

Colon and Rectal Resection Workgroup Service Assignment and Refinement (SAR) Meeting Summary

MACRA Episode-Based Cost Measures: Measure-Specific Workgroups
Service Assignment and Refinement (SAR) Webinar, January 6, 2020
January 2020

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Project Overview

The Centers for Medicare & Medicaid Services (CMS) has contracted with Acumen, LLC to develop 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 (MACRA) of 2015. Acumen's measure development approach involves convening clinician expert panels to provide input in cycles of development ("waves").¹ The 4 Clinical Subcommittees (CS) that convened in May-June 2019 for Wave 3 were focused on the following clinical areas: Chronic Condition and Disease Management, Dermatologic Disease Management, General and Colorectal Surgery, and Hospital Medicine.² These CS provided input on selecting episode groups for development in Wave 3 and the composition of smaller, targeted workgroups to build out the measure. Acumen convened the following workgroups³ (each composed of approximately 15 members) in mid-August 2019 for in-person meetings: Diabetes, Asthma/Chronic Obstructive Pulmonary Disease (COPD), Melanoma Resection,

¹ For information on measure development in Waves 1 and 2 (2017 and 2018), refer to [Episode-Based Cost Measure Field Testing Measure Development Process](https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/2018-measure-development-process.pdf) document (<https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/2018-measure-development-process.pdf>)

² Members for these Clinical Subcommittees were recruited through a public nomination period from March 11 to April 12, 2019.

³ Members for these workgroups were recruited from within the CS as well as a standing pool of nominees between June and July, 2019.

Sepsis, and Colon Resection. Following the workgroup in-person meetings, Acumen convened the workgroups again for Service Assignment and Refinement (SAR) webinars to revisit the specifications recommended during the in-person meeting and refine the measures prior to national field testing.

Colon and Rectal Resection Service Assignment and Refinement (SAR) Webinar, January 6, 2020

This meeting summary document outlines the purpose, discussion, and recommendations from the Colon and Rectal Resection workgroup Service Assignment and Refinement (SAR) webinar. Section 1 provides an overview of the webinar goals and process. Section 2 summarizes the discussion and recommendations from the workgroup. Section 3 is an appendix that describes the materials and information provided to workgroup members prior to and at the beginning of the webinar as preparation for discussion on detailed measure specifications.

1. Overview

The goals of the Colon and Rectal Resection workgroup webinar on January 6, 2020, were to provide detailed recommendations on the following:

- (i) Episode group name
- (ii) Adjustments to designations for patient sub-populations to ensure that the measure allows for meaningful clinical comparisons (either as episode group sub-groups, variables to include in the risk adjustment model, measure-specific exclusions, or sub-populations to monitor for field testing and future consideration)
- (iii) Potential refinements to measure specifications to better align with existing quality measures
- (iv) Further input on categories of services that are associated with the clinician's role in managing care for the condition and that should be assigned to the episode group (i.e., included as costs in the cost measure)

The meeting was held online via webinar, and attended by 12 of 18 workgroup members. The webinar was facilitated by an Acumen moderator, Walter Park. The Colon and Rectal Resection workgroup chair was Walter Peters, who also facilitated meeting discussions, and the General and Colorectal Surgery CS co-chairs were Alice Coombs and Guy Orangio. The MACRA Episode-Based Cost Measure Workgroup Composition List contains the full list of members, including names, professional roles, employers, and clinical specialties.⁴

Stakeholders beyond the workgroup members had access to a public dial-in number to observe the meeting as part of Acumen's continued effort to increase the transparency of the measure development process.

⁴ For a list of Colon Resection workgroup members in Wave 3, please download the [MACRA Episode-Based Cost Measures Measure-Specific Workgroup Composition \(Membership\) List](https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/2019-workgroup-comp-list.pdf) available on the [MACRA Feedback Page](https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/2019-workgroup-comp-list.pdf) (<https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/2019-workgroup-comp-list.pdf>)

Prior to the webinar, workgroup members were provided with information and materials to inform their meeting discussions (see Section 3). After the webinar, workgroup members were sent a recording of the webinar and were polled on their preferences to ensure the measures are developed based on well-documented stakeholder input. Mirroring National Quality Forum practices, the threshold for recommendations was >60% consensus for poll responses. This document summarizes the workgroup members' input from both the discussion as well as the polls.

This meeting was convened by Acumen as part of an initial step of the measure development process to gather expert clinical input; as such, these are preliminary discussions and materials, which do not represent any final decisions about the measure specifications or MIPS.

2. Summary of Sessions and Discussion

This section is organized based on meeting sessions and describes workgroup member discussions and recommendations on each topic: renaming the episode group, addressing patient cohort sub-populations to ensure meaningful clinical comparison, quality alignment, and assigning clinically-related services to the episode group.

2.1 Renaming the Episode Group

During the August 2019 in-person meeting, the workgroup agreed to expand the scope of the Colon Resection measure to include rectal procedures, which was intended to increase coverage and improve the technical integrity of the measure. Accordingly, during the SAR webinar, members reached a consensus in favor of Acumen's proposal to rename the episode group from Colon Resection to Colon and Rectal Resection in order to align with the current measure specifications in which episodes can be triggered by either colon or rectal procedures. During this discussion, one workgroup member underlined the importance of clearly communicating in the episode group name that the measure captures rectal as well as colon procedures in light of the inconsistency with which certain procedures are coded as either colon or rectal (e.g., procedures in which a low pelvic anastomosis is performed).

Key Takeaways from Discussion and/or Polls for the Episode Group Name:

- The workgroup agreed with Acumen's proposal to rename the episode group from *Colon Resection* to *Colon and Rectal Resection*

2.2 Addressing Patient Sub-Populations for Meaningful Clinical Comparison

Members also held detailed discussions revisiting their initial recommendations from the August 2019 workgroup in-person meeting regarding how to account for various sub-populations within the Colon and Rectal Resection episode group. Sub-populations are patient cohorts as defined by particular characteristics. To ensure meaningful clinical comparisons, specific sub-populations/patient cohorts can be handled in the following ways: (i) stratifying the episode group into mutually exclusive and exhaustive sub-groups to define more homogeneous patient cohorts, (ii) including as a variable in the risk adjustment model, (iii) excluding the sub-population from the measure, and (iv) monitoring and testing the sub-population for future consideration.

After Acumen provided a description of each method and presented analytic data on initial sub-populations (based on recommendations from the workgroup during the August 2019 workgroup in-person meeting), workgroup members discussed their preferences for how to refine given

patient cohort sub-populations and confirmed their recommendations in the post-discussion SAR Webinar Poll.

2.2.1 Sub-Groups

Members first reviewed the draft specifications Acumen implemented to operationalize the workgroup's prior input on classifying episodes into sub-groups. Specifically, during the August 2019 in-person meeting, the workgroup reached a consensus in favor of creating 2 sub-groups for the measure: rectal versus all other episodes (herein referred to as the Rectal Resection sub-group and the Colon Resection sub-group, respectively). The Rectal Resection sub-group captures episodes that either: (i) are triggered by a rectal procedure code, (ii) in which the trigger is accompanied by a rectal or anal cancer diagnosis code, *or* (iii) are triggered by a lower anterior resection (LAR) (i.e., Current Procedural Terminology/Healthcare Common Procedure Coding System [CPT/HCPCS] codes 44145, 44146, 44207, and 44208) provided the episode is accompanied by an ICD-10 rectal cancer diagnosis code (i.e., C20). The workgroup also had suggested classifying rectopexies (i.e., CPT/HCPCS code 45400, and 45402) into the Colon Resection sub-group to ensure that the rectal procedures captured in the Rectal Resection sub-group are of similar complexity and therefore entail comparable risks. The Colon Resection sub-group captures all other cases triggered by the trigger codes not included in the definition for the Rectal Resection sub-group.

During the SAR webinar, the workgroup re-affirmed their support for the specifications used to classify episodes into either the Colon Resection or Rectal Resection sub-group. Members also reiterated the importance of not including rectopexies in the Rectal Resection sub-group as well as the need to account for the variable use of LAR codes across providers by conditioning the inclusion of episodes triggered by an LAR into this sub-group on the presence of a rectal cancer diagnosis.

Key Takeaways from Discussion and/or Polls for Sub-Groups:

- The workgroup agreed with maintaining the sub-group specifications as currently defined

2.2.2 Risk Adjustors

The workgroup then considered Acumen's proposal to refine the risk adjustment model to be more parsimonious without compromising its effectiveness by only risk adjusting for one sub-population in a pair that has complementary specifications. Specifically, during the in-person meeting, the workgroup had previously reached a consensus in favor of adding risk adjustment variables for both elective and emergent colectomies as well as for episodes in which an ostomy is performed and those in which an ostomy is absent at the conclusion of the index procedure. Acumen noted that given the purpose of risk adjustment, for complementary sub-populations, it may only be necessary to risk adjust for the characteristic that is associated with excess clinical risk and cost compared to that for the average patient population being captured by the measure. The workgroup reached a consensus in favor of only retaining risk adjustment variables for the Emergent Colectomy and Ostomy Present sub-populations and to monitor for the Elective Colectomy and No Ostomy Present sub-populations for field testing, justifying that risk adjusting for the sub-population associated with heightened clinical risk and cost should be sufficient to statistically account for patient characteristics outside of the attributed clinician's reasonable influence.

Key Takeaways from Discussion and/or Polls for Risk Adjustors:

- Members recommended the following modifications to the risk adjustment variables:
 - Remove Elective Colectomy as a risk adjustor and only risk adjust for Emergent Colectomy
 - Remove No Ostomy Present as a risk adjustor and only risk adjust for Ostomy Present

2.2.3 *Monitor for Field Testing*

The workgroup generally agreed to continue monitoring for field testing the sub-populations they had previously voted to designate as such during the in-person meeting. To support their recommendation, they reasoned that the average risk-adjusted episode cost of these sub-populations did not differ substantially from the cost of all episodes captured by the measure. Members did, however, discuss the sub-population of patients who undergo a vascular embolization (i.e., CPT/HCPCS 37244), an interventional radiology (IR) procedure, at any time during the trigger event (i.e., the index hospitalization or day of the trigger procedure for episodes without a concurrent inpatient stay) in greater detail given this sub-population's higher than average episode cost when compared to all episodes captured by the measure. Several members noted that the timing of the IR procedure is an important factor to consider when deciding whether to continue monitoring this sub-population. Specifically, the workgroup was generally in agreement that they would risk adjust for episodes in which the IR procedure occurs prior to the trigger surgery given that procedures occurring during this timeframe are unlikely to be within the attributed clinician's reasonable influence. However, members suggested that they would monitor the population of patients who undergo such IR procedures after the trigger as these interventions are likely indicative of a surgical complication. Ultimately, members reached a consensus in favor of continuing to monitor this sub-population for field testing in light of the fact that only a negligible proportion of episodes (i.e., less than one percent) included in the measure have a vascular embolization during the trigger event.

Key Takeaways from Discussion and/or Polls for Monitor Variables:

- Members voted to continue monitoring the following sub-populations:
 - ASA Class One
 - ASA Class Two
 - ASA Class Three
 - ASA Class Four
 - Benign Neoplasm
 - Colon Cancer Diagnosis
 - Concurrent CPT/HCPCS Check for Interventional Radiology (CPT/HCPCS 37244)
 - Diverticular Disease
 - Endometriosis
 - Lower and Nonspecified Gastrointestinal (GI) Bleed
 - Open Colectomy - Partial
 - Open Colectomy - Total
 - Opioid Dependence
 - Recent Cardiac Device Implantation
 - Recent Hospitalization for Respiratory Failure
 - Recent Transplant
 - Refractory Constipation
 - Shock on Presentation
 - Total Colectomy

2.3 Quality Alignment

The workgroup then discussed how the measure specifications might be refined to better align with existing quality measures. Members were generally in agreement that it would be beneficial to align with MIPS Quality Measure #354 regarding anastomotic leaks but raised concerns about the feasibility of identifying anastomotic leaks using claims data. Specifically, members suggested identifying anastomotic leaks with ICD-10 code K91.89 but noted the lack of specificity of this code as a potential limitation. Members also suggested aligning with quality measures focused on surgical site infections (SSIs) but noted several limitations regarding the operationalization of this alignment. The workgroup specifically raised the issue that the detection of and course of treatment for a superficial SSI and an organ/space infection would differ substantially, and would then present differently in claims data. Members also expressed that it may not be possible to identify the source of an SSI from claims data, which is particularly salient to consider for patients who undergo secondary surgical procedures. Ultimately, the workgroup concluded that these measures are important to consider but that it may not be feasible to align the Colon and Rectal Resection cost measure specifications with those of existing quality measures, and that quality alignment may need to be explored through other avenues.

2.4 Assigning Services to the Episode Group

Acumen described the purpose of service assignment so that members could identify and discuss which services associated with the clinician's role in managing the condition should be included in the cost measure. These assigned services should be inclusive enough to identify a measureable performance difference between clinicians but also not introduce excessive noise.

The webinar discussion focused on specific services or broad categories of services for which either (i) the workgroup did not reach a consensus on whether to assign to the episode group in previous meetings, or (ii) input received during the in-person meeting discussions did not align with that received through the follow-up poll after the in-person meeting. The workgroup discussed assigning services to the 15-day pre-trigger period and 90-day post-trigger period separately.

They first considered whether select services should be assigned to the pre-trigger period. Members attending the webinar generally felt that colonoscopy and biopsy as well as proctoscopy and anorectal biopsy services were outside of the surgeon's reasonable influence within the 15 days preceding the trigger procedure and therefore recommended against assigning such services to the pre-trigger period. One member specifically noted that they would be wary of incentivizing surgeons to delay a trigger procedure in an effort to avoid having the costs of these services negatively impact their performance score. During the webinar, workgroup members also made a similar recommendation with regard to the assignment of physical therapy (PT)/occupational therapy (OT)/speech-language pathology (SLP) assessment and prehabilitation services to the pre-trigger period, reasoning that the use of such services may not be able to be reasonably influenced by a surgeon since the few patients who will use them prior to the trigger procedure are likely to be referred by a primary care physician.

Members also debated whether to assign select cardiac diagnostic procedures to the pre-trigger period. Arguments raised against assigning such procedures stated that they are outside of the attributed clinician's reasonable influence given that the surgeon is unlikely to order them or that institutions typically have protocols to determine which patients will receive these cardiac diagnostic tests. Members also raised the concern that the measure would not be able to

capture a substantial number of cardiac diagnostic procedures even if they were to be assigned since the pre-trigger period only spans 15 days and surgeons may allow for more time to receive and consider the cardiologist's input before operating on a patient who recently underwent such tests. In contrast, members who were in favor of assigning cardiac diagnostics pre-trigger stressed the importance of encouraging care collaboration and coordination. For example, members cited the potential for the surgeon to influence whether evidence-based guidelines are followed in terms of pre-operative evaluation. The workgroup ultimately recommended assigning select cardiac diagnostic services pre-trigger in recognition of the surgeon's role in promoting care coordination. Finally, the workgroup agreed with Acumen's assessment that services within a curated list of broad categories were unlikely to be related to the trigger procedure and recommended against assigning them within 15 days pre-trigger.

The workgroup then discussed whether select services should be assigned to the post-trigger period. Despite the initial consensus to assign cancer-related services to the post-trigger period in the August 2019 in-person meeting follow-up poll, during the SAR webinar and in the follow-up poll to the webinar discussion, members re-affirmed the recommendation expressed during the in-person meeting discussions that cancer therapy-specific services such as chemotherapy should not be assigned to the post-trigger period as they may not be within the surgeon's reasonable influence. The workgroup also debated whether to include services related to non-specific symptoms (abdominal pain, fatigue, weakness, etc.). A concern was raised about the extent to which a surgeon can reasonably influence whether a patient visits an emergency department (ED) for non-specific complaints following an operation. In response, arguments in favor of assigning services related to non-specific symptoms cited the potential for a surgeon to reduce the likelihood that a patient would seek ED services for symptoms that commonly occur following surgery through rigorous patient education and discharge planning prior to surgery. Other arguments in favor stated that a visit to the ED for abdominal pain or fatigue could be indicative of post-operative complications and reiterated the importance of capturing variations in resource use to ensure that the measure optimally distinguishes good from poor performance. Concurring that the surgeon may reasonably influence the resource use of a patient with non-specific symptoms and that high-cost use may be an indication of poor performance, the workgroup ultimately reached a consensus to assign related services. The workgroup recommended that such services only be assigned within 30 days, as opposed to 90 days, post-trigger to ensure that there is a high probability that non-specific symptoms are related to the trigger procedure. Members generally felt that services related to the presence and treatment of valvular disease and congestive heart failure within 90 days following the trigger procedure may not be clinically related and reached a consensus against assigning such services. Finally, the workgroup agreed with Acumen's assessment that services within a curated list of broad categories were unlikely to be related to the trigger procedure and recommended against assigning them within 90 days post-trigger.

Key Takeaways from Discussion and/or Polls for Assigned Services:

- Based on workgroup recommendations, the following services or categories of services will be assigned:
 - Diagnostic cardiac catheterization, coronary arteriography within 15 days pre-trigger
 - Echocardiogram within 15 days pre-trigger
 - Cardiac stress test within 15 days pre-trigger
 - Electrocardiogram within 15 days pre-trigger
 - Electrographic cardiac monitoring within 15 days pre-trigger

- Non-Specific Symptoms (abdominal pain, fatigue, weakness, etc.) within 30 days post-trigger
- Workgroup members recommended not to assign the following services or categories of services:
 - Colonoscopy and biopsy within 15 days pre-trigger
 - Proctoscopy and anorectal biopsy within 15 days pre-trigger
 - PT/OT/SLP assessment within 15 days pre-trigger
 - Prehabilitation services within 15 days pre-trigger
 - Fluid, Electrolyte, Nutritional, and Glycemic Disorders (including diabetes) within 15 days pre-trigger
 - Benign Neoplasms within 15 days pre-trigger
 - Deep Vein Thrombosis (DVT)/Pulmonary Embolism (PE) within 15 days pre-trigger
 - Hepatic/Biliary/Pancreatic within 15 days pre-trigger
 - Organ Transplant (including bone marrow) within 15 days pre-trigger
 - Anemia within 15 days pre-trigger
 - Acute and Chronic Kidney Disease within 15 days pre-trigger
 - Durable Medical Equipment (DME) within 15 days pre-trigger
 - Acute Pulmonary Condition within 15 days pre-trigger
 - Arrhythmia, Acute Coronary Syndrome (ACS), and Chest Pain (including pacemaker, diagnostics, and percutaneous coronary intervention [PCI]) within 15 days pre-trigger
 - Orthopedic (including fractures, sprains) within 15 days pre-trigger
 - Cancer within 90 days post-trigger
 - Valvular Disease and Congestive Heart Failure within 90 days post-trigger
 - Hepatic/Biliary/Pancreatic within 90 days post-trigger
 - Major Lung and Cardiac Procedure within 90 days post-trigger
 - Central Nervous System (CNS) and Spinal Disorders and Procedures within 90 days post-trigger
 - Complication of Trauma or Burn (including falls) within 90 days post-trigger
 - Hematologic/Lymphatic (excluding anemia) within 90 days post-trigger
 - Male and Female Reproductive System Condition within 90 days post-trigger

2.5 Next Steps

In the final session, Acumen provided an overview of the next steps in the measure development process. After the meeting, Acumen distributed the *SAR Webinar Poll* to gather input from members on the discussions held during the webinar. The survey also consisted of open comment boxes to provide additional thoughts on how to build opportunities for measure performance improvement into the measure specifications and to share any additional thoughts on the measure.

Acumen will gather and review the input provided during the SAR webinar discussions and poll to create updated measure specifications. These specifications will be posted publicly as a part of upcoming national field testing. During the field testing period, Field Test Reports for the Wave 3 measures under development will be available to clinicians and will contain information showing how clinicians would perform for the measures, based on the measure specifications at that time. There will also be an opportunity for all stakeholders to provide detailed feedback about the measures during field testing.

3. Appendix: Overview of Workgroup Member Preparation and Shared Materials

3.1 Introduction

Section 3.2 provides an overview of materials shared with the workgroup members prior to the SAR webinar, and Section 3.3 provides a recap of the main concepts of the measure development process and measure framework presented by Acumen.

3.2 Overview of Meeting Materials

Two weeks prior to the meeting, workgroup members were provided with the following information to inform their discussions and votes during the meeting:

- *Agenda* and *Slide Deck*, which included a list of discussion questions to be considered prior to meeting and discussed during the webinar
- Investigation workbooks presenting detailed findings from empirical analyses:
 - A re-run of *Sub-Population Summary Investigation Workbook*, which provided updated data on the frequency and cost associated with an initial set of potential sub-populations as recommended by the workgroup during the August 2019 in-person meeting
 - A re-run of *Candidate Services Over Time Investigation Workbook*, which contained updated information on frequency, cost, and timing for up to 200 of the most commonly performed services before and after a trigger event to inform discussions on service assignment and included the share of episodes where the service was assigned based on the service assignment rules

The materials shared were based on analyses run on triggering methodologies with trigger codes and specifications developed based on input from the August 2019 workgroup in-person meetings.

3.3 Overview of Cost Measure Development and Framework

At the beginning of the meeting, Acumen presented a very brief introductory session as a refresher on the following framework topics:

- The 5 essential components of episode-based cost measures (defining the episode group, attributing the episode group to clinicians, assigning costs to the episode group, risk adjusting episode groups, and aligning cost with quality) along with an example illustration of how episodes work
- The steps for construction of an episode-based cost measure and goals that cost measures are meant to accomplish in distinguishing good from poor performance
- A recap on the different sources of information for the workgroup to consider in addition to their clinical expertise, including analyses and data as well as the perspectives of patients and caregivers through Person and Family Engagement (PFE)

Please contact **Acumen MACRA Clinical Committee Support** at macra-clinical-committee-support@acumenllc.com if you have any questions. If you are 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.