

ONCOLOGY CARE MODEL

OCM PERFORMANCE-BASED PAYMENT METHODOLOGY

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Revision History

Version	Date	Description of Changes
1.0	4/15/16	Initial version.
1.1	6/27/16	<ol style="list-style-type: none">1. Revised Section 3.1.1, Prediction Model.2. Revised Section 7.2, Performance Rates, to clarify minimum denominator size is over two performance periods.3. Revised Section 7.3.3, Patient Experience of Care Scoring.4. Added language to Section 7.4, Inapplicable Measures and Measures with Insufficient Denominator Size.5. Removed Appendix A: OCM Included Cancer Diagnoses and Cancer Types and all references. This information is now located on the CMS OCM website. ICD9 diagnosis code 277.89 was removed from this list. As a result, the remaining appendices have been re-lettered.6. Added a new appendix, Appendix F: Patient Experience of Care Measure Composites and Scoring.7. Added a new section (Section 9) for OCM resource information.8. Added links to the OCM Portal throughout where applicable.

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Introduction

This paper describes the technical details for the methodology that the Centers for Medicare & Medicaid Services (CMS) will use to determine a practice's or pool's performance-based payment in the Oncology Care Model (OCM).

OCM is a payment model designed to test the effects of better care coordination, improved access to practitioners, and appropriate clinical care on health outcomes and costs of care for Medicare fee-for-service (FFS) beneficiaries with cancer who receive chemotherapy. OCM encourages participating practices to improve care and lower costs through episode-based payments that financially incentivize high-quality coordinated care. CMS expects that these changes made by the practices in response to OCM participation will result in better care, smarter spending, and healthier people.

OCM is a multi-payer model that includes Medicare FFS and other payers to leverage the opportunity to transform care for oncology patients across the population. There may be differences in certain model design aspects between the subset of OCM for Medicare FFS beneficiaries and the subset for other payer beneficiaries, such as specific payment incentives. However, the approach to practice transformation is consistent across the OCM. This document reflects only the methodologies that will be used for Medicare FFS beneficiaries.

OCM targets physician group practices that prescribe chemotherapy for cancer and is centered on 6-month episodes of care triggered by receipt of chemotherapy. OCM incorporates a two-part payment system for participating practices, composed of a Monthly Enhanced Oncology Services (MEOS) payment and the potential for a retrospective performance-based payment. The MEOS payment will assist participating practices with effectively managing and coordinating care for oncology patients during episodes of care, whereas the potential for performance-based payment will incentivize practices to lower the total cost of care relative to a risk-adjusted target amount and to improve the quality of care for beneficiaries. Practices will be eligible to be paid the MEOS payment monthly for each beneficiary during an episode attributed to them regardless of cancer type, unless the beneficiary enters hospice or dies. Performance-based payments will be made only for higher-volume cancer types for which it is possible to calculate accurate benchmarks. These cancer types, and the lower-volume cancer types for which we will not calculate benchmarks, are listed in the document [“OCM Included Cancer Diagnoses and Cancer Types,”](#) which is available on the CMS OCM website.

Episodes will initiate upon the date of service for an initial Part B chemotherapy drug claim with a corresponding cancer diagnosis on the claim, or upon the fill date for an initial Part D chemotherapy drug claim with a corresponding Part B claim for cancer on the date of, or in the 59 days preceding, the drug claim. Episodes will continue for 6 months. Beneficiaries who continue to receive chemotherapy after completing the 6-month episode will initiate a new episode. Episodes will be organized by performance periods, which are the 6-month periods of time during which a cohort of episodes terminates and is reconciled together. OCM episode expenditures will consist of all Medicare Part A and Part B Medicare expenditures and certain Part D expenditures for a

beneficiary’s care throughout the 6 months. These expenditures will be compared to a risk-adjusted, practice-specific target amount, which will be based on historical expenditures trended forward to the performance period and subject to a discount (representing Medicare savings).

OCM features two possible risk arrangements: a one-sided risk arrangement with a 4 percent discount and a two-sided risk arrangement with a 2.75 percent discount, where the practice or pool will be eligible for higher performance-based payments. For the first three performance periods, the one-sided risk arrangement will apply to all practices. Beginning with Performance Period 4, participating entities will be allowed to switch between the two arrangements semiannually. Practices or pools that do not achieve a performance-based payment by the time of the initial reconciliation of the fourth performance period must exit the model or opt for the two-sided risk arrangement thereafter until achieving a performance-based payment. Eligibility for performance-based payments is contingent upon meeting certain quality thresholds and other requirements as articulated in the OCM Participation Agreement.

The model will run for 5 years, beginning July 1, 2016, and ending June 30, 2021, with a model closeout period after model completion. Calculation of performance-based payment will occur semi-annually and will include all episodes ending in a given 6-month period. [Table 1](#) provides the dates associated with each of the nine, 6-month performance periods, as well as the risk arrangements associated with each.

Table 1: OCM Performance Periods

Model Year	Performance Period	Episodes Beginning	Episodes Ending	Risk Arrangement
1	1	7/1/2016 – 1/1/2017	12/31/2016 – 6/30/2017	One-sided risk only
2	2	1/2/2017 – 7/1/2017	7/1/2017 – 12/31/2017	
2	3	7/2/2017 – 1/1/2018	1/1/2018 – 6/30/2018	
3	4	1/2/2018 – 7/1/2018	7/1/2018 – 12/31/2018	One- or Two-sided risk
3	5	7/2/2018 – 1/1/2019	1/1/2019 – 6/30/2019	
4	6	1/2/2019 – 7/1/2019	7/1/2019 – 12/31/2019	
4	7	7/2/2019 – 1/1/2020	1/1/2020 – 6/30/2020	
5	8	1/2/2020 – 7/1/2020	7/1/2020 – 12/31/2020	
5	9	7/2/2020 – 1/1/2021	1/1/2021 – 6/30/2021	

The following sections provide more detail on how we will calculate the performance-based payments. We calculate the target amounts using a period of baseline data with which we define a set of episodes and calculate the expenditures associated with those episodes. The method used to define those episodes is described in [Section 1](#). The method used to calculate the expenditures associated with the historical episodes is described in [Section 2](#). In [Section 3](#) we describe the method used to determine the target amount for each practice, including the benchmarking model that will be used to estimate risk-adjusted target episode prices. In [Section 4](#) we describe how we will identify episodes in each performance period, and in [Section 5](#) we describe the method used to calculate the expenditures associated with the performance period episodes. In [Section 6](#) we describe the reconciliation of performance period expenditures and the target amounts and the calculation of the performance-based payment, and in [Section 7](#) we describe how we will determine the quality score used in the calculation of the performance multiplier. Finally, in [Section 8](#) we present an example of a performance-based payment calculation.

Section 1: Determination of Baseline Episodes

The first step in determining performance-based payment is to define the set of historical episodes that will be used to develop the baseline episode expenditures on which the target amounts will ultimately be based. The historical period used to determine this set of episodes is January 2012–June 2015. All episodes included in the baseline begin between January 2012 and December 2014 and end between July 2012 and June 2015. Definition of the historical episodes consists of two major steps:

1. Identification of episodes.
2. Attribution of episodes to practices.

1.1 Episode Identification

We identify episodes by first identifying potential “trigger events” in the claims data that indicate the provision of chemotherapy, as described below in [Section 1.1.1](#). We then determine if the beneficiary meets the eligibility criteria described in [Section 1.1.2](#) for the 6 months following each trigger event. Episodes initiate on the date of the first trigger event for which the beneficiary meets all eligibility criteria in the 6 months following. Subsequent episodes may be defined in the historical period once earlier episodes have completed. Once episodes have been defined, we assign a cancer type to the episode, described in [Section 1.1.3](#).

1.1.1 Identification of Trigger Events

Each 6-month episode will begin on the date associated with a trigger event, identified as the first observed Part B chemotherapy drug claim in the historical period with a corresponding cancer diagnosis on the claim OR the first Medicare Part D chemotherapy drug claim with a corresponding Part B claim for cancer. Many chemotherapy drugs are identifiable from Healthcare Common Procedure Coding System (HCPCS) codes, which are the basis of payment for services billed under Medicare Part B. Chemotherapy drugs not covered under Part B are covered under Medicare Part D and are identifiable by National Drug Codes (NDCs). All codes associated with these drugs are referred to as “initiating cancer therapies,” and can be found in the document, “[List of Initiating Cancer Therapies - Historical](#)” on the OCM Portal.

We will identify trigger events by examining chemotherapy drug claims in the Part B (Outpatient, Carrier, and Durable Medical Equipment, Prosthetics/Orthotics, and Supplies [DMEPOS]) and Part D claims files. A Part B claim qualifies as a trigger event if it contains both an initiating cancer therapy and a cancer diagnosis included in the model, listed in the document “[OCM Included Cancer Diagnoses and Cancer Types](#),” which is available on the CMS OCM website. The Part B claim must not have a place of service code indicating an inpatient hospital setting because chemotherapy administered in a hospital does not qualify as a trigger event for OCM. When the trigger event is a Part B drug claim, the episode beginning date is the date of service on the Part B chemotherapy drug claim.

A Part D claim qualifies as a trigger event if it contains an initiating cancer therapy *and* if a Part B claim with an included cancer diagnosis in the document “[OCM Included Cancer Diagnoses and Cancer Types](#)” can be found on the prescription fill date or in the 59 days preceding the fill date (because Part D claims do not contain diagnosis codes). When the trigger event is a Part D claim, the episode beginning date is the fill date on the Part D chemotherapy drug claim.

There is no requirement that a chemotherapy-free period exist before the beginning of any episode. The existence of chemotherapy claims in the pre-episode period will be accounted for in the benchmarking process.

Once an episode has begun, it will last for 6 calendar months, except in the case of death before 6 months have passed. Such episodes are the only ones that may end before 6 months. If a beneficiary dies mid-episode, the practice will no longer be eligible to be paid the MEOS payment, but the episode will still be included in the benchmarking and performance-based payment aspects of the model. Likewise, if a beneficiary elects hospice mid-episode, the practice will no longer be eligible to be paid the MEOS payment, but the episode will still be included in the benchmarking and performance-based payment aspects of the model. Medicare expenditures incurred after hospice election will be included in benchmarking and reconciliation.

Subsequent episodes of chemotherapy may begin after earlier episodes have been completed; chemotherapy claims during an episode do not trigger new episodes. Subsequent episodes have the same requirements for trigger events as prior episodes; any amount of time may pass between the end of one episode and the beginning of the next.

1.1.2 Episode Eligibility

A beneficiary must meet the following requirements for all 6 months of the episode, or in the event the beneficiary dies prior to 6 months, until the beneficiary’s death, for that episode to be eligible for inclusion in OCM:

- Beneficiary is enrolled in Medicare Parts A and B;
- Beneficiary does not receive the Medicare End Stage Renal Disease (ESRD) benefit¹;
- Beneficiary has Medicare as his or her primary payer;
- Beneficiary is not covered under Medicare Advantage or any other group health program;
- Beneficiary received chemotherapy treatment for cancer (defined above in [Section 1.1.1](#));
- Beneficiary has at least one Evaluation & Management (E&M) visit, defined as HCPCS codes in the ranges 99201-99205 and 99211-99215, with a cancer diagnosis included in the document “[OCM Included Cancer Diagnoses and Cancer Types](#),” (available on the CMS OCM website) during the 6 months of the episode.

¹ ESRD status will be determined using information in the Medicare Enrollment Database.

Episodes in which a beneficiary dies or elects hospice care before the end of 6 months are considered eligible; death will be the only case in which an episode will be shorter than 6 months.

The detailed specifications for identifying eligible episodes are located in [Appendix A](#).

1.1.3 Assignment of Cancer Type

Each episode will be classified by cancer type (e.g., prostate, lymphoma, breast). The cancer type will be used in categorizing episodes for reporting, monitoring, and risk adjustment purposes. Cancer type will be assigned using the plurality of diagnoses on E&M visits in the carrier file that occurred during the episode. The diagnosis code corresponding to (on the same line as) each E&M visit will be mapped to a cancer type. The mapping of diagnosis code to cancer type is included in the document “[OCM Included Cancer Diagnoses and Cancer Types](#),” which is available on the CMS OCM website. This document identifies the cancer types that are reconciliation-eligible (as defined in the OCM Participation Agreement), as well as those that are not reconciliation-eligible but are still eligible for the MEOS payment. The cancer type with the most E&M visits is the one that will be assigned to the episode. In the event of a tie, we will apply tie-breakers in the following order, assigning the cancer type associated with:

1. The most recent E&M visit during the episode, then the second-most recent E&M visit, etc.;
2. The cancer type that is reconciliation-eligible;
3. The lowest last digit of the Taxpayer Identification Number (TIN) associated with the visit, second lowest digit, etc.

The detailed specifications for assigning cancer type are included in [Appendix B](#).

1.2 Episode Attribution

Each 6-month episode will be attributed to the TIN (in the case of non-OCM practices) or OCM ID (in the case of OCM practices) associated with the most E&M visits with a cancer diagnosis during the 6-month episode; this is known as the plurality approach. E&M visits will be defined by the HCPCS code ranges 99201 – 99205 and 99211 – 99215. For an E&M visit to qualify and be counted toward plurality, it must be associated with (on the same line item as) one of the cancer diagnosis codes included in the document “[OCM Included Cancer Diagnoses and Cancer Types](#),” which is available on the CMS OCM website. We will use the Part B Carrier file to identify E&M visits.

During the baseline period, an OCM practice is generally defined by one OCM ID and one TIN. In cases where a participating OCM practice billed under multiple TINs or changed its TIN partway through the baseline time period used to determine attribution, we will associate some or all old and new TINs with the practice during that baseline time period for the purposes of attributing episodes. This will ensure that all E&M visits are found and used to determine the baseline attribution.

In a performance period, an OCM practice is defined by one OCM ID and one TIN. If the TIN on a qualifying claim is associated with a participating OCM practice, the visit will be credited to that practice. Otherwise, the visit will be credited to the TIN on the claim, which would be that of a

practice not participating in OCM. We will add up all qualifying E&M visits occurring during the episode by practice and attribute the episode to the practice with the most qualifying E&M visits, which may be a participating OCM practice or not. In the case of a tie (i.e., two different practices having the same number of qualifying E&M visits), we will attribute the episode to the practice with the most recent E&M visit(s) in the episode. If a tie still exists we will attribute the episode to the TIN or OCM ID with the lowest last digit of the TIN, lowest second-to-last digit, etc.

1.2.1 Attribution for Pooled Participants

As described above, each episode will be attributed to an individual practice, where a participating OCM practice is represented by one OCM ID. Some practices may choose or be required to participate in the model on a partnership basis by pooling with other practices. In such cases, we will still attribute the episodes to the individual practices within the pool. We will not combine visits to all TINs in a pool when determining plurality. Episodes attributed to the individual practices in a pool will be combined (summed) for the purposes of reconciliation and quality measurement, though information on the episodes attributed to each individual practice in the pool will be available.

The detailed specifications for episode attribution are located in [Appendix C](#).

Section 2: Calculation of Baseline Episode Expenditures

Once baseline episodes have been identified and attributed to practices, we then add up the Medicare FFS expenditures incurred during each episode. Baseline episode expenditures will include expenditures for all claims where the service date is during the episode. The service date for most claims is the date the beneficiary received the service (referred to as the “from date” on the claim). For Inpatient and Skilled Nursing Facility (SNF) claims, the service date is the date the beneficiary was admitted to the facility (the admission date on the claim). For Part D claims the service date is the date the prescription was filled.

2.1 Components of Baseline Episode Expenditures

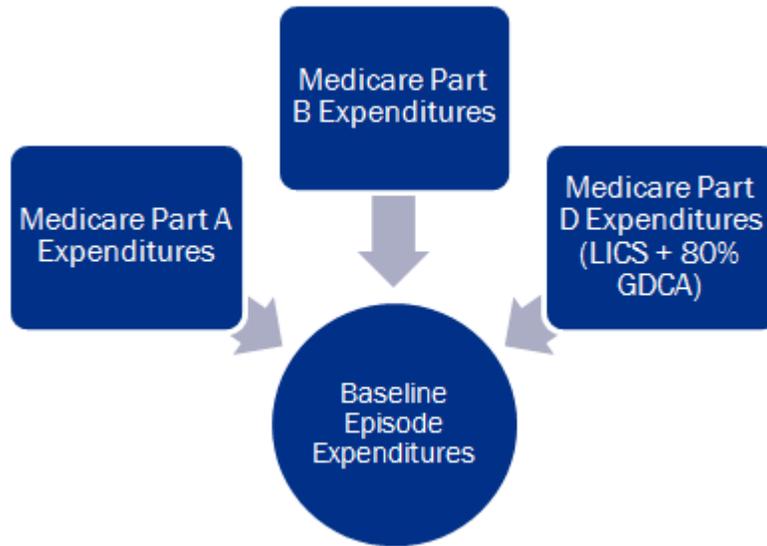
Baseline episode expenditures include all Medicare Part A and Part B FFS expenditures (payments) and certain Part D expenditures (see [Figure 1](#) below). The Part A and Part B expenditures come from the Inpatient, SNF, Outpatient, Carrier, DMEPOS, Home Health Agency (HHA), and Hospice claims files. Medicare expenditures will be adjusted to exclude indirect medical education (IME) and disproportionate share hospital (DSH) payments, as well as inpatient pass through amounts, which include direct graduate medical education (GME), capital-related costs, and bad debt. Additional information on these adjustments is provided below. The Part D expenditures come from the Part D claims files and include only the Low Income Cost Sharing Subsidy (LICS) amount and 80 percent of the Gross Drug Cost above the Catastrophic (GDCA) threshold. Other Part D expenditures will not be included because they are paid on a capitated basis.

The Part A and Part B expenditures will be sourced from CMS’ standardized payment files.² These files remove geographic pricing differences and payments made from special Medicare programs that are not directly related to services provided (IME, GME, DSH) and do not include the effects of upward or downward payment adjustments related to other CMS programs, such as the Hospital Acquired Condition Reduction Program, the Electronic Health Record Incentive Program, and the Hospital Value-based Purchasing Program. These files have a “final maturity” of 12 months of claims run-out. That is, after 12 months has passed, they are no longer updated to account for additional claims or adjustments that have been submitted. Because OCM final reconciliations will include 14 months of claims run-out (see [Section 6.2](#)) there is a small possibility that some claims included in the final reconciliation (i.e., those submitted in months 13 and 14) will not have a corresponding standardized payment. In these cases, we will use the “unstandardized” payment from the claim.

[Figure 1](#) shows the components that comprise the baseline episode expenditures.

²http://www.qualitynet.org/dcs/BlobServer?blobkey=id&blobnocache=true&blobwhere=1228890462119&blobheader=multipart%2Foctet-stream&blobheadername1=Content-Disposition&blobheadervalue1=attachment%3Bfilename%3DCMS_Price_StdrdznMethod_061515.pdf&blobcol=urldata&blobtable=MungoBlobs

Figure 1: Components of Baseline Episode Expenditures



Before finalizing the baseline episode expenditures, we will apply four adjustments. The first is an adjustment to account for overlap of OCM episodes and other CMS models ([Section 2.2](#)); the second is an adjustment to remove the effects of sequestration ([Section 2.3](#)); the third is a trend adjustment ([Section 2.4](#)); and the fourth is an outlier adjustment called Winsorization ([Section 2.5](#)).

2.2 Accounting for Model Overlap in the Baseline

In the event that an OCM beneficiary was aligned with other CMS models during the baseline period, we will adjust the baseline expenditures accordingly, as described below.

Medicare Accountable Care Organizations (ACOs)

In all of the OCM actual episode expenditure calculations, we will account for any reductions in FFS payments for OCM beneficiaries aligned to Pioneer ACOs that elected population-based payments by adjusting the standardized paid amount on claims, as necessary, to reflect the amount that would have been paid in the absence of population based-payments. We will not include the Pioneer ACO's monthly payment for OCM beneficiaries aligned to Pioneer ACOs that elected population-based payments as OCM baseline expenditures.

Bundled Payments for Care Improvement Initiative (BPCI)

When a BPCI episode overlaps with an OCM episode in the baseline period, any expenditure reductions or increases will first accrue to the BPCI episode. We will prorate the BPCI reconciliation amount by the portion of the BPCI episode that overlapped with the OCM episode. This prorated BPCI reconciliation amount will be included in the baseline episode expenditures of that OCM beneficiary's care during the OCM episode.

2.3 Sequestration Adjustment

Beginning April 1, 2013, all Medicare expenditures were reduced by 2 percent due to sequestration. In the absence of sequestration, Medicare expenditures would be approximately 2 percent higher (technically $1/0.98$ or 2.041 percent higher) than they actually were. OCM baseline claims occurring on and after April 1, 2013, were covered by sequestration and reflect the 2 percent sequestration decrease, and those occurring prior to April 1, 2013, do not. To ensure that the baseline expenditures do not contain some claims with the sequestration reduction and some without, we will adjust the expenditures at the claim level, based on the date of service, to yield an amount equal to what the expenditures would have been in the absence of sequestration. The same adjustment will be made to performance period expenditures. Because any performance-based payments made under OCM will be subject to sequestration when payment is made, expenditure reductions will be calculated based on expenditures that do not reflect sequestration, so as not to double-count the sequestration reduction.

All non-DMEPOS claims with a through date of April 1, 2013, or after will be adjusted by dividing the Medicare payment by 0.98 (this reflects how sequestration was actually implemented). DMEPOS claims from April 1, 2013, or after will be adjusted by dividing the Medicare payment by 0.98. Dividing by 0.98 will increase the claim payments up to the amount that would have been paid in the absence of sequestration.

2.4 Baseline Trend

The trend adjustment will move all episode expenditures in the baseline period to the same level as the expenditures for episodes ending in the most recent 6-month historical period (January – June, 2015). We will adjust expenditures for episodes ending in the first historical period (July – December, 2012) by multiplying them by the ratio of average episode expenditures in the most recent historical period to average episode expenditures in the first historical period. A similar process will be followed for episodes ending in the second through fifth historical periods. This will bring all baseline episode expenditures forward to sixth historical period.

2.5 Winsorization

After applying the adjustments for model overlap, sequestration, and baseline trend, we apply the fourth adjustment to the baseline expenditures, which is called Winsorization. Winsorization is a two-sided truncation adjustment that will limit the impact of outliers on the average expenditures. We will Winsorize episode expenditures at the 5th and 95th percentiles of per-episode expenditures by cancer type. Specifically, episode expenditures below the 5th percentile by cancer type will be set to the 5th percentile, and episode expenditures above the 95th percentile will be set to the 95th percentile within cancer type. Winsorization thresholds will be set using all episodes defined and attributed nationally, for both OCM and non-OCM practices.

Section 3: Calculation of Target Amounts

The target amount is a projection of what the Medicare expenditures would have been during the performance period for episodes attributed to the OCM practice or pool in the absence of OCM participation, reduced for the OCM discount; it is risk-adjusted and specific to each OCM practice. Only episodes that are assigned reconciliation-eligible cancer types, as defined by the OCM Participation Agreement, will be included in each practice's target amount. The target amount is based on baseline expenditures (see [Section 2](#)) that have been trended forward to the performance period and adjusted for the Medicare OCM discount (representing Medicare savings).

We first calculate a risk-adjusted *baseline price* for each episode. The baseline prices will be trended forward to the performance period and adjusted to reflect the costs of chemotherapy drugs that have received recent U.S. Food and Drug Administration (FDA) approval, as described in [Section 3.2](#) below. The trended and adjusted baseline price is referred to as the *benchmark price*. The benchmark price will then be reduced by a CMS discount (4 percent in the one-sided risk arrangement and 2.75 percent in the two-sided risk arrangement). The discounted benchmark price is the *target price*. The sum of the target prices for all episodes attributed to a practice in a given performance period is equal to the *target amount* that will be compared with that practice's actual episode expenditures (defined in [Section 5](#)).

Calculating the target amount for each practice involves the following steps:

1. Determining the baseline price for each episode ([Section 3.1](#)).
2. Determining the benchmark price for each episode ([Section 3.2](#)).
3. Determining the target price for each episode ([Section 3.3](#))
4. Determining the benchmark and target amounts for each practice ([Section 3.4](#)).

In the event that a practice is participating in a pool, benchmark and target amounts will be based on episodes attributed to all practices within the pool.

3.1 Baseline Price (per Episode)

The baseline price for each episode will be calculated by first predicting the baseline expenditures associated with the specific characteristics of that episode, described below in [Section 3.1.1](#), and then adjusting the prediction to account for the practice's own experience in the baseline period, described in [Section 3.1.2](#).

3.1.1 Prediction Model

The baseline prices will be calculated using a prediction model that will be calibrated using the national set of baseline episodes described in [Section 1](#) and the baseline episode expenditures described in [Section 2](#). The prediction model will be estimated by regressing baseline episode expenditures on a list of covariates that have been determined to influence episode expenditures. The list of covariates may change over time and includes the following:

- Cancer type (those that are reconciliation-eligible, as defined in the document “[OCM Included Cancer Diagnoses and Cancer Types](#),” available on the CMS OCM website)
- Age
- Sex
- Dual eligibility for Medicaid and Medicare
- Selected non-cancer comorbidities
- Receipt of selected cancer-directed surgeries
- Receipt of bone marrow transplant
- Receipt of radiation therapy
- Type of chemotherapy drugs used during episode (only Part D-covered drugs versus some or all Part B-chemotherapy drugs; for breast cancer only)
- Institutional status
- Participation in a clinical trial
- History of prior chemotherapy use
- Episode length
- Hospital referral region

The functional form of the model will be a generalized linear model with a log link and gamma distribution. This type of model is commonly used in predicting health care expenditures and yields only positive predicted values. Because the most recent baseline year is likely to be the most important for predicting future expenditures, baseline expenditures will be weighted in the following manner: for episodes ending in the period July 2012 – June 2013, weight=0.5; for episodes ending in the period July 2013 – June 2014, weight=1.0; for episodes ending in the period July 2014 – June 2015, weight=1.5.

The coefficients from the prediction model will be used to calculate predicted baseline expenditures for each episode identified during the performance period. We will then apply an adjustment reflecting the experience of each practice or pool to each episode’s predicted baseline expenditures before calculating the final baseline price. Detailed information about the covariates used in the prediction model is available in the documents “[OCM Prediction Model](#)” and “[OCM Prediction Model Code Lists](#),” both of which are located in the OCM Portal.

3.1.2 Experience Adjuster

Because the prediction model may not fully control for all factors that affect episode expenditures, an additional adjustment at the practice or pool level will be applied to the predicted baseline expenditures to reflect the relative costliness of each participating practice or pool during the baseline period. The experience adjuster will control for unmeasured selection at the practice or pool. The experience adjuster will be calculated by first using the prediction model to predict the expenditures of each baseline episode for each participating practice or pool, as described above in [Section 3.1.1](#). The average *actual* baseline expenditures will then be compared with the average *predicted* baseline expenditures for each practice or pool. The ratio of actual-to-predicted average baseline expenditures will constitute a practice- or pool-specific experience adjuster that will be

applied to the predicted baseline expenditures for each episode attributed to each participating practice or pool. Because average expenditures for individual practices tend to move toward average expenditures for all practices over time (a phenomenon known as “regression toward the mean”) the adjusters will not be applied in their entirety to the predicted baseline expenditures. Rather, the experience adjusters will have a weight of 50 percent applied to move them closer to a value of 1.0. For example, if the ratio of actual-to-predicted average baseline expenditures for a particular practice is 1.2, we would calculate the experience adjuster for that practice to be 1.1. The formula for this adjustment is:

Experience Adjuster = 50% * 1 + 50% * ratio of actual-to-expected average baseline expenditures

Experience adjusters will be calculated for each OCM practice and pool. Should an OCM practice undergo a change in organizational structure, such as an acquisition or merger, during the model, or the composition of an OCM pool change during the model’s duration, we will recalculate the experience adjuster to reflect the baseline experience of the newly structured practice or pool. The baseline price for each episode is equal to the predicted baseline expenditures for that episode multiplied by the experience adjuster calculated for that episode’s practice or pool.

3.2 Benchmark Price (per Episode)

The benchmark price for each episode is equal to the baseline price multiplied by a trend factor and an adjustment for the use of novel cancer therapies; these adjustments are specific to each practice and pool. The trend factor will reflect underlying secular trends in episode expenditures between the baseline and performance periods. The novel therapy adjustment factor will increase the benchmark price to account for the appropriate use of newly approved oncology medications; the novel therapy adjustment is applied only in cases where the practice’s use of specified novel therapies is greater than that of practices not participating in OCM. The calculation of the trend factor is described below in [Section 3.2.1](#). The calculation of the novel therapy adjustment is described in [Section 3.2.2](#).

3.2.1 Trend Factor

Trend factors will be derived from expenditures for all episodes attributed to practices not participating in OCM. The ratio of non-participating practices’ episode expenditures in the performance period to their episode expenditures in the baseline period will constitute the basis for the trend factor. We will use regression analysis to adjust the trend factor to the case mix of each participating practice or pool in the performance period. Specifically, we will estimate separate regression models on *performance period* expenditures among non-participating practices and on *baseline* expenditures among non-participating practices. These regression models will use the same functional form as the prediction model used to calculate the baseline prices and will use a similar set of covariates. We will use coefficients from these two models to calculate two sets of predicted expenditures for each participating practice and pool during the performance period. For a given practice or pool, the ratio of predicted performance period expenditures to predicted baseline period expenditures represents the trend factor for that practice or pool. We will multiply the baseline price by the trend factor to calculate the trended baseline price for each episode.

Additional adjustments to the trend factor will be made as needed to account for changes in Federal regulation (e.g., a Final Rule for the Medicare Part B Drug Model) or other new models.

3.2.2 Adjustment for Novel Therapies

Benchmark prices may be adjusted to reflect situations where a practice has a higher proportion of expenditures for the use of newly FDA-approved oncology drugs for the cancer types for which they are approved than what is reflected in the trended baseline prices. The FDA approves new oncology treatments each year, many of which are substantially more expensive than existing therapies. Predicted episode expenditures based on trended historical data may not reflect the relative expense of these newly approved therapies, particularly in situations where a practice has a higher proportion of these expenditures than what is reflected in the trended baseline price. A potential adjustment may be available that will be based on the proportion of each practice's or pool's average episode expenditures for these new oncology therapies compared to the same proportion for episodes that are not part of OCM.

To qualify for adjustment, certain criteria would need to be met, including:

1. Only oncology drugs that received FDA approval after December 31, 2014, would be considered for inclusion.
2. Only practices with attributed beneficiaries who received the novel oncology therapies would be potentially impacted.
3. New oncology therapy expenditures will only be considered for adjustment if the use of the novel therapy is consistent with the FDA-approved indications.
4. Oncology drugs will be considered "new" for 2 years from FDA approval for that specific indication for the purpose of the adjustment. The "new" designation may extend past 2 years to align with the OCM reconciliation process.

For each performance period, we will calculate the percentage of actual episode expenditures associated with novel therapies for each practice and pool. As noted in #3 above, to be included in this amount, the use of the specified novel therapies must be consistent with the FDA-approved indications. For Part B drugs, the cost of new oncology drugs includes the full Medicare expenditure amount; for Part D drugs, the relevant costs include the LICs amount and 80 percent of the GDCA. This percentage will be compared to the percentage of actual episode expenditures associated with new oncology drugs among all episodes nationally not attributed to participating OCM practices. If a given practice's or pool's new oncology drug expenditures as a percentage of its total episode expenditures is higher than that for episodes outside the OCM model, then an adjustment will be made to the trended baseline prices based on 80 percent of the difference between the practice's or pool's proportion and the non-participating practices' proportion. The novel therapies adjustment may lead to a higher benchmark only; it will never lower a benchmark.

CMS may opt to adjust the calculation of the novel therapies adjustment in the future. Expenditures for certain therapies with lower clinical effectiveness may be adjusted downward when calculating

the relative proportion of novel therapy expenditures per episode. Any such adjustments would be applied no earlier than the third performance period.

[Appendix D](#) provides an example calculation of the adjustment for the use of novel therapies.

3.3 Target Price (per Episode)

After the adjustments are applied for trend and novel therapies to produce the benchmark price, the OCM discount will be applied to obtain a target price for each episode. The OCM discount under the one-sided risk sharing arrangement is 4 percent and that under the two-sided risk arrangement is 2.75 percent. The target price is equal to the benchmark price multiplied by one minus the OCM discount, or,

Target Price = Benchmark Price * (1 – OCM discount).

3.4 Benchmark and Target Amounts (per Practice)

The benchmark amount is the sum of the benchmark prices for all episodes attributed to the practice for the performance period, as described in [Section 3.2](#). The benchmark amount represents the projection of what the Medicare expenditures would have been during the performance period for episodes attributed to the OCM practice in the absence of OCM participation. The benchmark amount does not include the OCM discount.

The final target amount for each practice is equal to the sum of the target prices for all episodes attributed to the practice for the performance period.

[Appendix E](#) provides a mathematical description of the methodology for calculating target amounts in the performance period.

Section 4: Determination of Performance Period Episodes

The episodes identified and attributed for each performance period will be defined in the same way as those for the baseline period, as described in [Section 1](#). Each performance period, we will identify the national set of episodes meeting OCM criteria and will attribute them to all OCM practices as well as to non-OCM practices (as defined by TIN). The episodes attributed to practices not participating in OCM will be used for the development of the trend factor (see [Section 3.2.1](#)) and the adjustment for the use of novel therapies (see [Section 3.2.2](#)). The episodes attributed to each OCM practice will comprise the population for that practice and the actual episode expenditures associated with the performance period.

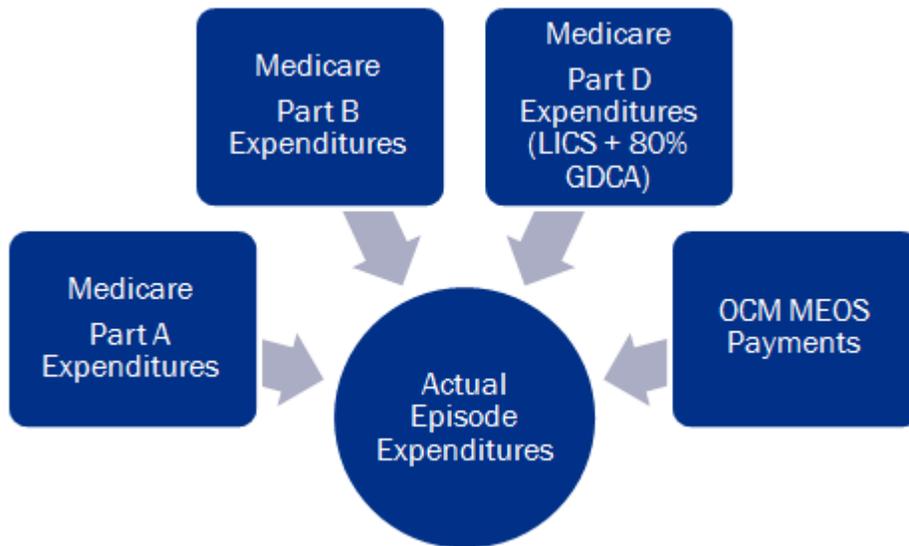
Section 5: Calculation of Actual Episode Expenditures

Once performance period episodes have been identified and attributed to practices we then add up the Medicare FFS expenditures incurred during each episode. As with the baseline expenditures, actual episode expenditures will include expenditures for all claims where the service date is during the episode. The service date for most claims is the date the beneficiary received the service (referred to as the “from date” on the claim). For Inpatient and SNF claims, the service date is the date the beneficiary was admitted to the facility (the admission date on the claim). For Part D claims the service date is the date the prescription was filled.

5.1 Components of Actual Episode Expenditures

Actual episode expenditures include all Medicare Part A and Part B FFS expenditures (which will include the OCM MEOS payments), certain Part D expenditures, and payments resulting from overlapping participation in other CMS models (see [Figure 2](#) below).

Figure 2: Components of Actual Episode Expenditures



The Part A and Part B expenditures come from the Inpatient, SNF, Outpatient, Carrier, DMEPOS, HHA, and Hospice claims files. As with the baseline episode expenditures, actual Medicare expenditures will be standardized to exclude IME and DSH payments, as well as inpatient pass-through amounts. Part D expenditures come from the Part D claims files and include only the LICS amount and 80 percent of the GDCA. Other Part D expenditures will not be included because they are paid on a capitated basis. The Part A and Part B actual expenditures will be sourced from CMS’ standardized payment files (see [Section 2.1](#)).

Before finalizing the actual episode expenditures, we will apply similar adjustments as those made to the baseline expenditures—an adjustment to account for potential overlap of shared savings or performance-based payments that may be earned through participation in multiple CMS FFS models

([Section 5.2](#) below), an adjustment to remove the effect of sequestration ([Section 2.3](#)) and the Winsorization adjustment ([Section 2.5](#)). Additional adjustments to the actual episode expenditures will be made as needed to account for changes in Federal regulation (e.g., a Final Rule for the Medicare Part B Drug Model) or other new models.

5.2 Accounting for Model Overlap

In order to ensure that duplicative incentive payments are not made for the same savings for the same beneficiary, we will follow certain procedures depending on the additional models in which the practice participates. In the event that new CMS models begin during OCM, we will make additional adjustments as needed to account for the overlap between OCM and those new models. We will account for beneficiary overlap with the models listed below in the calculation of actual expenditures.

Medicare Accountable Care Organizations

OCM practices and practitioners and their attributed beneficiaries may participate in (or, in the case of a beneficiary, be aligned to) a Medicare Shared Savings Program (MSSP), Pioneer, or Next Generation ACO (all programs subsequently referred to as “ACOs”). In all of the OCM actual episode expenditure calculations, we will account for any reductions in FFS payments for OCM beneficiaries aligned to Medicare ACOs that have elected population-based payments by adjusting the standardized paid amount on claims, as necessary, to reflect the amount that would have been paid in the absence of population based-payments. We will not include as an expenditure in an OCM episode the ACO’s monthly payment for OCM beneficiaries aligned to ACOs that have elected population-based payments.

For further accounting of ACO overlap in the performance-based payment calculation, see [Section 6.2.2](#).

BPCI and Comprehensive Care for Joint Replacement (CJR)

OCM practices, practitioners, and their beneficiaries may participate (or, in the case of a beneficiary, be included) concurrently in BPCI and CJR. When a BPCI episode overlaps with an OCM episode, any reductions or increases in expenditures will first accrue to the BPCI episode. After BPCI performs its reconciliation calculations, we will prorate the BPCI reconciliation amount, a non-claims-based payment or recoupment, by the portion of the BPCI episode that overlapped with the OCM episode. This prorated BPCI reconciliation amount will be included in the actual episode expenditures of that OCM beneficiary’s care during the OCM episode. This amount will be added to the OCM actual episode expenditures prior to the application of Winsorization. The same approach will be taken in the event of contemporaneous attribution of a beneficiary to both an OCM episode and a CJR episode.

Medicare Care Choices Model (MCCM)

OCM practices, practitioners, and beneficiaries may participate (or, in the case of a beneficiary, be included) concurrently in MCCM. MCCM per beneficiary per month (PBPM) payments will be included in the actual episode expenditures of the OCM beneficiary's care during the OCM episode. No explicit adjustment will be required to be made to the actual expenditures, as the MCCM PBPM payments will appear as individual records in the claims data used to determine the actual episode expenditures.

Section 6: Calculation of Performance-Based Payments

Performance-based payments will be calculated separately for each OCM practice and pool for each of the nine performance periods defined in [Table 1](#). For each performance period, we will calculate each practice's target amount as described in [Section 3](#) and each practice's actual episode expenditures as described in [Section 5](#). In this section, we describe how we will compare the actual episode expenditures with the target amount to determine if there were expenditure reductions in the performance period and how we will determine the amount of the eligible performance-based payment associated with any expenditure reductions. This process is called reconciliation. We also describe three post-hoc adjustments that will be made to the performance-based payment. Two of these adjustments, geographic variation and sequestration, will apply to all practices and pools. One of them, an adjustment for ACO overlap, will potentially apply to only those OCM participants who are also ACOs. Finally, we discuss the frequency with which the reconciliation process will occur.

6.1 Requirements for Receiving a Performance-Based Payment

In order to receive a performance-based payment, the following requirements must be met:

- The practice's target amount exceeds the actual episode expenditures of the episodes attributed to the practice, or, in the case of a pool, the sum of the target amounts for the practices comprising the pool exceeds the sum of the actual episode expenditures of the episodes attributed to the practices in the pool.
- The practice or pool achieves an Aggregate Quality Score (AQS) that meets or exceeds the minimum performance threshold of 30 percent (out of 100 percent). The AQS is equal to the total quality points earned divided by the maximum quality points in the performance period. Information on the quality measures and how quality points are determined is located in [Section 7](#).
- The practice, or, in the case of a pool, each practice in the pool, reports to the OCM Data Registry on all of the practice-reported quality measures identified in [Section 7.1](#), [Table 2](#).
- The practice, or, in the case of a pool, each practice in the pool, implements all of the Practice Redesign Activities.

6.2 Reconciliation

To determine whether a performance-based payment may be made to an individual practice, we will first compare the practice's actual episode expenditures with its target amount (which reflects the OCM discount) for the performance period. If the actual episode expenditures are lower than the target amount, a performance-based payment may be made, contingent upon quality performance. In this case, we would first determine if the OCM "stop-gain" provision would be triggered. The stop-gain provision limits the reduction in expenditures to which the performance multiplier will be applied to no more than 20 percent of the practice's benchmark amount. If the reduction in expenditures is

greater than 20 percent of the benchmark amount, it will be set equal to 20 percent of the benchmark amount. The performance-based payment will be equal to the difference between the actual episode expenditures (as modified by the stop-gain provision, if applicable) and the target amount, multiplied by the performance multiplier, adjusted for geographic variation (see [Section 6.2.1](#)), and reduced for sequestration (required by law), as shown in this formula:

$$\text{PBP} = (\text{Target} - \text{Actual}) * \text{PM} * \text{GA} * \text{S}, \text{ where}$$

PBP = performance-based payment

Target - Actual = target amount minus actual episode expenditures, modified by stop-gain

PM = performance multiplier

GA = geographic variation adjustment

S = sequestration (equal to 0.98)

The performance multiplier will be 0 percent, 50 percent, 75 percent, or 100 percent, depending on the practice's or pool's AQS for the performance period. The method for determining the performance multiplier is described in [Section 7](#).

If the actual expenditures are greater than the target amount, no performance-based payment will be made. If the actual expenditures are greater than the target amount and the practice has elected the two-sided risk sharing arrangement for the performance period, the practice must pay CMS back the difference (called a recoupment), subject to a maximum repayment of 20 percent of the benchmark amount, adjusted for geographic variation and reduced for sequestration. The performance multiplier will not be applied to any recoupment amounts.

6.2.1 Geographic Variation Adjustment

Before calculating the final performance-based payments, we will include an adjustment to account for differences in costs due to geographic location. As described in [Section 2.1](#), we initially remove the effects of geographic variation in the calculation of the target amounts and the actual episode expenditures. During reconciliation, the geographic variation will be reintroduced, and will be based on the CMS Geographic Practice Cost Index (GPCI) and the CMS Hospital Wage Index (HWI) specific to the areas in which a specific practice's OCM attributed beneficiaries reside. The geographic adjustment will be an average of the GPCI and the HWI, depending on the mix of drug, physician, and facility expenditures for the OCM practice's beneficiaries in the performance period. The proportion of expenditures associated with Part B and Part D drugs will not be adjusted because these expenditures are not influenced by GPCIs or HWIs. Drug expenditures will receive an adjustment of 1.0.

6.2.2 Adjustment for ACO Overlap

OCM MEOS payments, performance-based payments, and recoupments will be eligible for inclusion in ACO shared savings calculations in the event that an OCM beneficiary is also aligned to an entity participating as an ACO. However, shared savings calculations for ACOs will not take into account

OCM discount amounts, which represent Medicare savings. Thus, CMS will perform separate calculations to identify these amounts. If a portion of the OCM discount is paid out as shared savings to an ACO under the same TIN as an OCM practice, CMS will recover that portion from the OCM practice. The amount to be recovered will be equal to the ACO's shared savings percentage multiplied by the OCM discount amount associated with the overlapping beneficiaries' episodes. Whenever possible, the recoupment amount will be subtracted from the performance-based payment for the current reconciliation. There may be cases where the calculation is unable to be made until after any performance-based payment has been made for the third reconciliation (described below in [Section 6.2.3](#)), in which case the practice would return the amount directly to CMS in the form of an external recoupment.

6.2.3 Frequency and Timing

We will carry out the calculations for each 6-month performance period three times. Each reconciliation will use more claims run-out (that is, claims submitted after the end of the performance period) than the one prior. The first reconciliation will include 2 months of claims run-out, the second reconciliation will include 8 months of claims run-out, and the third and final reconciliation will include 14 months of claims run-out. The results of the second and third reconciliations will be compared with those of the previous reconciliations, possibly resulting in changes to the performance-based payment or recoupment. Differences between the current and previous reconciliations will be added to or subtracted from the current reconciliation amount. If the revised performance-based payment exceeds the original performance-based payment, CMS will make an additional payment to the practice or pool. If the revised performance-based payment is less than the original performance-based payment, the practice or pool will be required to pay back the difference (under one-sided risk, the performance-based payment for a given performance period will never be less than zero).

Calculations for each reconciliation will begin once the last month of run-out for the reconciliation has been received, usually within 6 weeks after the end of the last month of run-out. In general, results of the first reconciliation will be communicated by the eighth month after the end of each performance period. The results of the second and third reconciliations will be communicated 6 and 12 months later, respectively.

6.3 Performance-Based Payments for Pools

The actual expenditures for each pool will be the sum of the actual expenditures for all episodes attributed to the practices in the pool. The quantity to which a pool's actual expenditures will be compared will be the sum of the target amounts for all practices comprising the pool. Likewise, the performance multiplier will be based on the combined experience of all episodes attributed to the practices in the pool, as described in [Section 7.5](#). We will calculate one performance-based payment for the pool, and it will be paid to the pool's designated recipient as specified in the OCM Participation Agreement.

Performance-based payments for pools will be calculated in generally the same manner as described above for individual practices. To determine whether a performance-based payment may be made to a pool, we will first compare the pool's actual episode expenditures with the sum of the target amounts for the performance period for all practices in the pool. If the actual episode expenditures are lower than the sum of the practice target amounts, a performance-based payment may be made, contingent upon quality performance. In this case, we would first determine if the OCM stop-gain provision would be triggered. If the reduction in expenditures is greater than 20 percent of the sum of the benchmark amounts for all practices in the pool, it will be set equal to 20 percent of the sum of the benchmark amounts. The performance-based payment will be equal to the difference between the actual episode expenditures (as modified by the stop-gain provision, if applicable) and the sum of the target amounts, multiplied by the performance multiplier, adjusted for geographic variation, and reduced for sequestration (as required by law). The performance multiplier will be 0 percent, 50 percent, 75 percent, or 100 percent, depending on the pool's AQS for the performance period. The method for determining the performance multiplier is described in [Section 7](#).

If the actual expenditures are greater than the sum of the target amounts, no performance-based payment will be made. If the actual expenditures are greater than the target amount and the pool has elected the two-sided risk sharing arrangement for the performance period, the pool must pay CMS back the difference (called a recoupment), subject to a maximum repayment of 20 percent of the sum of the benchmark amounts, reduced for sequestration. The performance multiplier will not be applied to any recoupment amounts.

Section 7: Quality Measures and the Performance Multiplier

As described above in [Section 6](#), the final calculation of performance-based payment requires the application of a performance multiplier. This multiplier will determine the percentage of eligible performance-based payment (0 percent to 100 percent) that may be paid to each practice or pool. The multiplier will be based on the AQS constructed from each practice’s or pool’s performance on the quality measures. In [Section 7.1](#), we describe the OCM quality measures and how they contribute to the determination of the performance multiplier. In [Section 7.2](#) we describe the approach for calculating the measure performance rates. In [Section 7.3](#), we describe the methods that will be used to assign quality points to each measure and to calculate the AQS. Finally, in [Section 7.4](#) we address cases of inapplicable measures and measures with insufficient denominators.

7.1 Quality Measures and Quality Points

The performance multiplier will be based on a set of 12 measures that fall into four domains, shown in [Table 2](#) . These measures were chosen after an extensive literature review, a review by a Technical Expert Panel, discussions with CMS, and consideration of alignment with other quality reporting efforts, including the Physician Quality Reporting System (PQRS). Measures are derived from claims, the OCM Data Registry (as reported by practices), and a patient experience of care survey that a CMS contractor will field.

Table 2: Measures to be used in OCM Performance Multiplier

Measure Name	OCM Measure Number	Measure Source
Communication and Care Coordination		
Risk-adjusted proportion of patients with all-cause hospital admissions within the 6-month episode	OCM-1	Claims
Risk-adjusted proportion of patients with all-cause ED visits that did not result in a hospital admission within the 6-month episode	OCM-2	Claims
Proportion of patients who died who were admitted to hospice for 3 days or more	OCM-3	Claims
Person- and Caregiver-Centered Experience and Outcomes		
Pain assessment and management (NQF 0383 and 0384, PQRS 143 and 144)	OCM-4	Registry (practice-reported)
Preventive Care and Screening: Screening for Clinical Depression and Follow-Up Plan (NQF 0418, PQRS 134)	OCM-5	Registry (practice-reported)
Patient-Reported Experience of Care	OCM-6	Survey
Clinical Quality of Care		
Prostate cancer: Adjuvant hormonal therapy for high-risk beneficiaries (NQF 390)	OCM-7	Registry (practice-reported)

Measure Name	OCM Measure Number	Measure Source
Timeliness of adjuvant chemotherapy for colon cancer (NQF 0223)	OCM-8	Registry (practice-reported)
Timeliness of combination chemotherapy for hormone receptor negative breast cancer (NQF 0559)	OCM-9	Registry (practice-reported)
Trastuzumab received by patients with AJCC stage I (T1c) to III Her2/neu positive breast cancer (NQF 1858)	OCM-10	Registry (practice-reported)
Hormonal therapy for stage IC-IIIC estrogen receptor/progesterone receptor (ER/PR) positive breast cancer (NQF 0387 / PQRS 71)	OCM-11	Registry (practice-reported)
Patient Safety		
Documentation of current medication (PQRS #130)	OCM-12	Registry (practice-reported)

Table 3 summarizes the approach for phasing in the measures; in the first two performance periods there will be a mix of pay-for-reporting (P4R) and pay-for-performance (P4P) measures. P4R measures require only that each practice report data on a sufficient number of beneficiaries for the practice or pool to receive quality points. P4P measures are assigned quality points based on the practice or pool’s performance as compared to set thresholds, called quality benchmarks. As shown in [Table 3](#), in the first two performance periods, the three claims-based measures are P4P and the eight practice-reported measures are P4R; the patient-reported experience of care measure is not included in the first performance period and will be P4P in the second performance period. Beginning in the third performance period, all measures are P4P. In [Table 3](#), “R” indicates only reporting of the measure will be required for the performance period, and “P” indicates the measure will be scored by comparison with a threshold (described in [Section 7.3](#) below) for the performance period.

Table 3: OCM Measure Phase-in

OCM Measure Number	Perf. Period 1 Scoring Basis	Perf. Period 1 Maximum Points	Perf. Period 2 Scoring Basis	Perf. Period 2 Maximum Points	Perf. Period 3 Scoring Basis	Perf. Period 3 Maximum Points
OCM-1	P	10	P	10	P	10
OCM-2	P	10	P	10	P	10
OCM-3	P	10	P	10	P	10
OCM-4	R	2.5	R	2.5	P	10
OCM-5	R	2.5	R	2.5	P	10
OCM-6	--	–	P	10	P	10
OCM-7	R	2.5	R	2.5	P	10
OCM-8	R	2.5	R	2.5	P	10
OCM-9	R	2.5	R	2.5	P	10

OCM Measure Number	Perf. Period 1 Scoring Basis	Perf. Period 1 Maximum Points	Perf. Period 2 Scoring Basis	Perf. Period 2 Maximum Points	Perf. Period 3 Scoring Basis	Perf. Period 3 Maximum Points
OCM-10	R	2.5	R	2.5	P	10
OCM-11	R	2.5	R	2.5	P	10
OCM-12	R	2.5	R	2.5	P	10
Total	--	50	–	60	–	120

Generally, each measure will have a maximum of 10 points available. The exception is in the first two performance periods, when the P4R measures will have a maximum of 2.5 points available for each. In the first performance period, there will be a maximum of 50 points available, 30 of which will come from P4P measures and 20 of which will come from P4R measures. Scoring in the first performance period will be calculated as follows:

- Maximum of 30 points for P4P measures (3 measures * 10 points each).
- Maximum of 20 points for P4R measures (8 measures * 2.5 points each).
- Maximum of 50 points total.

In the second performance period, there will be a maximum of 60 points available, 40 of which will come from P4P measures and 20 of which will come from P4R measures. Scoring in the second performance period will be calculated as follows:

- Maximum of 40 points for P4P measures (4 measures * 10 points each).
- Maximum of 20 points for P4R measures (8 measures * 2.5 points each).
- Maximum of 60 points total.

In the third and subsequent performance periods there will be a maximum of 120 points available. At this point, the eight practice-reported P4R measures will transition to P4P and all measures will be weighted equally. Therefore, the scoring for the third and subsequent performance periods will be calculated as follows:

- Maximum of 120 points (12 measures * 10 points each)

In each performance period, we will calculate the AQS for each practice, expressed as a percent ranging from 0 to 100, which will equal the sum of the points earned on all applicable measures divided by the maximum number of points available. The performance multiplier will depend upon the AQS. [Section 7.2](#) describes how performance rates are calculated for each measure, and [Section 7.3](#) describes how the reporting and performance rates determine the number of points earned for each measure.

7.2 Performance Rates

Performance rates on P4P measures will be calculated according to the specifications for each measure. Performance rates for claims-based measures (OCM-1 – OCM-3) will be calculated using Medicare administrative data only. Performance rates for the patient-reported experience of care measure (OCM-6) will be calculated using the survey data collected by the Evaluation Contractor and

a methodology agreed upon by the Evaluation Contractor, the Implementation Contractor, and CMS. Performance rates for practice-reported measures (OCM-4, OCM-5, OCM-7 – OCM-12) will be calculated using data submitted to the OCM Data Registry by OCM practices. In the first two performance periods when the practice-reported measures are P4R, they will have performance rates calculated, but not scored.

Because certain measures may not generate denominators that are high enough to calculate stable performance rates in one 6-month performance period, we will use the average episode-weighted performance rate over two performance periods to calculate the quality score for all quality measures. Each calculation will cover the current performance period and the prior one. We will add the denominators and numerators from the current and prior performance periods and calculate one performance rate for each measure. This should help reduce the number of cases where a measure denominator is too low to calculate a statistically reliable performance rate with only 6 months of data. The required denominator size is 20 (i.e., 20 episodes, 20 visits, etc.) in the two performance periods combined. See [Section 7.4](#) for the treatment of measures where the denominator is less than 20. Only the claims-based measures will be scored based on performance in the first performance period, where there is no prior performance period with which to average. In this case, the performance rate will include episodes terminating during the first half of 2016 as well as those terminating during the first performance period (first half of 2017).³

Since the model measures financial performance during 6-month episodes of chemotherapy, quality performance will also be based on 6-month episodes. As written above, each quality performance calculation will average the performance rates of the current performance period with the performance rates of the previous performance period. As such, measure calculations will include the applicable patients with episodes in those two performance periods and will include events for those patients occurring during their 6-month episodes. In the context of this paper, “applicable patients” refers to the patients who qualify for a particular measure (for example, the breast cancer measures do not apply to patients who do not have breast cancer).

7.3 Measure Scoring and Aggregate Quality Score

The process of assigning quality points to each measure, called “scoring,” will be based on practices’ reporting and/or quality performance relative to set thresholds. Reporting thresholds are based on the percentage of patients for which the practice reported data to the OCM Data Registry. Performance thresholds will be determined based on the best data available for each type of measure. If national data are available, they will be employed first to set performance thresholds. If national data are not available (e.g., the patient-reported experience of care measure, for which there is no national data at this time) we will use other sources of information to set the thresholds.

³ Ideally, we would average episodes ending in the first half of 2017 with those ending in the last half of 2016, to use consecutive performance periods. However this would cause significant overlap in episodes used, double-counting the same experience, since episodes will be defined anew for the first performance period. If the set of episodes that is averaged with those in the first performance period is limited to those ending in the first half of 2016 (rather than the second half), we avoid this potential for double-counting.

In the sections below ([Section 7.3.1](#), [Section 7.3.2](#), and [Section 7.3.3](#)) we describe the scoring approach for each measure type (claims-based, practice-reported, and patient-reported).

7.3.1 Claims-Based Measure Scoring

Performance thresholds for claims-based measures will be determined using national historical Medicare claims data for OCM participating and non-participating practices. We will develop a distribution of performance for all practices nationally to which episodes have been attributed, following the same episode identification and attribution specifications defined in [Section 1](#). Using this distribution, we will set performance thresholds at each quintile. These quintiles will determine the number of points awarded for each measure. See [Table 4](#) for the point structure that we will apply to each claims-based measure. For OCM-3, a higher rate on the performance measure results in a higher number of points being assigned. However, it is important to note that OCM-1 and OCM-2 will have a reverse scoring structure, where a lower rate on the performance measure indicates better quality and therefore results in a higher number of points being assigned. This reverse scoring structure will be reflected in the release of the performance thresholds.

Table 4: Scoring of Claims-based Measures

Claims-based measure performance range (P = performance rate)	Achievement points (Maximum = 10)
$P \geq 80^{\text{th}}$ percentile of national performance	10
60^{th} Percentile $\leq P < 80^{\text{th}}$ Percentile	7.5
40^{th} Percentile $\leq P < 60^{\text{th}}$ Percentile	5.0
20^{th} Percentile $\leq P < 40^{\text{th}}$ Percentile	2.5
$P < 20^{\text{th}}$ Percentile	0

7.3.2 Practice-Reported Measure Scoring

In the first and second performance periods, all practice-reported measures will be P4R. In the third and subsequent performance periods, all practice-reported measures will be P4P measures. Below we describe the approach we will use to score practice-reported measures when they are P4R and when they are P4P. Note that the cancer-specific practice-reported measures OCM-7 – OCM-11 will be reported in aggregate for scoring purposes, rather than at the beneficiary level, for all patients (OCM and non-OCM) at the practice who qualify for the measure. This is to align with the intent of these measures. These measures will also be reported at the OCM beneficiary level, but for monitoring purposes rather than payment.

Pay-for-reporting

P4R measures will be scored based on the percentage of applicable patients reported for each measure, except for the cancer-specific measures (OCM-7 – OCM-11), which will be reported on an aggregate basis. For each of the five cancer-specific measures, practices will receive the maximum number of reporting points (2.5), as long as they have reported the measure, except in cases where the practice has no attributed episodes with the cancer type targeted by the measure. For example, if

a practice has no colon cancer episodes, OCM-8 will be inapplicable for that practice and will be excluded from scoring (see [Section 7.4](#) for more information). Allowable exceptions (as described in the measure specifications and in the [OCM Clinical Data and Quality Measures Guide](#), available on the OCM Portal) will be removed from the count of applicable patients on which the reporting percentage is calculated. [Table 5](#) shows the scoring approach for P4R measures.

Table 5: Scoring of Pay-for-Reporting Measures

R = Percentage of Applicable Patients Reported	Reporting points (Maximum = 2.5)
99% ≤ R	2.5
90% ≤ R < 99%	2
70% ≤ R < 90%	1.5
50% ≤ R < 70%	1
R < 50%	0

At this time, there are no plans to have P4R points available after the second performance period.

Pay-for-performance measures

P4P measures will be scored based on the practice’s performance on the measures as compared to set quality thresholds. The approach used to calculate the thresholds for the practice-reported measures will depend upon the data available for each measure. Quality thresholds for practice-reported measures that have been reported in sufficient numbers to the PQRS program will be calculated using the PQRS data. These measures are likely to be OCM-5 (Depression Screening and Follow-Up Plan, PQRS 134) and OCM-12 (Documentation of Current Medication, PQRS 130), though analysis of the PQRS data may indicate additional measures that could be benchmarked using the PQRS data, or that either of these measures may not be able to be benchmarked using the PQRS data. Similar to the method described above for claims-based measures, we will determine a distribution of performance for these measures over all practices nationally and assign points based on those national performance thresholds. Again, we will not award any points to practices that have scores that fall into the lowest quintile of national PQRS performance. Points would be allocated in the same way shown in [Table 4](#).

There are currently no reliable national data available for the remaining practice-reported measures, as they are either not PQRS measures or they are PQRS measures but have not been reported on historically in significant enough numbers to produce a robust set of data. We will use the data reported by the OCM practices for the first two performance periods to calculate performance thresholds for these measures. Because the distribution and validity of those data in smaller subgroups (e.g., deciles or quintiles) is unknown, and because those data will only represent a maximum of 250 practices, we expect to calculate fewer performance thresholds than for the claims-

based and PQRS measures. The value of the thresholds will be determined upon review of the data that have been reported to the registry.

To ensure that practices continue to report fully on the practice-reported measures once they are P4P, practices will be required to submit data on at least 97 percent of patients (after allowing for valid reporting exceptions) for each measure to receive the performance points for that measure.⁴ If a practice (or each practice in a pool) does not meet the minimum reporting requirement for a measure, it will not receive any points for that measure, regardless of the performance achieved on the measure. The exception to this requirement is the set of cancer-specific measures (OCM-7 – OCM-11) because they are reported in aggregate.

There will be three reconciliations of financial and quality performance for each performance period. Before the calculation of the AQS for each performance period, practices will be provided a list of their attributed beneficiaries. After receiving this list, practices will be given the opportunity to submit to the registry any quality measure information on any patients whose episodes were attributed to the practice but on whom they did not originally report.

7.3.3 Patient Experience of Care Scoring

A multi-item survey to assess patient experience with chemotherapy care will be administered to a sample of patients at each practice. Twenty-six of the survey items will be based on the first Consumer Assessment of Healthcare Providers and Systems (CAHPS) for Cancer Care field test report and will center on five composites and one overall measure of patient experience.⁵ In its current form, the CAHPS for Cancer Care composites include “Exchanging Information with Patients” (four scored items), “Access” (six scored items), “Shared Decision Making” (composite not scored), “Enabling Self-Management” (eight scored items), and “Affective Communication” (four scored items). Additional survey items will be drawn from various validated instruments (e.g., CAHPS for Cancer Care, CanCORS), but these items will not be used for scoring purposes.

We will use the responses to all composite-related items to create summary scores for each composite, except for the Shared Decision Making composite. Field tests to date have indicated that the Shared Decision Making composite is not sufficiently reliable for benchmarking and payment purposes. We will collect these data for monitoring purposes and may score this composite in the patient experience measure in future performance periods (not earlier than the third). We will also score the overall measure of patient experience. One aggregate “patient experience” score will then be calculated from the five scores (four composite scores and one summary item scores).

First, the responses to each individual survey item will be assigned a point value ranging from 0 to 10. Then we will determine the average point value over all survey items in each composite as the sum of the points assigned to each survey item divided by the number of survey items in the composite. Finally, we will calculate the aggregate patient experience of care score as the average of the five scores. [Appendix F](#) lists the scored survey items in each of the four composites and in the

⁴ In the event that a practice reports on at least 97 percent but less than 100 percent of its patients, the practice will not be penalized for the patients on whom it did not report in the calculation of the performance rate.

⁵ <https://www.advisory.com/-/media/Advisory-com/Research/OR/Blog/2014/Cancer-CAHPS-Update.pdf>

overall measure of patient experience as well as the point values that will be assigned to each response.

As with several of the practice-reported measures, there are currently no external data available for the OCM patient experience of care measure. We will use the data from the surveys fielded during the early months of the model among all participants to calculate a performance threshold for this measure. Because the distribution and validity of those data in smaller subgroups (e.g., deciles or quintiles) is unknown, and because those data will only represent a maximum of 200 practices, we expect to calculate fewer performance thresholds for the patient experience of care measure than for the claims-based and PQRS measures. The value of the thresholds will be determined upon review of the early survey data once they have been collected.

7.3.4 Aggregate Quality Score

After points have been determined for each measure, all earned points will be summed and divided by the practice's or pool's total possible points to calculate the AQS. Practices or pools will then be awarded performance-based payments by comparing their AQS to a payment scale to determine the performance multiplier (in the case where the target amount exceeds the average episode expenditures in the performance period). [Table 6](#) shows a mapping of the AQS to the performance multiplier.

Table 6: Aggregate Quality Score Translated into Performance Multiplier

Aggregate Quality Score (% of maximum points available)	Performance Multiplier
75% - 100%	100%
50% - 74%	75%
30% - 49%	50%
Less than 30%	0%

In order to receive a performance-based payment, practices must have reported all applicable measures to the OCM Data Registry, per the OCM Participation Agreement. A practice or pool that scores above the 30 percent minimum in [Table 6](#), but does NOT report sufficiently to the OCM Data Registry, will not receive a performance-based payment.

In [Table 7](#), we show two examples of the quality score calculation, one for the first performance period and one for the third performance period.

Performance Period 1 Example: Assume that a practice reports on 100 percent of its applicable patients for all P4R measures in performance period 1, as in the “Performance Period 1 Example” columns in [Table 7](#). The practice receives the maximum number of points for the P4R measures ($2.5 * 8 = 20$ points). The practice also earns 7.5 quality points for each P4P measure ($7.5 * 3 = 22.5$ points). The sum of all quality points is 42.5 and the AQS is 85 percent (equal to 42.5 divided by 50).

The practice would earn 100 percent of the eligible performance-based payment (if actual expenditures are lower than the target amount) for that performance period.

Performance Period 3 Example: Assume that a practice earns points for each measure as in the “Performance Period 3 Example” columns in [Table 7](#) and that it reported all measures for 100 percent of attributed episodes in the performance period. The sum of all quality points is 75 and the AQS is 62.5 percent (equal to 75 divided by 120). The practice would earn 75 percent of the eligible performance-based payment (if actual expenditures are lower than the target amount) for that performance period.

Table 7: Illustrative Quality Scoring Examples

OCM Measure Number	Perf. Period 1 Example, Points Earned	Perf. Period 1 Example, Maximum Points	Perf. Period 3 Example, Points Earned	Perf. Period 3 Example, Maximum Points
OCM-1	7.5	10	7.5	10
OCM-2	7.5	10	7.5	10
OCM-3	7.5	10	7.5	10
OCM-4	2.5	2.5	2.5	10
OCM-5	2.5	2.5	5	10
OCM-6	--	--	7.5	10
OCM-7	2.5	2.5	7.5	10
OCM-8	2.5	2.5	5	10
OCM-9	2.5	2.5	5	10
OCM-10	2.5	2.5	5	10
OCM-11	2.5	2.5	7.5	10
OCM-12	2.5	2.5	7.5	10
P4R Points	20	20	0	0
P4P Points	22.5	30	75	120
Total Points	42.5	50	90	120
AQS	85%	--	62.5%	--
Performance Multiplier	100%	--	75%	--

7.4 Inapplicable Measures and Measures with Insufficient Denominator Size

We anticipate that OCM will include practices of varying sizes and specialties. As such, there may be practices that either 1) do not have enough episodes in the performance rate calculation to provide a statistically reliable denominator, or 2) do not treat patients with the type of cancer for which a measure is defined. For example, urology practices are not expected to have breast cancer episodes attributed, yet OCM includes three quality measures that are specific to breast cancer.

If a practice or pool has no beneficiaries that meet the criteria for inclusion in the denominator for a cancer-specific measure, we will exclude that measure from the calculation of the AQS for that performance period. Using the urology practice as an example, rather than having a maximum of 120 points available, the practice would have a maximum of 90 points available. Scoring on all other measures would remain as described previously. A cancer-specific measure will be determined to not apply to a practice or pool if that practice or pool has no attributed episodes that meet the measure specifications.

In the same way, if a practice or pool does not have enough episodes in the calculation of the two-performance period average to comprise a minimum denominator of 20, we will exclude that measure from the calculation of that practice's or pool's AQS for that performance period.

Similarly, the patient experience of care measure must be based on a sufficient number of survey responses to provide a statistically reliable performance score. If a practice or pool does not have at least 100 survey responses over a 4-quarter period, we will exclude the patient experience of care measure from the calculation of that practice's or pool's AQS for that performance period.

7.5 Scoring for Pooled Practices

OCM pools that are made up of more than one practice will have all of their episodes treated as if they belong to one practice for the purposes of quality scoring. This means we will sum the numerators and denominators for each practice in the pool before calculating pooled performance rates for each measure. This method implicitly weights the performance for each practice in the pool by the number of episodes attributed to the practice in the performance period. The points for each pooled performance rate will be assigned and summed to produce the AQS in the same way as for individual practices.

Section 8: Example

The following example illustrates the calculation of the performance based payment under the one-sided and two-sided risk arrangements. The example is for illustrative purposes only and does not necessarily reflect the experience expected during any given performance period.

In this example, the sum of baseline episode prices is calculated as \$2.5 million for a practice with approximately 100 episodes. After application of a trend factor of 1.02 and an adjustment for novel therapies of 1.01, the benchmark amount is \$2.576 million. After application of the OCM discount rate, the target amount is \$2,472,480 for the performance period for the one-sided risk model (4 percent discount) and \$2,504,674 for the two-sided risk model (2.75 percent discount). The practice’s actual episode expenditures for the performance period are \$2.3 million and the performance multiplier is 75 percent. The performance multiplier is multiplied by the difference between the target amount and the actual episode expenditures to arrive at the performance-based payment for the practice. Finally, a geographic adjustment of 1.03 and the sequestration adjustment of 2 percent are applied to calculate the final performance-based payment of \$130,576 under the one-sided risk arrangement and \$154,948 under the two-sided risk arrangement.

Table 8: Example Performance-Based Payment Calculation

		One-Sided Risk	Two-Sided Risk
A	Sum of Baseline Episode Prices	\$2,500,000	\$2,500,000
B	Adjustment for Trend	1.02	1.02
C	Adjustment for Novel Therapies	1.01	1.01
D	Benchmark Amount (A * B * C)	\$2,575,500	\$2,575,500
E	OCM Discount Rate	4.00%	2.75%
F	OCM Discount Amount (D * E)	\$103,020	\$70,826
G	Target Amount (D - F)	\$2,472,480	\$2,504,674
H	Actual Episode Expenditures	\$2,300,000	\$2,300,000
I	Difference (Target less Actual; G - H)	\$172,480	\$204,674
J	Performance Multiplier	75%	75%
K	Performance-Based Payment (I * J)	\$129,360	\$153,505
L	Final Performance-Based Payment, after Geographic Adjustment and Sequestration (K * 1.03 * 0.98)	\$130,576	\$154,948

Section 9: OCM Resources

OCM Participant Portal

<https://app.innovation.cms.gov/ocmpost>

OCM Support

OCMSupport@cms.hhs.gov

1-844-711-2664 (1-844-711-CMMI), Option 2

Appendix A: Specifications for Episode Identification

Below are the detailed specifications for identifying initial and subsequent episodes in a performance period. Performance periods will be defined as in [Table 1](#).

- **Step 1: Identify all possible claims that could trigger an episode ending in the performance period**
 - Carrier, DMEPOS (identification at the line level):
 - The claim must contain a line item HCPCS code indicating an included chemotherapy drug (initiating cancer therapy) in any line item.
 - The chemotherapy drug line item must have a “line first expense date” in the appropriate 6 month “Episodes Beginning” period in [Table 1](#), inclusive of end dates.
 - The chemotherapy drug line item must not be denied (line allowed charge >0).
 - The chemotherapy drug line place of service must not be an inpatient hospital (21).
 - The chemotherapy drug claim must contain an included cancer diagnosis code (see “[OCM Included Cancer Diagnoses and Cancer Types](#),” available on the CMS OCM website) in any non-denied line item on the same claim (does not have to be same line as HCPCS code above; do not use the header diagnoses).
 - The trigger date is the **line first expense date** on the qualifying chemotherapy drug line.
 - Outpatient (identification at the claim level):
 - The claim must contain a HCPCS code indicating an included chemotherapy drug (initiating cancer therapy) in any revenue center.
 - The “revenue center date” on the same revenue center in which the HCPCS code is found must be in the appropriate 6 month “Episode Beginning” period in [Table 1](#), inclusive of end dates.
 - The claim must not be denied (Medicare non-payment reason code is not blank).
 - The revenue center in which the HCPCS code is found must not be denied (“revenue center total charge amount” minus “revenue center non-covered charge amount” > 0).
 - The claim header must contain an included cancer diagnosis code (see “[OCM Included Cancer Diagnoses and Cancer Types](#),” available on the CMS OCM website).
 - The trigger date is the **revenue center date**.
 - Part D (identification at the claim level):
 - The claim must contain an included chemotherapy drug (initiating cancer therapy) NDC code.

- The claim “fill date” must be in the appropriate 6 month “Episode Beginning” period in [Table 1](#), inclusive of end dates.
 - A non-denied Carrier (line allowed charge >0) or Outpatient (Medicare non-payment reason code is not blank) claim with an included cancer diagnosis code (see “[OCM Included Cancer Diagnoses and Cancer Types](#),” available on the CMS OCM website) in any line item (Carrier) or in the header (Outpatient) can be found on the fill date or in the 59 days preceding the fill date. Use line first expense date on the Carrier claims and from date on the Outpatient claims to determine if the claim occurred on the fill date or in the 59 days prior.
 - The trigger date is the **fill date** on the PDE claim.
- **Step 2: Identify potential episodes**
 - For each potential trigger claim identified in Step 1, flag whether the 6 months following the trigger date meet the three criteria below. Episodes will be end-dated 6 calendar months after the trigger date, even in the case of death before 6 months. A trigger claim initiates an episode only when all of the below criteria are met.
 1. For all performance periods, the potential episode trigger date must not be included in any episode defined for a prior performance period.⁶ Potential trigger claims occurring inside a previously defined episode cannot trigger a new episode.
 2. The 6 month period beginning with the trigger date must contain a non-denied Carrier claim with an E&M visit (HCPCS code 99201 – 99205, 99211 – 99215) AND an included cancer diagnosis code (see “[OCM Included Cancer Diagnoses and Cancer Types](#),” available on the CMS OCM website) on the same line item.
 3. The beneficiary must meet the criteria below for the entire 6 month period (or until death) beginning with the trigger date, inclusive of end dates:
 - Beneficiary is enrolled in Medicare Parts A and B;
 - Beneficiary does not receive the Medicare ESRD benefit, as determined by the Medicare Enrollment Database;
 - Beneficiary has Medicare as his or her primary payer;
 - Beneficiary is not covered under Medicare Advantage or any other group health program.
- **Step 3: Identify final set of episodes.**
 - For each unique beneficiary, identify the first potential episode from Step 2 meeting all three criteria.
 - Apply the following hierarchy if there is more than one trigger claim on the same day from different types of service: Outpatient, Carrier, DMEPOS, Part D

⁶ The model will only define episodes that began on or after July 1, 2016.

- If there is still more than one trigger claim on the same day within the same type of service, choose the claim with the first claim ID.
- This is the episode for the current performance period, and could be the beneficiary's first episode in OCM or an episode subsequent to an episode defined for a prior performance period. Identify the beginning and ending dates of the episode.

Appendix B: Specifications for Assignment of Cancer Type

- **Step 1: Identify all visits that count toward the assignment of a cancer type. Qualifying visits:**
 - Appear in the Carrier claims file (i.e., have been billed on the CMS-1500 or electronic equivalent);
 - Are identified at the line item level (because visits on different days may be billed on a single claim);
 - Have a “line first expense date” occurring between the episode beginning and ending dates, inclusive of begin and end dates;
 - Have a HCPCS code in the range 99201 – 99205 or 99211 – 99215, which indicates an E&M service;
 - Have “line allowed charge” > 0, indicating that the line service was not denied by Medicare;
 - Have a diagnosis code in the list of included cancer diagnoses (see “[OCM Included Cancer Diagnoses and Cancer Types](#),” available on the CMS OCM website) on the same line as the E&M visit.

- **Step 2: Identify unique visits and count the number of visits associated with each cancer type.**
 - Map the diagnosis code on the E&M line to a cancer type as defined in the document “[OCM Included Cancer Diagnoses and Cancer Types](#),” available on the CMS OCM website.
 - For the purposes of assigning a cancer type to the episode, a visit is defined by the unique combination of beneficiary ID, TIN, line first expense date, and cancer type associated with the diagnosis code on the line.
 - The TIN is the taxpayer identification number on the same line as the qualifying E&M visit.
 - This step should result in a file of visit counts by unique beneficiary-cancer type combinations.

- **Step3: Assign the episode the cancer type that has the most visits.**
 - In the event of a tie, apply tie-breakers in the order below. Assign the cancer type associated with:
 - The most recent visit in the episode, second most recent visit, third most recent visit, etc.;
 - The cancer type that is reconciliation-eligible;
 - The lowest last digit of the TIN, second lowest digit, etc.

Appendix C: Specifications for Episode Attribution

- **Step 1: Identify all visits that count toward attribution.** Qualifying visits:
 - Appear in the Carrier claims file (i.e., have been billed on the CMS-1500 or electronic equivalent);
 - Are identified at the line item level (because visits on different days may be billed on a single claim);
 - Have a “line first expense date” occurring between the episode beginning and ending dates, inclusive of begin and end dates;
 - Have a HCPCS code in the range 99201 – 99205 or 99211 – 99215, which indicates an E&M service;
 - Have “line allowed charge” > 0, indicating that the line service was not denied by Medicare;
 - Have a diagnosis code in the list of included cancer diagnoses (see [“OCM Included Cancer Diagnoses and Cancer Types,”](#) available on the CMS OCM website) on the same line as the E&M visit.

- **Step 2: Count the number of qualifying visits to each TIN.**
 - A visit is defined by the unique combination of beneficiary ID, TIN, and line first expense date.
 - Assign the visit to the TIN on the same line as the qualifying E&M visit. A TIN will either be associated with an OCM ID or it will not.
 - Sum the number of visits by beneficiary and TIN (in the case of non-OCM practices) or OCM ID (in the case of OCM practices). In the baseline period, in cases where an OCM ID has more than one TIN (i.e., a current and legacy TIN), sum the visits over all TINs associated with the OCM ID. (In a performance period, an OCM practice is always defined by one OCM ID and one TIN.)
 - This step results in a file of visit counts by unique beneficiary-TIN/OCM ID combinations.

- **Step 3: Attribute the episode to the TIN or OCM ID with the most qualifying visits.**
 - In the event of a tie, apply tie-breakers in the order below. Attribute the episode to the TIN/OCM ID with:
 - The most recent visit in the episode, second most recent visit, third most recent visit, etc.
 - The lowest last digit of the TIN, second lowest digit, etc.
 - In cases where practices have pooled together for the purposes of reconciliation, continue to attribute episodes to the individual OCM IDs within the pool. Do not combine visits across the OCM IDs in the pool for the purposes of determining plurality.

Appendix D: Specifications for the Novel Therapies Adjustment

The adjustment for the use of novel therapies will be calculated based on the proportion of each practice's or pool's average episode expenditures for specified new oncology drugs compared to the same proportion for episodes that are not part of OCM. The method is described below.

- **Step 1: Calculate Proportion of Episode Expenditures for Specified Novel Therapies at the Practice or Pool**
 - A = the actual episode expenditures associated with the new oncology therapies for all episodes attributed to a practice or pool where the cancer type assigned to the episode is the same as the cancer type for which the FDA has approved the new therapy.
 - B = the actual episode expenditures for all services for all episodes attributed to the practice or pool during the same performance period.
 - C = the expenditures associated with the new oncology chemotherapy drugs as a proportion of actual episode expenditures. C equals A divided by B.
- **Step 2: Calculate Proportion of Episode Expenditures for Specified Novel Therapies at All Non-Participating Practices**
 - Perform the same calculations in Step 1 for the non-participating practices for the same time period. This is the amount that should already be incorporated into the overall trend factor for the specific therapies.
- **Step 3: Compare Relative Proportions and Calculate Difference**
 - Compare the proportions in Steps 1 and 2. If the proportion calculated for the non-participating practices is greater than that for the practice or pool, no adjustment will be made to the baseline prices. If the reverse is true, then the practice or pool had a higher proportion of expenditures for the new therapies than was the case at the non-participating practices and will qualify for an adjustment based on 80 percent of the difference in relative expenditures.
- **Step 4: Calculate Adjustment and Apply to Baseline Prices**
 - If the proportion of episode expenditures for novel therapies at the practice or pool exceeds the proportion for the non-participating practices then the adjustment can be calculated as shown in the example in [Table D-1](#) below. In this example, the practice's actual episode expenditures are \$2.3 million and the practice's expenditures associated with novel therapies are \$149,500. The corresponding proportion of expenditures associated with novel therapies for this practice is 6.5 percent ($\$149,500 / \2.3 million). The analogous proportion for all practices not participating in OCM is 4 percent. We first determine the practice's additional expenditures on novel therapies in the performance period beyond what is reflected in the national non-OCM experience; this is equal to the

practice’s actual episode expenditures (\$2.3 million) multiplied by the difference between the practice’s novel therapy proportion and the national non-OCM novel therapy proportion, which is 2.5 percent (6.5 percent - 4 percent). These additional expenditures are \$57,500 (\$2.3 million * 0.025). Next, we multiply the additional expenditures by a policy factor of 80 percent (\$57,500 * 0.8 = \$46,000), and divide the reduced additional expenditures by the sum of the practice’s trended baseline prices (\$2.5 million in the example) to calculate the novel therapy adjustment. In this example, the adjustment is 1.84 percent (\$46,000 / \$2.5 million). We will increase each trended baseline price by this percentage to determine the benchmark price. Every episode attributed to a practice will receive the same novel therapies adjustment.

Table D-1: Example: Application of Adjustment for Use of Novel Therapies

Row	Item	Amount
A	Practice’s Actual Episode Expenditures	\$2,300,000
B	Practice’s Expenditures for Novel Therapies	\$149,500
C	Practice’s Proportion of Actual Episode Expenditures Due to Novel Therapies (B/A)	6.50%
D	National Proportion of Actual Episode Expenditures Due to Novel Therapies	4.00%
E	Practice’s Additional Proportion of Novel Therapy Use Beyond National non-OCM Trend (C - D)	2.5%
F	Practice’s Additional Expenditures for Novel Therapy Use Beyond National non-OCM Trend (E * A)	\$57,500
G	Practice’s Additional Expenditures for Novel Therapy Use Beyond National non-OCM Trend, Reduced by Policy Factor (F * 0.8)	\$46,000
H	Sum of Practice’s Trended Baseline Prices	\$2,500,000
I	Adjustment for Novel Therapies (G/H)	1.84%
J	Practice’s Benchmark Amount (H + H*I)	\$2,546,000

Appendix E: Mathematical Description of the Methodology for Establishing Target Amounts

The target amount for a given practice is the sum of the target prices of all episodes attributed to the practice in the performance period. The target price for a given episode i in the performance period can be represented by:

$$TP_i = BP_i * TF * ND * (1 - \text{Discount}), \text{ where}$$

TP_i = Target price for a given episode

BP_i = Baseline price for episode i in the performance period

TF = trend factor for the practice

ND = Novel therapies adjustment for the practice (see [Appendix D](#))

Discount = OCM discount (0.04 for one-sided risk, 0.0275 for two-sided risk)

The quantity $BP_i * TF * ND$ is referred to as the benchmark price for episode i .

The baseline price for episode i treated by a given practice in the performance period can be expressed as:

$$BP_i = \exp(X_i\beta) * [0.5 + 0.5 * EA], \text{ where}$$

BP_i = Baseline price of the i^{th} episode

X_i = Characteristics of the i^{th} episode (e.g., age, sex, cancer type, etc.)

β = Vector of coefficients from the expenditure prediction model based on all episodes treated by all practices (participating and non-participating) in the baseline period

EA = experience adjuster for the practice based on relative costliness in the baseline period

The trend factor for a given practice can be expressed by:

$$TF = \frac{\sum_j \exp(X_j\gamma)}{\sum_j \exp(X_j\delta)}, \text{ where}$$

TF = Trend factor for the practice

X_j = Characteristics of the j^{th} episode in the performance period

γ = Vector of coefficients from the expenditure prediction model based on performance period episodes attributed to non-participating practices

δ = Vector of coefficients from the expenditure prediction model based on baseline episodes attributed to non-participating practices.

The experience adjuster for a given practice can be expressed as:

$$EA = \sum_k C_k / \sum_k \exp(X_k \beta), \text{ where}$$

EA = Experience adjuster for the practice

C_k = Actual expenditures for the k^{th} episode attributed to the practice in the baseline period

X_k = Characteristics of the k^{th} episode attributed to the practice in the baseline period (e.g., age, sex, cancer type, etc.)

β = Vector of coefficients from the expenditure prediction model based on all episodes treated by all practices (participating and non-participating) in the baseline period

Appendix F: Patient Experience of Care Measure Composites and Scoring

In Table F-1, there are four different response schemes for individual survey items. The points associated with each response are shown below.

1. **Never; Sometimes; Usually; Always**
 Never = 0 points
 Sometimes = 3 1/3 points
 Usually = 6 2/3 points
 Always = 10 points

2. **Never; Sometimes; Usually; Always – INVERSE SCORE**
 Never = 10 points
 Sometimes = 6 2/3 points
 Usually = 3 1/3 points
 Always = 0 points

3. **No; Yes**
 No = 0 points
 Yes = 10 points

4. **No; Yes, somewhat; Yes, definitely**
 No = 0 points
 Yes, somewhat = 5 points
 Yes, definitely = 10 points

Table F-1: Patient Experience of Care Measure Composites and Survey Items

Item / Composite	Responses
Overall Rating	
Using any number from 0 to 10, where 0 is the worst Cancer Therapy Team possible and 10 is the best Cancer Therapy Team possible, what number would you use to rate your Cancer Therapy Team over the last 6 months?	0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
Affective Communication Composite	
In the last 6 months, how often did your Cancer Therapy Team show respect for what you had to say?	Never; Sometimes; Usually; Always
In the last 6 months, how often did your Cancer Therapy Team listen carefully to you?	Never; Sometimes; Usually; Always

Item / Composite	Responses
In the last 6 months, how often was your Cancer Therapy Team direct and straightforward when talking with you about your cancer and chemotherapy or hormonal therapy?	Never; Sometimes; Usually; Always
In the last 6 months, how often did your Cancer Therapy Team spend enough time with you?	Never; Sometimes; Usually; Always
Enabling Self-Management Composite	
In the last 6 months, did you and your Cancer Therapy Team talk about pain related to your cancer, or related to your chemotherapy or hormonal therapy?	No; Yes
In the last 6 months, did your Cancer Therapy Team advise you about or help you deal with this pain (if pain was identified as a problem)?	No; Yes, somewhat; Yes, definitely
In the last 6 months, did you and your Cancer Therapy Team talk about any changes in your energy levels related to your cancer or your chemotherapy or hormonal therapy?	No; Yes
In the last 6 months, did your Cancer Therapy Team advise you about or help you deal with changes in your energy levels? (if energy levels were identified as a problem)	No; Yes, somewhat; Yes, definitely
In the last 6 months, did you and your Cancer Therapy Team talk about any emotional problems, such as anxiety or depression, related to your cancer or your chemotherapy or hormonal therapy?	No; Yes
In the last 6 months, did your Cancer Therapy Team advise you about or help you deal with these emotional problems (if emotional problems were identified)?	No; Yes, somewhat; Yes, definitely
In the last 6 months, did you and your Cancer Therapy Team talk about additional services to manage your cancer care at home, such as home health care, special medical equipment, or special supplies?	No; Yes
In the last 6 months, did you and your Cancer Therapy Team talk about things you can do to maintain your health during cancer treatment, such as what to eat and what exercises to do?	No; Yes, somewhat; Yes, definitely
Exchanging Information Composite	
Since it was decided that you would have chemotherapy or hormonal therapy to treat your cancer, did your Cancer Therapy Team clearly explain how this treatment could affect your normal daily activities?	No; Yes, somewhat; Yes, definitely
In the last 6 months, did your Cancer Therapy Team tell you what the next steps in your chemotherapy or hormonal therapy would be?	No; Yes, somewhat; Yes, definitely
In the last 6 months, how often did your Cancer Therapy Team explain test results in a way that was easy to understand?	Never; Sometimes; Usually; Always

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Item / Composite	Responses
In the last 6 months, did your Cancer Therapy Team explain what that medicine was for in a way that was easy to understand (if medicine was prescribed that you had not taken before)?	No; Yes, somewhat; Yes, definitely
Access Composite	
After it was decided that you would have chemotherapy or hormonal therapy, did your Cancer Therapy Team encourage you to contact them with questions between visits?	No; Yes, somewhat; Yes, definitely
Did your Cancer Therapy Team tell you to call them immediately if you have certain symptoms or side effects?	No; Yes, somewhat; Yes, definitely
Did your Cancer Therapy Team give you clear instructions about how to contact them outside of regular office hours?	No; Yes, somewhat; Yes, definitely
How often were these office visits scheduled at times that were convenient for you (if visits occurred in the last 6 months)?	Never; Sometimes; Usually; Always
How often were the blood tests, x-rays, scans, or other procedures scheduled to be done as soon as you or your doctor thought you needed (if blood tests, x-rays, scans, or other procedures were done)?	Never; Sometimes; Usually; Always
In the last 6 months, how often did you have to wait longer for your test results than you expected?	Never; Sometimes; Usually; Always (inversely scored)