

# R-SCAN<sup>®</sup>

Radiology Support, Communication  
and Alignment Network

A Toolkit Developed in Collaboration with Main Line Health

## The R-SCAN Patient Engagement Toolkit



**A step-by-step guide to improve imaging care via an R-SCAN<sup>™</sup> quality improvement project with a patient-centered approach**

### LOOK INSIDE

Discover resources for:

- Sparking Quality Improvement
- Getting Started
- Engaging with Patients
- Collaborating with Stakeholders
- Communicating with Patients
- Evaluating Results
- Connecting with Experts for Help
- Patient-Centered R-SCAN Topics
- Resources

# The R-SCAN Patient-Engagement Toolkit

The ACR Radiology Support, Communication, and Alignment Network (R-SCAN) patient-centered approach to appropriate imaging is designed to adapt to each healthcare system's unique environment and processes. This five-step R-SCAN implementation guide will help your practice engage patients in optimizing imaging care and reducing unnecessary imaging exams — while lowering the cost of care for your health system.

## Step 1

Get Started on Your Patient-Centered R-SCAN Project

## Step 2

Bring in Patients

## Step 3

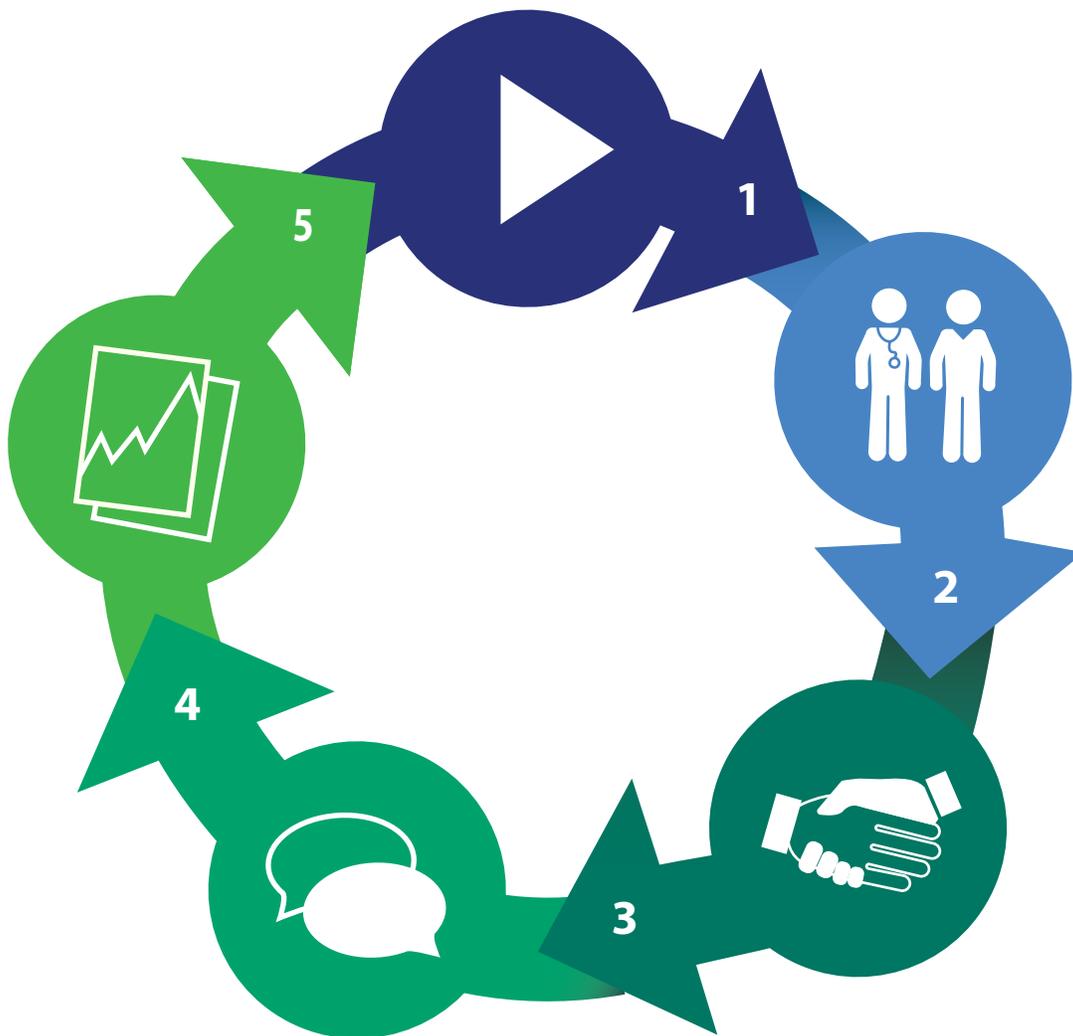
Collaborate with Partners

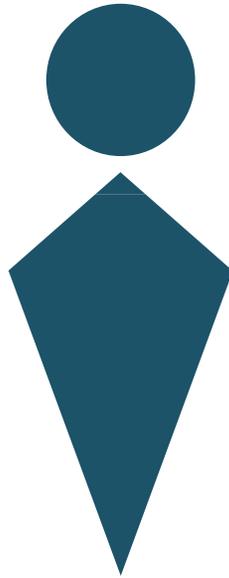
## Step 4

Communicate with Patients

## Step 5

Evaluate the Impact





## Putting Patients at the Center of Quality Improvement

Now more than ever, patients are more actively involved in their own healthcare. One area of increasing concern to patients and clinicians alike is ensuring the right imaging exam is ordered at the right time. That's where the R-SCAN comes in. R-SCAN provides a proven pathway to ensure safe, effective, and appropriate imaging in your organization.

The **R-SCAN Patient-Centered Care Toolkit** is a resource to help you implement your own quality project and build greater patient engagement into your image ordering workflow. The tools that accompany this guide are intended to help you implement evidence-based recommendations and support physicians working with patients to make wise choices about medical imaging care.

This implementation guide presents a strategy and tools to help radiologists and referring clinicians leverage R-SCAN and develop effective partnerships with patients and family members. It also outlines five steps for putting this patient-centered strategy to work in your organization.

Throughout this guide, we have included examples and real-world experiences from **Main Line Health's** use of a patient-centered R-SCAN initiative. Main Line Health was the first in the nation to implement a patient-centered R-SCAN project.

Appropriate imaging involves everyone. We hope this toolkit will help you advance both your quality improvement and your patient-centered care efforts.

## STEP 1

“It’s key that the radiology department is taking a leadership role to be front-and-center in improving patient care — and getting that recognition and visibility. Who better to communicate the effects and appropriateness of imaging than radiologists? Physician-to-physician collaboration, with patient involvement, is the key to success in the future.”

Ashima Lall, MD, MBA, FACHE, Radiology Associates of the Main Line



## Get Started on Your Patient-Centered R-SCAN Project

Patient engagement is essential to ensure patients receive tests that add value to their care. Here are a few tips and tools to help get patients involved in their imaging care.



### Form a patient-centered care team

**The first step** of your patient-centered [R-SCAN project](#) is to partner with ordering clinicians who are enthusiastic about **engaging patients** in quality improvement efforts.

Collaborators can be individual clinicians, several clinicians, or a whole practice.

### Select a patient-centered [Choosing Wisely®](#) topic

Once your collaborative care team is [enrolled in R-SCAN](#), it’s time to select an [R-SCAN Choosing Wisely](#) topic that best fits your goal for patient-centered clinical improvement. Be sure to choose a topic that solves a critical problem in your community of practice and has strong potential to make a significant impact on your patient population.

### R-SCAN topics that are conducive to patient engagement include:

- Imaging for Low Back Pain
- Imaging for Uncomplicated Headaches
- CT for Adult Minor Head Trauma
- CT for Minor Pediatric Head Injury
- CTA for Pulmonary Embolism
- CT for Recurrent Renal Colic
- Advanced Imaging for Early Prostate Cancer Staging
- CT for Uncomplicated Rhinosinusitis
- Advanced Imaging for Pediatric Febrile Seizures



#### TOOLS YOU CAN USE

Patient-centered topics and materials can be found at the end of this toolkit. >>

### Main Line Health’s R-SCAN Project

Radiologists and emergency department (ED) physicians at Main Line Health’s Riddle Hospital collaborated on a patient-centered R-SCAN project to reduce low-value CT imaging for pulmonary embolism (PE).

Ashima Lall, MD, MBA, FACHE, system chief of performance improvement for Radiology Associates of the Main Line, and Rebecca L. Pasdon, DO, emergency physician at Riddle, leveraged R-SCAN’s Clinical Decision Support (CDS) tools to analyze the appropriateness of CT ordering for PE and to guide ED physicians in the ordering of imaging that adds value to patient care. They also used Choosing Wisely resources to teach patients about PE symptoms and the risks associated with CT radiation exposure.



Their efforts resulted in a **45% improvement** in high-value CT ordering for ED patients with suspected PE, and ED patients surveyed gave a largely positive evaluation of the educational materials.

**Read the full case study >>**



## STEP 2

“When we embarked on our R-SCAN project, we realized the process didn’t involve patients. You can’t conduct a quality improvement project without understanding the patient perspective. Now, our patients are at the center of the conversation about utilization.”

- Ashima Lall, MD, MBA, FACHE, Radiology Associates of the Main Line

### Bring Patients into Your R-SCAN Quality Improvement Project

 Patient engagement is essential for an imaging program that ensures patients receive tests that add value to their care. Here are a few tips and tools to help get patients involved in their imaging care.

#### Understand your health system’s patient-centered goals

Virtually every hospital or radiology practice now has patient-centered goals.

**Identify** the administrator or organization within your system that is leading the effort to increase patient engagement and boost satisfaction.

**Reach out** to those leaders to explore how your hospital is engaging with patients and to learn about their efforts to understand patient wants and needs and deliver better patient care.

**Discover** how you can participate in the patient-centered care strategy and align your efforts with overarching goals and programs.



#### Identify how your R-SCAN project can contribute

The goal of patient and family engagement is to create an environment where patients, families, clinicians, and hospital staff all work together as partners to improve the quality and safety of care. Ask your collaborative care team these critical questions.

-  What would an R-SCAN project look like with patient involvement? 

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-  How can we add the patient voice to our imaging care conversation? 

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-  What are the points of care where we can engage patients? 

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-  What information is available to share with patients? 

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-  How can we ensure shared decision-making when it comes to ordering the right imaging? 

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**Tip:** Patients want to know about their care and be part of it. Benefits of including patients in your quality improvement program can include:



- Better health outcomes for patients
- Increased radiologist and ordering clinician satisfaction
- Reduced unnecessary imaging
- Improved financial performance
- Increased patient satisfaction



## STEP 3

**“These results indicate that collaborative initiatives like R-SCAN can have significant impact on reducing unnecessary imaging for patients.”**

- Ashima Lall, MD, MBA, FACHE, Radiology Associates of the Main Line

### Collaborate with Partners

Engagement of hospital leadership, ordering clinicians, patients, and staff is imperative to develop and sustain meaningful quality improvement. Here’s how to build partnerships and garner support.

#### Engage the right stakeholders

This is not a one-person initiative; you need the right people at the table to achieve optimum results. Build a broad base of support for your patient-centered R-SCAN project among key individuals and groups, including:

- Hospital administrators
- Medical staff leadership
- Department heads
- Clinical leaders
- Patient advocates
- Quality and safety managers



**Tip:** You may want to inform your legal team that no protected health information is provided in an R-SCAN project. Investigate participation in the CDS R-SCAN Registry to view reports on imaging orders.

### Present your R-SCAN project plan

Develop a strong business case, methodology, and expected outcomes for your patient-centered R-SCAN project. Meet with potential partners, individually and in groups, to present your project plan to key stakeholders.

Ask for a time slot at regular staff meetings and/or invite department heads, clinicians, patient advocates, and staff to a lunch-and-learn discussion. The objective is to gain buy-in for the long-term vision of evolving to a patient-centric approach to value-added imaging.

Stakeholders should:

- Understand the anticipated benefits of the quality improvement initiative
- Know what will be expected of them
- Have the opportunity to provide their advice and recommendations for a collaborative process



### Establish ongoing channels of communication

The process of forging strong partnerships and gaining buy-in is not a one-time effort. Ongoing communication with hospital administrators, referring clinicians, patient advocates, and staff is important to ensure understanding of the opportunities, processes, and results of the project.



**Tip:** Invite stakeholders to training sessions and to observe your R-SCAN project in action.



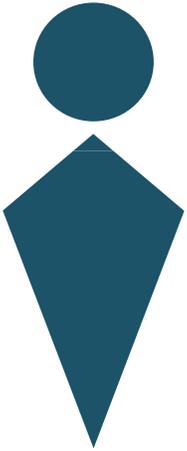
# STEP 4

**“Patients and families in the ED feel anxious enough; they don’t need anything more to worry about. Educational materials like this can help patients better understand their conditions and their diagnostic and treatment options.”**

- Joanne Sunick, member of the Riddle Hospital Patient Family Advisory Committee

## Communicate with Patients

You’ve involved patients in planning your project. Now it’s time to engage them, before, during, and after their imaging.



### Involve patients in understanding the most appropriate imaging

Patients should understand:

- The imaging procedures being performed
- The risks
- The side effects
- Alternatives to be considered

Bring the perspectives of patients and families directly into the planning, delivery, and evaluation of care. [More Information in step 2.](#)



**TOOLS YOU CAN USE**  
Patient-centered topics and materials can be found at the end of this toolkit. >>



**Tip:** The key to successful communication is to provide information in the way patients want to consume it.



### Provide patient-friendly materials

As part of a patient-engagement initiative, identify areas of opportunity for patient education. Access and distribute educational materials about specific imaging exams to engage and empower patients.

[Choosing Wisely](#) handouts, [RadiologyInfo.org](#) materials, and [JACR Patient-Friendly Summaries](#) are all designed to help patients understand what tests are the most appropriate for each situation and to help ordering clinicians and radiologists better communicate why they are requesting or performing a particular imaging test.

**“I’ve always explained to my patients what we were doing, why we were concerned, and what tests we were ordering, but when they had the information sheet – something tangible to hold on to – that solidified everything.”**

- Rebecca L. Pasdon, DO, emergency physician, Main Line Health Emergency Medicine Associates, Riddle Hospital





## STEP 5

**“The results were exciting because we can see behaviors changing. The goal is to avoid low-value imaging, and we are ultimately encouraging professionalism, collegiality, and conversation between specialists, primary care, and ER clinicians.”**

- Diane Curran, director of radiology, Main Line Health's Riddle Hospital



## Evaluate the Impact

As with any quality improvement project, evaluating your progress and continued areas for improvement is an important last step. Is your R-SCAN patient-centered project working? Consider these three opportunities for evaluation and assessment of your results.

### Assess improvement in ordering of appropriate imaging

Once you have completed your R-SCAN educational project with referring clinicians, it's time to rate cases and determine your impact on reducing unnecessary imaging. Use R-SCAN's rating and reporting tools to gauge your success.



### Reflect on your strategy



Are there more ways you could have shared the risks and benefits of imaging with your patients?

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What impact do you think the patient-centered aspect of your R-SCAN project had on results?

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What other patient-facing Choosing Wisely topics might make an equal or stronger impact?

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### Assess patient perceptions about shared decision-making

Conduct patient evaluation surveys to gather feedback about the value of the educational materials you provided.



View the [patient survey](#) that the Main Line Health team used to collect feedback about the educational handout patients received.



**Tip:** Use patient satisfaction data to strengthen the patient-engagement process and enhance shared decision-making.

**“Patients want to be involved in their care. When patients understand what’s happening to them, they are more actively engaged and empowered. Giving them even this small piece of the puzzle is really important.”**

Rebecca L. Pasdon, DO, emergency physician, Main Line Emergency Medicine Associates, Riddle Hospital



## Get Expert Help with Your R-SCAN Project

The ACR R-SCAN team is available to collaborate with you to implement a patient-centered approach to high-value imaging in your organization. [Learn more](#) and [contact us](#).

## Get help with patient- and family-centered care

The ACR is committed to helping you improve the patient experience. The ACR Commission on Patient- and Family-Centered Care works to ensure high-quality radiologic care is provided in a manner that incorporates the needs, wants, and values of patients and communities, and leads to improved healthcare satisfaction. [Learn more and get involved](#).



# Patient-Centered R-SCAN Topics and Materials

Here are some of the R-SCAN topics that are conducive to patient engagement, along with resources you can use to conduct a patient-centered R-SCAN project.



Be sure to check R-SCAN's [topic-specific educational resources](#) regularly for updates and new resources for patient-centered topics.

## Imaging for Low Back Pain

- [Choosing Wisely: Imaging for Low Back Pain](#)
- [Choosing Wisely Handout: Imaging for Low Back Pain](#)
- [Choosing Wisely Handout: Bed Rest and Low Back Pain](#)
- [Patient-Friendly Appropriateness Criteria® Summary](#)
- [ACP Patient FACTS: Low Back Pain - English Version | Spanish Version](#)
- [Health Tips - What You Can Do: Low Back Pain - English Version | Spanish Version](#)
- [Imaging 3.0 Case Study: Backed by Guidance \(Low Back Pain\)](#)

## Imaging for Uncomplicated Headaches

- [Choosing Wisely: Imaging for Uncomplicated Headaches](#)
- [Choosing Wisely Handout: Imaging Tests for Headaches - English Version | Spanish Version](#)
- [Patient-Friendly Appropriateness Criteria Summary](#)
- [ACP Patient FACTS: Migraine Headache - English Version | Spanish Version](#)

## CT for Adult Minor Head Trauma

- [Choosing Wisely: CT for Adult Minor Head Trauma](#)
- [Choosing Wisely Handout: Brain Scans for Head Injuries - English Version | Spanish Version](#)
- [Patient-Friendly Appropriateness Criteria Summary](#)
- [Choosing Wisely Handout: Do you need a CT scan for a head injury?](#)

## CT for Minor Pediatric Head Injury

- [Choosing Wisely: CT for Minor Pediatric Head Injury](#)
- [Choosing Wisely Handout: CT Scans for Children with Head Injuries - English Version | Spanish Version](#)
- [Patient-Friendly Appropriateness Criteria Summary](#)
- [Website Resource: Think A-Head and Image Gently®](#)
- [Imaging 3.0 Case Study: Ahead of the Curve \(PECARN-Guidelines\)](#)
- [Imaging 3.0 Case Study: In Sync \(Pediatric Head Injury-PECARN Guidelines\)](#)

## CTA for Pulmonary Embolism

- [Choosing Wisely: CTA for Pulmonary Embolism](#)
- [Choosing Wisely Handout: When you need a CT scan to check for a blood clot in your lungs](#)
- [Patient-Friendly Appropriateness Criteria Summary](#)
- [ACP SUMMARIES FOR PATIENTS: Evaluation of Patients With Suspected Acute Pulmonary Embolism](#)
- [Imaging 3.0 Case Study: Partners in Quality \(Pulmonary Embolism\)](#)

## CT for Recurrent Renal Colic

- [Choosing Wisely: Recurrent Renal Colic](#)
- [Choosing Wisely Handout: Why the doctor may not order a CT scan for kidney stones](#)
- [Patient-Friendly Appropriateness Criteria Summary](#)

## Advanced Imaging for Early Prostate Cancer Staging

- [Choosing Wisely: Advanced Imaging for Early Prostate-Cancer Staging](#)
- [Choosing Wisely Handout: Imaging Tests for Early Prostate Cancer](#)
- [Patient-Friendly Appropriateness Criteria Summary](#)

## CT for Uncomplicated Rhinosinusitis

- [Choosing Wisely: CT for Uncomplicated Rhinosinusitis](#)
- [Choosing Wisely Handout: Treating Sinusitis - English Version | Spanish Version](#)
- [Patient-Friendly Appropriateness Criteria Summary](#)

## Advanced Imaging for Pediatric Febrile Seizures

- [Choosing Wisely: Advanced Imaging for Pediatric Febrile Seizures](#)
- [Patient-Friendly Appropriateness Criteria Summary](#)

# Resources



## Resources for Your R-SCAN Project

### [Radiology Support, Communication and Alignment Network \(R-SCAN\) »](#)

Clinical decision support (CDS) tools and a collaborative action plan that brings radiologists and referring clinicians together to improve imaging appropriateness (based on Choosing Wisely topics) and lower the cost of care

### [R-SCAN How-to Guide »](#)

A step-by-step plan that guides you through the process of engaging ordering clinicians in a collaboration to improve the ordering of the most appropriate imaging exams based on Choosing Wisely guidelines

### [R-SCAN Podcasts: Conversations to Optimize Care »](#)

Free podcasts for ACR members that discuss strategies of image ordering and highlight how ACR Appropriateness Criteria support Choosing Wisely recommendations

### [R-SCAN Imaging Order Simulation »](#)

Offers practical clinical scenarios integrated with CareSelect® Imaging CDS and provides guidance about choosing imaging exams best suited for a patient's given clinical history

### [CDS R-SCAN Registry »](#)

Available to facilities using the CareSelect Imaging CDS system, allows radiologists to engage referring physicians in a targeted quality improvement initiative using CDS data reports

### [Imaging 3.0 R-SCAN Case Studies »](#)

Case studies that highlight how practices across the country have implemented R-SCAN and their success achieving improvements in high-value imaging care

## Resources to Engage Patients

### [Main Line Health: Partners in Quality »](#)

An Imaging 3.0 case study that highlights how radiologists and ED physicians collaborated on a patient-centered R-SCAN project to reduce low-value CT imaging for PE

### [Main Line Health: R-SCAN Project Poster »](#)

A description of how Main Line Health's R-SCAN project demonstrated a reduction in unnecessary imaging for potential PE patients

### [Main Line Health: Choosing Wisely Patient Handout for PE »](#)

A patient-friendly handout that ED clinicians at Riddle Hospital distributed to patients with suspected PE to describe the likelihood of PE and its risk factors, as well as possible radiation risks associated with CT

### [Main Line Health: Patient Survey Template »](#)

A discussion guide used by a quality nurse to call patients after they were discharged from the hospital to collect feedback about the Choosing Wisely educational handout

## [Main Line Health: R-SCAN Project Presentation Template »](#)

### [Choosing Wisely »](#)

Recommendations related to reducing or re-evaluating the use of imaging for specific indications

### [Choosing Wisely Patient Resources »](#)

Patient resources based on specialty society recommendations on when to order imaging, which can be downloaded as PDF handouts

### [JACR Patient-Friendly Summaries »](#)

Summaries to help patients understand what tests are the most appropriate for each situation and to help ordering physicians and radiologists better communicate why they are requesting or performing a particular imaging test

### [RadiologyInfo.org »](#)

Website that allows patients to access videos addressing radiation safety resources and radiology benefits and risks, and to search for accredited imaging facilities

### [Image Gently »](#)

Pediatric radiation safety resources that raise awareness of opportunities to lower radiation dose in imaging of children

### [ACR Patient- and Family-Centered Care Practice Toolkit »](#)

Downloadable materials and resources to build awareness of radiology and to answer patient questions about medical imaging and treatment

### [Imaging 3.0 Patient Engagement Case Studies »](#)

Case studies that provide real-world examples of patient engagement in action

### [The Radiologist's Toolkit for Patient- and Family-Centered Care »](#)

Offers practice-specific online resources to help radiologists enhance patient-engagement skills and offer more patient-centered care.

### [ACR Commission on Patient- and Family-Centered Care »](#)

Resources to help radiology professionals provide and document patient- and family-centered care

### [Physician Resources for Patient- and Family-Centered Care »](#)

Materials to help practices enhance patient understanding of — and participation in — new practice and payment models and to provide more patient- and family-centered care

## Resources to Enhance Collaboration

### [PAMA Flyer for Referring Clinicians »](#)

What every Medicare provider needs to know about the Protecting Access to Medicare Act (PAMA) and how R-SCAN can help you prepare for upcoming reimbursement requirements before 2020

### [Recruit R-SCAN Project Partners »](#)

Resources to learn more about communicating with your referring clinicians and to better understand how R-SCAN, CDS, and collaboration can help reduce unnecessary imaging and increase quality and value-based patient care

## Resources to Gauge Effectiveness

### [ACR Appropriateness Criteria »](#)

Evidence-based guidelines made available through the CareSelect Imaging CDS platform

### [Practice Parameters and Technical Standards »](#)

Promote the safe and effective use of diagnostic and therapeutic radiology by describing specific training, skills, and techniques

### [Value-Based Imaging Activities »](#)

Educational/CME activities for referring clinicians to optimize image ordering based on evidence (image ordering simulation, podcasts, PAMA, etc.)

### [AMA STEPS™ Forward Clinical Decision Support and Diagnostic Imaging »](#)

Provides data, tools, education, and relationships to ensure success in a value-based payment environment

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### ACR and Partner Organizations

In addition, we would like to recognize the following contributing organizations for providing guidance, tools, and resources for this guide.

- ACR Radiology Support, Communication, and Alignment Network (R-SCAN)
- ACR Commission on Patient- and Family-Centered Care
- Choosing Wisely
- National Decision Support Company



[Contact us](#)