Expanding the Community of Problem Solvers: A Message from the ACR Learning Network Physician Director

Dear Colleagues,

On behalf of the American College of Radiology® (ACR) Commission on Quality and Safety, I am thrilled to celebrate the outcomes to date of the ACR Learning Network.

Funded by the Gordon and Betty Moore Foundation, the Learning Network invites facilities to send small teams who undergo nine months of structured training and improvement project support through the ACR ImPower Program. After graduating, teams continue to collaborate with one another in the Learning Network while maintaining and advancing their performance gains. Participants are taught general improvement methods, including current state analysis, measure development, testing and refining changes, and sustaining improvement, which they immediately apply to their project. Graduates report that these skills impact their professional lives well beyond their projects, giving them a new tool set for leadership, management and problem solving in all of their work.

The first cohort graduated from the ACR ImPower Program in November 2022. These graduates have shared their learnings — challenges and opportunities alike — with members of this second cohort, which began in March 2023. In this way, participants develop professional relationships with individuals and organizations across the country who are working to solve the same problems, participating in activities such as “Learning from the Best” and “Solution Spotlight.”

I deeply appreciate the time and effort that participants have dedicated in completing the ImPower Program and continuing their improvement journey in the Learning Network. The development of our collective knowledge within this unique community is of paramount importance to optimize patient care through quality practices.

We hope others will join the Learning Network to empower frontline staff, collaborate with other institutions and work together to develop the most effective solutions for each organization.

David Larson, MD, MBA, FACR
Chair, ACR Commission on Quality and Safety
ACR Learning Network Physician Director
Onboarding Cohort 2

Identifying Site Teams Poised for Success

It often started with one person motivated by positive change who spreads enthusiasm within a practice to apply for participation in the ACR Learning Network. These champions had to ensure resources were available to successfully participate in the ACR ImPower Program and to gain the strong commitment of practice leaders. Fortunately, they had the added advantage of pointing to the enthusiastic reviews of the individuals engaged in the Learning Network’s first cohort who reported that the work was challenging, but the benefits were significant.

Upon submitting an application, site personnel engage in conversations with the Learning Network leadership to determine if the site is prepared to tackle the problem posed by one of the Learning Network’s four improvement collaboratives.

Nineteen sites accepted an invitation to participate in the second cohort of the Learning Network that got underway in March 2023.

Building on Improvement

The second cohort site teams were able to kick-start their improvement journey by gaining insights from the foundational work carried out by the first cohort. The cohort 2 teams benefitted from their predecessors’ testing and refinement of the improvement collaboratives’ goals and measures, their investigation into the barriers for achieving optimal imaging, and from the strategies they implemented for improvement.

The cohort 2 teams enthusiastically embraced the opportunity to assimilate the knowledge gained from the cohort 1 teams and applied concepts meaningful to their local practice environments.

Teaming Up for Shared Learning

Throughout the 10-session ImPower Program, cohort 2 team members learn from interactions within their local team to accomplish assignments that incorporate the concepts of A3 Thinking and using data to track improvement. The ImPower Program also provides ample opportunity for cohort teams to learn from the experiences of other teams — both within the same improvement collaborative as well as across the four collaboratives — a critical element of the Learning Network.

Cohort 2 site teams had the added advantage of engaging with team members who participated in the first cohort through a variety of opportunities.

To foster shared learning, teams provide their contact information and team photos, and the Learning Network staff encourage participants to reach out to their counterparts with questions, to discuss challenges and opportunities, and to build their professional network.

“University Hospitals Cleveland now has the knowledge and resources it needs to keep growing and expanding our program in ways we never dreamed were possible thanks to the ACR Collaborative. It was crucial to have the chance to share what you’d learned while studying under the best.”

— Leslie Whalen, Team Leader, University Hospitals Cleveland (Cohort 1)

About the Launch of the ACR Learning Network

Twenty-two facilities began their improvement journey in March 2022 as the Learning Network’s first cohort. Read about these sites that took a leap of faith to be first and to learn more about the Learning Network’s foundation in the Cohort 1 Commemorative Brochure.
In a new feature of the ImPower Program, team members from cohort 1 participated in a learning session called “Solution Spotlight” during which they presented the interventions that had the biggest impact on improving their performance. Cohort 2 teams followed up with questions and ideas about how they might apply a similar solution to their processes.

"Being a part of the ACR improvement collaboration has helped my team to strive for the best outcomes possible and to work closer as a team. The insight gained from hearing what other teams are experiencing and sharing has been extremely helpful and has helped me to work towards better outcomes."

— Monica Rael, Team Leader, University of New Mexico (Cohort 2)

**Teams Continuing to Excel**

Graduation from ImPower is the first step to joining the ACR Learning Network, comprised of site teams now utilizing improvement tools and strategies to demonstrate meaningful improvement. All ImPower graduating teams are invited to join the Learning Network to maintain—and advance—their improvement gains.

Learning Network participants continue to share their performance data, mentor site teams in the ImPower Program and attend meetings for continued collaboration across all cohorts. Learning Network site teams that meet performance and engagement criteria, such as regular data submission, are designated as Learning Network Star Sites. Learn more about the Learning Network participating sites and their work.

**The Benefits of Shared Learning**

Learning from each other is one of the most critical elements of the Learning Network. The scenarios presented below highlight just a few examples about how sites are sharing strategies and resources.

**Lung Cancer Screening** — a common challenge with increasing screening volumes is the identification of eligible patients. University Hospitals Cleveland noticed that their Lung Cancer Screening program was not adequately represented in physician offices and developed a slim card to help raise awareness about the program. This collateral clearly and concisely outlined the eligibility criteria and provided information about the exam, the benefits of Lung Cancer Screening, and who to contact with questions. The slim card and associated content were subsequently shared with cohort 2 teams.

**Mammography Positioning** — to engage and educate patients during their mammography exams, the Solis Mammography Clear Lake team developed a visual to help articulate the impact of motion and compression on image quality. This tool provided patients the opportunity to actively participate in their exam and understand how they could help contribute to better image quality. Other facilities recognized the benefit of this material and planned to develop similar educational tools.

**Prostate MR Image Quality** — navigating patient preparation conversations can be uncomfortable, given the personal nature of the content. But AdventHealth developed standardized language and coached their team on how to become more confident in leading these conversations. They were able to effectively instruct patients on how to use the restroom prior to the exam, leading to less motion and artifacts in the MRIs.

**Recommendations Follow-up** — streamlining the process is critical for timely follow-up, and Hudson Valley Radiologists realized that the radiologist had to call the primary care physician prior to completing an addendum. They updated their exam templates and implemented a “shoulder tapper” — stopgaps in place to notify the radiologist if an addendum was needed. This enabled the radiologist to effectively document their findings and eliminated the need for an additional phone call.
The expansion of our learning collaborative to nearly a dozen facilities helped us clearly distinguish two common areas of opportunity: the identification of all eligible patients and ensuring timely follow-up. The learning collaborative structure provides space for incremental innovation and refinement. With the second cohort, we are just starting to see this materialize through a deeper understanding of common processes. While the first cohort implemented an electronic medical record reminder for providers to place lung cancer screening orders, the second cohort focused on alerts to document accurate smoking history. With each iteration, we advance processes and improve system functionality, both of which will save more lives.

Our pioneer collaborative organizations have seen consistent increases in their lung cancer screening volumes; many have already doubled their volumes compared to prior years. We congratulate and are tremendously grateful to these organizations for being on the forefront of a new approach to healthcare system improvement! Their dedication to improving outcomes is leading us to the reason we all went into medicine — patients being saved by the scan!

Problem Statement: Our lung cancer screening program is underutilized by patients, possibly leading to missed opportunities for early cancer detection and management.

Measure: Percentage of LCS eligible patients with baseline or annual screening exam.

Improvement Factors
- Ensure accurate smoking history documentation.
- Patients understand the value and process of LCS program.
- Effective partnership with referring providers.
- A simplified, standard process for ordering exams.
- Easy and effective scheduling.
- A tracking system with timely and actionable triggers.
- Clearly defined nurse navigator roles and responsibilities.
- Ensure patient returns for annual exam.
The ACR Quality Improvement Collaborative provides a terrific frame and structure for change efforts. We felt supported by our common goal, and we learned effective strategies to implement creative ideas quickly and have meaningful engagement with data.”

— Sara Ghandehari, Physician Leader
Hackensack Radiology Group
Serving Northern New Jersey for over 50 years. We provide services for three area hospitals as well as three outpatient practices.

“The LCS collaborative gave us organization tools needed for reaching and tracking our patients. We came together as a team using these tools to remove barriers limiting patients’ participation in this lifesaving technology.”
— Gregory Nicola, Sponsor

Physician Leader
Narmadan A. Kumarasamy, MD, MPH
Cardiovascular and Thoracic Division Head

Team Leader
Lisa Schaper, BS, RT(R)(M)(CT)
CT Technologist

QI Coach
Valerie Rigby, RN, BSN, LSSGB
External QI Coach- KGT Consulting

Team Members
Danielle Farro
Physician Liaison

Jenna O’Reilly
RIS Manager

Susan Van Pelt
Member/Scheduling Supervisor

Medical University of South Carolina
Serving patients throughout the state of South Carolina.

“This collaborative has provided the opportunity for us to examine multiple processes around lung cancer screening that we don’t think about day to day when seeing patients. I have learned so much from colleagues in different departments, and my perspective on the process of change has completely transformed. The skills learned and relationships built throughout this process will help us for years to come.”
— Cassie Frazier, Team Leader

Physician Leader
Dhiraj Baruah, MD, FSCMR, FNASCi
Associate Professor, Radiology; Director Thoracic Imaging; Vice Chair, Quality and Safety

Team Leader
Cassie Frazier, DNP, APRN, NP-C
Nurse Practitioner; Lung Cancer Screening and Lung Nodule Management — Charleston Division

QI Coach
Kelly Howard, RT(R), MBA, BHA
Radiology Technologist; System Director Quality, Safety, Accreditation, and Education

Team Members
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Medical Office Assistant, Lung Cancer Screening Program

Whitney Johnson, AGACNP-BC
Nurse Practitioner; MUSC Health Florence and Marion Lung Cancer Screening Coordinator

Team Sponsors
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Gerald Silvestri, MD, MS
Hillenbrand Professor of Thoracic Oncology; Senior Vice-Chair of Faculty

Nichole Tanner, MD
Professor of Medicine, Pulmonary Division; Co-Director, Lung Cancer Screening

Alexandria Ingram, MSN, APRN, FNP-C
Nurse Practitioner; Lung Cancer Screening and Lung Nodule Management — Lancaster Division

Anthony Poole, DMSc, PA-C
Physician Assistant; Family Practice- PA; Senior System Director — QAPI program

Liz Weitzel, MSN, APRN, FNP-C
Nurse Practitioner; Lung Cancer Screening and Lung Nodule Management — Midlands Division
Rhode Island Medical Imaging
Rhode Island Medical Imaging has a network of multimodality imaging centers serving patients across Rhode Island.

“Participating in the Lung Cancer Screening Improvement Collaborative was extremely beneficial for our organization. We learned how to utilize data and understand root causes and the program helped us get creative with brainstorming and solutioning.”
— Julie Russo, Team Leader

Team Members
Physician Leader
Terrance Healy, MD
Director of Thoracic Radiology
RI Hospital

Physician Leader
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IT Business Analyst

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LCS Coordinator

Mikayla Sette, BS, RT(R)(CT)(BD)
CT Assistant Manager

Burr Tomlinson
Director of Business Relations Marketing

Team Sponsors
Siobhain Sullivan, MBA, RT(R)(CT)(MR)
COO, Clinical Operations

Naugatuck Valley Radiology
Serving patients in the greater Waterbury area of Connecticut.

“This program has given our team the tools and education required to take care of patients in our community to the best of our ability. I personally feel the entire team has already grown so much from this experience, and we are looking forward to continuing using these new skills long after the program is over. At each milestone when the lightbulb goes off, there is such a feeling of satisfaction knowing that as a team we are making a real difference in patients’ lives.”
— Steven Turner, Quality Improvement Coach

Team Members
Physician Leader
Carolyn Ajemian, MD
Lead CT Radiologist

Team Leaders
Chris Beaulieu, MHA, RT(R)(N)
Operations Manager

Maria Benvenuto, BS, RT(R)(CT)(M)
Operations Manager

QI Coach
Steven Turner, MHA, RT(N)(CT)
Operations Manager

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Team Leaders
Carolyn Ajemian, MD
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Burr Tomlinson
Director of Business Relations Marketing

Team Sponsors
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COO, Clinical Operations
The Mammography Positioning Improvement Collaborative

Collaborative Leader Reflections
Sarah Pittman, MD

The first cohort of teams laid the foundation for the Mammography Positioning Improvement Collaborative by developing measures for positioning performance and demonstrating that participating in the ImPower program led to impactful change at their local sites. These teams shared experiences, insights and learnings with each other, building a community of improvers. Their knowledge was available to the second cohort of teams who could then hit the ground running when they started the ImPower Program.

In both cohorts, similarities in root causes, key drivers and interventions emerged. Also noticeable was the shared passion for screening mammography, image quality and patient care. As future cohorts join the Mammography Positioning Improvement Collaborative, the shared learning will continue to expand and will serve as a framework for achieving world-class performance in mammography positioning.

Problem Statement: Mammography positioning is variable and inconsistent, possibly leading to missed diagnosis of cancer.

Measure: Percentage of screening mammograms comprised of four standard views meeting identified mammography positioning criteria.

Improvement Factors
- Developing and maintaining technologist skill.
- Clear and consistent communication between technologists and radiologists.
- Agreement on image quality.
- Clear process for supporting technologists performing a challenging exam.
- Clear and effective communication with patients.
- Sustainable way to measure and report positioning performance.
- Consistent coaching for all technologists.
Mammography Positioning Improvement Collaborative Teams

Duly Health and Care — North and South Teams

Duly Health and Care Mammography Department serving the Chicagoland area.

“Our goals entering the ACR collaborative were to improve image quality and detect early breast cancer sooner for our patients. The ACR Learning Network gave us a new perspective on quality improvement. We were challenged to think outside the box and re-evaluate processes so we could set new data-driven standards for image quality within our department.”

— Amy Daniels, Quality Improvement Coach

Physician Leaders
Hiren Patel, MD
Breast Radiologist
Sanah Shaikh, MD
Radiologist, Breast Imaging

Team Leaders
Erica Lechner, RT(R)(M)
Lead Mammographer — North
Jackie Wagner, RT(R)(M)
Lead Mammographer — South

QI Coaches
Emily Benson, BS, RDMS, RVT
Quality Lead, Ultrasound
Amy Daniels, RT(R)(M)
Breast Imaging Supervisor
Melinda Willis, MPH, RT(R)(CT)
Radiology Quality Manager

Team Members
Jessica Figueroa, RT(R)(M)
Mammography Technologist
Alana Gisseler, RT(R)(M)
Mammography Technologist
Dana Mikulec, RT(R)(M)
Lead Mammographer — South
Amanda Vongsaga, RT(R)(M)
Lead Mammographer — North

Team Sponsor
Angie Duffy, BS, RDMS, RT(R)
Director of Radiology

Hewitt Center for Breast Wellness at Griffin Hospital

The Hewitt Center for Breast Wellness at Griffin Hospital, serving patients in the Lower Naugatuck Valley area of Connecticut.

“The realization by the team of our shortcomings was an eye-opening experience. We like to believe that with every patient, we provide the radiologist with the best possible images. Once the team was willing to be open-minded about our shortcomings and realized that there was an opportunity for growth, they were willing to accept the process, while learning and growing as a technologist. The end result was meeting our target of 85% of exams meeting criteria, from our starting point of 20%. Although there were plenty of moments we wanted to quit, we have become a much stronger team by learning to ask for help, spark a conversation about image criteria and by seeing the potential we have.”

— Tori Kochiss, Quality Improvement Coach

Physician Leader
Devika Jajoo, MD
Chief of Radiology; Lead Interpreting Physician

Team Leader
Julie Velez, RT(R)(M)
Lead Mammographer

QI Coach
Tori Kochiss, MBA-HCM, RT(R)(B)
BS), CN-BM
Breast Center Manager; Positioning Coach

Team Members
Alysha Sullivan, RT(R)(M)
Mammographer
Katelyn Sullivan, RT(R)(M)
Mammographer

Team Sponsors
Cynthia Madsen, BS, RT(R)(CT)
(MR)MRSO(MRSC™)
Diagnostic Imaging Outpatient Manager
Kristi Popescu, MBA, RT(R), RDMS(AB)(BS),RVT
Director of Radiology, Cardiology and Neurology
Pennsylvania Hospital

Pennsylvania Hospital — The nation’s first hospital — is part of the University of Pennsylvania Health System and serves patients in the greater Philadelphia region.

“"The Mammography Positioning Improvement Collaborative provided valuable guidance, education and experience we will use in many future process improvement projects. Teamwork and communication are essential to a successful outcome!"
— Debra Miller, Quality Improvement Coach

Team Sponsors
Brain Engleander, MD
Chairman Radiology

Raymond Gaiser, MS, RDMS, RVT
Director of Radiology

Physician Leader
Anne King, DO
Breast Imaging, Diagnostic Radiologist

Team Members
Svetlana Goldsheytn, MHAD, CPhT
Radiology Program Coordinator/Project Manager

Karen Long, RT(R)(M)(CT)
Breast Imaging Technologist

Mary Panek, RT(R)(M)
Breast Imaging Technologist

QI Coaches
Jack Faricelli, BA, MS, Black Belt
Lean Six Sigma Master Improvement Advisor

Debra Miller, BS, RT(R)(MR)
Radiology Quality Manager

Solis Mammography — Clear Lake

Solis Mammography is a department of HCA Houston Healthcare Clear Lake. We operate more than 100 centers in 13 major markets across the United States.

“The knowledge and inspiration that comes from LEARNING FROM THE BEST has been so powerful and motivating! We have gained a new creative and innovative mindset that resulted in improved quality imaging by being a part of this improvement collaborative experience!”
— Patricia Licona, Team Leader

Team Sponsor
Chirag Parghi, MD
Chief Medical Officer

Physician Leader
Beverly Dreher, MD
Lead Interpreting Physician

Team Leader
Patricia Licona, RT(R)(M)
Assistant Center Director

QI Coach
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External QI Coach- KGT Consulting

Team Members
Shamim Aria RT(R)(M)(MR)
Mammographer

Adrienne Godeaux, RT(R)(M)
Mammographer

Nycole Hardy, RT(R)(M)
Center Director

Mammography Positioning Improvement Collaborative team from Solis Mammography — Clear Lake

Team brainstorming session for Mammography Positioning Improvement Team from Solis Mammography — Clear Lake
Solis Mammography — Houston Northwest
Solis Mammography is a department of HCA Houston Healthcare Northwest. Solis Mammography operates more than 100 centers in 13 major markets across the United States.

Physician Leader
Pauline Bui, DO
Radiologist

Team Leaders
Lisa Perez, BSRS, RT(R)(M)
Center Director

QI Coach
Michelle Benami, MA EdHD, RT(R)(M)
Director of Learning and Development

Team Members
Destiny Bailey, RT(R)(M)
Lead Technologist
Karen Curry, RT(R)(M), CN-BI LSSYBH
Clinical Education Program Manager
Mica Ross, RT(R)(M)
Mammography Technologist

Team Sponsor
Chirag Parghi, MD
Chief Medical Officer

“Work hard — don’t give up. Be open to criticism and keep learning.”
— Angela Blackburn, Team Member

Solis Mammography — Southeast
Solis Mammography is a department of HCA Houston Healthcare Clear Lake. Solis Mammography operates more than 100 centers in 13 major markets across the United States.

Physician Leader
Marian Bonner, MD
Lead Interpreting Physician

Team Leaders
Angela McConniel, RT(R)(M)
Center Director

QI Coach
Amber Moniz, RT(R)(M)
Director of Quality

Team Members
Angela Blackburn, RT(R)(M)
Mammography Technologist
Devin Dods, RT(R)(M)
Mammography Technologist
Jessica Turner, MBA, RDMS
Sonographer
Brenda Villalobos, RT(R)(M)
Mammography Technologist

Team Sponsor
Chirag Parghi, MD
Chief Medical Officer

Mammography Improvement Collaborative team from Solis Mammography — Southeast
University of New Mexico

The University of New Mexico’s radiology department is responsible for providing excellent patient care to the people of New Mexico and the Southwest.

“The ACR Learning Network mammography project has taught our team many valuable insights about how to effectively analyze the causes of problems to develop solutions and improve processes. The learning points also reinforced the attributes of high-quality positioning on mammograms, which was also invaluable, and through the tools, we learned to improve our processes helped us to advance our quality.”

— Jennifer Saline, Physician Leader

Team Member
Raina Mendoza, BS, RT(R)(M)
Mammography Technologist

Team Sponsors
Jennifer Montano, BS, RT(R)
SRMC Radiology Director
Jane Potter, MBA, RT(R)(MR)
Radiology Clinical Director

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Director Radiology Quality & Safety

Jennifer Saline, MD
Mammography Section Head

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Mammography Supervisor

Monica Rael, RT(R)(M)
Mammography Supervisor

QI Coaches
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Manager Radiology Clinical Services

Alma Tabor, BS, RT(R)(CT)
Radiology Quality Analyst

Woman’s Hospital

Woman’s Hospital provides mammography services at its location in Baton Rouge, Louisiana, and supports two mammography coaches who travel to 36 parishes in Louisiana and two counties in Mississippi.

“The cohort has taught our team how to take a step back to look at true problem areas, learn from the best and come together as a team to face positioning challenges. We believe this cohort will have a lasting impact on our mammography sites and are excited to see how this collaborative grows to impact the entire mammography community.

Ultimately, we want to improve our patients’ lives by providing the best care. We believe participating in the cohort is helping us achieve this goal.”

— Nolia Guidry, Quality Improvement Coach

Team Member
Raina Mendoza, BS, RT(R)(M)
Mammography Technologist

Team Sponsors
Glenn Augustine, BS, RT(R)(N)
Director of Imaging Services

Team Leaders
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Radiologist

Misty Norman, MD
Chief Radiologist

Team Members
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Radiologic Technologist

Kellie Davis, RT(R)(M)
Radiologic Technologist

Shawn Garaudy, RT(R)(M)
Radiologic Technologist

Boni Pater, RT(R)(M)
Radiologic Technologist

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Jennifer Saline, MD
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Monica Rael, RT(R)(M)
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Alma Tabor, BS, RT(R)(CT)
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Radiologic Technologist

Kellie Davis, RT(R)(M)
Radiologic Technologist

Shawn Garaudy, RT(R)(M)
Radiologic Technologist

Boni Pater, RT(R)(M)
Radiologic Technologist

Team Sponsors
Glenn Augustine, BS, RT(R)(N)
Director of Imaging Services

Team members from Woman’s Hospital.
The Prostate MR Image Quality Improvement Collaborative

Collaborative Leader Reflections
Andrei Purysko, MD

During cohorts 1 and 2, it became clear that several common barriers were hindering the acquisition of high-quality prostate MRI exams. These challenges can be summarized by the “three Ps”: protocol standardization, patient preparation and personnel training. All three areas were consistently identified as systemic issues across all organizations. Personnel training emerged as a significant challenge within the imaging auditing process, both daunting and time-consuming, primarily because institutions were not systematically evaluating image quality.

In cohort 1, collaborative efforts were initiated among the sites to establish a standardized image quality benchmark. They adopted the Prostate Image Quality System, known as PI-QUAL, as a framework for this goal. In cohort 2, these standards were further refined by introducing a specific quality metric for diffusion-weighted imaging (DWI). This adjustment was crucial because DWI plays a pivotal role in prostate cancer detection and is susceptible to artifacts.

Additionally critical are the sessions dedicated to fostering consensus on image quality, which occur before the onset of ImPower. These will continue to be an integral component for future cohorts, as will additional guidance on streamlining the imaging auditing process, based on the valuable knowledge gained from cohorts 1 and 2. This collaborative approach aims to overcome inherent, persistent barriers and enhance the quality of prostate MRI exams across all sites involved in the program.

Problem Statement: Prostate MR image quality is inconsistent and unreliable, possibly leading to missed diagnoses of cancer and an inability to use the image in subsequent procedures.

Primary Measure: Percentage of prostate MRI exams for prostate cancer detection in treatment of naïve patients that meet pass/fail criteria for adequate quality.

Secondary Measure: Percentage of prostate MRI exams for prostate cancer detection in treatment of naïve patients where the diffusion weighted imaging (DWI) rating is optimal.

Improvement Factors
- MR protocol must match the latest PI-RADS® guidelines.
- Clear and appropriate patient preparation.
- Agreement on image quality.
- Clear and consistent protocol management.
- Developing and maintaining technologist skill.
- Effective communication between radiologists, technologists and physicists.
- Standard and reliable process for reviewing images and reporting data.

Collaborative Leader
Andrei Purysko, MD
Clinical Assistant Professor of Radiology, Cleveland Clinic Lerner College of Medicine

Learning Facilitators
Yvette Alvarez, MBA, RT(R)(CT) (ARRT)
Accreditation Specialist, ACR MR/CT Accreditation Program

Leslie K. Mena, MBA, RT(R)(MR) (ARRT)
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Hung-Jui (Ray) Tan, MD, MSHPM
Clare Tempany, MD, FACR
Baris Turkbey, MD
Jeff Weinreb, MD, FACR, FISMRM, FSABI
Prostate MR Image Quality Improvement Collaborative Teams

Carilion Clinic
Carilion Clinic radiology departments provides exceptional care to patients in an approximately 20-county region in central and southwestern Virginia and southern West Virginia.

“The ACR Learning Network is uniquely positioned to help facilities improve patient care, teach quality and process improvement methodology, and inspire teamwork and knowledge sharing across the country. Our team is very thankful that we had the opportunity to participate in Cohort 2!”

— Leslie Hall, Quality Improvement Coach

Cleveland Clinic
Cleveland Clinic serves patients in northeastern Ohio, Nevada, Florida, Toronto, London, Abu Dhabi and beyond.

“Working with the ACR helped us develop a new philosophy of problem solving for our team and gave us the tools we needed to meet our unique challenges and improve our ability to serve our patients. The guidance and support they provided us were invaluable, and working with other healthcare systems provided us with a community of support.”

— Kevin McDermott, Quality Improvement Coach
Duly Health and Care

Duly Health and Care is the largest independent, physician-led medical group in the Midwest serving members across 150 locations.

“Being a part of the ACR Prostate MR Improvement Collaborative has been a tremendous opportunity — not just for our organization, but for our patients, as well. Our patients deserve the best image quality, and the ACR has equipped us with the skills necessary to make this goal a reality. As a team, we learned to not jump to the obvious solutions; just because it may seem obvious does not mean it will have an impact on your improvement. The early stages of the process may be hard and daunting, but the ACR knows what they are doing. Trust the process, ask for help when you need it, and you will learn so much.”

— Jessica Gibbs, Quality Improvement Coach

University of Rochester Medical Center

University of Rochester Medical Center is a seven-hospital health system serving patients in the greater Rochester area of New York and surrounding counties.

“When starting any performance improvement project, diving in and really understanding the current state was enlightening to the team, what we thought staff were doing or should be doing tends to open everyone’s eyes. Following the steps of the A3 methodology really helps project teams understand the current state and stay on track with the project. It’s very important to “trust the process.” The ACR Learning Network is always there to support and guide us through the project!”

— Erin Panter, Quality Improvement Coach

**Physician Leaders**

Amany Aziz, MD
Radiologist

Tammam Nehme, MD
Radiologist

**Team Leader**

Laura Duncan, ARMRIT
Lead MRI Tech

**QI Coach**

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Radiology Coordinator in DI’s QI & Compliance Dept.

**Team Members**

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Gina Denatale, RT(R)(MR)
Lead MRI Tech

Mo Khaleelurrahman, ARMRIT
MRI Tech, Quality & Technical Specialist

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CT/MR Manager

Nasir Siddiqi, MD
Radiologist

**Physician Leader**

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Medical Director and Division Chief, UR Imaging-UMI

**Team Leader**

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Clinical Manager Strong West Imaging

**QI Coach**

Erin Panter, BSRT
Imaging Quality Project Manager

**Team Members**

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Assistant Supervisor
Marketplace Imaging

Stewart Go, (R)(MR)(ARRT)(MRSO)
UMI Lead MRI Technologist

Lindsey Hokenson, RT(R)(MR)
MRI Technologist – Marketplace Imaging

Edmund Kwok, PhD, MRSE
MR Physicist, MR Quality Assurance

**Team Sponsors**

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Clinical Director Imaging Sciences Operations

Eric Weinberg, MD
Vice Chair of Clinical Operations
The Recommendations Follow-Up Improvement Collaborative

Collaborative Leader Reflections
Ben Wandtke, MD, MS

The goal of the Recommendations Follow-up Improvement Collaborative is to decrease the impact of lung cancer on our patients by monitoring and managing lung nodules. Three main issues for lung nodule management have been identified through the participation of cohorts 1 and 2 within the improvement collaborative. These are: potentially malignant lung nodules that do not have associated follow-up recommendations, inconsistencies in operational communications and recommendations that do not align with evidence-based guidelines.

Our cohorts have addressed these challenges by implementing or advancing their recommendation tracking systems. These systems can determine if appropriate recommendations were made and if recommended imaging tests were completed in a timely manner. In cohort 3, collaborative participants will receive new training related to system design, which will enhance their ability to manage the complexity of the problem we face in improving recommendation follow-up compliance.

Recommendations Follow-up Appropriateness Problem Statement: Not all patients with indeterminant lung nodules are consistently receiving actionable and appropriate recommendations for follow-up.

Recommendations Follow-up Appropriateness Measure: Percentage of imaging exams with one or more >=6mm lung nodule(s) with an indeterminate cancer risk for which an appropriate and actionable follow up recommendation was made.

Improvement Factors for Imaging Appropriateness:
• Radiologists consistently flag report with actionable recommendations.
• Consistent use of radiologist feedback loop.
• Ongoing data collection and reporting.
• Develop a process for tracking macro usage.
• Clear expectations around the use of Fleishner guidelines.
• Clear and consistent feedback to radiologists.

Recommendations Follow-up Completion Problem Statement: The recommended follow-up for patients identified as having an indeterminant lung nodule is not being adequately completed within the identified time frame putting them at risk for delayed diagnosis.

Recommendations Follow-up Completion Measure: Percentage of patients having an actionable recommendation for follow-up of one or more lung nodules who received recommended follow-up within the recommended time interval.

Improvement Factors for Recommendations Follow-up:
• Accurate and accessible patient demographic information.
• Clear and consistent communication with providers.
• Timely and accurate communication with patients.
• Establish provider match pathway for patients with a primary care provider.
• A simplified, standard process for ordering exams.
• A tracking system with timely and actionable triggers.
• Consistent and reliable data collections and reporting.
• Clearly defined program coordinator roles and responsibilities.

Advisory Committee Members
Terri Ann DIJulio
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Stella Kang, MD, MS
Woojin Kim, MD
Christopher Moore, MD
Tyler Prout, MD, FACR

Learning Facilitators
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ACR Quality and Safety Operations

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Director of Quality Programs
Quality and Safety Department
**AdventHealth Central Florida**

AdventHealth Medical Group Radiology is a practice within AdventHealth that partners with operations to support imaging services across the Central Florida Division. The partnership includes 15 hospitals with nine free-standing emergency departments and 12 AdventHealth Imaging Centers, which perform 2.2 million exams per year, across all imaging modalities.

> “At AdventHealth we’ve integrated A3 thinking into both small- and large-scale projects. We’ve found it helps us to focus on the process and not implementing change without knowing what the root of the problem really is.”

— Elizabeth Evans, Quality Improvement Coach

**Physician Leader**
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Cardiothoracic Section Chief

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Radiologist Resident

**Team Sponsor**
Lester Rilea
Executive Director — Imaging

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**Penn Medicine**

Penn Medicine — serving the Greater Philadelphia Eagles’ territory.

> “Participating in the ACR Learning Network Improvement Collaborative for Recommendations Follow-up has been an eye-opening experience. Though my team and I have worked in this field for a decade, we’ve learned new skills and techniques to improve the work we’re doing and make a measurable difference in the lives of our patients.”

— Tessa Cook, Physician Leader

**Physician Leaders**
Tessa Cook, MD, PhD
Associate Professor of Radiology; Director, CPX Radiology

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Assistant Professor of Clinical Medicine

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Coordinator

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Riverside Healthcare

Riverside Healthcare is a fully integrated healthcare system serving the needs of individuals and communities throughout the counties of Kankakee, Iroquois, Will, Grundy and beyond. The system includes Riverside Medical Center, an award-winning Level II Trauma hospital, and the only area hospital to earn Magnet® distinction since 2011. Riverside also operates several community, primary and specialty health centers throughout the region.

“We are truly thankful to be able to take part in the ACR Learning Network Recommendations Follow-up program. It has pushed us to dig deeper into our program and learn how much the overall process contributes to the overall success of the program.”

— Amy Warburton, Quality Improvement Coach

**Physician Leader**
Ryan Meiners, MD
Radiologist

**Team Leader**
Nikey Beaupre, RT(R)
Imaging Patient Navigator

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Kathryn Eschbach, MHA, RT(R)
(MR)(CT)
Director of Imaging Services

Above photos: Recommendations Follow-up Improvement Collaborative team from Riverside Healthcare
The ACR Learning Network builds a culture and a workforce committed to continuous learning and improvement.

"Being part of the ACR coaching team has been such an incredible journey. The Learning Network methodology is something you can use for any process improvement project. I love to teach and inspire others to accomplish their goals. The Solis-Clear Lake team not only improved the quality of their images, but they learned how to use new tools to sustain the improvement indefinitely."

— Daisha Marsh, QI Coach, Solis Mammography-Clear Lake, Mammography Positioning Improvement Collaborative

"I found participating in the ACR Learning Network to be incredibly beneficial. The tools and guidance provided were invaluable as they provided me with in-depth knowledge on how to guide my teams through the A3 process. Having the opportunity to participate in this program has strengthened the relationship between Radiology, Oncology, Pulmonology, Family Medicine and our Lung Cancer Navigators. These partnerships have led to effective changes and established a pathway for ongoing improvements."

— Kelly Howard, QI Coach, Medical University of South Carolina, Lung Cancer Screening Improvement Collaborative

"Being a part of the collaborative was a great learning experience and provided us the ability to make several improvements in our lung nodule program to better serve our patients."

— Nikey Beaupre, Riverside Healthcare, Recommendations Follow-up Improvement Collaborative

"The ACR Improvement Collaborative has been a great experience for me. Learning and developing the tools for our current quality improvement project is not only helping in the moment, but something I can draw on for future initiatives. Like most of us in healthcare, I have struggled with immediately jumping in to solve the problem. This has been a great exercise in slowing down, observing and listening to others in order to implement enduring and sustainable results over realizing short-term gains."

— Randy Crane, Team Member, University of Rochester Medical Center, Prostate MR Image Quality Improvement Collaborative