

<https://battelle.catertrax.com/menunavigation.asp?categorygroup=1&affid=1#c:1|a:1|d:01/07/2019|g:8|l:5>Development, Reevaluation, and Implementation of Outpatient Outcome and Efficiency Measures

***Summary of the Sixth Meeting for the
Imaging Efficiency Technical Expert Panel***

Friday, August 24, 2018

Prepared by:

Yale-New Haven Health Services Corporation
Center for Outcomes Research and Evaluation
(YNHHSC/CORE)

The Lewin Group

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Background

The Centers for Medicare & Medicaid Services (CMS) has contracted with Yale-New Haven Health Services Corporation/Center for Outcomes Research and Evaluation (CORE) and its partner, The Lewin Group (Lewin), to maintain six outpatient imaging efficiency (OIE) measures for use in the CMS Hospital Outpatient Quality Reporting (HOQR) Program, in support of CMS and National Quality Strategy (NQS) objectives. The contract number for this work is: HHSM-500-2013-13018I; Task Order HHSM-500-T0002.

The current HOQR OIE measures include:

Measure Number	Measure Name
<i>OP-8</i>	Magnetic Resonance Imaging (MRI) Lumbar Spine for Low Back Pain
<i>OP-9</i>	Mammography Follow Up Rates
<i>OP-10</i>	Abdomen Computed Tomography (CT)—Use of Contrast Material
<i>OP-11</i>	Thorax CT—Use of Contrast Material
<i>OP-13</i>	Cardiac Imaging for Preoperative Risk Assessment for Non-Cardiac, Low-Risk Surgery
<i>OP-14</i>	Simultaneous Use of Brain CT and Sinus CT

CORE and Lewin convened a technical expert panel (TEP), composed of stakeholders and experts, to contribute direction, technical input, and diverse perspectives on this measure maintenance effort. The intention of the OIE measures is to promote high quality, efficient care in the area of imaging for Medicare fee-for-service beneficiaries. Specifically, the OIE measures aim to reduce unnecessary exposure to testing or treatment that risk downstream patient harm, to ensure adherence to evidence-based medicine and practice guidelines, and to promote efficiency by reducing waste.

This report summarizes the feedback and recommendations provided by the TEP at its sixth meeting, reviewing the methodology from CORE and Lewin's 2018 environmental scan and literature review (ES/LR) and discussing potential updates to the specifications for *MRI Lumbar Spine for Low Back Pain* (OP-8), *Mammography Follow Up Rates* (OP-9), *Abdomen CT—Use of Contrast Material* (OP-10), *Thorax CT—Use of Contrast Material* (OP-11), *Cardiac Imaging for Preoperative Risk Assessment for Non-Cardiac, Low-Risk Surgery* (OP-13), and *Simultaneous Use of Brain CT and Sinus CT* (OP-14).

Measure Development Team

Dr. Arjun Venkatesh leads the CORE measure maintenance team; Dr. Charlie Bruetman leads the Lewin measure maintenance team. Dr. Venkatesh is a scientist at CORE and assistant professor in the Department of Emergency Medicine at the Yale University School of Medicine. Dr. Bruetman is the Senior

Vice President and Market Lead for the Federal Health and Human Services practice at The Lewin Group. See [Appendix A](#) for the full list of members of the CORE and Lewin staff.

The TEP

Including a well-balanced representation of stakeholders on the TEP helps to ensure the consideration of key perspectives in the measure selection, development, respecification, and maintenance processes. To achieve this aim, CORE and Lewin requested input from a broad group of stakeholders, including patients, caregivers, and consumer advocates; physicians or other clinicians with relevant subject matter expertise, including cardiology, emergency medicine, neurology, oncology, orthopedics, primary care, and radiology; informaticists, epidemiologists, methodologists, and other experts in measurement science; health system and hospital representatives; payers; healthcare purchasers; and experts in healthcare disparities.

Under the guidance of CMS and in alignment with the Measures Management System (MMS) Blueprint, CORE and Lewin held a public call for nominations in 2015 to convene a TEP. Lewin solicited nominations for potential TEP members through a posting on CMS's website, email blasts sent to CMS physician and hospital listservs, and reaching out to individuals and organizations recommended by the team and stakeholder groups.

The appointment term for the TEP is from February 2015 through July 2019. CORE and Lewin will ask the TEP for input and feedback on areas of measure importance, scientific acceptability, feasibility, usability and use, and harmonization for the six OIE measures.

TEP Members

TEP Member Name <i>Credentials and Professional Role</i>	Organizational Affiliation <i>City, State</i>
Meenu Arora, MBA <i>Quality Improvement Leader</i>	Sequoia Hospital <i>Campbell, CA</i>
Brian Baker <i>Chief Executive Officer</i>	Carealytics <i>Franklin, TN</i>
Peter Benner <i>Vice Chair</i>	MNSure <i>Inver Grove Heights, MN</i>
Martha Deed, PhD <i>Patient Safety Member</i>	Safe Patient Project's Patient Advocacy Network <i>North Tonawanda, NY</i>
Elliott Fishman, MD <i>Professor of Radiology and Oncology</i>	Johns Hopkins School of Medicine <i>Baltimore, MD</i>
Marian Hollingsworth <i>Patient Advocate</i>	<i>La Mesa, CA</i>
Michael Hutchinson, MD PhD <i>Clinical Associate Professor of Neurology</i>	Icahn School of Medicine at Mount Sinai <i>New York, NY</i>
Gregory M. Kusiak, MBA FRBMA <i>Independent Consultant</i>	<i>Oceanside, CA</i>
Barbara McNeil, MD PhD <i>Head Professor of Radiology</i>	Harvard University <i>Cambridge, MA</i>
Michael J. Pentecost, MD <i>Chief Medical Officer</i>	Magellan Healthcare <i>Washington, DC</i>
David Seidenwurm, MD <i>Medical Staff Consultant</i>	Sutter Medical Group <i>Sacramento, CA</i>
Adam Sharp, MD MS <i>Physician/Research Scientist</i>	Kaiser Permanente Southern California <i>Pasadena, CA</i>
Paul R. Sierzenski, MD MS-HQS RDMS FACEP FAAEM <i>Medical Director</i>	Christiana Health Care System <i>Bear, DE</i>
Charles L.H Staub, MD, FACP <i>Senior Vice President, Physician Relations</i>	ProHealth Physicians <i>Farmington, CT</i>

TEP Meetings

CORE and Lewin have convened six TEP meetings (see [Appendix B](#) for the schedule of TEP meetings). TEP meetings follow a structured format consisting of a presentation of key issues followed by an open discussion of these issues with the TEP members.

The first TEP meeting focused on gaining TEP feedback on potential updates to measure specifications, and on evaluating the potential for expanding one OIE measure to the Accountable Care organization (ACO) setting. The second TEP meeting focused on gaining TEP feedback on the potential expansion of the OP-8 measure to the ACO setting, after a review of the results of quantitative and qualitative measure testing. The third TEP meeting focused on potential changes to OP-8, OP-10, OP-11, and OP-13, and a review of the results from the recent ES/LR, which cover all six OIE measure specifications. The fourth TEP meeting focused on the annual trends analysis for OP-8, OP-9, OP-10, OP-11, OP-13, and OP-14; a review of the work completed, to date, for ICD-10 specification refinements; and a review of a recent publication based on OP-10. The fifth TEP meeting focused on potential changes to the measure specifications for the OP-8, OP-9, OP-10, OP-11, and OP-13 measures, based on results from the 2017 ES/LR; a discussion about the potential retirement of the OP-14 measure; and, a review of outcomes from ICD-10 specification testing efforts.

The sixth TEP meeting focused on a discussion about the proposed updates to measure specifications for OP-8, OP-9, OP-10, OP-11, OP-13, and OP-14 measures, including cross-measure proposed updates.

TEP members provided considerable input on potential updates to the OIE measures. During the sixth meeting of the TEP, members came to a consensus on the public reporting of the OIE measures and the OIE measure specifications:

- Several TEP members recommended CMS extend the OP-8 look-back periods to one year for trauma and five years for the intraspinal abscess, cancer, human immunodeficiency virus (HIV), immune deficiencies, infectious conditions, intravenous (IV) drug abuse, neurologic impairment, postoperative fluid collection or soft tissue changes, and spinal cord infarction exclusions; CORE and Lewin will explore the appropriateness of these changes for a future specification update. Members also recommended that CMS explore the addition of spinal meningiomas as a potential measure exclusion. Two TEP members suggested adding sepsis to the list of excluded conditions, which CORE and Lewin will further explore.
- The TEP recommended that CMS revise guidance for the OP-9 score range and median recall rates; members also suggested exploration of excluding patients with BRCA mutations from the measure's denominator population.
- The TEP suggested that imaging for renal masses should be further explored as an exclusion from the OP-10 specifications.
- The TEP reached a consensus to extend the OP-13 look-back periods for renal insufficiency and diabetes mellitus from three to five years; members also recommended CMS investigate whether chronic obstructive pulmonary disease (COPD) should be added to the exclusion for high-risk patients from the measure's denominator.
- The TEP recommended that CMS make no changes to the OP-8 and OP-14 trauma code lists to remove distal and/or minor traumas.

- The TEP agreed that the specifications for OP-10 and OP-11 should not be expanded and that CMS should consider removing trauma as an exclusion.
- TEP members recommended that CMS refine its ICD-10 code list for the OP-8 and OP-14 cancer exclusions to remove benign neoplasms distal to the site of imaging for each measure.

Conclusion

TEP feedback will be instrumental in refining specifications for the OIE measures during future reevaluation efforts.

Table 1: Key Issues Discussed during Sixth TEP Meeting and Feedback from TEP Members

, below, describes the key issues discussed during the sixth TEP meeting, including responses from the TEP.

Table 1: Key Issues Discussed during Sixth TEP Meeting and Feedback from TEP Members

Topic	Key Issues Discussed	TEP Feedback/Discussion
<i>Welcome and Introductions</i>	CMS, CORE, and Lewin welcomed TEP members. Lewin described the meeting objectives: to review methodology used for the 2018 ES/LR and to discuss proposed updates to measures specifications for the <i>MRI Lumbar Spine for Low Back Pain</i> (OP-8), <i>Mammography Follow Up Rates</i> (OP-9), <i>Abdomen CT—Use of Contrast Material</i> (OP-10), <i>Thorax CT—Use of Contrast Material</i> (OP-11), <i>Cardiac Imaging for Preoperative Risk Assessment for Non-Cardiac, Low-Risk Surgery</i> (OP-13), and <i>Simultaneous Use of Brain CT and Sinus CT</i> (OP-14) measures, including cross-measure proposed updates.	Dr. Elliott Fishman reported that, through the Johns Hopkins School of Medicine, he receives educational grant support from General Electric and Siemens corporations. There were no reported conflicts of interest that precluded TEP members from participating in the meeting.
<i>Discussion of the 2018 ES/LR Methodology and High-Level Results</i>	CORE and Lewin described the methodology used to identify guidelines and peer-reviewed literature for this year's ES/LR, which included 2 new relevant guidelines and 61 new peer-reviewed articles.	<u>ES/LR Methodology</u> No TEP members commented on the discussion of the ES/LR methodology and high-level results.
<i>Discussion of Proposed Updates for OP-8</i>	CORE and Lewin described the current measure specifications for <i>MRI Lumbar Spine for Low Back Pain</i> (OP-8). They asked the TEP whether CMS should update the look-back periods to five years for most exclusions, other than intraspinal abscess, which CORE/Lewin recommended keeping as a diagnosis	<u>Updating the Look-Back Periods for OP-8's Diagnostic Exclusions</u> Two TEP members agreed with the proposed changes to the look-back periods. One TEP member suggested extending the look-back period for intraspinal abscess to align with the other infectious conditions (currently one year, with a recommendation to extend to five years), with which another TEP member agreed. A TEP member asked whether patients with sepsis were excluded

Topic	Key Issues Discussed	TEP Feedback/Discussion
	<p>documented on the same day as the scan, and trauma, which CORE/Lewin recommended extending to one year.</p> <p>CORE and Lewin also asked about adding several new excluded conditions, as recommended by external stakeholders, including members of the National Quality Forum's Musculoskeletal Standing Committee.</p>	<p>from the OP-8 measure population; a different TEP member recommended that CMS add sepsis to the list of excluded conditions with a five-year look-back period. A TEP member stated that the look-back periods for trauma and surgery should be extended to one year.</p> <p><u>Potential New Exclusions for the OP-8 Specifications</u></p> <p>A TEP member agreed with adding spinal meningioma as a measure exclusion, but did not support the recommendation to add spondylolisthesis, spondylosis, disk herniation, degenerative conditions other than neurologic deficits, chronic low back pain (diagnosed more than 60 days before index imaging study), and sciatica as new exclusions. History of breast cancer was discussed as a potential exclusion, but patients with cancer are already removed from the measure's denominator population.</p> <p>Summary: Several TEP members recommended that CMS extend the look-back period for OP-8's measure exclusions, including intraspinal abscess, cancer, HIV, immune deficiencies, infectious conditions, IV drug abuse, neurologic impairment, postoperative fluid collection or soft tissue changes, and spinal cord infarctions, to five years. One TEP member recommended that the look-back period for trauma should be extended to one year. CORE and Lewin will explore the appropriateness of changing these look-back periods for a future specification update. Two TEP members recommended that CORE and Lewin explore the addition of sepsis to the list of measure exclusions with a five-year look-back period and that CMS explore the addition of spinal meningioma to the list of excluded conditions for OP-8.</p>

Topic	Key Issues Discussed	TEP Feedback/Discussion
<p><i>Discussion of Proposed Updates for OP-9</i></p>	<p>CORE and Lewin reviewed the current measure specifications for <i>Mammography Follow Up Rates</i> (OP-9). CORE and Lewin solicited feedback from the TEP on whether CMS should revise its guidance for the OP-9 score range and median recall rates and if CMS should consider patient factors in the OP-9 specifications.</p>	<p><u>Revised Guidance for the OP-9 Score Range and Median Recall Rates</u></p> <p>A TEP member supported the recommendation to revise guidance for the OP-9 range and median recall rates. A different TEP member suggested CMS use a lower bound of 5% and an upper bound of 12%, in alignment with the American College of Radiology’s (ACR) guidance for individual radiologists. This TEP member stated that the median should align with the national median value reported on Hospital Compare.</p> <p><u>Using Patient Factors in the Measure Specifications</u></p> <p>One TEP member did not support risk adjustment or stratification for patient breast density or age, as assessment of breast density can be too subjective for use in the measure specifications. The TEP member suggested that patients with gene mutations be excluded from the measure’s denominator population to allow for disagreement in follow-up imaging from specialty referral centers. A TEP member stated that the United States Preventive Services Task Force (USPSTF) recommends breast cancer screening for women aged 50 to 74; this TEP member questioned the value of measuring performance for Medicare patients over age 75.</p> <p>Summary: For OP-9 recall rates, the TEP recommended CMS use a lower bound of 5% and an upper bound of 12%, in alignment with the ACR guidance for individual radiologists. The TEP reached a consensus that CMS should not consider breast density and age as part of the OP-9 specifications and explore the feasibility of excluding patients with BRCA mutations using claims data.</p>
<p><i>Discussion of Proposed Updates for OP-10</i></p>	<p>CORE and Lewin reviewed the measure specifications for <i>Abdomen CT—Use of Contrast Material</i> (OP-10) and asked the TEP whether imaging of renal</p>	<p><u>Review of the Current and Potential Exclusions</u></p> <p>Two TEP members agreed that, when physicians evaluate patients for a suspected renal mass, it would be appropriate to perform both non-contrast</p>

Topic	Key Issues Discussed	TEP Feedback/Discussion
	mass should be added as a measure exclusion.	<p>and contrast studies. TEP members reached a consensus that imaging for renal mass should be further explored as an exclusion from the OP-10 specifications.</p> <p>A TEP member recommended that CORE and Lewin explore the removal of pancreatic masses from the list of diagnoses excluded from the OP-10 denominator population, as non-contrast imaging does not provide additional value for staging these patients.</p>
<i>Discussion of Proposed Updates for OP-13</i>	<p>CORE and Lewin reviewed the measure specifications for <i>Cardiac Imaging for Preoperative Risk Assessment for Non-Cardiac Low-Risk Surgery</i> (OP-13). CORE/Lewin sought TEP feedback on whether CMS should update the look-back periods for any of the current diagnostic exclusions and if CMS should still identify high-risk patients using three of the five exclusion diagnoses</p>	<p><u>Updating the Look-Back Periods for OP-13's Diagnostic Exclusions and Identifying High-Risk Patients</u></p> <p>A TEP member agreed with the proposed change to extend the look-back periods for renal insufficiency and diabetes mellitus to five years (which both use a one-year look back in the current specifications). The TEP did not provide feedback on the method used to identify high-risk patients. A TEP member asked whether CMS considered using chronic obstructive pulmonary disease (COPD) to identify high-risk patients for the measure's denominator exclusions. Lewin stated the CMS has not evaluated the exclusion of patients with COPD in the past, but will do so following the TEP meeting.</p> <p>Summary: For OP-13, the TEP reached a consensus that the look-back period for renal insufficiency and diabetes mellitus should be extended from three to five years. CORE and Lewin will explore COPD as a potential exclusion. The TEP did not provide feedback on the method used to identify high-risk patients.</p>
<i>Discussion of Proposed Updates that Cross Measures</i>	<p>CORE and Lewin reviewed the trauma exclusion for OP-8 and the <i>Simultaneous Use of Brain CT and Sinus CT</i> (OP-14) measure and sought TEP feedback on whether CMS should refine the ICD-10 code list for trauma to remove diagnoses distal to the</p>	<p><u>Review of Trauma Exclusion for OP-8 and OP-14</u></p> <p>A TEP member stated that current trauma protocols necessitate spinal imaging when patients present with an injury above the waist and another below it, making a broad trauma exclusion clinically appropriate. A TEP member stated that many sites treating patients for trauma have begun performing full-body imaging for complex cases and that</p>

Topic	Key Issues Discussed	TEP Feedback/Discussion
	<p>site of imaging and/or remove minor traumas.</p> <p>CORE and Lewin also asked the TEP whether CMS should update the OP-10 and/or OP-11 (<i>Thorax CT—Use of Contrast Material</i>) specifications to exclude trauma and if the new trauma exclusion should align with the OP-8 and OP-14 code lists.</p> <p>CORE and Lewin sought TEP feedback on whether CMS should consider refining the OP-8 and OP-14 ICD-10 code list for cancer to remove benign neoplasms distal to the site of imaging.</p>	<p>trauma scanning is driven by facility-specific protocols. A TEP member agreed with keeping the list of trauma exclusions broad for OP-8, but not for OP-14, because a distal trauma does not increase the need for brain or sinus imaging.</p> <p><u>Review of Trauma Exclusions for OP-10 and OP-11</u></p> <p>A TEP member stated that non-contrast imaging of the abdomen for trauma is not clinically beneficial and is not standard of care, so CMS should consider removing the current trauma exclusions from both measures and should not expand the list of exclusions to align with OP-8 and OP-14.</p> <p><u>Review of Cancer Exclusions for OP-8 and OP-14</u></p> <p>A TEP member stated that carcinomas in situ, hemangiomas, and benign neoplasms outside of the imaging area for each measure could be removed from the cancer exclusion. Another TEP member recommended non-melanoma skin cancers be removed from the cancer exclusions for both measures.</p> <p>Summary: The TEP reached a consensus that the ICD-10 code list for the OP-8 and OP-14 trauma exclusions should not be changed. The TEP did not reach a consensus on further refining the ICD-10 code list for trauma to remove minor traumas. The TEP reached a consensus that CMS should not add trauma to the list of OP-10 and OP-11 measure exclusions and recommended removing the current traumatic exclusions from both measures. The TEP reached a consensus that the OP-8 and OP-14 cancer exclusions' ICD-10 code list should be refined to remove a subset of neoplasms, including benign masses distal to the site of imaging and certain cancer types with limited metastatic potential, from the cancer data element for both measures.</p>

Appendix A. CORE and Lewin Measure Maintenance Teams

Name	Title, Affiliation	Contact Information
<i>Haikun Bao, PhD</i>	Statistician, CORE	haikun.bao@yale.edu
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Appendix B. TEP Call Schedule

TEP Meeting #1:

Friday, June 05, 2015: 4:00–6:00 PM ET (*Location: Webinar*)

TEP Meeting #2:

Friday, September 11, 2015: 3:30–5:30 PM ET (*Location: Webinar*)

TEP Meeting #3:

Friday, February 26, 2016: 12:00–2:00 PM ET (*Location: Webinar*)

TEP Meeting #4:

Wednesday, August 31, 2016: 5:30–7:00 PM ET (*Location: Webinar*)

TEP Meeting #5:

Thursday, September 14, 2017: 2:30–4:00 PM ET (*Location: Webinar*)

TEP Meeting #6:

Friday, August 24, 2018 2:00–4:00 PM ET (*Location: Webinar*)

Future TEP Meetings:

2019 (date TBD) (*Location: Webinar*)