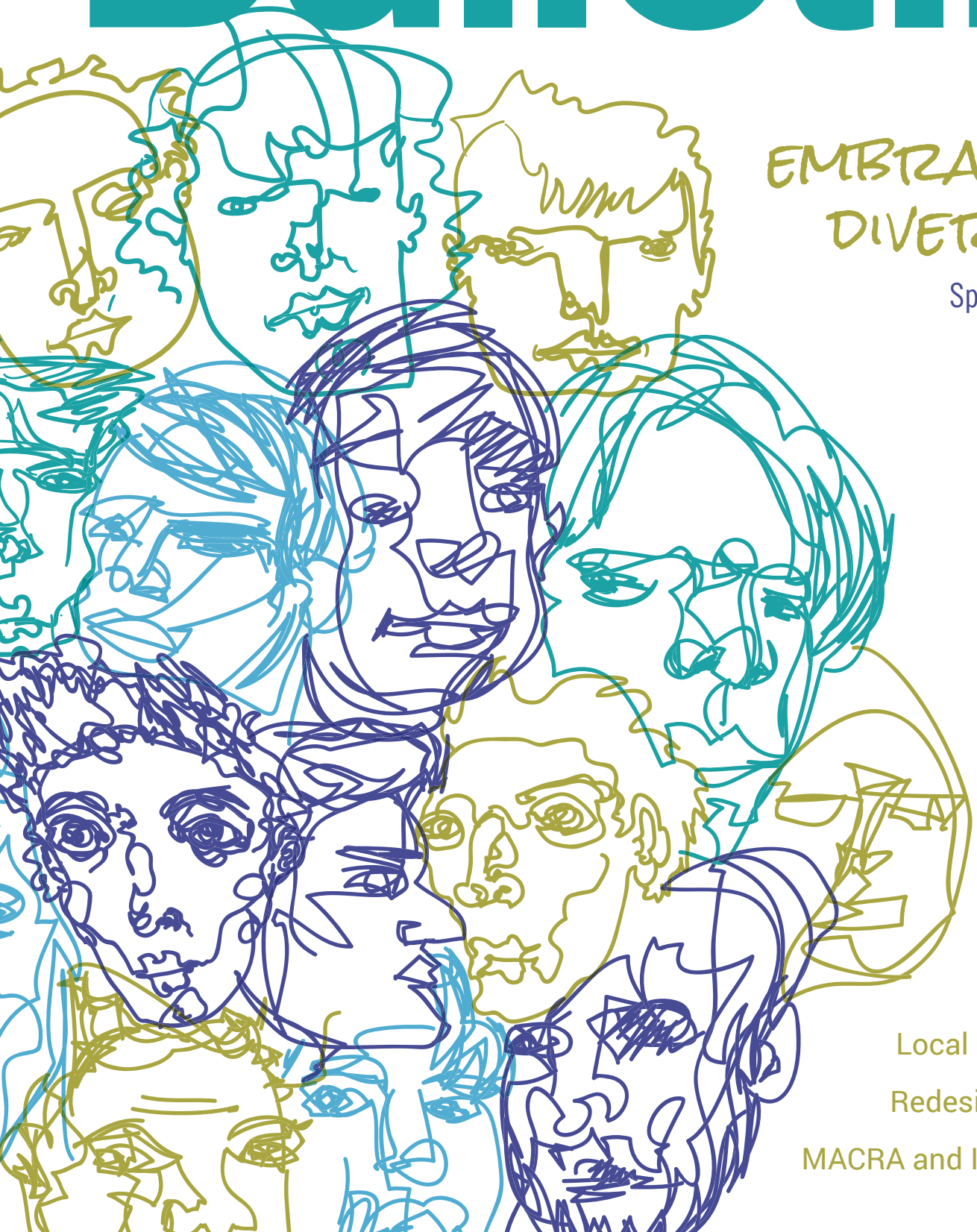
ACR LEADERSHIP | INTEGRITY | QUALITY | INNOVATION

SEPTEMBER 2017 | VOL.72 | NO.9

Bulletin



EMBRACING DIVERSITY

Special Section

Local Economics

Redesigning Care

MACRA and Informatics

ACR
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DEPARTMENTS

Clarification

On page 6 of the July issue, it was incorrectly stated that the ACR Council Steering Committee (CSC) acts as the College's legislative arm. The ACR Council — with representation from all 54 chapters, subspecialty societies, and specific membership segments — is the legislative arm of the ACR. The CSC consists of a combination of elected and appointed members to act on behalf of the ACR Council when it is not in session.

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 health care.

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FROM THE CHAIR OF THE BOARD OF CHANCELLORS

James A. Brink, MD, FACR, Chair

ACR® American College of Radiology
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Sometimes Innovation Is Saying No

Aligning college resources with our strategies and priorities

Steve Jobs once said, "People think focus means saying yes to the thing you've got to focus on. But that's not what it means at all. It means saying no to the hundred other good ideas that there are. You have to pick carefully. I'm actually as proud of the things we haven't done as the things I have done. Innovation is saying no to a thousand things."

Following completion of our most recent strategic plan, in 2014, the ACR embarked on a method to assess its myriad programs against its newly minted strategies and priorities. Our strategic planning consultant, Paul Meyer of Tecker International LLC, facilitated our first strategic program assessment meetings in late 2014 and early 2015. We assessed over 250 individual College programs against the strategic plan by clustering and categorizing them according to the strategic direction each should pursue based on various attributes. The strategic program assessment methodology was originally created by Ian MacMillan, currently professor at the Wharton School, and refined for use by professional societies by Tecker International LLC. This methodology continues to be widely used by organizations to assess their program portfolios. We have continued to use this methodology to periodically reassess legacy programs and evaluate all new programs under consideration.

In the ensuing years, I have been impressed by how translatable the program assessment methodology is to circumstances that may arise in various radiology practice settings. After becoming facile with this technique over the past few years, I thought it may be helpful to share the program assessment principles with our members so that they may better understand how the College leadership prioritizes resources and to consider using a similar technique when various programs must be prioritized within one's professional practice. I recognize that a health care system is potentially more complex than a professional organization. However, this program assessment methodology may be helpful to departments with a rising number of programs, some which may have outlived their usefulness.

Underpinning the strategic program assessment methodology are some key principles. First, we must acknowledge that available resources to meet member needs and expectations are limited. As a consequence, resources should be used judiciously without duplication of services provided by other organizations. Also, as with many effective businesses, focus is critical; providing a large number of middle-of-the-road programs and services is not as effective as excelling in a more limited number of programs and services.

Strategic program assessment involves analyzing current and future programs according to the following variables:

Program attractiveness: an assessment of how well the program aligns with the strategic plan and meets the vision of the organization

Competitive position: an assessment of how well the organization is able to effectively execute and support the program

Alternative coverage: an assessment of the degree to which other organizations may provide the same services or offerings to similar constituents

By analyzing each individual program according to these three variables, programs can be triaged into one of eight strategic directions. These directions range from orderly divestment to aggressive competition. For example, items with high program attractiveness, strong competitive position, and a high degree of alternative coverage require the organization to aggressively compete for success in this space. The organization must maintain its strong competitive position in these areas, as such programs can play a very important role in the organization's future. Alternatively, programs with high attractiveness to the organization and strong competitive position but low alternative coverage require continued measured growth. Here, the focus area is open to continued dominance by the organization.

Programs with high program attractiveness but weak competitive position and low alternative coverage represent opportunities for the organization to build strength and monitor performance. Programs in this category are often created in response to newly recognized and rapidly growing member needs for which the organization has not yet had the capacity to strongly address. Here, resources and expertise needed to execute the program can be developed while monitoring the operational and financial performance as the program evolves.

Continued on page 21

September

7–10 RLI Leadership Summit, Babson College, *Wellesley, Mass.*
11–13 ACR-Dartmouth PET/CT, ACR Education Center, *Reston, Va.*
14–16 Breast Imaging Boot Camp With Tomosynthesis, ACR Education Center, *Reston, Va.*
18–19 Breast MR With Guided Biopsy, ACR Education Center, *Reston, Va.*
18–20 AIRP Categorical Course: Pediatric Imaging, AFI Silver Theatre and Cultural Center, *Silver Spring, Md.*
29–30 AIRP Categorical Couse: Breast Imaging, AFI Silver Theatre and Cultural Center, *Silver Spring, Md.*

October

4–6 High Resolution CT of the Chest, ACR Education Center, *Reston, Va.*
9–11 Abdominal Imaging, ACR Education Center, *Reston, Va.*
13–14 ACR Annual Conference on Quality and Safety, *Boston*
13–15 Body and Pelvic MR, ACR Education Center, *Reston, Va.*
16–11/11 American Institute for Radiologic Pathology Correlation Course, AFI Silver Theatre and Cultural Center, *Silver Spring, Md.*
20–22 Cardiac MR, ACR Education Center, *Reston, Va.*
27–29 Society of Radiologists in Ultrasound 2017 Annual Meeting, *Chicago*
30–11/1 Emergency Radiology, ACR Education Center, *Reston, Va.*

November

3–5 Musculoskeletal MR of Commonly Imaged Joints, ACR Education Center, *Reston, Va.*
9–10 Prostate MR, ACR Education Center, *Reston, Va.*
16–18 Breast Imaging Boot Camp With Tomosynthesis, ACR Education Center, *Reston, Va.*
26–12/1 The Radiological Society of North America 103rd Scientific Assembly and Annual Meeting, McCormick Place, *Chicago*

DISPATCHES

NEWS FROM THE ACR AND BEYOND

MIPS Participation Options for 2017

Don't Miss the MIPS Payment Bonus Deadline

The deadline is nearing for clinicians to participate in the Merit-based Incentive Payment System (MIPS) to avoid payment reductions for the year. The performance period for MIPS began January 1 of this year and some data for each registry used must be submitted by October 31 — with the first payment adjustments to be applied in 2019. The ACR National Radiology Data Registry (NRDR™) has been approved as a Qualified Clinical Data Registry (QCDR) for MIPS by CMS. A QCDR is a CMS-approved entity that collects medical and clinical data for the purpose of improvement in the quality of care furnished to patients. These registries are one of several reporting mechanisms available to ensure satisfactory MIPS participation. Quality data submitted to a QCDR must include patients across all payers and is not limited to Medicare beneficiaries.

To learn more, visit qpp.acr.org.

Building a Big Data Global Image Depot

Image Data Resource (IDR) — a collaboration between scientists in the UK that includes biologists, imaging specialists, big data experts, and computer scientists — is now grouping and classifying image data from around the globe. The public database collects and integrates imaging data related to experiments published in leading scientific journals to house big data from imaging experiments that were once too large or complex to share.

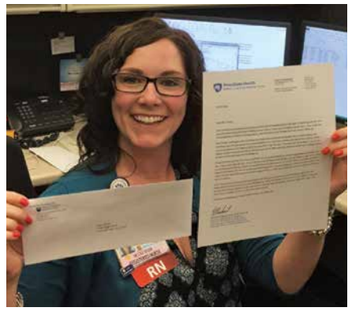
IDR collects and integrates imaging data acquired across many different imaging modalities. "Researchers collaborate with each other and keep abreast with research work from the global scientific community at meetings and in published papers, but the image datasets that underpin these communications are almost never published. As a result there is a huge amount of information that cannot be shared, accessed, compared, or understood," said Jason R. Swedlow, a professor at University of Dundee in Scotland and one of the scientists working on IDR.

Read more at bit.ly/Big_Bundle.

Failsafe Program Fosters Radiologist-Patient Communication

A new program that uses letters and phone calls to inform patients directly about incidental findings discovered in the ED — and encourages them to follow up with their primary care physicians — is closing communication gaps between doctors and patients at Penn State's Milton S. Hershey Medical Center. There, radiologists are using Failsafe, a program in which 70 percent of participating patients reported that they would otherwise not have known about their incidental findings or follow-up recommendations. The program doesn't rely on referring clinicians to relay important findings, but instead communicates directly with patients. "The program goes beyond the standard of care to ensure patients can address incidental findings in a timely manner," says Michael A. Bruno, MD, FACR, professor of radiology and medicine and vice chair for quality and safety at Hershey Medical Center.

Find more about the program in the case study at bit.ly/Failsafe_Study.



(Left) Michael A. Bruno, MD, FACR, professor of radiology and medicine and vice chair for quality and safety at Hershey Medical Center, led the implementation of Failsafe. (Right) Nicole Seger, MSN, RN, CPN, patient safety analyst, manages Failsafe and is holding a sample patient letter.

Algorithm Alerts Radiologists to Bad Catheter Placement

A team from Massachusetts General Hospital has developed a deep-learning algorithm that prescreens chest radiographs to detect incorrectly positioned peripherally inserted central catheters (PICCs). Radiologists are then alerted to prioritize those cases.

The technology was presented at the Society for Imaging Informatics in Medicine annual meeting and could lessen delays in interpreting cases, one presenter noted. An incorrectly positioned PICC can lead to serious complications, so the final PICC location is confirmed after placement on a chest radiograph. Radiologists have a high accuracy rate for interpreting the location of the PICC on studies, but delays in interpreting the cases can be significant, team members found.

Read more at bit.ly/DL_Detect.

Radiologists Back on Top 10 Most Requested List

For the first time since 2007, radiology was among the top 10 most requested specialties for recruiting assignments, according to a yearly review of search assignments conducted by Merritt Hawkins, a physician recruitment firm. The demand for radiologists peaked four years earlier in 2003, when it topped the list of requested assignments at Merritt Hawkins. Since then, the number of positions available has declined after an influx of trainees and reimbursement cuts during the 2000s, according to the report. But recent data shows the job market is now bouncing back. The review was based on more than 3,200 physician search assignments received by Merritt Hawkins and sister companies between April 2016 and March 2017.

Find out more from the 2017 physician recruitment report at bit.ly/Rad_Need.

> AI is not now, nor should it ever be looked at as a technology to replace doctors. It should, however, be seen as something that can help providers spend more time with patients.
>
> **– Richard Mammone, PhD, founder of ClearView Diagnostics, at** *bit.ly/AI_Patients*

Subspecialists Find Missed Breast Cancer

There are benefits to a second opinion by a subspecialist for patients who have not been diagnosed with breast cancer, a new study has found. Radiology breast subspecialists can detect breast cancers missed on initial screenings, according to experts from the University of Texas M.D. Anderson Cancer Center in Houston. Findings were based on a review of 2,400 studies submitted from outside facilities for a second opinion from January 2010 to June 2014. Of the 2,400 patients, 271 (or 11.3 percent) had a malignancy. After 189 patients (7.9 percent of the total studies) underwent additional biopsies, 24 cases of cancer were identified.

Read more at bit.ly/Find_Cancer.

> Deep learning machines might read preliminary reports, but they won't be reading by themselves in the United States. Radiologists will still judge, explain, quality check, counsel, teach, and discover in images.
>
> **– Eliot Siegel, MD, vice chair of imaging informatics at the University of Maryland School of Medicine, at** *bit.ly/Look_Ahead*

Imaging-Aiding Devices Hit With Ransomware

A medical device used to help deliver a contrast agent that improves the quality of MRI scans was infected with a type of malware at an un-named U.S. hospital, according to a source who alerted *Forbes* to the cyberattack. A Bayer Medrad device, also known as a "power injector," represents the first known instance of a medical device being infected by ransomware, the *Forbes* article says. The Health Information Trust Alliance, a private company that provides a cyber threat exchange platform for the health care industry, said it had reports of Bayer and Siemens equipment being affected by cyber attacks, the article said.

Read more at bit.ly/Device_Virus.

Shedding Light on Small Tumors

A significant number of small tumors detected during routine mammograms are not necessarily in the early stages of growth, destined to become larger, life-threating tumors. Authors in a special report of the *New England Journal of Medicine* involving thousands of breast cancer cases concluded that many small tumors are not small because they were detected early — rather they are just biologically prone to slow growth. The study found that about 22 percent of tumors detected by mammography are "the very slow growing kind."

Breast imagers warn, however, that this should not be interpreted as a reason to avoid or postpone a mammogram. "There has been general confusion created in both medical and lay press about mammography," says Debra Monticciolo, MD, FACR, professor of radiology at Texas A&M University Health Sciences Center and section chief of breast imaging at Scott & White Medical Center's department of radiology. "It's unfortunate that patients have been given different signals because the truth is that mammography is responsible for a significant reduction in breast cancer mortality — about a 40-percent reduction."

Read more at bit.ly/Small_Tumors.

Medicare Imaging Reimbursement Prone to Raising Flags

A disproportionate number of cuts have affected reimbursement for diagnostic radiology services, according to a study published in the *JACR*. And rising imaging utilization coupled with how federal policymakers evaluate relative value units are largely to blame.

The individualized nature of radiology coding makes it particularly susceptible to scrutiny, according to Andrew Rosenkrantz, MD, lead author and associate professor of radiology at New York University School of Medicine, and colleagues. "Disproportionate payment reductions to radiology could stifle investment in technologies that could improve patient experience and outcomes at the same time that new payment models are placing a premium on these metrics," wrote Rosenkrantz, et al. "Policymakers should consider new approaches… to address perceived physician overpayments or to enable higher payment to certain specialties, such as primary care."

Read more at bit.ly/Codes_Cuts.

Follow-Up Mammography Needed for Asian Women

Certain ethnic subgroups of Asian women have the longest follow-up times of all women in the United States, according to researchers from several University of California schools. Researchers analyzed demographic data from the San Francisco Mammography Registry and also found that Asian women, in general, experience delays in mammography follow-up.

The research was published in *Cancer*. The authors note, "Certain cultural barriers may contribute to the lengthy time to follow-up… [where] norms regarding modesty and embarrassment have been known to reduce screening utilization in these groups."

Read more at bit.ly/Asian_FollowUp.

Analysis of CT Images Predicts Mortality Rate

Computer-driven image analysis of routine cross-sectional CT imaging may be used to predict patient longevity relative to overall health and risk for disease, according to Nature.com's Scientific Reports. The article, "Precision Radiology: Predicting Longevity Using Feature Engineering and Deep Learning Methods in a Radiomics Framework," talks about "new avenues for the application of artificial intelligence technology in medical image analysis" and how that could "offer new hope for the early detection of serious illness, requiring specific medical interventions."

The five-year mortality prediction accuracy rate was nearly 70 percent, the article noted. The analysis technique is a move toward an "effective and efficient testing methodology that can accurately measure the widespread tissue changes predictive of chronic diseases and could quantify preclinical disease, inform treatment choices, and guide research cohort selection."

Read more at bit.ly/Mortality_Predict.

Keep ACR Working for You. Renew Today!

The ACR — which is member-run and member-driven — relies on you and your colleagues to advocate at federal, state, and local levels. The College depends on you to direct and contribute to clinical research, set standards of quality patient care, and ensure that coding and reporting practices are consistent across the healthcare universe. It is with you and because of you that ACR is successful in advocating for positive legislation on your behalf, helping you to improve your acumen, and protecting your bottom line while elevating your standard of care. Help your colleagues and fellow members continue their success by renewing today at acr.org/renew. And, if you haven't already, you may want to take a moment to sign up for auto-renew by calling 800-347-7748.

Here's What You Missed

The *Bulletin* website is home to a wealth of content not featured in print. Check out blog posts, extra articles, and multimedia content at acrbulletin.org.

How Mentoring Can Benefit the Specialty

Although women make up nearly half of all medical students, they represent a significantly smaller proportion of radiologists — just 21.4 percent. Read more at bit.ly/Mentor_Benefit.

Meet the Moreton Lecturer

Jeffrey C. Bauer, PhD, offers his take on the future of health care via his address, "Forecasting Futures of Radiology at the Crossroads: It's All Downhill from Here on Up." Read more at bit.ly/Bauer_Lecture.

Deep Learning, Clinical Data Science, and Radiology

What should radiologists think about machines that think? Read how radiologists can adapt in research and in practice to a host of machine learning tools and technology at bit.ly/Deep_Data.

Ace Your Interviews

There's no shortage of advice online about preparing for an interview. Get specialty-specific tips from a radiologist on the other side of the interviewer's desk at bit.ly/Job_Tips.

> If we're saying we're physicians who are involved in the care of patients, we ought to take over the care… instead of relying on the referring physician to get the patient back in.
>
> **– David Levin, MD, chair emeritus of the department of radiology at Thomas Jefferson University Hospital, at** *bit.ly/Integral_Rad*

By Ezequiel Silva III, MD, FACR, Chair

Economics Goes Local

Thanks to MACRA, some changes to the way we practice are originating at the regional level before rolling out nationwide.

The Medicare Access & CHIP Reauthorization Act (MACRA) is often described as a shift in payment policy from volume to value. MACRA could also be described as a shift from national to local. Compare the traditional Medicare Physician Fee Schedule (MPFS) to the new payment systems under MACRA. The MPFS has applied one national fee schedule for decades, with payment amounts determined through recommendations by a central AMA committee called the Resources-Based Relative Value Scale Update Committee and then finalized by CMS. MACRA's payments are more local. Granted, the general rules and regulations of MACRA will be determined nationally, but implementation strategies will vary across local practices. And local experiences and successes will inform national policy.

This circumstance is important to the ACR Commission on Economics. We must enable strong bidirectional communication between national policymakers and local organizations, such as health care systems, institutions, and even ACR state chapters. In this column, I discuss examples of this national-to-local policy shift.

The more common payment pathway for radiologists in the early years of MACRA is the Merit-Based Incentive Payment System (MIPS). The MIPS performance category of Improvement Activities (IAs) illustrates the importance of local experience and bidirectional communication. CMS has provided approximately 90 different qualifying IAs, but the descriptions are general. As such, the manner through which these activities are applied will vary among practices. CMS is soliciting new IAs from the public. The ACR will propose IAs that make sense for our profession, but we are also looking for new activities that have resulted in local practice improvement. The ACR Commission on Economics is in a good position to communicate IA guidance to our members but also to share meaningful local strategies to national policymakers for potential countrywide adoption.

The second payment pathway, which will take longer to mature but could have more lasting impact, is Alternative Payment Models (APMs). Two bodies are actively evaluating new payment models: the CMS Innovation Center and the Physician-Focused Payment Model Technical Advisory Committee (PTAC). Both rely on local experiences to inform their new models.

The goal of the Innovation Center is to test payment and delivery models that result in lower costs and/or improved quality. The impact of the Innovation Center has been far-reaching. CMS estimates that 207,000 health care providers are participating in Innovation Center models and in initiatives serving over 18 million patients.[1] This means that many individuals reading this column provide radiology services at a participating facility. Successful institutions will employ strategies to succeed within their model, and the innovation center is relying on these local data to determine which models will be expanded nationally. The ACR can serve as a conduit for communication between national policymakers and local entities. The College can also help share successful strategies and best practices.

The PTAC evaluates stakeholder proposals and provides comments and recommendations to CMS. As of June 2017, the PTAC had reviewed and submitted comments regarding three proposals. Only one of the proposals originated from a large national medical society. The two others came from smaller regional provider groups. For example, Project Sonar, which relates to treatment of inflammatory bowel disease, was led by the Illinois Gastroenterology Group, which employs about 50 physicians. The PTAC recommended Project Sonar for only limited-scale testing. In other words, this model originated from a local domain and will be tested locally. Like the Innovation Center, only locally successful models will be translated nationally. In the future, the ACR may submit a model to the PTAC. But, in the meantime, it is conceivable that a radiology-specific model could be presented by a more local organization. This creates an opportunity for collaboration between the ACR and such local organizations.

The ACR has had a strong presence influencing national policy. The MPFS is an example. But MACRA is prompting an evolution to more locally directed initiatives, creating a twofold responsibility for the Commission on Economics. We must not only inform our members on MACRA-related policy but also learn from local experience and communicate those that are successful to other radiology professionals and national policymakers. Bidirectional communication will be important to improving radiology patient care. B

ENDNOTE

1. Centers for Medicare & Medicaid Services, Centers for Medicare and Medicaid Innovation. Report to Congress. December 2016. Available at innovation.cms.gov/Files/reports/rtc-2016.pdf. Accessed June 14, 2017.

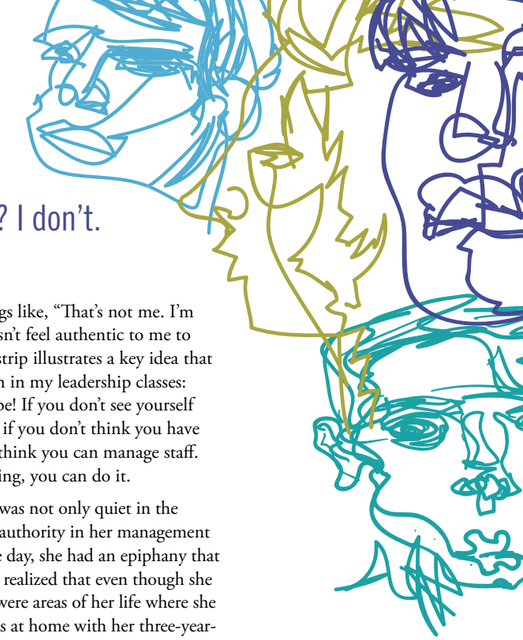
EMBRACING DIVERSITY

What does it mean to commit to diversity? We've long known that radiology is one of the least-diverse specialties, lagging behind much of medicine when it comes to participation by women and under represented minorities. But knowing this is not the same as doing something about it. Now is the time to move past awareness and take steps to conquer our biases as well as attract and welcome a more diverse set of physicians into our specialty.

As chair of the ACR Commission for Women and Diversity, I've realized that part of the solution lies in acknowledging our biases and learning to "walk boldly toward them" as activist Vernā Myers puts it. The ACR and the Commission are committed to policies and programs that address the shortage of women and underrepresented minorities in the radiological profession.

We want to attract, train, and support radiology professionals who are responsive to the needs of each other and to the needs of our diverse patients. We should invest in education and mentoring. We need to encourage and support leaders who embrace diversity as a source of excellence and strength, and who recognize that diverse teams are more creative and productive. We will only move the needle on creating the specialty our patients deserve if we are willing to walk boldly toward the barriers that hold us back. B

By Katarzyna J. Macura, MD, PhD, FACR



LEADING IMAGE

So what if you don't fit the mold of a stereotypical leader? I don't.

When we picture the proverbial leader, most of the archetypes we go to have a couple of things in common. They're often white, they're usually male, and pretty much none of them look like me. But I'm out here teaching, running businesses, and — yes — leading.

In my experience, success comes from doing the best job you can while simultaneously recognizing the biases that exist. Once you know the challenges you're up against, you can set a strategy to take them on. And I've found that the challenges can be surpassed, but you have to recognize that there may be barriers.

The adage that women and minorities have to be twice as good to get half as far unfortunately holds some truth. Multiple studies have confirmed that women and minorities are evaluated more harshly because of their gender or race. Recent examples include resumes with names perceived as belonging to African-Americans receiving fewer callbacks for interviews[1] and female professors being rated lower than male counterparts (even in online courses in which two groups of students are told differing genders for the same professor).[2] The net result is that women and minorities face implicit biases that require them to always work harder than their white male counterparts to receive the same or better leadership opportunities.

One of the most common reservations I hear from women and minorities is, "I read management advice, and I just can't see myself saying that or doing that." The idea that you can't be this or that needs to be re-examined — or just thrown out. This erroneous belief that you cannot act a certain way when the situation calls for it is beautifully illustrated by a famous Far Side® comic strip.

In the first panel of the comic, a group of cows stand in a pasture. But instead of standing on four legs, they are all upright on two legs in a circle, clearly having a conversation. One of the cows acts as a lookout and yells to the others, "Car!" In the next frame, a car full of people drive by and the cows are now on four legs, grazing in the pasture like typical cows. In the final frame, the car has passed and the cows are back upright on two legs chatting away.

The lesson here is when the cows are put in the position of having to act in a certain way — in this case, when they need to present the expected behavior of a farm animal — they do it. They know what to do and, even though it may not be something they are comfortable doing, they do it when they need to.

I often hear people say things like, "That's not me. I'm not an assertive person. It doesn't feel authentic to me to behave that way." This comic strip illustrates a key idea that I have lived by and that I teach in my leadership classes: You can be what you need to be! If you don't see yourself as a naturally assertive person, if you don't think you have a strong voice, or if you don't think you can manage staff. When you need to do something, you can do it.

I had a female student who was not only quiet in the classroom, but felt she had no authority in her management consulting job. In my class one day, she had an epiphany that mirrored the cow cartoon. She realized that even though she wasn't assertive at work, there were areas of her life where she was assertive, like when she was at home with her three-year-old daughter. She decided then and there to assume that same stance in the workplace. For her, that's when the switch flipped, and she began to find her assertive voice at work.

The adage that women and minorities have to be twice as good to get half as far unfortunately holds some truth.

You can do the same. You can teach yourself to flip a switch. You'll often hear people say, "Oh that's not me." I always go back to them and say, "That can be you." Chances are, there are times where it is you, when you have no problem acting that way. Maybe you have a take-charge attitude with your family or in another area of your personal life. You can easily channel that side of your personality at work so that it becomes natural and you feel authentic when acting as a leader.

At first you might not feel comfortable behaving like a leader, but it may be the best thing you ever do professionally. Sometimes you have to act like the cow when the car comes by. B

By Lakshmi Balachandra, MBA, PhD, assistant professor of entrepreneurship at Babson College and Radiology Leadership Institute® faculty

ENDNOTES

1. Bertrand M, Mullainathan S. Are Emily and Greg more employable than Lakisha and Jamal? A field experiment on labor market discrimination. *American Economic Review*, 2004;94(10), 991–1013. Available at nber.org/papers/w9873.
2. Boring A, Ottoboni K, Stark P. Student evaluations of teaching (mostly) do not measure teaching effectiveness. *Science Open Research*. January 7, 2016. Available at bit.ly/2soKMeG. Accessed June 13, 2017.

Hear More

Check out a Radiology Leadership Institute® podcast with Amy K. Patel, MD, who shares her experiences as the first female chief resident in her program. To listen visit **radiologyleaders.org/podcast**.

IN GOOD CONSCIENCE

Everyone is guilty of unconscious bias. How can you disrupt the pattern?

In the late 20th century, orchestras had a gender problem. More specifically, in 1979 the top five orchestras in the U.S were made up of fewer than five percent women. But as time went on, female participation rose to 10 percent in the 1980s and then 25 percent in 1997.

What changed between 1979 and 1997? Orchestra leaders realized that they had fallen victim to unconscious bias, and they took steps to correct it. Beginning in the 1970s, candidates would audition behind a screen so that juries could not see them. Sometimes juries would even urge performers to remove their shoes to hide the telltale sound of high heels clicking against the floor.[1,2] These blind auditions not only increased the number of women auditioning, but also led to a jump in the number of women who were hired.

"Unconscious bias, also known as implicit bias, is a bias individuals are not actively cognizant of," says Amy K. Patel, MD, member of the ACR Commission for Women and Diversity and radiologist at Beth Israel Deaconess Medical Center in Boston. "Unconscious bias affects our decision-making and perceptions." Unconscious bias can affect anyone, from orchestra leaders to radiologists and other medical specialties.

Johnson B. Lightfoote, MD, FACR, chair of the ACR Committee for Diversity and Inclusion, provides another example: "Say you have a female African-American radiologist who has braids or dreads, and she's youngish. She may run into an administrator who asks her, 'How do you enjoy being a CT tech here?' when in fact she's chair of the department. Although the administrator meant no harm, he could have interpreted the radiologist as a technologist because of his own unconscious bias."

Unconscious bias can also extend to the physician-patient relationship. Lightfoote describes patients who have asked female physicians when the doctor would arrive. And unconscious biases that physicians hold against patients can lead to critical health care disparities, says Patel. Studies have noted that physicians more frequently mistreat pain management in both racial minorities and women — which can lead to devastating results on the patient's part.[3,4]

Although these examples illustrate why unconscious bias can be a problem, the effects can go even further, says Lightfoote. "There's often the potential for loss of talent," he says. "We may unintentionally prejudge a female as not being as competent as most or many males." He adds that, in addition, teams may lose perspective on situations. If you're discounting a new perspective because of race, gender, or other attributes, you will lose a whole side of the conversation.

And behavior like that can further lead to a loss in morale. Lightfoote says, "If a person's opinion is consistently discounted, they may feel less inclined to contribute." Patel agrees: "You need to acknowledge unconscious bias as an issue in order to continue building mutual respect among colleagues. If someone is being discounted, that respect isn't there."

What can you do about unconscious bias? Start by recognizing it in yourself, which is not such an easy task. "The key is to hold yourself accountable. Do a daily self-check of any situations where you may have demonstrated bias and determine what you could have done differently the next time to ensure you don't perpetuate the pattern," suggests Patel. She notes it's important to remember that unconscious bias occurs in everyone, male and female. "There are stereotypes about every gender, race, and class. And even though you may be a minority, there are still biases you may hold about other individuals," she points out.

Peter Kalina, MD, FACR, member of the ACR Commission for Women and Diversity and radiologist and head of the diversity initiative at the Mayo Clinic in Rochester, Minn., also recommends teaching colleagues about unconscious bias using real-world examples — things that you have actually seen or overheard. Otherwise, he says, "The response tends to be 'That would never happen here' or 'We don't speak to each other like that.'"

Both Patel and Kalina agree that one way to combat unconscious bias is to hold other colleagues accountable and have them hold you accountable. "It can be as simple as having someone ask you about the situation or call you out if they observe you displaying such behavior," says Patel. Adds Kalina, "Calling someone out shouldn't be combative either. Remember that the behavior is likely unintentional. You can say something as simple as, 'Ouch. You know, that really hurts.' You can also say, 'I don't think you meant to say that.'"

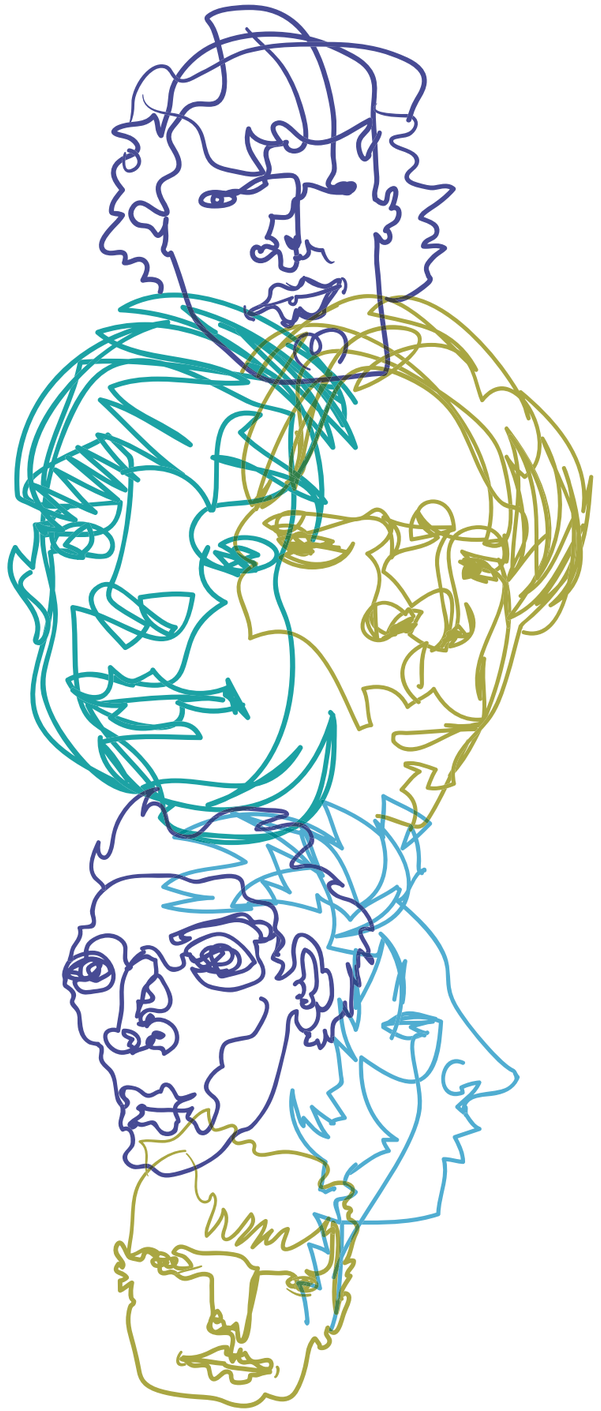
Amy L. Kotsenas, MD, president of the Minnesota Radiological Society and member of the ACR Council Steering Committee, recommends taking active steps during the hiring process to address unconscious bias. "Review the various aspects of your hiring process. Is the wording in the job description friendly? Is the selection committee diverse?" she says. "These can both affect who applies to the job and who proceeds to the next step. Another action to take is to consider screening the resumes that come through. Have someone remove the names and other details that might reveal the applicant's race or gender so that it's not even an issue when it comes before the selection committee."

Ultimately, Patel says that while it's important to recognize and be knowledgeable about unconscious bias, the best way to combat it is to do something. "Acknowledgement is certainly a start, but we must also hold ourselves accountable and devise solutions that can cause meaningful change," she says. "This is not easy and will take years of recalibrating the way we perceive others, how we make decisions, and more. However, it is necessary if we are to make any kind of progress." B

By Meghan Edwards, freelance writer for ACR Press

ENDNOTES

1. Rice C. How blind auditions help orchestras to eliminate gender bias. *The Guardian*. October 2013. Available at bit.ly/2pQ7yuY. Accessed May 18, 2017.
2. Goldin C, Rouse C. Orchestrating impartiality: the impact of "blind" auditions on female musicians. Harvard Kennedy School Gender Action Portal. 2000. Available at bit.ly/2qw0J0p. Accessed May 18, 2017.
3. Hoffman KM, Trawalter S, Axt JR, Oliver MN., et al. Racial bias in pain assessment and treatment recommendations, and false beliefs about biological differences between blacks and whites. *PNAS*. 2016;113(16): 4296–4301. Available at bit.ly/2rvMSWd. Accessed May 18, 2017.
4. Hoffmann DE, Tarzian AJ. The girl who cried pain: a bias against women in the treatment of pain. *J Law Med Ethics*. 2001;29(1):13–27. Available at bit.ly/2rw375K. Accessed May 18, 2017.



THE CULTURE OF RADIOLOGY

Does your reading room look like your waiting room?

There's a lot of talk about what the future of radiology will look like. Usually that discussion revolves around the role technology will play as machine learning and artificial intelligence enter practice. But the diversity of a radiology practice, some say, may prove to be the best indicator of its ability to keep pace with the needs of a changing patient population.

"You can always say, 'I have been successful so far.' But how much more success might you enjoy if you had more diversity and different ways of thinking in your practice?" says Andrea Borondy Kitts, a patient advocate, *JACR* associate editor, and retired aerospace engineer. Diversity in the workforce includes age, race, ethnicity, gender, religious affiliation, sexual orientation, and disabilities. And when it's time to hire new staff, it may even apply to personality and thinking styles.

Many groups are underrepresented in radiology. For instance, while women represent nearly 51 percent of the U.S. population, they account for just over 20 percent of the country's radiology workforce.[1] The overall makeup of the nation's health care workforce, in fact, doesn't reflect the diversity of the population. While people of color make up more than one third of the U.S. population, they account for only about 10 percent of the health care workforce. Fewer than 10 percent of radiologists are people of color.[2] The National Academies of Sciences, Engineering, and Medicine notes that increasing diversity among health professionals is critical because it leads to improved access to care, greater patient choice and satisfaction, and a better educational experience for health professionals.[3]

Diverse Expectations

"There is an expectation on the part of consumers of all products and services that businesses will provide professionals and staff that at least reflect the range of diversity that exists in the geographical area in which the business operates," says Bettina Deynes, vice president of human resources and diversity and inclusion at the Society for Human Resource Management. "Medical practices are not in any way exempt from this expectation."

Many HR leaders agree that ensuring diversity in the workplace will dominate hiring trends in the next decade.[4] That's important because hiring managers must ensure that they're hiring the best candidates — not necessarily the ones who look or think the same as senior staff.

"If in a radiology practice, all of the senior staff are straight white men, it's going to be harder for women, younger radiologists, people of color, or members of the LGBTQ community to feel welcome as part of the practice," says Borondy Kitts. At the same time, radiologists must consider their patients' comfort zone. Studies have shown that many patients are more comfortable with doctors who they perceive to be more like themselves. Women, for instance, may feel more comfortable seeing female doctors.[5]

Studies show that shared race or ethnicity between patients and physicians enhances communication, patient satisfaction, compliance with medical recommendations, and overall health care outcomes.[6] When considering the broader health system, minority physicians are more likely to practice in underserved communities, which often include rural areas and communities made up of people of color. For example, African-American physicians are more likely to practice in areas with a high proportion of African-American residents. Likewise, Hispanic physicians tend to work in communities with twice the proportion of Hispanic residents when compared to their non-Hispanic colleagues. The contributions of physicians in these communities is expected to go a long way in meeting the pending health care needs of a growing, diverse society.[7]

Hiring Times

For those in charge of hiring the best and brightest new radiologists, the time is now to be mindful of diversity. Close to a quarter of practicing radiologists are approaching retirement age, and newly available jobs for radiologists increased by around 16 percent last year compared to 2015.[8] These shifts in the workforce present radiology practices with an opportunity to re-examine the makeup of their staff and adjust their hiring practices.

"Everyone has a tendency to hire people that most resemble themselves," Deynes says. "No one is suggesting that businesses hire people who are not the best qualified. But if you don't attract a pool of candidates that is reflective of the desired culture, then you've not fully explored your recruitment possibilities."

Increasing numbers of women and underrepresented minorities are already in the medical school pipeline — offering imminent opportunities for practices eager to foster a more diverse staff. Borondy Kitts points out, "If you hire people with different thinking and different experiences of the world, you are more likely to create a system of solutions." Hiring staff with different backgrounds for a radiology team, she suggests, could be helpful in building relationships across specialties. "You may be able to branch out into areas you've never touched upon," she says.

In contrast, the consequences of not considering diversity when hiring, Deynes says, could be severe. "Practices whose employee composition continues to reflect only the cultural characteristics of their founders or management will likely start to see an erosion of their customers," she warns. "Over time, they will be forced to adopt diversity in their workforce as a matter of survival."

Changing Perspectives

For radiologists who may not have a lot of face time with patients, it can be challenging to keep a critical eye on hiring within their practice. They may find it difficult to identify with the culturally specific needs of patients or the barriers patients may face when seeking care. Being mindful of achieving the goal of a more diverse workforce can become onerous when hiring managers think of diversity as an additional task instead of as a way to improve their business.[9]

Becoming more familiar with your client-patient base can make the task more manageable. "When recruiting employees at all levels, make a concerted effort to attract candidates from the culturally diverse pools that reflect the demographics of your patient population," says Deynes. "Then try to hire to complete the cultural profile that best reflects that community."

"If you continue hiring the way you have in the past, what kind of team are you going to have moving forward?" asks Borondy Kitts. A more diverse group of physicians can share cross-cultural life experiences, bridge language barriers, and sharpen interpersonal skills, she says. Diverse experiences foster providers' ability to deliver care that answers the social, cultural, and linguistic needs of their patients. This, in turn, can create a positive experience for patients during face-to-face interactions.

Employees with diverse backgrounds can bring fresh ideas to the table and challenge unexamined processes and ways of doing business. "Drawing upon wide-ranging backgrounds and experiences, members of our specialty may develop better solutions to the many issues and challenges facing radiologic practice and science," says James A. Brink, MD, FACR, chair of the ACR BOC. "Understanding and respecting the many features that make each person unique enables us to provide more effective and equitable care."

Considering Practices

Any business, including a medical practice, will face challenges in establishing and maintaining an organizational culture that reflects the communities it serves, says Deynes. But it's important to remember not to go at it alone. Radiologists need to look across specialties to see what other doctors are doing, says Borondy Kitts. "If radiologists aren't part of a multidisciplinary team, they aren't going to perform as well," says Borondy Kitts. "Having diversity across a team makes it possible to capitalize on different ways of thinking using different approaches for a common goal."

When hiring a new staff member, there may be situations in which there are only one or two underrepresented minorities in a practice. If they join a hiring committee, these staff members should not become the "representatives for diversity," caution researchers from University of California, Berkeley.[10] Everyone on staff should be cognizant and accountable for considering issues related to equity, inclusion, and diversity when tasked with hiring.

The ACR's Commission for Women and General Diversity has provided ways to promote inclusion and diversity within radiology practices. "Unique talents and diverse needs can be utilized to great advantage when it comes to working hours, working locations, fractional employment, specialty differentiation, and customer service," says the commission's Johnson B. Lightfoote, MD, FACR, medical director of radiology at Pomona Valley Hospital Medical Center in Calif. "Welcome, leverage, and creatively employ the diverse professional capacities of your team — and enjoy the resulting return to your bottom line." B

Chad Hudnall, ACR Press managing editor

ENDNOTES

1. Bluth E, Bansal S. The 2016 ACR Commission on Human Resources Workforce Survey. *J Am Coll Radiol.* 2016;13(10):1227–1232.
2. Hansen M. Racial and ethnic health disparities: workforce diversity. *NCSL*; August 2014. http://www.ncsl.org/documents/health/workforcediversity814.pdf.
3. National Academies of Sciences, Engineering, and Medicine. In the nation's compelling interest: ensuring diversity in the health care workforce. Available at bit.ly/Ensure_Diversity. Feb. 5, 2004.
4. Entelo Recruiting Trends Report reveals significant developments in recruitment marketing, diversity hiring and candidate engagement. HR.com, Aurora, Ontario. November 16, 2016. Available at bit.ly/Recruiting_Trends.
5. Edwards M. What Diversity Can Do for You. *ACR Bulletin*. 2015 ;70(5). Available at bit.ly/Having_Diversity.
6. Lightfoote JB, Fielding JR, Deville C, et al. Improving Diversity, Inclusion, and Representation in Radiology and Radiation Oncology Part 1: Why These Matter. *J Am Coll Radiol.* 2014 Jul;11(7):673–680.
7. Figueroa O. The significance of recruiting underrepresented minorities in medicine: an examination of the need for effective approaches used in admissions by higher education institutions. *Med Educ Online.* 2014;19(10). Available at bit.ly/Minority_Medicine.
8. Kaplan DA. Radiology Job Market Update: 2016. Diagnostic Imaging. Available at bit.ly/Rad_Demand.
9. Goldberg C; SHRM Enterprise Solutions. Recruiting and retaining a more diverse workforce. Available at bit.ly/Recruit_Retain.
10. Taing E. A toolkit for recruiting and hiring a more diverse workforce. University Health Services, University of California, Berkeley. April 2013.

Find more diversity topics and tips for hiring at **bit.ly/Diverse_Inclusion**.

Read "Diversity 3.0: Are We There Yet?" a report from Katarzyna J. Macura, MD, PhD, FACR, chair of the Commission for Women and General Diversity, at **bit.ly/Diversity_Report**.

Get more information on medical careers, education efforts, and diversity at **diversityMD.com**.

THE ECHO CHAMBER EFFECT

How to avoid insularity and seek diverse perspectives.

Imagine a small, enclosed space where a sound reverberates off the walls, repeating over and over again. This is an echo chamber — a literal space that's filled with lots of sound, but what we hear is the same. This term is also a figurative concept in which the same ideas bounce around, just like echoes, without being challenged or tested.

An echo chamber — whether at work or in one's personal life — suggests an insularity and a lack of diversity in thinking. It often leads to poor decisions. When we only have one perspective, we don't have the opportunity to explore other perspectives and options. It's this exploration that enriches us and makes us confident in our decisions — whether they are as important as patient care or voting in an election or as simple as where to go on vacation. Echo chambers obscure the full spectrum of thoughts and, in doing so, leave us with blinders on.

Recognize the Signs

Echo chambers take many forms. You've likely experienced one if you are on social media. We think of social media as leveling the playing field, because we can connect with anyone. But who do you actually follow? It's probably mostly people with your same sense of humor or the same belief system. When I visit Twitter or Facebook to think about a topic like health care reform, my followers may already agree with me, echoing my outrage or enthusiasm at the daily news.

Do the decision makers have similar beliefs because of their ethnicity, race, gender, level of education, or upbringing? If so, that's a problem.

It's possible that you've also experienced an echo chamber at your hospital or within your department. Do the decision makers have similar beliefs because of their ethnicity, race, gender, level of education, or upbringing? If so, that's a problem — because the way they approach problems will be similar, but may not always be the best way.

I was at a meeting recently where we were trying to assemble patients with disabilities to measure their social needs. What is the process for accommodating a patient in a wheelchair who needs a mammogram? Does the machine go low enough? How far does the patient have to lean over? How much range of motion does the woman have to have? Does she need to support her entire body weight on her arms?

When the people discussing questions like these are homogeneous, it is frequently problematic. If we hire more diverse staff, we might have someone who is disabled or who has a disabled loved one and can provide more acute insight into how to provide the best care possible for vulnerable populations.

Take Action

Challenging an echo chamber is not always easy. It takes a concerted effort and it can be uncomfortable. Sometimes it might even be confrontational, depending on why you're in need of more opinions and perspectives. But it doesn't diminish the importance of the act. Here are a few ways to get started:

Check your bias at the door. Understand what limited experience you bring to a situation — especially when it comes to where you tend to get your information. Think about seeking input from someone new. You don't necessarily have to trust that advice right away, but just try to seek it out and consider why you haven't approached them before. Is it because you bring an implicit bias? Is it because you just haven't had the opportunity? Is it because you've been burned in the past?

Challenge others in small ways. When you see groupthink or groupspeak behaviors, come in from a position of knowledge and awareness to help advance the debate. You might even play devil's advocate. Position the discussion as a thoughtful exercise to get the group to engage.

Speak up to leaders or allies. Some large practices or hospitals have channels where you can bring concerns up your chain of command. Mention anything suspicious, like a recurring problem that may signify that a particular group isn't being heard — for example, female hires keep quitting, or few African-Americans apply to your practice. Encourage leaders to speak last in meetings, so the group doesn't automatically agree with their initial statements.

Connect with allies. If your immediate supervisor is not receptive, there are ways to tactfully probe for other more supportive individuals. Organize an optional meeting of physicians, nurses, and other staff about echo chambers and diversity, creating a safe space to discuss if a problem exists. Get together to brainstorm ways that you might propose small culture changes to leadership.

Remember: disagreement is healthy. When tackling echo chambers, remember to expect some pushback and conflict. It's not the idea you're disagreeing about that's toxic; it's how you disagree about it. It's important to seek an opposing opinion. When there is consistent unanimity over matters, no matter how large or trivial, then we risk sacrificing our goal: providing the best possible care. B

By Ruth Carlos, MD, FACR, *JACR* Deputy Editor

A Puzzling Pay Gap

A **$64,000** earnings difference between male and female radiologists who work full-time. [1]

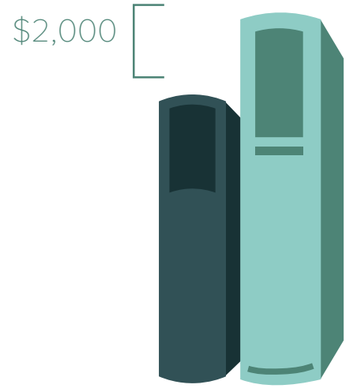
Women earn **$344k**

Men earn **$408k**

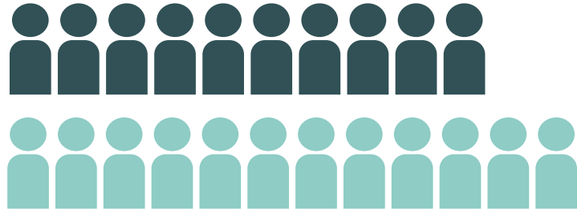
Gender Pay in Academics

Findings from a *JAMA Internal Medicine* study of physician salaries revealed that significant differences exist for salaries of men and women, even after accounting for age, experience, specialty, faculty rank, and productivity. [2]

Physicians



Radiologists



In academic radiology, the adjusted average salary for female radiologists exceeded that of male radiologists by about **$2,000**.

Endnotes:
1. Grisham S. Medscape Radiologist Compensation Report 2017. Medscape.2017;e1–34. Available at bit.ly/2vflzmJ. Accessed July 3, 2017.
2. Jena AB, Olenski AR, Blumenthal DM. Sex Differences in Physician Salary in US Public Medical Schools. *JAMA Intern Med*. 2016;176(9):1294–1304.

Imaging 3.0 Case Study: Redesigning Care

A decade ago, retired Army Col. Jim Stapleton underwent a State Department physical that revealed a lump in his throat. He would not be going to Iraq for contract employment as planned, but instead would be fighting an unexpected foe at the Emory University School of Medicine's Winship Cancer Institute in Atlanta: head and neck cancer.

Visualization of the head and neck (H&N) region is a complex and challenging area for imaging, according to Patricia A. Hudgins, MD, FACR, director of H&N radiology at Winship Cancer Institute. "The lesions are small, the anatomy is difficult to navigate, and everything is in close proximity to the brain. The risks are huge."

Given the gravity, Stapleton wanted to learn about his squamous cell carcinoma from the person who could best see it — the radiologist. "Initially, my doctor talked to the radiologist and then relayed the information to me, but I wanted to talk to the radiologist directly," he says. "I wanted to ask 'What's that?' on the images."

Patient Understanding

Providing patients with an opportunity to interact directly with radiologists is exactly what Ashley H. Aiken, MD, associate professor in the neuroradiology division of Emory's Department of Radiology and Imaging Sciences, had in mind when she envisioned an environment that would allow radiologists to take a more active, consultative role in the treatment of H&N cancer patients. To turn that vision into reality, Emory embarked on an initiative to add a patient consultation program right in the ENT clinic.

For years, radiologists and ENT surgeons at Emory had collaborated closely, including at tumor board meetings, laying the foundation for a strong relationship between the specialties. Radiologists were key team members who helped establish the algorithms for standardized patient care.

"When creating a patient consult program, we started by building relationships with referring doctors, and standardized protocols for interpreting and dictating images so all of the H&N radiologists read the same way," explains Hudgins, who first began working in the ENT clinical space in 2010 in an integrated reading room. Radiology was able to integrate their reading space during an ENT clinic move and redesign, which enabled Hudgins and Aiken to advocate for an open, centralized location for image review workstations.

Today, neuroradiologists work side-by-side with ENT surgeons and health care providers, such as speech and hearing specialists. They share the clinical space, including five workstations for face-to-face treatment meetings with ENT surgeons, radiation oncologists, and medical oncologists.

Face-to-Face

In March of 2016, radiologists also decided to add direct-to-patient communication to the care pathway by utilizing the ENT patient exam room space adjacent to the clinic reading room. To create the patient consult program, the Emory team realized they needed to get a patient's perspective to ensure they were delivering true patient-centered care.

Stapleton, who had been treated at the H&N clinic in 2007 and developed close relationships with his ENT physicians and radiologists, had volunteered to serve as radiology department liaison for a patient and family advisory board. Aiken then invited him to serve on a patient advocacy panel that focused on patient perceptions of the radiologist's role. He also offered his unique perspective about the ideal way to communicate with patients during their consultations.

As a result, the team quickly determined that one of the most important aspects of that direct interaction was helping patients understand the role of radiologists. "When we first began consulting with patients, they didn't originally think of radiologists as their doctors," explains Aiken. "To overcome that perception, we start by introducing ourselves and saying, 'We are your head and neck radiologists. We look at all of your scans before and after treatment to ensure that there are no deep abnormalities that your ENT surgeon cannot see.' You can instantly see it makes patients feel better."

Stapleton agrees. "There's something powerful about meeting with an expert who's interpreting the images of your anatomy," he says. "I could point to the image on the screen and directly ask the neuroradiologist my questions and get immediate answers."

Aiken says a direct, communicative approach to engaging patients will change the way radiologists — and all physicians — practice medicine in the future. To begin driving toward that future, Emory Healthcare has committed to learning from the patient experience, enlisting the help of former patients like Stapleton as patient advocates, to advise clinicians (including radiologists) on the best way to talk to patients about their care.

Program Design

Before launching the ENT clinic, Emory radiologists worked with a multidisciplinary group of surgeons, radiation oncologists, and medical oncologists to create a template that reflected a consensus for next steps in managing patients undergoing surveillance for H&N cancer. In 2016, their Neck Imaging Reporting and Data System (NI-RADS)[1] was published to standardize templates for image reading and dictation. This helped quantify "big picture" recurrence and management concerns for radiologists to successfully engage — both with surgeons and in direct patient consultation, Hudgins explains.

Mihir R. Patel, MD, assistant professor of otolaryngology at Emory, helped radiologists identify which patients would be ideal for the direct patient consultation program: those being treated for H&N cancer and under surveillance with contrast-enhanced CT (CECT), or CECT combined with PET, with the case reported via the NI-RADS template. Due to regular communication regarding treatment images, radiologists have always been a part of the ENT clinic to some degree, Patel explains, so having them consult directly with patients was a "natural step."

Here's the collaborative process the Emory team designed to ensure a seamless patient consultation:

- After an H&N cancer patient has undergone definitive treatment (either surgery, chemotherapy, radiotherapy, or a combination of these), he or she typically undergoes CECT combined with PET/CECT.
- The surgeon or nurse practitioner lets the radiologist in the clinic know when there is a patient who might benefit from a consultation.
- If needed, the radiologist spends a few minutes reviewing the images and discussing the plan with the surgeon. It is critical that the whole team knows the treatment plan to avoid sending a mixed message to the patient.
- The surgeon lets the patient know that a radiologist will be entering the consultation room to review the images and explain the findings.
- After joining the patient in the consultation room, the radiologist briefly explains his or her role in the patient's care, reviews the images on a virtual desktop PACS, and gives the patient an opportunity to ask questions about anatomy, findings, and post-treatment changes – all in five to 10 minutes.

Implementation Challenges

Is creating a patient consultation program in the ENT clinic as easy as it might sound? Not necessarily, says Richard Duszak, MD, FACR, professor and vice chair for health policy and practice in the Emory University Department of Radiology and Imaging Sciences, who advised the team on the practical implementation of patient consultations and the operational scope of the pilot program. "The concept of radiologists communicating results directly to patients is often considered foreign in radiology, with the exception of breast imagers and interventional radiologists," he says. "Patients are increasingly asking us to do something that many of us haven't been formally trained to do. Without support, infrastructure, and education, a concept like this could be doomed to fail."

Fortunately, the Emory team was able to overcome these obstacles, largely by leveraging Hudgins' and Aiken's roles as onsite champions. Over the years, and enhanced by their onsite presence, Hudgins and Aiken had developed strong working relationships with both their referring physicians and their office staff members. Although Emory's achievements were the result of a team effort that included active engagement of administrative and faculty leadership, clinical champions were vital for success.

"ENT providers feared that we would add work to their already busy schedules, but that wasn't the case at all," Aiken explains. In fact, Patel emphasized that with radiologist-patient interaction, he actually has more time available for other work.

"Having our neuroradiology team review the details of a surveillance scan helps patients who are feeling anxious about the progress of their disease. This helps us tremendously because I can spend more time with other newly diagnosed patients discussing prognosis and treatment," Patel adds.

Radiologists were also worried about adding to their already full workloads, but Hudgins reports that after reading 35 to 50 H&N scans daily, her staff has become quite efficient with interpretation. As a result, the radiologists are able to work smarter and connect more intimately with patients. Fulfilling this niche with both speed and precision offers practices a huge opportunity to grow and market themselves as care providers, Hudgins notes. At Emory, the days of a faceless, nameless radiologist are long gone, she says. She also notes that radiologists' morale has greatly improved as their role on the care team has deepened. "What we do matters," she stresses. B

By Kerri Reeves, Imaging 3.0 freelance writer

ENDNOTE

1. Aiken AH, Farley A, Baugnon K, et al. Implementation of a novel surveillance template for head and neck cancer: Neck Imaging Reporting and Data System (NI-RADS). *JACR* 2016; 13(6):743–746

Understanding MACRA and Informatics

A quick-start guide to leveraging today's technology to survive and thrive in the value-based future

When it comes to leveraging innovative technology, radiology has always been a leader in medicine. But the advent of Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) has changed the reimbursement landscape, and radiology must adjust its approach.

Due to the challenges of implementing certified EHR technology (CEHRT), radiology received an exemption from MACRA's preliminary meaningful use requirement and has (thus far) avoided negative payment adjustments. That "free pass" has allowed most radiologists to ignore CEHRT in the hope it would go away.

Foreshadowing CEHRT

The MACRA statute and subsequent regulations include numerous references to the use of CEHRT — foreshadowing its importance to CMS quality programs going forward. "Most likely, radiologists will not receive the CEHRT exemption indefinitely," says Ezequiel Silva III, MD, FACR, a radiologist in San Antonio, Texas, and chair of the ACR Commission on Economics. "It is imperative for us to use this window of time to explore and expand our use of CEHRT. We need to dig into it and make sure we're ready."

So, when will the radiology exemption run out? No one knows for sure. "It could end as early as the 2019 reporting period, which means we would start to see negative adjustments in 2021," says Silva. "CMS still has to craft the regulations. If there are measures being created for this scoring system, we want them to be meaningful and worthwhile for radiologists. We have to influence that public policy. The time is now!"

Informatics Under MIPS and APMs

In a recent article in the *JACR*, the authors noted, "By not previously integrating CEHRT into our daily workflow, radiology is now at a disadvantage in the two payment pathways of MACRA: the Merit-based Incentive Payment System (MIPS) and advanced alternative payment models (APMs). Specifically, not integrating CEHRT hampers radiologists' ability to receive bonus points in the quality performance category of the MIPS and, in parallel, threatens certain threshold requirements for advanced APMs under the new Quality Payment Program (QPP)."[1]

In MIPS, Nicola says it's clear that the centerpiece of the program is CEHRT. "If you read the legislation, you will find significant emphasis on informatics in all four MIPS performance categories," he explains. "In fact, three of the four MIPS performance categories — quality, advancing care information, and improvement activities — specifically have CEHRT as a primary driver for data capture and collection. As we get more sophisticated at measuring cost, CEHRT will play a central role there, as well."

On the APM side, one of the most robust models is the advanced APM, where clinicians are eligible for highly favorable reimbursement deals, including exemption from MIPS reporting. One of the three base requirements for an advanced APM is the use of CEHRT by at least 50 percent of qualified participants. According to Nicola, "Simply put, CEHRT is a hub for participating in advanced APMs and must be part of our profession's strategic plan to thrive in this framework."

Financial Incentive and Better Care

Whether you're participating in a QPP under MIPS or an APM, Silva and Nicola agree that leveraging informatics like CEHRT will help you meet requirements, increase scores, and receive better financial incentives. Says Silva, "CEHRT is not just a protection against future risk. It is an actual opportunity for financial advantage today." Adds Nicola, "CEHRT helps us improve patient care and the overall quality radiology provides."

A Multi-Pronged Approach

Adopting and expanding CEHRT will require collaboration among radiologists, radiology IT experts, the vendor community, and policymakers. With the informatics providers, Silva says, "Most of us in radiology didn't embrace meaningful use, because it wasn't required." "Since the vendors didn't have demand for certified PACS, there was little financial incentive to pursue CEHRT status."

The problem: When the exemption expires and penalties kick in, demand rises — but there's no viable product to meet the need. So, vendors might rush a solution to market. "To avoid that downstream circumstance, radiology stakeholders should instead partner with technology vendors now so that we can begin the process of incorporating proven CEHRT into our daily workflow," says Nicola.

Silva agrees, "Make your voice heard now, so that the radiology community can influence the tools and the measures to ensure the end product is what we want. Either we do it, or we trust in someone else to do it for us."

Continued on page 21

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 http://jobs.acr.org or e-mail careercenter@acr.org.

North Carolina – Blue Ridge HealthCare Radiology in Morganton, N.C. is seeking a board-certified radiologist to join an established group of eight, working at Carolinas HealthCare System Blue Ridge. The group covers multiple locations in and around Morganton.
Contact: To apply or for more information, please email CVs or contact Autumn Fincher at afincher@blueridgehealth.org or 828-580-5693.

Massachusetts – Cambridge Health Alliance is seeking a full-time BE/BC radiologist to join a department of 12. Seeking a general radiologist with MRI, CT, ultrasound, 3D mammography, DR, bone densitometry, nuclear medicine, and fluoroscopy. Integrated PACS, Epic, Meditech, Nuance. No PM call. Position has Harvard Medical School teaching opportunity. CHA is an EEO.
Contact: To apply, please email resumes to lanastasia@challiance.org or contact 617-665-3555. More information at challiance.org.

California – RadNet Management, Inc. has general radiologist opportunities available at our well-established and rapidly expanding multi-modality outpatient practices in Hanford, Bakersfield, Victorville, Riverside County, and San Gabriel Valley/San Fernando Valley. You will interpret MRI, CT, plain films, ultrasound, and fluoroscopy cases. In addition, you'll perform light procedures and arthrograms.
Contact: To apply please email resumes to barbara.deboi@radnet.com.

Missouri – Mallinckrodt Institute of Radiology at Washington University in St. Louis is seeking an abdominal radiologist. We provide a range of diagnostic imaging procedures, including CT, MRI, ultrasound, fluoroscopy, and image-guided biopsies. We offer a clinical and academic environment that maintains a tradition of excellence.
Contact: Interested candidates apply to facultyopportunities.wustl.edu.

Massachusetts – Cambridge Health Alliance is seeking an interventional radiologist. Epic/Nuance 360. No night call.
Contact: To apply, please email resumes to lanastasia@challiance.org.

CONTINUED

Sometimes Innovation Is Saying No

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Programs with weak competitive position and high alternative coverage may be targeted for divestment regardless of their program attractiveness. For programs that have a strong competitive position and high alternative coverage but are relatively unattractive to the organization, it may be appropriate to build up a competitor that may be better aligned with the program strategically, particularly if the program answers an unmet need. Conversely, programs with a strong competitive position, low alternative coverage, and low attractiveness to the organization may be adopted as "the soul of the organization," as they support relatively unattractive but critical elements of the organization's mission. More broadly, such programs also fill necessary but unmet needs of the profession. Finally, programs with low attractiveness, weak competitive position, and low alternative coverage may warrant joint venturing with another organization to improve the program's attractiveness and competitive position. Joint ventures may be pursued if there is a significant future opportunity to fulfill an unmet need or address a gap in the marketplace.

While this program assessment methodology may seem complex, it becomes second nature after some practice. The three variables of program attractiveness, competitive position, and alternative coverage are applicable to many activities in our professional lives, particularly when the number of such programs and activities exceeds available human, capital, or operational resources. Organizations like ours can't be all things to all people, and we need to ensure that our resources are used judiciously. B

Understanding MACRA and Informatics

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Actions to Take Now

1. Review the wealth of MACRA and QPP information provided by both CMS **(visit qpp.cms.gov)** and ACR **(review bit.ly/macraready)**.
2. Participate in the National Radiology Data Registry®, which has been approved as a Qualified Clinical Data Registry, to collect and report quality data versus relying on a traditional claims-based approach **(check out bit.ly/ACRNRDR)**.
3. Capitalize on informatics resources from the Harvey L. Neiman Health Policy Institute® **(neimanhpi.org)**, including the new Breast Screening Bundle Tool and the Inpatient Cost Evaluation Tool.
4. Investigate other technology solutions, including clinical decision support tools like ACR Select™ **(acrselect.org)**.
5. Leverage collaborative solutions like R-SCAN™ **(rscan.org)** to partner with referring providers to reduce inappropriate tests and procedures.
6. Start a dialogue with your IT vendors. Ensure it's a bidirectional conversation about what tools can do and what radiologists need. In the near future, radiology IT vendors must ensure that their RIS, PACS, and radiology reporting systems are CEHRT compliant.
7. Establish quality as a strategic guiding principle for your practice. Make a commitment to the informatics tools and resources needed to ensure success. B

By Linda Sowers, freelance writer for ACR Press

ENDNOTE

1. Nicola AB, et al. Expanding Role of Certified Electronic Health Records Technology in Radiology: The MACRA Mandate. *JACR*. In press.

Monica Wood, MD, Christopher Mutter, DO, and Jamie Williams, MD, collaborate on a case.

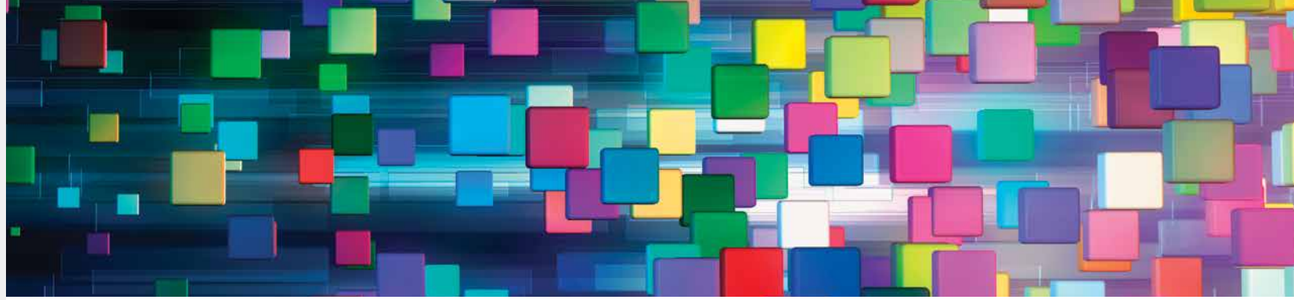
Christopher Mutter, DO, radiology resident at Michigan State University/ Spectrum Health in Grand Rapids

What does being an ACR member mean to you?

The terrific thing about being a radiology resident is that the second we matriculate into our programs, we are automatically members of the ACR. With this membership, we are a part of a very large organization of residents, fellows, attending physicians, and retired physicians who have made their mission entirely about securing our future and advocating for radiology. After learning about the opportunities that the ACR had to offer, I knew that this would be a perfect venue for me to apply my skills and knowledge of medicine, radiology, and politics.

As a first-year resident attending my first ACR conference and running for a seat on the RFS nominating committee, I had no idea of the vast opportunities there were to get involved. Additionally, the comradery that comes with the annual meeting is carried forward for the remainder of the year. Every committee on which you serve, lecture you attend, or new resident or attending physician you meet, will have an impact on your future practice in some way.

The choices and sacrifices in service to your fellow members will pay you back in the end, and so my decision to serve the RFS members in a leadership role is truly an honor and a privilege. I have just recently attended my second ACR conference and would encourage everyone to attend. I would also encourage everyone to reach out to your local, state, and national societies, and find ways to get involved in committees, outreach, or leadership to help shape your future instead of letting others shape it for you. B



Comment on 2018 ACR Practice Parameters and Technical Standards

- Aug. 14–Sept. 1
- Sept. 5–Sept. 22
- Sept. 25–Oct. 13
- Oct. 16–Nov. 3

Visit **acr.org/reviewguidelines**

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