



# **Episode-Based Cost Measure Development for the Quality Payment Program**

## **Public Comment Summary Report**

**October 2017**

## Table of Contents

<b>Executive Summary .....</b>	<b>4</b>
<b>1 Overview .....</b>	<b>6</b>
1.1 Conceptual Overview of Episodes and Related Concepts .....	7
<b>2 Stakeholder Feedback .....</b>	<b>13</b>
2.1 Measure Development Process .....	18
2.1.1 General feedback on the measure development process .....	18
2.1.2 December 2016 posting .....	18
2.1.3 Transparency and responsiveness to stakeholder input .....	22
2.1.4 Stakeholder outreach and engagement .....	24
2.1.5 Measure development timeline .....	29
2.2 Defining an Episode Group .....	30
2.2.1 Episode group selection criteria [relates to Q1] .....	30
2.2.2 Clinical areas and new episode groups for development [relates to Q1] .....	33
2.2.3 Use of claims data to define episode groups .....	34
2.2.4 Approach to episode group development .....	38
2.2.5 General approach to defining an episode group .....	40
2.2.6 Episode triggers .....	44
2.2.7 Approaches for determining episode sub-groups [relates to Q11] .....	46
2.2.8 Episode window .....	47
2.2.9 Overlapping episodes .....	48
2.2.10 Exclusions .....	48
2.2.11 Acute inpatient medical condition episode groups [relates to Q3 & Q4] .....	49
2.2.12 Chronic condition episode groups [relates to Q5 & Q6] .....	51
2.2.13 Procedural episode groups [relates to Q7] .....	56
2.3 Assigning Costs to the Episode Group [relates to Q8] .....	57
2.3.1 Approaches for assigning services to episode groups [relates to Q9] .....	57
2.3.2 Approaches for distinguishing assigned services (direct/indirect) [relates to Q9] .....	58
2.3.3 Inclusion of Part D costs [relates to Q14] .....	59
2.4 Attributing Episode Groups to Clinicians [relates to Q8] .....	61
2.4.1 Approaches for attributing episodes to clinicians .....	61
2.4.2 Patient relationship categories and codes .....	64
2.5 Risk Adjusting Episode Groups [relates to Q8] .....	65
2.5.1 Potential unintended consequences [relates to Q13] .....	65
2.5.2 Risk adjustment variables [relates to Q13] .....	67
2.5.3 Risk adjustment models [relates to Q10] .....	69
2.6 Aligning Cost with Quality [relates to Q8] .....	72
2.6.1 Approaches to quality alignment [relates to Q12] .....	72
2.7 Measure Implementation .....	76
2.7.1 Measure testing .....	76
2.7.2 Reporting .....	77
2.7.3 Measure maintenance .....	78
2.8 MIPS and Other CMS Programs .....	79
2.8.1 MIPS program .....	79
2.8.2 Alignment with APMs .....	81

2.8.3 Existing cost measures and programs .....	81
<b>Appendix A: December 2016 Posting Questions.....</b>	<b>83</b>
<b>Appendix B: List of Commenters .....</b>	<b>86</b>

## EXECUTIVE SUMMARY

---

The Medicare Access and Children's Health Insurance Program (CHIP) Reauthorization Act of 2015 (MACRA) introduced a new approach to clinician payment called the Quality Payment Program.<sup>1</sup> This program rewards the delivery of high-quality patient care through Advanced Alternative Payment Models (Advanced APMs) and the Merit-based Incentive Payment System (MIPS). Under the MIPS program, clinicians will be assessed through four performance categories – quality, improvement activities, advancing care information, and cost. In December 2016, the Centers for Medicare & Medicaid Services (CMS) posted a draft list of episode groups and trigger codes for development into measures for potential use in the MIPS cost performance category, as required by Section 101(f) of MACRA. This posting was open for public comment and was accompanied by a document outlining episode-based cost measure development for the Quality Payment Program which included specific questions for stakeholders, as listed in Appendix A of this document.<sup>2</sup> The public comment period for these two documents (“December 2016 posting”) was open from December 23, 2016 to April 24, 2017.

Acumen, LLC, the measure development contractor, received 69 comments from stakeholders during the public comment period. To broadly engage with the stakeholder community about the December 2016 posting, CMS also hosted a Listening Session on April 5, 2017 on the development of episode-based cost measures.<sup>3</sup> The webinar was attended by approximately 1,170 people. The Listening Session consisted of a 30-minute presentation, followed by a one-hour session for listeners to ask questions or provide feedback. The feedback gathered from December 2016 posting public comment period is summarized in this report.

The following list synthesizes some of the key points that were raised through the public comment period:

- *Stakeholder engagement should be central to the measure development process to achieve greater overall transparency.* Commenters emphasized the importance of stakeholder engagement and transparency throughout measure development, and were

---

<sup>1</sup> Draft List of MACRA Episode Groups and Trigger Codes, CMS MACRA Feedback Page, <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/draft-list-of-care-episode-and-patient-condition-groups-and-codes.zip>

<sup>2</sup> Episode-Based Cost Measure Development for the Quality Payment Program, CMS MACRA Feedback Page, <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/Episode-Based-Cost-Measure-Development-for-the-Quality-Payment-Program.pdf>

<sup>3</sup> Listening Session: Cost Measure Development (4/5/17), Quality Payment Program Webinars and Educational Programs, <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/Quality-Payment-Program-Events.html>

particularly interested in understanding how CMS used past public comments and stakeholder input, such as input received through the August – September 2016 Clinical Committee, to inform measure development.

- *Full implementation of the MIPS cost performance category should be delayed until adequate testing and stakeholder engagement can be conducted.* Stakeholders recommended keeping the weight of the cost measure performance category at zero percent through at least the 2018 performance year to allow for development, testing (e.g., through voluntary pilot programs), and further opportunities for stakeholders to review and provide feedback on the measures under development.
- *Stakeholders need more complete information on the episode-based cost measures to provide meaningful feedback.* Further detail is needed on the measure development process and the specifications for the measures for stakeholders to be able to provide meaningful feedback to CMS.
- *Cost measure implementation may lead to many potential unintended consequences that should be taken into further consideration.* Stakeholders expressed concern that the implementation of the cost measures could impact access to care if clinicians are disadvantaged or discouraged from providing care to high-need, complex patients.
- *Alignment of cost and quality is imperative to ensure high-quality, efficient care.* The use of cost measures alone may create perverse incentive for clinicians to stint on care; quality alignment is necessary to protect patients against under- or over-utilization of care.
- *Risk adjustment should ensure that clinicians are not held accountable for factors beyond their control.* Commenters suggested that risk adjustment should account for patients' clinical characteristics such as comorbidities, disease severity and staging, patient complexity, and functional limitations as well as patients' socioeconomic and/or sociodemographic status.

# 1 OVERVIEW

---

The Medicare Access and Children’s Health Insurance Program (CHIP) Reauthorization Act of 2015 (MACRA) introduced a new approach to clinician payment called the Quality Payment Program. This program rewards the delivery of high-quality patient care through Advanced Alternative Payment Models (Advanced APMs) and the Merit-based Incentive Payment System (MIPS). Clinician performance will be assessed under MIPS in four performance categories – quality, clinical practice improvement activities (referred to as “improvement activities”), meaningful use of certified electronic health record technology (referred to as “advancing care information”), and resource use (referred to as “cost”). MACRA requires that cost measures implemented in MIPS include consideration of care episode groups and patient condition groups (referred to as “episode groups”). The Centers for Medicare & Medicaid Services (CMS) has contracted with Acumen, LLC to develop episode groups and cost measures for the MIPS cost performance category through the *MACRA Episode Groups and Cost Measures* contract (HHSM-500-2013-13002I/HHSM-500-T0002).

In December 2016, CMS posted a list of draft episode groups and trigger codes for stakeholder feedback as required by Section 101(f) of MACRA.<sup>4</sup> This was accompanied by a document titled “Episode-Based Cost Measure Development for the Quality Payment Program” which outlined the approach to measure development and included 14 questions for stakeholders, as listed in Appendix A.<sup>5</sup> During the public comment period for these two documents (“December 2016 posting”) from December 23, 2016 to April 24, 2017, Acumen received 69 comments. Comments were received through an e-mail address managed by Acumen. The list of stakeholders who submitted a comment is provided in Appendix B. The verbatim comments are contained in a document that accompanies this report.

Additionally, CMS hosted a Listening Session on April 5, 2017 as part of broad stakeholder outreach related to the December 2016 posting.<sup>6</sup> The webinar consisted of a 30-minute presentation outlining (i) five components of an episode-based cost measure, (ii)

---

<sup>4</sup> Draft List of MACRA Episode Groups and Trigger Codes, CMS MACRA Feedback Page, <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/draft-list-of-care-episode-and-patient-condition-groups-and-codes.zip>

<sup>5</sup> Episode-Based Cost Measure Development for the Quality Payment Program, CMS MACRA Feedback Page, <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/Episode-Based-Cost-Measure-Development-for-the-Quality-Payment-Program.pdf>

<sup>6</sup> Listening Session: Cost Measure Development (4/5/17), Quality Payment Program Webinars and Educational Programs, <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/Quality-Payment-Program-Events.html>

stakeholder input activities conducted and feedback received through those activities so far, and (iii) current and future opportunities for stakeholder input. In particular, as part of (iii), the Listening Session discussed the December 2016 posting public comment period and Call for Clinical Subcommittee (CS) Nominations for the seven CS scheduled to begin activities in May 2017. The presentation was followed by a 60-minute feedback session where attendees could ask questions or provide comments. Approximately 1,170 people attended the Listening Session, and 171 comments and questions were received during the feedback portion of the webinar. The webinar slides, transcript, and recording are available for download from the CMS website.<sup>7,8,9</sup> The questions and feedback received during the Listening Session are reflected in the comments received on the December 2016 posting, as addressed in this report.

The purpose of this report is to summarize the feedback received in response to the December 2016 posting. Section 1.1 contains a conceptual overview of important episode concepts. Section 2 summarizes the comments relating to the December 2016 posting, along with responses to these comments.

## 1.1 Conceptual Overview of Episodes and Related Concepts

Throughout several sections of this report, in particular Section 2, the terms such as “episode”, “episode group,” and “overlapping episodes” are often used. This section provides a brief description of these concepts, accompanied by visuals, for reference.

- **Episode Group:** An episode group represents a clinically cohesive set of medical services rendered to treat a given medical condition. Episode groups aggregate all of the items and services involved in care for a particular patient cohort so that the total cost of the care can be assessed. Services assigned to the episode group can include “direct services,” which cover the actual treatment, as well as ancillary services directly related to treatment, such as anesthesia for a surgical procedure. Assigned services can also include “indirect services,” which may be rendered to patients as follow-up care for direct services or to treat complications arising out of those services.
- **Episode:** An episode is a particular instance of an episode group, responsibility for which can be attributed to one or more clinicians. A clinician’s cost performance can be

---

<sup>7</sup> Slides, Listening Session: Cost Measure Development (4/5/17), Quality Payment Program Webinars and Educational Programs, <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/Cost-Measures-Listening-Session-Slides-4-5-2017.pdf>

<sup>8</sup> Transcript, Listening Session: Cost Measure Development (4/5/17), Quality Payment Program Webinars and Educational Programs, <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/Cost-Measures-Listening-Session-Transcript-4-5-17.pdf>

<sup>9</sup> Recording, Listening Session: Cost Measure Development (4/5/17), Quality Payment Program Webinars and Educational Programs <https://www.youtube.com/watch?v=p0mVBOC9stI&feature=youtu.be>

measured by aggregating information from multiple episodes for a specific episode group in a specified performance period.

- **Episode-based cost measure:** This is a type of measure designed to assess the cost performance of a clinician with respect to one or more episode groups within a given performance period. While a cost measure can be calculated in a variety of ways, one common formulation is presented in Figure 1, below. This figure shows that a clinician's cost measure may be calculated by averaging the ratio of observed to expected spending across all episodes attributed to the clinician in the performance period. Expected spending for a given episode is obtained from a risk adjustment model which accounts for patient characteristics. To scale this ratio back to a dollar amount, the ratio is multiplied by a constant (e.g., national average observed episode spending).

**Figure 1:** Sample Formulation of an Episode-Based Cost Measure

<p><b>Episode-Based Cost Measure<sub>jk</sub> =</b></p> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <math display="block">= \frac{\text{Sum of } \frac{\text{observed episode spending}}{\text{expected episode spending}} \text{ for all episodes attributed to clinician } j}{\text{Total number of episodes attributed to clinician } j}</math> <math display="block">= \frac{\sum_{i \in \{I_{jk}\}} \frac{Y_{ijk}}{\hat{Y}_{ijk}}}{n_{jk}}</math> </div> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 60%; text-align: center;"> <p>x ( National Average Observed Episode Spending )</p> </div>	
$n_{jk}$	= number of episodes from episode group $k$ for clinician $j$
$Y_{ijk}$	= observed standardized spending for episode $i$ of episode group $k$ attributed to clinician $j$
$\hat{Y}_{ijk}$	= expected standardized spending for episode $i$ of episode group $k$ attributed to clinician $j$ , as predicted from risk adjustment
$i \in \{I_{jk}\}$ = all episodes $i$ in the set of episodes from episode group $k$ attributed to clinician $j$ .	

- **Episode trigger:** Episodes are opened, or triggered, based on the occurrence of a trigger event. A trigger event is identified by certain procedure or diagnosis codes for specific service types, such as an inpatient stay or an office visit. The specific medical codes that identify a trigger event, also known as “trigger codes,” are codes on certain types of claims which indicate a beneficiary having a particular condition or treatment.
- **Episode sub-group:** An episode sub-group is a grouping of patients within the episode group that share a common clinical approach or a common set of services expected to be utilized in the care of the clinical condition or performance of the procedure, but who

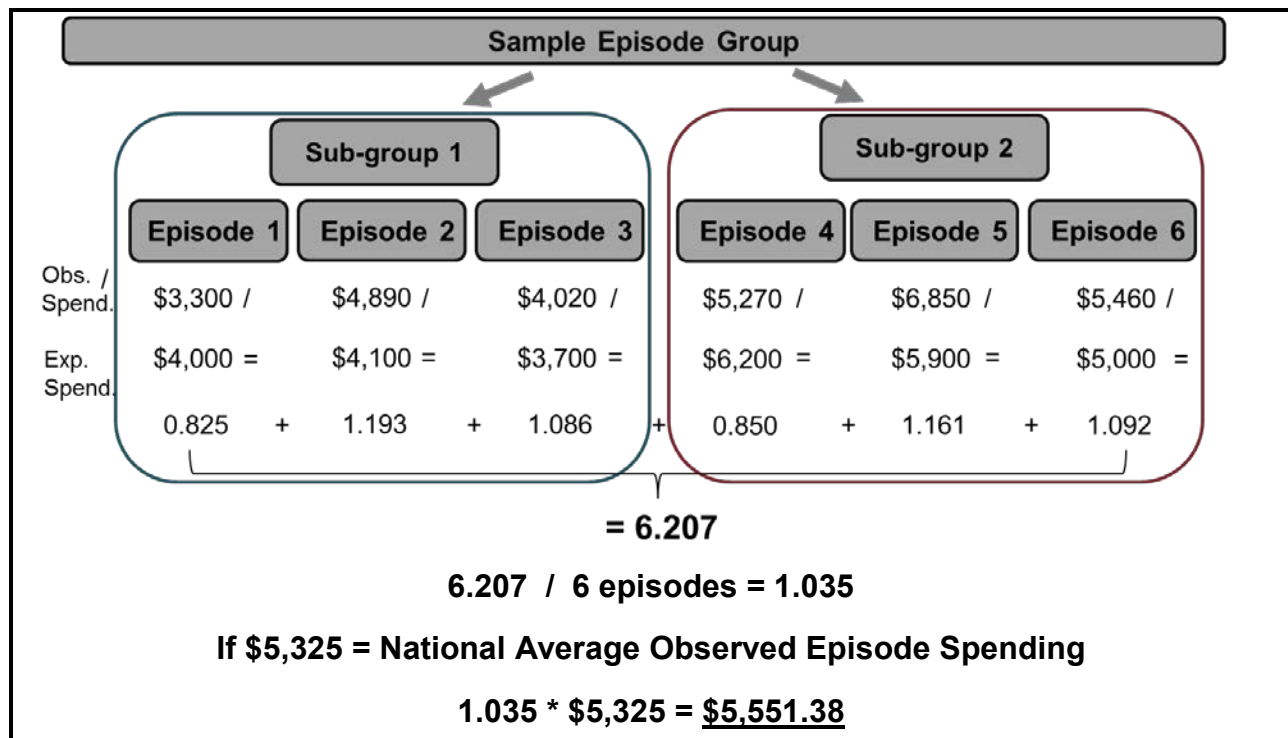


differ in expected risk for clinical outcome or use of resources. While CS continue to develop criteria for defining sub-groups for each episode group, some potential criteria that have been discussed include: (i) clinical indication or method, (ii) anatomical location, (iii) severity, (iv) place of service, (v) patient characteristic (e.g. obesity), (vi) clinical considerations that predict or indicate differences in complexity, cost, and outcome, or (vii) a combination of the preceding options. This list of criteria is not exhaustive, as CS may suggest additional criteria through their discussions of how to construct episode sub-groups for particular episode groups.

There are two main ways that sub-group information may be used in the calculation of a cost measure. First, measures could be calculated and reported separately for each sub-group. A potential issue with this approach is that each sub-group may have a small number of cases for each clinician. Second, as a way of dealing with this concern, measures could be constructed by averaging across episodes in all of the episode sub-groups for the episode group. In this case, risk adjustment to account for the different patient populations (and expected episode spending) indicated by the sub-groups could be done in two ways: (i) entirely separate risk adjustment models could be estimated for each sub-group, allowing the impact of clinical characteristics and other beneficiary characteristics on episode spending to differ by sub-group; or (ii) a single risk adjustment model could be used for all episodes in the episode group, but a variable could be included to allow the average level of episode spending to differ across sub-groups.

Figure 2, below, illustrates the calculation of a cost measure for an episode group with two sub-groups.

Figure 2: Illustration of Example Cost Measure Calculation with Episode Sub-Groups



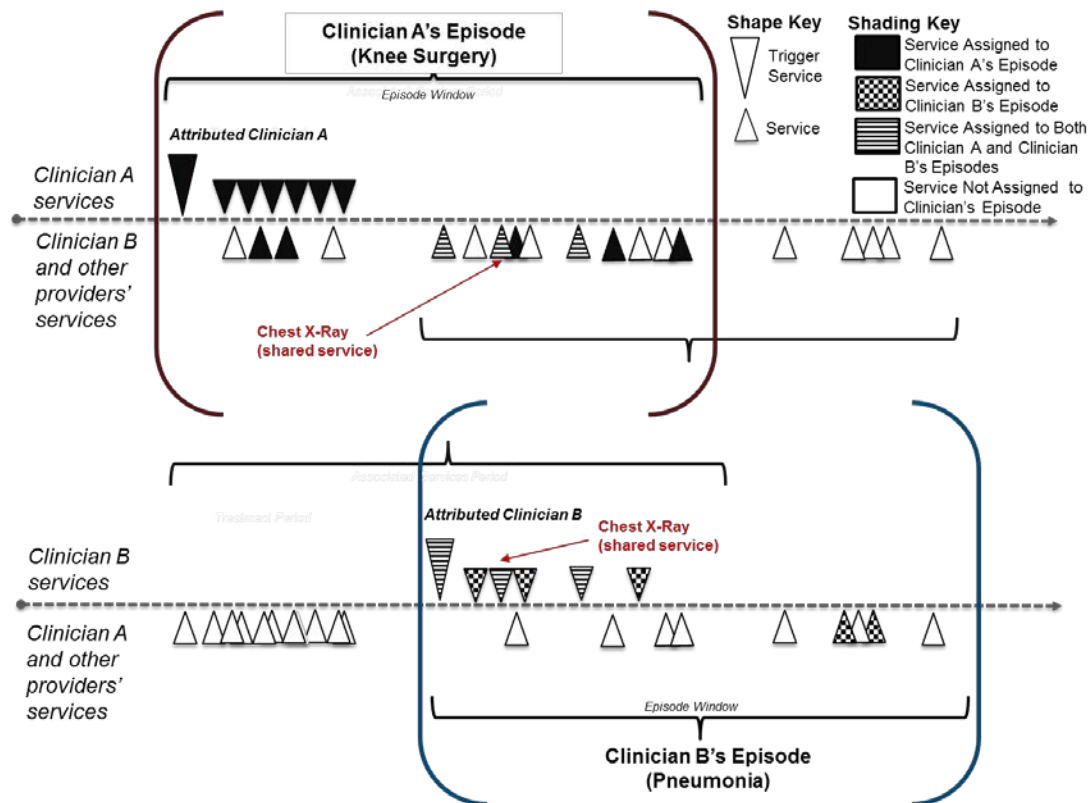
- Episode Window: The episode window is the timeframe during which particular services can be assigned to an episode. This timeframe is defined relative to the trigger event, and is typically composed of a pre-trigger and post-trigger period.
- Assigned Services: Assigned services are medical items and services which have been selected by the CS for inclusion in episode costs. Selected using input from clinicians and consideration of empirical analyses, these services are intended to capture a clinically cohesive set of relevant direct costs for treatment and indirect costs for follow-up care or complications for a given medical condition.
- Overlapping Episodes: Overlapping episodes are different episodes which are triggered for the same patient and with episode windows that overlap. Conceptually, the benefit of allowing two or more episodes to overlap is that each episode can reflect a different attributed clinician's role and relationship to a patient. Some services assigned to each episode may be the same, but a given service may take on different meanings in each episode. For example, one service may be counted as a direct service for the clinician attributed the first episode but as an indirect service for an episode attributed to another clinician, reflecting the different roles that the two clinicians play in providing services across a patient's care trajectory. Episode-based cost measures take the ratio of observed to expected spending for each episode, and then take the average of those ratios across an attributed clinician's episodes. Because the measure is not a sum of all costs of episodes

attributed to a clinician, this eliminates the potential for “double counting” of episode costs.

For example, consider a patient who has a knee replacement and returns to the hospital a week later with pneumonia, which was a complication related to the knee replacement procedure because of avoidable, extended use of a ventilator. In this example, a knee replacement episode would be triggered and attributed to the orthopedic surgeon, and a separate pneumonia episode would be triggered and attributed to the hospitalist. The knee replacement and pneumonia episodes each include a set of assigned services determined through clinical input to be reasonably within the influence or control of the attributed clinician. A chest x-ray could be a service that is assigned to both knee replacement and pneumonia episode groups because it is medically relevant to both. As such, a benefit of overlapping episodes in this case is the promotion of shared accountability. The surgeon would be held accountable for the x-ray which the patient needed because of complications resulting from the surgeon’s care, and the hospitalist would be held accountable for ordering the x-ray in order to diagnose pneumonia.

The clinical example of overlapping knee replacement and pneumonia episodes is illustrated in Figure 3, below. As shown, the knee surgery episode and pneumonia episode overlap in time and have several services in common, as shown by the striped triangles. One of these shared services is the chest x-ray which is labeled with the red arrow. The chest x-ray is included once as an assigned service for Clinician A, shown below the dashed line in the upper half of Figure 3, which illustrates Clinician A’s knee surgery episode. The chest x-ray is also included once as an assigned service for Clinician B, shown above the dashed line in the lower half of Figure 3, which illustrates Clinician B’s pneumonia episode. In contrast, the triangle immediately to the left of the chest x-ray is shown as an unassigned service for Clinician A (white triangle below the line), but is assigned to Clinician B’s episode (checkered triangle above the line). This represents a service delivered by Clinician B (a hospitalist) that is not under the control of Clinician A (an orthopedic surgeon).

Figure 3: Illustration of Overlapping Episodes



## 2 STAKEHOLDER FEEDBACK

This section summarizes the feedback received in response to the draft list of episode groups and trigger codes and accompanying document on episode-based cost measure development for the Quality Payment Program. The December 2016 posting sought feedback on a set of specific questions, the draft list of episode groups and trigger codes, and any aspect of measure development described in the posted materials.

The following sections summarize the comments received from stakeholders, organized by general themes. This approach provides a comprehensive summary of the feedback received, as commenters provided feedback on topics for which there was not a specific question listed in the December 2016 posting. Table 1, below, indicates the sections of this report that relate to the questions from the December 2016 posting. If a subsection contains comments that relate to a question from the posting, the number of the question is included in the subsection heading throughout Section 2. First, Section 2.1 discusses comments about the measure development process. Next, sections 2.2-2.6 focus on feedback received for the five components of episode-based cost measures: defining an episode group, assigning costs to the episode group, attributing episodes to clinicians, risk adjusting episode groups, and aligning cost with quality. Section 2.7 summarizes feedback on measure implementation. Finally, section 2.8 contains general comments received regarding MIPS and other CMS programs.

**Table 1: Section(s) of Report Relating to December 2016 Posting Questions**

Question Number	Question	Section(s) of Report
<b><i>Episode Group Selection</i></b>		
1	In selecting the episode groups to be considered for development, CMS used criteria including an episode's share of Medicare expenditures, clinician coverage, and the opportunity for improvement in acute, chronic, and procedural care settings. We welcome comment on these episode groups and potential additional episode groups that should be considered for development.	2.2.1 Episode group selection criteria 2.2.2 Clinical areas and new episode groups for development
<b><i>Episode Group Definition</i></b>		
2	The episode groups that accompany this posting are defined by the listed trigger events and codes (CPT/HCPCS for procedural episode triggers, evaluation & management codes combined with ICD-10 diagnostic information for chronic episode triggers, etc.). CMS solicits comment on the inclusion or exclusion of specific service codes used to identify each episode group.	Specific comments about episode groups (e.g., trigger codes) are consolidated in separate episode group-specific reports shared with the Clinical Subcommittees

Question Number	Question	Section(s) of Report
<b><i>Acute Inpatient Medical Condition Episode Groups</i></b>		
3	The acute inpatient medical condition episode groups that accompany this posting include only inpatient events. CMS seeks comment on outpatient events that could be considered candidates for development as acute condition episode groups, which could include chronic condition exacerbations that require acute care but not inpatient hospitalization.	2.2.11 Acute Inpatient Medical Condition Episode Groups
4	Acute episodes of care might occur on either an inpatient or outpatient basis and may or may not include surgery. CMS is considering a single Acute Episode Group type that does not distinguish the place of service or the performance of a procedure and welcomes comment on this approach.	2.2.11 Acute Inpatient Medical Condition Episode Groups
<b><i>Chronic Condition Episode Groups</i></b>		
5	CMS is aware of many challenges in constructing episode groups for chronic conditions. These include coding habits that may obscure some chronic conditions and overemphasize others. In addition, it may be difficult to assign a given treatment to a single condition for patients with multiple comorbidities. For example, are the resources for treatment to reduce cholesterol for a patient with diabetes, hypertension, and coronary artery disease to be assigned to only one of those diagnoses, to all of them in proportion, or should we develop a chronic condition episode specific to the management of patients with diabetes, hypertension and coronary artery disease, i.e., a patient condition group to better compare cost to treat like patients? An extension of this approach might be a single episode group for outpatient chronic care with adjustment for comorbidities and demographics of the population served by the clinician. We welcome comment on these and any other options for constructing episode groups for chronic conditions.	2.2.12 Chronic Condition Episode Groups

Question Number	Question	Section(s) of Report
6	Certain specific conditions, such as cancer, present other challenges. The costs of caring for patients at different stages of disease are likely to vary. For instance, a single episode for a type of cancer is likely to differ in a predictable manner depending on the stage of the cancer. Information on disease staging is not easily or predictably available from claims. CMS welcomes comment on methods to incorporate disease severity or staging information to improve meaningful comparison of cost and quality of care furnished to patients, both generally and for specific clinical conditions. For example, how could a disease staging code be reported on claims to facilitate comparison of episodes for patients at like stages of cancer?	2.2.12 Chronic Condition Episode Groups
<b><i>Procedural Episode Groups</i></b>		
7	We solicit comment on the procedural episode groups that accompany this posting, including the service and diagnosis codes used to identify the existence of the procedural episode groups. We also welcome comment on additional procedural episode groups to consider for future development.	2.2.13 Procedural episode groups 2.2.2 Clinical areas and new episode groups for development
<b><i>Cost Measure Development</i></b>		
8	Cost measures are being considered for development from episode groups after adding additional context, such as expenditure assignment, attribution, risk adjustment, and consideration of quality. We welcome comment on each of these elements and whether there are additional elements to consider in developing cost measures from episode groups.	2.3 Assigning Costs to the Episode Group 2.4 Attributing Episode Groups to Clinicians 2.5 Risk Adjusting Episode Groups 2.6 Aligning Cost with Quality

Question Number	Question	Section(s) of Report
9	<p>As described above, the degree of responsibility of attributed services might be considered separately. Those services furnished by the attributed clinician for the clinical purpose of the episode group might be differentiated from the services provided by others for the same clinical purpose. The services furnished by the attributed clinician might be considered directly attributable services. These could be correlated with the services delivered by others for the same clinical purpose, which might be considered indirectly attributed services. The consideration of both directly and indirectly attributed services might be weighed in reporting both the provision and the coordination of care within the episode group relative to each clinician contributing to the care. An alternative approach would be to obtain recommendations from multi-specialty panels about percentages of the resources for an episode that could be attributed to physicians serving in different roles. We welcome comment on these concepts of differential attribution or alternative methods to align attribution with the clinical activities of clinicians.</p>	<p>2.3.1 Approaches for assigning services to episode groups 2.3.2 Approaches for distinguishing assigned services (direct/indirect)</p>
10	<p>The Medicare Advantage program uses the CMS-HCC Risk Adjustment Model to determine rates. We seek comment on the use of this model or an alternative for risk adjusting episode groups in the construction of cost measures. In addition, should concurrent or prospective risk adjustment be used, and should a full year of data or more targeted data from before the episode be used to adjust?</p>	<p>2.5.3 Risk adjustment models</p>
11	<p>The draft list does not currently include specifications for episode sub-groups (a sub-group is intended to achieve greater clinical comparability and is a subdivision of an episode group that further refines the specifications of episode trigger codes and grouping rules to yield more clinically homogenous cohorts of patients with similar expected cost). An example is an episode group for spine surgery with sub-grouping for number of levels and anatomic location. CMS solicits public comment on these draft episode groups and potential sub-groups.</p>	<p>2.2.7 Approaches for determining episode sub-groups</p>



Question Number	Question	Section(s) of Report
12	CMS is especially interested in comments regarding methods to align quality of care with cost measures and welcomes recommendations and suggestions. Considerations for aligning episode groups with quality measurement are described in this document, but are not intended to be an exhaustive list of options. We welcome comment on these methods, as well as any other strategies that could be used to align quality of care considerations with cost measures.	2.6.1 Approaches to quality alignment
13	CMS wishes to avoid any unintended consequences of using cost measures in MIPS, and seeks comment on issues of concern in this regard, such as taking steps to avoid disadvantaging clinicians who assume the care of complex patients such as by applying episodes for comparison of complex patients (i.e., comparison of like-patients of different clinicians).	2.5.1 Potential unintended consequences 2.5.2 Risk adjustment variables
14	CMS acknowledges that prescription drug costs are a large driver of the cost of medical care for Medicare beneficiaries. What would be the best way to incorporate Part D costs into the episode group development?	2.3.3 Part D costs

## **2.1 Measure Development Process**

### **2.1.1 General feedback on the measure development process**

- *Comment:* Twelve commenters stated their support for CMS’s progress in implementing the Quality Payment Program and meeting the requirements of MACRA. Six of these commenters expressly supported CMS’s commitment to creating episode-based cost measures. One commenter specifically stated that this framework could potentially provide more actionable and useful information, and another commenter believed that it is useful to help hold clinicians accountable.

*Response:* We appreciate your support for the development of new episode-based cost measures to meet the requirements of MACRA. We are committed to continuing to collaborate with stakeholders, and share the commenters’ belief in the importance of ensuring that the measures under development will provide actionable information to clinicians about the services that they are providing to their patients.

### **2.1.2 December 2016 posting**

#### *Level of detail*

- *Comment:* Twenty stakeholders stated that there was insufficient information on the episode groups and codes to enable them to provide meaningful comments or suggestions. Twelve of these commenters requested full definitions, code specifications, methodology, and other contextual information for further stakeholder input. These commenters were particularly interested in further details on attribution, assignment of services, exclusion criteria, risk adjustment, quality alignment, as well as the measure score calculation and benchmarking methodology.

*Response:* We appreciate the interest in further details on the draft list of episode groups and trigger codes included in the December 2016 posting. We expect to provide further opportunities for feedback once the measures are fully developed, as we are still in the process of working with the CS to refine the trigger codes and to construct the measures for episode groups listed in the December 2016 Posting.

The December 2016 posting served as a starting point for measure development, in that we will be seeking additional stakeholder input to fully build out all components of the episode-based cost measures. The posting provided a draft list of episode groups and trigger codes that were informed by preliminary input received from a Clinical Committee convened between August and September 2016. To continue development, Acumen is using a “wave” approach where sets of CS, each focused on a particular clinical area, are convened to provide structured clinical input on the components of episode-based cost measures, including refinements to the episode groups and trigger

codes included in the December 2016 posting (for more discussion on the waves approach of measure development, please see our response in section 2.1.5). The first wave includes seven CS with a total of 148 members affiliated with 98 professional societies. CS members were nominated through a Call for Clinical Subcommittees Nominations which was posted on March 17, 2017 and closed on April 24, 2017. The CS in each wave, including the current Wave 1 CS, are expected to convene on an ongoing basis to select episode groups for development and make recommendations about the clinical specifications for the episode groups. Furthermore, Acumen will continue to gather input from a Technical Expert Panel (TEP), Person and Family Committee, and through public comments. The measure development activities will take place through a variety of forums including in-person meetings, webinars, a web-based Clinical Input Tool, and discussion boards. Future opportunities for public comment will seek feedback on the topics identified by commenters, such as service assignment rules, exclusion criteria, and risk adjustment methodology.

As of the end of July 2017, the seven Wave 1 Subcommittees had selected eight episode groups to focus on for development, refined episode triggers for those episode groups, discussed episode windows and sub-groups, and begun discussing service assignment. Our goal is to report the first set of cost measures based on these episode groups to clinicians later this year through field testing. During field testing, the measures will be calculated using Medicare administrative claims data. The calculated measures will then be privately reported to clinicians for feedback on the measures, as well as the content and the format of the reports. Drawing on feedback from field testing and public comments, we will work collaboratively with the CS to iterate and improve upon previous work. Any feedback shared by stakeholders on the episode-based cost measures during field testing will be considered in the refinement of the measures before their potential use in the Quality Payment Program.

#### *Issues requiring further development*

- *Comment:* Six commenters brought attention to issues that should be addressed throughout the measure development process. Three of these commenters would like to see further analysis and assessment on the cost variation within and across episode groups before providing further comments on the proposed episode groups and trigger codes. Three commenters discussed methodological concerns related to the lack of meaningful alignment with quality, triggering and service assignment rules, risk adjustment approach, and measure score calculation.

*Response:* We appreciate the commenters for highlighting issues requiring further attention, as we have yet to make final decisions on many of these issues and expect to address them through substantial stakeholder engagement throughout the measure development process. We agree with the importance of empirical analyses to help inform the development of specifications for episode groups, and provided a range of materials to the TEP prior to the March 2017 meeting and the Wave 1 CS starting in May 2017. These materials included an analysis which shared statistics on total costs and cost variation within each episode group to help members consider how to prioritize and select episode groups for development. We expect to continue providing specific analyses to the CS based on the ideas and questions raised through member discussions, as well as presenting analyses which we believe the CS would find useful as they provide input on the episode-based cost measures under development, such as the ones described above.

We also appreciate commenters' other concerns relating to the cost measurement methodology, and note that the methodology will be specified with consideration of stakeholder input sought throughout the measure development process, with focus on several of the areas identified by commenters. For instance, to assist with the approach for aligning cost and quality, we included episode group-specific quality alignment reports as part of the materials that we shared with the CS in May 2017. The quality alignment reports provide information on the potential opportunities for episode groups to align with existing quality measures in the Quality Payment Program, based on an analysis of overlapping patient cohorts. Members were able to refer to these reports and analyses to inform their input – for example, the CS could choose to develop an episode group for which there was strong potential for alignment with quality measures, or to align the patient cohort of an episode group with that of an existing quality measure so that there would potentially be a cost and quality measure applying to the same condition or procedure. Further, to provide input on the risk adjustment approach, we convened a TEP in August 2017. The feedback from the TEP will be used to inform our approach for gathering CS member feedback on risk adjusters specific to each episode group under development. These are two examples of the way in which we are using extensive stakeholder input to make recommendations about the methodology for the episode-based cost measures.

Please also see the response under the topic “*Level of detail*” in this section, which discusses the opportunity for stakeholders to provide further input on the fully developed measures, including the methodological issues that commenters have raised here.

### *Relationship to previous CMS episode groups postings*

- *Comment:* One commenter sought clarification on how the December 2016 posting relates to previous CMS episode groups postings.

*Response:* The previous CMS episode groups postings referenced are the CMS Episode Groups posting (October 2015), and the follow-up Supplemental CMS Episode Groups Posting (April 2016). Both postings included Method A and B episode-based cost measures that have been developed by CMS in the past, pursuant to the requirements of the Affordable Care Act (ACA) of 2010. Some of these episode groups had previously been reported as part of the Supplemental Quality and Resource Use Reports (Supplemental QRURs). Both postings were followed by a public comment period.

In contrast, the December 2016 posting relates to the development of new episode-based cost measures to meet the requirements of MACRA. These new cost measures are distinct from the previous Method A and B episode-based cost measures, and involve more extensive opportunities for stakeholder engagement.

While the new episode-based cost measures based on the December 2016 posting are distinct from the previous episode groups, we are incorporating feedback received on the earlier CMS postings into the development process. We provided the Wave 1 CS with episode group-specific public comment summary reports which summarized public comments received in response to the new episode groups listed in the December 2016 posting as well as clinically related episode groups from prior Method A and B episode groups postings. Given that episode groups from past CMS postings may have clinical similarities with the December 2016 episode groups, stakeholder feedback received on these episode groups was potentially applicable to the December 2016 draft list. The feedback received from these postings and summarized in the episode group-specific reports for the CS covered the following areas: (i) Defining an Episode Group, (ii) Assigning Items and Services and their Respective Expenditures to Episode Groups, (iii) Attributing Episode Groups to Clinicians, (iv) Risk Adjusting Episode Groups, and (v) Aligning Cost with Quality. CS members are able to refer to these episode group-specific public comment summary reports as they refine the draft list of episode groups and trigger codes, provide recommendations on services to assign to episode groups, and share feedback on risk adjusters specific to each episode group under development.

### *Relationship to Quality Payment Program final rule*

- *Comment:* One commenter believed that the cost measures included in the CY 2017 Quality Payment Program final rule should undergo evaluation and refinement through the stakeholder feedback process outlined in the December 2016 posting.

*Response:* We appreciate the interest in and support of the stakeholder feedback process in measure development that was delineated in the December 2016 posting. We would like to note that the episode-based cost measures currently under development are distinct from the cost measures included in the CY 2017 Quality Payment Program final rule. As such, the cost measures that were finalized for use in 2017 MIPS are beyond the scope of the current project to develop new episode-based cost measures.

As background, the 2017 Quality Payment Program final rule, posted in November 2016, had adopted the use of 10 episode-based cost measures (that had previously been included in the Supplemental QRURs) for the cost performance category for the 2017 MIPS performance period. This category was finalized as having a weighting of zero percent in the calculation of the final score for the 2017 MIPS performance period. The CY 2018 Quality Payment Program proposed rule, which was posted in June 2017, proposes to discontinue the reporting of the 10 existing episode-based cost measures that had been finalized for the 2017 MIPS performance year. However, any changes to the 10 episode-based cost measures that were finalized for the 2017 MIPS performance year will be determined through notice-and-comment rulemaking.

### **2.1.3 Transparency and responsiveness to stakeholder input**

#### *Transparency*

- *Comment:* Eight commenters provided feedback on CMS’s transparency during stakeholder input activities. The commenters specifically requested that CMS publish the materials related to stakeholder input gathering activities, including the rationale behind episode group prioritization and methodological details for the proposed episode groups. Two commenters asked how previous input is being incorporated into the measure development process.

*Response:* We appreciate the concerns raised by commenters, and agree that transparency is an important aspect of the measure development process.

We have taken steps to promote greater transparency within the measure development process, including the posting of this report containing summaries and responses to comments received in relation to the December 2016 posting. This report is also accompanied by a separate report that is comprised of the verbatim comments received. Also, as discussed above in our response to the comments relating to the previous CMS episode groups postings (under the topic “*Relationship to previous CMS episode groups postings*” in Section 2.1.2), we are incorporating feedback from previous episode groups postings into this development process. In particular, we have provided reports to the CS

for all episode groups in their clinical area which summarize public comments received in response to the December 2016 and earlier CMS episode groups postings.

Furthermore, as of August 2017, we have convened four TEPs and continue to work to provide transparency for these stakeholder input gathering activities. The first TEP, held in August 2016, sought input on measure concepts and quality measure alignment. The second TEP, held in December 2016, discussed approaches to defining an episode group, attributing episodes to clinicians, and assigning services to episode groups. The third TEP, a webinar in March 2017, discussed the prioritization of clinical areas for episode group development and program-level alignment with quality. The fourth TEP was held August 2017, focusing on risk adjustment for the new episode-based cost measures. The TEP summary reports for the August and December 2016 TEPs have been posted on the CMS Measures Management System TEP website, and we will continue to make this documentation for TEP meetings publicly available.<sup>10</sup>

Lastly, regarding the commenters' request for information on measure specifications, we would like to note that these are currently being developed by the CS as they provide detailed clinical input on each component of the eight episode-based cost measures in this first wave of development. Once the measures are fully developed, these methodological details will be made publicly available.

### *Responsiveness*

- *Comment:* Eight commenters provided feedback on CMS's responsiveness during stakeholder input activities. Three commenters believed that their input provided through the August – September 2016 Clinical Committee had not been incorporated into the December 2016 posting, while one stakeholder was pleased that many of their suggestions were reflected in that document. Two commenters generally emphasized the need to incorporate stakeholder input, and requested that CMS both publish and respond to the comments received to clarify the issues raised by stakeholders. One stakeholder believed that their questions had not been answered throughout the process.

*Response:* We recognize the importance of remaining open and responsive to stakeholder input, and appreciate the feedback about seeing the input from the August – September 2016 Clinical Committee reflected in the December 2016 posting. The August – September 2016 Clinical Committee first provided input on the episode group names that members believed should be part of a draft list, and then provided input on the episode

---

<sup>10</sup> CMS, Technical Expert Panel, <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/MMS/TEP-Current-Panels.html>

triggers for those episode groups. This feedback from members was summarized and reconciled by CMS to reach final decisions on the content of the December 2016 posting. In some cases, not all input received was included into the posting (e.g., if only one member recommended a particular trigger code for an episode group, while others did not recommend it). We expect that in such instances, codes that had previously been suggested but were ultimately not adopted would be revisited during trigger refinement activities for the CS convening in each wave of measure development. The seven Wave 1 CS, which began activities in May 2017, for example, took on the task of reviewing episode group trigger codes from the December 2016 posting for each episode group recommended for development by members of their respective subcommittees. The members were also able to further recommend any new trigger codes for the episode group or flag any trigger code for further discussion before making final recommendations.

The shift toward CS that are each focused on a particular clinical area also facilitates greater opportunities for our breadth and depth of engagement with clinical stakeholders. Each of the seven Wave 1 CS met at an in-person meeting in June 2017 where they selected eight episode groups to focus on for development, refined episode triggers for those episode groups, and discussed episode windows and sub-groups. The CS will continue to be convened through webinars for group discussion, provide their input independently on the clinical specifications for the episode groups through a web-based Clinical Input Tool, and communicate online about measure development topics via discussion boards. We anticipate that these refinements to the measure development process, as well as future refinements made in response to feedback on Wave 1 process, will greatly improve the transparency, comprehensibility, and clinical fidelity of the episode-based cost measures under development.

As discussed above (under the topic “*Transparency*” in this section), we appreciate the interest in the feedback received as part of the December 2016 posting, as well as previous public comment periods. We believe that making this report with comments and responses publicly available, as well as the episode group-specific reports detailed under the topic “*Relationship to previous CMS episode groups postings*” earlier in this section, will provide stakeholders with greater transparency about how their feedback is being used.

#### **2.1.4 Stakeholder outreach and engagement**

##### *Stakeholder engagement activities to date*

- *Comment:* Eight commenters expressed appreciation for CMS’s commitment to engage with stakeholders in the measure development process, including providing the TEP, the



August – September 2016 Clinical Committee, and the clinical input tool for specialty societies to provide feedback on relevant episode groups. Three of these commenters believed that the process of the August – September 2016 Clinical Committee, which provided input on the draft list of episode groups and trigger codes posted in December 2016, was transparent and collaborative.

*Response:* We appreciate this feedback about our commitment to incorporating extensive stakeholder input into the development of episode-based cost measures. We welcome additional feedback on the process for gathering and incorporating stakeholder input as we proceed through this first wave of episode development, as it will help us to improve the process for future waves.

#### *Necessity of active stakeholder engagement*

- *Comment:* Eleven stakeholders expressly commented on the necessity of continuing stakeholder engagement efforts to inform the development of episode groups and to achieve greater transparency overall. Five of the commenters would like CMS to incorporate additional rounds of stakeholder feedback, especially before the cost measures are finalized. One of the commenters emphasized the need to involve stakeholders beyond specialty societies, while another would like to see CMS improve general communication with stakeholders. In addition, one commenter specifically urged CMS to refrain from adopting the episode-based framework for the development of cost measures until further stakeholder input is collected.

*Response:* We agree with commenters' emphasis on the need for continued stakeholder engagement, as it is a key feature of our measure development process. Under our development approach, the TEP will continue to provide high-level guidance throughout measure development, while CS are convened to select which episode groups to develop and make recommendations about the clinical specifications for the episode groups

We continue to seek to broaden our stakeholder engagement activities to involve stakeholders beyond specialty societies. The TEP and the CS were recruited and convened through separate Calls for Nominations, which were publicly posted on the CMS website. The Calls for Nominations were then combined with broad-based outreach efforts to ensure that stakeholders are aware of the opportunities to participate in the TEP and the CS. The TEP outreach efforts extended beyond specialty societies, including but not limited to, academia, professional organizations, non-profits, and organizations comprised of and/or representing persons and families. As such, we have a balanced and diverse range of perspectives on the TEP. The composition list for the TEP is posted on the CMS Measures Management System website and is publicly available,

along with the Summary Reports for the August and December 2016 TEPs.<sup>11</sup> One of our goals for Wave 1 of the CS was also to involve the full range of clinicians involved in treating patients with conditions within the specific clinical areas, and we conducted broad-based outreach to a range of clinical stakeholders to make them aware of the opportunity. The composition list for the seven Wave 1 CS is posted on the CMS Measures Management System website, and reflects a broad range of clinicians.<sup>12</sup>

We agree with the need to engage with the stakeholder community more broadly, and continue to provide more opportunities for such engagement. For instance, we held a Listening Session in April 2017 to provide an overview of the December 2016 posting, the measure development process, and to highlight the CS nomination period that was open at that time. This was also an opportunity for stakeholders to ask questions and provide feedback. We expect to hold further Listening Sessions and/or National Provider Calls at key points throughout measure development, such as when field testing begins.

There will also be further opportunities for stakeholders to review and provide feedback on these measures through field testing and the pre-rulemaking process. As discussed above (please see the topic “*Level of detail*” in Section 2.1.2), field testing will allow clinicians to review and provide feedback on the fully developed measures that we calculate for clinicians who are attributed episodes. We have submitted the eight episode-based cost measures that the CS have selected to develop this summer to be ready for field testing to the Measures Under Consideration (MUC) list. These measures will be reviewed by the Measure Applications Partnership (MAP) and will involve two public comment periods.

#### *Focus areas for Clinical Subcommittees and Technical Expert Panel*

- *Comment:* Eight commenters provided suggestions regarding the focus areas for the ongoing CS and the TEP. Suggestions include having the CS determine the definition of episode groups and work on risk adjustment, as well as having both the TEP and the CS to review the attribution methodologies used in the QRURs and the National Quality Forum (NQF) Attribution Principles and Approaches Project Final Report for guidance on how to attribute episodes. One commenter, however, cautioned against duplication of efforts within and across the various stakeholder engagement activities.

---

<sup>11</sup> CMS, Technical Expert Panel, <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/MMS/TEP-Current-Panels.html>

<sup>12</sup> CMS, Technical Expert Panel, <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/MMS/TEP-Current-Panels.html>

*Response:* We appreciate the suggested areas of focus for the TEP and the CS. Our measure development process is centered on gaining extensive stakeholder input, including on the focus areas suggested by commenters such as defining episode groups and developing attribution and risk adjustment methodologies.

The TEP and the CS have provided feedback to the development of the measures in some of the topic areas suggested by the commenters and will continue to offer guidance on others. The TEP has provided high-level guidance on the measure concepts and has helped to inform the approach to episode-based cost measure development as discussed under the topic “*Transparency*” in Section 2.1.3. Meanwhile, the CS have provided input on selecting episode groups for development, defining each episode group by revisiting and refining the trigger codes that were included in the December 2016 posting, and considering whether and how to create sub-groups.

We appreciate the concern about not duplicating stakeholder input activities. As outlined in this section, the activities of CS and the TEP are complementary, rather than duplicative, in nature. The TEP provides high-level guidance on measure development, while the CS provide detailed clinical input on specific episode groups, operating within the episode-based cost measure development framework informed by TEP input. Furthermore, a given episode group is only worked on by the particular CS that is focused on the clinical area relevant to that episode group. There are certain individuals who participate in both the TEP and CS, which ensures that there is a feedback loop between these two channels of stakeholder input. For instance, three TEP members serve as co-chairs of the Wave 1 CS.

#### *Process for Clinical Committee and Technical Expert Panel*

- *Comment:* Seven commenters provided feedback on the process for the August – September 2016 Clinical Committee and the TEP. Five commenters specifically approved of the TEP and the August – September 2016 Clinical Committee processes and encouraged CMS to continue working with both. However, some stakeholders noted issues with the process for the August – September 2016 Clinical Committee, which was convened to provide input on the draft list of episode groups and trigger codes for the December 2016 posting, and requested that these issues be addressed through future clinical input activities. Specifically, commenters expressed concerns about the lack of context provided for those Clinical Committee activities (e.g., lack of in-person meetings or other opportunities for discussion) and the insufficient amount of time to complete complex tasks. In addition, commenters were concerned about the time-intensive nature

of the tasks, the lack of sufficient information about how member input would be used, and the inaccurate descriptions for some of the codes that the members were reviewing.

*Response:* We appreciate the feedback on the TEP and the August – September 2016 Clinical Committee processes, and the encouragement by commenters to continue working with both. We recognize the benefit that further context, discussion, and time would have brought to the August – September 2016 Clinical Committee process. We believe our shift towards CS that are focused on developing episode groups within a particular clinical area has facilitated greater opportunities for the breadth and depth of clinical stakeholder engagement which we believe will help address the concerns raised by commenters here.

To provide context to the project to the CS members, we began activities for the Wave 1 CS in May 2017 with introductory webinars that shared project background and oriented members to the work that they would be undertaking over the summer. Later in May 2017, we held webinars focused on trigger refinement activities, the first activity for CS members. In those webinars, we provided an overview and explanation of how the CS will select episode groups for development, refine trigger codes through a web-based Clinical Input Tool, and consider options for episode sub-groups. Both webinars included opportunities for live questions and answers.

Following these webinars, the CS convened at in-person meetings in June 2017. These meetings allowed for detailed discussion during which the CS selected eight episode groups for development, deliberated which episode triggers to use for the selected episode group(s), and considered options for episode sub-groups. The CS will continue to be convened through interactive webinar-based meetings and maintain ongoing discussion through web-based discussion boards.

We will continue to do our best to maximize the amount of time for CS members to provide their input on developing these measures within the timelines required by MACRA. The feedback from the TEP has provided valuable guidance on how best to leverage CS clinical input in a time-efficient manner, such as what information is most relevant for members to consider. We sincerely appreciate the time and commitment of all the CS and TEP members in developing these episode-based cost measures, as well as the time of all stakeholders who have provided us with feedback. We also appreciate the feedback about code descriptions, and have worked with the American Medical Association to arrange the appropriate licensing agreements to use the most clinically detailed CPT code descriptions available.

As discussed above under the topic “*Transparency*” in Section 2.1.3, we also believe that making this report with comments and responses publicly available will provide stakeholders with greater transparency about how their feedback is being used.

#### *MACRA feedback and Quality Payment Program websites*

- *Comment:* Two commenters stated that the current MACRA feedback page was unclear - and difficult to navigate.<sup>13</sup> One of the commenters stated that it was difficult to distinguish the newly posted list of proposed episode groups and codes, which accompanies the December 2016 posting, from Excel files that are part of previous postings. This commenter recommended that CMS use the clearer and better-organized Quality Payment Program website for posting of all updates and stakeholder opportunities related to MIPS cost measure development.<sup>14</sup> Both commenters generally recommended that CMS streamline Quality Payment Program-related requests for information, postings for stakeholder engagement opportunities, and other relevant information and resources.

*Response:* We appreciate the interest in a more streamlined platform for obtaining MACRA-related updates and opportunities. We have conveyed these suggestions about the MACRA feedback page and the Quality Payment Program website to CMS. We also note that if stakeholders are interested in obtaining regular updates, they may be interested in subscribing to a listserv to receive updates on the Quality Payment Program.<sup>15</sup>

#### **2.1.5 Measure development timeline**

- *Comment:* Eleven commenters were concerned with the current pace of measure development, particularly given the need for further stakeholder review and input. Eight commenters recommended delaying the finalization of the episode groups until extensive testing and clinician education can take place. Two stakeholders suggested that CMS narrow down the list of episode groups for development and focus on developing these episode groups to completion before moving on to other episode groups. One commenter was particularly concerned that there would be insufficient time to properly develop episode groups before the statutory timeline for posting of the operational list of episode groups and codes by 2018.

---

<sup>13</sup> CMS, MACRA Feedback Page, <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/MACRA-MIPS-and-APMs/MACRA-Feedback.html>

<sup>14</sup> CMS, Quality Payment Program, <https://qpp.cms.gov/>

<sup>15</sup> CMS, Quality Payment Program, “Subscribe to Updates,” <https://qpp.cms.gov/>

*Response:* We appreciate the commenters' concerns regarding the timeline for measure development, and agree with the importance of testing and clinician education in the implementation of the cost measures. We believe that the wave-based approach we are taking to measure development will address these concerns while still balancing statutory timelines. Under this approach, CS are convened in waves which stagger the start of episode group development across different clinical areas. Each wave would have a number of Subcommittees developing 1 to 2 episode groups each, and they would share the same "kick-off date" for episode group development. As part of Wave 1, eight episode groups were selected for development by seven CS, and field-testing and further clinician education will take place regarding these eight measures prior to measure implementation (for more information on the first wave of the CS, please see our response under the topic "*Level of detail*" in Section 2.1.2.). Convening CS in waves where we stagger the start of the episode group development by clinical areas, will encourage continuous clinician engagement and create a feedback loop that allows for the lessons learned in each wave to be applied to future waves.

As discussed above, there will be continued opportunities for stakeholder review and input through field testing and the pre-rulemaking process (please see the topic "*Level of detail*" in Section 2.1.2.). In addition, we will continue to educate and engage broadly with stakeholders, and expect to host a listening session to introduce clinicians to the feedback reports that will be shared with them as a result of field testing and highlight the opportunity to provide feedback on the episode-based cost measures.

## **2.2 Defining an Episode Group**

### **2.2.1 Episode group selection criteria [relates to Q1]**

- *Comment:* Two commenters expressed general support for the proposed episode groups while thirteen commenters highlighted or suggested additional criteria for episode group selection. These suggestions are outlined in the following subsections.

#### *Suggested addition of feasibility as a selection criteria*

- *Comment:* Six commenters urged CMS to more greatly consider feasibility in the measure development process by adding feasibility as a criteria for episode group selection. These commenters suggested prioritizing procedural episode groups for well-studied conditions and established care processes, with high-volume, homogenous patient populations for statistical validity, and easy-to-define episode group elements (e.g., triggers, windows) and rules (e.g., attribution). One additional commenter suggested starting with episode groups already developed for the Supplemental QRURs, which may

have stronger definitions and more available background information, to increase feasibility for the CS.

*Response:* We agree that feasibility is an important consideration in selecting episode groups for development; this is a factor that the Wave 1 CS members have taken into consideration when selecting episode groups for development during their in-person meeting discussions so far. Through their discussions, CS members weighed feasibility concerns alongside other factors they felt were important beyond the prioritization criteria that were recommended by the TEP. Many of these factors suggested by CS members included the types of suggestions raised by commenters, such as focusing on episode groups targeting procedures and/or well-studied conditions and established care processes, with episode group components that are easy-to-define. We believe that discussion eliciting this type of feedback was extremely valuable in informing CS members' episode group selection decisions and will continue to ensure there are adequate opportunities for such dialogue when additional episode groups are selected again by CS in the future.

#### *Opportunity for improvement as a selection criteria*

- *Comment:* Three commenters expressed specific support for the “opportunity for improvement” criterion, while a fourth stated this criterion cannot solely be measured in cost variation and should not be used without more appropriate benchmarking. One of these commenters urged CMS not to omit episode groups where quality is high and spending is low to ensure continuation of good care.

*Response:* We appreciate the support for the “opportunity for improvement” criterion, and agree that cost variation in isolation will not capture all aspects of this criterion, as clinical practice must also be considered. Reviewing the episode groups and trigger codes from the December 2016 posting, the CS have prioritized certain episode groups for development by leveraging their expertise and considering opportunity for improvement from a broader perspective than cost variation alone. Drawing on their clinical knowledge, they considered a range of factors such as room for improvement in delivering quality care.

We share commenters' interest in ensuring the continuation of high-quality care. The TEP has discussed aligning cost with quality in the August 2016 and March 2017 meetings. In addition, we provided the CS with quality alignment reports (as discussed in the response under the topic “*Issues requiring further development*” in Section 2.1.2) which they could use when deciding which episode groups to prioritize for development or when refining episode triggers.

### *Share of Medicare expenditures as selection criteria*

- *Comment:* Two commenters expressed specific support for criteria based on share of Medicare expenditures, with one stating that episode groups in high-cost settings (e.g., hospitals, surgical centers) should be developed as a pilot for clinician-focused episode groups. Conversely, a third commenter stated that a criterion based on Medicare expenditures over-targets certain medical specialties and that CMS should develop measures for all specialties.

*Response:* We appreciate the support for taking into account the share of Medicare expenditures when considering which episode groups to develop. We note that this is just one of many criteria that the CS can consider when selecting episode groups to develop; the approach of members deciding this at in-person meetings facilitates greater communication and collaboration so that all relevant criteria raised by a broad range of clinicians within a clinical area could be considered in the selection process.

With regard to the related concern of over-targeting certain medical specialties, Wave 1 of measure development includes CS for each of the following clinical areas: (i) Cardiovascular Disease Management, (ii) Gastrointestinal Disease Management, (iii) Musculoskeletal Disease Management, (iv) Neuropsychiatric Disease Management, (v) Ophthalmologic Disease Management, (vi) Peripheral Vascular Disease Management, and (vii) Pulmonary Disease Management. These seven CS were chosen from a set of 18 potential clinical areas based on the two broad criteria of potential for alignment with quality metrics and degree of impact, with the latter measured by cost coverage, beneficiary coverage, and clinician coverage. All of the clinical areas chosen were identified as having high potential for quality alignment. In terms of impact, these clinical areas represent seven of the eight clinical areas with the highest share of Medicare expenditures and seven of the nine clinical areas with the most episodes. Lastly, these clinical areas cover 17 unique clinician specialties, and represent six of the ten areas with the largest number of unique TIN-NPIs who were attributed an episode, using a 20-episode case minimum. Additionally, for each CS, we sought to include the full range of clinicians involved in providing care throughout the episode, including clinicians other than physicians. For example, the Cardiovascular Disease Management Subcommittee included a nurse practitioner and a physical therapist, in addition to anesthesiologists, cardiologists, thoracic and vascular surgeons, geriatricians, and hospitalists. We expect that through later waves of development, episode groups in clinical areas involving an even broader range of clinicians and specialties will be developed.



### *Minimum utilization thresholds as selection criteria*

- *Comment:* Two commenters recommended minimum utilization thresholds to exclude rare episode groups from development, with one commenter stating that it would be difficult to set benchmarks if the frequency of episodes was too low.

*Response:* Regarding the concern over developing rare episode groups, we note that the CS members select which groups to develop and in doing so, can weigh all selection criteria mentioned here in their decision-making (e.g., share of Medicare Part A and B spending and opportunity for improvement), as well as insights from their clinical knowledge and experience. The criterion of degree of clinician coverage in particular addresses this concern, as the CS examined the episode groups in their clinical area which would have the greatest number of clinicians with 20 or more episodes, along with other related metrics such as the episode count and number of TIN-NPIs attributed the episode group nationally. Using this information to guide decision-making, the CS took into account the impact of episode groups on clinicians and beneficiaries when selecting episode groups. Additionally, while this approach provided an initial way of removing rare episode groups and ensuring that there are an adequate number of cases for each episode group overall, it should also be noted that clinician-level case minimums will be identified through measure testing in order to ensure the statistical validity of the cost measures based on each selected episode group.

### **2.2.2 Clinical areas and new episode groups for development [relates to Q1]**

#### *Episode groups for clinical specialties*

- *Comment:* Five commenters expressed concern at the current lack of episode groups for particular specialties (specifically for anesthesia, neurologic sub-specialties, otolaryngology, hematology, and radiation oncology). Similarly, five commenters expressed confusion about how certain types of clinicians would be scored if current episode groups did not specifically apply to their specialties. These included otolaryngologists, neurologists, hematopoietic cell transplantation clinicians, infectious disease clinicians, and non-physician clinicians like audiologists, speech-language pathologists. Commenters expressed concern that clinicians would not be able to meaningfully participate in the Quality Payment Program or would be unfairly measured using episode groups not developed specifically with them in mind.

*Response:* We appreciate the interest in ensuring clinicians across a variety of specialties will be able to meaningfully participate in the Quality Payment Program. With regard to the concern over the current lack of episode groups for certain specialties, we are using an iterative wave-based approach for episode group and measure development (for more

discussions on the waves approach of measure development, please see our response under topic “*Level of detail* in Section 2.1.2. and our response in Section 2.1.5). Through these waves of CS activities, we aim to gather input from the full range of clinicians involved in providing care relevant to a particular clinical area. This will ensure that their input is incorporated throughout measure development so that the role of each type of clinician in patient care is accurately reflected in measure specifications.

#### *Other considerations for new episode groups for development*

- *Comment:* More generally, one additional commenter encouraged the development of high-cost chronic condition episode groups, while another encouraged development of high-volume and high-variation conditions (e.g., lung procedures and obstetrics/gynecology procedures).

*Response:* We appreciate the suggestions for new episode groups to develop, and note that these considerations can be taken into account by the CS who select which episode groups to develop.

With regard to the suggestion on chronic condition episode groups, chronic conditions were not part of our initial wave of episode-based cost measure development, in particular because of the unique challenges inherent in creating rules for attribution and episode windows for conditions requiring ongoing management. Given these challenges, we intend to convene a future TEP focused on chronic condition episode groups to provide guidance that will be used to inform any subsequent CS activities involving chronic condition episode group development.

The suggestions about focusing on high-volume and variation are similar to the prioritization criteria described in the December 2016 posting, such as Medicare expenditure share and opportunity for improvement. Episode groups that constitute a larger share of Medicare Parts A and B expenditures generally either have high per-episode costs and/or high volume. Furthermore, drawing on their clinical expertise, the CS are also considering which episode groups have the greatest opportunity for improvement, based on potential improvement in quality of care and/or expenditures associated with that care.

### **2.2.3 Use of claims data to define episode groups**

#### *Sufficiency of claims data in cost measure calculation*

- *Comment:* Seven commenters stated that the current approach of using claims data for calculating cost measures will not provide sufficiently accurate or reliable information on care delivery or clinical risk, with one commenter urging CMS to develop new codes

specifically for identifying episode groups and other commenters stressing the importance of minimizing layers of complexity in medical claims and codes.

*Response:* We appreciate your feedback and interest in ensuring the accuracy and reliability of information on care delivery and clinical risk. With regard to specific concerns about claims data, CMS believes that an advantage of using claims data is that it creates no additional reporting burden for clinicians, which greatly increases the feasibility of calculating and reporting episode-based cost measures.

An underlying concern reflected in comments about the use of claims data is minimizing layers of complexity in medical claims and codes. To address this concern, we will make fully transparent the logic embedded in the use of claims data to trigger episodes, assign services to episodes, and attribute episodes to clinicians. Under this approach, at the time services are rendered to patients, clinicians would know that an episode is being triggered because certain medical codes that serve as the episode triggers for the episode group have been billed. Based on the episode group specifications, the attributed clinician would then be able to fully understand the timeframe during which he or she would be held accountable for certain costs that are considered clinically related to the patient's treatment. The specific services and/or diagnoses that are assigned to episode costs are fully identifiable via lists generated through extensive clinical input that exist as a part of the publicly posted measure specifications. This approach stands in contrast to other possible approaches for constructing episode groups, where complicated algorithms govern when an episode is triggered and what is assigned to episode costs. With such alternative approaches, it may be impossible for a clinician to understand at the time of service whether an episode is being triggered, and in the event that one is triggered, what costs will count toward the episode.

With regard to concern over accurate and reliable information on clinical risk, we will use risk adjustment in the construction of cost measures. Risk adjustment is one approach to facilitate fair and accurate comparisons of clinical outcomes, such as costs, across clinicians. This approach adjusts for factors outside clinicians' control which can influence cost. We gathered input from an August 2017 TEP focused on risk adjustment. The recommendations of this TEP provide guidance for the Wave 1 CS which will provide input on the risk adjusters that are clinically relevant to each episode group under development.

#### *Use of existing claims data under MACRA*

- Comment: One commenter stated that the overall approach of using existing claims data and codes fails to meet the statutory requirements in MACRA. The commenter went on to state that the MACRA statute requires the creation of new codes specifically for use in

episode-based cost measures as billing codes were never meant to accurately depict the nature of healthcare events as they occur. The commenter suggested that new codes would allow CMS to more accurately understand the relationships among services a patient receives instead of trying to determine these relationships retroactively.

*Response:* We agree that it is important to accurately capture the relationship among services a patient receives. Additionally, we recognize the shortcomings with current claims data in identifying specific aspects of patient conditions that may be relevant in evaluating clinician performance (e.g., cancer staging), and believe that obtaining additional input to remedy these shortcomings would be useful.

Nevertheless, claims data in many cases can be used to infer important aspects of a patient's conditions and of the appropriateness and quality of care. For instance, many quality measures used by CMS to evaluate clinician performance are calculated based on claims data alone. Claims data can thus serve as an appropriate starting point for meeting the constraints of the current statutory timelines. In the longer term, additional data sources could potentially be utilized in the construction of episode groups.

Additionally, to the point about retroactive determination of relationships among services, there are two major types of episode grouping approaches in existence: (i) an illness progression approach, which accumulates all services relevant for management of a patient's care and then ex post looks back to determine which clinician should be assigned the episode and identifies which services to assigned to it; and (ii) a clinician role approach, in which services associated with the care a clinician provides in managing a patient are accumulated. In the latter approach – adopted by Acumen based upon input from the TEP – the clinician attributed the episode is discernible at the time the service is rendered, given clear rules to identify the attributed clinician based upon the clinician(s) performing the trigger service. Moreover, the clinician knows – at the time the episode begins – the list of the services that will be assigned to the episode if they are billed during the episode window. Our approach to episode attribution and grouping thus overcomes the retroactivity problem inherent in other episode grouping approaches. In the future, patient relationship codes could potentially also be incorporated into the attribution approach after analysis and testing.

Lastly, CMS is cognizant of the need to limit any additional burden associated with measures developed for potential use in the Quality Payment Program, both for clinicians who must learn how to engage with the measures, and for CMS, which must allocate resources to develop the new system. By relying on an existing coding system with well-known procedure and diagnosis codes to identify episode triggers, CMS is avoiding the significant burdens associated with creating a new coding system, both from the

development perspective and from the perspective of clinicians, who would need to devote time and resources to learning the new coding system. If CMS were to design an episode-based cost measure system which relies on a new coding system to identify episode triggers rather than on existing procedure and diagnosis codes, this would represent a significant burden, both from the development perspective and from the perspective of clinicians, who would need to devote time and resources to learning the new coding system. At the same time, these costs must be weighed against the need for information necessary for the construction of clinically valid, reliable, and actionable cost measures. While claims provide valuable information on costs, diagnoses, procedures, and billing clinician, more detailed context on the relationship of a given clinician to his or her patients is information which is not captured in claims data. Given these considerations, CMS created the patient relationship categories and codes, as an effort to balance the need for some additional new information in claims data while avoiding the creation of an entirely new coding system. This was done with as much stakeholder feedback as possible to ensure the codes are accurate, undergoing multiple rounds of feedback and revision, and were proposed in the CY 2017 Physician Fee Schedule Proposed Rule for further public comment.

#### *Accuracy of claims in reflecting clinician roles*

- *Comment:* One commenter stated that “incident to” billing forces clinicians like physician assistants and nurse practitioners to be hidden, leading to incorrect depictions of clinician performance while another stakeholder expressed concern over the ability to only report one attending physician and one primary surgeon on hospital claims.

*Response:* We appreciate the concern over the effects of “incident to” billing. To address this issue, we have sought and will continue to seek input through the CS and TEP from the full range of clinicians involved in providing care relevant to a particular clinical area, including physician assistants and nurse practitioners. This will help to ensure that their input is incorporated throughout measure development so that episode groups capture the full range of services involved in treatment for a particular condition or procedure. Furthermore, in addition to the CS work, we plan to hold additional discussions with subsets of specialties involved in the various aspects of care of medical treatment in a given clinical area. Through these discussions, we hope to explore ways to most appropriately capture the role of these types of clinicians, for whom episode construction and attribution is less straightforward by constructing episode groups and cost measures designed around their role in patient care.

With regards to the second point about only being able to report one attending physician and one primary surgeon, our approach is to use information for attribution from the

Performing NPI field on Part B Physician/Supplier claims to the greatest extent possible. Under this approach, the one or more clinicians billing the episode triggers could be attributed the same episode, with that episode separately entering each of their cost measure calculations (e.g., both a main surgeon as well as an assistant surgeon, who each separately file Part B Physician/Supplier claims for the same HCPCS/CPT trigger code with their NPIs listed as performing physician, could be attributed the same episode). Furthermore, it is also possible to design multiple episode groups to reflect the role of different clinicians through a patient's care trajectory and their varying roles in managing patient care pre-and post-trigger. For further details, see the definition of "Overlapping Episodes" in Section 1.1. Additionally, in spring 2017 CMS released an operational list of patient relationship codes. If finalized for the Quality Payment Program, we and the CS can examine how these might be used in attribution in conjunction with other information available on Part B Physician/Supplier claims.

*Services not payable through fee-for-service payment programs*

- *Comment:* Beyond the concerns outlined above, one commenter stated that claims data would not easily recognize services not payable through fee-for-service payment programs (e.g., care coordination) which should be addressed by soliciting stakeholder input on how to identify and value those services.

*Response:* We appreciate stakeholders' suggestion to solicit further input on identifying services outside of the fee-for-service program. One manner in which this concern may be addressed is through the alignment, where possible, of episode-based cost measures with quality metrics. If services not directly payable through fee-for-service payment programs do improve aspects of care delivery, then this may be reflected in improved quality metrics reported by clinicians.

## **2.2.4 Approach to episode group development**

*Iterative methodology for episode group development*

- *Comment:* Four commenters advocated for an iterative approach to ensure that cost measure components (e.g., attribution, risk adjustment) are fully aligned with each other, changes in standards of care or new treatments are continuously integrated, and stakeholder input is included at each stage to ensure measure validity, clinician acceptance and understanding, and alignment with best practices.

*Response:* We agree with commenters' suggestion of using an iterative approach to help ensure that episode-based cost measures are valid, clinically accepted and understood, aligned with best practices, and have aligned components. More generally, we also believe these goals are supported by the use of a process which is efficient and

streamlined, and which leverages insights from stakeholders. With regard to iteration in particular, as discussed in our response in Section 2.1.5, we are conducting episode group development in multiple waves, which allows us to leverage learnings from earlier rounds of development in subsequent periods. Our process is also efficient in that we facilitate communication and collaboration between CS within a wave, allowing CS to leverage insights and best practices shared by peers working simultaneously in other clinical areas.

Another major aspect of our process which supports all of the objectives raised by commenters is the gathering of extensive stakeholder input through a variety of forums, including public comments, a listening session, TEP, and detailed input from clinicians involved with the Clinical Committee and CS. In order to bolster clinician understanding, we plan to conduct field testing of newly developed measures in the fall of 2017 (please see our response under the topic “*Level of detail*” in Section 2.1.2). To promote transparency in particular, we rely on public comment summary reports such as this one, to summarize the feedback received from the public in response to our work, for example the December 2016 posting of draft episode groups and triggers, and to be responsive to that feedback. Drawing on feedback from field testing and public comments, we will work collaboratively with the CS to iterate and improve upon previous work.

To ensure that changes in standards of care or new treatments are factored in, after measures are developed, we will follow the CMS Measures Management System for maintaining and re-evaluating measures. This could include refining specifications to reflect updates in clinical knowledge or practice.

Related to this, our approach focuses on ensuring that clinicians receive actionable, up-to-date information; this will in turn facilitate overall clinician acceptance of and engagement with the measures. Prioritizing a limited number of episode groups for development within a wave permits us to devote time and resources within the statutorily mandated timeframe to ensuring the measures are developed carefully and through a process that is transparent to clinicians and other stakeholders. In particular, the CS represent our commitment to gathering extensive clinical input from a broad group of clinicians. The CS incorporate 148 members, affiliated with a total of 98 professional societies. In addition, through field testing which will be conducted this fall, we will be privately reporting performance on cost measures to clinicians, and subsequently gathering and incorporating feedback on the design of reports in order to ensure their utility for clinicians (please see the topic “*Level of detail*” in Section 2.1.2). Finally, in order to ensure clinicians aware of the cost measures and their reporting format, we will

conduct significant education and outreach activities before consideration of the potential implementation of the cost measures in the MIPS cost performance category.

#### *Use of other grouping approaches*

- *Comment:* One commenter stated that in developing episodes, CMS should utilize existing “quality groupers,” such as ACR’s Rheumatology Informatics System for Effectiveness (RISE) Registry recognized by CMS as a Qualified Clinical Data Registry (QCDR).

*Response:* In developing specifications for the episode groups, the CS can discuss the features of existing QCDRs with which they are familiar and, if they choose, incorporate elements from these products such as those suggested by commenters. In doing so, the CS may also decide to place emphasis on aligning cost measures with quality measures, such as those which leverage data from registries like ACR’s RISE product.

## **2.2.5 General approach to defining an episode group**

#### *Validity, fairness, and clarity of cost measures*

- *Comment:* Seven commenters expressed concern that cost measures may not be meaningful, accurate, or hold individual clinicians accountable in fair and reliable ways. Commenters emphasized clinical acceptability and transparency, with three commenters stressing the need to ensure development decisions for each episode group are made with research using a high volume of cases to ensure statistical significance. One of these commenters stressed the importance of balancing the goals of developing clinically homogenous episode groups (with comparable complex, cost, and patient outcomes) with the ability to collect a sufficient number of cases to achieve statistical validity. Finally, one stakeholder stated that additional evidence would be required to supplement the clinical input which is in itself inadequate to guide measure development.

*Response:* We believe cost measures will be meaningful because they are being developed with expert clinical input covering a wide range of clinicians involved in the delivery of care for each episode group combined with in-depth empirical analyses. Additionally, our approach is focused on providing actionable information to clinicians so that they can provide high quality, cost-efficient care to patients.

In particular, we note several aspects of our measure development approach that will help achieve the goals raised by commenters. First, with input from the TEP and CS, we are working to develop more transparent and clinically meaningful attribution rules which recognize the specific role of a clinician in caring for a patient and assign only services under the influence and responsibility of the attributed clinician. Second, a clinician will know at the time of rendering a service whether an episode has been triggered, as well as



knowing the length of the episode window, and can reasonably and fairly be expected to influence the costs of the episode. Third, in selecting episode groups for development, the CS considered whether episode groups had a high potential for alignment with quality, along with other criteria. Where feasible and appropriate, the alignment of cost measures with quality can also make the former more meaningful, by guiding clinicians in achieving greater value.

Additionally, we are following one commenter's suggestion of balancing the goal of developing clinically homogenous episode groups with the need for episode groups with a sufficient number of cases to ensure statistical reliability. Once measures are fully developed, testing will be conducted to develop case minimums. This will help to ensure that statistically reliable cost measures can be generated for all attributed clinicians, and that the measures are fair and accurate. Relatedly, in terms of creating clinically homogenous episode groups, detailed CS input is being sought to determine whether any episode sub-groups should be created, and if so, how best to specify them and use them in the calculation of the episode-based cost measure.

#### *Preservation of access and quality of care*

- *Comment:* Six commenters stressed the importance of preserving quality and access to care, with two commenters suggesting a more holistic, patient-centric approach which takes into consideration patient preferences, and aligns more with team-based care and the goals of primary care. Commenters also focused on preserving access and quality by minimizing the risk to clinicians of being penalized for providing needed care. Suggestions to mitigate this risk include modifiers for unplanned but needed care, exclusions for complications excluded from quality measures, alignment with defined care models, and considerations for high-variation specialized care and innovative or emergent care.

*Response:* We share commenters' interest in ensuring that patients are able to access high-quality care. We have worked closely with a wide range of stakeholders throughout the measure development process to ensure that we consider, and as far as possible, mitigate against potential unintended consequences. There are five main ways in which our measure development approach preserves access and quality of care.

First, the specification of episode groups and trigger codes are developed with extensive clinical input from CS. This ensures that the episode-based cost measures provide a fair and meaningful assessment of clinician performance for clinically similar groups of patients. For instance, CS activities include members refining the draft episode group trigger codes based on their clinical knowledge and experience to create clinically homogenous episode groups and episode sub-groups, where appropriate. By having

clinically homogenous patient cohorts, the measures are able to fairly compare clinician performance in furnishing services to clinically similar patients.

Second, service assignment rules are developed with extensive clinical input, ensuring that clinicians are appropriately held accountable for services that they can reasonably be expected to influence or control. Through developing service assignment rules, the CS can consider whether episode group-specific complications, unplanned, or specialized care should be assigned to the particular episode group. This reduces the risk of clinicians being penalized for providing necessary care, and helps to create incentives for the attributed clinician to deliver and coordinate high quality care.

Third, the risk adjustment models developed by CS take into account patient health circumstances that affect episode costs but are outside of the control of the attributed clinician. This risk adjustment approach helps ensure that clinicians are not discouraged from treating patients with high care needs. The TEP convened in August 2017 provided input to guide the development of a thorough and robust approach to controlling for cost differences which are beyond the control of clinicians. The guidance produced by the TEP will help inform the CS in providing input on risk adjustment models tailored to their individual episode groups.

Fourth, quality alignment with cost measures has been a major point of discussion throughout the measure development process. We have worked with stakeholders on quality alignment in the August 2016 and March 2017 TEPs. Furthermore, as part of the CS activities, members will consider the potential for quality alignment in their deliberations about which clinical areas and episode groups to prioritize for development.

Fifth and finally, there are a range of program-level strategies that CMS could explore to ensure that access and quality of care are preserved. These strategies could be applied across MIPS to ensure a consistent approach to recognizing that there may be a range of patient or other factors affecting cost that are outside the control of clinicians.

We agree with keeping the overall focus of an episode-based cost measurement system on incentivizing better care and smarter spending. Our approach keeps the focus on improving patient care, as our goal is to develop measures and reports containing measure score information which will provide actionable information to the clinicians involved in providing services. In addition, the approach of allowing overlapping episodes is a way of ensuring that the full range of clinicians involved in providing services to a given patient is appropriately held accountable and incentivized to improve care coordination.

Furthermore, in response to keeping up with the goals of primary care, we want to note that we are currently focusing on developing procedural and acute inpatient medical condition episode groups, as development of these episode groups are more straightforward and present less challenges than chronic condition episode groups. We intend to convene a future TEP to discuss chronic episode groups, and a future CS who will be working on the development of chronic episode groups will be able to leverage learnings from previous work on other episode group types.

*Additional considerations for approaches to defining episode groups*

- *Comment:* Beyond the general comments presented above, four commenters had more specific suggestions about CMS’s approach to defining episode groups. These comments are outlined below:
  - One commenter suggested adapting an approach common in APMs that defines episode groups in terms of phases of care with separate cost measures and payment amounts for each phase, which are then further divided into categories based on patient need.
  - One stakeholder stated that when treatment is truncated, costs for those episodes should be measured distinctly from non-truncated episodes.
  - Finally one stakeholder noted the statement “episode groups focus on clinical conditions requiring treatment” is incorrect as many patients (e.g., palliative care patients) have clinical conditions that do not require treatment but instead necessitate active monitoring or support.

*Response:* Thank you for your comments and suggestions, many of which relate to episode group definition. The CS can take these into consideration as they continue to develop and refine episode groups. With regard to the suggestion of adapting the APM approach of defining episode groups in terms of phases of care, one way to translate this conceptual approach into the context of episode groups in MIPS is to create separate episode groups for different types of care for a given condition. As an example, consider a patient with congestive heart failure (CHF). The outpatient management of this patient’s condition by her primary care physician could trigger the occurrence of a chronic condition episode. If this same patient is hospitalized for an acute exacerbation of her CHF, with her care managed by an attending cardiologist, this could trigger a separate acute inpatient medical condition episode for CHF which overlaps with the chronic condition episode. These two episodes would capture different “phases” of care for the patient, with some services potentially being shared across the two episodes. (For more information on overlapping episodes, please see the definition in Section 1.1, and

the accompanying figure.) Lastly, we acknowledge the concern regarding patients who require active monitoring or support rather than treatment. We will encourage the CS to take this into consideration throughout the measure development process. For example, we may draw on input from clinicians who provide palliative care or other non-treatment services to select and define episode groups designed to capture management for this type of care.

#### *Episode group classifications (acute vs. chronic; procedural vs. condition)*

- *Comment:* Three commenters questioned how CMS would make difficult distinctions between acute and chronic events (e.g., acute events complicating chronic diseases versus chronic disease exacerbations) or classify “episodic” conditions like cancer which are neither acute nor chronic.

An additional stakeholder noted that decisions to develop episode groups around a discrete procedure versus a condition should be on a case-by-case basis.

*Response:* We appreciate the interest in these key choices faced in episode group construction. With regard to distinctions between acute and chronic events, for example when patients experience acute complications of chronic diseases, this situation can be addressed through the use of overlapping episodes for acute inpatient medical conditions and chronic conditions. Please see the response which discusses the example of a patient with CHF under the topic “*Additional considerations for approaches to defining episode groups,*” earlier in this section. Additionally, with regard to the challenges of classifying episode groups as acute or chronic and of capturing costs for the treatment of chronic disease exacerbations, as mentioned under the topic “*Other considerations for new episode groups for development*” in Section 2.2.2, we are planning to hold a TEP at a future date, which will be focused on episode development for chronic conditions. This TEP will consider criteria for identifying episodes which are chronic in nature. Lastly, given the complexity of developing episode-based cost measures for the treatment of cancer and other “episodic” conditions which may be difficult to classify as acute or chronic, we will be seeking further stakeholder input through the CS.

### **2.2.6 Episode triggers**

#### *Scope of episode groups and appropriateness of CPT codes*

- *Comment:* Seven commenters expressed concern that the draft episode groups are generally too broad and should be more specific and homogenous to facilitate fair and accurate comparisons. In contrast, one stakeholder believed that some episode groups were too narrow, and others were too broad. Three commenters expressed concern that patient heterogeneity within the December 2016 posting codes may compromise episode

comparability. Two additional commenters reported that the Clinical Committee reviewed CPT codes with incorrect descriptions leading to misclassification of costs, while another commenter stated that the CPT codes in the proposed measures indicated clinically inappropriate trigger events. Finally, an additional commenter believed certain clinicians may be less familiar with CPT terminology and codes, and urged the use of evaluation and management (E&M) codes instead.

*Response:* We acknowledge commenters' concerns regarding fair and accurate comparisons within a given episode group and believe our approach addresses the issues with the draft list of episode groups. Each wave of CS will first focus on refining the episode groups and trigger codes included in the December 2016 posting. CS members may also recommend that certain episode sub-groups be developed. Through this process, CS members are able to remove or add certain trigger codes from those included in the December 2016 draft list based upon their clinical discussions and consensus. For example, Wave 1 CS members extensively discussed the episode triggers for their selected episode groups during an in-person meeting in June 2017 and voted as a group on their recommended list. During the same meeting and through subsequent webinar-based discussions, CS members suggested various episode sub-groups which Acumen then analyzed. With regard to patient heterogeneity and episode comparability, we acknowledge that this as an important issue, which at the same time must be balanced with the need for a sufficient number of episodes to ensure statistical reliability of cost measures. While this is partially addressed through CS members' considerations of episode triggers, the CS are also exploring other options to address this issue, including through the development of episode sub-groups where appropriate. We also appreciate the feedback about code descriptions, and have worked with the American Medical Association to arrange the appropriate licensing agreement to use the most clinically detailed CPT code descriptions available.

#### *Considerations for increased trigger accuracy*

- *Comment:* Four commenters noted the difficulties of determining triggers from existing codes and had suggestions for increased accuracy including the creation of codes specifically for triggering episodes, using two-prong triggers (e.g., a treatment planning code and a diagnoses code as in APMs), and basing triggers only in diagnoses established pathologically or radiologically.

Another commenter stated that Current Procedural Terminology (CPT) and International Statistical Classification of Diseases and Related Health Problems, 10th revision (ICD-10) trigger codes should recognize various professionals involved. For example, ICD-10 trigger codes should be expanded to allow a "treating" diagnosis instead of or in addition

to a medical decision for the inclusion of therapists (e.g., in rehabilitation episodes), especially in cases where the two codes may differ and therapist codes may provide further information about the patient or episode. Finally, one commenter noted that cancer episodes should be triggered based on drug initiation.

*Response:* We appreciate these specific suggestions regarding the development of trigger codes. As mentioned in our response under topic “*Scope of episode groups*” earlier in Section 2.2.6, each wave of CS will first focus on refining the episode groups and trigger codes included in the December 2016 posting, and will discuss the addition or removal of certain trigger codes from that draft list. As a part of these discussions, CS members consider what type of information should be used to trigger an episode. We will continue to work with the CS who have requested empirical analyses to aid in their decision-making process when approaching trigger refinement activities.

#### *Further details needed*

- *Comment:* Six commenters asked for more detail on the ICD-10 trigger codes for chronic condition episode groups broadly (e.g., specific ICD-10 codes associated with all episode groups), how those codes are used in multi-trigger methodologies (e.g., triggers relying on chronological order) and trigger rules more generally, and what codes will be used for specific chronic conditions like rheumatoid arthritis (i.e., what triggers will be used after initial 6 months of treatment).

*Response:* We appreciate commenters’ interest in more details on trigger codes for chronic condition episode groups. As mentioned in our response under the topic “*Other considerations for new episode groups for development*” in Section 2.2.2, these topics and other subjects relevant to the development of chronic condition episode groups will be addressed as part of a TEP to be held in the future.

### **2.2.7 Approaches for determining episode sub-groups [relates to Q11]**

#### *General approach for defining sub-groups*

- *Comment:* Seventeen commenters expressed general support for the use of sub-groups to define more homogenous patient populations for meaningful comparisons. Four of these stakeholders stated that the process of creating these sub-groups should be iterative, transparent, and based in stakeholder collaboration, with a focus on clinical specificity, actionability, validity, and statistical reliability.

*Response:* We appreciate the support for the use of sub-groups to define more homogenous patient populations. The CS will explore particular clinical situations where sub-groups might be an appropriate strategy for creating more clinically homogenous patient cohorts within their selected episode group. Where sub-groups are appropriate,

we will approach their development through iterative, collaborative discussions with CS members, with the goal of creating clinically specific, actionable, valid, and statistically reliable sub-groups.

#### *Sub-group criteria*

- *Comment:* Eleven commenters suggested options for defining sub-groups, including clinical specialties, site of service, inpatient reimbursement methodology, symptomology, underlying cancer or other complication, procedural complexity, disease progression, drugs used (i.e., Medicare Part B vs. Part D), and whether procedures are diagnostic or interventional.

*Response:* We appreciate your feedback. The CS can explore the use of these options as they consider the development of episode sub-groups for each episode group.

#### *Specific considerations for defining sub-groups*

- *Comment:* One commenter cautioned that too many sub-groups could compromise statistical validity, while another recognized this concern but stressed that combining dissimilar patients for measure purposes may compromise statistical validity with uncontrollable variance and reduced reliability of the episode-based cost measure. Furthermore, one commenter cautioned that dividing patient populations into too many narrow sub-groups may undermine the cost measure's effectiveness and result in a "slippery slope back to fee-for-service."

*Response:* We appreciate your feedback. With regard to the statistical validity of cost measures and related considerations such as the clinical homogeneity of episode groups, please see our discussion under the topic "*Validity, fairness, and clarity of cost measures*" in Section 2.2.5. Secondly with regard to the concern over the "slippery slope back to fee-for-service," we acknowledge that episode groups which capture cost variation are essential to developing cost measures which can incentivize clinicians to improve quality and control costs. Given this, we recognize that the development of too many small sub-groups could contravene the purpose of episode-based cost measure development. For this reason, we are performing analyses on all recommended sub-groups to ensure that there is an adequate number of cases on each one.

#### **2.2.8 Episode window**

- *Comment:* Two commenters expressed concern that episode windows that are too short would penalize clinicians for providing care that is initially more expensive but have long-term benefits for both cost and patient outcomes, especially for chronic condition episode groups. An additional two stakeholders stated that more detail should be shared about episode windows.

*Response:* We appreciate your feedback and will provide details on episode windows, as well as other components of the episode-based cost measures, when they have been specified by the CS. We acknowledge your concern over episode window length and aim to set episode windows that capture the tradeoff between spending on initial treatment and follow-up care and/or complications. To facilitate this, we will be gathering input from the CS and supporting their discussions with relevant empirical analyses. For example, we plan to provide analyses which examine Medicare Part A and B acute inpatient and procedural costs and service frequency over time, including data for the pre-trigger and post-trigger periods. When we begin work on developing chronic condition episode groups, we can also perform similar analyses where applicable.

### **2.2.9 Overlapping episodes**

- *Comment:* Three commenters expressed concern that overlapping episodes would result in double counting costs. Another commenter suggested minimizing overlapping episodes to avoid inflation or double counting of costs attributed to clinicians, especially for patients with chronic conditions and multiple comorbidities. This commenter also stressed that rules for overlapping episodes should be transparent to all clinicians. An additional commenter wanted more information on overlapping episodes (e.g., how costs are assigned; how episodes are weighted; and how costs are calculated and scored), especially in cases where both episodes may be within the same clinical area.

*Response:* We acknowledge your concerns regarding overlapping episodes. For a discussion of overlapping episodes, including how costs are assigned and why overlapping episodes do not lead to double-counting, please see the glossary of key terms contained in Section 1.1 and the discussion of overlapping episodes. With regard to how episodes are weighted, overlapping episodes are calculated as part of separate cost measures. While cost measures can be calculated in a variety of ways, one fairly typical method uses a simple average of the ratio of observed to expected costs across all episodes in a given episode group, which would not involve any weighting.

### **2.2.10 Exclusions**

- *Comment:* Three stakeholders mentioned episode exclusions that might be taken into consideration. Their suggestions are outlined below:
  - One commenter proposed clinician exclusions based on a minimum number of diagnosis related groups (DRGs) per clinician so clinicians would not be unfairly penalized due to small sample sizes.

*Response:* We acknowledge your concerns regarding the unintended consequence of penalizing clinicians. We are addressing this issue and seeking to ensure that



cost measures for each clinician are based on a sufficient number observations. Please see our response under topic “*Share of Medicare expenditures as selection criteria*” in Section 2.2.1 for a discussion of how the CS prioritized the development of episode groups in clinical areas with large episode counts and numbers of attributed clinicians. Please also see our response under topic “*Minimum utilization thresholds as selection criteria*” in the same section. While this approach provided an initial filter on rare episode groups, case minimums will be developed through testing at a later point in order to ensure the statistical validity of cost measures.

- One commenter stated that clinicians should be able to actively exclude patients from care episode and patient condition groups if they fit the classification criteria for these groups but are otherwise clinically dissimilar from other patients in those groups.

*Response:* We are developing episode group specifications, including exclusions, with clinical input from the CS and empirical analyses of the items and services that clinicians submit for reimbursement in medical claims. CS members are developing these specifications with a focus on ensuring clinical similarity between patients included in a given episode group by defining the episode group with appropriate episode trigger codes and removing certain types of patients through episode exclusions. We believe that it is important to measure clinician’s cost performance for all patients who fall within this pre-established classification criteria, as the input received through the CS on what patients to include or exclude can be consistently applied across all clinicians.

- One commenter questioned whether patients on clinical trials should be excluded or treated as a separate sub-group.

*Response:* We appreciate your concern over how patients on clinical trials should be accounted for in episode group design, and have conveyed this concern to CMS. CS will be able to consider what types of patients to exclude from the cost measure calculation or to account for through risk adjustment. CS members could consider how to handle patients on clinical trials as a part of those discussions.

### **2.2.11 Acute inpatient medical condition episode groups [relates to Q3 & Q4]**

*Distinction between inpatient vs. outpatient and medical vs. surgical manifestations of a given acute illness*

- *Comment:* Five commenters expressed support for developing acute inpatient medical episodes focused on underlying patient condition or need, without distinctions for place

of service or procedure, as long as measure logic can avoid incentivizing or disadvantaging care in specific settings. One commenter added that this approach was appropriate as long as the initial site of service was inpatient or ambulatory surgical setting. Conversely, four commenters recommended developing episode groups that take into consideration care setting to ensure meaningful comparisons, and to ensure that high-cost inpatient settings would not be disadvantaged leading to concerns about quality and access. Furthermore, commenters noted that site-of-service has significant impact on resource use and is often not within the clinician's control.

*Response:* We appreciate commenters' thoughts on whether and how to define episode groups around acute illnesses without distinctions for place of service or procedure. For the first wave, we are developing episode groups for acute illnesses which are managed in the inpatient setting given that there are well-established ways to define this type of episode groups. However, we are interested in seeking further stakeholder feedback on this issue as measure development progresses to potentially expand how acute illnesses are represented in the current framework. We expect to receive this type of feedback in the context of discussions with particular CS about what episode groups to define within their clinical area and how to appropriately define them.

#### *Acute condition episode groups for exacerbations/complications of chronic conditions*

- *Comment:* Two commenters agreed with the approach to develop acute condition episode groups for acute exacerbations and complications of chronic conditions with one commenter adding that a focus on inpatient events would be advantageous as coding completeness and frequency of events in inpatient settings would allow for statistically significant conclusions.

*Response:* We appreciate your feedback and interest in developing acute condition episode groups. The CS can take this idea under consideration, along with the recommendation to focus on inpatient events.

#### *Using outpatient events to define acute episode groups*

- *Comment:* One commenter strongly supported the development of acute inpatient medical episode groups for outpatient events (identifying cellulitis as a good candidate) while another urged CMS to start with the high-cost inpatient episodes and wait to examine outpatient episodes until lessons are gained.

*Response:* We appreciate your feedback. The CS can take these suggestions under consideration as they continue to work on episode group prioritization and development.

### *Approaches for constructing acute episode groups*

- *Comment:* One commenter stated that CMS should expand the list of acute inpatient medical condition episode groups with stakeholder input and another urged CMS to consider how these cost measures may be used to improve care transitions during acute events. When it comes to procedural versus condition episode groups, one commenter noted that condition-based events would be more complex than procedural events in which windows can easily be defined, while another commenter stated that episodes should not focus on specific procedures but on care rendered to achieve a specified clinical outcome.

*Response:* We appreciate your feedback, and will share these suggestions with the CS. With regard to the suggestion of expanding the list of acute inpatient medical condition episode groups with stakeholder input, please see the topic “*Iterative methodology for episode group development*” in Section 2.2.4, which describes our general approach to episode group development and the reasoning behind structuring this work into multiple waves. As to the interest in using cost measures to improve care transitions, episode windows include a period after discharge which, by design, promotes better care transitions and more broadly, improved care coordination. Secondly, the CS are also prioritizing the development of overlapping episode groups. As described in the glossary in Section 1.1, overlapping episode groups are useful in promoting shared accountability for the care of a given patient, and as such they would also promote a greater focus on care transitions.

With regard to the comment about episode windows, we acknowledge your concern. The CS will be drawing on clinical input and empirical analyses in order to determine the appropriate window length. Lastly, for the comment suggesting a focus on care rendered, we appreciate your feedback and believe that our approach to episode group development is focused on the care rendered to patients, in that we use claims data for information on care rendered, along with extensive clinical input to identify services that are delivered in order to treat specific medical conditions.

### **2.2.12 Chronic condition episode groups [relates to Q5 & Q6]**

#### *Feasibility of defining chronic condition episode groups*

- *Comment:* Thirteen commenters expressed concerns about the feasibility of developing chronic condition episodes, with two commenters urging a delay in development until more research is done. A more detailed account of these concerns is included below:
  - Six commenters were concerned about feasibility of fair attribution, defining episode windows, obtaining accurate resource use information, obtaining large

and homogenous patient populations, and addressing variation in patients, conditions, and treatments. One commenter stated that models defining episodes based on specific diagnoses or procedures may not fit chronic conditions.

- Eight commenters were specifically concerned with how attribution would work for patients with multiple chronic conditions would be addressed, expressing concern that primary clinicians (e.g., family medicine, geriatrics) treating multiple conditions would be unfairly penalized and use of specialists would be incentivized. Suggestions include the use of exclusions and risk stratification by comorbidities, shared attribution, and separate episode groups for conditions co-occurring more than 50 percent of the time.

*Response (to all above comments):* Thank you for your feedback. We appreciate your concerns regarding the challenges of developing chronic condition episode groups, and will share your suggestions with the CS. The TEP has expressed similar concerns about the particular challenges with chronic condition episode groups, and has recommended that the initial focus of episode group development should be on more straightforward episode groups as this will assist with clinician acceptance and understanding of these measures. In addition, future CS working on the development of chronic condition episode groups will be able to leverage learnings from previous work on other episode group types. Lastly, a future TEP will be convened to discuss the development of chronic condition episode groups. At that point, they will be able to both draw on clinical input from the full range of clinicians involved in treating chronic conditions, and to suggest empirical analyses that would be useful to inform their general discussion.

#### *General approach for constructing chronic condition episode groups*

- *Comment:* Due to the concerns outlined above about the complexity of chronic condition episodes and the variation across patients with a given chronic condition, three commenters urged CMS to take a flexible approach emphasizing stakeholder engagement, statistical validity, with a focus on risk adjustment, patient exclusions (e.g., based on number of comorbidities), alignment with primary care and care coordination, and policies to prevent penalizing physicians taking on complex patients (e.g., similar to stop loss policies).

*Response:* Thank you for these comments. Please see the previous response under topic “*Feasibility of defining chronic condition episode groups*” earlier in this section, which also applies here.

### *Outpatient chronic condition episode groups*

- *Comment:* Three commenters recommended that CMS look further into developing a single episode group for outpatient-based chronic care with adjustments for comorbidities and demographics which could allow flexibility in care, capture all chronic conditions, and produce large enough patient groups for adequate statistical validity. Conversely, three commenters stated that it would be inappropriate to aggregate unrelated conditions, with one of these stakeholders further stating that chronic conditions should not be arbitrarily divided into episodes. One additional commenter stated that testing for both perspectives should be done before decisions are made.

*Response:* We appreciate your feedback. Please see the response under topic “*Feasibility of defining chronic condition episode groups*” earlier in this section.

### *Specific approaches for constructing chronic condition episode groups*

- *Comment:* Two commenters discussed specific approaches to constructing episode groups for chronic conditions. Their comments are outlined below:
  - One commenter suggested Total Per Capita Costs as the best metric for primary care clinicians treating chronic conditions due to its statistical power, clinician acceptability, feasibility and simplicity, alignment with Hierarchical Condition Category (HCC) risk adjustment, and alignment with goals of primary care (i.e., holistic nature, care coordination, reduction of long-term resource use).
  - One commenter advocated the use of multi-morbidity episode groups with shared attribution as it would be challenging to accurately attribute costs to a single provider in the case of chronic episodes with multiple co-morbidities.

*Response:* We appreciate your feedback. These suggestions will be shared with the TEP, which will discuss them as potential strategies during a TEP gathering focused on the development of chronic condition episode groups in the future. For more context on that particular meeting, please see the response under the topic “*Other considerations for new episode groups for development*” in Section 2.2.2. With regard to the suggestion about using the Total Per Capita Cost measure, it should be noted that this measure is being used for MIPS performance year 2017 (for which the cost performance category has zero weight). This measure has also been proposed for performance year 2018 (the cost performance category is also proposed to have a zero weighting).

### *Cancer as a chronic condition episode group*

- *Comment:* Three commenters discussed approaches to developing chronic condition episode groups for cancer. One commenter cautioned that cancer is wholly

unpredictable, while others stressed risk adjustment (e.g., specialized models to account for procedure and cancer site) and use of sub-groups given variation in patient population, cancer conditions, and treatment paths. One commenter stated that highly individualized treatments based on cancer type, cancer stage, patient genetic characteristics, and comorbidities will pose challenges to fair attribution and comparability, urging CMS to exclude cancer from episode group development until methodologies for data analyses and risk adjustment can be developed and tested for these factors. Commenters also stressed that cost measures should be aligned with evidence-based treatment protocols for each specific condition and should not add substantial administrative burden to clinicians.

Given the complexity of cancer conditions, one commenter suggested collaboration with the American College of Surgeons which is currently in very early stages of developing a model that can use trigger diagnoses to establish stage and treatment plans that could facilitate the development of stage-specific or treatment plan-specific cost comparisons.

On a more specific note, one additional commenter expressed concern about global episode windows for oncologic procedures (generally 30 days pre- and 90 days post-op) that are not designated for each procedure, and stated that windows should be truncated if subsequent therapy starts directly after surgery as clinicians often strive to recover patients as quickly as possible so other therapies may begin.

*Response:* We appreciate your feedback. Please see the topic “*Feasibility of defining chronic condition episode groups*” under Section 2.2.12. With regard to the specific suggestion about collaboration with the American College of Surgeons (ACS), we expect that clinical stakeholders convened to provide input on chronic condition episode groups will draw on extensive stakeholder input when they approach the potential development of chronic condition episode groups for cancer. In doing so, they can consider the work being done by ACS and other groups which may have expertise to share in this area. We also expect that clinical stakeholders will provide extensive clinical input and draw upon relevant empirical analyses in the development of episode windows.

#### *Chronic condition episode windows*

- *Comment:* Four commenters spoke to the appropriate length of episode windows for chronic conditions. Two commenters advocated for windows as long as a year with one commenter stating windows longer than a year would be inappropriate given changing clinician-patient relationships. One commenter stated that one year would not be long enough, with two others stating that windows should be flexible and span the entire treatment cycle.

*Response:* We appreciate your feedback on the lengths of chronic condition episode windows. Please see the topic “*Feasibility of defining chronic condition episode groups*” earlier in this section for further details.

#### *General approach to risk adjustment for chronic care episodes*

- *Comment:* Six commenters underscored the importance of risk adjustment given complexity and variation in chronic condition patients, with one commenter suggesting risk adjustment for social risk factors and another noting that ICD-10 diagnosis codes would not provide reliable or accurate data for risk adjusting for chronic condition episodes.

*Response:* We appreciate your feedback and support for using risk adjustment methods. We will take these recommendations into consideration in conjunction with stakeholders convened in the future to provide input on chronic condition episode groups. Please see the topic “*Feasibility of defining chronic condition episode groups*” in this section for additional detail on our plans for developing chronic condition episode groups.

#### *Risk adjustment variables for disease severity or staging*

- *Comment:* Beyond patient complexity factors, twelve commenters advocated for the consideration of disease duration, staging, or severity factors in risk adjustment for chronic condition episodes. Five of these commenters noted that information to identify these risk adjustment variables cannot currently be obtained through claims data, with one commenter advocating the creation of new patient characteristic codes and three commenters noting that new staging codes would lead to additional administrative burden and would necessitate clinician education and buy-in.

*Response:* We appreciate your thoughts and feedback on how to account for these factors. We will take these recommendations into consideration in conjunction with stakeholders convened in the future to provide input on chronic condition episode groups. Please see the topic “*Feasibility of defining chronic condition episode groups*” under Section 2.2.12 for additional detail on our plans for developing chronic condition episode groups.

#### *Risk adjustment variables for patient complexity*

- *Comment:* Four commenters recommended that risk adjustment for chronic condition episodes include consideration of patient complexity factors such as dual eligibility, comorbidities and risk factors, patient characteristics (e.g., age), patient preference and compliance, disease management and improvement status (e.g., well-controlled, uncontrolled), functional status (e.g., from JFI, OASIS, MDS, FIM data), clinical stability (especially for clinicians like home care clinicians who work with typically unstable

populations), and genetic and chromosomal characteristics. Two additional commenters encouraged use of clinical registries for patient complexity data.

*Response:* We appreciate your feedback and support for using risk adjustment methods and specific suggestions on factors to include in risk adjustment models for chronic condition episode groups. We will take these recommendations into consideration in conjunction with stakeholders convened in the future to provide input on chronic condition episode groups. Please see the topic “*Feasibility of defining chronic condition episode groups*” under Section 2.2.12 for additional detail on our plans for developing chronic condition episode groups.

### **2.2.13 Procedural episode groups [relates to Q7]**

- *Comment:* Four commenters spoke specifically of procedural episode groups, with one stakeholder urging further development of procedural episode groups for outpatient settings, one explicitly supporting CMS’s current approach of triggering episodes with one or more CPT/HCPCS codes, and another emphasizing the importance of CS in procedural episode group development. A fifth commenter found procedural episode groups troubling given the challenge of appropriately assigning services to particular procedural episode groups (i.e., identifying services within a window that should be linked to a specific procedure).

*Response:* Thank you for your input on the development of procedural episode groups and support of the approach we are using to trigger these episodes. Initial waves of episode-based cost measure development are currently focused on the development of procedural and acute inpatient medical condition episode groups, with input from each CS focused on developing one or more episode groups within a particular clinical area. As a part of their activities, CS select which episode groups to develop, and in doing so can consider whether to develop outpatient-based procedural episode groups within their clinical area. For example, the Cardiovascular Disease Management Clinical Subcommittee has chosen to develop a procedural episode group for Outpatient Percutaneous Coronary Intervention (PCI). Regarding the commenter’s concern about service assignment, CS will contribute to the work of service assignment by examining which services appear both pre-trigger and post-trigger during an episode window, as well as contextual information such as diagnoses accompanying these services. Drawing on both their clinical expertise and empirical analyses, CS members will propose service assignment rules.



## 2.3 Assigning Costs to the Episode Group [relates to Q8]

### 2.3.1 Approaches for assigning services to episode groups [relates to Q9]

- *Comment:* Nine commenters addressed the topic of assigning services to episode groups. Four commenters encouraged CMS to continue working with key stakeholders on this point and recommended various approaches for CMS to consider in the assignment of services to episode groups. One stakeholder supported developing logic rules that ensure that costs are only accounted for and assigned once which may require splitting up the costs of a service between multiple responsible clinicians. Other commenters suggested the use of a combination of CPT billing codes and diagnosis codes to determine services for assignment to an episode. Additionally, another approach for determining assignment of costs to an episode group would be to distinguish between services related to the trigger and all other services. Three commenters emphasized the importance of ensuring appropriate assignment of items and services to episode groups to limit potential unintended consequences. Two commenters expressed concern about the clarity of which services are included in an episode, especially in response to complications, with one recommending the creation of model episodes that will allow clinicians to provide services based on the patient's needs. Three commenters also raised specific considerations such as ensuring proper assignment of advanced imaging and drugs, accounting for services within overlapping episodes services, or accounting for services known to increase the risk of complications (i.e., chemotherapy and radiation therapy).

*Response:* We appreciate your comments and agree that continued stakeholder involvement is necessary to determine the most appropriate approach to assigning services to episode groups. Service assignment is an essential component in the development of episode-based cost measures and stakeholder input has and will continue to be gathered from the CS and the December 2016 TEP to ensure that clinicians accurately reflect the role a service plays in the episode. The December 2016 TEP provided high-level input on assigning services and their respective costs to episode groups, discussing an approach in which services are assigned that are clinically related to the attributed clinician's role in managing patient care. Through this approach, the attribution for the episode is clear at the time the service that triggers the episode is furnished. Moreover, the clinician knows – at the time the episode begins – the list of the services that will be assigned to the episode if they occur during the episode window.

In addition, one of the major activities of the CS is to provide input on the rules for assigning services to episode groups. This approach to determining service assignment involves extensive clinical input at every step to ensure the logic rules we develop are clinically related and accurately reflects the role of the attributed clinician. For the May –

August 2017 CS, members reviewed an analysis of the utilization and timing of all Medicare Parts A and B services in broad timeframes extending before and after the episode trigger. These analyses were intended to inform the length of the pre-trigger and post-trigger periods for the episode window and Subcommittee members' discussion on what services ought to be assigned to the episode group. For the episode window, the pre-trigger and post-trigger periods identified for this episode group were determined through a poll of Subcommittee members.

Next, Acumen clinicians operationalized the CS members' service assignment feedback by reviewing a set of candidate service and diagnosis codes in the CIT and determining which ones to assign to episode costs. To focus the review of candidate codes in the CIT on those that make up a sufficiently large share of Medicare costs, the Acumen team implemented a cost threshold to eliminate infrequently occurring services and diagnoses. The draft service assignment rules were then shared with Subcommittee members via the CIT for their review and feedback. Once Subcommittee members reviewed the Acumen clinicians' draft service assignment rules, their clinical input (i.e., agreements and disagreements with the draft rules) was summarized and reviewed by Acumen. Finally, during a follow-up webinar, Acumen clinicians asked targeted follow-up questions to Subcommittee members on topics where further discussion was needed. Acumen clinicians then used the input from this webinar to create the current service assignment rules for the episode group.

### **2.3.2 Approaches for distinguishing assigned services (direct/indirect) [relates to Q9]**

- *Comment:* Three commenters addressed this topic, with two commenters expressing support for distinguishing between direct and indirect assigned services. Reasons provided by these stakeholders include the value in clinicians seeing expenditures that are reflective of their care, as well as services delivered by others for the same clinical purpose. One of these commenters further supported the concept of weighting these direct and indirect services in reporting. On the other hand, the other commenter supported the inclusion of direct assigned services only, at least initially, as including indirect services that factor in the roles of different clinicians is too complex to undertake during the initial roll-out of the measures.

*Response:* We appreciate your support for distinguishing between direct and indirect assigned services. As direct and indirect services are important aspects of cost measures, we will continue to seek feedback from the TEP and CS regarding this topic. This was a point of discussion in the December 2016 TEP and the CS will also have the opportunity to provide feedback as part of the service assignment activities. We understand that there

are concerns regarding the complexity of these measures, especially related to the scope of indirect services, and we would like to emphasize that we are working closely with stakeholders and ensuring that the appropriate approach for assigning these services and distinguishing between direct and indirect services is informed by the feedback we have received throughout the measure development process. In addition, we are also planning to field test the first set of cost measures yielded from the Wave 1 CS later this year, which will provide an opportunity for clinicians to review and provide additional feedback on these measures (for detailed description of field testing, please see the topic “*Level of detail*” in Section 2.1.2.). Any feedback received during field testing will be considered for refining the measures before their potential use in the Quality Payment Program.

### **2.3.3 Inclusion of Part D costs [relates to Q14]**

#### *Part D spending*

- *Comment:* Five commenters expressed support for the inclusion of Part D spending in episode-based cost measures. One of these supporters particularly highlighted that this would only be successful if the price of drugs is transparent to clinicians. In contrast, seven commenters expressed reservations about including Part D costs:
  - Two commenters recommended that CMS not include Part D spending, as clinicians, especially oncologists, have little flexibility to reduce expenditures by selecting less costly drugs as they may not have control over the cost charged by manufacturers or distributors. Alternative drugs with the same effectiveness may also not exist.
  - Two commenters recommended that CMS defer this issue because there are other more important challenges in cost measure development and the inclusion of Part D spending should only be addressed after developing a sound methodology and operational list of episode groups.
  - Three commenters highlighted issues that need to be addressed when considering the inclusion of Part D costs. These stakeholders noted the need to provide further information on what will be considered as a Part D drug cost and to ensure there will be no disincentives to patient access to the most appropriate medicines for individual patients, regardless of whether the medicines are provided under Part A, B, or D. These commenters also urged CMS to continue working with stakeholders on this issue.

*Response:* Thank you for your comments on the inclusion of Part D costs in the episode-based cost measures under development. Many of the concerns raised through the comments echo those shared with Acumen through prior stakeholder input activities. For

example, this topic has been discussed in the August and December 2016 TEP. There has been no consensus reached regarding the potential inclusion of Part D claims in cost measure calculation. Although some members believe the inclusion of Part D is important as it accounts for a large share of costs, members believe Part D costs should first be standardized before they are included in the cost measure. Based upon the feedback received, we recognize that the inclusion of Part D spending is a complicated issue and agree with the recommendation of first focusing on developing episode groups that focus on Part A and B costs while further examining whether and how to include Part D costs as well.

#### *Part B drug spending*

- *Comment:* Four commenters expressed concern or recommended exclusion of Part B drug costs in episode-based cost measures as clinicians have little control over drug costs. Another stakeholder believed that CMS should either incorporate Part D spending or remove Part B drugs spending, as inclusion of only one program disadvantages clinicians who prescribe through that program, as their costs will be included, while clinician costs for those prescribing through the other program will be excluded. If only one program spending is included, those prescribing under that program will always have more expensive costs.

*Response:* Thank you for your comments. We appreciate your concern regarding inclusion of Part B drug spending, and understand the concern over the potential repercussions of the inclusion of Part B drug costs if Part D costs are excluded. We believe that service assignment may provide a way for clinicians to control for this, and would like to note that among the CS activities this summer is providing input on service assignment rules. CS members will be able to evaluate whether to assign Part B drug costs as part of the service assignment activities for each episode group. Through this activity, they will have the opportunity to choose to include or exclude particular Part B drug costs that are directly or indirectly related to an episode group, with the awareness that Part D spending is currently not included in episode group costs. We will examine the service assignment rules yielded by the CS, specifically with regards to what Part B drug costs have been included, and determine whether there are any concerning implications of including them. We will also take these considerations into account as part of any future analyses on whether and how to include Part D costs in the episode groups.

## 2.4 Attributing Episode Groups to Clinicians [relates to Q8]

### 2.4.1 Approaches for attributing episodes to clinicians

#### *Approaches for attribution*

- *Comment:* Commenters expressed support for ensuring clinicians are only held accountable for services that are within their control and emphasized the importance of clear and transparent attribution, with one commenter explicitly stating their concern over CMS's ability to structure the attribution methodology in an easily understandable way. Two commenters recommended that CMS use the NQF Attribution Model Selection Guide. Additionally, two commenters discussed the use of multi-specialty panels to determine the percentages of episode group cost that should be attributed to different clinicians serving different roles in the episode group, with one commenter expressing support and the other advocating for having an advisory committee of stakeholders providing input if CMS goes with this approach.

*Response:* We thank commenters for their support for clear attribution, and the importance of only holding clinicians responsible for services that they can reasonably be expected to influence. We have continuously worked with stakeholders through TEPs and the CS to ensure that the attribution method is clear and transparent to clinicians. Our current approach is informed by learnings from past approaches to cost measurement and feedback received on other cost measures: the clinician who performs and bills for a service that triggers an episode will be attributed the episode.

We also acknowledge your concern regarding the understandability of the attribution methodology, and in an effort to be as transparent as possible, we are providing further opportunities for stakeholders to review and provide feedback on these measures through field testing and any pre-rulemaking processes, such as the MUC list. As we have discussed throughout this report, field testing will allow clinicians to review and provide feedback on the fully developed measures that we calculate for clinicians who are attributed episodes (for detailed description of field testing, please see the topic “*Level of detail*” in Section 2.1.2.). Any feedback we receive during field testing will be considered as we refine these measures before their potential use in the Quality Payment Program.

In response to the comment regarding cases involving multiple clinicians, our approach allows for the same service to be part of separate episodes that are attributed to different clinicians to better reflect the role played by all clinicians involved in a patient's trajectory of care. For instance, under this approach of allowing overlapping episodes, a service could be part of the ongoing care delivered to a patient with a chronic condition,

while also part of an episode for the clinician who performs a specific procedure. This promotes shared accountability for patient outcomes among clinicians, while still only holding each clinician responsible for what they can reasonably control. For a more thorough explanation of overlapping episodes, please refer to Section 1.1 of this report.

- *Comment:* Three commenters cautioned against attributing an episode to a clinician based on the amount of time they managed the patient, as this is arbitrary and has no relevance to patient care. Instead, attribution should be defined based on the patient relationship and the clinician's responsibility, especially as it relates to the trigger procedure. In addition, one commenter highlighted their concern about attributing total costs of care to family physicians, stating that those truly responsible for high-cost care should be held accountable. Three stakeholders stated that accountability should take into account whether a clinician ordered a service or made a referral for services.

*Response:* We agree with commenters about the importance of ensuring that attribution is focused on the clinician's role in managing patient care. We would like to clarify that with our approach, the clinician who performs and bills for a service that triggers an episode will be attributed the episode. This approach provides a more straightforward and clear attribution method, as the attribution for the episode is clear at the time the trigger service is provided.

With regards to the concern regarding attributing total costs of care to family physicians, the episode groups under development will not be based on all costs incurred by a patient during the episode window. Instead, these episode groups are clinically refined, in that they will rely upon service assignment rules that only include the costs of services that are clinically related to the episode group's procedure or condition.

Additionally, we also agree that patient relationship and the clinician's responsibility could have an impact on the attribution of the episode. For instance, CS members will be refining episode triggers from the December 2016 posting and will have the opportunity to consider in detail the most appropriate triggers for a given episode group in terms of a common role for the clinician in that patient's care. For example, for a knee arthroplasty procedure, a surgeon would select a different set of triggers to define an episode group centered on their role in that procedure and the care they provide, whereas an anesthesiologist would likely select a different set for the same reasons. As such, we believe the definition of episode groups and selection of episode triggers for each episode group must inherently consider the clinician's role. In this example, two episode groups could be yielded- one for the surgeon's performance of the knee arthroplasty procedure, and one for the anesthesiologist's care during that procedure. This approach yields episode groups that capture the clinician's relationship with the patient partially through

their construction. Furthermore, the CS will also consider whether to specify any sub-groups, which can support a more granular episode group definition and reflect more specific clinician roles in delivering services to different types of patients. Finally, we plan to conduct analyses and explore possible ways on how the operational list of patient relationship categories and codes could be used to complement claims-based attribution rules, if finalized through rulemaking.

#### *Considerations for attribution for specific types of clinicians*

- *Comment:* One commenter highlighted that although occupational therapists and other therapy professionals are not currently eligible clinicians for MIPS reporting purposes, it is important to note that occupational therapy services CPT codes are billed for and reimbursed throughout a number of the episodes listed for comment. Another commenter emphasized the importance of anesthesia providers being attributed episode groups based on the CPT/HCPCS codes they bill, rather than their professional title. One commenter also expressed their concern regarding the difficulty in defining and attributing costs to radiologists within the MIPS final rule and the draft list of episode groups and trigger codes for the Quality Payment Program.

*Response:* Thank you for your comments. According to the CY 2017 Quality Payment Program Final Rule, although physical and occupational therapists are not considered MIPS eligible clinicians during the first two years of MIPS, CMS is considering expanding the definition of the term for year three of the program.

We understand the concerns regarding attribution for clinicians involved in providing anesthesia and radiology services, and would like to note that we aimed to have a diverse set of clinicians in the CS represented during this measure development process. We will work with and gather input from these types of clinicians for whom episode construction and attribution is less straightforward to consider how we may potentially construct episode groups and cost measures designed around their role in patient care.

#### *Attribution for chronic conditions*

- *Comment:* Three commenters expressed concerns regarding attribution for chronic condition episode groups and one comment highlighted the potential issue of double counting of costs in cases of patients with multiple chronic conditions. Eight commenters also urged CMS to consider the use of team-based model of care in the attribution methodology for chronic condition episode groups, especially for cancer patients and other complex patients who see multiple clinicians during their course of care. Additionally, one commenter recommended that clinician's degree of responsibility for

an assigned service relating to a chronic condition episode groups should be adjusted quarterly.

*Response:* We appreciate your comments and acknowledge your concerns regarding attribution for chronic conditions. For a more detailed discussion for our plans regarding chronic conditions, please refer our previous response under the topic "*Feasibility of defining chronic condition episode groups*" to Section 2.2.12 of this report.

In terms of the potential issue of double counting of costs and complex patients who see multiple clinicians during their course of care, we anticipate these to potentially be addressed by overlapping episodes. Please refer to Section 1.1 for an explanation of overlapping episodes.

#### **2.4.2 Patient relationship categories and codes**

##### *Revisions to patient relationship categories and codes*

- *Comment:* Nine commenters believed that the proposed set of patient relationship categories and codes requires further revision. Four commenters suggested further deliberation of methodological and conceptual issues, including the shifting nature of clinician-patient relationships over time, as well as how the patient relationship categories and codes facilitate attribution. Three commenters would like CMS to release a revised set of Patient Relationship Categories and Codes for additional stakeholder comments.

*Response:* We appreciate the feedback on the patient relationship categories and codes, but we would like to note that development and refinement of these categories and codes are outside the scope of our cost measure development project. We are interested, however, in exploring how these patient relationship categories could potentially be used to complement claims-based attribution rules and expect to perform analyses to inform this. In doing so, we will assess how to use both to most accurately capture the clinician-patient relationship at the start of each episode and over time. We also recognize the importance of additional stakeholder input in this complex area, and will continue to involve stakeholders throughout the process. At the time of the December 2016 posting, the proposed set of patient relationship categories and codes were going through a second comment period ending in January 2017. Based on the stakeholder feedback received, CMS revised the categories and publicly released the operational list of categories and codes in May 2017 on the CMS website.

##### *Utility of categorizing patient relationship*

- *Comment:* Six commenters in general believed and supported that defining patient and clinician relationship is essential for appropriate assignment of services and attribution of care responsibility, while one commenter believed that the necessity and usefulness of the



patient relationship modifiers requires further evaluation. One commenter suggested that the purpose for the creation of Patient Relationship Categories and Codes is to avoid retrospectively assigning services to clinicians.

*Response:* We appreciate your support for the patient relationship categories and codes, and agree that defining the patient and clinician relationship will be beneficial in considering how the responsibility for a patient's care should be captured through the service assignment rules for each episode group. These categories and codes will offer valuable information to complement other information available on claims. However, extensive analysis is necessary to determine the best way these categories and codes could potentially be used in conjunction with our attribution logic based on the clinician(s) billing the trigger codes. As discussed earlier, this logic ensures that the attribution for the episode is clear at the time the trigger service is provided. As such, the clinician is aware of the list of services that may be assigned to the episode at the time of service, thus avoiding the retroactive attribution issue inherent in other episode grouping approaches. Patient relationship categories and codes will only further aid in ensuring that that attribution is clear and understood by the attributed clinician at the time of service. We expect to continue to gather further stakeholder feedback on this issue as we conduct these analyses.

#### *Construction of patient relationship categories and codes*

- *Comment:* Three commenters provided further feedback for approaching the construction of patient relationship categories and codes. Two commenters recommended defining patient relationships in terms of phases of care and patient risk level, supplemented by modifiers to indicate discrete services to be used on claims form. One commenter generally supported incorporating patient relationship modifiers into the development of episode groups.

*Response:* Thank you for these comments. We will convey this feedback to CMS as they consider how to further refine and implement the patient relationship categories and codes. We recognize the importance of stakeholder feedback on these new categories and codes and how they could potentially be incorporated into attribution as clinicians gain experience with them.

## **2.5 Risk Adjusting Episode Groups [relates to Q8]**

### **2.5.1 Potential unintended consequences [relates to Q13]**

- *Comment:* Fourteen commenters highlighted potential unintended consequences of cost measure implementation that CMS should consider. Most of these stakeholders were concerned that cost measures could disadvantage and/or discourage clinicians from

providing care to the sickest and most complex patients. These patients with high care needs could then lose or face more limited access to care. Two commenters were concerned with potentially discouraging medical innovation or adoption of a breakthrough treatment that may be costlier in the short term. One stakeholder also expressed concern that designating exacerbations of chronic conditions as acute conditions may disadvantage clinicians providing care in lower cost settings (e.g., providing home-based services) who effectively manage these chronic conditions and prevent such exacerbations.

*Response:* We thank stakeholders for their comments. We have worked closely with clinicians and other stakeholders throughout the measure development process to ensure that we mitigate against potential unintended consequences arising from these measures.

First, a TEP focused on risk adjustment was held in August 2017, where the TEP members had the opportunity to discuss risk adjustment methods and various approaches beyond risk adjustment that can help mitigate against these potential unintended consequences. The guidance produced by the TEP will help inform the CS in providing input on risk adjustment models tailored to their individual episode groups.

Second, with regards to the concern regarding medical innovations being included in episode costs, this will be addressed in part through the CS activity of reevaluating of service assignment rules during measure maintenance. These medical innovations do not necessarily need to be included in episode costs until CS members decide to do so once the trade-offs (benefit in terms of savings outweighing higher costs) are more discernible within the episode window.

Third, we appreciate the concerns shared by stakeholders regarding the disadvantaging of types of care that are intrinsically higher cost. With regard to the concerns about inpatient management of chronic conditions, under our current approach, an exacerbation of a chronic condition being treated in the inpatient setting would trigger an episode for a distinct type of episode group focused on management of acute inpatient medical conditions. Please see the topic “*Additional considerations for approaches to defining episode groups*” in section 2.2.5 for further details.

Finally, incorporating alignment with quality as the fifth essential component of episode-based cost measures, will also help address some of the potential unintended incentives to underperform services that may be associated with reporting a cost measure in isolation. We have worked with stakeholders on quality alignment in the August 2016 and March 2017 TEPs. Furthermore, as part of the CS activities, members will consider the potential for quality alignment in their deliberations about which clinical areas and episode groups to prioritize for development. As part of their materials, we provided a

set of episode group-specific quality alignment reports to the CS to serve as reference when refining trigger codes for the selected episode groups. For detailed description of the episode group-specific quality alignment reports, please see response under the topic “*Issues requiring further development*” in Section 2.1.2. The reports identified the quality measures with a patient cohort that overlapped with a particular episode group and showed the extent of this overlap, with the purpose of providing CS members with information to assist in their decision on what episode groups to select and to consider as they refined the episode triggers for the selected episode group(s).

## **2.5.2 Risk adjustment variables [relates to Q13]**

### *Patient-level risk adjustment factors*

- *Comment:* Thirty commenters requested that the risk adjustment methodology should consider patient-related factors that are beyond the clinician’s control, such as comorbidities (including cognitive and psychological impairment), disease severity and staging (especially with cancer and other complex hematological diseases), patient complexity, and functional limitations.

*Response:* Thank you for your comments. We understand that there are factors beyond the clinician’s control that may affect their performance on cost measures, and the overall goal of the Quality Payment Program is to be able to account for these factors appropriately so clinicians are scored fairly and appropriately. We convened a TEP in August 2017 to discuss approaches to and concepts of risk adjustment. The feedback from the TEP, along with overall CMS direction on the Quality Payment Program, will then be used to inform the approach for gathering the CS input on the clinical specifications for each episode-based cost measure’s risk adjustment model. This could include the factors identified by commenters, such as comorbidities and other indicators of patient complexity.

### *Social risk factors*

- *Comment:* Twenty-one commenters emphasized the impact of social risk factors on a patient’s access to and compliance with health care services, leading to health disparities especially among low-income and minority populations. These stakeholders recommended social risk factors for consideration in the risk adjustment methodology, including patient age, gender, race, financial status, geographic location, and health literacy.

*Response:* We appreciate the feedback and strong interest in accounting for social risk factors. It is important to note that there are ways outside of risk adjustment to account for social risk factors. As outlined in the CY 2018 Quality Payment Program Proposed

Rule, examples of these methods include stratifying MIPS eligible clinician scores and redesigning payment incentives (for instance, rewarding improvement for clinicians caring for patients with social risk factors or incentivizing clinicians to achieve health equity). We will continue to seek feedback from stakeholders, especially during the TEP on risk adjustment methods; their input, along with public comments from the proposed rule and findings from the various studies currently being conducted are aligned with overall CMS and Quality Payment Program direction.

The inclusion of these social risk factors is a topic that is currently being explored, with studies investigating the effects of these factors on the cost of care. For example, the NQF has completed a two-year trial period in which new measures and measures undergoing maintenance review were assessed to determine if risk adjusting for social risk factors is appropriate. In this period, the NQF conducted a trial of a temporary policy change that allowed inclusion of social risk factors in the risk-adjustment approach for some performance measures. We are currently waiting for the NQF recommendation, as they carefully review the results of this trial with input from key experts and stakeholders.

*Site of service*

- *Comment:* Two commenters encouraged factoring in the site of service, in addition to specialty designation, when applying risk adjustment methodology is important, as it assures that “like” populations are compared to one another when assessing clinicians’ cost performance.

*Response:* Thank you for sharing your comments regarding the inclusion of site of service in the risk adjustment methodology. We agree that it is important to ensure that the episode-based cost measures fairly compare clinicians’ performance on cost measures. There are various approaches in addition to risk adjustment that will help clinicians be assessed on similar populations, such as the specification of episode sub-groups to create more clinically homogenous patient cohorts. Additionally, through the CS activities, we are working to ensure that episode groups capture the full range of services involved in treatment for a particular condition or procedure. With regards to site of service, we recognize that this can affect the cost of episodes but are also cognizant of the need to not eliminate opportunities for clinically appropriate comparisons that promote smarter spending. There are instances where making distinctions for the same treatment rendered in different sites of service may not be appropriate because some procedures could be more appropriately performed in a lower cost setting without compromising quality. By comparing across site of service (i.e., without risk adjusting for it) in such cases, we create an incentive for clinicians to operate

in lower cost settings. Although this may be appropriate at times, there are also instances where it is not. We will continue to seek stakeholder input on strategies for accounting for such factors.

#### *Factors outside of a clinician's control*

- *Comment:* One commenter raised the issue that certain types of clinicians – for example, physician assistants and nurse practitioners – may be limited by CMS regulations in the services and care that they can provide, which would make their cost performance incomparable to those clinicians who do not face the same restrictions in treating similar patients. Another stakeholder discussed patient compliance and suggested that CMS consider development of positive incentives to encourage patients to follow prescribed treatment plans.

*Response:* We acknowledge the concern regarding these factors outside of a clinician's control that may affect their cost performance, and seek to determine appropriate methods of accounting for these factors to ensure that clinicians can be fairly compared. We will continue to work with clinicians and stakeholders to gather their input on the limitations their specialty may face and how the use of cost measures may affect them overall.

### **2.5.3 Risk adjustment models [relates to Q10]**

#### *CMS-HCC risk adjustment model*

- *Comment:* Fifteen commenters discussed the CMS-HCC Risk Adjustment Model, with seven commenters expressing a degree of support and eight commenters expressing concern, stating that the CMS-HCC Risk Adjustment Model does not adequately account for patient risk and has poor predictive value. A commenter was concerned that the methodology was developed for Medicare Advantage and is now being for different purposes. A stakeholder further explained that the model's poor performance is because HCCs are not meant to be used with narrowly defined patient cohorts such as episode groups. Another commenter stated that from their experience, the more complex the patient, the worse the model performed.

Among the seven commenters who supported the use of the model, three clarified that it is more appropriate when used in long-term or continuous-broad patient care and for adjusting total cost of care for a population, rather than for specific condition-based episode groups that measure a targeted set of patient costs over a more limited timeframe. One commenter recommended that the CMS-HCC risk adjustment model be improved through the use of dementia condition categories.

*Response:* We thank commenters for their input on the CMS-HCC risk adjustment model. We are seeking to develop approaches to risk adjustment to address some of the concerns raised by stakeholders, such as the poor predictive value for complex patients and its use in situations other than its original intended purpose in Medicare Advantage. This includes seeking the input of the August 2017 TEP and conducting empirical analyses on different aspects of risk adjustment that the TEP may find useful to consider, such as the desired statistical properties of a risk adjustment model. The TEP's input will be considered along with considerations of overall CMS program goals and direction to determine an appropriate way of obtaining and leveraging CS input on the risk adjustment of the episode group(s) being developed this summer.

#### *Alternative risk adjustment models*

- *Comment:* Five commenters recommended the use of alternative risk adjustment models, with three commenters specifically suggesting models such as the 3M Clinical Risk Group (CRG) model, HHS-HCC model developed for individual and small group markets under the Affordable Care Act, or the Minnesota Complexity Assessment Method. Three commenters suggested risk stratifying, using sub-groups, episode-level exclusions, and removing outliers in the cost calculations.

*Response:* Thank you for submitting your comments. We appreciate your suggestions and will take these into consideration as we explore potential risk adjustment models for use with these episode-based cost measures. As mentioned above, we are seeking further stakeholder input on risk adjustment, with a TEP convened in August 2017. One topic of discussion was the exploration of alternate methods to account for factors outside of clinician control, since risk adjustment is not the sole way to achieve this. Other such methods include, risk stratifying, sub-groups, exclusions, and removing outliers, as suggested by the commenters above. Stakeholder input we gather from the TEP and the CS, together with empirical analyses, will be used to inform the selection of the most appropriate risk adjustment method.

#### *Concurrent vs. prospective risk adjustment*

- *Comment:* Eight commenters expressed support for the use of a concurrent risk adjustment model, with two commenters suggesting the use of at least 1 year of data, but preference for 2 years, as it is important to include current comorbidities and diagnoses and to look at current year expenditures to properly risk-adjust patients. A concurrent risk adjustment model also allows for a true representation of the acuity of patients, especially cancer patients, and can better track the rapid changes that may occur during treatment. One commenter supported the use of a prospective risk adjustment model with a full year of patient data.

*Response:* We appreciate commenters' feedback regarding the use of concurrent or prospective risk adjustment. We recognize that there are strengths and weaknesses to both models. For example, concurrent risk adjustment models use information on health spending indicators during the episode window. An advantage of this is that these models represent all the known information about the patient in the current year, and could potentially better capture variation in current costs. However, the use of this model also increases the risk of "upcoding" to yield higher expected costs for an episode and the risk of adjusting away complications that arise from treatments provided that the clinician should be held responsible for in full. Prospective risk adjustment models, on the other hand, tend to be favored because they tend to emphasize the impact of ongoing chronic conditions on costs. However, a disadvantage with this model is that it may not account for newly emergent factors during the episode window that predict high episode costs.

Decisions on an appropriate model for use with cost measures requires further analyses, and we will continue to work with stakeholders, through venues such as public comments, TEPs, and CS, to ensure that factors outside of clinicians' control are accounted for using approaches that align with the overall direction of CMS programs. This will allow for a fair and accurate comparison of clinician performance across the Quality Payment Program.

#### *Transparency of methodology*

- *Comment:* Four commenters urged CMS to ensure the risk adjustment methodology is clear and transparent, with one commenter suggesting CMS release the list of ICD-10-CM codes that impact risk adjustment, similar to the release of the inpatient prospective payment system (IPPS) rule for hospitals.

*Response:* We understand the importance of transparency throughout this entire process and we will work to ensure that the finalized risk adjustment methodology will be clear and transparent. As mentioned, we have incorporated stakeholder input at each step of the process, with the TEP, CS, and public comments. Similar to the previous TEPs, the meeting summary report for the risk adjustment TEP in August 2017 will also be made available to the public on the CMS website. The measures currently under development by the CS will be field tested later this year, giving the clinician community the opportunity to review and provide feedback on the measures, including risk adjustment methodology, with the codes that will be used to define risk adjusters to be available to the public (for detailed description of field testing, please see the topic "*Level of detail*" in Section 2.1.2).

### *Use of claims data in risk adjustment*

- *Comment:* One stakeholder noted that, if CMS uses ICD-10 codes in risk adjustment, clinicians should be allowed to report uncertain diagnoses, and that CMS must allow clinicians and hospitals to use old records to update a patient's current list of chronic diagnoses in cases where records may not be coded by the accepted convention (e.g., allowing the addition of HIV diagnoses to a patient's diagnosis list when a clinician documents +HIV (Z21)).

The previous commenter also stated that codes used in risk adjustment must be based on CMS definitions for conditions (e.g., functional quadriplegia, malnutrition) rather than strictly on provider documentation to prevent upcoding. Relatedly, another commenter stated the possibility of “downside” coding when it comes to patient relationship codes in which clinicians document less intensive relationships for high-risk patients.

*Response:* Thank you for your comments. We appreciate your suggestions regarding the use of claims data in risk adjustment, specifically on preventing upcoding and the possibility of downcoding. We will factor these into our measure development and continue working with stakeholders throughout this process, also ensuring that the eventual approach aligns with the direction of the Quality Payment Program.

With regards to reporting of uncertain diagnoses and allowing the use of older records, we have shared these suggestions with CMS. However, we wanted to note that the use of ICD-10 codes went into effect near the end of 2015. As such, it is likely that a lookback period will not extend earlier than 2017, and therefore, the issue of not up-to-date coding may not be a significant limitation.

## **2.6 Aligning Cost with Quality [relates to Q8]**

### **2.6.1 Approaches to quality alignment [relates to Q12]**

#### *Goals of aligning cost and quality*

- *Comment:* Seventeen commenters explicitly mentioned their support for the alignment of cost and quality measures, as the use of cost measures alone may create an incentive for clinicians to stint on care. Stakeholders believed that alignment of cost and quality measures protects patients against under or over-utilization of care and ensures that clinicians are delivering high-quality and efficient care.

However, some commenters expressed reservations about certain concepts in aligning cost and quality. One commenter highlighted that the goal should be clinically appropriate resource use, such as in preventive care. Another stakeholder expressed that cost and quality were already taken into consideration by virtue of the respective cost



performance categories in the MIPS program. One commenter noted that evidence does not suggest lower cost and higher quality are correlated, and expressed concern about the concept of “continuous improvement” as some clinicians may have little room to improve care quality.

*Response:* The alignment of cost and quality is a critical aspect of the cost measure development process, as it provides information on care efficiency and helps promote appropriate provision of services based upon patient needs. We believe that cost measures and quality measures can be complementary and can provide critical information to clinicians when making improvements in the delivery of care; as such, we would like to align the two types of measures wherever possible.

We sought input on the approaches for aligning of cost measures and quality during the August 2016 and March 2017 TEPs. The TEP Summary Reports summarizing the August 2016 TEP discussion has been posted on the CMS TEP website and the TEP Summary Report summarizing the March 2017 TEP will be made publicly available (for more discussion of the TEP Summary Reports, please see our response under topic “*Transparency*” in Section 2.1.3).<sup>16</sup> In addition, we have provided the first wave of the CS with a set of episode group-specific quality alignment reports (described in more details in our response under topic “*Issues requiring further development*” in Section 2.1.2). The reports provided information on clinically relevant quality measures that may be applicable to an episode group under development and may be considered by CS members during various phases of the development, such as during trigger refinement and service assignment. Members may reference the reports and compare an episode group’s trigger codes with that of the overlapping quality measures, before providing recommendations on how to define the patient cohort for the episode group. We plan to continue collaborating on the issue of quality and cost measures alignment with the TEP and the CS.

Furthermore, we agree that higher quality is not necessarily correlated with lower cost, but note that presenting information about clinician performance on cost and quality metrics together can be useful in helping clinicians to identify ways in which they can deliver cost-effective, high-quality care.

#### *Suggested approaches for quality alignment*

- *Comment:* Four commenters provided various suggestions on approaches to quality alignment such as prioritizing the development of cost measures that can be paired with

---

<sup>16</sup> CMS, Technical Expert Panel, <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/MMS/TEP-Current-Panels.html>

quality measures and creating sets of cost and quality measures for specific conditions or diagnoses. One commenter also suggested building on existing NQF-endorsed cost measures with a patient-centric grouping approach that is harmonized with quality measures. Commenters were especially concerned with episode groups that do not have relevant quality measures, and are thus would be measured under inappropriate or irrelevant quality metrics. To address this concern, one commenter suggested reinstating measures groups as conceptualized in the Physician Quality Reporting System (PQRS) program (with the understanding that new quality measures should be developed for episode groups without relevant quality metrics), as this reflects a continuum of care. In addition, a commenter suggested ensuring alignment of episode group triggers and quality measure triggers.

*Response:* We appreciate the suggestions that commenters have provided for aligning quality and cost measures, some of which are being incorporated into our current development approach. The potential of episode groups to align with quality measures is one of the criteria that was considered by the CS in selecting episode groups to focus on in this first wave of measure development. The CS were provided with detailed analyses on how each of their clinical area's episode groups performed on a set of prioritization criteria, including potential for alignment with quality measures based on overlapping patient cohorts. Please see our responses under the topics discussed in Section 2.2.1 for further details about the CS's process for selecting episode groups for development.

In addition, CS members were provided with episode group-specific quality alignment reports, as discussed in our response under the topic "*Issues requiring further development*" in Section 2.1.2. The CS could use these reports to harmonize episode group triggers with the patient cohorts of relevant quality measures which is one of the alignment strategies suggested by commenters.

We recognize that there are additional strategies suggested by stakeholders that may help further aligning quality measures and cost measures at a program-level. Some of these ideas have also been discussed by the TEP when considering potential approaches to alignment, such as limiting the cost measures counted for performance scoring to those with at least one related quality measure. We have shared the other strategies recommended by commenters, such as the suggestion to reinstate PQRS measures groups, with CMS. Moreover, for episode groups which have little potential for alignment with existing quality measures, where there are no existing quality measures for the care represented by the specific condition/procedure, we will recommend that CMS take this into consideration for new quality measure development.

### *Areas requiring further development*

- *Comment:* Eight commenters believed there is still further work needed in the alignment of cost and quality measures and urged CMS to continue assessing the caliber of the existing quality measures and to continue evaluating new approaches to quality alignment. Three of these stakeholders expressed concerns regarding the clarity of the posting in explaining how quality will be incorporated, with one of these commenters urging CMS to examine how existing measures function and analyze how improved quality affects cost. Three commenters also emphasized the need for transparency in the alignment methodology and urged CMS to continue involving stakeholders in the process. One commenter suggested that CMS develop educational tools to help patients and clinicians understand the relationship between cost and quality, while another suggested the creation of a crosswalk between the existing quality measures and the three types of episode groups (i.e., procedural, acute inpatient medical condition, and chronic condition) to further identify gaps and potential priority areas. Commenters also highlighted questions requiring further consideration, including: how to align patient populations under cost and quality measures as the latter are reported on all patients, how cost measures assessed on an individual clinician-level would interact with group reporting options for quality measures, and the need to reduce clinician regulatory burden by simplifying Quality Payment Program measures.

*Response:* We appreciate these suggested additional areas for consideration. The cost and quality alignment strategy outlined in the December 2016 posting for public comment served as a starting point for development, and we will continue to evaluate approaches to aligning with quality such as those highlighted by commenters. We agree with the importance of transparency and continued involvement of stakeholders in this process, such as the CS, TEP, and public comment periods. We also intend to continue our educational outreach to help stakeholders understand the new episode-based cost measures, such as through national webinars are key points in the development process (e.g., in conjunction with field testing later this year).

We note that some of the suggestions have been incorporated into our measure development process. The episode group-specific quality alignment reports served as a type of crosswalk between the episode groups and existing quality measures, and provided the CS members with information could be useful when harmonizing the patient cohorts of episode-based cost measures and existing quality measures. For further details on this, please see the discussion under the topic “*Issues requiring further development*” in Section 2.1.2. In addition, the episode-based cost measures will not increase clinician burden as they are claims-based measures, and the methodology will be clear and

transparent so that clinicians are aware at the time of the episode trigger what they will be held accountable for.

#### *Use of electronic health records and qualified clinical data registries*

- *Comment:* Four commenters also supported the use of electronic health records (EHR) and QCDRs to better align cost with quality. Through streamlining of communication and data reporting with these methods, clinician burden will be reduced and there will be more efficient feedback to clinicians, potentially resulting in timely practice improvements.

*Response:* We appreciate the commenters' suggestions for streamlining communication and data reporting through the use of EHRs and QCDRs in quality reports. We understand the concerns in regards to potential administrative and clinician burden and the need for more efficient clinician feedback. While the decision to adopt different quality measure reporting mechanisms for use in MIPS is beyond the scope of this project, we would like to note that the use of claims data for the new cost measures would not create any additional clinician burden in reporting.

## **2.7 Measure Implementation**

### **2.7.1 Measure testing**

#### *Testing and implementation of voluntary pilot program*

- *Comment:* Sixteen commenters supported testing the proposed episode groups and future measures prior to finalizing, with opportunities for more stakeholder input after the testing. Many commenters also strongly favoring carrying out a voluntary pilot program during the transition period for the proposed measures, with zero payment adjustment based on cost performance and having actionable clinician feedback reports for participating clinicians.

*Response:* We appreciate the commenters' input on measure testing and on the need for further opportunities for stakeholder feedback. Stakeholder engagement is at the core of our measure development process, and we aim to gather extensive input from a range of stakeholders to inform our development work. In addition, we are planning to conduct a field test for a subset of episode-based cost measures later this year, which will be accompanied by additional opportunities for stakeholders to provide feedback on the measure specifications and way in which information is presented in the clinician feedback reports.

With regard to the comments about weighting the cost performance category to zero percent, we have shared this feedback with CMS. As background, the CY 2017 Quality

Payment Program final rule finalized the weighting of the cost performance category to be at zero percent in the calculation of the final score for 2017 MIPS performance period. The CY 2018 Quality Payment Program proposed rule proposes to continue weighting the cost performance category at zero percent for the second year of MIPS, which would increase to 30 percent in the following year as required by MACRA (for detailed information on the proposed updates to the MIPS program in the CY 2018 Quality Payment Program Proposed Rule, please see the topic, “*Weighting of the cost performance category for MIPS scoring*” in Section 2.8.1).

## **2.7.2 Reporting**

### *Clinician and administrative burden*

- *Comment:* Nine commenters urged CMS to take into consideration and to strive to reduce the level of clinician and administrative burden caused by the use of the new cost measures and MIPS in general.

*Response:* We appreciate the concerns regarding the potential clinician and administrative burden resulting from the participation in MIPS. We are committed to providing meaningful and actionable information to clinicians to enable them to make decisions to continue to deliver high-quality, cost-efficient services. As such, the new episode-based cost measures under development will not require clinicians to provide more information than currently required on claims for reporting. The measures will be calculated based on existing claims data, therefore will not impose additional reporting burden.

### *Report actionability and accessibility*

- *Comment:* Four commenters emphasized the importance of having timely, clinically actionable, and easily accessible clinician feedback reports. Two commenters were concerned over the impracticality of receiving performance feedback a year after the dates of service, with one commenter suggesting that the feedback should be provided at least on a quarterly basis. Two other commenters also suggested that CMS could increase accessibility by constructing the clinician feedback report in a way that is conducive to clinician understanding and by better publicizing the availability of the clinician feedback reports.

*Response:* We appreciate the commenters’ input on the clinician feedback reports. We share the commenters’ emphasis of the importance of ensuring that clinicians receive timely and easily accessible reports that provide clear and actionable information about their services. To achieve these goals, CMS plans to conduct a field test later this year for measures currently under development by the CS (as discussed in more detail in our

response under the topic “*Level of detail*” in Section 2.1.4). Although the frequency of reporting is a program-level decision that is beyond the scope of this project, we hope to gather input through field testing on ways in which we can improve the actionability and accessibility of the reports.

#### *Clinician education and training*

- *Comment:* Eight commenters emphasized the need for thorough clinician education efforts prior to the implementation of the measures and sufficient time to allow clinicians to prepare for measure reporting. Two of these commenters noted specifically that ICD-10 code resources and training should be provided to clinicians.

*Response:* We appreciate this input on clinician education and training, and we agree with the importance of thoroughly engaging clinicians in education efforts prior to the implementation of the measures. As such, we have initiated efforts to help clinicians and the broader stakeholder community to learn more about the episode-based cost measures currently under development.

As part of the broad clinician education outreach, we held a Listening Session in April 2017 to provide an overview of the December 2016 posting and the measure development process, including a one-hour session for questions and feedback. To publicize this Listening Session, we performed broad outreach efforts, including announcing the webinar through the eHealth, the EHR, and the Quality Payment Program listservs, resulting in approximately 1,170 attendees. We expect to continue and increase our stakeholder outreach and education through field testing later this year to ensure that clinicians are prepared for receiving and interpreting feedback reports based on the episode-based cost measures. For instance, we are planning on holding national provider calls to provide detailed information about field testing and the feedback process, including the public comment period, during this time. We want to ensure that stakeholders have enough opportunities to review and provide feedback on the fully constructed measures prior to measure implementation.

We would also like to note that episode-based cost measures, which rely on existing claims data, create no additional reporting burden on clinicians. We hope that this, in addition to our outreach and educational efforts, will help clinicians in their preparation for measure reporting.

### **2.7.3 Measure maintenance**

#### *Additional information needed*

- *Comment:* Two commenters would like further information on measure maintenance, particularly on how and the frequency at which the measures will be updated such that it

may reflect changes in clinical practices, medical innovation, and inflation of medical costs.

*Response:* We expect to conduct measure maintenance on a regular and ongoing basis, as outlined in the “Blueprint for the CMS Measures Management System” (“Blueprint”).<sup>17</sup> This involves regular updates, comprehensive reevaluations, and ad hoc reviews of the measures. These activities will make up the core of the ongoing maintenance activities, and we expect to incorporate further stakeholder input throughout this process. We would also expect that any changes to the measures would be proposed through notice-and-comment rulemaking.

## **2.8 MIPS and Other CMS Programs**

### **2.8.1 MIPS program**

*Weighting of the cost performance category for MIPS scoring*

- *Comment:* Twenty commenters urged CMS to keep the weight of the cost performance category at zero percent for MIPS scoring at least through the 2018 performance year, or until a later time to allow further testing, refinement, and sufficient time for clinician education and adoption. Two commenters also supported allowing clinicians to determine their own pace for adapting to the program for the 2018 performance year.

*Response:* We appreciate this feedback regarding the weighting of the cost performance category and understand the need for clinicians to have sufficient time to prepare for reporting episode-based cost measures as part of MIPS. However, we want to note that this is a CMS policy issue and is outside the scope of cost measure development. As such, we have shared this feedback with CMS.

*Overall goals for MIPS*

- *Comment:* Four commenters presented a list of important factors that the construction of cost measures for use in MIPS should take into consideration and strive to ensure, including, successful clinician participation, fairness, access to proper care, access to innovative treatment, and recognition of the role of specialists in healthcare delivery.

*Response:* We appreciate these suggestions and agree that they are important factors in ensuring that the measures will help incentivize the delivery of high-quality and cost-efficient patient care. We are addressing these issues through many aspects of our current measure development process, and we will continue to do so as measure

---

<sup>17</sup> CMS, “Blueprint for the CMS Measures Management System,” <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/MMS/Downloads/Blueprint-130.pdf>

development progresses. For example, the development of assigned service rules through extensive clinician input reflects the importance of the overall fairness of the measures in that clinicians will only be held accountable for what they can reasonably be said to influence or have control over. To help determine these service assignment rules, and to recognize the role of different types of clinicians throughout a patient's care trajectory, the CS have a broad clinician representation which incorporated 148 members that were affiliated with a total of 98 professional societies (for further discussion of the clinician representation within the first wave of the CS, please see the topic "*Share of Medicare expenditures as selection criteria*" under Section 2.2.1). The TEP has provided input on the need to ensure proper care and preserving access to innovative treatment, particularly at the August 2017 meeting focused on risk adjustment. Finally, we agree with the need for successful clinician participation and will continue our education and outreach efforts, such as through field testing, to ensure that clinicians are prepared for receiving and interpreting feedback reports based on the episode-based cost measures.

### *Terminology*

- *Comment:* One commenter raised the issue with the use of the term "cost measures" when discussing measures relating to CMS spending, instead of actual provider cost. The commenter believed that CMS should use the term of "resource use" measure when describing measures of Medicare spending, as it is the term that is used in the MACRA legislation to describe such measures.

*Response:* We appreciate the feedback that the stakeholder has provided in regards to the terminology used for the episode-based cost measures currently under development. We have shared this with CMS, who can take this into consideration along with other factors. One advantage of the term "cost measure" for describing measures of Medicare spending is that it is less complicated and less abstract than the concept of "resource use" and as such, may help clinicians to better understand what aspect of their performance is being measured.

### *Availability of measures for reporting*

- *Comment:* Two commenters believed that clinicians should be allowed to freely select the most relevant quality measures for their clinical practice for performance reporting in MIPS, and that clinicians should not be overly restricted in what measures that they could select for reporting.

*Response:* We appreciate the commenters' suggestions for ensuring that there is flexibility for clinicians when selecting the quality measures most relevant to their clinical practice for performance reporting in MIPS. As the scope of the MIPS quality



reporting process is outside of the current project to develop new episode-based cost measures, we have shared the commenter's feedback with CMS for consideration. CMS may incorporate stakeholder input when proposing future changes to the MIPS program, including updates to the process of performance reporting,

### **2.8.2 Alignment with APMs**

#### *Alignment with APMs*

- *Comment:* Nine commenters believed that it is important to develop the cost measures and episode groups in a way that allows transition and alignment between MIPS and APMs. One commenter further suggested adapting the features of APMs and engaging stakeholders with experience in developing APMs when developing cost and quality measures for the Quality Payment Program.

*Response:* We appreciate the commenters' feedback on the alignment of MIPS and APMs. However, we want to note that this is a CMS policy issue and is outside the scope of cost measure development. As such, we have shared this feedback with CMS.

### **2.8.3 Existing cost measures and programs**

#### *Role of existing cost measurement programs*

- *Comment:* Seven commenters commented and asked for further clarification on how CMS plans to leverage the existing CMS quality and cost measurement programs to the benefit of the Quality Payment Program. Two commenters commented on the alignment of the cost measures under development and other existing cost measures, while one comment recommended CMS rely on NQF-endorsed measures.

*Response:* We appreciate the interest in clarifying how existing cost measurement programs would be incorporated into the Quality Payment Program. As part of the measure development process, we encourage the CS and the TEP to consider the learnings from prior cost measure development work and the stakeholder feedback received on those prior measures. This includes the two episode groups postings in October 2015 and April 2016 with details of Method A and Method B episode groups. We prepared a set of episode group-specific public comment summary reports with feedback received on previous CMS postings for the CS members, prior to the in-person meetings in June 2017. Members could then take this information into consideration throughout the measure development activities over the summer. (For more detail on the episode group-specific public comment reports, please see the discussion under the topic, “*Relationship to previous CMS episode groups postings*” in Section 2.1.2).

### *Total Per Capita Costs and Medicare Spending Per Beneficiary cost measures*

- *Comment:* Three commenters commented on the suitability of existing CMS measures for cost assessment. One commenter would like clarification on whether the Total Per Capita Cost and the Medicare Spending Per Beneficiary cost measures would be included for use in MIPS. Another commenter believed that Total Per Capita Cost measure is a good starting point for cost assessment for MIPS for reasons including: (i) the potential for accurately capturing and encouraging clinician efficiency if adequately risk adjusted; (ii) the availability of large sample size for comparison, the ability to avoid the difficulties with attribute costs to individual disease-specific episode groups; and (iii) the measures' existing usage among providers.

The other commenter strongly opposed the use of the two existing cost measures for cost assessment, citing that these measures are overly simplistic.

*Response:* We appreciate the comments on the suitability of existing CMS cost measures for cost assessment, particularly the use of the Total Per Capita Cost and of the Medicare Spending Per Beneficiary measure for clinicians in MIPS. The Total Per Capita Cost and the Medicare Spending Per Beneficiary cost measures are existing measures that have been reported as part of different CMS programs<sup>18</sup> that were finalized in the CY 2017 Quality Payment Program final rule the 2017 MIPS performance period, and were proposed for continued inclusion in MIPS in the CY 2018 Quality Payment Program proposed rule.

These measures are currently being reevaluated through measure maintenance activities as a part of this project; as an initial step, we sought feedback from the August 2017 TEP about the direction of potential reevaluation of the Medicare Spending Per Beneficiary measure for clinicians and the Total Per Capita Cost measure. With this guidance, we expect to reconvene the TEP later this year to discuss potential refinements to these measures in greater detail. Any changes and updates in regards to these existing measures in MIPS will be proposed through notice-and-comment rulemaking.

---

<sup>18</sup> The Medicare Spending Per Beneficiary Measure was included in the 2013 Quality and Resource Use Reports for informational preview and in the 2014 Quality and Resource Use Reports for payment purposes, and was finalized for inclusion in the 2016 Physician Value-Based Payment Modifier in the CY2014 Physician Fee Schedule Final Rule. The Total Per Capita Cost Measure was included in 2014 and 2015 Quality and Resource Use Reports for payment purposes and finalized for inclusion in 2017 Physician Value-Based Payment Modifier in the CY2017 Physician Fee Schedule Final Rule.

## **APPENDIX A: DECEMBER 2016 POSTING QUESTIONS**

---

This appendix lists the questions included in the December 2016 posting for stakeholder feedback.

### ***Episode Group Selection***

- In selecting the episode groups to be considered for development, CMS used criteria including an episode's share of Medicare expenditures, clinician coverage, and the opportunity for improvement in acute, chronic, and procedural care settings. We welcome comment on these episode groups and potential additional episode groups that should be considered for development.

### ***Episode Group Definition***

- The episode groups that accompany this posting are defined by the listed trigger events and codes (CPT/HCPCS for procedural episode triggers, evaluation & management codes combined with ICD-10 diagnostic information for chronic episode triggers, etc.). CMS solicits comment on the inclusion or exclusion of specific service codes used to identify each episode group.

### ***Acute Inpatient Medical Condition Episode Groups***

- The acute inpatient medical condition episode groups that accompany this posting include only inpatient events. CMS seeks comment on outpatient events that could be considered candidates for development as acute condition episode groups, which could include chronic condition exacerbations that require acute care but not inpatient hospitalization.
- Acute episodes of care might occur on either an inpatient or outpatient basis and may or may not include surgery. CMS is considering a single Acute Episode Group type that does not distinguish the place of service or the performance of a procedure and welcomes comment on this approach.

### ***Chronic Condition Episode Groups***

- CMS is aware of many challenges in constructing episode groups for chronic conditions. These include coding habits that may obscure some chronic conditions and overemphasize others. In addition, it may be difficult to assign a given treatment to a single condition for patients with multiple comorbidities. For example, are the resources for treatment to reduce cholesterol for a patient with diabetes, hypertension, and coronary artery disease to be assigned to only one of those diagnoses, to all of them in proportion, or should we develop a chronic condition episode specific to the management of patients

with diabetes, hypertension and coronary artery disease, i.e., a patient condition group to better compare cost to treat like patients? An extension of this approach might be a single episode group for outpatient chronic care with adjustment for comorbidities and demographics of the population served by the clinician. We welcome comment on these and any other options for constructing episode groups for chronic conditions.

- Certain specific conditions, such as cancer, present other challenges. The costs of caring for patients at different stages of disease are likely to vary. For instance, a single episode for a type of cancer is likely to differ in a predictable manner depending on the stage of the cancer. Information on disease staging is not easily or predictably available from claims. CMS welcomes comment on methods to incorporate disease severity or staging information to improve meaningful comparison of cost and quality of care furnished to patients, both generally and for specific clinical conditions. For example, how could a disease staging code be reported on claims to facilitate comparison of episodes for patients at like stages of cancer?

### ***Procedural Episode Groups***

- We solicit comment on the procedural episode groups that accompany this posting, including the service and diagnosis codes used to identify the existence of the procedural episode groups. We also welcome comment on additional procedural episode groups to consider for future development.

### ***Cost Measure Development***

- Cost measures are being considered for development from episode groups after adding additional context, such as expenditure assignment, attribution, risk adjustment, and consideration of quality. We welcome comment on each of these elements and whether there are additional elements to consider in developing cost measures from episode groups.
- As described above, the degree of responsibility of attributed services might be considered separately. Those services furnished by the attributed clinician for the clinical purpose of the episode group might be differentiated from the services provided by others for the same clinical purpose. The services furnished by the attributed clinician might be considered directly attributable services. These could be correlated with the services delivered by others for the same clinical purpose, which might be considered indirectly attributed services. The consideration of both directly and indirectly attributed services might be weighed in reporting both the provision and the coordination of care within the episode group relative to each clinician contributing to the care. An alternative approach would be to obtain recommendations from multi-specialty panels about percentages of

the resources for an episode that could be attributed to physicians serving in different roles. We welcome comment on these concepts of differential attribution or alternative methods to align attribution with the clinical activities of clinicians.

- The Medicare Advantage program uses the CMS-HCC Risk Adjustment Model to determine rates.<sup>19</sup> We seek comment on the use of this model or an alternative for risk adjusting episode groups in the construction of cost measures. In addition, should concurrent or prospective risk adjustment be used, and should a full year of data or more targeted data from before the episode be used to adjust?
- The draft list does not currently include specifications for episode sub-groups (a sub-group is intended to achieve greater clinical comparability and is a subdivision of an episode group that further refines the specifications of episode trigger codes and grouping rules to yield more clinically homogenous cohorts of patients with similar expected cost). An example is an episode group for spine surgery with sub-grouping for number of levels and anatomic location. CMS solicits public comment on these draft episode groups and potential sub-groups.
- CMS is especially interested in comments regarding methods to align quality of care with cost measures and welcomes recommendations and suggestions. Considerations for aligning episode groups with quality measurement are described in this document, but are not intended to be an exhaustive list of options. We welcome comment on these methods, as well as any other strategies that could be used to align quality of care considerations with cost measures.
- CMS wishes to avoid any unintended consequences of using cost measures in MIPS, and seeks comment on issues of concern in this regard, such as taking steps to avoid disadvantaging clinicians who assume the care of complex patients such as by applying episodes for comparison of complex patients (i.e., comparison of like-patients of different clinicians).
- CMS acknowledges that prescription drug costs are a large driver of the cost of medical care for Medicare beneficiaries. What would be the best way to incorporate Part D costs into the episode group development?

---

<sup>19</sup> <https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Risk-Adjustors.html>

## APPENDIX B: LIST OF COMMENTERS

This appendix provides an index of the stakeholders who submitted a comment related to the December 2016 posting. The verbatim comments are included in an accompanying document.

**Table B1. List of Commenters**

#	Submission Date	Name	Professional Title	Organizational Affiliation
1	1/2/2017	Matt Hawkins	Director, Pediatric Interventional Radiology	Children's Healthcare of Atlanta at Egleston
2	2/3/2017	Rachel Groman*	Vice President, Clinical Affairs and Quality Improvement	Hart Health Strategies
3	3/27/2017	Cheryl L. Nimmo	President	American Association of Nurse Anesthetists
4	3/29/2017	Terrence L. Cascino	President	American Academy of Neurology
5	4/5/2017	Susan Kay	Quality Manager	Teton Valley Health Care
6	4/9/2017	Harold Miller	President and CEO	Center for Healthcare Quality and Payment Reform
7	4/13/2017	Amanda Cassidy*	Health Policy Advisor	Arnold & Porter Kaye Scholer, LLP
8	4/19/2017	Mark A. Levine	--	--
9	4/19/2017	James S. Kennedy	President	CDIMD – Physician Champions
10	4/20/2017	David Slotwiner	Chair, HRS Health Policy Committee	Heart Rhythm Society
11	4/21/2017	Sharon L. Dunn	President	American Physical Therapy Association
12	4/24/2017	Laura I. Thevenot	Chief Executive Officer	American Society for Radiation Oncology
13	4/21/2017	Samir Fakhry	Chair	Trauma Center Association of America
14	4/24/2017	Kerry D. Solomon	President	American Society of Cataract and Refractive Surgery
15	4/24/2017	Peter D. Stetson	Chief Health Informatics Officer, Deputy Physician-in-Chief	Memorial Hospital for Cancer and Allied Diseases
16	4/24/2017	Wanda D. Filer	Board Chair	American Academy of Family Physicians
17	4/24/2017	Caroll Koscheski	Member, ACG Board of Trustees	American College of Gastroenterology
18	4/24/2017	Sharad Lakhanpal	President	American College of Rheumatology
19	4/24/2017	Dale N. Schumacher	President	Rockburn Institute
20	4/24/2017	James L. Madara	Chief Executive Officer & Executive Vice President	American Medical Association
21	4/24/2017	Gail J. Richard	President	American Speech-Language-Hearing Association
22	4/24/2017	Jeffrey Plagenhoef	President	American Society of Anesthesiologists
23	4/24/2017	Henry W. Lim	President	American Academy of Dermatology Association
24	4/24/2017	Amanda Cassidy	Health Policy Advisor	VisionCare, Inc
25	4/24/2017	James C. Denny III	Executive Vice President and CEO	American Academy of Otolaryngology - Head and Neck Surgery
26	4/24/2017	Andrés Rodríguez	VP, Clinical Affairs	Infectious Diseases Society of America
27	4/24/2017	Jacqueline W. Fincher	Chair, Medical Practice and Quality Committee	American College of Physicians

#	Submission Date	Name	Professional Title	Organizational Affiliation
28	4/24/2017	Christine M. Jackson	Sr. Director, Global Health Policy, Reimbursement, and Health Economics	Medtronic
29	4/24/2017	William J. Maloney	President	American Association of Orthopaedic Surgeons
30	4/24/2017	Raymond Russell	President	American Society of Nuclear Cardiology
31	4/24/2017	Josanne K. Pagel	President and Chair of the Board	American Academy of Physician Assistants
32	4/24/2017	Michael X. Repka	Medical Director for Government Affairs	American Academy of Ophthalmology
33	4/24/2017	Annie Purcell	Chair, Reimbursement and Policy Review Committee	American Academy of Physical Medicine and Rehabilitation
34	4/24/2017	James Gardner	Medical Science Officer, Vice President Reimbursement	Cook Medical
35	4/24/2017	Kenneth C. Anderson	President	American Society of Hematology
36	4/24/2017	Anders Gilberg	Senior Vice President, Government Affairs	Medical Group Management Association
37	4/24/2017	Lisa Miller Jones	Regulation, Policy Manager	American Urological Association
38	4/24/2017	Thomas A. Buchholz	Executive Vice President and Physician-in-Chief	The University of Texas MD Anderson Cancer Center
39	4/24/2017	Krishna Komanduri	President	American Society for Blood and Marrow Transplantation
40	4/24/2017	Ronald Fairman	President	Society for Vascular Surgery
41	4/24/2017	Ellen Flaherty	President	American Geriatrics Society
42	4/24/2017	Karen Bird	Executive Director	Alliance of Dedicated Cancer Centers
43	4/24/2017	Sharmila Sandhu	Counsel and Director of Regulatory Affairs	The American Occupational Therapy Association
44	4/24/2017	Debra Johnson	President	American Society of Plastic Surgeons
45	4/24/2017	David B. Hoyt	Executive Director	American College of Surgeons
46	4/24/2017	Boyd R. Buser	President	American Osteopathic Association
47	4/24/2017	Gregory B. Seymann	Chair, Performance Measurement and Reporting Committee	Society of Hospital Medicine
48	4/24/2017	Tod Ibrahim	Executive Vice President	American Society of Nephrology
49	4/24/2017	Bob Hussey	--	Wolters Kluwer Health
50	4/24/2017	Howard Rogers	Physician	Advanced Dermatology
51	4/24/2017	Steve Phillips	Senior Director, Global Health Policy	Johnson & Johnson
52	4/24/2017	Carolyn C. Ha	Director, Policy & Research	Pharmaceutical Research and Manufacturers of America
53	4/24/2017	Ira H. Kraus	President	American Podiatric Medical Association
54	4/24/2017	Stephen A. Tilles	President	American College of Allergy, Asthma, and Immunology
55	4/24/2017	Robert Coughlin	Reimbursement Manager	Moffitt Cancer Center
56	4/24/2017	Cynthia R. Moran	Executive Vice President	American College of Radiology
57	4/24/2017	Donald May	Executive Vice President, Payment and Health Care Delivery Policy	AdvaMed
58	4/24/2017	Thomas Stasko	President	American College of Mohs Surgery
59	4/24/2017	Joseph A. Hill	Chair, Advocacy	Heart Failure Society of America
60	4/24/2017	David B. Peden	President	American Academy of Allergy, Asthma & Immunology
61	4/24/2017	Michael Camilleri	Chair	American Gastroenterological Association
62	4/24/2017	Daniel F. Hayes	President	American Society of Clinical Oncology

#	Submission Date	Name	Professional Title	Organizational Affiliation
63	4/24/2017	Michael Stevens	President	Coalition of State Rheumatology Organizations
64	4/24/2017	James L. Gajewski	--	--
65	4/24/2017	Kenneth R. McQuaid	President	American Society for Gastrointestinal Endoscopy
66	4/24/2017	Carolyn Magill	CEO	Remedy Partners, Inc.
67	4/24/2017	Gary H. Swartz	Senior Advisor for Public Policy	American Academy of Home Care Medicine
68	4/25/2017	Mary Norine Walsh <sup>+</sup>	President	American College of Cardiology
69	5/5/2017	Andrea P. Thau <sup>+</sup>	President	American Optometric Association

\* While these stakeholders did not directly comment on the December 2016 posting, their feedback was related to the measure development process and previous episode groups postings, so have been included in this report for completeness.

<sup>+</sup> These commenters submitted a comment after the close of the public comment period on April 24, 2017. Their comments have been included in this report for completeness.