Quality Payment
PROGRAM

Episode-based Cost Measures: Call for Public Comment for Measure Reevaluation

Elective Outpatient Percutaneous Coronary Intervention (PCI)
Intracranial Hemorrhage or Cerebral Infarction
Knee Arthroplasty
Simple Pneumonia with Hospitalization
ST-Elevation Myocardial Infarction (STEMI) with Percutaneous Coronary Intervention (PCI)
Screening/Surveillance Colonoscopy
Revascularization for Lower Extremity Chronic Critical Limb Ischemia
Routine Cataract Removal with Intraocular Lens Implantation

2022

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1.0 Introduction

The Centers for Medicare & Medicaid Services (CMS) has contracted with Acumen, LLC, to develop and maintain episode-based cost measures for clinicians and clinician groups. Participants in the Merit-based Incentive Payment System (MIPS) receive an adjustment to their Medicare payments based on a final score that assesses evidence-based and practice-specific data in 4 performance categories: (i) quality, (ii) cost, (iii) improvement activities, and (iv) Promoting Interoperability. In performance year 2022, the MIPS cost performance category has 23 cost measures which have been gradually added over the past years.

The measure maintenance process allows developers to ensure measures continue to function as intended and to consider refinements to the measure. On an annual basis, we review the MIPS measures that have been adopted and make minor updates to the cost measures to keep them up-to-date (e.g., coding updates). Every three years, measures are considered for comprehensive reevaluation. During comprehensive reevaluation, measure developers can more holistically review the measure, seek public comment, and consider many aspects of the measure specifications, not just the updates done through annual maintenance. In some instances, a measure might only need minor or no change to specifications, while other measures may undergo more substantive changes to improve the measure's importance, scientific acceptability, or usability.

The first eight episode-based cost measures were added to the MIPS cost performance category in performance year 2019. As such, they have now been in MIPS for 3 years and are being considered for comprehensive reevaluation. The measures are listed in Table 1.

Table 1. Cost Measures Considered for Comprehensive Reevaluation

ISO	Cost Measure
1	Elective Outpatient Percutaneous Coronary Intervention (PCI)
2	Knee Arthroplasty
3	Revascularization for Lower Extremity Chronic Critical Limb Ischemia
4	Routine Cataract Removal with Intraocular Lens (IOL) Implantation
5	Screening/Surveillance Colonoscopy
6	Intracranial Hemorrhage or Cerebral Infarction
7	Simple Pneumonia with Hospitalization
8	ST-Elevation Myocardial Infarction (STEMI) with Percutaneous Coronary Intervention (PCI)

During comprehensive reevaluation, we will:

- Collect stakeholder feedback through a public comment process,
- Conduct additional information gathering and testing to determine the scope of reevaluation, and
- Reconvene Clinician Workgroups, as needed, to discuss stakeholder feedback and other updates.

In this first phase of the process, we are gathering feedback on the current measure specifications. To aid stakeholders' review, this document includes a series of questions about the measures that can be used as a starting point, but stakeholders can submit feedback about any aspect of the measures. The specifications for each measure, comprising a Measure Information Form document and Measure Codes List file, are available on the QPP Resource Library.[1]

Stakeholders may submit feedback through this online survey[2] through the end of the public comment period.[3] Stakeholders can also attach a PDF or Word document with their comments. Comments may be submitted anonymously if preferred.

2.0 Background

This section provides background information about MIPS cost measures and the measure development and maintenance process. Section 2.1 describes measure development, implementation, and use of episode-based cost measures implemented in MIPS in 2019. Section 2.2 outlines the measure maintenance process and important considerations for comprehensive reevaluation. Section 2.3 provides information about other MIPS cost measures as further context to consider during reevaluation.

2.1 Measure Development and Implementation

Section 1848(r) of the Social Security Act, as added by section 101(f) of MACRA, requires the development of episode-based cost measures that take into consideration patient condition groups and care episode groups ("episode groups"), which are units of comparison that represent a clinically coherent set of medical services rendered to treat a given medical condition. Episode-based cost measures represent the cost to Medicare for the items and services furnished to a patient during an episode of care ("episode") and inform clinicians on the costs related to the management of a certain condition that occurred during a defined period.

Acumen began developing the first set—or wave—of MIPS episode-based cost measures in 2016. First, Acumen convened a Technical Expert Panel (TEP) to gather high-level guidance on topics across the cost measure project. Then, Acumen convened Clinical Subcommittees, each focused on a clinical area, to select episode groups for the first wave of development and to provide input on the cost measures' specifications. Patient and family representatives, who have

[1] The specifications are available on the QPP Resource Library: https://qpp.cms.gov/resources/resource-library.

[2] Stakeholders can submit feedback through this online survey: https://acumen.qualtrics.com/jfe/form/SV_bI1XfyMnL5VsVoy.

[3] Please refer to the web posting for the specific dates: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/MMS/PC-Currently-Accepting-Comments.

direct experience with the conditions in question, also participated in structured interviews and their perspectives informed measure development.

After the initial phase of development, the Wave 1 cost measures were field tested between October-November 2017 to allow clinicians to provide feedback on the draft cost measure specifications. Acumen refined the measure specifications with input from the Clinical Subcommittees and the feedback received during field testing. Additional information about Acumen's cost measure development process is available on the MACRA Feedback page[4] and in the Measure Development Process document.[5]

Measures must go through the federal pre-rulemaking and rulemaking processes to be added to a CMS program; this includes submission to the Measures under Consideration (MUC) list, review by the National Quality Forum's (NQF) Measure Applications Partnership (MAP), and notice-and-comment rulemaking. The first wave of episode-based cost measures were included on the MUC list in 2017. The MAP reviewed the measures and recommended the measures for "conditional support for rulemaking", conditional on NQF endorsement. The Wave 1 episode-based cost measures were then proposed and finalized in the CY 2019 Physician Fee Schedule (PFS) Final Rule for use in the MIPS Cost performance category.

2.2 Measure Use and Maintenance

These eight episode-based measures have been in MIPS since performance year 2019. From 2019-2021, we have submitted measures for NQF endorsement and conducted annual maintenance. In the Spring 2019 cycle, NQF endorsed three episode-based cost measures: Knee Arthroplasty, Routine Cataract Removal with Intraocular Lens Implantation, and Screening/Surveillance Colonoscopy.[6]

The annual measure maintenance process provides avenues to keep measures up-to-date and ensure the measure remains meaningful. Since the measures were added to MIPS, annual maintenance has involved making coding updates. In addition, we proposed and finalized the addition of telehealth codes to the measures in the CY 2021 PFS rule.

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[4] The MACRA Feedback Page is available here: https://www.cms.gov/Medicare/Quality-Payment-Program/Quality-Payment-Program/Give-Feedback

[5] CMS, "Episode-Based Cost Measure Field Testing Measure Development Process: October 2018 Field Testing", *MACRA Feedback Page,* https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/2018-measure-development-process.pdf

[6] NQF, "Cost and Efficiency Final Technical Report - Spring 2019 Cycle", *National Quality Forum* (February 2020) https://www.qualityforum.org/Publications/2020/02/Cost_and_Efficiency_Final_Technical_Report_-_Spring_2019_Cycle.aspx

Separately from the annual maintenance process is comprehensive reevaluation which takes place every three years. This provides an opportunity to consider whether more substantive changes to specifications would improve the measure, such as by increasing its importance or its scientific acceptability. For example, this might involve changes to the patient cohort, new types of services to include (e.g., adding standardized Part D costs which were not available at the time of development), or other changes. While no cost measures were reported in 2020 due to the impact of the COVID-19 pandemic, the measures have been available for use in the MIPS program for three years; as such, the measures are still being considered for comprehensive reevaluation in 2022.

The annual maintenance and comprehensive reevaluation processes require striking a balance between keeping measures updated and clinicians' ability to understand how performance is evaluated and to track performance over time. It is important to consider if proposed refinements may result in other unintended consequences, such as masking meaningful differences in clinician cost performance. Additionally, if a cost measure is substantively changed, the revised cost measure is required to go through the pre-rulemaking and rulemaking processes. Generally, changes are considered substantive if they change which categories or types of costs are included in a measure, rather than merely refine how an existing category is captured.[7]

2.3 MIPS Episode-based Cost Measure Inventory

In performance year 2022, there are 23 episode-based measures and 2 population-based measures in the MIPS Cost performance category. Table 2 lists the episode-based cost measures in use in MIPS. To review more information about cost measures currently in use in MIPS, visit the QPP Resource Library.

Table 2. MIPS 2022 Cost Measures

ISO	Episode-based Cost Measures	First Year of Use
1	Elective Outpatient Percutaneous Coronary Intervention (PCI)	2019
2	Knee Arthroplasty	2019
3	Revascularization for Lower Extremity Chronic Critical Limb Ischemia	2019
4	Routine Cataract Removal with Intraocular Lens (IOL) Implantation	2019
5	Screening/Surveillance Colonoscopy	2019
6	Intracranial Hemorrhage or Cerebral Infarction	2019
7	Simple Pneumonia with Hospitalization	2019
8	ST-Elevation Myocardial Infarction (STEMI) with Percutaneous Coronary Intervention (PCI)	2019
9	Acute Kidney Injury Requiring New Inpatient Dialysis	2020
10	Elective Primary Hip Arthroplasty	2020

[7] CY 2022 Physician Fee Schedule Final Rule (86 FR 65459) https://www.federalregister.gov/d/2021-23972/p-4755

ISO	Episode-based Cost Measures	First Year of Use
11	Femoral or Inguinal Hernia Repair	2020
12	Hemodialysis Access Creation	2020
13	Inpatient Chronic Obstructive Pulmonary Disease (COPD) Exacerbation	2020
14	Lower Gastrointestinal Hemorrhage (at group level only)	2020
15	Lumbar Spine Fusion for Degenerative Disease, 1-3 Levels	2020
16	Lumpectomy, Partial Mastectomy, Simple Mastectomy	2020
17	Non-Emergent Coronary Artery Bypass Graft (CABG)	2020
18	Renal or Ureteral Stone Surgical Treatment	2020
19	Melanoma Resection	2022
20	Colon and Rectal Resection	2022
21	Sepsis	2022
22	Asthma/Chronic Obstructive Pulmonary Disease (COPD)	2022
23	Diabetes	2022
24	Medicare Spending Per Beneficiary Clinician (Revised)	2020
25	Total Per Capita Cost (Revised)	2020

There are also seven episode-based cost measures under development for potential use in MIPS, listed in Table 3. Information about cost measures under development is available on the MACRA Feedback Page.

Table 3. Episode-based Cost Measures Under Development

ISO	Episode-based Cost Measures	Status
1	Low Back Pain	Field testing in 2022
2	Major Depressive Disorder	Field testing in 2022
3	Heart Failure	Field testing in 2022
4	Emergency Medicine	Field testing in 2022
5	Psychoses/Related Conditions	Field testing in 2022
6	Chronic Kidney Disease (CKD)	Under development
7	End-Stage Renal Disease (ESRD)	Under development

3.0 Feedback on Episode-Based Cost Measures

This section includes specific questions on measure components for which we are particularly interested in gathering stakeholder feedback. The questions in this section are based on stakeholder feedback and information gathered through additional cost measure development and use. They are intended just as a starting point for stakeholders to consider; we welcome comments on any aspect of the measure specifications. When submitting comments, the online survey includes a general question for each measure for comments not directly covered in the targeted questions below.

Section 3.1 includes cross-cutting questions that are broadly applicable to the measures undergoing comprehensive reevaluation. Section 3.2 includes questions that are specific to an individual episode-based cost measure. While not all measures are included in Section 3.2, stakeholders may still submit feedback for consideration for any of the eight measures undergoing comprehensive reevaluation.

3.1 Cross-cutting Questions

This section includes questions that are broadly applicable to the measures. While we have included several questions as a starting point, the online survey will also include a section for stakeholders to submit additional cross-cutting comments. Measure-specific comments will be addressed in the next section.

3.1.1 Defining Episode Groups

Episodes are defined by the codes that trigger (or open) the episode group and determine the patient cohort included in the episode group. Patient cohorts may further be refined through measure exclusions. The current measure specifications that determine the patient cohorts are available in the Measure Information Forms and the Measure Codes Lists posted in the QPP Resource Library.

We are seeking stakeholder input on potential opportunities to refine measures so that similar types of care are measured together, and that gaps in measurement are minimized. For example, stakeholders may suggest that additional trigger codes be added to a measure, or that a measure exclusion be removed. Note, if a change like this were to be made, measure specifications would still be created in a way that allows for comparisons between like episodes (e.g., creating sub-groups, risk adjustment).

Question 1. Should there be any changes to the patient cohort for the measures, as defined by trigger codes and exclusions? For instance, given the set of cost measures in MIPS, are there any gaps in care that could appropriately be filled by expanding the scope of an existing measure? Has clinical practice changed how these conditions and procedures are performed in a way that the patient cohort would need updating?

3.1.2 Accounting for Patient Heterogeneity

Risk adjustment is used to account for patient differences that could result in cost variation outside of a clinician's control. Each cost measure uses a set of standard risk adjustment variables based on the standard set of risk adjustors from the CMS-Hierarchical Condition Categories (HCC) 2016 version 22, as well as measure-specific risk adjustment variables.

To identify risk adjustment variables, we consider many factors including the following:[8]

- Clinical/conceptual relationship with the outcome of interest,
- Empirical association with the outcome of interest,
- Variation in prevalence of the factor across the measured entities,
- Present at the start of care,
- Is not an indicator or characteristic of the care provided (e.g., treatments, expertise of staff),
- Resistant to manipulation or gaming,
- Accurate data that can be reliably and feasibly captured,
- Contribution of unique variation in the outcome (i.e., not redundant),
- Potentially, improvement of the risk model (e.g., risk model metrics of discrimination, calibration), and
- Potentially, face validity and acceptability.

In addition to standard risk adjustment variables, measures may also use measure-specific variables to account for factors that may be uniquely applicable to that measure. To date, testing indicates that the existing risk adjustment models are accurately accounting for patient risk. For example, testing shows that predictive ratios for each of the Wave 1 measures are centered around 1.00.

Question 2. Are there any updates that should be made to the measure-specific risk adjustors, such as to reflect changes in clinical practice or to align with other cost measures used in MIPS?

3.2 Routine Cataract Removal with Intraocular Lens (IOL) Implantation

This section includes questions specific to Routine Cataract Removal with IOL Implantation measure (Cataract Removal) (MIPS COST_IOL_1, NQF #3509). These questions reflect areas where we have received stakeholder feedback and where testing results indicate potential improvements. More background information on the measure is available in the Measure Information Form and Measure Codes List, posted in the QPP Resource Library.

3.2.1 Defining the Episode Group

Episodes are defined by the codes that trigger (or open) the episode group and determine the patient cohort included in the episode group. The Cataract Removal measure currently uses only one trigger code: CPT/HCPCS 66984 Removal of cataract with insertion of lens. However,

[8] NQF, "Committee Guidebook for the NQF Measure Endorsement Process, version 6.5," *National Quality Forum* (August 2021), https://www.qualityforum.org/Measuring_Performance/CDP_Standing_Committee_Guidebook.aspx.

there are several quality measures that also apply to cataract removal and include a broader range of CPT/HCPCS codes.[9] Closer alignment between cost and quality measures may support a future MIPS Value Pathway (MVP) for this clinical topic. For example, the following outcomes measures in the MIPS Quality performance category could pair well with this cost measure to assess the value of care:

- **Q191 Cataracts: 20/40 or Better Visual Acuity within 90 Days Following Cataract Surgery** uses the following denominator CPT/HCPCS codes: 66840, 66850, 66852, 66920, 66930, 66940, 66982, 66983, 66984
- **Q303 Cataracts: Improvement in Patient's Visual Function within 90 Days Following Cataract Surgery** uses the following denominator CPT/HCPCS codes: 66840, 66850, 66852, 66920, 66930, 66940, 66982, 66983, 66984, 66987, 66988

The patient cohort is also determined through patient exclusions. The Cataract Removal measure currently excludes patients with significant ocular conditions impacting visual outcome of surgery or impacting surgical complication rates. These exclusions are the primary driver for approximately fifty percent of triggered episodes being excluded from the final measure. Analyses show the cost profile of these excluded episodes are similar to those that were included in the measure. For example, the mean observed over expected cost ratio (O/E) are close to 1.00 for episodes that were excluded due to significant ocular conditions impacting visual outcome of surgery or impacting surgical complication rates. Removing the exclusions from the measure specifications would significantly increase the number of episodes included in the measure, while still resulting in comparable episodes based on the current specifications. Being more inclusive with the patient cohort could help safeguard against potential unintended consequences that may result from having limited trigger codes and many exclusion codes.

Question 3. Should additional trigger codes be added to align with related quality measures? If so, which codes?

Question 4. Based on the similarity of the cost profiles and the potential to cover more patients undergoing cataract removal procedures, is including complex cases an appropriate approach? If so, what are other updates that would be needed to the measure; for example, should these codes indicating significant ocular conditions be added as a risk adjustor? Are there services that are currently not included in the measure that would be important to include to reflect the care for complex procedures?

[9] The 2021 Clinical Quality Measure Specifications and Supporting Document are available for download from the QPP Resource Library: https://qpp-cm-prod-content.s3.amazonaws.com/uploads/1256/2021+CQM+Specs+and+Supporting+Docs.zip.

3.2.2 Assigning Medication Costs to the Episode Group

Currently, medications administered during the intra- or perioperative period may be assigned to episode groups under the Cataract Removal measure if billed separately and not included in facility fees. For example, clinical input during measure development identified phenylephrine and ketorolac intraocular solution 1% / 0.3% (Omidria) as a service related to the cataract removal procedure and an important source of cost variation. The NQF Cost and Efficiency Committee closely reviewed this issue during the endorsement process, and voted to endorse the measure in 2019. Since then, other drugs such as dexamethasone intraocular suspension 9% (Dexycu) and dexamethasone ophthalmic insert (Dextenza) that are also administered during the intra/perioperative period and billed separately under pass-through status have become available, and may be considered clinically related to cataract removal.

Standardized Part D costs were not available at the time the Cataract Removal measure was first developed. Therefore, Part D costs were not included in the measure. Standardized Part D costs are now available.[10] Guidance from our TEP noted that Part D costs may not be relevant for all measures, but that it could be included where expert clinical input identified that this would be important for understanding cost performance (e.g., insulin for the Diabetes cost measure). Currently, there are three MIPS cost measures added in the 2022 performance year that include Part D costs (Diabetes, Asthma/COPD, and Sepsis).

Question 5. Should medications including Dexycu and Dextenza be included in the Cataract Removal measure? Are there any other intra- or peri-operative drugs that should be considered for inclusion in the Cataract Removal measure?

Question 6. Are there any Part D drugs related to cataract surgery that should be considered for inclusion in the Cataract Removal measure?

3.3 Screening/Surveillance Colonoscopy

This section includes questions specific to Screening/Surveillance Colonoscopy measure (MIPS COST_SSC_1, NQF #3510). These questions were identified based on previous clinical input about which episode groups to develop into episode-based cost measures. More background information on the measure is available in the Measure Information Form and Measure Codes List, posted on the QPP Resource Library.

[10] CMS, CMS Payment Standardization Methodology for Part D v2 for Services Provided During 2015-2021 (October 2021) https://resdac.org/sites/datadocumentation.resdac.org/files/CMS%20Part%20D%20Price%20%28Payment%29%20Standardization%20Methodology%20%28October%202021%29.pdf

3.3.1 Defining the Episode Group

Episodes are defined by the codes that trigger (or open) the episode group and determine the patient cohort included in the episode group. The Screening/Surveillance Colonoscopy measure is currently constructed so that only screening and surveillance colonoscopies trigger an episode. This clinical topic was selected as it has high potential to be impactful, covering a large number of beneficiaries and clinicians, offers opportunity for improvement, and can be linked to quality measures. Stakeholders identified diagnostic colonoscopies as a clinical topic that could be considered for future measure development. The comprehensive reevaluation process offers an opportunity to consider whether there are enough similarities between screening/surveillance and diagnostic colonoscopies for the two procedure types to be assessed under one measure.

Question 7. Should diagnostic colonoscopies be added to expand the scope of the Screening/Surveillance Colonoscopy measure? If so, which trigger codes should be considered for inclusion? If not, what are the key differences between the two types of colonoscopies that make them more appropriate to assess separately?

Question 8. If diagnostic colonoscopies are added to the measure, what aspects of the measure would need to be updated to ensure that the measure is clinically valid? For example, what methods might be appropriate to account for the heterogeneity amongst patients receiving diagnostic colonoscopies that may not be sufficiently accounted under the current measure? Techniques include stratification or sub-grouping the patient cohort, risk adjusting for patient risk factors, and excluding episodes. Are there any additional services that should be added to the measure? Should the episode window be longer or shorter?

4.0 Next Steps

Please share your feedback by submitting a response to the online survey before the end of the public comment period. Stakeholders can also attach a PDF or Word document with their comments.

Acumen will review stakeholder feedback, clinical input, and additional information gathered during the reevaluation process to determine with CMS which, if any, measures will be updated, and the scope of updates. As needed, Acumen may reconvene Clinician Workgroups (called Clinical Subcommittees in Wave 1) later in 2022 to provide more detailed input on specific questions about measure specifications. If the changes are substantive, measures would go through the pre-rulemaking and rulemaking processes before being implemented in MIPS.

If you have questions about these eight episode-based cost measures, the public comment process, or comprehensive reevaluation, please contact macra-episode-based-cost-measures-info@acumenllc.com.