

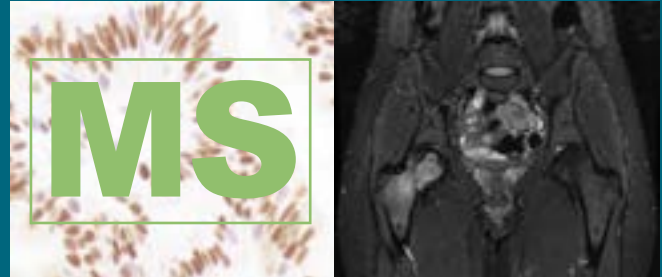


GETTING TO THE ROOT

Addressing Systemic Causes of Burnout

Improve Your Diagnostic Skills with AIRP® Virtual Categorical Courses

Earn CME!



MSK Imaging

February 28–March 3, 2022

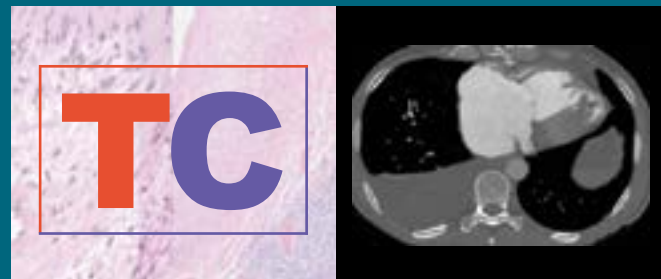


Breast Imaging

April 8, 2022

Master your diagnostic accuracy in identifying specific diseases, treatment and potential complications.

Through rad-path correlation, discover how the underlying pathology of a lesion relates to its imaging appearance.



Thoracic and Cardiovascular Imaging

March 24–25 and 28–30, 2022

airp.org | 1-800-373-2204 |   

Accreditation Statement for Physicians

The American College of Radiology® is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

For information about the accreditation of this program, please contact the ACR® at info@acr.org.

Courses are provided by the ACR Institute for Radiologic Pathology™.

Credit pending approval.

AIRP™
ACR INSTITUTE FOR
RADIOLOGIC PATHOLOGY



IMAGING 3.0 IN PRACTICE

Getting to the Root

Addressing Systemic Causes of Burnout

Merriam-Webster defines burnout as “exhaustion of physical or emotional strength or motivation usually as a result of a prolonged stress or frustration.” It’s a condition that was widespread prior to the pandemic, has risen since the pandemic began, and continues to increase exponentially.

A recent Indeed.com survey found that over 50% of U.S. workers report feeling burned out, up from 43% before COVID. Other studies show that burnout rates are even higher among healthcare workers, with more than 60% of radiologists reporting symptoms of burnout. And it’s having an impact on the workforce. According to research, 18% of healthcare workers have resigned since the start of the pandemic, citing burnout as a primary factor.

We know that exercise, meditation, adequate sleep, and other lifestyle choices can aid in fighting the symptoms of burnout. While these solutions help individuals address symptoms, they don’t target the root cause of the problem. Radiology must look beyond these individual actions to mitigate the systemic conditions that cause burnout in the first place.

The case studies and resources in this issue examine causes of burnout among radiologists. More importantly, they offer strategies for altering our systems to improve our health, well-being, and job satisfaction. The seals at the start of each case study highlight the primary well-being levers addressed, from safety to efficiency. This issue also includes individual approaches you can implement immediately from ACR’s Radiology Well-Being Program.

I encourage you to leverage the ideas herein to improve your individual well-being and help make systemic changes that get at the root of the problem. With intentional actions focused on addressing the cause, not just the symptoms, we can reduce the incidence of burnout and increase our job satisfaction – improving patient care along the way.

Darcy J. Wolfman, MD

*Johns Hopkins School of Medicine, Nationals Capital Region, Clinical Associate and Clinical Director of Ultrasound
ACR Radiology Well-Being Program Leader*

Imaging 3.0 Advisers

Geraldine B. McGinty,
MD, MBA, FACR
Marc H. Willis, DO, MMM
Sabiha Raouf, MD, FACR
Dana H. Smetherman, MD,
MPH, MBA, FACR

Imaging 3.0 Staff

Elizabeth Bleu *Senior Director, ACR Press*
Jenny Jones *Managing Editor*
Chris Hobson *Sr. Communications Manager*
Linda Sowers *Consulting Editor*
Lynn Riley *Freelance Designer*

ACR Press Staff

Lyndsee Cordes *Director of Periodicals*
Lisa Pampillonia *Art Director*
Nicole Racadag *ACR Bulletin Managing Editor*
Chad Hudnall *ACR Bulletin Senior Writer*



All American College of Radiology Imaging 3.0 Case Studies are licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. Based on works at acr.org/imaging3. Permissions beyond the scope of this license may be available at acr.org/Legal.

Inside this Issue

- 4 Bringing Errors to Light**
Radiologists in Massachusetts implement a just culture model, creating a fair and transparent way to address and solve medical errors.
- 8 Force Multiplier**
A private practice’s culture change increases its employee satisfaction score and buoys its COVID-19 response.
- 11 House Passes Dr. Lorna Breen Health Care Provider Protection Act**
The bill seeks to ensure mental health and substance-abuse disorder support for physicians and other providers.
- 12 Case Studies in Well-Being**
The ACR Radiology Well-Being Program case study series highlights well-being leaders, their innovations, and proven outcomes.
- 15 Contributing Factors to Burnout**
A recent paper in *Current Problems in Diagnostic Radiology* outlines factors that might contribute to radiologist burnout.
- 16 Watch and Learn**
California radiologists implement patient-facing videos to decrease patient anxiety and physician burnout.
- 19 Overcoming Adversity**
As COVID-19 flared in New Orleans, one radiology department took swift action to deploy new strategies and rethink processes to keep people safe and boost morale.

SHARE YOUR STORY

Have a case study idea you’d like to share with the radiology community? To submit your idea, please visit acr.org/Suggest-a-Case-Study.

QUESTIONS? COMMENTS?

Contact us at imaging3@ACR.org.

VISIT THE ARCHIVE

View the full Imaging 3.0 library at acr.org/Case-Studies.



Bringing Errors to Light

Radiologists in Massachusetts implement a just culture model, creating a fair and transparent way to address and solve medical errors.

KEY TAKEAWAYS

- Radiologists at Lahey Hospital and Medical Center implemented just culture — a method of investigating why errors happen and addressing them in a fair and transparent way.
- Although the application of the just culture model can appear complicated at first, Lahey’s radiologists have found that using real-life scenarios helps employees better understand just culture concepts.
- Recognizing that culture change takes time, Lahey’s radiologists have committed to continually reinforcing the change they seek to implement. This includes helping employees feel comfortable admitting errors.

When Jennifer C. Broder, MD, became the vice chair of quality and safety at Lahey Hospital and Medical Center in Burlington, Massachusetts, she noticed a concerning trend: Members of the department, including both physicians and technologists, were reluctant to disclose mistakes due to embarrassment and fear of punitive action or retribution. Instead, errors were often buried and never addressed.

“From a quality and safety perspective, that behavior negates the opportunity for improvement,” says Broder, who is also an assistant professor of radiology at Tufts University in Boston. “We should be looking at every mistake to understand its context and why it happened so that we can prevent it from happening again.”

With this in mind, Broder approached Christoph L. Wald, MD, PhD, MBA, FACR, the radiology department chair, about creating an environment in which employees feel comfortable talking about mistakes with leadership. “When we talked about it, we decided that we needed to change the culture of our department. For employees to be comfortable coming forward about errors, we needed to have a fair and transparent way to address issues, one that would follow the same process each time,” Broder says.

As she examined possible solutions, Broder remembered learning about the just culture model at an ACR Quality and Safety conference that she had attended years earlier as a resident. After some consideration, Broder approached Wald about the just culture model, which is built on the understanding of two key traits: First, people don’t always intentionally make mistakes; and second, different people will view the risk associated with a behavior or decision differently. Wald



Jennifer C. Broder, MD, vice chair of quality and safety at Lahey Hospital and Medical Center, led implementation of the just culture model within the radiology department.

saw the value of just culture and supported it without hesitation.

Patricia A. Doyle, MBA, CRA, executive director of radiology at Lahey Hospital and Medical Center, adds that the approach can also lead to improved patient care. “At the end of the day, learning about errors makes it safer for our patients. We can uncover systemic and human problems through a just culture, and as leaders, it’s our responsibility to fix those problems.”

Since the Lahey team began implementing the just culture model in October of 2016, the radiology department has become more comfortable with the approach and has standardized how it deals with errors. “Just culture has given us a way to have a consistent process for addressing errors each time. Everyone knows what the process is, so they’re more

“For employees to be comfortable coming forward about errors, we needed to have a fair and transparent way to address issues, one that would follow the same process each time.”

Jennifer C. Broder, MD



transparent about things that happen,” Doyle explains. “They also know what to expect from managers — for instance, one manager isn’t going to be more lenient than another on attendance. You know exactly what to expect no matter who you are dealing with.”

Understanding Just Culture

The just culture method directs management through a set of guiding questions to determine the underlying causes of an unfavorable event: Was the mistake the result of human error, at-risk behavior, or reckless behavior? Each type of behavior is distinct — some intentional and some not:

- Human error — a simple mistake, maybe something someone forgot to do. For example, during a busy shift, a CT technologist may perform the wrong CT protocol because she forgot to verify the protocol before conducting the exam.
- At-risk behavior — risky actions occur when an individual does not recognize the extent of the risk involved in their decision. For example, this could involve workarounds that people might use to get a task done more quickly than the prescribed methodology.
- Reckless behavior — a deliberate action that consciously disregards risk. For instance, a technologist may intentionally ignore the requirement to check a patient’s lab results before a procedure in order to start the exam more quickly.

“Just culture is based on intent — the steps that happened as a person walked through the decisions made,” Broder explains. “Was the human error simply an ‘I forgot,’ or was there specific disregard for known protocol and why? Or was there a systemic error that set up the person to fail?”

Once management determines the intent behind a person’s actions, the model outlines appropriate responses for each scenario. Human error results in consolation, at-risk behavior results in coaching, and reckless behavior results in disciplinary action.

“There’s nothing worse than saying you’re going to operate a certain way and change the culture and then having leadership make a decision that is out of line with the principles you’re teaching.”

Jennifer C. Broder, MD

Securing Leadership Support

The Lahey radiology leadership chose to implement the just culture model for several reasons, most notably because it would bring a valued change to the department. “If people understand they’re not going to be disciplined for making human errors, they may be more likely to talk about their mistakes and why they happened,” Broder

says. “Ultimately, it helps foster an environment that encourages transparency, inquiry, and learning about error.”

To begin the process, Broder and Wald had to determine which institutional leaders needed to support this work for it to succeed. They also approached the hospital’s chief medical officer for quality and safety and the chief patient safety officer about the potential for implementing a just culture and invited them to attend the just culture training sessions that Lahey was planning. “They recognized the value immediately. We didn’t have to do much in terms of selling them on it,” she says.

Broder stresses that unrelenting support from hospital leadership, human resources personnel, and the legal department is critical to changing a culture. “There’s nothing worse than saying you’re going to operate a certain way and change the culture and then having leadership make a decision that is out of line with the principles you’re teaching,” Broder says. “If that happens, you’re not really walking the walk, and you will end up losing credibility with your employees, who will in turn lose trust in your message that they can feel safe to discuss errors. Your culture won’t change.”

Introducing Just Culture

Next, Broder partnered with Doyle and Lorraine Kelly, associate director of diagnostic imaging at Lahey Hospital and Medical Center, to schedule a mandatory just culture training session for the radiology department’s physician and administrative leaders, including the modality operations managers and team leaders.



Christoph L. Wald, MD, PhD, MBA, FACR, chair of Lahey’s radiology department and chair of the ACR Commission on Informatics, supported the just culture model.

Broder and her team reached out to their risk management colleagues who had already undergone just culture training at Beverly Hospital, which is in the same healthcare system as Lahey. These colleagues guided the training session, giving a high-level overview of the just culture key concepts and introducing just culture’s algorithm, which involves a series of questions:¹

- What happened?
- What usually happens?
- What does the procedure require?
- Why did it happen?
- How was the organization managing the risk?

Although participants were somewhat overwhelmed with the information, they were supportive of the method. “Managing individual errors is one of the hardest things leaders do,” Broder says. “Managers struggle with the complexities of individual personalities and situations, and so they welcome a tool like the just culture method that helps support consistent decision-making. I think they felt relieved that we were bringing this idea forward.”

The approach gave department leaders a structure for handling these often-challenging scenarios, Kelly says. “The just culture approach gave us all one plan to work from,” she explains. “It broke down silos



because a reaction to an error wouldn't change from person to person or modality to modality. I wanted to make sure the frontline staff were being supported equally by the leadership team."

At the end of the training, participants received laminated trifold cards that listed the structured just culture approach; questions to ask to determine how the error was made; and descriptions of human error, at-risk behavior, and reckless behavior. They also listed other algorithms, such as the process to follow for repetitive human error or at-risk behavior.

Engaging in Scenario Training

While the training was well received, changing culture doesn't happen overnight. To continue the culture shift, Broder, Doyle, and Kelly incorporated just culture scenario exercises into the department's monthly quality and safety meeting, from January of 2017 to January of 2019. The vice chair of quality and safety, department director, associate director, modality operations managers and team leaders, and informatics and nursing managers regularly attend the meeting.

During the exercises, the team conducted role-playing scenarios and practiced asking the questions in the just culture algorithms. "Initially, we used made-up scenarios from a guide we had



Patricia A. Doyle, MBA, CRA, executive director of radiology at Lahey Hospital and Medical Center, says the just culture approach leads to improved patient care.

purchased from a consulting company," Doyle recalls. "People hated it because they felt that the scenarios would never happen in our setting. They were geared toward healthcare but were too outrageous."

Broder and her team took this feedback seriously and began developing their own scenarios from real-life situations that occurred in their own department. Doyle selected reports from the hospital safety reporting system that describe errors involving radiology department technologists or other staff. Examples included an administrative assistant missing an error in a mammogram report (resulting in delayed follow-up), a mislabeled specimen, and a team member sharing a parking pass with another employee who did not share those privileges.

From this information, Doyle prepared a brief, anonymized summary to introduce each scenario. The radiology department is large enough that unless the specific manager was involved, it would be difficult to determine the employees' identities.

The group enacted the employee interview that would follow each event, with Doyle playing the role of the manager and the team leaders taking turns playing the role of the employee. During the interview, participants asked and answered the questions included in the just culture algorithm, using a decision tree to determine whether the event was caused by human error, at-risk behavior, or reckless behavior. "It took us a while to figure out how to use the algorithm. It wasn't uncommon in the beginning for people to jump to conclusions," Kelly says. "But once we learned how to pick the situation apart with the suggested follow-up questions, we started to get the hang of it. Sometimes we realized we'd be looking at things with a certain bias or asking the wrong questions to understand the outcome."

Broder says that an example of this occurred when a technologist within the department had acquired an unnecessary series of images of an adjacent body part during an exam. The



Lorraine Kelly, associate director of diagnostic imaging at Lahey Hospital and Medical Center, says the just culture model gives department leaders a structure for handling challenging situations.

technologist separated the extra images from the rest of the study and didn't immediately send them to the picture archiving and communications system. Initially, the manager assumed that the technologist was trying to hide the error, but when asked the questions from the just culture algorithm, the technologist revealed that he didn't know what to do with the images and hadn't yet had the chance to ask.

"The manager assumed the technologist was aware of our department policy of sending all images with the initial exam and therefore had ill intentions," Broder explains. "However, when the manager re-interviewed the technologist using the suggested questions, the actual intent and cause came out."

"It broke down silos because a reaction to an error wouldn't change from person to person or modality to modality. I wanted to make sure the frontline staff were being supported equally by the leadership team."

Lorraine Kelly

Determining Effectiveness

To determine the efficacy of the ongoing training with role-playing, Broder issued a survey through email to gather feedback about managers' perceived impact of the just culture training. The first two questions on the survey examined how consistently managers are investigating and

managing errors. Questions three through eight identified whether managers were using the just culture model in real life, and questions nine and 10 evaluated whether the department was accomplishing its goals for increasing equity and improving safety.

All 12 of the department's managers participated in the voluntary survey. The results showed great improvement. After the training, all managers reported they were using the same method and asking the same questions to investigate errors each time they occurred. Managers reported improving their outcome bias — considering the outcome of the error when reviewing the case. Consolation in response to human error was used more frequently while reckless behavior continued to be managed through discipline.

The Lahey radiology leadership team has also received positive anecdotal feedback about the training: "We've heard good things from both the managers and the frontline employees, especially because we've improved the transparency in our system. Staff are beginning to understand how managers evaluate a situation, and know that this is a process that will occur every time, so they're more forthcoming when an error happens," Broder says. "Just culture is a tool to help reassure and comfort people when they've made an honest mistake. And our team really appreciates that."

Inciting Change

Both Doyle and Kelly have noticed changes within the department. "We've had a great response, especially from leadership," says Doyle. "Not long ago, we had an incident that happened because of pure human error. Previously, that employee would have been terminated. But because leadership walked through this algorithm, they were able to understand the situation and instead rallied around the employee."

Broder also notes that the department seems less siloed and that managers are

"Just culture is a tool to help reassure and comfort people when they've made an honest mistake. Staff are beginning to understand how managers evaluate a situation, and know that this is a process that will occur every time, so they're more forthcoming when an error happens."

Jennifer C. Broder, MD

using their trifold just culture cards so much that the cards are starting to fall apart. "I've seen more discussions among managers about how they run their staff training and other day-to-day logistics. Before, they tended to stay within their modalities. We are seeing a change not only in individual error management but how we work as a team. Everyone is committed to this culture change."

In the future, Broder and her team plan to continue reinforcing the just culture model within the department by practicing the model and teaching frontline

employees about the process. Broder, Doyle, and Kelly are working on a plan to help spread the message to radiology employees about what a just culture is and what they can expect. "We're thinking of doing a video presentation on the concepts of just culture with specific examples. We want to do something accessible that people will be able to spend time with," Broder says. Following the radiologists' lead, hospital leadership has decided to implement the just culture model throughout the institution.

Broder is also teaching radiologists from other hospitals and practices: Recently, she presented Lahey's just culture program to radiology residents at the ACR's Radiology Leadership Institute Summit. "We walked through the consequences of physician shame, what physicians worry about when they make errors, and why it's important to transition to just culture. I wanted to make sure the presentation was really practical and actionable," Broder explains.

For others wishing to implement the just culture model into their practice or department, Broder recommends patience and spending time practicing the algorithm. "You can't suddenly change a culture," she says. "It requires focus, dedication, and mindful planning to make certain that the changes you want are implemented. Without spending that time, you just have verbiage without real outcomes."

The effort is worth the result, Broder says. "It's not only right for the employee; it's right

for the patient. By implementing just culture and investigating our processes, we're improving the safety of what we do and enhancing the care we provide."

By Meghan Edwards, freelance writer

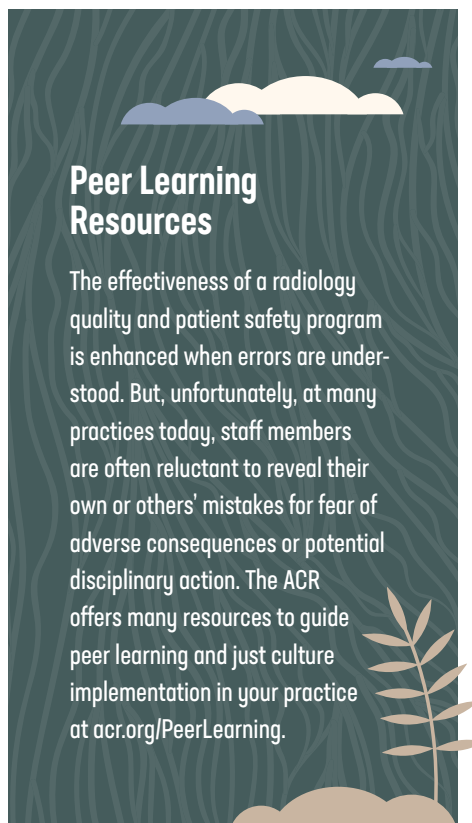
ENDNOTES

1. Outcome Engenuity. Just culture algorithm v1.2 for physicians. Plano, TX: Outcome Engenuity, 2012.

Now It's Your Turn >>>

Follow these steps to begin implementing a just culture into your practice. Let us know how you did on Twitter with the #Imaging3 hashtag or at imaging3@acr.org.

- » Meet with leadership to introduce them to just culture and generate buy-in.
- » Choose a just culture tool that fits your institution and seek training, whether from colleagues who are already implementing just culture or a consulting group.
- » Develop a program that includes opportunities for ongoing training and evaluation of efficacy by, for example, reviewing instance results from culture-of-safety surveys.



Peer Learning Resources

The effectiveness of a radiology quality and patient safety program is enhanced when errors are understood. But, unfortunately, at many practices today, staff members are often reluctant to reveal their own or others' mistakes for fear of adverse consequences or potential disciplinary action. The ACR offers many resources to guide peer learning and just culture implementation in your practice at acr.org/PeerLearning.

The graphic features a dark green background with a subtle pattern of leaves. At the top, there are stylized clouds in shades of blue and yellow. At the bottom right, there is a stylized plant with green leaves and a brown stem.



Force Multiplier

A private practice's culture change increases its employee satisfaction score and buoys its COVID-19 response.

KEY TAKEAWAYS

- Radiologic Medical Services, a private practice in Iowa, saw an opportunity to improve its company culture when it changed business managers.
- With leadership support, the new manager focused on instituting a culture built on trust, transparency, and open communication, with the aim of helping employees connect with their purpose.
- The group credits its empowered team and caring culture for helping it effectively respond to the COVID-19 pandemic and for increasing its employee satisfaction score by 18%.



Before Carrie Cole became the business manager for Radiologic Medical Services (RMS) in 2016, morale throughout the private radiology practice was low. In annual employee satisfaction surveys, staff at the Iowa-based group reported feeling like their opinions didn't matter and like they were expected to just do their jobs and nothing more. Bottom line: They were detached from their work.

When Cole was promoted to business manager after serving as the group's human resource and training manager, she and practice leaders saw an opportunity to change the team's culture for the better. With support from the group's eight radiologists, Cole and the group's newly appointed business coordinator, Christine Coon, evaluated feedback from the employee satisfaction survey to identify the most pressing issues and began working to address the concerns. "We resolved that we were going to take whatever came out of that survey and act upon it," Cole says. "It wasn't easy, and it wasn't fun, but at the end of the day, I wanted our team members to leave work every day knowing that what they do is purposeful. I wanted them to know that they matter."

To that end, Cole, Coon, and other practice leaders, including Jessica Wittman, corporate liaison, and Tricia Bedenbender, manager of the group's Muscatine office, have spent the past four years cultivating a transparent, caring, and collaborative environment throughout the practice. The result shows an 18% increase in employee satisfaction scores over that time and a rise in employee engagement that has helped the group thrive — even during the COVID-19 pandemic.

"We have been able to use our existing culture to give us the speed, a sense of esprit de corps, a flexibility, and a trust that for us, in our small group, is

"At the end of the day, I wanted our team members to leave work every day knowing that what they do is purposeful. I wanted them to know that they matter."

Carrie Cole



Carrie Cole became the business manager in 2016 and led RMS' culture change. "Happy employees are healthier, more creative, and more collaborative, which leads to increased efficiency and decreased employee turnover," she says.

really an organizational force multiplier," says Scott M. Truhlar, MD, MBA, MS, FACR, partner and vice president at RMS.

Change of Direction

With about 40 employees and two outpatient imaging centers, RMS took the first step toward improving its culture when the group promoted Cole and Coon to business leadership positions. "We had a vision of what we wanted our imaging centers to be and what we wanted them to look like," explains Shane A. Kraske, MD, medical director and treasurer of RMS. "We were successful at developing physically inviting centers, but we struggled with the culture until Carrie and Christine took the lead. Now, our employees are much happier. They understand that we're all one team working toward the same goal of providing our community with quality patient care."

When Cole and Coon began reviewing the employee satisfaction surveys, they identified two key factors holding the practice back: trust and communication. With this in mind, Cole made it a point to tell team members that she was always available to talk with them and that they could feel safe coming to her to discuss challenges and ideas.

"I want them to know that they have a voice and that we value their input," Cole says. "One way we have demonstrated this is when team members come to us with a problem, rather than dictating what they need to do, we ask them what they think the solution should be. They know their jobs best, so who am I to tell them what to do? Guiding employees and allowing them to solve challenges themselves gives them a sense of ownership. They know that they have the opportunity to make things better."

For Gina Moore, guest services representative at RMS, Cole's accessibility and responsiveness has helped change the way she views her job and makes her want to do her best every day. "Carrie has a really strong open-door policy, which we didn't have before," says Moore, who has been with the practice for six years. "I can call her any time and ask if she has a minute to talk about

"I regained the team's trust by involving them in the practice and making them aware of everything that was going on — the good and the unfortunate."

Carrie Cole

something that's on my mind. She doesn't put up a wall. She always makes me feel important and appreciated. Having that mutual respect makes a huge difference, and I think it has a positive impact on how I approach my work and my interactions with everybody from patients to co-workers."

Employee Empowerment

In addition to letting employees know that they can always come to her with questions or ideas, Cole committed to sharing as much information with team members as possible. She knew she needed transparency to regain the trust that had been lost over time. "It was a pretty rocky road at the beginning of my business manager role," Cole admits. "But I regained the team's trust by involving them in the practice and making them aware of everything that was going on — the good and the unfortunate. I knew I had to lead by example and demonstrate my loyalty to the practice by being honest with my thoughts, speaking to each team member regularly, and performing with respect."

To further improve communication and build trust throughout the group, Cole and practice leaders helped form the Employee Advocate Committee, which comprises representatives from each division within the practice, including guest services, ultrasound, and CT. The committee meets monthly to discuss ideas and challenges facing employees throughout the practice. When the committee formed four years ago, Cole and practice leaders attended its meetings, but they eventually removed themselves so that team members could have more candid discussions without worrying about managers being present. Now, only one radiologist attends the meetings.

Katie Schmelzer, RT, a mammography technologist who has been with the practice for 24 years, chairs the committee and takes its recommendations to leadership when necessary. But most of the committee's work doesn't require management approval. "Our leadership has turned a lot of the decision-making over to us," Schmelzer explains. "For instance, when it comes to



Scott M. Truhlar, MD, MBA, MS, FACR, partner and vice president for Radiologic Medical Services, says the culture has become a force multiplier for his small practice.

scheduling, they'll say, 'We need coverage from 7:30 a.m. to 7 p.m. We don't care how you do it as long as we have the coverage.' Then they let us figure it out from there. It puts the trust back in us and allows us to be extremely flexible in how we do things, which everyone appreciates."

Ready for Action

The group's established record of employee empowerment proved particularly beneficial when the COVID-19 pandemic began spreading across the country in early 2020. At the end of February, Cole received an email from a team member, letting her know that face masks would be in short supply. She took the warning seriously and, along with Coon, immediately went to home improvement stores in the area and purchased as many N95 masks and paint suits to use as personal protective equipment (PPE) as possible.

"She knew that she could buy all of those things, put it on the company credit card, and that we had her back," Truhlar says. "If she turned out to be wrong, that was OK. She was trying to do the right thing for the business, and we long ago empowered her to make decisions that she feels are right." It turned out that trust was well placed when, shortly after that shopping trip, it became nearly impossible to buy PPE.



Business coordinator Christine Coon has been integral to ushering in RMS's culture change.



Shane A. Kraske, MD, medical director and treasurer of RMS, and the group's other radiologists have empowered the business manager and other employees to make decisions in the group's interest.

Iowa City reported its first confirmed COVID-19 cases among a group that had just returned from international travel on March 16, 2020, and RMS radiologists immediately reached out to Cole and asked her to work with the team to outline the group's operational response to the pandemic. "We went to the practice manager and said, 'Listen, let's plan for our volume to go down by 40 to 60%. Let's approach our techs and figure out how we're going to do this so that we keep them safe and reimagine how we're going to run our operations,'" Truhlar says.

The next day, Cole met with team members throughout the practice to gather input about how the group would remain open during the pandemic. With leadership approval, they worked out a 50/50 plan in which half of the team members would work one week and the other half would be at home. Then the next week, the teams would swap. The approach included a backup team so that if any team members became ill, other team members could fill their place. It also made employees feel safe knowing that fewer people would be in the office at one time.

"It reinforced the fact that we really were concerned about their safety — their ability to come to work, be safe, and go home to their children at night and be comfortable that they weren't putting their own families at risk," Truhlar says. "Because of that, they worked with us, and people were enthusiastic about trying to come up with good solutions."

From there, the team devised the operational plans for everything from cleaning exam rooms to maintaining social distancing in the offices. For instance, Moore suggested that they install barriers at the check-in desk to protect staff and patients. "Leadership jumped on that right away and put up plexiglass," Moore recalls. "Basically, anything reasonable that we asked for, they took care of for us. It's nice being able to provide input like this and knowing that it will be seriously considered, especially since we didn't have that before. I think we've done an amazing job handling the COVID-19 pandemic."

Financial Response

The practice's financial response to the pandemic also benefited from its team-based culture. When the federal government announced the Paycheck Protection, Medicare Advanced Payment, and Health and Human Services stimulus programs, Cole and Coon took the lead to gather the information necessary to ensure the practice was among the first to apply for and secure these resources. "We were able to get our applications filled out and

submitted the first day they were due, which provided us with two months of cash flow and set us up to allow employees to continue to work at full pay," Kraske says. "We were also proactive about immediately getting some loans approved for the company to make sure that we were backed up in case the worst-case scenario happened and we didn't have volumes back until July."

Cole and Coon also took the initiative to call the practice's vendors and ask about

discounts and payment deferrals during the crisis. "We immediately called all of our vendors, starting with the ones we owed the most to and going right down the line," Truhlar says. "We asked about deferring our rent, we called our liability insurance carriers and asked if we could defer payment on that, and all of our service contracts for our maintenance on the machines. All of those people got a call from us saying basically, 'Hey, we all know that medicine is not going to be as cash rich in the next few months, and we might not be able to pay our bills, so what can we do about that?' Surprisingly, or maybe not surprisingly, all of them were willing to work with us to defer our payments into the future."

These quick actions supported the radiologists' decision to keep all team members employed during the pandemic. Rather than laying off employees, the group's radiologists decided to take a 30% pay decrease to ensure that team members remained on the payroll full time — even with the 50/50 schedule that had been developed. "We really took the approach that this storm will pass, and we are going to have to rebuild our practice flow with the team we still have in place when this passes," Truhlar explains. "There were no furloughs, no firings, no forced vacations, none of that,



Katie Schmelzer, RT, a mammography technologist who has been with the practice for 24 years, chairs the group's Employee Advocate Committee.

"It reinforced the fact that we really were concerned about their safety — their ability to come to work, be safe, and go home to their children at night and be comfortable that they weren't putting their own families at risk."

Scott M. Truhlar, MD, MBA, MS, FACR

and that was just a decision that was appropriate for our corporate culture, our practice philosophy for how we want to run our business.”

Back to Business

As the initial COVID-19 cases surged in Iowa and providers banned elective procedures in the state, RMS patient volumes decreased by 63% in April, compared to the same time in 2019. Before the group resumed its regular schedule on May 12, Cole convened an all-staff meeting to talk with the team about reinstating a regular schedule.

“I got everyone down into the garage of our clinic and asked people how they felt things were going with our skeleton crew that we were running and what they felt we needed to do,” Cole says. “Christine and I had the skeleton crew’s schedule for the next two weeks ready to present, but the team decided that the next day we were going to go back to a full staff. That was a pretty

“You have to lead by example and live what you believe. ... Leaders set the culture.”

Carrie Cole

humbling feeling going out of there knowing that they wanted to work, even though they were getting full pay on the 50/50 schedule. They wanted to be there for each other and the community.”

With the entire team committed to moving the practice forward, its volumes have gradually risen to pre-surge numbers. Cole credits the group’s culture for not only getting it through this uncertain time but for also increasing employee satisfaction from a low of 346 out of 500 four years ago to today’s score of 407 — an 18% rise. “This increase is a reflection of years of work that started with the practice leaders,” Cole says. “You have to lead by example and live what you believe. If it doesn’t start with the physicians/board of managers and the leadership team, it will not work. Leaders set the culture.”

Cole recommends that every practice prioritize improving company culture.

It benefits everyone, she says. “Happy employees are healthier, more creative, and more collaborative, which leads to increased efficiency and decreased employee turnover,” she says. “Your return on investment is priceless for your business and for patient care.”

By Jenny Jones, Imaging 3.0 managing editor

Now It's Your Turn >>>>

Follow these steps to begin implementing a more engaged, trusting, and caring culture in your practice. Let us know how you did on Twitter with the [#Imaging3](#) hashtag or at imaging3@acr.org.

- » Tell employees they can come to leadership anytime to discuss ideas and challenges and expect follow-through by executives.
- » Set the example by being open and transparent about sharing information with employees.
- » Empower employees to make decisions without requiring leadership approval for every action.

House Passes Dr. Lorna Breen Health Care Provider Protection Act

The U.S. House of Representatives passed the ACR-supported Dr. Lorna Breen Health Care Provider Protection Act (H.R. 1667) by an overwhelming bipartisan 392 to 36 vote on Dec. 8, 2021.

The legislation, led by Rep. Susan Wild (D-PA), seeks to provide mental health and substance-use disorder support for physicians and other healthcare providers and address the stigma associated with healthcare providers seeking such help. The bill is named in honor of Lorna Breen, MD, an emergency

physician from New York City who died by suicide in April of 2020.

In December of 2021, ACR was cautiously optimistic that the Senate would soon consider the legislation and possibly seek passage via the fast-tracked “unanimous consent” process, which would clear the way for President Joseph R. Biden to sign the bill into law.

The ACR is monitoring the bill's progress.

Case Studies in Well-Being

The ACR Well-Being Committee is part of the ACR Commission on Publications and Life-long Learning. Under co-chairs Carolynn DeBenedectis, MD, and David Sarkany, MD, the committee leads the ACR Radiology Well-Being Program, which offers a host of resources to help radiologists and their teams cultivate a culture of well-being in their practices and departments. Among these resources is the well-being program case study series. Each of the case studies in the series highlights well-being leaders, their innovations, and proven outcomes that others can replicate for increased well-being across the profession. For more resources from the ACR Radiology Well-Being Program, visit acr.org/WBI.

Departmentwide Improvement Program

Stanford University School of Medicine Radiology Department,
Stanford, California

WHO

Terry S. Desser, MD, Well-being Director
Amin Etemad, MBA, Quality Project Manager, Radiology
Allison Faust, BS, Manager, Radiology Quality Improvement
Gloria Hwang, MD, FSIR, Associate Chair of Performance Improvement
David B. Larson, MD, MBA, Vice Chair for Education and Clinical Operations
Marc H. Willis, DO, MMM, Associate Chair of Quality Improvement
Luke Yoon, MD, Associate Professor, Body Imaging and Musculoskeletal Imaging

INTERVENTION

52in52 is a cohort-based program developed under the leadership of David Larson, MD, MBA, and now co-led by Allison Faust, BS, program administrative director, and Marc Willis, DO, MMM, program physician director. The name, “52in52,” refers to the goal of completing one improvement project for each week of the year. 52in52 supports quality improvement initiatives led by frontline staff (non-physician employees), trainees, and faculty within the department.

Participants identify and solve problems in their work that cause stress or negatively influence patient care (e.g., inefficiencies and non-value-added activities such as disruptive phone calls, unnecessary mouse clicks, or routine MRI and CT protocols). Any department member can submit a proposal with an issue to be addressed. Projects must be large enough that the underlying problem should not be solvable within a few days but small enough to accomplish by a department team within 10 weeks.

OUTCOME

The program has been popular since 2017, with approximately 175 projects completed to date, and costs are primarily in the form of personnel time.

Employee engagement has increased significantly, and team members readily invest, recognizing the benefits firsthand through their work environment and improved patient care.

LESSONS LEARNED

The most impactful projects will come from the frontline staff. They are the ones doing the work. Involving and engaging them in solutions and problem solving will lead to the best outcomes.

In addition, support in the form of protected time can be hard to come by but is by far one of the most important obstacles to overcome. Since it's a cohort-based program, a structured approach wherein all groups are going through the same project stages is easier to coordinate than a situation in which projects are starting continuously. Teams will be able to see what their peers are doing and gain ideas for their projects.



Coaching Circles

Radiology Partners, Chicago

WHO

Syam Reddy, MD

INTERVENTION

In 2016, Radiology Partners began a coaching circle initiative to give both physicians and nonphysicians a place to confidentially share pressing issues — concerns with leadership or professional/personal matters. The charge of the circle participants is not to solve others' problems or judge actions but to listen and allow the person sharing to develop new perspectives and internal resources to overcome challenges. The goal is for the participants to experience personal growth and development.

Each circle of eight to 10 people meets virtually every other week for six months, at an agreed upon time, sometimes after work hours. The timing allows individuals to be present and produce more free-flowing conversation, without concern for interruptions.

To start this program, Radiology Partners brought in an executive coach focused on wellness and leadership development. Once the program was established, interested practice physicians, including Syam Reddy, MD, as well as nonphysician teammates, received training after participating in multiple rounds of coaching circles and stepped up to lead a cohort of individuals.

Although much of each meeting is driven by the needs of the participants, each circle typically begins with a short, five to 10 minute didactic session on personality traits, meditation information, or resiliency techniques, for example. The majority of the time is focused on group members' challenges and personal growth initiatives.

OUTCOME

Reddy has noticed that during the sessions people will share that they feel more connected because other members have similar experiences. He believes the coaching circles help people relate to one another, decrease isolation, and allow participants to develop internal resiliency and experience personal growth.

LESSONS LEARNED

Reddy notes that having an informational presentation prior to starting each session will help set expectations for those who are interested. Being present and committed to attending the video conference call every two weeks is important and helps ensure stability and continuity between members. This type of well-being activity can work in both academic and private practice settings and could potentially occur during work hours, if members' availability allows.



Well-Being Curriculum and Fitness Challenge for Residents

Mayo Clinic
Radiation Oncology Department, Rochester, Minnesota

WHO

Kimberly Gergelis, MD, PGY5
Pam Quinones, Residency Program Coordinator
Kimberly Corbin, MD, Program Director

INTERVENTION

In 2019, after determining that radiation oncology residents felt isolated and burned out, Kimberly Gergelis, MD, PGY5, and Kimberly Corbin, MD, along with Residency Program Coordinator Pam Quinones, implemented a well-being curriculum with help from a clinical psychologist and humanities-in-medicine professional. Residents can attend hour-long monthly meetings on topics such as imposter syndrome, competition among colleagues, the burden and amount of work, isolation, and loss of autonomy, among others. The meetings, attended on average by 75% of the residents, include a five-minute icebreaker and 10 minutes to introduce the topic. The remainder of the session includes structured activities to break down barriers and allow individuals to share their thoughts. At the end of each year, residents can attend a focus group to share freeform ideas on the meetings.

OUTCOME

Using the Stanford Professional Fulfillment Index, well-being levels increased over the three years of the program.

FITNESS CHALLENGE

The biannual fitness challenge started in 2021 to help reduce isolation and increase connection among the radiation oncology department.

Individuals could sign up for the month-long challenge and be paired up with someone in the department with a different role. The first challenge had 175 participants (out of 350), who used an app to track their fitness points, earned for activities such as meditation, exercise, outdoor walks, cooking a healthy recipe, and getting enough sleep. Gergelis and team used an app to keep track of points and to view the comments shared by one another. Small prizes were awarded, such as \$10 gift cards.

OUTCOME

Participants regularly communicated with those outside their area of expertise to help to reduce isolation.

LESSONS LEARNED

For other groups attempting these initiatives, Gergelis suggests they perform a needs assessment to determine what the group wants and needs for their well-being, as oftentimes it is different than what leadership would assume. Groups should track outcomes and regularly get feedback to cater the programming to the needs of the group.



Call for Case Studies

If you or someone you know has made a change to improve well-being at your practice or department, submit a case study idea to the ACR Radiology Well-Being Program. Submit your case study idea at [acr.org/WBCasIdeas](https://www.acr.org/WBCasIdeas).



Factors Contributing to Burnout

Studies show that upward of 60% of radiologists report feeling the effects of burnout. A recent paper in *Current Problems in Diagnostic Radiology* outlines factors that might contribute to this trend.



SOURCE

Spieler B, Baum N. Burnout: A mindful framework for the radiologist. *Curr Probl Diagn Radiol*. Nov. 11, 2021. <https://doi.org/10.1067/j.cpradiol.2021.08.005>



Watch and Learn

California radiologists implement patient-facing videos to decrease patient anxiety and physician burnout.

KEY TAKEAWAYS

- The Holvan Group has developed a database of over 150 patient-facing videos that provide informative and succinct introductions to physicians, procedures, safety measures, and medications.
- Showing patients videos before a procedure helps alleviate their anxiety and increases their overall satisfaction with care.
- Introducing pre-procedural videos significantly decreases physician burnout by streamlining redundant tasks and providing consistent information to all patients.

After an MRI revealed a lesion on one of his kidneys, San Luis Obispo County, California, resident and attorney John Normanly knew he needed to act quickly. At his urologist's recommendation, Normanly made an appointment with Stephen R. Holtzman, MD, interventional radiology (IR) specialist and CEO of Radiology Associates, for a tumor ablation.

Normanly went to the hospital on the day of his procedure and was surprised when, in the preparation room, a nurse handed him a tablet computer and asked him to watch a couple of short videos before he discussed the procedure with Holtzman. The first video introduced Holtzman as the treating physician and outlined his training as an IR surgeon, his community service work, and his credentials while the second video described what would happen during the procedure.

"Before the videos, I didn't know what I was getting into; I just hoped I would be going home at the end of the day," Normanly says. "Procedures like this always invoke a fear of the unknown, but the videos relaxed me. I knew who my doctor was and what he was going to do to my body before I even talked with him."

As demands on physicians have increased, opportunities to connect with patients like Normanly have decreased. To return the focus to building patient relationships, Holtzman founded The Holvan Group, which developed a series of patient-facing, customized videos that enhance the patient experience, improve quality of care, decrease physician burnout, and reduce waste.

Making a Change

In 2013, after years of frustration with the way volume-driven demands in medicine had increased physician burnout and decreased interaction with patients, Holtzman decided to make a change. "I really longed for the days when I could spend

"I really longed for the days when I could spend time getting to know my patients, and I wanted to see if I could bring that back."

Stephen R. Holtzman, MD



Stephen R. Holtzman, MD, interventional radiology specialist and CEO of Radiology Associates, co-founded a program that implements patient-facing videos into preprocedural medical practices.

time getting to know my patients, and I wanted to see if I could bring that back," he says.

For years before developing his first video, Holtzman used PowerPoint presentations to explain procedures during patient consultations. The presentations took approximately 30 minutes, and despite Holtzman's best efforts, patients often had dozens of questions.

Holtzman felt as though patients often didn't fully understand or feel comfortable with the material. Instead of getting to know the patients and soothing their anxieties,

Holtzman spent consultations answering basic questions about the procedures (often the same ones over and over), leaving little time to create the interpersonal relationships he desired.

As his dissatisfaction increased, Holtzman attended California Radiological Society meetings and drew inspiration from speakers



who emphasized the importance of minimizing hospital waste and returning the focus to patient care. That's when Holtzman got the idea to adapt his PowerPoint presentations into short, informative videos that described IR procedures in depth, using simple language and images.

Soon thereafter, Holtzman began working with consultants, who were already in his hospital assisting with the implementation of lean management principles, to turn his idea into reality.

Understanding the Patient Perspective

Holtzman hoped to reimagine the entire patient care process. "I started thinking about care from the very beginning to the very end of the patient's experience," he says. "What are patients' biggest anxiety points and biggest frustrations?"

To better understand patients' pain points, Holtzman interviewed patients, schedulers, receptionists, and nurses. Through these conversations, he identified several "bottlenecks" in the patient care process, many of which occur even before the patient arrives at the hospital. "When the nurse calls you the night before a procedure, he or she tells you a lot of information. If you're lucky, you might remember 10% of it," Holtzman says.

He explains that patients usually remember to leave their valuables at home, for example, but then come to the hospital without identification or health insurance cards. "I thought, 'Wow, there's probably a couple hours wasted here every day because of little things like this,'" he says, adding that "every delay pushes every other case back; it's a domino effect."

Holtzman also found that one source of patients' anxiety was not knowing the physicians performing their procedures. To address this, Holtzman created a series of videos, like the one Normanly viewed, that provide brief biographical information

"Patients who watch the videos arrive with many of their questions answered, so there is more time to get to know them. After they've seen the biographical video, I can say, 'OK, you know a little bit about me; why don't you tell me a little about you?'"

Stephen R. Holtzman, MD

about the physicians who work at the hospital. "These videos connect directly with the patient and eliminate some of the fear of the unknown," Normanly says.

In addition to physician biographies, Holtzman created videos that discuss the importance of pre-procedural safety practices, such as hydrating only until midnight, and ones providing practical information, including where to park upon arriving at the hospital. Others outline the risks and benefits of

the procedure so that patients understand and are able to digest protocols before the consultation takes place.

Making Connections

Since Holtzman began using the videos, he has seen a considerable change in his patients' attitudes and comfort levels.

"Patients who watch the videos arrive with many of their questions answered, so there is more time to get to know them," Holtzman explains. "After they've seen the biographical video, I can say, 'OK, you know a little bit about me; why don't you tell me a little about you?'"

At that point, Holtzman says that most patients become immediately more comfortable. They stop looking at the monitors and the table and start talking about their passions. "I had a guy a couple weeks ago who worked on the space shuttle, and I thought that was fascinating. I never would have known that if we had to spend all of our time discussing basic information about the procedure," he says.

Normanly was so impressed with the videos that he suggested that Holtzman share them with other medical organizations. In early 2017, The Holvan Group began offering its videos to other medical facilities. Holtzman co-founded The Holvan Group with Michael Holliday, a software developer and IT consultant who created



Nurses provide tablet computers to patients before procedures. Patients watch videos that introduce the physician who will perform the procedure and explain procedure details.



a HIPAA-compliant web server that allows patients to access the videos before they even arrive at the hospital. (Visit theholvangroup.com/patient-education-videos/ to learn more.)

When a patient schedules an appointment, the scheduler enters their information into the patient education portal, and the patient receives an email with a link to view the videos for their procedure. One video introduces the patient to the physician who will perform the procedure; another video describes where to park at the hospital, what to bring to the procedure, and how to prepare for the procedure; and a third video explains the procedure in detail.

Boosting Satisfaction

Across the board, patients have been pleased with the videos. After a nine-month pilot at Sierra Vista Regional Medical Center, 90% of surgical patients surveyed experienced overall satisfaction, and 97% felt prepared for their procedure after watching the videos, even before speaking with the physician.

According to patient feedback cards, some patients found the videos so helpful that they viewed them multiple times before their procedures, and others named them superior to paper handouts with the same information. "It's saying to the patient that I care enough about you that I really want you to know what I am doing," Normanly says.

Not only have the videos reduced patient anxiety and increased patient satisfaction, they have also significantly reduced physician burnout. Patients now arrive at the hospital with many of their preliminary questions answered, freeing Holtzman to see twice as many patients each day and allowing him to consistently end his workday around 5:30 p.m., instead of 8 p.m.

"It's been a huge help for my family life," Holtzman says. "I go home happy because I am stimulated by hearing my patients' stories, and I can tell my patients are happy again."

"It's been a huge help for my family life. I go home happy because I am stimulated by hearing my patients' stories, and I can tell my patients are happy again."

Stephen R. Holtzman, MD

Dean Black, MD, medical director at St. John's Regional Medical Center, who has been piloting Holtzman's videos, also has positive feedback. "It's freed me up to focus more on patient satisfaction by more effectively alleviating their fears. When I see patients, they have already seen a well-designed video that tells them what the procedure

will entail. We can immediately start building trust that is so crucial in the patient-doctor relationship," Black says.

Hamed Aryafar, MD, IR and associate clinical professor at the University of California San Diego, has also been utilizing the videos in clinical and procedural settings. "I think they are hugely important in patient education and satisfaction," Aryafar says. "I can see the dramatic difference it makes in the patient's understanding of the procedures."

Maximizing Efficiency

Black also points out that the videos protect the patients and hospital by providing a detailed and consistently informative procedural description. "If you are busy, your procedural descriptions may be less thorough," Black says. "The videos allow you to give a consistent message across the board."

Holtzman is also hopeful that the videos will help implement lean management and Triple Aim principles, which focus on improving patient care and population health while minimizing systemic waste and reducing cost. As redundant tasks are automated and workloads are streamlined, physicians may work more efficiently and effectively.

"These videos set the standard for patient care in the hospital," says Kim Brown Sims, MBA, RN, vice president of patient care services for Queen of the Valley Medical Center, who helped implement the videos during the pilot at Sierra Vista Regional Medical Center. "They set the bar for the staff because they tell the patient what to expect. If the patient doesn't receive that care or something promised isn't done, they will ask. It's a single

technology that has the potential to raise your staff and patient satisfaction as well as your surgical outcomes, all of which benefit hospital ratings and help patients take control of their health."

Looking Ahead

Holtzman's video library now includes more than 150 videos, with over 60 focusing on radiological procedures for both diagnostic and IR topics (along with others that discuss patient safety, medication, and procedure preparation). All of the videos have been translated into Spanish by a certified medical translator.

"Doctors have dreamed of something like this for years. Our patients deserve the highest quality care; these videos propel us toward that objective," Black says.

Holtzman is hopeful that these videos will extend beyond radiology to all fields of medicine, and he encourages others to look for ways to address problems they see in the healthcare community. "We can bury our heads in the sand and just say, 'I'm too busy,' but I think physicians should take a leadership role and think about how we can make it easier on the patient," he says. "Invest a little time every day. Try to inspire a couple of people to do the same, and you will see profound results."

By Chelsea Krieg, freelance writer

Now It's Your Turn >>>>

Follow these steps to find ways to streamline tasks that reduce patient anxiety and contribute to radiologists' well-being. Let us know how you did on Twitter with the [#Imaging3](https://twitter.com/Imaging3) hashtag or at imaging3@acr.org.

- » Get patients involved with their care by asking how to reduce anxiety and provide overall better service. Check out additional patient-facing resources on radiologyinfo.org.
- » Attend conferences and local meetings to get inspired by and connect with patient satisfaction innovators.
- » Consult with clinical and administrative staff to brainstorm ways to identify and streamline tasks that take time away from patient care.



Overcoming Adversity

As COVID-19 flared in New Orleans after Mardi Gras, one radiology department took swift action to deploy new strategies and rethink processes to keep people safe and boost morale.

KEY TAKEAWAYS

- A radiology chair and her team adopted rapid process improvements to respond to one of the nation's first COVID-19 hotspots.
- Clear communication that leveraged every channel available — like rounding, phone calls, EHR secure chat, and texting — was key to navigating the crisis.
- The team prioritized safety first for radiologists, technologists, and patients, implementing at-home workstations, staggered shifts, and revamped workflows.

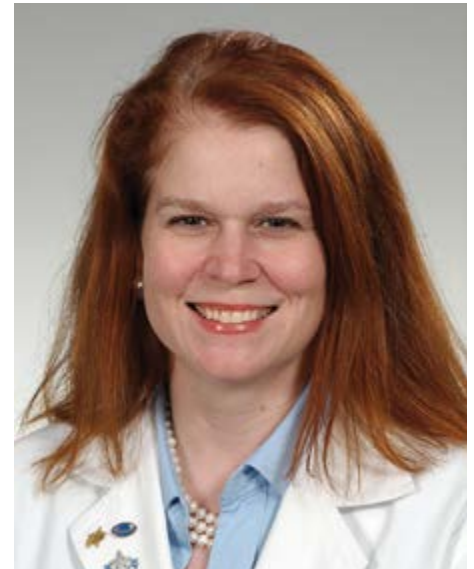


Dressed in feathered costumes and sequins, throngs of revelers in New Orleans danced to the beat of marching bands, cheered flamboyant floats, and collected strands of gleaming beads as they celebrated the end of Mardi Gras on Tuesday, Feb. 25, 2020.

Not far away, in Ochsner Health System's 19 owned and operated hospitals across Louisiana and Southern Mississippi, frontline caregivers didn't realize that they were just weeks away from a tsunami of COVID-19 patients coming from the superspreader event on Fat Tuesday. The first Louisiana patient with COVID-19 was identified on March 9. By the end of April, there were nearly 30,000 cases and almost 2,000 deaths from COVID-19 in the state.

Dana H. Smetherman, MD, MPH, MBA, FACR, chair of the department of radiology at Ochsner Medical Center in New Orleans, led her radiology team through a deepening crisis as COVID-19 ravaged the region. "We didn't know it at the time, but Mardi Gras was a petri dish, and we started to witness epidemiology in real time," she says. "This virus moved through our community with mathematical precision. Before long, our mid-sized city was third in the country in both the number of confirmed cases and deaths per capita."

Smetherman has experience leading through crisis. She was on the front lines when Hurricane Katrina hit in 2005, breaching levees and causing widespread damage and deaths. She led her team of radiologists, technologists, and staff through the natural disaster's peak and its aftermath — ultimately guiding her department back to normal. These days, the U.S. is in the middle of a different type of crisis, and it is unclear how long it will last or what its final toll will be. And Smetherman is once again on the front lines of disaster, forging a new path forward for imaging services.



After the Mardi Gras COVID-19 superspreader event in New Orleans, Dana H. Smetherman, MD, MPH, MBA, FACR, led her radiology team in responding to the public health emergency.

Crisis Unfolding

Smetherman remembers the moment she first realized the magnitude of the health crisis sweeping her community. "I am a breast imager, but I still cover some general radiology shifts. I was on call the weekend before St. Patrick's Day. As I was reading, I was seeing one chest radiograph after another to rule out COVID-19," she recalls. "For me, it was then that I realized, 'This is going to be very different.' It was blowing up before my eyes."

Smetherman called on her experience working through the Hurricane Katrina disaster to rapidly develop a plan, marshal necessary resources, and galvanize her team to action. "As a member of the lead response team for Hurricane Katrina, I had familiarity with this feeling of waking up to a whole different world than what it was a few days ago. Some of the same skills — focusing on communication and safety and



Staff radiologist Stephen I. Johnson, MD, says that keeping staff safe and continuing to provide top-quality, responsive service to referrers was key as COVID-19 ravaged the New Orleans region.

maintaining optimism — kicked in quickly,” she says. “We have faced challenges before and come through them successfully. We knew it wasn’t going to be easy and that we needed to quickly rethink many things we had been doing. But we decided: Let’s focus on safety first and the other things will fall into place.”

To advance that goal, Smetherman convened a meeting with hospital colleagues to devise a plan to optimize patient care. “I’m not only chair of radiology at our flagship hospital, I’m also associate medical director for several specialties, including emergency medicine, hospital medicine, and pulmonary critical care,” she says. “As such, I was in close contact with other departmental leaders, and we realized it was not going to be business as usual. We worked together to think processes through and build a plan to safely provide imaging for every patient in the emergency department (ED) and hospital. We were fortunate to have existing strong relationships with other departments, so there was no question of getting buy-in. Everybody was on the same page.” (Read more about Ochsner’s success in the Imaging 3.0 case study “Collaborating Through Crisis” at acr.org/Collaborating-Through-Crisis.)

Rapid Process Improvement

When cases peaked in Louisiana, the hospitals in the Ochsner Health System were caring for more than 60% of the COVID-19 inpatients in New Orleans and more than 30% in the state. At Ochsner’s flagship hospital, Ochsner Medical Center, cases initially doubled every two days. In the first two weeks, the hospital added a new COVID-19 service every day, and it quickly had to double its number of intensive care unit beds, build isolation rooms, and establish separate areas for negative and positive coronavirus patients in the EDs.

“Candidly, our situation was pretty dire, and we needed incredibly rapid process improvement to develop strategies to get through this crisis,” Smetherman says. “We had to immediately figure out how the radiology department could get our density of outpatients down and still conduct urgent imaging tests safely, without further spreading the virus.”

One challenge the radiology department faced was to institute a new ordering process and triage the outpatient schedule. “We’ve got patients scheduled for months out. Some are cancer follow-ups and others are people who’ve had back pain for six weeks and who don’t have urgent imaging needs,” Smetherman explains. “It was an all-hands-on-deck situation to figure out how to contact all of our patients and work with their providers to ensure we were only seeing stat patients, some of whom we knew were going to be COVID-19 positive.”

With this in mind, Smetherman and her team immediately looked to secure additional personal protective equipment (PPE). But, as with health systems around the country, obtaining enough equipment for care providers was an urgent challenge.

“We leveraged our innovation partners to start 3D printing face shields, and we leveraged our community connections to get more PPE,” Smetherman recalls. “We worked with state, local, and national governments to ensure that we had enough

resources. As a system, we have robust analytics that we shared with government officials, so we could look at ventilator management across the whole city. We also have an active supply chain, so we started requesting additional ventilators before we even had the first case in the state.”

Focus on Safety

At Ochsner, much of the change brought to bear under the stress of the crisis involved keeping people safe. To reduce the risk of infection among radiologists, the department was eager to deploy at-home workstations. Initially, they deployed 15 remote workstations for a department of about 70 radiologists. Since they couldn’t get at-home workstations for everyone, they staggered schedules, implemented social distancing in the reading rooms, and deployed virtual communications with technologists and referring clinicians to minimize the number of people coming in and out of the department and reading rooms.

“We first redeployed existing workstations from reading rooms with the highest density of radiologists and residents,” explains Smetherman. “We prioritized those whose usual work assignments were most easily adapted to remote work — for example, those who did not need to do fluoroscopy, supervise contrast injections, or perform interventional procedures. Over time, we were able to purchase additional workstations, and every radiologist who wanted a home workstation was able to get one.”

Despite uncertainty under highly stressful circumstances, the radiology department was committed to maintaining the quality and service that partners and patients trusted. Staff radiologist Stephen I. Johnson, MD, says, “When this public health emergency first started, there was a concern that we might lose quality as we shifted to remote reading, but that hasn’t been the case. We’ve kept our staff safe while delivering the same level of quality service and remaining responsive to referrers.”

“We knew it wasn’t going to be easy and that we needed to quickly rethink many things we had been doing. But we decided: Let’s focus on safety first and the other things will fall into place.”

Dana H. Smetherman, MD,
MPH, MBA, FACR

Protecting the department's technologists was another critical goal. As section head of Ochsner's ultrasound department, Johnson's immediate concern was for the safety of the technologists who would be in prolonged close contact with COVID-19 patients.

"Ultrasound studies typically take 30 or 40 minutes, and our techs are within an arm's reach of patients," he says. "Initially, the techs were apprehensive about getting COVID-19, but we had PPE, face shields, and safety measures. After we got through the worst of it, none of our techs tested positive for antibodies. Obviously, that means we did something right."

Johnson says that taking care of staff and listening to their concerns has been key to navigating a crisis of this magnitude. "We're asking our staff to do things that are scary and stressful. We have to make sure we're doing everything we can to protect them and also put them in a position to succeed," he says.

Communication Essentials

One of the most critical ways to ensure staff success during a crisis is what Smetherman calls over-communication. "You have to use virtually every channel available to you," she says. "I round a lot. I make sure I'm seeing everyone, and I ask them what they need. I'm on the phone, and I'm texting people. When I think about how I have approached leadership in this crisis, it's: communicate, communicate, communicate."

Smetherman and her team hold virtual staff meetings at least once a week, and they use the hospital's electronic health record secure chat capability to communicate with technologists and colleagues across the system. The health system is also using video conferences for leadership calls and multidisciplinary meetings.

The use of technology has helped the team stay in touch while limiting personal interaction that can put people at risk. However, Smetherman says, "As a leader, your physical presence in a scary situation like this is absolutely critical. It would be difficult to lead something like this remotely. Your team has to know that you're there for them; you're alongside them. You can't use your residents and techs as human shields.

You have to show that the safety of your people and patients is your first priority."

Morale Boost

Despite all of the safety protocols in place, Smetherman recognizes the staggering psychological effects of the pandemic on her team. "We've never had to face this kind of epic threat," she emphasizes. "There's a high rate of death, it's contagious, and also our knowledge is constantly evolving. We are accustomed to having rigorous scientific data, and the uncertainty of this situation is troubling. When I was rounding in the early days of this, I found people in tears in the reading rooms."

Having overcome disasters like Hurricane Katrina in the past, Ochsner has a robust stress and psychological assistance program in place for employees. It includes quiet spaces, an employee hotline, and a social worker or psychologist on every rounding team. Smetherman has encouraged radiology team members to take full advantage of these resources. "Everybody's doing the best they can right now," she says. "We have to be kind to each other and realize that we're going to be stressed out and things are not going to be perfect. But we're all in this together."

Smetherman says that recognizing success and practicing gratitude helps keep morale high. "In our meetings, we not only talk about the number of patients who have died or who are on ventilators, but we talk about the number of patients who have been discharged," she says. "We celebrate patients coming off of the ventilators and the decreased need for ventilators as we manage more patients with non-rebreather masks."

While celebrating wins is important, Smetherman also says that it's critical to remain humble, especially in a situation like the current pandemic, where so much is unknown. "I've had to acknowledge that my decisions are a best guess," she says. "I didn't have months to come up with a fabulous strategy and implementation plan. I've had to let my team know over and

"As a leader, your physical presence in a scary situation like this is absolutely critical. It would be difficult to lead something like this remotely. Your team has to know that you're there for them; you're alongside them."

Dana H. Smetherman, MD,
MPH, MBA, FACR

over again that I'm not going to be perfect, and I'm going to make mistakes. In a crisis, people at least appreciate that you're able to show your own clay feet. Everybody looks to you as the leader, and if you are uncertain or stressed, it trickles down. We have to stay positive if we're going to win this thing."

Improvement Opportunity

After COVID-19 cases started decreasing in New Orleans, the radiology team turned its focus to restarting imaging services and making sure patients feel well cared for and safe. They put markers on the floors for social distancing and installed Plexiglas at check-in desks. At all of their sites, patients are greeted with consistent, Ochsner-branded stations for temperature and symptom checks. Masks are mandatory.

During the time when outpatient volumes were lower, Smetherman and her team worked to rapidly pilot a new workflow for outpatient imaging centers. They asked themselves questions like: How do we handle things like patients drinking contrast fluid? How much time will it take us to clean the units in between patients?

"We are trying to refrain from having patients in our waiting rooms," Smetherman explains. "We ask patients to check in remotely and wait in their cars until they get a text message. Then a technologist meets them in the lobby for a temperature and wellness check and brings them straight back for their imaging; they change in the room and then go straight out after their exam is done. We have Ochsner-branded signs across our enterprise to let patients know the imaging exam area has been cleaned. We have whiteboards outside of the door that tell us the dwell time in the room, so we don't bring the next patient back until we know it's safe."

Smetherman also notes that the pandemic has ushered in some welcomed advances. Her motto: "Never waste a good crisis." This emergency has fast-tracked some initiatives, like telehealth and video visits, that the group had been eager to implement. And the



PHOTO COURTESY OF OCHSNER MEDICAL CENTER

Ochsner put markers on the floors for social distancing and installed Plexiglas at check-in desks.

“Change is hard, but we must build for a new future. It’s not about taking old processes and trying to make them work. We must jump right into figuring out how to optimize the new.”

Dana H. Smetherman, MD, MPH, MBA, FACR

“Physicians are a tough group; they want to be there for their patients. This will be an important tool to help us communicate with referring providers and serve our patients going forward.”

Forward Momentum

It has been said that, “The secret of change is to focus all of your energy, not on fighting the old, but on building the new.” Smetherman echoes this sentiment when asked about transitioning to the next phase of the pandemic and developing strategies to deliver imaging services going forward.

“The way to succeed is not to try to rebuild the past,” she says. “Change is hard, but we must build for a new future. It’s not about taking old processes and trying to make them work. We must jump right into figuring out how to optimize the new.

radiology department continues to roll out home workstations in a phased approach. “We’re increasing the number of people who can work remotely because we don’t know what’s going to happen in the future,”

Smetherman says.

Challenges will undoubtedly arise, as will the need to adopt different leadership strategies. Nonetheless, I am optimistic that the lessons learned and knowledge gained in this first skirmish of our battle with COVID-19 will serve us well as our specialty and community navigate the uncharted waters ahead.”

By Linda G. Sowers, consulting editor

Now It’s Your Turn >>>>

Follow Smetherman’s guidance to lead your organization through crises, and tell us about your successes and lessons learned on Twitter with the hashtag #Imaging3 or at imaging3@acr.org. Here are her words of advice:

- » Communicate a clear vision for moving forward. “In our case, our vision is to embrace the new right now. It’s going to be hard; it’s going to be rocky; there are things that won’t work perfectly. But we’re going to link arms and figure it out together.”
- » Prioritize the safety of colleagues, employees, and patients. “We have to jump in, act quickly, and make everybody feel safe. We can’t have people feel like we are not as safe as the grocery store.”
- » Get comfortable with rapid change. “As physicians, as scientists, as radiologists, we’re used to having robust data on which to act. That’s not the case here. The disease is changing in ways we can’t anticipate. There are lots of unknowns. We have to get comfortable with rapid process improvement and failing fast. If it’s not working, we just have to move to something else.

The Mayo Clinic Well-Being Index

The Well-Being Index is a screening tool to help you better understand your overall well-being and identify areas of risk compared to your peers across the country.

The ACR Radiology Well-Being Program has worked with the Mayo Clinic to make the tool available to ACR members. This is 100% anonymous – your information will not be shared with anyone, including the ACR.

Step 1 Access the index at <https://app.mywellbeingindex.org/login>

Step 2 Click on “Register Here” and enter the appropriate invitation code:

- Radiologists and radiation oncologists: **ACRPHYSICIAN**
- Medical physicists: **ACRMEDPHYS**
- Residents and fellows: **ACRRFS**
- Medical students: **ACRMEDSTUDENT**

Step 3 Register and complete the nine-question survey. (If you have an existing account, WBI can merge accounts, ensuring you retain any previous scores.) After verifying your password, check the box to “Make this my primary organization” to see the radiology-specific resources curated by the ACR.

Step 4 View your results, and see your level of well-being compares to others in your demographic group. The comparative groups include more than 7,000 physicians, 1,700 residents and fellows, and 2,000 medical students. The resource categories provided are based on your score.

Step 5 Return to the WBI and repeat your self-assessment to track your well-being over time. Resources are available any time, and the survey can be completed monthly.





Accelerate Your Career Find Your Perfect Fit

The ACR® Career Center is the premier recruitment resource dedicated to connecting medical imaging professionals with more job postings than any other radiology-specific job board.

Get Job Alerts

New jobs emailed that
match your preferences

Upload CV

Help employers
find you

Resources

Your job search
resource center

Browse new job postings daily on the ACR's
premier recruitment resource center.

jobs.acr.org/jobs

ACR[™]
CAREER
CENTER



Radiology Content for Medical School Educators — Now Free of Charge!

The ACR®, in collaboration with the Association of University Radiologists (AUR) and the Alliance of Medical Student Educators in Radiology (AMSER), is now offering the medical student community the following education content in radiology and clinical decision support — **free of charge**.

Standardized Tool for Assessing Radiology Students (STARS)

STARS provides medical schools with a national, web-based, question-item database and exam-taking system to use in assessing students throughout their radiology courses.

Radiology-Technology Enhanced Appropriateness Criteria Home for Education Simulation (Radiology-TEACHES)

Radiology-TEACHES® addresses the gap in curricula on appropriateness criteria and cost of imaging examinations through use of case vignettes to simulate the process of ordering imaging studies.

Medical Student Curriculum

Access a large radiologic education library via the Medical Student Curriculum. The curriculum offers free resources to educate medical students on radiology and provide medical educators with resources to build a radiology curriculum.

Visit acr.org/MedicalEducatorSupport to get started.