vice Speaker

The Art of Communication

The CSC continues to solicit ideas from the membership to help guide the College into the future.

As part of its strategic plan, the ACR remains committed to empowering and engaging our members. Frequent and meaningful communication with our members is critical to the success of those goals. The CSC represents the Council and the Council represents the membership. The Council is comprised of representatives from ACR chapters and specialty societies, who in turn represent our members. The CSC is strongly committed to communication. Each member of the CSC serves as a liaison to several ACR chapters and other radiology organizations. Each CSC member is expected to reach out to those groups on a regular basis to update them on high-priority activities of the ACR, as well as to solicit comments and questions. Through the Chapter Visitation Program, members of the CSC and the BOC regularly visit chapter meetings to update members on important activities and further facilitate that dialogue. And the online member forum — ACR Engage — has generated considerable discussion amongst members and ACR leaders about important issues facing the specialty (see page 4).

Despite the work and resources committed to such efforts, as your Council leaders we recognize that we can still do better. Membership engagement was the focus of the open-mic session at ACR 2018, and we heard you loud and clear. You want not only more communication, but better communication. And as your Council leadership, we are taking that feedback seriously. We have appointed a workgroup to carefully review and summarize each and every comment from that meeting. That workgroup will be presenting its report to the entire CSC, which will soon be making recommendations for action. We plan to share that summary and recommendation document with Council members and solicit your feedback. Preliminary recommendations include increased use of the Engage platform, expanding our ongoing and one-on-one communication with chapter leaders through their liaisons, and hosting virtual town hall meetings as needed.

Even with the many digital and virtual tools we have at our disposal, there is no substitute for real human interaction. As such, our annual meeting remains the nexus of our leadership's communication to and with our members. Those several days we spend together

each spring in Washington, D.C., help us create and build relationships and engage in discourse and debate over the issues that are most important to our members. The result — ACR policy — guides the activities of the organization for years to come.

Our annual meeting has gone through — and continues to undergo — an evolutionary process. After experimenting with an all-member educational meeting tied to the annual governance meeting, we understood from interaction with you that our Council and chapter leaders want a more governance-focused meeting, and we have listened and acted. ACR 2019 will again focus on governance (as we did last year), with a format similar to that of the old Annual Meeting and Chapter Leadership Conference. We will continue redesigning the meeting based on your feedback, including some educational programming that will not conflict with mission-critical policy-making.

To that end, we have made an effort to not only incorporate CME credit into as many of our traditional meeting sessions as possible (e.g., the Economics Forum), but will also add pre-meeting CME sessions on Saturday. The ACR 2019 keynote address will be delivered by Liselotte N. Dyrbye, MD, whose research focuses on the well-being of medical students, residents, and physicians. Dyrbye's address will discuss burnout in radiology and will provide proactive action steps to prevent burnout. The annual Moreton Lecture, which will be delivered by Ben Harder, managing editor and chief of health analysis for *U.S. News and World Report*, will focus on the increasingly important topic of physician rating and ranking systems.

continued on page 21

Vice Speaker Richard Duszak Jr., MD, FACP, addresses Council members during the ACR 2018 open microphone session.



Harvey's Heroes

Dedicated Texas radiologists spent days and nights delivering patient care during Hurricane Harvey

Hurricane Harvey swept toward Houston in the summer of 2017 as a Category 4, the first storm of that magnitude to hit coastal Texas since 1961. As Harvey closed in, local radiologists readied for their shifts — uncertain of what the storm might bring.

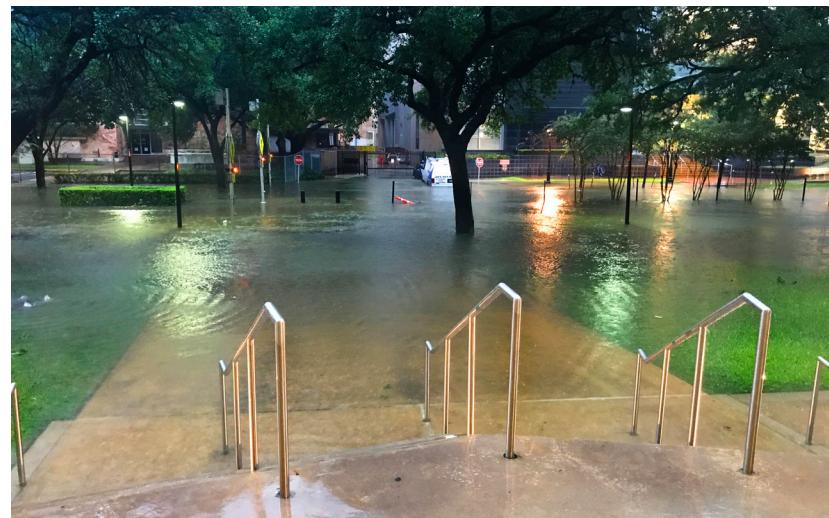
On the night of Aug. 25, assistant professors of radiology Ann Marie Marciel, MD, PhD, and Sangeetha Kumar, MD, arrived at Baylor College of Medicine, where they regularly read images and support five local hospitals. One of those hospitals is the adjacent Ben Taub Hospital, where residents Varshana Gurusamy, MD, and Joshua A. Carlton, DO, also prepared for the storm. Over the next few days, the team worked together to read images and work with other departments to overcome unforeseen challenges, ensuring that patients were cared for throughout the storm.

Storm Preparedness

A doctoral candidate at Baylor when Tropical Storm Allison flooded the campus in 2001, Marciel knew that Harvey might force her to stay an extended period of time at the hospital. To prepare, Marciel packed food and clothing for four days.

Intent on getting there, Gurusamy arrived at Ben

As Hurricane Harvey moved through Houston and water levels rose, medical facilities were eventually rendered inaccessible.



Taub Hospital two hours early for her Friday night shift and recalls checking the weather whenever possible. "I remember going out at midnight on Saturday and watching the water creep toward the doors," she says. "That's when it became clear that we were going to be stuck in the hospital at least overnight."

While it quickly became impossible to leave the hospital, local patients still managed to arrive. Gurusamy and Carlton took turns sleeping to provide uninterrupted care, and the two met daily with other physician leaders to strategize and share information about the storm, hospital, and patients.

"It was tiring and at times scary," Gurusamy says, "but I did not have a single negative interaction with anyone. I really wanted to become a doctor to help people, and this was a situation where I could see how much that help was needed."

Communication Plan

Meanwhile, across the street, Baylor College of Medicine stood like an island as the water rose around it. Concerned that the rising water and wind could cause a power outage, Marciel and Kumar worked with the IT team to identify alternative ways to access images in the event of a power failure. "We needed to be able to view the images from multiple sites, so we had to make sure we had a backup viewing system in place to access those images, even if different parts of the system went down," explains Marciel.

While Baylor never completely lost power, other hospitals that it serves experienced electrical failures. "When one hospital lost the ability to receive reports and the phone lines were down, we used encrypted email messages to stay HIPPA-compliant," Marciel explains. "The technologists on the other end entered a username and password to view the email and attachment. They then printed the reports and hand-delivered them to the appropriate doctor, before scanning them into their PACS."

The radiologists also developed additional communication strategies that allowed other employees to provide assistance to the radiologists remotely. "We formed groups that disseminated information about which roads were clear so that relief teams knew when they would be able to travel, and three times a day, our chairman sent communications about what was going on at every site," Marciel says.

Flood Response

As Baylor's radiologists strove to maintain communication with other medical facilities and employees, Ben Taub Hospital's basement became waterlogged. "At around 2 a.m. on Sunday, we were told that a pipe had broken in the basement, where the pharmacy and the

kitchen are, and that the basement was off limits,” Carlton recalls.

The hospital began rationing food, giving patients priority. With their personal food supplies waning, many hospital employees resorted to eating non-perishable items like peanut butter, crackers, and canned fruit. The flooding forced Ben Taub Hospital to stop taking new patients Sunday night, and talk of evacuating the facility began.

As the hospital struggled to recover, personnel prioritized call rooms for those who needed showers, leaving residents searching for other places to sleep. With rotating shifts, as one resident attempted to sleep, the other read images alone. “It was overwhelming,” says Gurusamy, a second-year resident. “On top of complicated studies ordered by the medical intensive care unit, the ED ordered an emergent cord compression spinal MRI, a study I hadn’t learned to read yet. The attendings at Baylor remained supportive, however. I called, and they walked me through everything I needed to do.”

Reading Room Evacuation

Soon, Baylor faced its own challenges with flooding. Baylor had installed floodgates in the basement after Tropical Storm Allison, so the radiologists didn’t anticipate flooding near their main reading room. But on Saturday, the wall near their workstations began leaking, and it became clear that they would need to evacuate the area.

The team found a room on the floor above with ports for three workstations. With the elevators out, they had to lug their equipment up the steps. As the radiologists shared workstations in their makeshift reading room, the technologists helped ensure that no exams were overlooked.

“It was challenging to share workstations, because we had to log in and out each time we received a page, and we were sometimes paged at the same time. But we never lost connectivity,” says Kumar.

Even as Marciel and Kumar evacuated their reading room, they never lost touch with the residents at Ben Taub. “The moment I saw the leak next to the reading room on Saturday night, I gave my mobile number to both of my residents,” Kumar says. “In case I had to vacate the room, I wanted them to still have immediate access to me.”

Silver Lining

The residents were finally relieved from Ben Taub, and Kumar was able to leave Baylor on Monday, Aug. 28. Marciel headed home on Tuesday. All were exhausted but optimistic.

“You can’t control what Mother Nature is going to



The radiologists relocated three workstations as flooding threatened to damage equipment in the main reading room.

“During a natural disaster, it becomes even more apparent that radiology is essential to diagnosis and treatment.”

— Ann Marie Marciel, MD, PhD

do, but with everyone working together and stepping up to do their part, we made it through without compromising care,” Gurusamy says.

While Hurricane Harvey wreaked havoc on the Houston area, the experience gave the radiologists a renewed connection to their patients. “During a natural disaster, it becomes even more apparent that radiology is essential to diagnosis and treatment,” Marciel says. “It helps you refocus and understand that patients and physicians are waiting for these reports, regardless of whether it is a normal day or if there is a hurricane.” **B**

By Chelsea Krieg, freelance writer, ACR Press



Call For Case Studies

ACR's Imaging 3.0® initiative is a roadmap for transitioning the practice of radiology from volume-based to value-based imaging care.

Imaging 3.0 goes beyond interpretation to include such topics as:

- Patient-centered radiology
- Appropriateness
- Decision support
- Value-based payment
- Quality and safety
- Technology integration
- Actionable reporting
- Image sharing
- Relationship building
- Artificial intelligence

To see what other practices have accomplished with Imaging 3.0, visit bit.ly/I3Cases.

To share your own experience with Imaging 3.0 complete the form at bit.ly/case_submit.

Moving the Needle Forward

Increasing the proportion of women in radiology will demand proactive efforts to change the perception and culture of the specialty.

PHOTO: COURTESY B. DEY, MD



(Left to right) Courtney B. Dey, MD, Michele V. Retrouvey, MD, Frances B. Lazarow, MD, and Shannon Kim, MD, are radiology residents at Eastern Virginia Medical School.

As a fourth-year medical student, Lori A. Deitte, MD, FACR, chose a career in radiology because it held the captivating aspects she was seeking: the opportunity to be intellectually stimulated, the ability to solve problems, and the empowerment to impact patient care.

"I really enjoyed rotating through the various specialties," says Deitte, chair of the ACR Commission on Publications and Lifelong Learning and professor of radiology at Vanderbilt University School of Medicine. "When I experienced radiology, I immediately knew that I wanted to become a radiologist."

About half of all medical students are women, according to the Association of American Medical Colleges (AAMC).¹ Yet in radiology, Deitte is in a significant minority as a wide gender gap remains in full force. Increased efforts to attract more women to the field have yielded limited success, but leaders in radiology say the cultural headwinds are shifting.

Radiology practices are turning to recruitment efforts that appeal to women, including offering competitive compensation, flexible work schedules, and a visible

path to promotion and leadership roles. Medical school departments and women's specialty groups are leveraging mentoring, training, and social programs to support and encourage female students to pursue the field.

What hasn't changed is the timing of when students are exposed to radiology and its subspecialties, says Susan J. Ackerman, MD, FACR, chair of the ACR Committee for Women. Ackerman believes introducing female students to radiology in the early years of medical school might be the single most important factor in their decision to choose the specialty.

"You have to show medical students that radiology is interesting and exciting," says Ackerman, an associate professor of radiology, vice chair for clinical affairs in radiology, and division director of ultrasound at the Medical University of South Carolina in Charleston. "Our department has a robust program that introduces first-year medical students to radiology. Students have basic lectures on how to interpret a chest X-ray and are shown examples of common abnormalities such as pneumonia. We have ultrasound labs in which residents learn how to scan patients and identify organs such as the gallbladder. Students need to understand that radiology can be an important part of managing a patient's care."

Michele V. Retrouvey, MD, former chair of the ACR RFS Women and Diversity Advisory Group, says misunderstandings about what radiology entails have likely kept students away. "There's this perception that we're sitting in the dark in front of our computer screens 24/7," Retrouvey says. "We're not doing as good a job as we could about promoting how much patient and clinician interpersonal contact we get throughout the day."

In an *American Journal of Roentgenology* study, nearly 95 percent of female medical students indicated that they decided not to pursue radiology because of a perceived lack of direct patient contact.² Retrouvey says she was involved in a similar study several years ago and also found a majority of female medical students were interested in specialties that were widely seen as providing patient interaction.

To attract more female trainees to radiology, Ackerman recommends that faculty and department leaders mentor medical students, support radiology interest groups, and promote social activities to foster engagement and forge close bonds. According to Ackerman, friendships are more likely to develop when students, residents, and faculty gather for potluck dinners and other informal events, and share advice that might not be covered in a classroom.

"In my department, we have a 'Women in Radiology' group that meets quarterly," Ackerman says. "We have social events, fundraisers at holidays, and an end-of-year dinner for graduating residents and fellows. It's about creating opportunities to involve women, regardless of career level."



Carolyn C. Meltzer, MD, FACP, (right) mentored three American Association for Women Radiologists members in training at RSNA 2017 on work-life balance, getting involved in organized radiology, private practice, and climbing the career ladder.

"You have to instill greater diversity at all levels of an organization in order to promote an inclusive culture and better decision-making."

— Carolyn C. Meltzer, MD, FACP



(Left to right) Katarzyna J. Macura, MD, PhD, FACP, introduced Jonathan B. Kruskal, MD, PhD, Raymond B. Wynn, MD, FACP, Lawrence A. Liebscher, MD, FACP, Alexander M. Norbash, MD, FACP, Alan H. Matsumoto, MD, FACP, as panelists at the ACR 2018 Diversity Forum. The discussion focused on the importance and value of having women in the radiology workforce.

The American Association for Women Radiologists, the ACR, and the Women in IR Section of the Society of Interventional Radiology have also promoted outreach and engagement by sponsoring social gatherings, mentoring sessions, and workshops to attract female students and trainees to the field. Still, only about 27 percent of radiology residents are female, according to the AAMC 2015 report on residents.³

According to Carolyn C. Meltzer, MD, FACP, chair of the department of radiology and imaging sciences at Emory University School of Medicine, changing the culture of a field can be a slow and daunting process. "In my department we've been working for more than a decade to make our department and our leadership more diverse," says Meltzer. "It has to be intentional. You have to instill greater diversity at all levels of an organization in order to promote an inclusive culture and better decision-making. It starts with leadership. We're not there yet."

Not surprisingly, women are more inclined to join radiology practices that visibly employ and promote other women, says Lakshmi Balachandra, MBA, PhD, assistant professor of entrepreneurship at Babson College in Wellesley, Mass., and a Radiology Leadership Institute® faculty member. Balachandra advises recruiters to think about how they can showcase to women the perks of a particular

job: flexible schedules that help make work-life balance more manageable, competitive compensation, parental leave policies to accommodate new or growing families, and demonstrating how their contributions will be valued and rewarded through career advancement.

According to Retrouvey, recruiting female medical students and trainees to radiology by touting direct patient care, accommodating work environments, opportunities for leadership roles, and other highlights will ultimately benefit healthcare outcomes. "When women radiologists join medical teams, differing perspectives and new approaches to patient care are likely to emerge," Retrouvey says.

Deitte agrees. "I firmly believe that there is no better time to be a woman in radiology than now," she says. "It's time to move this needle forward." **B**

By Carole Fleck, freelance writer, ACR Press

ENDNOTES

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What steps can practice leaders take to address the needs of women in radiology?

Find out in the *RadioGraphics* article at bit.ly/Radiographics_WomenRads.

An Eye on Teleradiology

Practicing remotely carries legal implications that ACR members should evaluate.

ACR members are undoubtedly aware of growth in teleradiology. Whether group members read from home, groups provide coverage for one another, academic practices provide subspecialty coverage for small practices, or national companies provide nighthawk or full backup for practices, virtually all of imaging uses teleradiology in one form or another. In this column, we will review the fundamentals of teleradiology and assess the legal impact of recent market developments.

Teleradiology refers to the process of medical images being generated at one location and then sent to a radiologist for interpretation at a different physical location. Some benefits of incorporating teleradiology into your practice are listed below:

- It may enable practices to provide patients with subspecialty expertise within the practice or have it provided from an outside entity.
- It can allow small practices to provide 24/7 coverage that they cannot provide with their own radiologists.
- It can provide the capacity to distribute the case workload across the available radiologists in a multi-site practice.
- It can provide significant savings when a practice does not need to support as many radiologists onsite or when the practice only pays or is paid for interpretations on a per-case basis.

In all these cases, teleradiology can be used to provide faster turnaround time and significant benefit to patients. Yet, ACR members who interact with teleradiology have experienced an unintended consequence of this technology: commoditization. Imaging services in certain areas have become indistinguishable from those in other locales. Consumers are buying on price alone. This commoditization is happening across the radiology community. To ensure the quality and value of their services, many teleradiology organizations have devised algorithms to establish worklist study distributions. This approach facilitates more subspecialty interpretations and better allocation based on criteria such as subspecialty training and state and facility credentials.¹

More globally, ACR members have observed that the teleradiology market has become stable and mature.² Approximately 50 percent of private practice groups outsource teleradiology for call coverage. In fact, the teleradiology market may be decreasing somewhat, because large groups are bringing (or have already brought) call coverage back into their practices. They have done this either to decommoditize themselves or

to use their call coverage capability as a means of generating outside revenue.

Larger national radiology companies have acquired most of the smaller teleradiology entities. Some standalone teleradiology entities remain but struggle to compete with the major players. If these market trends continue, some ACR members maintain that “private practice radiology will change from independent owner groups to a specialty of shift workers.”²

A key legal issue that both in-practice and corporate teleradiology raise for members and their practices is restrictive covenants, or “non-compete” clauses in their contracts. Under state law, courts will scrutinize whether those provisions are reasonable in duration and scope. Can a radiologist leave the group and join a national teleradiology company? Can radiologists read purely by teleradiology for other groups in the same area as their old practice? Almost all private practice groups have a non-compete clause in their employment agreement with their radiologists, but most do not address teleradiology.² Therefore, members and their groups must review their employment contracts regularly and consider teleradiology in any non-compete clauses that they have.

Another significant legal issue involves licensure and credentials. Teleradiologists generally must obtain and keep medical licenses in multiple states. Additionally, they must apply for and obtain credentials at dozens, if not hundreds, of healthcare entities. Medical staff credentialing committees or private credentialing offices may take months to review and grant one’s “ticket” to offer imaging care through teleradiology.³

So, what does teleradiology look like in 2019? For most, it is an empowering technology enabling practices to improve patient care. Regarding working for a corporate teleradiology entity, the answer likely depends on an individual radiologist’s professional and personal preference. Some members have formed or joined a corporate teleradiology practice in pursuit of a balance between a productive position and perceived enhanced quality of life. Others have reported difficulties with a larger teleradiology company’s demanding focus on productivity and challenging employment conditions. As the ACR Task Force on Teleradiology Practice noted in its 2013 white paper, teleradiology also poses important quality and safety issues, such as communication errors and particularly the prospect of increased radiation or treatment gaps.³ Regardless of practitioner or practice setting, teleradiology still involves medical-legal considerations that members should continue to evaluate. **B**

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Future Proof

continued from page 14

better understanding of the clinical importance of AI and how to implement it into their daily workflow to improve the quality of patient care." In addition, Rudie advises private practice radiologists to work with AI vendors and volunteer to test their products. "Take a leadership role in communicating with AI companies," he says. "Become the point person to help get their algorithm trained and implemented in your hospital system."

Kim agrees. "As AI products increasingly become available, radiologists will have to field test them to help developers understand how the tools can help us do our work better and more efficiently," he says. "Product vendors will also need input on how to customize AI products for real-world workflows. Radiologists have an important role to play in ensuring that AI tools coming to market are designed and optimized for us." **B**

By Linda Sowers, freelance writer, ACR Press

Art of Communication

continued from page 15

The CSC remains actively engaged in its annual review of policies, technical standards, and practice parameters, which will also be considered by the Council in May. Members of the CSC continue to communicate with and solicit ideas and suggestions from chapter leaders and the membership to help guide the College into the future.

Perhaps in part related to nostalgia, we continue to receive many requests to return to the Washington Hilton, but for the next several years, we will continue to meet at the Washington Marriott Wardman Park. Modifying our current multi-year contract and returning to the Hilton would result in considerable additional expenses to the ACR, and your leadership is exercising its financial stewardship obligations. ACR staff is actively exploring alternative hotel venues for future years.

Your Council leadership strives to communicate with you, but we ask that you initiate communication with us as well. Please let us know what we can do differently and what we can do better — talk to us directly, or talk to your CSC liaison through your chapter or society leaders. Communication is a two-way street and there are always opportunities to improve. **B**

Leveraging AI Skills

The rise of AI has created a broad marketplace for a diverse range of job roles with varying skill sets. In 2018, the ACR added AI-specific positions to its Career Center to assist medical professionals in finding new opportunities and connecting with industry. Learn more at acr.org/career-center.



JOB LISTINGS

CLASSIFIED ADS These job listings are paid advertisements. Publication of a job listing does not constitute a recommendation by the ACR. The ACR and the ACR Career Center assume no responsibility for accuracy of information or liability for any personnel decisions and selections made by the employer. These job listings previously appeared on the ACR Career Center website. Only jobs posted on the website are eligible to appear in the *ACR Bulletin*. Advertising instructions, rates, and complete policies are available at jobs.acr.org or e-mail careercenter@acr.org.

California – A practice has opportunities for fellowship-trained radiologists in Temecula, Calif. There is the potential to work primarily in one's sub-specialty. BRMG is a member practice of over 100, servicing RadNet California facilities. The team is employee-based with a compensation incentive model, excellent benefits, no on-call/weekends/nights, and an extremely secure working environment. The practice is ACR-accredited. The candidate must be fellowship-trained, and a California state license is required.

Contact: Martha Arriaga at martha.arriaga@radnet.com

Massachusetts – Tufts Medical Center is looking for an IR. The IR division has a strong relationship with vascular surgery, including participation in aortic stent-graft placement. Tufts Medical Center has a 22-person residency, and is the primary clinical site for Tufts Medical School, so interest in teaching is required.

Contact: Send CVs to Lin Fong at lfong@tuftsmedicalcenter.org

Missouri – Evening and weekend locums work is available at a private practice in St. Louis, covering two hospitals and an outpatient imaging center. The position offers flexible hours and excellent pay. No fellowship is required.

Contact: John Stephens, MD, at stephejj10@gmail.com

Wisconsin – The department of radiology at the University of Wisconsin-Madison School of Medicine and Public Health is seeking a radiologist interested in pursuing an academic career at the rank of assistant/associate/professor in the clinician-teacher or clinical health sciences track in its breast imaging section.

Contact: For more information, visit www.jobs.wisc.edu and search for 95538 or 95539.

Journal of the Future

continued from page 13

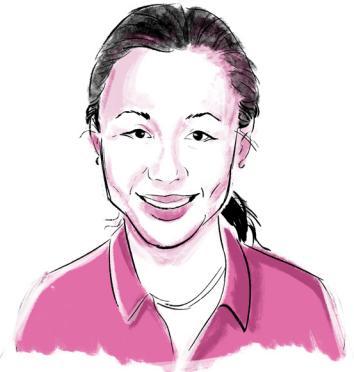
What are your feelings on patient involvement in scholarly publishing?

Patients offer a unique perspective that is sometimes lost on clinicians. The patient perspective can positively influence clinical practice, research, and advocacy efforts. That's why the journal will continue to have a patient advocate on the editorial board and remains interested in collaborating with the ACR's Commission on Patient- and Family-Centered Care.

What advice would you give younger physicians interested in scholarly publishing?

The best advice I can give is this: if you want to be an author, write. One learns through writing and the decision process, even if the decision is not an acceptance. I often learned the most from rejections that came with substantive reviews. **B**

What impact will AI have on the future of radiology?

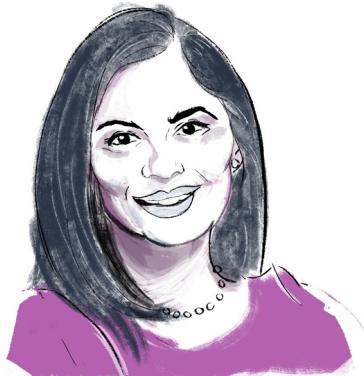


"We have to make sure that we position ourselves to take advantage of the new technologies to improve our practices because fighting technological advancement has never worked as a long-term strategy."

— Cindy Yuan, MD, radiology resident at the University of Chicago

"AI is augmenting the landscape of radiology and will continue to do so – streamlining processes and workflow, automating time-consuming tasks, and flagging suspicious imaging findings to improve efficiency and effectiveness to benefit both patients and clinicians."

— Monica M. Sheth, MD, assistant professor of radiology at the Zucker School of Medicine at Hofstra/Northwell in Hempstead, N.Y.



ILLUSTRATIONS BY JESS SISWICK

The graphic features a dark blue background with a stylized orange sound wave icon. Below the icon, the text "RADIOLOGY FIRING LINE" is written in large, bold, orange letters. At the bottom left, there are images of white headphones and a smartphone. To the right of the phone are download links: "Available on Google Play", "Available on STITCHER", and "Available on iTunes".

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HRCT	February 11–13	MSK MR — Imaging of Elbow, Wrist/Hand and Specialized Topics	April 17–19, 2019
Coronary CT Angiography	February 25–27	Breast MR With Guided Biopsy	April 22–23, 2019
TAVR	February 28 – March 1	Breast Imaging Boot Camp	April 25–27, 2019
NEW! Nuclear Radiology	March 4–5	CT Colonography	May 2–3, 2019
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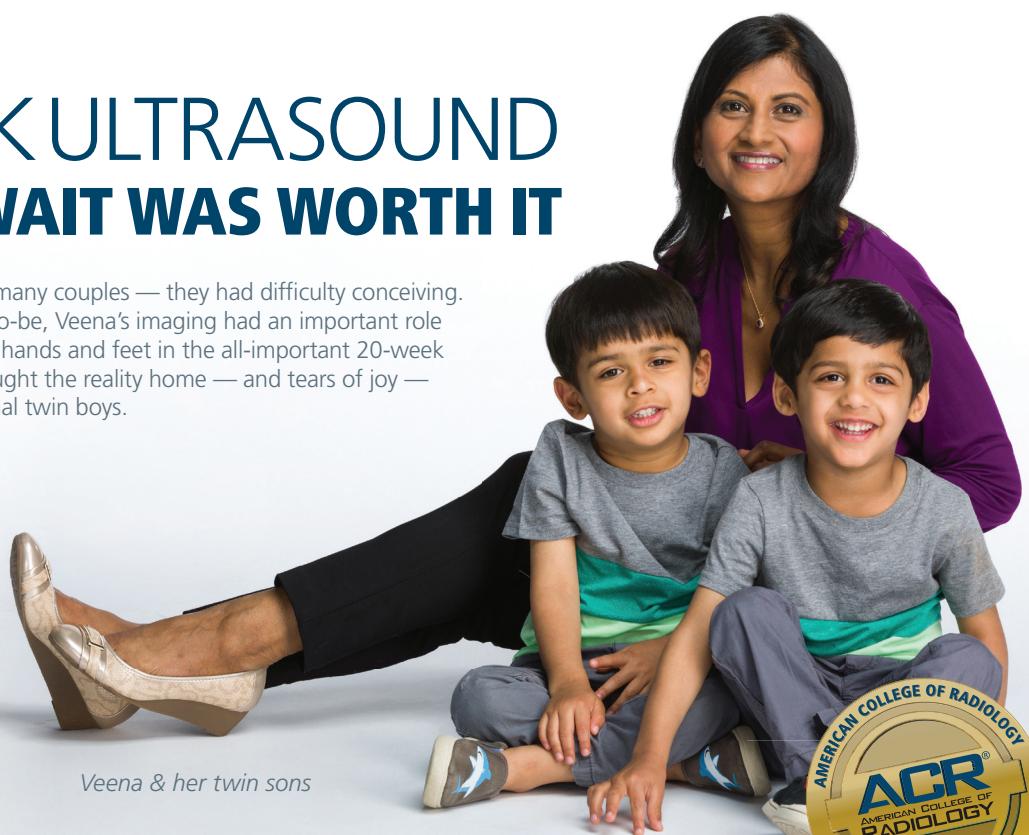


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