PCORI RFI: Call for Evidence Needs for Patient-Centered Comparative Clinical Effectiveness Research

The American College of Radiology (ACR) – a professional association representing more than 40,000 physicians practicing diagnostic radiology, interventional radiology, radiation oncology, and nuclear medicine, as well as medical physicists – appreciates the opportunity to provide comments to the Patient-Centered Outcomes Research Institute (PCORI) regarding the September 1, 2026, Request for Information: *Call for Evidence Needs for Patient-Centered Comparative Clinical Effectiveness Research (CER)*.

ACR believes there is a high-priority evidence gap regarding when image-guided interventions offer the greatest value compared with other established treatment options. When multiple treatment options are clinically appropriate, patients and clinicians need clear evidence to determine which approach is most likely to achieve the outcomes that matter most to patients. This includes how minimally invasive image-guided interventions compare with other established treatments in terms of effectiveness, safety, durability, recovery time, treatment burden, need for additional procedures, cost, and patient-reported outcomes. For example, research from the Harvey L. Neiman Health Policy Institute showed image-guided embolization to treat symptomatic uterine fibroids is comparable in cost to hysterectomy but has other advantages including sparing the uterus and reducing peri-operative risk and recovery time.[1] Yet, hysterectomy remains the predominant procedure, and there are insurance-based biases in patient treatment selection.[2] Patient-centered comparative CER is needed to directly compare image-guided, less invasive treatments to surgical options and identify which are preferable based on clinical, cost, and patient-centered outcomes. This research should also determine whether treatment selection should depend on patient and clinical characteristics. The resulting evidence would support more informed, individualized treatment decisions, particularly for patients in diverse communities and care settings where access and outcomes may vary. In addition, this data would help clarify whether the balance of benefits and harms differs across patient populations and healthcare environments.

Another priority evidence gap is determining the most effective breast cancer screening and surveillance strategy based on individual risk. More broadly, advancing personalized medicine in response to disruptive innovations in disease detection, prevention, and treatment represents an important area for patient-centered comparative CER. There are multiple approaches to assess breast cancer risk and guide the selection of imaging modalities and screening intervals. Still, important questions remain about which breast cancer risk assessment methods most accurately identify patients who will benefit from

[1] Cronan J, Horný M, Duszak R Jr, Newsome J, Carlos R, Hughes DR, Memula S, Kokabi N. Invasive Procedural Treatments for Symptomatic Uterine Fibroids: A Cost Analysis. J Am Coll Radiol. 2020 Oct;17(10):1237-1244. doi: 10.1016/j.jacr.2020.03.018.

[2] Shukla PA, Drake AR, Sare A, Rula EY, Christensen EW. Insurance-Based Differences in Treatment Patterns for Uterine Fibroids. J Am Coll Radiol. 2025 Jun;22(6):653-661. doi: 10.1016/j.jacr.2025.02.011.

different imaging strategies, and which approaches provide the best balance of cancer detection, potential harms, downstream testing and procedures, patient burden, and overall outcomes.

Emerging technologies, including blood-based assays for early disease detection, may complement existing imaging-based approaches and create opportunities for more personalized screening and surveillance strategies for a multitude of cancers including lung, colon, prostate, and breast cancer. Comparative CER is needed to determine how to best integrate these innovations with established risk assessment and imaging pathways to improve patient outcomes. Patient-centered comparative CER is needed to determine how best to align risk assessment with screening and surveillance decisions for individuals across the risk spectrum, including breast cancer survivors. Beyond breast cancer screening, the rapid adoption of innovations such as GLP-1 receptor agonists highlights the need for long-term CER to understand how emerging technologies and therapies can support more personalized approaches to disease prevention and management. By helping patients and clinicians select the imaging strategies most likely to improve outcomes while minimizing unnecessary testing, procedures, and associated burdens, this evidence could facilitate the transition from a generalized approach to screening and surveillance to personalized, risk-based care.

ACR also wants to highlight the need to ensure that all children benefit from pediatric imaging expertise regardless of where they receive care. Only about 130 dedicated children's hospitals exist in the United States. As a result, many children receive imaging in settings without pediatric radiologists or pediatric-specific imaging protocols, which can increase exposure to unnecessary radiation and associated cancer risk. Research from the Harvey L. Neiman Health Policy Institute recently found that imaging modalities that expose children to ionizing radiation are used more frequently at non-children's hospitals than at children's hospitals.[3] Comparative CER could identify the most effective strategies for extending pediatric imaging expertise, particularly in communities and healthcare settings where specialty expertise is limited. Evaluating approaches such as tele-networking, tele-mentoring, and other remote support models across diverse care settings would help determine which methods best improve access, quality, safety, and outcomes for children. The resulting evidence could guide policies and programs aimed at expanding access to pediatric imaging expertise, improving imaging quality and safety, and reducing avoidable risks for children and families.

ACR also believes more evidence is needed on how best to communicate imaging results so patients understand their findings and can make informed healthcare decisions. Information blocking rules (primarily 45 CFR Part 171) promote timely access, exchange,

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[3] Pelzl CE, Doria AS, Drake A, Christensen EW, Gee MS, Hayatghaibi SE, Ho ML, Teixeira SR, Trout AT, Widjaja E, Rula EY, Chan SS. Imaging Utilization Among Pediatric Beneficiaries at Children's Hospital Versus Non-Children's Hospital Outpatient Facilities Using Medicaid Claims. J Am Coll Radiol. 2026 May;23(5):757-767. doi: 10.1016/j.jacr.2025.11.029.

and use of electronic health information (EHI), including images and imaging results, by providers and patients. As a result, patients may automatically receive notifications of consequential or complex EHI before it is reviewed and communicated by healthcare providers. This can lead to patients seeking translation and diagnosis from unconventional or app-based sources.

ACR successfully advocated for HHS guidance that adds flexibility to avoid surprise EHI notifications. Institutions and IT vendors may be unaware of these compliance capabilities, however. Patient-centered comparative CER could identify the most effective ways to present, explain, and discuss imaging EHI while preserving timely access, exchange, and use. Comparing communication strategies across different patient populations and clinical contexts could help determine which approaches best support patient understanding, follow-up care, and informed decision-making. The resulting evidence could guide implementation of supplementary communication practices to improve patient experience, reduce unintended burdens on patients and clinicians, and ensure imaging EHI is delivered in timely, meaningful ways.

Finally, ACR has identified the need to develop effective strategies to close gaps in access to imaging services and specialty imaging expertise. Access to imaging is essential for many diagnostic and treatment decisions. Nonetheless, patients may face barriers to obtaining timely and appropriate imaging care in resource-constrained, rural, underserved, or specialty-limited settings, which have been linked to insurance type and provider reimbursement.[4] While expanding access is important, more evidence is needed to determine which approaches produce meaningful improvements in care quality, safety, patient experience, and health outcomes. Patient-centered comparative CER should evaluate strategies such as bringing imaging services closer to patients, providing specialty expertise remotely through telehealth, and connecting patients with specialized centers when appropriate. Comparing these models across different populations and healthcare settings would help identify the most effective approaches to reduce access barriers while

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[4] Yuan CX, Long KC, Rula EY, Christensen EW. Shifts in Urbanicity-Based Access to Radiotracers for Neuroendocrine Tumors. J Am Coll Radiol. 2026 Jul;23(7):1235-1243. doi: 10.1016/j.jacr.2026.03.017. Pelzl CE, Drake A, Patel BK, Rula EY, Christensen EW. Mobile Mammography Utilization and Breast Cancer Screening Adherence Among Medicare Fee-for-Service Beneficiaries. Clin Breast Cancer. 2025 Apr;25(3):e288-e300.e1. doi: 10.1016/j.clbc.2024.11.012. Christensen EW, Drake AR, Davey NC, Rula EY. State-Level Medicaid Reimbursement and Imaging Utilization by Medicaid and Children's Health Insurance Program Patients. J Am Coll Radiol. 2025 May;22(5):530-538. doi: 10.1016/j.jacr.2024.
Christensen EW, Rosenblatt RB, Patel AG, Rula EY, Carlos RC, Narayan AK, Patel BK. Differential Access to Breast Magnetic Resonance Imaging Compared with Mammography and Ultrasound. Am J Prev Med. 2024 Dec;67(6):897-905. doi: 10.1016/j.amepre.2024.07.007.
Christensen EW, Sanelli PC, Rula EY, Chang KJ, Moreno CC, Bruining DH, Yee J. Sociodemographic Factors and Screening CT Colonography Use Among Medicare Beneficiaries. AJR Am J Roentgenol. 2024 Jan;222(1):e2329703. doi: 10.2214/AJR.23.29703
Hughes DR, Espinoza W, Fein S, Rula EY, McGinty G. Patient Cost-Sharing and Utilization of Breast Cancer Diagnostic Imaging by Patients Undergoing Subsequent Testing After a Screening Mammogram. JAMA Netw Open. 2023 Mar 1;6(3):e234893. doi: 10.1001/jamanetworkopen.2023.4893.

maintaining high-quality care. The resulting evidence could guide patients, clinicians, health systems, and policymakers in selecting and implementing access solutions that improve timely diagnosis, treatment decision-making, and overall health outcomes.

In summary, ACR believes that patient-centered comparative CER is needed to address critical evidence gaps across the imaging continuum, including the comparative value of image-guided interventions, personalized cancer screening and surveillance strategies, access to pediatric imaging expertise, effective communication of imaging data, and approaches to reduce barriers to imaging services and specialty expertise. Generating evidence in these areas will help patients, clinicians, health systems, and policymakers make more informed decisions, improve care quality and safety, advance health equity, and ensure that imaging delivers the greatest benefit to patients. ACR hopes that this feedback will be influential in providing a greater understanding of critical evidence needs and inform future PCORI projects and funding opportunities. Please contact Michael Peters, ACR Senior Director of Government Affairs, at mpeters@acr.org, or Katie Grady, Government Affairs Director, at kgrady@acr.org, with any questions or if additional information would be helpful.