

ACR

LEADERSHIP | INTEGRITY | QUALITY | INNOVATION

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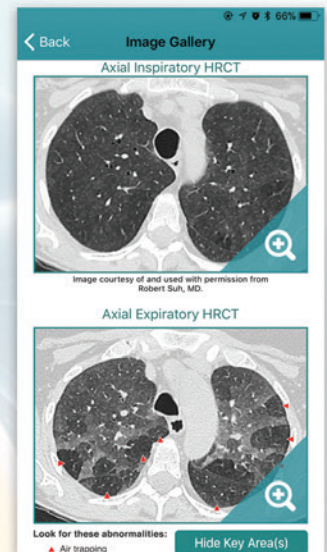
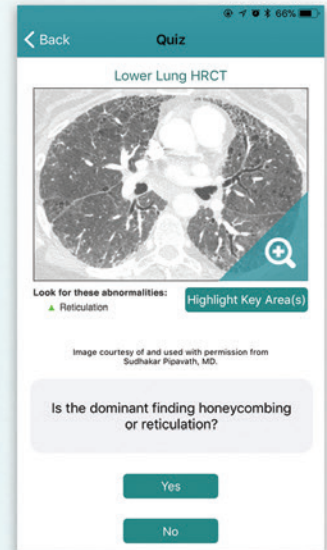
# Bulletin



Within  
Reach

Introducing a Peer-Reviewed  
Interstitial Lung Disease  
**Educational App**  
for Pulmonary Healthcare Practitioners

Utilize our **Interactive Diagnostic Algorithm** to assist HRCT reading, test your knowledge by taking our **UIP to IPF Quizzes**, view examples in our **Image Gallery** and **Glossary**, and learn more about UIP and IPF with our **Informational Videos**



Rad Rounds – UIP to IPF



To learn more about idiopathic pulmonary fibrosis and the role of HRCT in the recognition of UIP, visit our website [www.InsightsinIPF.com](http://www.InsightsinIPF.com)



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## FEATURE

### 9 Within Reach

Connecting patients to appropriate healthcare screening may be the touchstone of widespread population health management, and at-risk patients in underserved communities need an investment in outreach.



**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.

**ACR**  
AMERICAN COLLEGE OF  
RADIOLOGY

QUALITY IS OUR IMAGE



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**Pamela K. Woodard, MD, FACR, Chair of the ACR Commission on Research**

*Guest Columnist*

# The Value of Research

## We need data to determine appropriate use for reimbursement purposes and to inform health policy decisions.

The ACR's core purpose is to serve patients and society by empowering members to advance the practice, science, and professions of radiological care. Research and innovation is the foundation on which our radiology clinical practice is built. Without the research of Godfrey N. Hounsfield, there would be no CT. Without the research of Michel M. Ter-Pogossian, there would be no clinical PET. Without the research of Paul C. Lauterbur, there would be no MRI. Moreover, beyond technical development, research provides us with an understanding of the appropriate use and indications for tests developed — allowing for the best possible outcomes for our patients. In demonstrating and monitoring of patient benefit, research provides the evidence of our value for reimbursement.

There are two organizational research arms under the ACR Commission on Research — the Center for Research and Innovation™ (CRI), led by Charles K. Apgar, MBA, and the Harvey L. Neiman Health Policy Institute®, led by Danny R. Hughes, PhD. Both these organizations are overseen by Etta D. Pisano, MD, FACR, chief research officer of the ACR.

The purpose of the CRI is to drive science to practice and policy — facilitating future practice innovations through research and education for the benefit of patient outcomes, patient experience, and population health. The CRI operates solely through grant and commercial funding and does not receive funds otherwise from the ACR ([learn more at acr.org/CRI](http://acr.org/CRI)).

Clinical trials in which the CRI/ACR Imaging Network (ACRIN) has provided leadership include the following:

- The National Lung Screening Trial (NLST), which paved the way for screening for cancer in patients with a 30-pack per year or greater smoking history
- The Digital Mammography Imaging Screening Trial (DMIST), which showed that digital mammography is more accurate in women under the age of 50 years, women with radiographically dense breasts, and premenopausal or perimenopausal women
- The National Oncologic PET Registry, which was developed to help CMS determine the indications for PET scan coverage

In 2012, ACRIN merged with the Eastern Cooperative Oncology Group (ECOG) in cancer therapy forming

the ECOG-ACRIN. The ACRIN component of this collaborative group is led by Mitchell D. Schnall, MD, PhD, FACR, chair of the department of radiology at the University of Pennsylvania's Perelman School of Medicine. Under the auspices of ECOG-ACRIN, the Tomosynthesis Mammography Screening Trial (TMIST) — which will determine whether 3D mammography will improve breast cancer detection in asymptomatic women — has been funded and is ongoing ([learn more at bit.ly/NCL\\_TSMIST](http://bit.ly/NCL_TSMIST)). Under the CRI are multiple volunteer-driven research committees, including committees on neuroimaging, cardiovascular imaging, and pediatric research. Radiation oncology is a strong collaborative partner through the Imaging and Radiation Oncology Core ([rpc.mdanderson.org](http://rpc.mdanderson.org)) and the NRG Cooperative ([nrgoncology.org](http://nrgoncology.org)).

The Neiman Institute ([neimanhpi.org](http://neimanhpi.org)), established in 2012, studies the role and value of radiology in evolving healthcare delivery and payment systems — including quality-based approaches to care and the impact of medical imaging on overall healthcare costs. Multiple articles are published each year, providing valuable information to our lawmakers, regulators, and payers to make informed decisions that involve imaging.

Without these research efforts, the data needed to determine appropriate use for reimbursement purposes and to make health policy decisions would not always be available to the extent necessary and with the timeliness needed. The data generated by the CRI is often funded by the National Institutes of Health, and the articles based on data from CRI-driven trials and Neiman Institute research are published in peer-reviewed journals. Both the NLST and DMIST trials were published in the *New England Journal of Medicine*.<sup>1,2</sup> Hence, the data generated through these valuable ACR functions provide objective evidence to support the best uses of imaging — increasing the value of radiology and allowing us, as radiologists, to provide the best care for our patients. **B**

### ENDNOTES

1. Aberle DR, Adams AM, Berg CD, et al. Reduced lung-cancer mortality with low-dose computed tomographic screening. *N Engl J Med*. 2011; 365(5):395-409. Available at [bit.ly/NEJM\\_CTScreening](http://bit.ly/NEJM_CTScreening).
2. Pisano ED, Gatsonis C, Hendrick E, et al. Digital Mammographic Imaging Screening Trial (DMIST) Investigators Group. Diagnostic performance of digital versus film mammography for breast-cancer screening. *N Engl J Med*. 2005; 353(17):1773-83. Available at [bit.ly/NEJM\\_DMIST](http://bit.ly/NEJM_DMIST).



Learn more about the organizational structure of the ACR Commission on Research and view the full list of its volunteer committees at [acr.org/Commission-on-Research](http://acr.org/Commission-on-Research).



## R-SCAN Goes to the CMS Quality Conference

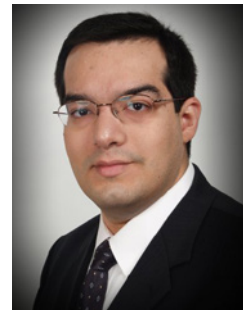
The ACR's R-SCAN® recently reported to the 2019 CMS Quality Conference on how clinical professional associations and individual radiology group practices are advancing the push toward value over volume in healthcare. R-SCAN team members discussed efforts to promote the ordering of imaging exams based on evidence-based guidelines to ensure patients receive imaging tests that add value to their care, avoid inappropriate imaging, and lower costs. According to R-SCAN Program Director Nancy Fredericks, as of September 2018, R-SCAN supported 158 registered projects, implemented by 120 imaging practices, and involving 10,000 clinicians. The R-SCAN team was one of only two Support and Alignment Networks invited to speak at the conference.

Syed F. Zaidi, MD, chair of the ACR Commission on Patient- and Family-Centered Care's Population

Health Management Committee, presented at the CMS conference on how a group practice can use R-SCAN to ensure its members apply best practices. Zaidi's group — Radiology Partners — focused on R-SCAN techniques to increase its radiologists' compliance with a Choosing Wisely® recommendation against the use of follow-up ultrasound for examining incidental thyroid nodules in low-risk patients. The initiative helped increase compliance with the recommendation to more than 90 percent.

According to Zaidi, "This use of best practices has shown to our stakeholders, including health systems and payers, that we can raise the bar of quality and help our referring physicians select appropriate management and treatments."

For more information, visit [acr.org/RSCAN-CMS](http://acr.org/RSCAN-CMS).



Syed F. Zaidi, MD



## RBMA Announces New Seal of Business Excellence

RBMA has developed a new certification that identifies and recognizes radiology practices that have demonstrated a commitment to quality. The RBMA Business Excellence Program certifies that a radiology practice holding this recognition is not only in good standing as an active member of the RBMA, but has also committed to training on the latest advancements in care quality, patient satisfaction, business management, and regulatory compliance. "As the nation's leading professional organization for radiology business management, we realized that we have an excellent opportunity to help clear up some of this confusion while at the same time letting our most active members shine for the extra effort they put into advancing quality and expertise in the business of radiology," says RBMA Executive Director Robert T. Still.

To qualify, practices must be RBMA member organizations and must send at least one representative to RBMA PaRADigm. Existing and new RBMA members have until April 14 to earn the seal of recognition.

To learn more, visit [bit.ly/RBMA\\_BusinessExcellence](http://bit.ly/RBMA_BusinessExcellence).

## Cheaper Isn't Always Better

A new *ACR Bulletin* blog series takes a deep dive into the timely topic of price transparency in healthcare. Shared decision-making between physicians and patients involves discussions about every aspect of a patient's care — available treatment options, potential outcomes, risks versus benefits, and patient values and preferences — except cost, says Andrea Borondy Kitts, MS, MPH, a lung cancer and patient advocate, consultant, and patient outreach and research specialist at Lahey Hospital and Medical Center. And often with little else to go on, patients base their decisions for imaging on the facility their insurance companies have told them is least expensive. In a time when patients are beginning to take on more of the cost of their care, radiologists have a key role to play in ensuring patients make informed choices that prioritize quality over the option that is the cheapest.

To read more on the topic, visit [bit.ly/PriceTransparencyBlog](http://bit.ly/PriceTransparencyBlog).

“These are exciting times, as we move from talking about what AI might do to assessing the performance of algorithms in real-world settings and evaluating their impact on patient care.”

— Bibb Allen Jr., MD, FACR, ACR Data Science Institute™ chief medical officer and diagnostic radiologist at Grandview Medical Center in Birmingham, Ala., at [acr.org/AI\\_Blog](http://acr.org/AI_Blog).

## RADPAC Turns 20



To celebrate its 20th anniversary, RADPAC® will host a gala at the historic Washington National Cathedral on the evening of Tuesday, May 21. If you plan to attend this event, please RSVP at [bit.ly/RADPAC20\\_RSVP](https://bit.ly/RADPAC20_RSVP).



Judy W. Gichoya, MBChB, MS, and Samir B. Patel, MD, FACR, are pictured at the 2018 RADPAC® Gala.

## RLI's Power Hour Packs a Punch

The Radiology Leadership Institute® Power Hour webinar series, chaired by Geoffrey D. Rubin, MD, MBA, FACR, and Jennifer E. Nathan, MD, is a selection of quarterly webinars that provides radiologists at all career stages with valuable insights on a host of leadership and healthcare topics. The next in the series, “Creating a Culture for Innovation,” will take place on Wednesday, April 24, at 8:00 p.m. EDT, and will focus on helping radiologists create a practice environment open to new opportunities and possibilities. The webinar will outline the benefits of embracing innovation for practices, departments, and physicians.

For more information and to register, visit [acr.org/RLI\\_PowerHour](https://acr.org/RLI_PowerHour).

## Declining Radiology Trainee Exposure to Invasive Procedures

A new Harvey L. Neiman Health Policy Institute® study found that from 1997 through 2016, time spent on invasive procedures declined for all Medicare-billed radiology trainee services, falling from 34.2 percent to 14.3 percent. The study, published online in the *JACR*®, characterizes longitudinal changes in radiology trainees' exposure to invasive image-guided procedures.

“We observed that radiology trainees now spend a smaller fraction of their overall work effort performing invasive procedures than in the past,” said Andrew P. Rosenkrantz, MD, MPA, professor and director of health policy in the department of radiology at NYU Langone Health. “Previously, a variety of invasive procedures accounted for approximately one third of radiology trainees' relative work effort. Trainees' relative invasive procedural work effort has now declined to approximately one half of that.”

Read more at [bit.ly/HPI\\_IR](https://bit.ly/HPI_IR).

## Keep Your RTs Healthy and Safe!

The Society of Diagnostic Medical Sonography (SDMS) has released an informational flier intended to spread awareness of the common workplace injuries many sonographers suffer from, and what employers can do to help prevent them. According to the SDMS, a high incidence of work-related musculoskeletal disorders (WRMSDs) has recently been identified among sonographers. WRMSDs can be caused by repetition, awkward or sustained posture, or contact pressure. The result can be anything from minor discomfort to career-ending injuries. According to SDMS, ninety percent of sonographers are doing their jobs in pain due to WRMSDs, and the costs to employers associated with injuries can be steep.

For resources on how to prevent WRMSDs in sonographers, visit [sdms.org/safetyalert](https://sdms.org/safetyalert).

“We thought [RadiologyInfo.org] would be unique to let children who have had imaging exams speak for themselves about what they experienced. When children hear other children talking about medical procedures, it can alleviate some of their fear.”

— Cynthia K. Rigsby, MD, professor of pediatrics and radiology at Northwestern Medicine and co-chair of the RSNA-ACR Public Information Website Committee, at [bit.ly/RadInfo4Kids](https://bit.ly/RadInfo4Kids).

## CPI Releases New Pediatric Radiology Module

The ACR Continuous Professional Improvement™ (CPI) program has released CPI Pediatric Radiology Module 2019. Members save \$35 per module when selecting six modules through a customized CPI Select Six Series. Each CPI module includes 50 self-assessment questions written by subspecialist experts and offers up to 8 CME/SA-CME. Choose between the print publication or the online examination and receive a free e-book download.

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

## Bundle Payment Models for Breast Cancer Screening

A new study, published online in the *JACR*<sup>®</sup>, explores an episodic bundled payment model for breast cancer screening that reflects the emerging widespread adoption of digital breast tomosynthesis (DBT). In the lead study author's large academic health system, screening mammography is performed at outpatient sites affiliated with four separate hospitals, which have all now since adopted DBT as part of routine screening. For this analysis, the researchers focused on the two large hospitals that had no DBT capabilities in 2013, but which subsequently performed DBT routinely as part of their screening examinations in 2015.

"Excluding DBT, Medicare-normalized bundled prices for traditional breast imaging 364 days downstream to screening mammography are extremely similar pre- and post-DBT implementation, totaling \$182.86 in 2013 and \$182.68 in 2015," says Richard Duszak Jr., MD, FACR, professor and vice chair for health policy and practice in the department of radiology and imaging sciences at Emory University. "The addition of DBT increased a DBT-inclusive bundled price by \$53.16 — an amount lower than the \$56.13 Medicare allowable fee for screening DBT but was associated with significantly reduced recall rates 13.0 percent versus 9.4 percent."

Based on their findings, the authors concluded that non-DBT approaches to bundled payment models for breast cancer screening remain viable as DBT becomes the standard of care, with bundle prices varying little by patient age, race, or insurance status.

Read the full study at [bit.ly/JACR\\_DBT](http://bit.ly/JACR_DBT).



## Your Diversity Snapshot

The Commission for Women and Diversity and the Commission on Membership and Communications are working to track demographic information on age, gender, ethnicity, race, and practice areas to determine how well radiology and the College are attracting a diverse, outstanding community to the field and to the organization. We need your input to get a better sense of who we are and how we're doing to reach our goals. This confidential information will assist us in better understanding our fabric, as well as ensure we're meeting your diverse practice needs with proper resources and services.

Please complete the diversity and practice information on your My ACR profile, available on the My ACR tab, at [acr.org](http://acr.org).



## Here's What You Missed

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

### Back to Business Basics

Radiology resident Zachary S. Jeng, MD, the newest James M. Moorefield, MD, Fellow in Economics and Health Policy, discusses why being well-versed in the business aspects of radiology is so important in a changing economic landscape at [bit.ly/Bulletin\\_BusinessBasics](http://bit.ly/Bulletin_BusinessBasics).

### A Seat at the Q&S Table

The E. Stephen Amis, Jr., MD, Fellowship in Quality and Safety brought Jasmine N. Locklin, MD, into the national discussion on quality and safety at [bit.ly/Amazing\\_Amis](http://bit.ly/Amazing_Amis).

### Rank List Crisis

A radiation oncology (RO) resident advises fourth-year RO students on the best way to go about making their rank lists at [bit.ly/LetterToFourthYears](http://bit.ly/LetterToFourthYears).

## CALENDAR

### April

- 5–7 Body and Pelvic MR, ACR Education Center, *Reston, Va.*
- 8–11 AIRP<sup>®</sup> Categorical Course: Thoracic and Cardiovascular, AFI Silver Theatre and Cultural Center, *Silver Spring, Md.*
- 11–14 Canadian Association of Radiologists 2019 Annual Scientific Meeting, Sheraton, *Montreal*
- 17–19 MSK MR (Elbow, Wrist/Hand, and Specialized Topics), ACR Education Center, *Reston, Va.*
- 22–23 Breast MR With Guided Biopsy, ACR Education Center, *Reston, Va.*
- 25–27 Breast Imaging Boot Camp With Tomosynthesis, ACR Education Center, *Reston, Va.*
- 30–May 4 Society for Pediatric Radiology Annual Meeting & Postgraduate Course, Hilton Union Square, *San Francisco*

### May

- 2–3 CT Colonography, ACR Education Center, *Reston, Va.*
- 9–11 Abdominal Imaging, ACR Education Center, *Reston, Va.*
- 16–18 Emergency Radiology, ACR Education Center, *Reston, Va.*
- 18–22 2019 ACR Annual Meeting, Washington Marriott Wardman Park Hotel, *Washington, D.C.*

### June

- 3–5 ACR-Dartmouth PET/CT, ACR Education Center, *Reston, Va.*
- 7–9 Coronary CT Angiography, ACR Education Center, *Reston, Va.*
- 10–12 High-Resolution CT of the Chest, ACR Education Center, *Reston, Va.*
- 13–15 Breast Imaging Boot Camp With Tomosynthesis, ACR Education Center, *Reston, Va.*
- 17–19 Neuroradiology – Head and Neck, ACR Education Center, *Reston, Va.*
- 20–21 Prostate MR, ACR Education Center, *Reston, Va.*
- 28–30 Cardiac MR, ACR Education Center, *Reston, Va.*

By Ezequiel Silva III, MD, FACR, Chair



# AUC: A Brief History

With PAMA, the radiologist’s challenge now centers on implementation.

The congressional mandate for CMS to require Appropriate Use Criteria (AUC) consultation during the ordering of advanced diagnostic imaging is upon us. This year is a voluntary reporting period, 2020 is an educational and operations testing period, and 2021 is the formal start date with payments at risk. This program is a major policy change, requiring significant effort by our profession. For many radiology professionals, the new law has prompted a first introduction into AUC and clinical decision support (CDS) for practices. In this column, I discuss the origins of AUC, how it has evolved, and how it became a component of payment policy.

Former President Bill Clinton made healthcare reform a major focus of his 1992 presidential campaign. Early in his first term, he created a task force chaired by then-First Lady Hillary R. Clinton. In 1993, former ACR BOC Chair, K. K. Wallace, Jr., MD, proposed a way in which radiology could contribute meaningfully to healthcare reform. During testimony before the House Committee on Ways and Means on the 1994 Medicare budget, he pledged that the ACR would take a leadership role in defining the most cost-effective and beneficial ways of utilizing radiologic services. He stated that the ACR stood ready to design a system of patient care guidelines to eliminate inappropriate utilization of imaging services, which “could lead to significant savings for our healthcare system.”<sup>1,2</sup>

Clinton’s healthcare reform never passed, but the groundwork for AUC was established by Wallace’s congressional testimony. To satisfy Wallace’s pledge, the ACR Task Force on Appropriateness Criteria was created, and by early 1994 deliberations had begun. The Task Force incorporated attributes from the Agency for Healthcare Research and Quality, as designed by the Institute of Medicine for developing acceptable medical practice guidelines. Since its inception, the AUC methodology has relied on a combination of evidence and expert consensus (when data from scientific outcome and technology assessment studies are insufficient). Additionally, the AUC process has relied on the input of professionals from other medical specialties — both within and outside the house of radiology.

By the late 2000s, the ACR had created a comprehensive set of AUC with input from hundreds of clinical experts and thousands of scientific references. The criteria were fully transparent, widely available, and continually updated. One important challenge, however, was that

these criteria were essentially in a paper format — that is, they could be downloaded from the ACR website or printed out as a PDF. But integration into clinical care pathways was limited, particularly as information systems became more digital. The ACR established a licensing agreement with National Decision Support Company to enable our AUC content to be digitized into a format more easily integrated into health IT solutions. This change could also allow for the digital capture of these consultations for such purposes as registry reporting, end-user feedback, and compliance reporting.

At the same time as our AUC was evolving, increasing focus was being placed on the growth of imaging services compared to other services.<sup>3</sup> This prompted significant payment reductions for imaging. From 2006 to 2012, imaging suffered 12 different payment reductions.<sup>4</sup> Policymakers seemed committed to controlling imaging utilization through payment reductions, and the trend showed little sign of slowing. Even the Patient Protection and Affordable Care Act included payment reductions for radiology. Could radiology change this dynamic and be part of a solution that would not involve payment reductions? As in 1993, AUC once again became part of a constructive dialogue in which it could favorably influence payment policy.

We did not know it at the time of its passing, but PAMA was the last Sustainable Growth Rate (SGR) fix before MACRA passed in 2015 and replaced the SGR. Policymakers — recognizing AUC as a potential solution to control the inappropriate utilization of imaging — made CDS mandatory. And the ACR, confident in its AUC offerings, supported this policy direction.

PAMA is the law, and it is not going away. Our challenge now centers on implementation. We have the opportunity to gain experience with the new AUC mandate and build upon its origins. And we have an obligation to share our experiences and help CMS craft a meaningful, worthwhile, and workable program. **B**

## ENDNOTES

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## Are You Ready for PAMA?

The “Be PAMA AUC Ready” webinar offers practical information and steps you can take to help get your practice and referring providers ready to meet the Jan. 1, 2020 Medicare CDS mandate. View the free webinar at [acr.org/BePAMAReady](http://acr.org/BePAMAReady) and learn more about the ACR Appropriateness Criteria® at [acr.org/AC](http://acr.org/AC).



# Within Reach

## Life-saving screening starts locally, with radiologists leading outreach efforts

If an ounce of prevention is worth a pound of cure, a population health approach to delivering care is worth a bundle to radiology and the patients it serves. Connecting patients to appropriate healthcare screening may be the touchstone of widespread population health management (PHM), and at-risk patients in underserved communities need an investment in outreach.

“If you don’t practice proactive screening as part of PHM, patients will eventually show up in the system worse off and their care will come at a higher cost,” says Syed F. Zaidi, MD, vice president of clinical operations at Radiology Partners and chair of the ACR Commission on Patient and Family-Centered Care’s PHM Committee.

According to Zaidi, it is critical to engage in community health programs if you want to see a measurable increase in the health and wellness of your community. Recognizing the traits of an underserved population can help your program tailor community education and prevention strategies for lowering the rates of certain diseases.

Underserved populations in both rural and urban settings, who are most at risk for low rates of health screenings, share the following characteristics:

- Little financial security
- Less likely to exercise
- More likely to have a poor diet
- More likely to face transportation challenges
- More likely to smoke<sup>1</sup>

There must be a clear understanding of these social determinants of health to remove barriers to early detection and treatment.

Nearly two decades ago, the Institute of Medicine called for “a greater emphasis on public health interventions that involve communities.”<sup>2</sup> To that end, lung, breast, and colorectal screenings have given radiologists a logical pathway to patients who may otherwise have difficulty accessing the healthcare system.



### Have Your Patients Visited RadiologyInfo.org?



RadiologyInfo.org, jointly developed and sponsored by RSNA and ACR, has answers to patients’ common imaging questions, including detailed explanations of what they will experience in various X-ray, CT, MRI, US, and radiation therapy procedures. Information on the site is available in both English and Spanish.

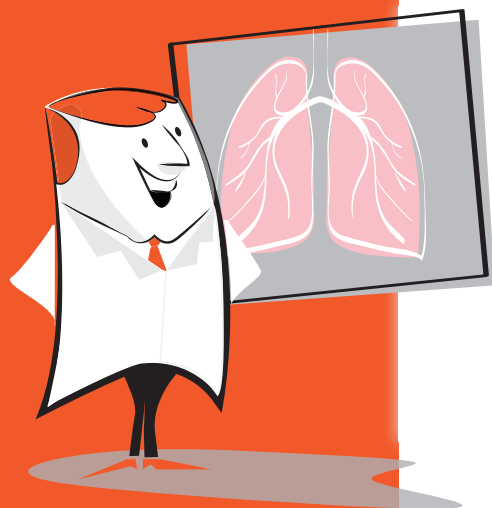
Learn more about what PHM looks like in radiology in the *Bulletin*’s May 2018 PHM special issue at [bit.ly/PHM\\_SpecialBulletin](http://bit.ly/PHM_SpecialBulletin).



## Looking for material to share with your patients and referring physicians?

The ACR has resources on screening.

- ACR Colon Cancer Screening Resource Page: [acr.org/CRC-Resources](http://acr.org/CRC-Resources)
- ACR Breast Cancer Screening Resource Page: [acr.org/Breast-Resources](http://acr.org/Breast-Resources)
- ACR Lung Cancer Screening Resource Page: [acr.org/Lung-Resources](http://acr.org/Lung-Resources)
- Patient-Friendly Infographic — So You're Coming in for Lung Cancer Screening: [bit.ly/Lung\\_Infographic](http://bit.ly/Lung_Infographic)



## IDENTIFYING CONNECTIONS

While breast cancer screening awareness is increasingly pervasive in underserved communities, lung cancer screening is still sorely underutilized. “We know screening for lung cancer works, and we know people aren’t having it done enough — even though it has been covered by insurance since 2015,” says Kim L. Sandler, MD, assistant professor of radiology and co-director of the lung screening program at Vanderbilt University Medical Center in Nashville.

With a local population that includes a significant number of people who smoke, Sandler and her colleagues in the radiology department are identifying women at high risk for lung cancer when patients come in for mammograms. “We know from the research that people who get screened for one type of cancer are much more likely to get screened for another type of cancer,” Sandler says. “So if you have a mammogram, you are much more likely to get checked for lung cancer or have a colonoscopy, and vice versa.”

The program targets women at high risk who are already in the system. The goal is to alert primary care providers before upcoming appointments with patients who are eligible for lung cancer screening — and to schedule that study during their visit. New marketing efforts are underway with outpatient imaging centers to promote the availability of lung cancer screening and to educate the public about the importance of early detection.

Research has shown that screening not only improves survival rates, but can also greatly increase the treatment options for early-stage disease. “We really emphasize that the screening study doesn’t give you cancer,” Sandler says, addressing a common concern among patients. “We tell patients that screening allows us to detect disease at a stage where hopefully all you may need is minimally invasive surgery versus chemotherapy or radiation therapy.” The radiology department is also sensitive to some patients’ resistance to smoking cessation. “We tell them about the benefits of quitting smoking,” she says, “but we’re careful not to pass judgment and to let them know that we are only here to help.”

Convenience is also a persuasive factor in screening outreach. Transportation challenges and missed time from work are often

deterrents for vulnerable populations. Sandler points to the accessibility of outpatient screening facilities — which are easier to reach, have free and ample parking, provide short visit times, and offer weekend and evening hours.

## PARTNERING LOCALLY

While identifying at-risk patients and offering convenient screening options improves population health from within a radiology group, comprehensive PHM outreach should extend to all available community resources. Learning more about the efforts of facilities already in place — faith centers, community centers, senior citizen centers, and so on — could help the outreach process.<sup>3</sup>

There may also be opportunities to spread information through local TV stations and newspapers, to speak at health fairs, or to partner with local health centers to distribute print or web-based educational materials ([learn more at bit.ly/MostValuableRadPractice](http://bit.ly/MostValuableRadPractice)). This type of outreach is essential in communities with the most vulnerable populations, says Judy Yee, MD, FACR, chair of the ACR Colon Cancer Committee and chair of the department of radiology at Montefiore Health System and Albert Einstein College of Medicine in New York.

“We have BronxNet, a community TV network, which we use to talk about different types of available screening,” Yee says. “We actually go down to the studio and describe the disease, why it’s so important to get screened, and how we can help. It has been very well-received, is specific to the Bronx, and is bringing patients in to talk to their doctors.”

Radiologists take turns speaking, and there is no shortage of volunteers, Yee says. A breast imager, for example, will talk about breast cancer screening — usually aligned with Breast Cancer Awareness Month. Montefiore also holds community events on weekends to answer questions about the services it provides and to offer free screenings. The hospital collaborates with the local paper, which runs articles — not just ads — about the events and why local residents should attend.

The downstream health benefits of this type of community outreach are obvious, Yee notes, but it also builds a sense of trust of physicians within the community. “It’s important that they see our mission as helping patients

in need and that our driving principle really is about social equality,” Yee says.

According to Yee, willingness and commitment are key to connecting with patients. “Our programs may not always roll out exactly as we hope because of funding or staffing shortfalls, but it’s never because of a lack of engagement by our physicians within the community,” she says.

## ABATING BARRIERS

“The radiology community needs to be an integral part of population health outreach,” says Efrén J. Flores, MD, officer of radiology community health improvement and equity at Massachusetts General Hospital (MGH). “By increasing access to services for underserved populations, you are promoting better healthcare for all patients.”

Engaging an underserved population with screening before a disease becomes evident leads to other preventative services — like keeping up to date on vaccinations or getting an annual flu shot, Flores says. Still, patients are often confused about which services are covered by their health insurance.

There is currently limited coverage for CT colonography, for example. “ACR has really taken the lead on supporting access to this,” Flores says. Given the widespread availability of CT, in some areas CT colonography could be more accessible than seeing a gastroenterologist. Furthermore, no sedation is required for CT colonography, and it can drive other cancer screening tests — such as mammography and lung cancer screening.

Helping patients understand what is available to them is a challenge but can sometimes be accomplished through modest efforts. For example, the breast imaging department at MGH has translated consent forms into multiple languages. “It seems like a simple thing but it helps patients feel more comfortable with their care and more likely to have follow-up,” Flores says.

“We’ve also been working with community health clinics that serve a high number of Hispanic patients, who receive screening less frequently than other groups,” Flores notes. Through this partnership between radiology and primary care, patients receive lung cancer screening questionnaires when they come in for their annual screening mammograms. “We

tabulate the information to see how many of those patients are eligible for lung cancer screening,” Flores says. “We give that information to the population health manager at that clinic so they can notify the patient’s primary care provider.”

Engaging patients at the time of their screening integrates radiologists into the healthcare value chain.<sup>4</sup> Radiologists have a unique opportunity to advance their role in helping populations achieve health equity by partnering with stakeholders to engage patients in their own care — at the same time improving utilization of screening services and other health preventive services.<sup>3</sup>

It is widely accepted that PHM can — and should — result in myriad downstream savings to the entire healthcare system, while at the same time raising the overall health of underserved populations. “Emphasizing preventive care over reactive care is both cost-effective and the right thing to do,” Flores points out.

“If there’s a way to engage with the community to increase access, there is a financial justification for doing it,” adds Zaidi. “You’re making the system sustainable.” Finding the initial point of engagement is the trick, he says.

According to Zaidi, “Once these patients are a part of the system, we can better manage their health and ensure a better future for the entire population. There are probably more underserved patients than we realize or talk about.” Fortunately, radiologists are well-positioned to take a leadership role in the health of their communities. “Through PHM outreach,” says Zaidi, “we can make sure people aren’t falling through the cracks.” **B**

By Chad Hudnall, senior writer, ACR Press

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“BY INCREASING  
ACCESS TO SERVICES  
FOR UNDERSERVED  
POPULATIONS, YOU  
ARE PROMOTING  
BETTER HEALTHCARE  
FOR ALL PATIENTS.”

– Efrén J. Flores, MD

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# The New Face of Mentorship

Radiologists are moving into sponsorship roles to foster thriving mentor-mentee relationships.



(Left to right) Alison C. Greiwe, MD, Magda Rizer, DO, and Kurt A. Schoppe, MD, participated in the speed mentoring session at ACR 2018 — a concept introduced by the American Association for Women Radiologists. The session, which will be held again at ACR 2019 in May, affords participants the opportunity to meet a variety of leaders in the field.

**W**hen most people envision a typical mentor-mentee relationship, they imagine a fairly one-sided exchange, in which an older, wiser mentor takes a younger, less experienced mentee under their wing — providing limited guidance and advice when needed. Some are fortunate to have systems in place at their institutions to facilitate these relationships. Others find them harder to come by. How can radiologists and radiology departments work to make mentor-mentee relationships more accessible and rewarding for all involved?

## Sussing the Gaps

According to ACR RFS-YPS Liaison Amy K. Patel, MD, young radiologists want mentors, but supply is not meeting demand. In a recent survey of 2,000 young radiologists — carried out by the ACR YPS in collaboration with the Commission for Women and Diversity — 69 percent of respondents noted that their practice or institution did not have a formal mentoring program. Of those with a formal mentoring program, 47 percent were not satisfied with the program, and an additional 21 percent were only somewhat satisfied. Twenty-one percent had a single mentor, and 44 percent reported having no mentor — despite 78 percent reporting that having a mentor would be valuable.<sup>1</sup>

For women and underrepresented minority groups

(URMs), access to these relationships can prove even more difficult. “There’s pretty consistent evidence that women especially, and probably URMs in general, would like to be mentored by people of similar background,” says Jay R. Parikh, MD, FACR, professor of radiology and medical director at MD Anderson Breast Care Network with Memorial Hermann in Houston. “And that’s something that we need to — as the evidence mounts — accept and build into the culture where we foster that relationship more.” This is especially pertinent now, says Patel, because having a mentor was described as “extremely valuable” by 39 percent of women versus 14 percent of men.<sup>1</sup> ACR YPS Chair Sonia C. Gupta, MD, director of US at Beth Israel Deaconess Medical Center in Boston, agrees. According to Gupta, women radiologists, make up approximately 25 percent of the specialty who are interested in leadership.<sup>1</sup>

However, Parikh notes that making the right match can be challenging for some radiology departments. “Some of the departments may struggle logistically to be able to provide mentors of similar backgrounds for mentees, due to their size,” he says. Additionally, unconscious bias is still a real barrier, according to Taj Kattapuram, MD, a breast imager and IR in Arvada, Colo., and the ACR YPS Social Media Liaison. “For URMs it can be a lot more challenging,” says Kattapuram. “For example, being a female and a minority, you see that whether people realize it or not there is an unconscious bias from potential male mentors who are of a different cultural background.”

## Redefining the Concept

According to Kattapuram, one way to promote mentorship is to conceptualize a fuller and more complete definition of all that being a mentor encompasses and all the benefits that stand to be gained. “I think it’s important that there is a distinction between mentorship and sponsorship, and I think the cultural shift that’s needed is to bring both of those together,” says Kattapuram. “So what I mean by that is, anyone can be a mentor — it’s just someone who can give advice, be there for you, and be a role model. But how do we get more out of a mentor-mentee relationship? Well, it’s that sponsorship piece; it’s the action. Sponsorship is when a mentor — or even a mentee — can take that relationship a step or two further by really helping the person who they’re mentoring. We can all shoot our mouths off with advice but who follows through with help?”

Gupta also stresses the distinction between mentorship and sponsorship. “While mentor relationships are helpful, sponsorship relationships are even more career-advancing,” says Gupta. “We need a shift toward sponsorship opportunities and a more open structure. Rather than a few select people at the top, we need to focus on spreading



opportunities farther and wider. Giving a sponsorship opportunity to an individual who does not have prior experience in that realm while also providing mentorship can be ideal. This allows for more leadership diversity in experience, age, gender, and ethnicity.”

Parikh agrees that being a good mentor takes work, and more than many are prepared for. “Mentorship to me is a long-term relationship and it’s a responsibility; it can’t be something that you just take on,” he says. But that doesn’t mean it can’t also be reciprocally rewarding, notes Parikh. “These relationships can and should be mutually beneficial,” adds Kattapuram. “I partnered with someone to write a paper together. I primarily wrote one article, she edited, then we submitted for publication. Subsequently she primarily wrote an article, I edited, then we submitted. The collaboration has been mutually beneficial.”

## Facilitating Connections

As radiologists gain a better understanding of the full meaning and mutual benefits of mentorship, the general gap between supply and demand may shrink. But what about those practices/institutions where — due to size, unconscious bias, or other factors — women and URM’s simply can’t find good matches?

According to Gupta, social media can help women and URM’s find good matches for a mentor-mentee relationship from afar. “Social media creates an open atmosphere,” Gupta says. “It allows someone who is looking for mentorship or sponsorship opportunities to reach out directly to a practice leader, ACR BOC member, or chair of a department to start a conversation. This person could be outside of your own institution and this could lead to a different experience rather than setting up a formal meeting. It allows for a natural conversation to begin over a topic of mutual interest and can develop into a more fruitful relationship.”

Patel agrees. “Social media is proving to be an incredibly transformative avenue in creating mentorship and sponsorship of female radiologists and URM’s at all career levels — removing the red tape that previously existed between those seeking these opportunities and the leaders, experts, researchers, and advocates of our profession, both female and male,” Patel says. “It also removes geographic barriers — connecting women radiologists on a global scale, which has resulted in an empowering sense of solidarity and community in ways we have never seen before.”

Social media has also been a game-changer when it comes to opportunities for collaborations for women and URM’s. “Social media in my opinion has been phenomenal,” Kattapuram says. “I know of several examples of people who have met on social media for various reasons and have connected in such a way to collaborate, for example on publications.” Gupta agrees. “Aside from mentorship opportunities, connections on social media

have already resulted in new collaborations for me with papers and book clubs I’ve been a part of through the Radiology Chicks™ Facebook group,” she says.

Patel agrees. “Through the empowerment of social media, there is potential to truly change the landscape of radiology in all arenas, from leadership, advocacy, and negotiation to professional gender parity,” she says.

## Laying the Foundation

Ultimately, mentor-mentee relationships are vital, and radiologists and radiology departments should do all they can to foster thriving mentorship programs, says Parikh. “I think it’s a shared responsibility,” he says. “Not just between the mentee and the mentor, but for the radiology department as a whole.”

To support mentorship, Parikh suggests departments use feedback from mentees to tailor their mentorship programs, provide mentors and mentees with protected non-clinical time to interface, and give recognition to mentors for the significant time, energy, and resources they’ve committed to helping their mentees.

Lastly, Parikh suggests departments lay the groundwork early and train mentees to eventually become mentors themselves. “If they actually institute the right culture, they can teach these mentees how they have a responsibility to be mentors as they go along in their career,” he says. “Above all else, if I had to choose one word to describe the real trademark of a good mentor, it’s ‘altruistic.’ So you’re at that point in your career where you really believe you’re part of the responsibility of the greater good for our professional specialty, and you really want to help the next generation have a positive experience. That, to me, is what the mentor-mentee relationship is all about.” **B**

By Cary Coryell, publications specialist, ACR Press

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## Join the Discussion

Radiology Chicks™ is a sisterhood of medical professionals, educating men and women about gender issues and how they relate to radiology. Follow Radiology Chicks on Facebook and Twitter by searching @RadiologyChicks on both platforms.

### What are some commonly used platforms in radiology for mentorship and sponsorship opportunities?

#### Facebook

- Largest social network among adults
- Ideal to building close relationships and communities
- Easy to “private message” even if not Facebook friends
- Easy to “tag” someone to facilitate public conversation, particularly in secret and closed Facebook groups

#### Twitter

- Microbursts of information
- In-the-moment conversation
- Easy to “direct message” if mutually “following” one another
- Easy to “tag” someone to facilitate public conversation

Source: Patel, AK. Mentorship/Sponsorship of a New Generation of #RADxx and #RADxy Through Social Media.” FAST 5 Presentation at RSNA, Chicago, IL; November 2018.



# ACR Updates Practice Parameters for Skin Marking in Mammography

Facilities should require consistent use of radiographically distinct markers to indicate palpable areas of concern, skin lesions, and surgical scars.<sup>1</sup>

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<sup>1</sup>ACR PRACTICE PARAMETER FOR THE PERFORMANCE OF SCREENING AND DIAGNOSTIC MAMMOGRAPHY Revised 2018 (Resolution 35) section E, labeled Markers, part 2, page 5

# Changing the Culture of Thyroid Nodule Workup

## ACR TI-RADS is shifting the way radiologists provide care.

The ACR Thyroid Imaging Reporting and Data System (TI-RADS) is the latest addition to the College's growing library of reporting and data system documents, which promote standardization in terminology, report organization, classification and management, and data collection in imaging findings.

ACR TI-RADS™ provides guidance on the management of thyroid nodules detected on ultrasound. Its goal is to promote consistency in recommendations and reduce the number of thyroid biopsies — a procedure that doubled between 2006 and 2011, partly due to an increase in non-thyroid-related neck imaging.<sup>1</sup>

The conundrum with thyroid nodules is that they are fairly common but mostly harmless, according to Franklin N. Tessler, MD, professor emeritus of radiology at the University of Alabama and chair of the TI-RADS Committee.

"They can be found with high-resolution ultrasound in close to 70 percent of adults, but the vast majority of these nodules are benign," says Tessler. "Even the most predominant form of thyroid cancer — papillary thyroid cancer — tends to be relatively non-aggressive."

Despite the low likelihood of harm, once discovered, thyroid nodules are usually evaluated for malignancy. Patients often undergo invasive follow-up procedures such as fine-needle aspiration and — in up to 30 percent of biopsied patients — partial thyroidectomy to obtain a definitive diagnosis, says Tessler. The increase in imaging over the past two decades has exacerbated the problem.

"We are definitely doing too many biopsies," says Jenny K. Hoang, MD, associate professor of radiology and radiation oncology at Duke University and a member of the ACR TI-RADS Committee. "The practice doesn't make sense given the low risk of malignancy and what we were subjecting patients to — the time, the costs of work-up, unnecessary surgery for benign nodules, and the anxiety for the patient."

According to a *New England Journal of Medicine*

editorial, between 2003–2007, overdiagnosis of thyroid cancer accounted for 70–80 percent of cases in women and 45 percent of cases in men in the United States.<sup>2</sup> "Basically, it's finding a lot of disease that the patient would have been better off not knowing about," says Tessler of the trend. "That is not good medicine nor is it a good use of resources."

One factor contributing to the exploding number of biopsies was the absence of clearly established guidance on the topic, despite the existence of recommendations from several other medical societies, says Hoang. They all had different evaluation methodologies, some were difficult to follow, and none were universally adopted across the medical field. This led to uncertainty, inconsistency in thyroid nodule management and an increased reliance on biopsy at low thresholds, says Hoang.

In an effort to improve existing practices and reduce unnecessary biopsies of benign nodules, the ACR embarked on a three-part process that resulted in the publication of a white paper on incidental thyroid nodules, the creation of a standardized lexicon for reporting nodules on thyroid ultrasound, and the publication of ACR TI-RADS in the spring of 2017.

Distinguishing features of TI-RADS are higher size thresholds to biopsy, a specific follow-up plan for nodules that are not biopsied, and use of a points-based system to evaluate thyroid nodules instead of the pattern-based system endorsed by other guidelines. According to Tessler, this approach allows for the evaluation of more nodules. In pattern-based systems, nodules are classified based on how closely they resemble one of multiple patterns. Some nodules cannot be evaluated because they do not match any of the patterns presented. In points-based systems, nodules are numerically rated based on their characteristics, so all can be assessed. This means more nodules get evaluated, further reducing the need for biopsies. The idea is to "leave no nodule behind," says Tessler.

Widespread adoption of TI-RADS is challenged by its need to distinguish itself in an already crowded field. The hope is that as practices implement the system, resulting data will demonstrate its advantages and lead to increased adoption.

ACR TI-RADS is a step toward addressing the "perfect storm" for thyroid nodules, says Hoang. Tessler adds, "I've never seen a patient unhappy about not having a thyroid nodule biopsy." **B**

By Makeba D. Scott, freelance writer, ACR Press

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Thyroid nodules are exceedingly common, leading to costly interventions for many lesions that ultimately prove benign. Learn more at [acr.org/TIRADS](http://acr.org/TIRADS).



# Breathe Easier

## Indiana radiologists work alongside care partners to create a successful lung cancer screening program that addresses a population health need.

According to the Centers for Disease Control and Prevention, 25.6 percent of Indiana residents smoked in 2011, and the state ranked fifth in the nation for number of smokers. In the northern Indiana city of Elkhart alone, smoking was so prevalent that many residents identified it as a top concern in a 2011–2012 community health assessment. These findings prompted radiologists and other providers at Elkhart General Hospital (EGH) to consider the dangerous effects of smoking on their community and act to address them.

Lung cancer is a leading cause of cancer deaths in the United States, and research indicates that identifying high-risk patients and screening them for cancer with low-dose computed tomography (LDCT) can reduce lung cancer mortality by up to 20 percent among smokers.<sup>1,2</sup> Unfortunately, though, most at-risk patients do not undergo regular screening, and many patients go undiagnosed until symptoms arise in the later stages of the disease. By that point, the chances of effectively treating the disease are low. The five-year survival rate for patients with early stage lung cancer is 56 percent, while the late-stage survival rate is only 5 percent.

Hoping to give its patients a better chance of survival, EGH partnered with its existing smoking cessation group to establish a lung cancer screening program six years ago. Since then, the program has undergone many changes, but most importantly, it is getting results: EGH radiologists have diagnosed more patients with early stage lung cancer than they did before implementing the program. Of those diagnosed through the program, more than 50 percent had stage one lung cancer.

### Implementing a Lung Cancer Screening Program

The American Thoracic Society and the American Lung Association joined forces to develop a guide for implementation of lung cancer screening (LCS) programs. The aim of this document is to provide a pragmatic guide and toolkit of how to design, implement, and conduct an LCS program based on a survey of experts in LCS representing a diversity of institutions throughout the United States. Access the guide at [bit.ly/LCS\\_Program](http://bit.ly/LCS_Program).

### Getting Started

EGH's lung cancer screening program began taking shape in 2012 after the hospital acquired a CT scanner equipped with the latest low-dose technology. An oncology nurse proposed establishing the screening program during a quarterly meeting of the hospital's cancer committee, which includes representatives from the departments involved in oncology care. The radiologists, cardiologists, and pulmonologists in attendance immediately supported the idea — recognizing that it would address an urgent population health need.

“As a radiology department, we are committed to offering new services that will improve patient health,” explains Albert W. Cho, MD, vice chair of radiology at EGH. “Once we had the LDCT capability and buy-in from other departments, we saw an opportunity to help drive the implementation.”

To start, the radiologists met with specialty partners, administrative staff, and care coordinators to construct a framework for the program. “There is often a view that specialties, particularly radiology, are independent and operate on their own,” Cho says. “But working together has so many benefits, such as increased camaraderie throughout the hospital and enhanced dialogue among specialties to better serve patients.”

### Building a Business Case

One of the first things the team had to define was eligibility criteria for lung cancer screening patients. CMS had not yet issued guidelines for reimbursement of lung cancer screening, so the Elkhart team decided to follow the National Comprehensive Cancer Network's screening guidelines, which state that high-risk eligible patients are between 50 and 74 years old with a history of smoking at least 1.5 packs of cigarettes per day for 20 years or more.

Since CMS did not yet cover lung cancer screening, the team had to determine how much to charge for the service. They needed to cover the program costs without pricing out patients, particularly low-income patients. “We wanted to market this as something that patients would value and find important, while giving them some perspective on the cost of care,” says Allison M. Lamont, MD, chair of radiology at EGH.

The team ultimately decided to charge \$199 out-of-pocket — the rough equivalent to one and a half packs of cigarettes per day for a month, which they advertised to help patients understand the value of this potentially life-saving service. While the price would just cover the program costs, the team determined that the potentially life-saving benefits were more important, and they remained steadfast in their desire to not financially overburden patients.

With these details in hand, several radiologists and a nurse practitioner dedicated time to gaining hospital



administrator and physician buy-in for the program. They gave presentations to physicians in cardiology, pulmonology, and oncology, and to hospital administrators during regularly scheduled meetings.

## Marketing the Program

Once the program was up and running in June of 2012, the team ran into two notable hurdles. The first involved enrolling patients in the program.

Initially, the team marketed the program directly to smokers in Elkhart County. Radiologists and other physicians worked a booth at the county fair, where they spoke to smokers about lung cancer screening and distributed marketing materials. Patients, however, were not immediately interested in the program.

After realizing this, the team changed course and began focusing most of its marketing efforts on cardiologists and other referring physicians who regularly treat smokers. Radiologists mentioned the program during tumor boards and quarterly staff meetings as well as in conversations with referring physicians.

Soon, primary care and other referring physicians began inquiring about the program, with cardiologists ultimately referring the most patients. “We took these opportunities over the phone or in person to really educate referrers about how screening can detect lung cancer in the early stages, when it’s still treatable,” Lamont says.

## Covering the Cost

The second obstacle that radiologists faced involved the cost of care. Even though the price the hospital charged for screening was low relative to the cost of the service, some patients could not afford it. Rather than turning these patients away, the committee sought funding from the Elkhart Hospital Foundation to cover their screening.

An advanced practice nurse for oncology services at EGH delivered a presentation to the foundation’s board about the benefits and cost-effectiveness of the program. After hearing about the important role lung cancer screening plays in saving lives, the board unanimously agreed to cover the cost of screening for individuals who met the program requirements but could not afford it.

By 2015, CMS began covering lung cancer screening for Medicare patients who meet specific guidelines, so the hospital foundation no longer needed to subsidize the program for many patients. What’s more, the out-of-pocket cost of screening at EGH eventually decreased to \$165 once the program started generating downstream revenue for the hospital.

Program funding wasn’t the only thing that changed once CMS and other payers began covering lung cancer screening. EGH also updated its eligibility criteria to match the CMS lung cancer screening guidelines and met the requirements to become an ACR Designated



Allison M. Lamont, MD, chair of radiology at Elkhart General Hospital



William T. Molen, MBA, RT(R)(MR), director of imaging services at Elkhart General Hospital

Lung Cancer Screening Center, a designation which includes minimum technical specifications and ACR CT accreditation.

While achieving this designation required radiologists to alter the way they classify patients, they rose to the challenge to better serve them. “We have been willing to adjust, because we care about the program and know it’s a valuable service that meets an important community need,” Lamont says.

## Seeing Results

Between June of 2012 and June of 2017, EGH’s lung cancer screening program served 941 patients. Of those, 29 were diagnosed with lung cancer, one was diagnosed with renal cell carcinoma, and two were diagnosed with lymphomas. Many of these patients were asymptomatic, so their cancers may have gone undiagnosed for some time if not for the screening program.

Based on the success of the lung cancer screening program at EGH, radiologists and administrators are now helping EGH’s sister hospitals within Beacon Health System in Indiana develop screening programs of their own. For example, collaborative efforts among imaging directors at EGH and Memorial Hospital in South Bend, Ind., have led to a budding lung cancer screening program at Memorial.

“We are just a little community hospital,” says Lamont, “but look at what we have done. We support each other, and we encourage each other. Profound change can stem from that sort of teamwork.” <sup>B</sup>

By Chelsea Krieg, freelance writer, ACR Press

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1



2



3

- 1) (Right to left) Maria A. Bedoya, MD, and Jennifer Gillman, MD, are pictured with the team of radiology techs at Princess Marina Hospital in Gaborone, Botswana.
- 2) Shekinah N. Elmore, MD (fourth from left), worked with clinicians in Harare, Zimbabwe, to investigate the role of radiation in women post-mastectomy.
- 3) Maria A. Bedoya, MD, works through the backlog of cases at Princess Marina Hospital.

## Notes From the Road

### Three radiology residents look back on their experience with the ACR Foundation's Goldberg-Reeder Travel Grant.

The ACR Foundation's Goldberg-Reeder Travel Grant Program is designed to facilitate knowledge sharing, while assisting patients in low- and middle-income countries. The latest group of recipients brought their skills, expertise, and energy to Botswana and Zimbabwe, where they worked with local colleagues and patients to advance radiological care. Fresh from their travels, the recipients shared their insights and experiences with the *Bulletin*.

#### Maria A. Bedoya, MD BOTSWANA

For Maria A. Bedoya, MD, a resident at the University of Pennsylvania, the experience of practicing in Botswana was profoundly impactful. Bedoya, who is about to start her pediatric radiology fellowship at Boston Children's Hospital, was trained in underserved areas in Colombia and has made global health a focus throughout her work in radiology. When she arrived in Botswana's capital, Gaborone, her focus was on education and hands-on ultrasound teaching.

"The first problem we tried to address was ultrasound technologist training," says Bedoya. "Technologists in Botswana have limited training but they're the ones actually interpreting images. Then we hoped to increase awareness about radiology across the board."

To bridge the knowledge gap, Bedoya and her team conducted 23 different lectures on topics the local techs were interested in — everything from chest CTs to neonatal cranial ultrasounds and pediatric airway and bowel imaging. Each session was tailored to the audience and shared cutting-edge information often left out of the curriculum in Botswana.

The goal for Bedoya was not just helping in the



moment but also creating a long-term educational system in Botswana for residents who don't have access to radiology training in the country. Bedoya worked in Princess Marina Hospital, the largest and only public hospital in Gaborone. The workflow, the hours, and the cases were completely different than those Bedoya was used to seeing in the United States. When she arrived, cases from months prior had piled up and many patients' care had fallen to the wayside. One report showed a patient with 50 stones in his urinary tract and acute pulmonary embolism. "When I saw that, I realized many of these cases were things you can actually treat," says Bedoya. "But I needed to communicate the findings. These are things we take for granted in the U.S. The tech explained to me, 'We don't have any established communication system here but that did not stop me from walking to the medical ward to discuss the findings.'"

On top of hosting lectures so that the local staff could better interpret images, Bedoya and her team worked through the backlog so that recent cases were being read soon after they were filed. "The techs had our phone numbers and they would call us all the time and ask us to look at cases," Bedoya says. "I feel that we made a clinical impact every day we were in Botswana."

## Jennifer Gillman, MD

### BOTSWANA

Jennifer Gillman, MD, a radiology resident at the Hospital of the University of Pennsylvania, worked at Princess Marina Hospital in Gaborone through the Botswana-UPenn Partnership. On a daily basis, Gillman worked alongside the clinicians — participating in bedside rounds and teaching bedside ultrasound techniques. "It was rewarding to directly see the daily impact radiologists have on clinical care," says Gillman.

Gillman, a future pediatric radiology fellow at the Children's Hospital of Philadelphia, spent much of her time at Princess Marina Hospital in the pediatric ward and neonatal ICU. Gillman and her team developed neonatal cranial head ultrasound workshops, consisting of didactic lectures and hands-on bedside ultrasound sessions. Faculty, residents, and students participated in these workshops. A workshop was also held for the ultrasound technologists. "Our goal was to provide practical knowledge and skills which could be used even after we returned home," notes Gillman.

Gillman and her team also gained a better appreciation for the differences in daily radiology workflow. For Gillman, having been trained in the era of PACS, reading multiphase CT scans that were printed onto film took time to get used to. "Physically hanging each study was a challenge, and I had to adjust my search pattern,"

says Gillman. Each report was then handwritten before being typed. "When you handwrite your reports, you learn to be concise and succinct — which is also important for report readability," she says.

Gillman and her team quickly gained the trust of the clinicians in Princess Marina Hospital — providing timely and helpful imaging interpretations. Gillman became actively involved in the medical oncology clinic tumor board and internal medicine morning report. "We were able to make a difference in patient care every day," says Gillman. "This has been the most rewarding experience I've had as a radiologist."

## Shekinah N. Elmore, MD

### ZIMBABWE

Shekinah N. Elmore MD, a resident with the Harvard Radiation Oncology Program (HROP), went to Harare, Zimbabwe, where she focused on women with breast cancer as part of her research study with the HROP. The goal of Elmore's project was to look for pathways where academic radiation oncology and global health could mix in an integrated way.

"There are lots of reasons women in Zimbabwe do or do not get radiation, and it is more socioeconomic than it is about clinical intervention," says Elmore. "The care that they get there is really outstanding but obviously it is limited by resources — not really knowledge or know-how, but financial resources on the patient side and the system side."

Elmore broke her trip up into two parts. The first part helped set up the research infrastructure and baseline work for her research study. The goal of the study was to investigate the role of radiation in women post-mastectomy, in terms of overall survival and breast cancer-specific survival. The local doctors Elmore worked with offered up fresh perspectives and keen expertise that affected Elmore greatly. Elmore collaborated with local residents, and both parties were able to learn from one another and contribute to the research.

Elmore will soon be returning to Zimbabwe for phase two of her research study, which will focus on gathering even more data, making sure women are being screened for breast cancer, and determining the quality of life for women post-mastectomy — particularly focusing on lymphedema and adjustment to post-mastectomy body changes. "We really hope to improve care over time and make sure that women aren't slipping through the cracks," says Elmore. "It will be great to go back and feel more like we are going back to a familiar place — like going back to another home." **B**



## Where will your travels take you?

The ACR Foundation's Goldberg-Reeder Resident Travel Grant awards grants each year to qualified residents and fellows seeking to spend at least one month assisting healthcare in a developing country. Apply for the grant by **June 30** at [acr.org/Goldberg-Reeder](http://acr.org/Goldberg-Reeder).



# New Chapters in Leadership

**RLI scholarships offer access to resources and training opportunities.**

**T**he Radiology Leadership Institute® (RLI) has evolved to support leadership training at every level and for all pivot points in your career,” ACR BOC Chair Geraldine B. McGinty, MD, MBA, FACR, told state chapter officers, councilors, and staff at the annual Chapter Town Hall meeting in January. The chapter leaders who support their members’ attendance at RLI-sponsored events, she said, play an important role in shaping the future of ACR members.

For the past five years, some state chapters have set up the RLI scholarship funds to support their members’ leadership training and career development. The financial award allows residents, fellows, and members-at-large to participate in a host of RLI programs and online coursework. The scholarships are funded through multi-year financial commitments and awarded to recipients chosen by the states’ radiological boards.

State chapters’ efforts have been lauded for guiding members’ career paths — shaping the future of the specialty by creating strong local- and state-level radiology advocates. The RLI’s training opportunities can help identify prospective leaders, prepare chapter members for leadership roles, help them transition from one career point to the next, and instill business skills not taught during residency.

## Learning Business

“RLI programs offer the business aspect of radiology that they may not get in their residency programs,” says Lara W. Knowles, coordinator for ACR’s Virginia chapter. “It’s great information about the economics of radiology.”

Knowles says her chapter has had a diverse group of applicants for the scholarship opportunity since the start. “We hope what they learn will encourage them to get involved in more leadership positions — in their own practice setting and within our chapter,” she says.

The chapter tries to split award money between as many interested applicants as possible. There are RLI offerings that fit just about any schedule, Knowles notes. “We really want to get the word out,” Knowles says. “We’re asking members to identify someone in their practice — an up-and-coming leader — who they think could really benefit from an RLI course or event.”

Because awardees are learning things through the RLI that other educational settings don’t offer, Knowles says it’s important that they share takeaways. “We ask them to write up a summary after taking a course so that we can put it in our newsletter and share it with other members,” she says.

RLI coursework puts attendees in a team setting and teaches problem-solving — breaking material up



To apply for a chapter scholarship, contact your chapter representative. To learn more about setting up an RLI chapter scholarship program, contact Anne Marie Pascoe, senior director of RLI, at [apascoe@acr.org](mailto:apascoe@acr.org).



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into bites that are easy to digest, says I. Ray Kirk, III, MD, FACR, president of the Texas Radiological Society (TRS) Foundation. “It can make you think differently and on a broader scale about radiology problems, rather than just talking about the problems,” he says.

Residents have been enthusiastic about participating in the program, says Christy McDonald, executive director of the TRS. “The experience really makes them want to engage when they come back to their programs,” says McDonald, formerly with the TRS Foundation, which carries out the charitable and educational functions of the TRS.

According to Kirk, “The whole point is to give them exposure to challenging issues surrounding radiology — to allow them to learn and develop a skill set that ensures they can function well during challenging times.” RLI training can foster skills that are sorely needed in the business world, Kirk says. “And it can be particularly helpful in terms of how to function within hospitals or in dealing with our business relationships outside of clinical practice.”

“These scholarships are a great way to engage our members and members-in-training,” Kirk says. “Their most valuable takeaways come from the exposure they get to management and leadership roles they may not see in day-to-day radiology practices.”

## Forging Futures

RLI on-demand courses, webinars, live events, and online programs give scholarship recipients an affordable and time-friendly way to engage in

business practices that demonstrate a commitment to the specialty. Participating state chapters are confident that attendees returning to their practice settings will put RLI resources to good use — strengthening existing professional relationships and building new ones.

Chapter leaders say they are investing in radiologists — and the future of their chapters — by training radiologists to assume leadership positions and advocate locally on behalf of the specialty. “We want [participants] to take away a passion for organized radiology — to gain a real sense of commitment at the local, state, and national level,” says Mary H. Scanlon, MD, FACR, faculty liaison to the RFS of the Pennsylvania Radiologic Society (PRS). “We’re always looking for emerging leaders — those who have been engaged with the ACR RFS and others who’ve been active on our board.”

“There has been an extra push by PRS leadership over the past few years to engage younger people,” says John Kline, executive director of the PRS. The focus is largely on trainees, residents, and fellows because they are usually the most burdened with debt, Scanlon adds.

According to McGinty, state chapter work is shaping the future of radiology. “Radiologists are curious, innovative, and never stand still,” says McGinty. “RLI programs can help us advance our profession, together.” **B**

By Chad Hudnall, senior writer, ACR Press

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**Hawaii** – Hawaii Radiologic Associates is seeking a general or sub-specialty radiologist, preferably with breast imaging experience for partnership track position. This is a full-time position on the Big Island of Hawaii and possibly Wahiawa, Oahu, offering competitive salary and benefits, including profit sharing, relocation assistance, and malpractice and health insurance.

**Contact:** Email CVs to Gail Uejo at [uejo@hirad.com](mailto:uejo@hirad.com) or call (808) 935-1825 ext. 115

**Arizona** – The ABR is looking for a diagnostic radiology (DR) executive staff member who will be responsible for various ABR operations pertaining to DR. This individual will support the DR trustees and be the liaison with ABR staff. Extensive experience as a DR with a broad understanding of the field is required. The candidate is expected to attend one week of orientation at the Tucson office in the first month of employment and be at the Tucson office at least two weekdays every two months.

**Contact:** Send letter of intent, CV with relevant professional references, and contact information to Karyn Howard, ABR managing director, 5441 E. Williams Circle, Tucson, AZ 85711

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The ACR Foundation (ACRF) sincerely appreciates those who generously contributed to the successful 2018 \$100,000 Health Policy Research Match Challenge. The ACRF received \$100,000 matching gifts from both a generous radiology practice and the ACR Board. We are pleased to announce that 100% of the ACR Board of Chancellors and Council Steering Committee members contributed to the Match Challenge.

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