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# Bulletin

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## FEATURE

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While the recent national spotlight on the issue of sexual harassment began in Hollywood, it quickly spread to the broader culture, including medicine. The conversation now comes to radiology.

**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.



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Claire E. Bender, MD, MPH, FACR, Chair of the ACR Commission on Human Resources

Guest Columnist

# Easing the Burden

*We're all searching for strategies to thrive in a demanding environment.*

**A**s physicians, we go to work every day to provide high-quality and safe care for our patients. But what about our own health and well-being? Are you feeling exhausted, depersonalized, or unengaged? Could you be burned out? Unfortunately, you wouldn't be the only one.

We know that healthy physicians take the best care of their patients, provide a happy workplace environment, and can reduce costs while boosting value. But what happens when they burn out? Although rates vary at different stages of physicians' careers, burnout is still higher among physicians as a whole when compared to the rest of the working population.<sup>1</sup> Some believe radiologists are particularly prone to its disruptive and far-reaching consequences. Burnout can lead to depression, substance abuse, and suicide. It is also linked to inappropriate workplace behavior, reduced productivity, absenteeism, and staff turnover.<sup>2,3</sup>

In the 2018 ACR Commission on Human Resources Workforce Survey sent to radiology practice leaders, the topic of burnout was studied for the first time. The HR Commission looks forward to presenting these results in the *JACR*<sup>®</sup> in the coming months.

Research shows multiple levels of responsibility for addressing burnout and well-being. System-wide efforts must begin at the top of the organization. Organizations need to implement strategies to promote engagement and reduce burnout. This could be resiliency training, meditation programs, local employee assistance programs, small radiologist group meetings, and physical exercise as tools to combat burnout ([learn more about how physical activity can decrease stress and increase productivity on page 14](#)). Responsibility then moves down into the departmental, divisional, and group levels, and finally the individual level.<sup>4</sup> In the 2019 survey, we plan to address changes and solutions that could be implemented in the practice environment.

Burnout has been identified, defined, and assessed by many groups. Now what we need are actual solutions. The ACR Commission on Human Resources calls for this action for the well-being of our colleagues and our patients. **B**

## ENDNOTES

1. Shanafelt T, Boone S, Tan L, et al. Burnout and satisfaction with work-life balance among US physicians relative to the general US population. *Arch Intern Med.* 2012;172(18):1377–85. Available at [bit.ly/US\\_Burnout](http://bit.ly/US_Burnout).
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3. Peckham C. Medscape radiology lifestyle report 2016: bias and burnout. Jan. 13, 2016. Available at [bit.ly/Bias\\_Burnout](http://bit.ly/Bias_Burnout).
4. Shanafelt T, Noseworthy J. Executive Leadership and Physician Well-being: Nine Organizational Strategies to Promote Engagement and Reduce Burnout. *Mayo Clin Proc.* 2017;92(1):129–146. Available at [bit.ly/Phys\\_WellBeing](http://bit.ly/Phys_WellBeing).

Organizations need to implement strategies to promote engagement and reduce burnout.



Despite the alarming number of reported burnout cases in recent years, promising tools are on the horizon to aid radiologists struggling to manage too many bureaucratic tasks, long work hours, and integrating patient medical and imaging records. Learn more in the *ACR Bulletin* article "Slowing the Burn" at [bit.ly/Preventing\\_Burnout](http://bit.ly/Preventing_Burnout).

The ACR Commission on Human Resources offers radiology practices solutions on addressing staffing shortages, reducing night and weekend work, developing and maintaining reasonable financial expectations and goals, and seeking professional help to manage stress and cope with depression.

Learn more at [acr.org/](http://acr.org/)

ACR-HR.

## ACR Pans New Kentucky Black Lung Law

The ACR has openly opposed a new Kentucky law that would prohibit physicians who are not pulmonologists from reading and interpreting X-rays in state compensation claims involving “black lung.” The established process by which physicians — independent of their specialty — become qualified to read X-rays involving black lung cases is called the B Reader Program. *National Public Radio (NPR)* has reported that, “up until now, radiologists, who work in evaluating all types of X-rays and other diagnostic images, had been allowed to diagnose the disease.” Under the new law, only pulmonologists — with only six in the entire state — are allowed to read chest X-rays for work-related diseases like black lung. This leaves diagnoses of the disease mostly to physicians who typically work for coal companies, *NPR* reported. ACR CEO William T. Thorwarth, Jr., MD, FACR, calls this displacement from the B Reader Program “inappropriate,” noting that “all patients, including coal miners, deserve high-quality care by well-trained and qualified physicians. This is a matter of life and death for many people. Politics should be left out of it.”

Read more at [acr.org/Black-Lung](http://acr.org/Black-Lung).

## HPI Launches Tool to Identify Academic Radiology Practices



A new free resource enables researchers to objectively designate radiology practices. Developed by the Harvey L. Neiman Health Policy Institute®, the online tool allows users to extract a

radiology organization's name, group identification, city, and state, and determine if they are an academic practice. “Health policy research exploring the impact of radiologist and radiology practice characteristics on other measures of interest would benefit from an objective designation of practices as academic or non-academic,” says Danny R. Hughes, PhD, Neiman Institute senior director for health policy research and senior research fellow.

Access the tool at [bit.ly/HPI\\_Academic](http://bit.ly/HPI_Academic).



Getty Images / Photo Researchers

## Radiologist Leads Talk on High-Velocity Weapon Injuries

In the wake of the shooting earlier this year at Marjory Stoneman Douglas High School in Parkland, Fla., Heather C. Sher, MD, a musculoskeletal radiologist in Fort Lauderdale, decided to share her experience interpreting the medical imaging of Parkland victims after the shooting and highlight the injuries caused by assault weapons like the AR-15. Sher joined Robert Glatter, MD, Amy J. Goldberg, MD, and Joseph V. Sakran, MD, MPA, MPH, for a panel discussion hosted by *Medscape* on the injuries caused by high-velocity assault weapons versus standard handgun trauma. Sher says, “Radiologists are essential members of trauma teams, seeing head to pelvis CT imaging for every gunshot victim who's brought in — with the exception of the few hemodynamically unstable patients who are taken straight to the OR without imaging due to catastrophic bleeding.” According to Sher, radiologists can help put the injuries from AR-15-style high-velocity weapons into perspective when comparing them to low-velocity handgun injuries, which are more commonly seen in clinical practice. “Our experience and observations are essential for ensuring that medicine and science inform policy for the health and safety of our patients. Strong physician leadership and research is essential in addressing gun violence and we must be part of that national conversation,” she says.

Watch the panel discussion at [bit.ly/Medscape\\_Panel](http://bit.ly/Medscape_Panel).

## Radiologists Encouraged to Embrace Grassroots Marketing

To ensure future business and growth, radiology departments — now more than ever — need an effective marketing strategy, according to a study published in the *JACR*®. Grassroots marketing could be a particularly effective way to target a defined audience and speak directly to physicians, trainees, and patients, the study notes. Grassroots marketing refers to a “ground-up, energetic, and practical way of relaying a targeted message that generates its own momentum...[and] unlike the large-scale efforts of traditional marketing methods, grassroots marketing conveys a succinct message designed to attract a defined group.” Grassroots marketing costs are much less than conventional media and marketing, and radiologists looking to expand imaging service lines and add greater value to patient care should consider such methods, the study suggests.

Learn more at [bit.ly/Rad\\_Mktng](http://bit.ly/Rad_Mktng).



## Radiologists Use Personalized Videos to Educate Patients, Alleviate Anxiety

Radiologists at the University of Texas MD Anderson Cancer Center have launched a program designed to educate cancer patients about their diagnoses and treatments through succinct videos narrated by radiologists. The two-minute videos, tailored to each patient, show where a tumor is located, where radiation will take place, and what subsequent symptoms may be. “We can actually show patients which portions of their brains the radiation affects. It’s a visible and more concrete way of explaining their conditions. As they say, a picture is worth a thousand words,” says Caroline Chung, MD, assistant professor and director of MR research in MD Anderson’s department of radiation oncology. This method, in contrast to the common practice of dispensing generalized pamphlets, helps patients better understand their diagnoses and alleviates anxiety, Chung says.

Read the Imaging 3.0® case study at [acr.org/Visual-Learning](http://acr.org/Visual-Learning).



When the radiology workforce hears its leaders say ‘We do not tolerate any kind of discrimination, harassment, or bullying,’ there will no longer be a culture of hush, and those who need help will have the courage to report.

— Katarzyna J. Macura, MD, PhD, FACR,  
chair of the ACR Commission for Women  
and General Diversity



## Veterans Get Online Imaging Access

The U.S. Department of Veterans Affairs has launched the My HealthVet portal, allowing veterans to access their medical images and related reports. Veterans can view a list of radiology studies as soon as three calendar days after a study report has been verified. When a request for a specific study is submitted online, they can view a thumbnail copy of images and the associated radiology report or download a file containing the report and diagnostic quality images (Digital Imaging and Communications in Medicine or DICOM®). To view DICOM images, veterans can install a free medical image viewer on their personal devices. The images and reports can be copied to a CD, DVD, USB flash drive, or any portable drive of choice to share with providers.

For more information, visit [bit.ly/VA\\_Images](http://bit.ly/VA_Images).

## Dedicated IRs Build Pediatric Radiology Department



Young patients at Peyton Manning Children’s Hospital, part of St. Vincent Hospital and Health System in Indianapolis, are getting better care thanks to a dedicated pediatric IR department spearheaded by Marc P. Underhill, MD. Underhill, an IR, was working for Northwest Radiology Network (NWR), the private practice that provides diagnostic radiology services for St. Vincent’s adult vascular lab. When children required IR procedures, the lab wasn’t equipped to provide specialized pediatric care. Leveraging skills learned at the Radiology Leadership Institute®, Underhill and other doctors at NWR and St. Vincent’s decided to implement a solution, and in the new department’s first three months it took on more than 80 percent of the hospital’s pediatric IR patients. “Pediatric IR is different than dealing with adults: You’re not just treating the patient, you’re also treating the parents. Reviewing treatment plans with both the patients and parents requires more time and flexibility than an adult lab can consistently provide,” Underhill says.

Read the Imaging 3.0® case study at [acr.org/Dedicated-to-Pediatric-Care](http://acr.org/Dedicated-to-Pediatric-Care).

## RLI Summit Serves Up Practical Business Insights

Engage colleagues and radiology’s top players on high-impact business theories to transform how you approach and manage your department at the 2018 RLI Leadership Summit. This year’s gathering will concentrate on putting theory into practice, featuring negotiation role-play scenarios, assessments of emotional and social competence, tactics for teamwork, and techniques for driving new value. A special panel session on lateral leadership will be included to encourage radiology department collaboration and operational efficiency.

To register, visit [radiologyleaders.org](http://radiologyleaders.org).

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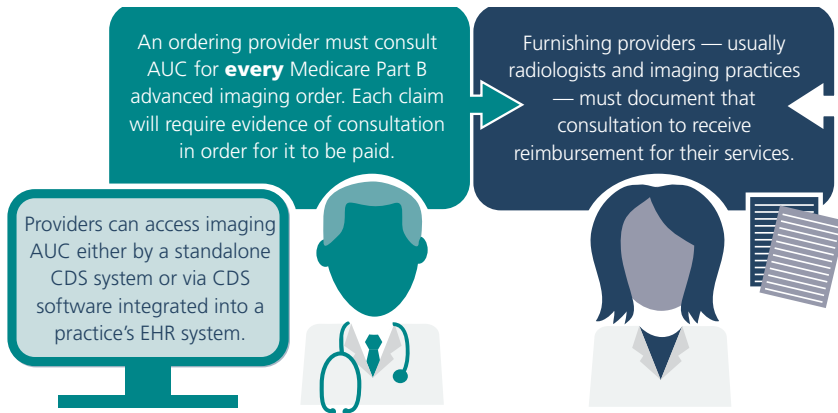
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## Are You a Director or Chair for a Residency Program?

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For assistance, please email [atpu@acr.org](mailto:atpu@acr.org).



## ACR CDS Tools Assist With PAMA Readiness

Starting Jan. 1, 2020, referring providers will be required to consult Appropriate Use Criteria (AUC) prior to ordering advanced diagnostic imaging services (CT, MR, nuclear medicine exams, and PET) for Medicare patients under the Protecting Access to Medicare Act (PAMA). The digital representation of the ACR Appropriateness Criteria® for diagnostic imaging, CareSelect Imaging®, can be integrated into most EHRs. Providers can access imaging AUC through stand-alone electronic clinical decision support (CDS) systems or use CDS software that's embedded in a physician's EHR. The ACR has posted a wealth of information — including videos and next steps for physicians — about PAMA and CDS for appropriate imaging on its website at [acr.org/CDS](http://acr.org/CDS).

I have found that empowering patients with easy access to their own images and reports helps each to better navigate their unique healthcare journey and engages the patient as an active participant in the decision-making process.

— Neuroradiologist Kristina E. Hoque, MS, MD, PhD, on patient-centered care at the Minnesota Radiological Society Spring meeting at [bit.ly/MovingTowardPFCC](http://bit.ly/MovingTowardPFCC).



## Here's What You Missed

The *Bulletin* website is home to content not featured in print. You'll find blog posts, extra articles, and other updated multimedia content at [acrbulletin.org](http://acrbulletin.org).

### Barriers to Choosing Radiology

A radiology resident deconstructs some of the myths surrounding the profession at [bit.ly/Rad\\_Barriers](http://bit.ly/Rad_Barriers).

### How Your CME/SA-CME Requirement Works

Ram Srinivasan, MD, PhD, a practicing radiologist in Palo Alto, Calif., provides young and early career professionals with a guide to their CME and SA-CME requirements at [bit.ly/Rad\\_CME](http://bit.ly/Rad_CME).

### Image is Everything

On July 1, 2017, the Accreditation Council for Graduate Medical Education relaxed hour restrictions for residents, allowing interns to work 24-hour shifts while preserving the 80-hour work week and one day off per week. Find out how the public responded at [bit.ly/AGCME\\_Hours](http://bit.ly/AGCME_Hours).

## CALENDAR

### July

- 13–15 Body and Pelvic MR, ACR Education Center, *Reston, Va.*
- 18–20 Musculoskeletal MR of Commonly Imaged Joints, ACR Education Center, *Reston, Va.*
- 20–22 RLI Leadership Challenges Symposium, Ritz-Carlton, *Arlington, Va.*
- 30–8/24 AIRP® Correlation Course, AFI Silver Theatre and Cultural Center, *Silver Spring, Md.*

### August

- 6–9 AIRP Categorical Course: Neuroradiology, AFI Silver Theatre and Cultural Center, *Silver Spring, Md.*
- 20–21 AIRP Categorical Course: Abdominal Imaging, AFI Silver Theatre and Cultural Center, *Silver Spring, Md.*

### September

- 6–8 Coronary CT Angiography, ACR Education Center, *Reston, Va.*
- 7–9 RLI Leadership Summit, Babson College, *Wellesley, Mass.*
- 10–12 ACR/Dartmouth PET/CT, ACR Education Center, *Reston, Va.*
- 13–15 Breast Imaging Boot Camp with Tomosynthesis, ACR Education Center, *Reston, Va.*
- 17–18 Breast MR with Guided Biopsy, ACR Education Center, *Reston, Va.*
- 24–26 Neuroradiology, ACR Education Center, *Reston, Va.*
- 24–26 AIRP Pediatric Radiology Categorical Course, AFI Silver Theatre and Cultural Center, *Silver Spring, Md.*
- 26–29 American Society of Emergency Radiology 2018 Annual Scientific Meeting and Postgraduate Course in Emergency and Trauma Radiology, Hilton Tysons Corner, *McLean, Va.*
- 28–29 AIRP Breast Imaging Categorical Course, AFI Silver Theatre and Cultural Center, *Silver Spring, Md.*
- 29 RLI Kickstart Your Career, DoubleTree by Hilton Hotel, *Silver Spring, Md.*



# What Is the QQ Modifier?

*Here's a look at the new clinical decision support mechanism modifier.*

The Protecting Access to Medicare Act (PAMA) of 2014, Section 218(b), established a new program under which an ordering provider of advanced diagnostic imaging studies must consult a clinical decision support (CDS) mechanism at the time of ordering. The program is slated to begin on July 1, 2018. This date is the start of a voluntary participation and reporting period using a new Healthcare Common Procedure Coding System modifier, “QQ.” This column describes how billing claims will occur during this voluntary reporting period and provides background on the broader move toward full CDS implementation.

PAMA mandated CDS consultation during advanced diagnostic imaging ordering by Jan. 1, 2017. CMS, obviously, failed to meet that deadline. But the ACR sees the start of a voluntary reporting period as a favorable transitional step toward full implementation, which is expected by 2020. Since PAMA’s passage, several steps toward implementation have occurred, including the naming of approved provider-led entities and CDS mechanisms. The ACR has been approved as both.

Guidance from CMS is outlined in the box below. Full implementation will require more information on billing claims than the QQ modifier can enable, such as the consulted CDS mechanism and the outcome of AUC consultation, including orders that are cancelled outright. In addition, outliers must be identified three years into

the program, which adds another layer of complexity. The ACR, along with other stakeholders, is working with CMS on the development of appropriate billing processes.

The ACR encourages the use of the QQ modifier. For those practices that have ordering providers using a CDS mechanism and communicating the result to the radiology practices, the modifier should be appended. Reporting is voluntary, and payment is not at risk. In other words, payment will occur whether the modifier is being used properly or not. The benefit for practices is claims experience.

The benefit for the program is also important. The more billing claims that include the QQ modifier, the more CMS will see that CDS is being adopted. Conversely, limited voluntary reporting may imply that adoption of CDS is lower than expected. Moreover, the voluntary reporting could prompt a worthwhile discussion with our hospitals and referring physicians regarding CDS and its implementation and expansion. For instance, under the Merit-Based Incentive Payment System, ordering providers who use a CDS mechanism can attest to a required Improvement Activity. By attesting, practices are letting CMS know that they are doing it, and no data requirement or use of the QQ modifier is necessary. Additionally in 2018, we are being scored on a category called “Cost,” which judges us on resource use compared to other physicians.<sup>2</sup> Therefore, the new QQ modifier could prompt discussions on CDS as a means to appropriately lower cost.

Even though we have a ways to go before full implementation of CDS, the voluntary period is a step in the right direction. The use of the new QQ modifier will show CMS that adoption is occurring and that additional steps toward full implementation should follow. Practices may be able to leverage the use of the new modifier to prompt discussions with hospitals and referring physicians ahead of full implementation. The ACR stands ready to inform those regulations, believing that the program provides purposeful and lasting benefits (learn more at [acr.org/CDS](http://acr.org/CDS)). **B**

## Guidance From CMS

*Effective July 1, 2018, HCPCS modifier QQ (Ordering Professional Consulted a Qualified CDS Mechanism for This Service and the Related Data Was Provided to the Furnishing Professional) is available for this reporting. The modifier may be:*

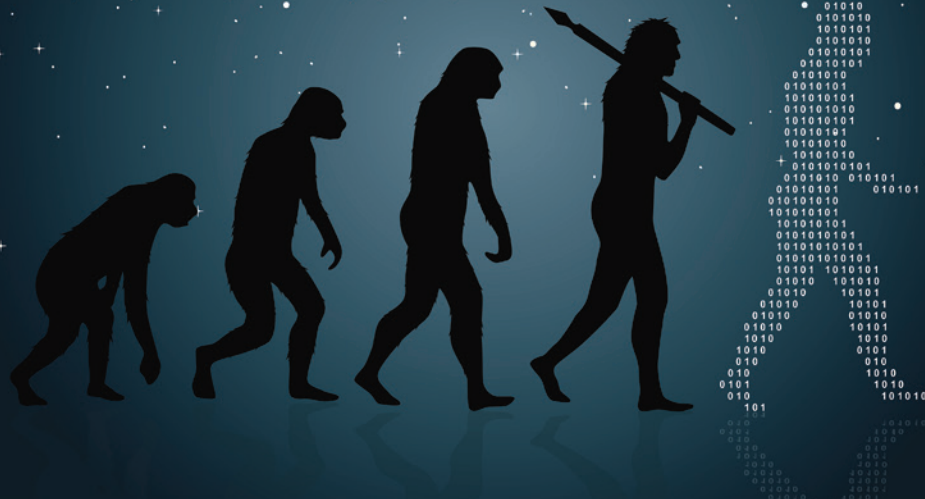
- used when the furnishing professional is aware of the result of the ordering professional’s consultation with a CDS mechanism for that patient,
- reported on the same claim line as the Current Procedural Terminology code for an advanced diagnostic imaging service furnished in an applicable setting and paid for under an applicable payment system, and
- reported on both the facility and professional claim.<sup>1</sup>

## ENDNOTES

1. CMS Medicare Learning Network. Appropriate Use Criteria for Advanced Diagnostic Imaging – Voluntary Participation and Reporting Period - Claims Processing Requirements – HCPCS Modifier QQ. Available at [bit.ly/qqmodifier](http://bit.ly/qqmodifier). Published March 2, 2018. Accessed April 25, 2018.
2. Silva E. Cost — Rarely Understood but Highly Relevant. *ACR Bulletin*, February 2018. Available at [bit.ly/Cost-Relevant](http://bit.ly/Cost-Relevant).



# Step Into the Future of Medical Imaging



“Informatics and quality improvement are part and parcel of our contemporary work environment — it’s really up to us to use these tools and processes effectively.”

— Jonathan B. Kruskal, MD, PhD, FACR

## *AI and informatics in radiology will take center stage at the ACR Annual Conference on Quality and Safety.*

The future of medical imaging — and the ability to adapt to new quality metrics, clinical decision support, and enhanced patient care — will guide the conversation at the 2018 ACR Conference on Quality and Safety. Top quality and data science experts will convene to share the latest tools and insights on how AI can be used to optimize business efficiencies and high-level patient care.

In a recent interview with the *ACR Bulletin*, Jonathan B. Kruskal, MD, PhD, FACR, chair of the department of radiology at Beth Israel Deaconess Medical Center in Boston and coordinator of the ACR Commission on Quality and Safety’s Quality Management Committee, offered his views on this year’s meeting — to be held in Boston, October 26–28 — marking the 10th anniversary of ACR’s quality and safety gathering.

### **This year’s theme is “Empowering the Quality Journey Through AI.” What can attendees expect to take away from the conference?**

We really need to move away from the time-tested basics of quality assurance and improvement. We’ve all been there and, hopefully, done that by now, or we shouldn’t be in this business. We need to start focusing intently on

continuously improving our performance and sustaining those efforts. The only way that we can do this effectively is by utilizing AI and informatics solutions. This conference will highlight just how interdependent these two domains are — and hopefully show how informatics is the framework upon which improvement can take place.


### **How are radiologists uniquely positioned to succeed?**

Radiologists provide services to many different customers, which means we’re attuned to the needs of our patients (who are also our customers). To survive and thrive, we have to be very patient-focused, since few of us are the only show in town. This competition must drive us to make our practices efficient for both patients and referring clinicians, not to mention for our own bottom line. We have to seek feedback, survey our customers, and respond. We are starting to do this very well, in part, because we have no other option.

### **Do you think patient-centered efforts are improving?**

It depends. Radiology, like many other fields, remains divided. There are those who will do the bare minimum to meet required metrics to get reimbursed. Their

*continued on page 21*



# Crossing the Line

The national conversation around sexual harassment comes to radiology.

Sexual harassment is not a new problem, nor is it unique to medicine. The issue has garnered unprecedented attention, however, from efforts like #MeToo — exploding on social media last year to raise awareness of sexual harassment and assault in the workplace. “Movements like this have opened the door now for men and women to say, ‘This isn’t right,’” says Claire E. Bender, MD, MPH, FACR, chair of the ACR Commission on Human Resources and professor emerita in the department of radiology at the Mayo Clinic in Rochester, Minn.

While the recent national spotlight on the issue began in Hollywood, it quickly spread to the broader culture, including medicine. “Physician groups in general have struggled in dealing with physicians who exhibit problem behavior,” says Lawrence A. Liebscher, MD, FACR, a partner at Cedar Valley Medical Specialists in Waterloo, Iowa. “When someone has egregious behavior, you can easily call that person out, and everyone else in your group will likely support you. If you’re dealing with someone in a practice with marginally bad behavior, that’s more difficult.”

Sexual harassment is defined by the Equal Employment Opportunity Commission as harassing an employee or job applicant because of a person’s sex.<sup>1</sup> This includes unwelcome sexual advances, requests for sexual favors, or other verbal or physical harassment of a sexual nature. The commission elaborates that “harassment does not have to be of a sexual nature, and can include offensive remarks about a person’s sex.” The website notes that while federal law doesn’t prohibit “simple



teasing and offhand comments,” the law has been broken when behavior “creates a hostile or offensive work environment or results in an adverse employment decision.”

“There are always two sides to every story,” Bender says, “and showing fairness to both parties is important.” Still, steps are needed to eliminate a culture that leads radiologists to tolerate sexual harassment instead of addressing it head on, research suggests.<sup>2</sup>

According to Bender, sexual harassment is not specific to one gender and can occur in any direction. However, women in radiology are more often victims and witnesses of sexual harassment than men — and also less likely to report these incidents, she says.

In many practice environments, a male radiologist is working with support staff — technologists, nurses, and others — who are largely or entirely women, Liebscher notes. One study by Reshma Jagsi, MD, DPhil, professor and deputy chair of the department of radiation oncology at the University of Michigan and director for the Center for Bioethics and Social Sciences in Medicine, found that 30 percent of female clinician-researchers in the United States have been sexually harassed or assaulted in the workplace — while only 4 percent of their male counterparts had experienced the same. Medical students, residents, fellows, junior faculty, and other non-senior staff are the most vulnerable to sexual harassment. They often fear that reporting an incident may limit career opportunities or label them as troublemakers.<sup>3</sup>

Radiologists would be wise to reexamine their definition of sexual harassment, Bender says. “Transgressions need not involve physical contact. People think of overt actions, but it’s the covert things that require more education.”

## Don’t Dismiss “Kidding”

According to Jagsi, one of the biggest misconceptions about sexual harassment is that anything less than physical assault is harmless. “I think that’s where the big cultural transformation is necessary — in us recognizing that seemingly joking comments can actually be quite corrosive,” she says.

Regardless of intentions, comments that come across as put-downs can make someone feel that their professional abilities and the years of work they have put in are not enough to make them an equal in the eyes of colleagues. “The idea that ‘talk is nothing’ is problematic,” Jagsi says. The systematic experiences of unwanted and inappropriate comments can have a substantial impact on a woman’s work experience. With more frequent experiences comes less job satisfaction, less interaction with coworkers, damaged morale, and overall psychological distress.<sup>4</sup>

Women often fail to report incidents that meet the definition of sexual harassment. “When you interview them, you realize that they’ve had more experiences than they think to report on a questionnaire,” says Jagsi. And when they do recognize harassment, a fear of retaliation that could hinder career growth, Jagsi says, is often a driver of staying silent.

“It’s been described that women who are in more senior positions are more likely to experience put-downs rather than come-ons, but these are still comments that are intended to harass on the basis of sex,” Jagsi says. “By contrast, younger and less empowered women may be more likely to experience sexual innuendos and advances. All of this constitutes sexual harassment.”

It can be challenging for a woman who doesn’t want to make waves and who has spent a lot of time investing in her career, Jagsi says. “She has entered radiology, a field that’s male-dominated, and naturally wants to go with the flow. It’s tricky deciding what can be dismissed as harmless kidding versus what needs to be called out and changed,” she says.

“Sometimes people make comments that they don’t realize are inappropriate — they don’t really mean to be sexually offensive or use innuendo,” says Amy Patel, MD, breast radiologist at Beth Israel Deaconess Medical Center and instructor of radiology at Harvard Medical School. “They feel terrible when they’re told that it wasn’t okay.”

However uncomfortable it might be, harassment must be called out. “The only way we are going to change the narrative is by communicating with one another and letting everyone know that certain behavior is not okay,” Patel says. “That pushes the needle forward.”

**“Transgressions need not involve physical contact. People think of overt actions, but it’s the covert things that require more education.”**

— Claire E. Bender, MD, FACR

Here are some basic guidelines that all radiology practices should follow:

- Post literature stating that yours is a zero-tolerance workplace
- Consider mandatory training sessions through online webinars or community group outreach programs
- Be aware of your staff’s individual comfort level and potential cultural sensitivities



**“I think that’s where the big cultural transformation is necessary — in us recognizing that seemingly joking comments can actually be quite corrosive.”**

— Reshma Jagsi, MD, DPhil

In broaching the subject, however, there is still a huge fear of retaliation and retribution, she adds, “or that someone in a position of leadership will disregard a complaint or try to brush it aside.”

### **Lead Mindfully**

Stopping sexual harassment relies on awareness, communication, and a zero-tolerance policy, says Katarzyna J. Macura, MD, PhD, FACR, chair of the ACR Commission for Women and Diversity. Those things have to come from people in positions of authority.

“Practice leaders are responsible for creating the right climate and morale,” Macura says. “If they lead by example with no tolerance for harassment in general, that creates a culture of no sexual harassment.” Leaders must let staff know that they care if someone is making them uncomfortable or if something inappropriate has already happened. “Let them know you will listen and then take action,” she says.

As a leader, leaving no doubt about your position on sexual harassment when communicating with employees is vital, says Scott M. Truhlar, MD, MBA, MS, FACR, chair of the *ACR Bulletin* Advisory Group and a partner with Radiologic Medical Services in Coralville, Iowa. “You have to set expectations immediately. Make it known to your employees that if they are ever made to feel uncomfortable, you will take care of it,” he says.

However, it’s critical that women and men continue to work together and form professional relationships within the workplace. According to Patel, being a mentor, for example, can be a hot-button issue today, particularly in radiology. “Some men are afraid to mentor women,” Patel says. “That’s a shame, because many of us from my generation have flourished because we had, and continue to have, exemplary male mentors.”

### **Have Zero Tolerance**

The new generation in medicine doesn’t have the same mindset as many of the older generation, says Macura. “They expect their leaders to be their champions,” she says. “If current leaders don’t have a zero tolerance mindset, they shouldn’t be trying to lead.”

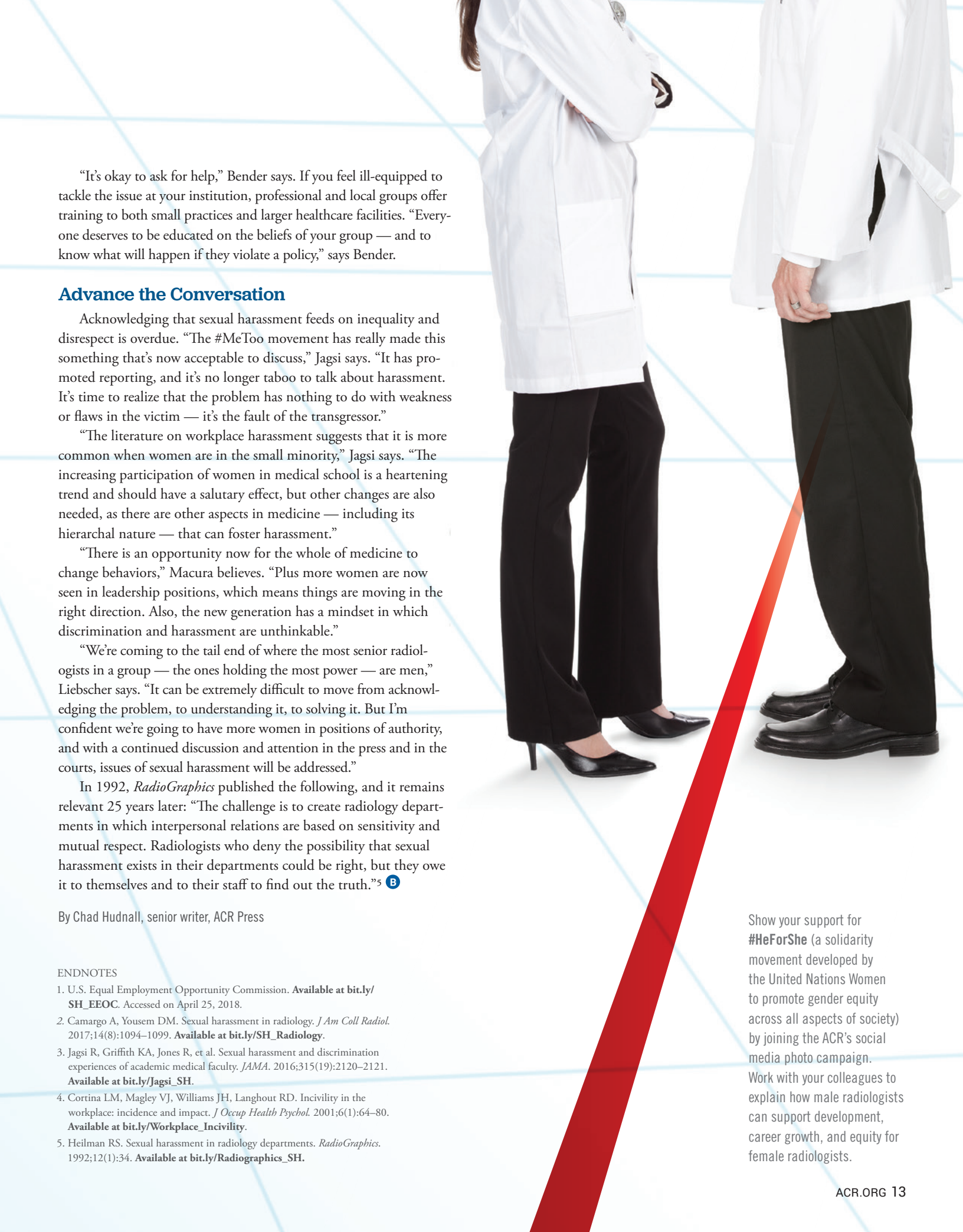
It comes down to creating a respectful work culture in which everyone can perform well. When someone feels anxious, uncomfortable, demeaned, or threatened at work, they aren’t as productive and don’t perform to their maximum ability. “The patient is the loser when you have a workforce that doesn’t work in a collegial, respectful manner,” says Macura. “Feelings translate into how we approach each other and our patients. If our mission is to serve patients, then we need to respectfully work together to present our patients with the best team.”

“Institutions must proactively shape the culture of the workplace, not simply react after the fact when there are no reporting mechanisms in place,” says Jagsi. All staff should be reminded periodically of the basics of respectful and professional behavior. Legal experts say employees should be informed — to know where they can turn if they feel they have been harassed.

## **PUT POLICIES IN PLACE** Consider the following as you develop your practice guidelines:

- Policies should be formulated by group members in accordance with the culture of the practice, with consideration given to the broader culture of where the practice is located.
- Sensitivity to the cultural environment of the practice is important; thus, policies cannot be developed by outside experts and applied to all practices throughout the country.
- Although these policies should be group-specific, state and federal laws govern some issues related to sexual harassment in the workplace. Thus, a qualified employment attorney should review the policies developed by the practice members.

Learn more in the *JACR*® article, “Dealing With the Problematic Partner or Associate” at [bit.ly/Practice\\_Policies](https://bit.ly/Practice_Policies).



“It’s okay to ask for help,” Bender says. If you feel ill-equipped to tackle the issue at your institution, professional and local groups offer training to both small practices and larger healthcare facilities. “Everyone deserves to be educated on the beliefs of your group — and to know what will happen if they violate a policy,” says Bender.

## Advance the Conversation

Acknowledging that sexual harassment feeds on inequality and disrespect is overdue. “The #MeToo movement has really made this something that’s now acceptable to discuss,” Jagsi says. “It has promoted reporting, and it’s no longer taboo to talk about harassment. It’s time to realize that the problem has nothing to do with weakness or flaws in the victim — it’s the fault of the transgressor.”

“The literature on workplace harassment suggests that it is more common when women are in the small minority,” Jagsi says. “The increasing participation of women in medical school is a heartening trend and should have a salutary effect, but other changes are also needed, as there are other aspects in medicine — including its hierarchal nature — that can foster harassment.”

“There is an opportunity now for the whole of medicine to change behaviors,” Macura believes. “Plus more women are now seen in leadership positions, which means things are moving in the right direction. Also, the new generation has a mindset in which discrimination and harassment are unthinkable.”

“We’re coming to the tail end of where the most senior radiologists in a group — the ones holding the most power — are men,” Liebscher says. “It can be extremely difficult to move from acknowledging the problem, to understanding it, to solving it. But I’m confident we’re going to have more women in positions of authority, and with a continued discussion and attention in the press and in the courts, issues of sexual harassment will be addressed.”

In 1992, *RadioGraphics* published the following, and it remains relevant 25 years later: “The challenge is to create radiology departments in which interpersonal relations are based on sensitivity and mutual respect. Radiologists who deny the possibility that sexual harassment exists in their departments could be right, but they owe it to themselves and to their staff to find out the truth.”<sup>5</sup> **B**

By Chad Hudnall, senior writer, ACR Press

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Show your support for **#HeForShe** (a solidarity movement developed by the United Nations Women to promote gender equity across all aspects of society) by joining the ACR’s social media photo campaign.

Work with your colleagues to explain how male radiologists can support development, career growth, and equity for female radiologists.

# Taking Steps to Improve Well-Being

*New radiology-specific research finds musculoskeletal strain is widespread, but minor adjustments can make a big difference.*



A. Nina Watson, MD, always looks at her weekly schedule to set aside dedicated time to exercise.

**W**e've all seen the dramatic headlines: "Sitting Is the New Smoking!" "Sitting is Killing You!" And, indeed, sedentary lifestyles have been shown to compromise cardiac and metabolic health, as well as negatively impact quality of life. Prolonged sedentary time is also associated with increased rates of burnout and fatigue and decreased ability to concentrate. Radiologists are at an increased risk of being sedentary at work compared with other medical specialties. This risk has been magnified in recent years with an increasing volume of cases, pressure for fast reporting, and emphasis on relative value units.<sup>1</sup> The current digital environment and PACS workstations have also contributed to the development of musculoskeletal injuries in radiologists. Long hours sitting at workstations and failure to take breaks likely contribute to low back pain, neck pain, and repetitive stress injuries in radiologists.<sup>2</sup>

How can radiologists mitigate job-related risks in order to stay healthier? The good news is that enhancing well-being doesn't require a wholesale change in lifestyle. Small steps add up.

## Sitting Now?

If so, that's pretty much the problem, says Rebecca L. Seidel, MD, assistant professor of radiology and imaging sciences at Emory University School of Medicine. Seidel and her colleague Elizabeth A. Krupinski, PhD, an experimental psychologist and professor, conducted research on the extent and severity of musculoskeletal disorders (MSDs) among radiologists.<sup>3</sup>

While prior studies have suggested an occupational link to neck and back pain, eye strain, and other issues, Seidel says hers is the first to use a standardized tool — the Cornell Musculoskeletal Discomfort Questionnaire — to assess MSDs in radiologists. Of the 99 radiologists who completed the electronic survey, Seidel and Krupinski found that 80 percent spent seven or more hours per day at a computer workstation, and 87 percent reported discomfort in at least one body part once or more in the week before the survey. Pain was most frequently reported in the neck, back, and right upper extremity. In addition, 53 percent of those with neck pain reported symptoms that slightly or substantially interfered with their ability to work.

Seidel and Krupinski's findings also point to statistically significant gender differences. Female radiologists noted more discomfort in the shoulders and left forearm than male counterparts, and they more often reported distracting discomfort in the neck, lower back, and hip/buttocks.

Seidel believes equipment may be a factor. "Perhaps the equipment — desks, chairs, microphones — is better suited for a male body habitus than a female body habitus. This requires further investigation." She speculates



that the right shoulder discomfort could be related to the use of dictation controls by primarily right-handed radiologists of both genders.

Even as she plans additional research, Seidel points to adjustments that can help now:

- **If a workstation has adjustable equipment**, make modifications before starting work to optimize ergonomics. It is desirable to maintain a neutral wrist position, sufficient distance between eyes and screen, and an upright posture.<sup>1</sup>
- **Get up and move around.** Radiologists should fight the urge to power through a large volume of work in favor of regular, short breaks that can have a positive effect on productivity and comfort.
- **Prevent eye strain and fatigue** by following Cornell University's Design and Environmental Analysis Professor Alan Hedge's 20-20-20 rule. Every 20 minutes, look 20 feet away for 20 seconds.<sup>4</sup>
- **Alternate sitting and standing.** Even in environments where sit/stand desks are provided, radiologists tend to mostly sit. It is thought that cycling between sitting, standing, and moving may be more desirable.

## Off-the-Job Well-Being

Habits away from work can help reduce job-related risk as well, according to A. Nina Watson, MD, assistant professor of radiology and imaging sciences at Emory University School of Medicine. Watson, a proponent of preventive medicine and an expert in wellness, health, and nutrition, believes that the increased volume of work is taking a toll on radiologists' health and well-being as evidenced by increased rates of burnout being reported.<sup>5</sup>

"Like many physicians, some radiologists tend to put their own health on the back burner as they prioritize caring for others," says Watson. "Because they were able to get away with it during medical school and residency, many tend to continue." Among countermeasures, Watson recommends the following:

- **Build 30 minutes or more of exercise into the day.** Think outside the gym, consider a dance class, martial arts practice, or running.
- **Consider a fitness vacation like a hiking or cycling tour.**
- **Wake up 30 minutes earlier a few days each week.** If you can do this three times a week, it means you get 90 minutes that can be dedicated to working out.
- **Integrate exercise into your family activities.** Instead of watching your kids ride their bikes, you can ride with them.
- **Incorporate physical activity into your social life.** Try to meet up with friends for a Zumba or Pilates class.

Recent research indicates that risks associated with sedentary behavior are not abated simply by tacking on physical activity. Physical activity incorporated both inside and outside of the work environment has been shown to decrease stress and increase productivity.<sup>6</sup> According to Seidel, greater sedentary time is associated with increased risk for cardiovascular disease, cancer incidence and mortality, and type 2 diabetes. "Too much sitting is independently associated with these poor outcomes regardless of physical activity," says Seidel. "Going to the gym before or after work, although beneficial in other ways, does not reverse the poor health outcomes associated with many hours of sitting."

**"Like many physicians, some radiologists tend to put their own health on the back burner as they prioritize caring for others."**

— A. Nina Watson, MD

Seidel and Watson believe that bite-size changes can have a big impact. Watson suggests incorporating small breaks in one's day to devote to being more active. "You can take a brisk walk around your office or building or a quick run up and down the stairs," she says. "While at your desk you can take breaks to do stretching exercises, lift small hand weights, or do squats. Instead of calling a colleague or member of your staff, you can walk to their office. You can make a conscious choice to take the stairs as often as possible, rather than the elevator. When our schedules allow limited opportunities for exercise, we want to look for opportunities to be more active."

Seidel agrees. "Radiologists must start prioritizing their physical and emotional well-being to ensure a long, productive and fulfilling career," she says. **B**

By Evelyn Sacks, freelance writer, ACR Press

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Photos: José Rodríguez



(Left to right) Mario J. Polo, MD, and Ricardo Flores, MD, clinical director of the Cancer and Hematology Centers at Texas Children's Hospital The Woodlands, help Jorge Zequeira, MD, deliver medical supplies to the University Pediatric Hospital in San Juan. Zequeira is director of surgical education at the University Pediatric Hospital. ▶

## Radiologists to the Rescue

### *ACR members join forces to lead relief efforts for post-hurricane Puerto Rico.*

In September 2017, Hurricane Maria struck Puerto Rico. With sustained winds of 155 mph, the Category 4 storm uprooted trees, razed homes, and caused widespread, catastrophic flooding. The disaster killed more than 4,600 people, and millions were left without electricity, water, or cell phone service.<sup>1</sup> Members of the Radiological Society of Puerto Rico in San Juan immediately sprang into action to assist in the recovery efforts.

“Any time disaster impacts a community, it’s critical that all of the healthcare team members become involved,” notes Efrén J. Flores, MD, director of radiology community health improvement at Massachusetts General Hospital. “As radiologists, we collaborate with other disciplines in the daily care of patients, and when a crisis occurs it’s necessary that we remain engaged.”

Flores joined forces with several members of the Puerto Rico chapter, including Mario J. Polo, MD, a

neurointerventional radiologist from San Juan, Puerto Rico, and Francisco A. Viejo-Rullan, MD, an abdominal imaging subspecialized radiologist in Guaynabo, Puerto Rico, to identify specific medical needs at hard-hit institutions such as the University Pediatric Hospital in San Juan.

“Numerous hospitals had been forced to close due to the power shortage and lack of fuel for generators,” says Polo. “Diminished access to treatment — including dialysis, insulin, cancer therapies, medication, and oxygen — had left thousands of lives in peril, especially the sick and the elderly. Radiologists in Puerto Rico had to provide continuous care of patients despite the lack of resources such as a hospital PACS system or limited power to consistently operate radiology equipment.”

Polo, together with a group of six other young professionals from the Houston area, co-founded Texas United for Puerto Rico, to deliver humanitarian relief, generators, and 55,000 pounds of food. When their cargo plane arrived in hard-hit Salinas, Polo and his radiology colleagues got to work preparing and delivering meals, delivering first-aid items to communities that were crippled by the storm, and participating in health fairs across the island.

### Did You Know?

The ACR includes 54 chapters, representing each of the United States, the District of Columbia, Puerto Rico, Canada, and the Council of Affiliated Regional Radiation Oncology Societies. For more information, visit [acr.org/Chapters](http://acr.org/Chapters).





Photo: Francisco A. Viejo-Rullan, MD

▲ (Left to right) Jeffrey Martinez, brand manager at San Jorge Children's Hospital, Domingo Cruz Vivaldi, executive director of San Jorge Children's Hospital, Francisco A. Viejo-Rullan, MD, and Fernando López Centurión, a radiology group administrator, are pictured in front of the hospital. In collaboration with Massachusetts General Hospital, Direct Relief donated over 10,000 pounds of medical supplies which Viejo-Rullan delivered to hospitals scattered throughout the island as part of a day-long relief tour.

◀ Mario J. Polo, MD, aboard one of the humanitarian flights to Puerto Rico

“Radiologists don’t have to be on the sidelines during recovery efforts. Radiologists can lead.”

– Efrén J. Flores, MD

According to Viejo-Rullan, the Puerto Rico chapter members worked on the operational logistics of gathering and delivering donations and facilitated the delivery coordination of donated medical supplies, such as portable ultrasound machines to the University Pediatric Hospital, to ensure that equipment and supplies arrived promptly to those communities in dire need of services. He notes that their efforts highlight the radiologist’s central role in a time of crisis.

“As radiologists, we collaborate with other disciplines in the daily care of patients. When a crisis occurs, we must remain actively involved and work with our colleagues in the care of our patients,” says Viejo-Rullan.

Polo agrees. “In times of catastrophe, it’s imperative that we identify critical needs, organize, and execute a plan to deliver those needs to the people and places that need them most, and then communicate effectively

and concisely with a diverse group of individuals with different backgrounds,” he says. “That comes naturally from careers in medicine and radiology, where we are trained to do this when interpreting imaging studies, formulating diagnoses, and discussing them with patients and medical colleagues. These interpretive, diagnostic, and communication skills that took years to develop also prove valuable in an emergency situation.”

Polo adds that the Puerto Rico chapter is committed to continuing to help the community and letting patients and medical colleagues know that their radiologists are there to do more than interpret CTs or perform IR procedures. “The message that our local chapter wanted to convey is, ‘We are more than your radiologists; we are here to assist in recovery and help rebuild.’ And I think we were successful in this endeavor,” Polo says.

According to Flores, the destruction in Puerto Rico and the resulting chapter-led initiative serve to affirm the role of radiologists in community healthcare. “Radiologists don’t have to be on the sidelines during recovery efforts,” he says. “Radiologists can lead.” **B**

By Lori A. Burkhardt, JD, freelance writer, ACR Press

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Since 2004, the ACR International Outreach Program has been committed to improving radiological care in the developing world through donations of educational materials, travel grants for volunteers, educational programs, and more. Learn more at [acr.org/International](http://acr.org/International).



# Ahead of the Curve

*Early adopters of CDS deliver more appropriate imaging and help ordering physicians prepare for PAMA's impact on reimbursement.*

**W**hen the radiology team at Einstein Healthcare Network in Philadelphia first heard about the Protecting Access to Medicare Act (PAMA) of 2014, which requires providers to consult clinical decision support (CDS) for advanced image ordering, they had an uncommon response: Bring it on!

At the time, Einstein's chair of diagnostic radiology, Terence A. S. Matalon, MD, FACR, was already evaluating the merits of CDS to enhance patient care at the network's three hospitals and 11 outpatient centers. The legislation further bolstered these efforts.

"Dr. Matalon started thinking about CDS before the PAMA legislation was even on the radar," says Ryan K. Lee, MD, MBA, section chief of neuroradiology at Einstein. "He thought it might be useful for our referring clinicians, and he became a driving force behind our rollout of evidence-based technology."

Now Lee and Matalon are spearheading an incremental CDS pilot project at Einstein that is validating that theory. In fact, one of the most vulnerable patient populations — children with minor head trauma — is already experiencing the positive impact of automated CDS.

In 2017, Einstein's radiology team implemented a CDS algorithm to help ED physicians determine whether to order head CTs for those pediatric patients. "Since we integrated guidelines from the Pediatric

Emergency Care Applied Research Network (PECARN) into our EMR, adherence in the ED has increased from approximately 35 percent to 80 percent," Lee says.

## Launch Pad

As leaders of CDS implementation, Einstein's radiologists experienced a few bumps with the technology early on. According to Lee, who is also MR medical director and director of quality at Einstein, the team initially tested another CDS system as part of a small trial project in 2013, but the 40 or so physicians recruited for the project found that tool too cumbersome.

"Based on that experience, we searched for a CDS solution that would not hamper physician workflow," Lee says. "In 2014, we found the right fit with CareSelect Imaging™ from the National Decision Support Company (NDSC), which integrated seamlessly into our EMR and had minimal impact on our workflow — a key to gaining clinician buy-in."

Once he found the right CDS, Lee developed a plan to implement a phased rollout to referring clinicians and began recruiting volunteers to participate. "We tried to recruit as broad a spectrum as possible to ensure the feedback was relevant across our network," Lee says.

As the pilot's first phase progressed, Lee regularly solicited feedback from participants — via online surveys and one-on-one meetings. "Many of our pilot users, particularly those in primary care, said that CareSelect was a helpful tool in helping them choose the correct study," Lee says. "Some said they're now more confident in ordering studies."

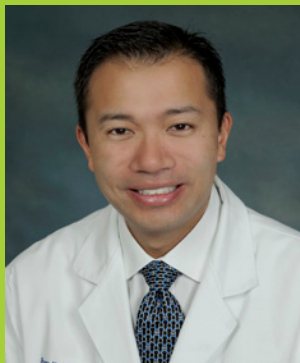
## PECARN Power

Shortly after initiating the CareSelect pilot, the radiology team recognized an opportunity to extend the reach and impact of embedding evidence-based medicine into the EMR.

Lee learned of the Joint Commission's proposal to require the use of vetted algorithms such as PECARN in the setting of pediatric minor head trauma prior to ordering head CT. The authors who designed the PECARN study demonstrated that following the algorithm identifies those patients for which CT scanning is unnecessary.

"Studies have shown that fewer than 10 percent of CT scans performed in pediatric patients for minor head

"Many of our pilot users, particularly those in primary care, said that CareSelect was a helpful tool in helping them choose the correct study."



Ryan K. Lee, MD, MBA, is spearheading an incremental pilot project to integrate CDS into the EMR at Einstein Healthcare Network.

trauma actually show traumatic injury,” Lee explains. “When the PECARN algorithm is followed, it is possible to decrease unnecessary head CTs, while following through on those that are warranted.”

Recognizing the opportunity to standardize the approach to ordering head CTs in this population, Lee asked NDSC about the possibility of creating a subroutine in CareSelect that reflected the PECARN algorithm. NDSC answered the call, developing a custom PECARN subroutine that integrates directly into Einstein’s EMR.

“While CDS advises an ordering physician whether or not a given order is appropriate, it remains agnostic as to whether or not a scan should be ordered in the first place,” Lee says. “The PECARN algorithm actually determines if a CT should be ordered at all. I believe that helping clinicians decide if an imaging study is appropriate is the next phase in the utility of imaging CDS, and we are one of the first to demonstrate its utility with PECARN.”

Robert A. Czincila, DO, chief of emergency medicine at Einstein Medical Center Montgomery, says that having that expert information up front allows physicians to provide better patient care. “It’s imperative that all of our medical staff and providers understand what’s the safest and most appropriate test for each patient and that we endeavor to reduce overutilization wherever possible, especially for children,” he says.

## Real Results

A year after deploying the subroutine, the radiology group partnered with the ED to measure the impact of the PECARN project. Under Lee’s guidance, both a radiology and ED resident manually researched the medical records for about 150 head CTs performed for minor trauma in pediatric patients treated during the year before implementation of the PECARN technology.

“What we found was surprising,” Lee says. “When we originally met with the ED physicians about PECARN, they indicated that they mostly used the guideline for ordering CTs. But when we tabulated the data, it showed that they followed the guideline about 35 percent of the time. After implementing the subroutine into the EMR, adherence to PECARN jumped to 80 percent.”

Lee and his team are now analyzing the data to determine whether imaging utilization has actually decreased as a result of the PECARN guidelines being embedded within the EMR.

## Legislative Mandate

With all of the advantages of CDS, it may be easy to forget about PAMA, which is scheduled to go into effect Jan. 1, 2020.

The legislation requires referring providers to consult appropriate use criteria through CDS prior to



CareSelect is now part of the daily routine for **Robert A. Czincila, DO**, chief of emergency medicine at Einstein Medical Center Montgomery.

“CareSelect allows us to practice in a way that uniformly confirms that we’re ordering the most appropriate diagnostic study and enhancing patient safety.”


ordering advanced imaging exams in outpatients and non-life-threatening ED patients. Imaging providers — primarily radiologists and imaging centers — must confirm that consultation of an approved CDS on claims submitted to Medicare for reimbursement.

In the future, simply confirming the use of a CDS for advanced imaging studies will not be enough. CMS has stated the providers who consistently order inappropriate studies will likely face penalties, though this probably won’t be for at least a couple of years after the 2020 mandate. Another reason not to delay CDS deployment is that potential bonus points can be earned under the Improvement Activities category of the Merit-Based Incentive Payment System (MIPS) by reporting meaningful use of CDS.

## Fast Forward

Now that CareSelect has proven its value at Einstein under the first phase of the pilot, the radiology team has big plans for the future. First up is an expanded pilot under which Lee has already recruited more than 200 additional volunteers to begin using the system, including the entire ED and all of the internal medicine residents.

Czincila sees immediate benefits to automating more guidelines in the system. “Ultimately, we need to do what’s right for our patients,” he says. “CareSelect allows us to practice in a way that uniformly confirms that we’re ordering the most appropriate diagnostic study and enhancing patient safety. At the same time, it helps us become better stewards of healthcare costs for our network and ensures we are maximizing our own reimbursements. So, everybody wins.”

To read the full case study, visit [acr.org/AheadCurve](https://www.acr.org/AheadCurve). 

By Linda Sowers, freelance writer, ACR Press

CareSelect Imaging™ expands on NDSC’s foundational ACR Select® solution to electronically deliver the ACR Appropriateness Criteria®. For more information, visit [nationaldecisionsupport.com](https://www.nationaldecisionsupport.com).

# ACR 2018 in Photos and Tweets

*Check out these photos and social media posts from the conference.*

This year's annual meeting held a ton of excitement for members, including lessons on AI, health policy and advocacy, and diversity and inclusion. Members near and far voiced their opinions, and shared their insights and memorable moments on Twitter. Check out some of the highlights from the meeting below, and catch the full coverage in the August issue of the *ACR Bulletin*. **B**



ROBERT GRIZIANO, MD



1. U.S. Sen. Cory Booker, D-N.J. (right), joins the Radiological Society of New Jersey executive committee in support of #HeForShe, a solidarity movement by the United Nations Women that promotes gender equity across all spectrums.
2. Frank J. Lexa, MD, MBA, FACR, RLI chief medical officer, catches up with Judy W. Gichoya, MBChB, MS, chair of the RFS AI advisory group, at the ACR-RSNA RFS Reception.
3. Nicole B. Saphier, MD, director of breast imaging at Memorial Sloan Kettering Monmouth Regional, presents a luncheon discussion to conference attendees on working with the media.
4. ACR President James A. Brink, MD, FACR, passes a ceremonial gavel to ACR BOC Chair Geraldine B. McGinty, MD, MBA, FACR. McGinty is the first woman elected chair of the board in the nearly 100-year history of the ACR.





## Step Into the Future of Medical Imaging

continued from page 9

interest is not in developing new tools. A second group is invested in improving what they do to better patient outcomes. This group is keenly interested in developing exciting new tools, including those using AI. A third group rests in the middle. They are the ones who really need to come to our meeting to join in the many new advances taking place.

The bottom line is that innovative new tools are being created faster than ever before. This is, in large part, due to informatics solutions being developed in response to the realization that if radiologists want to succeed and be a real part of improving patient outcomes, they have to do this now or they will be left behind.

### What trends do you see in quality improvement tools?

Informatics and quality improvement are part and parcel of our contemporary work environment — it's really up to us to use these tools and processes effectively. Clearly the world of quality has shifted from measuring processes, often in response to regulatory requirements, to contributing to improved patient outcomes. This is being achieved through informatics and AI solutions. That's just as well, because we can no longer remain stranded trying to manage process metrics without any focus on improving outcomes. I have never seen such an exponential increase in the number of improvement efforts that are now taking place. The sheer number of articles being published in our literature on quality topics (including case studies in *JACR*®), along with growing quality content in what were traditionally national clinical meetings, attests to this. And those are coupled with the rapid deployment of talented radiology improvement experts in all major practices. It's very gratifying.

We keep this meeting's content as current as possible, and we choose the best speakers to keep us all up to speed. This is why this gathering has been so successful and continues to grow year after year.

### Do you think the current political climate is impacting expectations of radiologists?

I do. There seems to be an ever-changing and growing landscape of regulatory expectations resulting in much effort and many resources being devoted to keeping up. We know that these regulatory and compliance expectations are adding to the burden many of us are experiencing in the workplace.

### What keeps you up at night in the world of quality and safety?

I would say it's the fact that we are running around trying to keep up with non-value-adding regulatory and compliance requirements that divert our time and focus from providing the best level of clinical care to our patients. And when that no longer keeps me up, it will be trying to stay up to date with the incredible pace of advances in informatics. **B**



## ACR Annual Conference on Quality and Safety

*Empowering the Quality Journey Through AI*

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## JOB LISTINGS

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**California** –The Sutter Medical Group is seeking a board certified/board eligible radiologist, fellowship-trained in cardiothoracic-imaging, for the Sacramento area. The candidate will receive a relocation stipend and income guarantee with shareholder track, generous compensation and benefits, advanced practice technology, including EMRs, a positive work-life balance, and Northern California's beauty.

The Sutter Medical Group is also seeking a board certified/board eligible neuroradiologist to join an established practice in the Sacramento Sierra Region in Northern California.

**Contact:** To apply, please send CVs to [develops@sutterhealth.org](mailto:develops@sutterhealth.org).

**Illinois** – A hospital-based private practice group in the Chicago area is expanding its practice. They're seeking full- and part-time fellowship-trained candidates in neuroradiology, musculoskeletal or MRI, and mammography.

**Contact:** To apply, please call the HR manager at 630-581-6524, email CVs to [resume@hbcmd.com](mailto:resume@hbcmd.com), or fax to 630-472-9502, using Attn: Radiology.

**Montana** – A summer generalist is needed for possible last-minute locums from June 18 through September 14. A progressive and growing practice with 16 radiologists is looking for help with a short-term temporary staffing shortage. Fellowship training is a plus. Work and play this summer in Kalispell/Whitefish, Mont.

**Contact:** To apply, please call or email Ty Weber at 406-751-7519 or [tweber@hcnwmt.com](mailto:tweber@hcnwmt.com).

**Nevada** – A large outpatient imaging practice in Las Vegas is seeking two fellowship-trained, board eligible/certified radiologists in body imaging, mammography, or general X-ray. The radiologists will join a 26-member group staffing 8 diagnostic centers. Modalities include MRI, CT, angiography/special procedures, nuclear medicine, PET/CT, mammography, and ultrasound.

**Contact:** To apply, email CVs to [swebb@sdmi-lv.com](mailto:swebb@sdmi-lv.com).



Monica J. Wood, MD, (second from left) joins fellow radiologists participating in ACR Hill Day 2018 in Washington, D.C.

## What advances in the field of radiology do you find most exciting?



**Monica J. Wood, MD, is chief resident in diagnostic radiology at Massachusetts General Hospital/Harvard Medical School, and vice chair of the ACR RFS.**

One of the most exciting developments within radiology is the introduction of machine learning, which has the potential to augment our diagnostic and operational capabilities. Just as the transition from film to PACS revolutionized radiology and brought about unprecedented gains in efficiency, thoughtful and targeted machine learning applications will have a similar impact on our ability to deliver high-quality care. Embracing these algorithms will help us process an increasing amount of information to distill what is clinically relevant. The automation of mundane and repetitive tasks will give us more time to engage directly with referring clinicians and patients — increasing the value of imaging, improving the patient experience, and boosting physician satisfaction.

Although machine learning holds much promise for our field, many challenges remain. Unanswered questions pertaining to ethical considerations, legal and regulatory ramifications, training and workforce transformations, and economic effects have yet to be determined. Fortunately, the introduction of assistive tools is not novel, and we can learn from past experiences and other industries as we implement this technology in our reading rooms. Solving these challenges will not be easy, so we will need a diverse set of perspectives and expertise.

The opportunity to participate in this new era of imaging is exciting for trainees and practicing radiologists alike. We must harness our clinical and non-clinical skills as we grapple with these technological advances. **B**

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