# Respiratory Infection Hospitalization Comprehensive Reevaluation Workgroup Input Summary

MACRA Episode-Based Cost Measures: Clinician Expert Workgroups
Reevaluation Workgroup Input May 2023
January 2023

Contents



## Project Overview

The Centers for Medicare & Medicaid Services (CMS) has contracted with Acumen, LLC to develop and maintain episode-based cost measures for potential use in the Merit-based Incentive Payment System (MIPS) to meet the requirements of the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA). Acumen's measure development approach involves convening clinician expert panels ("workgroups") to provide input in cycles of development ("Waves"). As needed, workgroups are reconvened to provide input on measure maintenance.

Eight episode-based cost measures were added to the MIPS cost performance category in the 2019 performance year and are now being considered for comprehensive reevaluation as they've been in MIPS for 3 years. The purpose of comprehensive reevaluation is to ensure that measures continue to meet criteria for importance, scientific acceptability, and usability in line with the Measures Management System (MMS) Blueprint. In this process, we holistically review the measure, seek public comment, and consider whether any changes need to be made to measure specifications.

The following Wave 1 episode-based cost measures were selected for comprehensive reevaluation based on information gathering, public comments,[1] and discussions with CMS:

(i) Routine Cataract Removal with IOL Implantation
(ii) Simple Pneumonia with Hospitalization
(iii) ST-Elevation Myocardial Infarction with Percutaneous Coronary Intervention (STEMI-PCI)

We held a nomination period for workgroup members between August 19, 2022, and September 9, 2022. The workgroups are composed of clinicians with expertise directly relevant to the selected episode-based cost measures. Workgroups provided detailed input on potential updates to the selected episode-based cost measures groups during their webinars from

[1] Refer to the Wave 1 Comprehensive Reevaluation Public Comment Summary Report (PDF). (https://www.cms.gov/files/document/wave-one-public-comment-summary-report.pdf)

October 6 to 12, 2022.[2] The workgroup provided and an additional round of input via poll in May 2023. Between rounds of input, Acumen also hosted a public comment period on the updated specifications.[3] For Wave 1 Comprehensive Reevaluation, all workgroup meetings were held virtually. The workgroup input informed updates to the measure specifications to be considered for future use in MIPS.

# Respiratory Infection Hospitalization Comprehensive Reevaluation Workgroup Input, May 2023

This input summary document outlines the purpose, considerations, and recommendations from the Comprehensive Reevaluation workgroup for Respiratory Infection with Hospitalization (the name of the drafted revised measure). Section 1 provides an overview of the goals and process of this second round of input. Section 2 summarizes the guidance and recommendations from the workgroup. Section 3 is an appendix that describes the materials and information provided to workgroup members during this input process as preparation for their review of the detailed measure specifications.

## 1. Overview

The goals of the Respiratory Infection Hospitalization Comprehensive Reevaluation workgroup poll in May 2023 were the following:

(i) Consider findings from information gathering conducted since the first webinar meeting (e.g., empirical analyses, public comments)

(ii) Provide input on defining the patient cohort, including how to define episodes and account for sub-populations to ensure that the measure allows for meaningful clinical comparisons

The Respiratory Infection Hospitalization Comprehensive Reevaluation workgroup chair was Carolyn Fruci. The MACRA Episode-Based Cost Measure Workgroup Composition List will contain the full list of members, including names, professional roles, employers, and clinical specialties; it will be posted on the MACRA Feedback Page.[4]

Prior to the poll, workgroup members were provided with information and materials to inform their recommendations, including a slide deck. Also, workgroup members received the investigations described in Table 1 below.

**Table 1:** Workgroup Investigations

| Investigation | Description |
|---|---|
| **Sub-Population Analysis** | • Provides data on the frequency and cost associated with a set of sub-populations informed by public comments received, prior workgroup discussions, and deliberations among the Acumen clinical team<br>• Useful for considerations regarding accounting for patient heterogeneity |

[2] Refer to the Summary of Wave 1 Comprehensive Reevaluation Workgroup meetings (ZIP). (https://www.cms.gov/files/zip/summary-wave-1-comprehensive-reevaluation-workgroup-meetings.zip)
[3] Refer to the 2023 Revised Cost Measure Feedback Period Summary Report (PDF). (https://www.cms.gov/files/document/2023-revised-cost-measure-feedback-period-summary-report.pdf)
[4] Refer to the Wave 1 Measure-Specific Workgroup Composition List (PDF) on the Prior Cost Measure Development and Input Page (https://www.cms.gov/medicare/quality/value-based-programs/cost-measures/prior).

| Investigation | Description |
|---|---|
| **Service Utilization over Time Analysis** | • Provides data on the top 200 most frequent services for each claim setting across episodes for the draft version of the measure along with various metrics regarding those services (e.g., share of episodes with that service, average cost of the service per episode, share of attributed clinicians who furnished the service)<br>• Useful for considerations regarding identifying clinically relevant services |

After reviewing the slide deck and investigations, workgroup members were polled on their preferences to ensure the measures were developed based on well-documented input. Based on similar practices, the threshold for support was >60% consensus among poll responses. This document summarizes the workgroup members' input from the polls.

This poll was facilitated by Acumen as part of the measure maintenance process to gather expert clinical input; as such, these are preliminary recommendations and materials, which don't represent any final decisions about the measure specifications or MIPS.

# 2. Summary of Poll Results

This section is organized based on workgroup polls and describes workgroup members' considerations and recommendations. Section 2.1 describes workgroup member recommendations on defining the patient cohort. Section 2.2 outlines workgroup members' recommendations about methods to account for heterogeneity. Section 2.3 summarized recommendations related to assigning clinically related services. Section 2.4 provides an overview of the next steps for the measure comprehensive reevaluation process.

## 2.1 Defining the Episode

Acumen reviewed the methodology for constructing an episode-based cost measure, including the steps for defining an episode of care. Cost measures for chronic conditions aim to identify a longitudinal patient-clinician relationship (i.e., trigger an episode of care for that condition) using the presence of related service and diagnosis codes on claims billed by the same clinician group (as identified by their Tax Identification Number [TIN]). The workgroup considered these categories of service and diagnosis codes in the context of what patient and clinician populations they would capture and to what degree they would reliably indicate an ongoing care relationship.

Within the draft revised measure specifications, the workgroup voted to define patient cohort by Respiratory Infections and Inflammations (MS-DRGs 177-179) and Simple Pneumonia and Pleurisy (MS-DRGs 193-195). During the public comment period for the draft revised measure, commenters reviewed the Current and Draft Revised Measure Analysis, which showed that the draft revised measure increases clinician coverage and mean reliability. Public commenters supported the addition of base Respiratory Infections and Inflammations.

Key Takeaways from Polls for Defining an Episode:
The measure continues to include hospitalizations for Respiratory Infections and Inflammations (MS-DRGs 177-179) and Simple Pneumonia and Pleurisy (MS-DRGs 193-195).

## 2.2 Accounting for Patient Heterogeneity

Members engaged in a detailed poll about how to account for patient heterogeneity among various sub-populations within the Respiratory Infection Hospitalization episode group. Sub-populations refer to patient cohorts as defined by their pre-existing conditions and other patient characteristics. Acumen described the methods for accounting for patient heterogeneity, and those are described in Table 2 below.

**Table 2:** Methods for Accounting for Patient Heterogeneity

| Method | Description |
|---|---|
| **Sub-Group** | • If applicable, we may stratify the patient population into mutually exclusive and exhaustive sub-groups to define more homogenous patient cohorts.<br>• Sub-grouping is a method that's intended for when we would want to compare episodes only with other similar episodes within the same sub-group.<br>• This approach is used when sub-groups are very different from one another, and each sub-group requires its own risk adjustment model.<br>• Since each sub-group will have its own risk adjustment model, the size of each sub-group should be sufficiently large. |
| **Risk-Adjust** | • We may define covariates in the risk adjustment model for the measure.<br>• Risk adjusting is a method to account for the case mix of patients and other non-clinical characteristics that influence complexity. It's meant to be used for sub-populations that make up a large share of patients who have a characteristic that's outside of the attributed clinician's reasonable influence.<br>• Risk-adjusted cost measures adjust observed episode spending to an expected episode spending (predicted by a risk adjustment model). |
| **Exclude** | • We may identify certain measure exclusions.<br>• Excluding is a method in which we exclude certain patients or episodes to address issues with patient heterogeneity. This approach should be used when the sub-population affects a small, unique set of patients in which risk adjustment wouldn't be sufficient to account for their differences in expected cost. |
| **Monitor for Further Testing** | • We may monitor certain sub-populations for further testing.<br>• Monitoring for further testing is an option for flagging certain sub-populations that the workgroup may revisit later during measure development upon review of further data. This approach is best used when the workgroup requests additional data or information on a sub-population to discuss the appropriate method for meaningful clinical comparison. |

After Acumen provided a description of each method and presented analytic data on sub-populations, workgroup members considered the patient sub-populations and their preferences for how to address them.

Public commenters supported sub-grouping by MS-DRG grouping (i.e., Respiratory Infections and Inflammations [MS-DRGs 177-179] and Simple Pneumonia and Pleurisy [MS-DRGs 193-195]) and risk adjusting for severity levels (MS-DRGs) for the trigger inpatient stays as they account for differences in patient cohort and costs. Commenters also stated that adjustments to exclusions and risk adjusters are appropriate for the draft revised measure.

Expanding the patient cohort by including Respiratory Infections and Inflammations captures many more pneumonia cases, particularly pneumonia due to COVID-19. The Sub-Population Analysis shows that most episodes for Respiratory Infections and Inflammations have a pneumonia principal diagnosis. However, there is a very small share of episodes where there is a non-pneumonia principal diagnosis on the trigger inpatient stay (~1% of all episodes for Respiratory Infections and Inflammations). Workgroup members were asked if the revised measure should account for this small share of episodes.

After determining if the measure should account for the small share of episodes triggered by an inpatient stay in MS-DRGs 177-179 with a non-pneumonia principal diagnosis on the inpatient claim, workgroup members took a poll to provide input on whether these episodes should be excluded or risk-adjusted.

Additionally, the workgroup previously voted on exclusions but did not reach a consensus. At that time, the workgroup was split between excluding or risk adjusting for patients with a diagnosis of adverse effects of glucocorticoids and synthetic analogs in the 120-day lookback period. Analysis shows that these episodes make up a small portion of all triggered episodes

and have slightly higher observed costs than the final cohort of episodes. Risk adjustment for the presence of the diagnosis code would neutralize cost differences. The workgroup was also polled to formally confirm that patients with do not resuscitate and long-term steroid diagnoses should be included in the measure without any further adjustment.

Key Takeaways from Polls for Accounting for Patient Heterogeneity:

- The workgroup recommended excluding episodes in which the hospitalization that triggers the episode has a non-pneumonia diagnosis.
- The workgroup recommended excluding patients with a diagnosis of adverse effects of glucocorticoids and synthetic analogs.
- The workgroup recommended that no additional adjustment was needed for patients with do-not-resuscitate and long-term steroid diagnoses.

## 2.3 Identifying Clinically Related Services

Acumen described the purpose of service assignment so that members could recommend which services associated with the attributed clinician's role in managing the patient's care should be included in the cost measure. These assigned services should be inclusive enough to identify a measurable performance difference between clinicians but also not introduce excessive noise. Episode-based cost measures aim to include only clinically relevant costs whose occurrence, intensity, and/or frequency are within the reasonable influence of the attributed clinician. Service assignment can be an effective form of adjusting for patient risk by omitting unrelated costs not furnished for Respiratory Infection Hospitalizations.

Key Takeaways from Polls for Accounting for Identifying Clinically Related Services:
No changes were identified for the draft revised measure's service assignment rules.

## 2.4 Next Steps

In the last session, Acumen provided an overview of the next steps. After the meeting, Acumen distributed the Comprehensive Reevaluation Webinar Poll to gather input from members on the discussions held during the webinar. Acumen will operationalize input for the measure specifications based on workgroup webinar discussion and poll results.

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Please contact **Acumen MACRA Clinical Committee Support** at macra-clinical-committee-support@acumenllc.com if you have any questions. If you're interested in receiving updates about MACRA Episode-Based Cost Measures, please complete this Mailing List Sign-Up Form to be added to our mailing list.