



QUALITY IS OUR IMAGE

**American College of Radiology
Web Meeting Summary
Closing the Loop Quality Measures Technical Expert Panel
April 28, 2020**

Meeting Attendees:

TEP Members: David Seidenwurm, MD, FACR (Co-Chair); Arjun Venkatesh, MD, MBA, MHS (Co-Chair); Nadja Kadom, MD (Co-Chair); Christopher Moore, MD (Interim Co-Chair); David Andrews, PhD; Mary Barton, MD, MPP; Andrew Baskin, MD; Tessa Cook, MD, PhD; Terri Ann DiJulio; Margaret Richek Goldberg, PhD, MA; Stella Kang, MD, MSc; John Lam, MD, MBA, FACS; Greg Loyd, MA, MPAS,PA-C; Linda Peitzman, MD, FAACP; Robert Pyatt, Jr., MD, FACR; Kesav Raghavan, MD; Mary Streeter, MS, RRA, RT(R)(CT); Banu Symington, MD, MACP; Sharon Taylor, Ben Wandtke, MD, MS; Jessica Zerillo, MD, MPH

ACR Staff: Judy Burleson, MHSA; Mythreyi Chatfield, PhD; Samantha Shugarman, MS; Jo Tarrant; Nancy Fredericks; Karen Orozco, CHES; Zachary Smith;

PCPI Staff and Others: Neha Agrawal, MPH; Sam Tierney, MPH; Heather Tinsley, MSPH; Heidi Bossley (Independent Consultant)

Welcome and Introductions

Ms. Shugarman welcomed the technical expert panel (TEP) to the meeting, reviewed the housekeeping details to ensure a well-facilitated meeting, and thanked everyone for submitting references to include in the environmental scan. During the roll call, panelists affirmed that their disclosures were unchanged since the TEP meeting on April 17, 2020.

Web Meeting #1 Wrap-Up

To wrap-up to the discussion from the meeting on April 17, Dr. Kadom presented an ACR-informed hierarchical flowchart that illustrates the decision path for determining the TEP's utilization of the term 'incidental findings'. The flow began after an imaging study and led to either critical, incidental, or non-diagnostic findings. Dr. Kadom wrapped up her presentation by recommending evidence-based actionable-incidental findings (i.e., indeterminate findings).

During their discussion on the topic, panelists addressed *unexpected* findings that lack definitive recommendations. For instance, clinical correlation conclusions, often found in radiology reports, would exclude those patients. In those instances, additional tests may be ordered because the radiologists' recommendations are non-discrete. This may trigger that appropriate follow-up took place. Overall, the panelists agreed that should radiologists recommend follow-up for a given incidental finding, measures should assess the occurrence of said follow-up. Panelists acknowledged that timing for when to follow-up (when appropriate) must be noted. Some suggested that the radiology report should include concrete recommendations, follow-up deadlines, and imaging modality (e.g., MRI, CT, etc.) to ensure that the recommended follow-up exam occurs at the clinically appropriate time. However, there lack feasible methods to determine whether clinical correlation recommendations are followed up.

Environmental Scan of the Evidence

During the environmental scan update, Dr. Moore announced that the literature search results comprised of over 100 articles, with a portion dedicated to thyroid and lung. He thanked the panelists, who shared references for the co-chairs' review. He emphasized the value of the TEP's articles, as well as those already captured by ACR staff, in supporting decisions by the TEP and establishing the completed measure rationale, importance to measure, and the measure gap. Dr. Moore explained the differences between an environmental scan for measure development compared to systematic literature reviews often completed as part of projects, like clinical practice guideline development. The environmental scans for measure development include peer-reviewed literature, as well as organizationally-developed policy statements, white papers, and other relevant expert informed resources pertinent to the measurement topic. At the close of this discussion, one panelist cautioned the TEP about the challenges with generalizing the findings cited in peer-reviewed journal articles. They explained that small or rural practice settings are often not captured in the research because the studies are conducted at large academic centers. Dr. Moore and ACR staff agreed to draft a summary of the evidence for the panel to access.

Closing the Loop Measure Set Introduction

Dr. Seidenwurm posed the following questions to the TEP that would help the ACR staff and consultants to guide the development process.

- Planning the final product:
 - Should the TEP develop one overarching closing the results follow-up measure applicable to different clinical-use cases?
 - Or, should the TEP agree to an overarching measure concept with a sub-set of measures that assess the gap areas defined by the evidence?
- Would the TEP prefer to develop the measure(s) from an existing point in the clinical workflow, or is there an existing clinical action excluded from the clinical flow chart (supported by evidence) for which the measure should be developed?
- Should the measure(s) distinguish between good and bad follow-up of incidental findings?

Dr. Seidenwurm underscored some of the essentials for developing measure(s), including feasibility and validity. Panelists agreed that defining the measure denominator(s) first is beneficial as it identifies the incidental findings and which patients are subject to the numerator action. Considering a narrow clinically focused measure supported by strong evidence, the panel discussed the impact of early detection of thyroid and lung nodules. Some panelists suggested that the measure(s) focus on thyroid nodules, given the abundance of clinical practice guidelines on the topic. However, others commented that lung nodules would provide a significant clinical impact when compared to thyroid nodules. The panel agreed that follow-up on radiologist recommendations for lung nodules should be a measure focus. One panelist highlighted the lack of follow-up recommendations for abdominal aortic aneurysms (AAA) and cited that research demonstrates that about half of incidental findings include lung nodules,

with the other half being AAA. Panelists agreed to focus the cases for the measure(s) on pulmonary nodules and AAA, rather than other particular, incidental findings.

Panelists agreed that attribution of the measure action is integral to the measure(s) developed. The TEP acknowledged that there are components of care that radiologists control, while there are others that non-radiologist clinicians, the facility, or health system control. Panelists agreed about the importance of addressing scenarios when initial imaging occurs at a separate location from the follow-up care. As a result, panelists recommended drafting a radiologist-focused measure that would complement existing or TEP developed measures that are attributable to a diverse set of clinicians.

Measure Concepts:

Dr. Kadom proposed updates to the clinical workflow based on the TEP's discussion during the April 17, 2020 meeting. She underscored that the purpose of the clinical flowchart is to identify the steps in the clinical workflow appropriate for measurement. She suggested that other measures for future development could focus on later parts of the clinical flow and could comprise the number of patients diagnosed with a treatable condition out of the patients with follow-up care completed.

Panelists addressed radiologists' role in direct communication with patients. They also considered patients' communication preferences vary, as well as referring clinician preference to remain the point of contact about imaging results and radiology recommendations. The panel identified potential unintended consequences should the measure(s) divide follow-up responsibilities among multiple providers, including an inflated number of unnecessary follow-up occurring, resulting in increased costs and lack of resources to address other high priority issues. The TEP agreed that the accountable party would affect the measure concept and how the measure will be implemented.

The panel discussed patients' receipt of information regarding imaging studies. For instance, appropriate timing for when patients receive the imaging study results, who delivers the results (i.e., radiologists, primary care practitioners, etc.), and the methods used to deliver the results. One panelist questioned if patient access to imaging results uploaded to radiologists' web-based patient portal is sufficient for receiving results. Several on the panel acknowledged that a portion of patients do not utilize a patient portal. Therefore, there must be an alternate communication method available for patients to receive information about imaging results. Another participant highlighted for the group that the patient version of the stakeholder survey includes questions inquiring about patient preferences for the receipt of their imaging study results. Patient preferences in terms of direct communication with the radiologist vary widely. There may be resistance from referring clinicians who prefer to talk with their patients about incidental findings. Another panelist noted that radiologists had been criticized for overwhelming and confusing patients when delivering them with imaging results.

The TEP also addressed incidental findings discovered in the emergency room (ER) as these patients may not access recommended follow-up care because they may be discharged before the emergency room

physician reads the final radiology report with recommendations. However, in cases when a patient communicates with their ER doctor after discharge, the patient often becomes responsible for accessing their follow-up care. Another panelist described a pilot program that took place at their hospital. As part of the pilot, patients admitted to the trauma service met with an ER nurse practitioner (NP) to review their care episode, including any incidental findings and recommended follow-up care. As part of the meeting, the patient, nurse, and other clinical leadership in the department would sign a form acknowledging that the review occurred. Several months later, patients were contacted by the hospital to confirm that the recommendations discussed during their discharge meeting occurred. However, an article examining the pilot established that 60 percent of patients could not recall that conversation they had with the discharge nurse and completed the follow-up recommendations.

Draft Measure Statements

Dr. Seidenwurm reviewed the draft measure statement introduced during the April 17, 2020 TEP meeting. In examining the draft measure more closely, the panel discussed the denominator, exclusions, and exceptions. During this discussion, the TEP agreed on the following:

- The denominator will capture patients regardless of their age
- The exceptions will include:
 - Patient refusal
 - Patients receiving “palliative care” designated with hospice or near terminal diagnoses coding
 - Shared decision-making in instances when the radiologist and referring clinician agree with the patients that follow-up is not beneficial

As drafted, the measure numerator designates a 90-day follow-up interval for radiology recommendations. However, the TEP concerned that 90 days is too long to wait for a follow-up, requested that the environmental scan include a literature search of the evidence supporting follow-up intervals.

Wrap Up and Next Steps

Resulting from today’s discussion, the measure development and associated environmental scan will focus on pulmonary nodules (Fleischner Society’s guidelines) and AAAs.

Ms. Shugarman thanked everyone for participating in today’s meeting and for their willingness to join additional web meetings due to the COVID-19 public health emergency. She informed the panelists that in the following week, she would share scheduling surveys for web meetings in June and July 2020.