DETAILED METHODOLOGY FOR THE 2018 VALUE MODIFIER AND THE 2016 QUALITY AND RESOURCE USE REPORT

CONTENTS

EXHIBITS

ABOUT THE DETAILED METHODOLOGY

The Detailed Methodology for the 2018 Value-Based Payment Modifier (Value Modifier) describes the process and methodology used to compute the Value Modifier that the Centers for Medicare & Medicaid Services (CMS) will use to adjust Medicare Physician Fee Schedule (PFS) payments in 2018 for physicians, physician assistants (PAs), nurse practitioners (NPs), clinical nurse specialists (CNSs), and certified registered nurse anesthetists (CRNAs) in groups with two or more eligible professionals and those who are solo practitioners. CMS identifies these groups and solo practitioners by their Medicare-enrolled Taxpayer Identification Number (TIN) and will apply the 2018 Value Modifier at the TIN level.

Section I provides an overview of the 2018 Value Modifier, including the relationship between the 2018 Value Modifier and the 2016 Annual Quality and Resource Use Reports (QRURs) that CMS will make available to groups and solo practitioners. Section II describes the methodology for computing the 2018 Value Modifier, and Section III explains the methodology for producing additional statistics included in the 2016 Annual QRURs to help physicians and other eligible professionals better understand the measures included in the 2018 Value Modifier and support practice improvement.

I. OVERVIEW OF THE 2018 VALUE MODIFIER AND 2016 ANNUAL QUALITY AND RESOURCE USE REPORTS

A. Statutory Authority and Phased Approach to Implementation

As established by Section 3007 of the Affordable Care Act (ACA), the Value Modifier provides for differential payment, for items and services furnished under the Medicare PFS, to physicians and other eligible professionals. Value Modifier payment adjustments are based on the quality of care furnished to their Medicare Fee-for-Service (FFS) beneficiaries compared to the cost of care during a performance period. The ACA requires application of the Value Modifier to all physicians and groups of physicians by January 1, 2017. As finalized in the 2016 Medicare Physician Fee Schedule Final Rule (80 FR 71274), CMS will also apply the Value Modifier to PAs, NPs, CNSs, and CRNAs beginning January 1, 2018. CMS computes the Value Modifier at the TIN level, which means that all eligible professionals who are subject to the Value Modifier in 2018 and billing under a given TIN will receive the Value Modifier computed for that TIN. The 2018 Value Modifier will not be applied to nonphysician eligible professionals who are not PAs, NPs, CNSs, or CRNAs.

B. The 2018 Value Modifier

CMS will apply the 2018 Value Modifier to payments for physicians, PAs, NPs, CNSs, and CRNAs in groups with two or more eligible professionals and those who are solo practitioners, as identified by their TIN. This includes physicians, PAs, NPs, CNSs, and CRNAs in TINs that participated in a Medicare Shared Savings Program (subsequently Shared Savings Program) Accountable Care Organization (ACO) in 2016.[1] The 2018 Value Modifier will be waived for TINs if at least one eligible professional who billed for Medicare PFS items and services under the TIN in 2016 participated in the Pioneer ACO Model, the Comprehensive Primary Care (CPC) initiative, the Next Generation ACO Model, the Oncology Care Model, or the Comprehensive End Stage Renal Disease (ESRD) Care Model in 2016, and the TIN did not participate in a Shared Savings Program ACO in 2016.

[1] See Section II.C.1 for more information on determining quality performance for TINs that participated in more than one Shared Savings Program ACO in 2016 and for TINs that participated in a Shared Savings Program ACO in 2016 that did not avoid the 2018 Physician Quality Reporting System (PQRS) payment adjustment. For additional information on Shared Savings Program ACO TINs and the PQRS, see the document entitled "Medicare Shared Savings Program Interaction with the Physician Quality Reporting System (PQRS)," available at the following URL: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/sharedsavingsprogram/Downloads/PQRS-FAQs.pdf.

1. Physician Quality Reporting System (PQRS) Participation

In 2016, eligible professionals were required to participate in the PQRS to avoid the 2018 PQRS downward payment adjustment as a group or as individuals.[2] Groups can avoid the automatic downward Value Modifier payment adjustment in 2018 by participating in one of four reporting mechanisms under the 2016 PQRS Group Practice Reporting Option (GPRO): (1) Web Interface (for TINs with 25 or more eligible professionals), (2) qualified PQRS registry, (3) electronic health record (EHR),[3] or (4) qualified clinical data registry (QCDR), and avoiding the 2018 PQRS payment adjustment. Alternatively, groups can avoid the automatic downward Value Modifier payment adjustment in 2018 if at least 50 percent of the eligible professionals in the group avoided the 2018 PQRS payment adjustment as individuals. Solo practitioners can avoid the automatic downward Value Modifier payment adjustment in 2018 if they avoided the 2018 PQRS payment adjustment as individuals. See Section II.C.1 for quality data included in the calculation of the 2018 Value Modifier.

Additional information on avoiding the 2018 PQRS payment adjustment is available at the following URL: http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/Payment-Adjustment-Information.html.

2. Category 1 and Category 2 Determination Based on PQRS Participation

CMS uses the term Category 1 to refer to TINs subject to the 2018 Value Modifier that avoided the 2018 PQRS payment adjustment. This includes:

1) TINs that reported through the GPRO and avoided the 2018 PQRS payment adjustment as a group,
2) TINs with at least 50 percent of the eligible professionals who avoided the 2018 PQRS payment adjustment as individuals,
3) TINs that are solo practitioners who avoided the 2018 PQRS payment adjustment as individuals,
4) TINs that participated in a Shared Savings Program ACO in 2016 that reported through the GPRO Web Interface and avoided the 2018 PQRS payment adjustment on their behalf, and
5) TINs that participated in a Shared Savings Program ACO that did not avoid the 2018 PQRS payment adjustment on their behalf, but the TIN avoided the 2018 PQRS payment adjustment by reporting outside of the ACO either as a group, a solo

[2] For a list of eligible professionals required to participate in the PQRS in 2016, see "2016 Physician Quality Reporting System (PQRS) List of Eligible Professionals," available at the following URL: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/Downloads/2016_PQRS_List_of_EPs.pdf.

[3] EHR data submitted through a direct EHR product that is Certified EHR Technology (CEHRT) or through data submission vendor that is CEHRT.

practitioner, or by ensuring at least 50 percent of the eligible professionals in the TIN avoided the 2018 PQRS payment adjustment as individuals.

TINs subject to the 2018 Value Modifier that do not meet the criteria for inclusion in Category 1 are classified as Category 2 TINs. In the 2018 Medicare Physician Fee Schedule Proposed Rule (82 FR 34125), CMS proposed that Category 2 TINs will be subject to different automatic Value Modifier downward payment adjustments in 2018 based on the composition of their eligible professionals:

1) TINs with at least one physician and 10 or more eligible professionals will be subject to an automatic Value Modifier downward payment adjustment of negative two percent (-2.0%) in 2018,
2) TINs with at least one physician and fewer than 10 eligible professionals, including physician solo practitioners, will be subject to an automatic Value Modifier downward payment adjustment of negative one percent (-1.0%) in 2018, and
3) TINs with no physicians and at least one nonphysician eligible professional, including solo practitioners, who are subject to the 2018 Value Modifier will be subject to an automatic Value Modifier downward payment adjustment of negative one percent (-1.0%) in 2018.

3. Quality-Tiering

Quality-tiering is mandatory for all Category 1 TINs. As described in Section II.J, quality-tiering determines the direction (upward or neutral) and size of the 2018 Value Modifier payment adjustment for each TIN based on the TIN's performance on quality and cost measures in 2016.[4] High-performing TINs treating high-risk beneficiaries, as determined by mean CMS-Hierarchical Condition Category (CMS-HCC) risk scores, are eligible for higher upward payment adjustments (see Section II.K for more information on determining whether TINs treat high-risk beneficiaries). As described in the 2018 Medicare Physician Fee Schedule Proposed Rule (82 FR 34125), CMS proposed to hold all Category 1 TINs harmless from any Value Modifier downward payment adjustment to their Medicare PFS payments in 2018 under the quality-tiering methodology.

Exhibit I.1 summarizes how the Value Modifier will be applied in 2018.

[4] See Section II.C.1 for more information on determining quality performance for TINs that participated in more than one Shared Savings Program ACO in 2016 and for TINs that participated in a Shared Savings Program ACO in 2016 that did not avoid the 2018 PQRS payment adjustment on behalf of the TIN.

Exhibit I.1. Overview of the Application of the 2018 Value Modifier

*High-performing TINs treating high-risk beneficiaries (based on mean CMS-HCC risk scores) are eligible for an additional adjustment of +1.0 x the adjustment factor (AF).

C. Relationship between the 2018 Value Modifier and the 2016 Annual Quality and Resource Use Reports (QRURs)

In fall 2017, CMS will make the 2016 Annual QRURs available to every TIN nationwide, including those not subject to the 2018 Value Modifier. These confidential feedback reports provide information on the TINs' performance on all available quality and cost measures used to calculate the 2018 Value Modifier. For TINs that are subject to the Value Modifier in 2018, the 2016 Annual QRURs provide information on how the TINs' quality and cost performance will affect the Medicare PFS payments for the TIN's physicians, PAs, NPs, CNSs, and CRNAs in 2018.

For detailed information about the 2018 Value Modifier and 2016 Annual QRURs, including how to access a QRUR, please see the "2016 QRUR and 2018 Value Modifier" page at the following URL: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/2016-QRUR.html.

II. COMPUTATION OF THE 2018 VALUE MODIFIER

A. Overview

To calculate the Value Modifier for TINs that are subject to the Value Modifier in 2018, CMS computes a Quality Composite Score that summarizes a TIN's performance on quality measures and a Cost Composite Score that summarizes a TIN's performance on cost measures for its attributed beneficiaries. For each measure for which a TIN has at least the minimum number of required eligible cases, CMS uses benchmark data to standardize measure-level performance to permit valid cross-measure comparisons. Standardized quality measures are categorized into one of six domains. Standardized cost measures are categorized into one of two domains. From the standardized measures, CMS computes performance scores for each domain, which are then averaged and standardized to yield the Quality Composite Score and the Cost Composite Score.

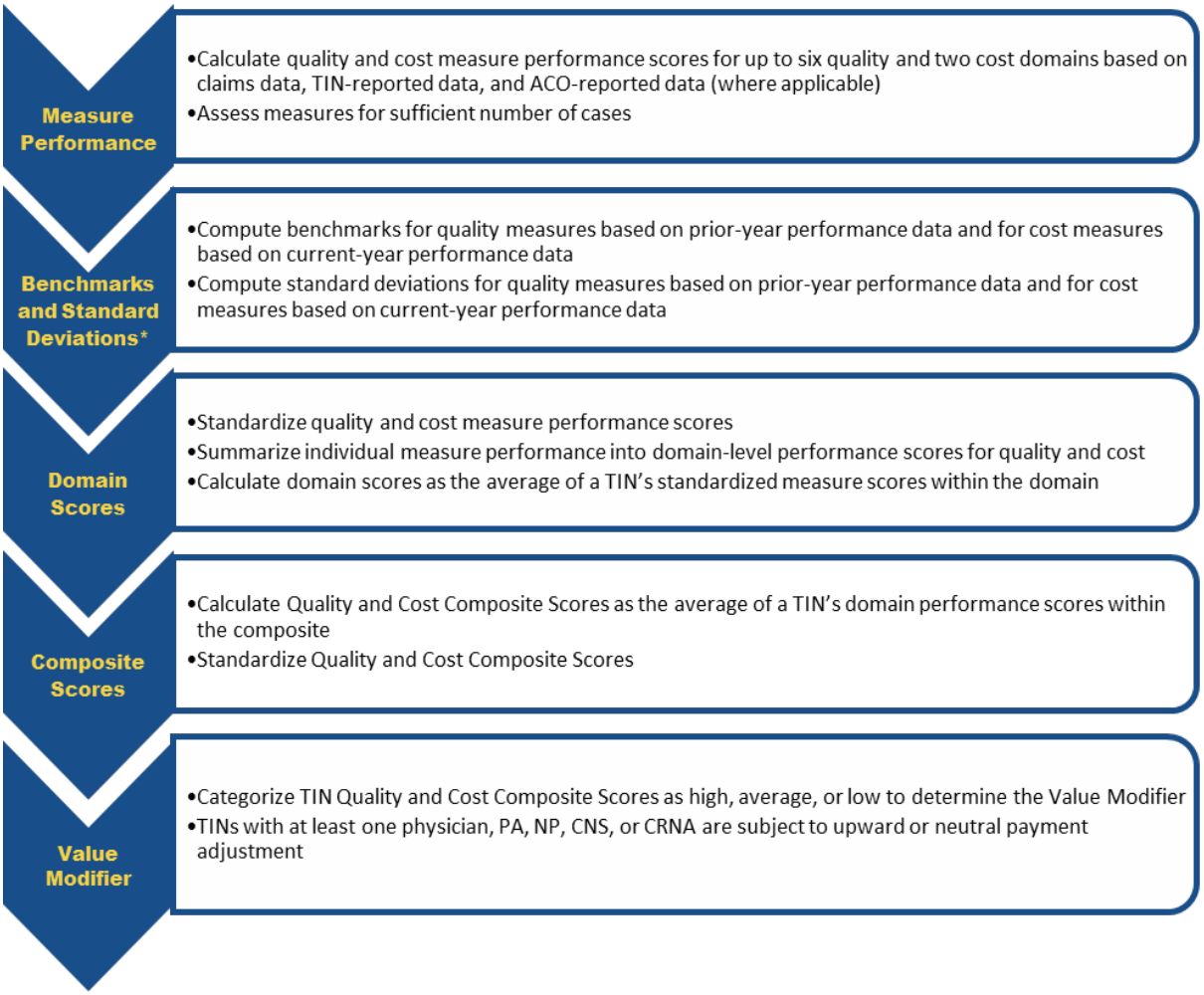
Using the Quality and Cost Composite Scores, quality-tiering analysis determines the direction of a TIN's Value Modifier payment adjustment (upward or neutral) and the magnitude of the adjustment. Each Quality and Cost Composite Score indicates how many standard deviations a TIN's overall quality or cost performance is from the peer group mean. Only composite scores that are statistically significantly different and at least one standard deviation from the peer group mean are assigned to the High or Low Quality or Cost Tiers. Composite scores that are not statistically significantly different from the peer group mean or not at least one standard deviation from the peer group mean are deemed Average Quality or Cost for the purpose of quality-tiering. Exhibit II.1 summarizes the methodology for calculating the 2018 Value Modifier.

B. TINs Subject to the Value Modifier

CMS will apply the 2018 Value Modifier to physicians, PAs, NPs, CNSs, and CRNAs in TINs, provided that at least one eligible professional subject to the Value Modifier is associated with the TIN. To determine the size of a TIN for purposes of applying the 2018 Value Modifier, CMS first determines whether an eligible professional is associated with the TIN in the Provider Enrollment, Chain and Ownership System (PECOS) as of July 16, 2016. Specifically, CMS first identifies actively enrolled medical professionals, as identified by their National Provider Identifier (NPI), who have reassigned their billing rights to a TIN. CMS then examines each NPI's specialty under that TIN to determine whether the individual is (1) a physician, PA, NP, CNS, or CRNA, or (2) an eligible professional not subject to the Value Modifier. Exhibit E.1 in Appendix E provides a list of eligible professional specialties. CMS then identifies eligible professionals who submitted claims to Medicare under the TIN for services furnished during 2016 through March 31, 2017 (to account for lags in claims submissions). If CMS identifies at least one physician, PA, NP, CNS, or CRNA in PECOS and in Medicare claims, then the TIN is

subject to the 2018 Value Modifier.[5] The size of the TIN (10 or more eligible professionals, or one to nine eligible professionals) for the purpose of applying the Value Modifier is the lower of the TIN's number of eligible professionals identified in PECOS and the number of eligible professionals who submitted claims to Medicare under the TIN during 2016.[6] Both full-time and part-time eligible professionals, as well as those who billed under the TIN for only part of 2016, are included in the calculation.

Exhibit II.1. Methodology for Determining the 2018 Value Modifier for Category 1 TINs



*The performance rates of TINs with fewer than the minimum number of required eligible cases for a given quality or cost measure are excluded from the calculation of the benchmark for the measure.

[5] The 2016 Medicare Physician Fee Schedule Final Rule (80 FR 71276) states that a TIN is not subject to the 2018 Value Modifier if CMS does not identify eligible professionals who are physicians, PAs, NPs, CNSs, or CRNAs in either PECOS or Medicare claims.

[6] If a TIN-NPI is associated with both an individual practice and a group practice in PECOS, CMS applies the group size associated with the TIN-NPIs that billed Medicare FFS during 2016. If a TIN-NPI that is listed as a solo practice in PECOS is associated with more than one eligible professional, CMS drops the TIN-NPIs that have no billings.

CMS will also apply the 2018 Value Modifier to physicians, PAs, NPs, CNSs, and CRNAs in TINs that participated in a Shared Savings Program ACO in 2016. CMS uses 2016 participation lists from the Shared Savings Program to identify these TINs.

C. Quality Measures Included in the Quality Composite Score

In calculating the Quality Composite Score for the 2018 Value Modifier, CMS uses at least two types of quality measures for all TINs:

1) PQRS measures and/or non-PQRS QCDR measures reported by the TIN (or its Shared Savings Program ACO) if the TIN (or ACO) avoided the 2018 PQRS payment adjustment as a group, or by individual eligible professionals in the TIN, including solo practitioners, who avoided the 2018 PQRS payment adjustment as individuals; and
2) up to three claims-based quality outcome measures calculated from Medicare FFS claims submitted for Medicare beneficiaries attributed to the TIN.

In addition, Consumer Assessment of Healthcare Providers and Systems (CAHPS) for PQRS and CAHPS for ACOs survey measures are included in the Quality Composite Score, as applicable. See Section II.C.3 for more information on CAHPS data included in the Quality Composite Score.

Each PQRS measure and non-PQRS QCDR measure is assigned to one of the following six quality domains: (1) Effective Clinical Care, (2) Person and Caregiver-Centered Experience and Outcomes, (3) Community/Population Health, (4) Patient Safety, (5) Communication and Care Coordination, and (6) Efficiency and Cost Reduction. These six domains align with the National Quality Strategy's six priorities for achieving better and more affordable care for individuals and communities.[7] The three CMS-calculated claims-based quality outcome measures are assigned to the Communication and Care Coordination Domain, and the CAHPS survey measures are assigned to the Person and Caregiver-Centered Experience and Outcomes Domain. See Appendix B for a list of PQRS measures and non-PQRS QCDR measures included in each quality domain. For PQRS measures and non-PQRS QCDR measures with multiple performance rates, CMS determines an overall rate for inclusion in the 2018 Value Modifier by calculating a mean of the component parts or by selecting one component part that represents overall performance, depending on the particular measure. See Appendix C for details on PQRS measures and non-PQRS QCDR measures with multiple performance rates, and measures that CMS has excluded from calculations of the 2018 Value Modifier for technical reasons.

1. Quality Measures Reported by Groups and Individual Eligible Professionals

For purposes of calculating the Quality Composite Score, CMS uses either quality data reported through a GPRO mechanism by the TIN (or its Shared Savings Program ACO if the ACO reported on its behalf and avoided the 2018 PQRS payment adjustment), if it avoided the 2018 PQRS payment adjustment as a group, or quality data reported by individual eligible

[7] More information on the National Quality Strategy is available at the following URL: https://www.ahrq.gov/workingforquality/about/nqs-fact-sheets/fact-sheet.html.

professionals if they avoided the 2018 PQRS payment adjustment as individuals under the TIN. In general, for Category 1 TINs that registered to report quality data through the GPRO in 2016, CMS uses the data reported via the mechanism for which the TIN registered—Web Interface, qualified PQRS registry, QCDR, or EHR. For Category 1 TINs that did not register to report quality data through the GPRO, CMS uses the data reported by individual eligible professionals, provided that at least 50 percent of the eligible professionals under the TIN avoided the 2018 PQRS payment adjustment. For solo practitioners who are physicians, PAs, NPs, CNSs, or CRNAs, CMS calculates the Quality Composite Score based on the quality measures reported as individuals, if they avoided the 2018 PQRS payment adjustment. See Section II.E for more information on the impact of the new International Classification of Diseases, 10th Revision (ICD-10) diagnosis and procedure codes on which PQRS measures are included in the Quality Composite Score for certain TINs.

If a TIN that registered to report through the GPRO did not avoid the 2018 PQRS payment adjustment through the mechanism for which it registered, or if a TIN did not register to report through the GPRO but avoided the 2018 PQRS payment adjustment by reporting through a GPRO mechanism, CMS uses the rule outlined in Appendix F to select the data for computing the Quality Composite Score. In particular:

- If a Category 1 TIN registered to report quality data through the GPRO, but the TIN did not avoid the 2018 PQRS payment adjustment through the registered GPRO mechanism and instead avoided it through a different GPRO mechanism, CMS uses the quality data reported through the GPRO mechanism for which the TIN did not register.
- If a Category 1 TIN registered to report quality data through the GPRO, but the TIN did not avoid the PQRS payment adjustment through any GPRO mechanism, CMS uses the quality data reported by the individual eligible professionals in the TIN provided that at least 50 percent of the eligible professionals in the TIN avoided the 2018 PQRS payment adjustment as individuals.
- If a Category 1 TIN did not register to report quality data through the GPRO, but the TIN avoided the 2018 PQRS payment adjustment through a GPRO mechanism, CMS uses the quality data reported through the GPRO to calculate the 2018 Value Modifier.

For TINs that participated in a Shared Savings Program ACO that reported quality data through the GPRO Web Interface on their behalf and avoided the 2018 PQRS payment adjustment, CMS calculates the Quality Composite Score at the ACO level based on the quality data submitted by the ACO. For TINs that participated in more than one ACO that avoided the 2018 PQRS payment adjustment, CMS calculates the Quality Composite Score based on the data of the best performing ACO (that is, the ACO with the highest numerical Quality Composite Score, among the ACOs that avoided the 2018 PQRS payment adjustment).

For TINs that participated in a Shared Savings Program ACO that did not avoid the 2018 PQRS payment adjustment on their behalf but the TIN reported data outside the ACO, CMS does not use quality data submitted by the TIN to determine the Value Modifier if the TIN:

1) reported outside of the ACO through an accepted GPRO mechanism and avoided the 2018 PQRS payment adjustment as a group,

2) had at least 50 percent of the eligible professionals in the TIN avoid the 2018 PQRS payment adjustment as individuals, or

3) is a solo practitioner and avoided the 2018 PQRS payment adjustment as an individual.

However, for these TINs, CMS still computes the Quality Composite Score based on the data submitted by the TIN for informational purposes. These TINs are classified as Average Quality and Average Cost for the purpose of determining their Value Modifier. See Section II.J for more details on quality-tiering for these TINs.

For more information on reporting requirements under the different GPRO reporting mechanisms, see the document entitled "2016 Physician Quality Reporting System (PQRS) Group Practice Reporting Option (GPRO) Training Guide," available at the following URL: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/Downloads/2016GPROTrainingGuide.pdf.

Calculating the percentage of eligible professionals avoiding the PQRS payment adjustment as individuals. CMS calculates the percentage of eligible professionals in a TIN who avoided the 2018 PQRS payment adjustment as the total number of eligible professionals in the TIN who avoided the 2018 PQRS payment adjustment as individuals, divided by the total number of eligible professionals in the TIN (as determined by the lower of the number of eligible professionals identified in PECOS and the number of eligible professionals submitting claims to Medicare under the TIN in 2016), multiplied by 100. Both full-time and part-time eligible professionals, as well as those who billed under the TIN for only part of 2016, are included in the calculation. Specifically:

- The numerator is the number of eligible professionals in the TIN who avoided the 2018 PQRS payment adjustment as individuals and either (a) were associated with the TIN in PECOS as of July 16, 2016, or (b) billed under the TIN for services furnished during 2016, and reported PQRS data in 2016.
- The denominator is the lower of the number of eligible professionals indicated by a query of PECOS as of July 16, 2016 as having reassigned their billing rights to the TIN and the number of eligible professionals who submitted at least one claim to Medicare under the TIN for services furnished in 2016.

Only the quality measures that were reported by eligible professionals in the TIN who avoided the 2018 PQRS payment adjustment as individuals are computed at the TIN-NPI level. To convert these TIN-NPI level submissions to TIN-level measures to use in the calculation of the Quality Composite Score, performance numerators and denominators are summed across all of the eligible professionals reporting the same measure under the TIN who avoided the 2018 PQRS payment adjustment, and the TIN-level performance rates are computed as the ratio of the aggregated performance numerator to the aggregated performance denominator, multiplied by 100.

Detailed specifications and additional information about the 2016 PQRS measures and non-PQRS QCDR measures can be found at the following URL: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/2016_Physician_Quality_Reporting_System.html.

2. CMS-Calculated Claims-Based Quality Outcome Measures

The Quality Composite Score also includes up to three claims-based quality outcome measures calculated from Medicare FFS claims submitted for Medicare beneficiaries attributed to the TIN.

Hospital Admissions for Ambulatory Care-Sensitive Conditions (ACSCs): Acute Conditions Composite. This is the risk-adjusted rate of hospital admissions among Medicare beneficiaries for three acute ACSCs—bacterial pneumonia, urinary tract infection, and dehydration—that are potentially avoidable with appropriate primary and preventive care. This measure is computed at the TIN level for TINs subject to the Value Modifier, including TINs that participated in a Shared Savings Program ACO that reported data outside the ACO in 2016 and avoided the 2018 PQRS payment adjustment.[8] This measure is not computed for TINs that participated in a Shared Savings Program ACO that avoided the 2018 PQRS payment adjustment on behalf of the TIN.

Hospital Admissions for ACSCs: Chronic Conditions Composite. This is the risk-adjusted rate of hospital admissions among Medicare beneficiaries for three chronic ACSCs—diabetes, chronic obstructive pulmonary disease (COPD) or asthma, and heart failure—that are potentially avoidable with appropriate primary and preventive care. This measure is computed at the TIN level for TINs subject to the Value Modifier, including TINs that participated in a Shared Savings Program ACO that reported data outside the ACO in 2016 and avoided the 2018 PQRS payment adjustment.[9] This measure is not computed for TINs that participated in a Shared Savings Program ACO that avoided the 2018 PQRS payment adjustment on behalf of the TIN. See Section II.E for more information on the impact of the new ICD-10 diagnosis and procedure codes on the Hospital Admissions for ACSCs Chronic Conditions Composite.

[8] For TINs that participated in a Shared Savings Program ACO that did not avoid the 2018 PQRS payment adjustment, but the TIN avoided the 2018 PQRS payment adjustment outside the ACO, the ACSC Acute Conditions Composite measure is calculated and displayed in the Annual QRUR for informational purposes only. The measure is not used in the calculation of the TIN's Value Modifier.

[9] For TINs that participated in a Shared Savings Program ACO that did not avoid the 2018 PQRS payment adjustment, but the TIN avoided the 2018 PQRS payment adjustment outside the ACO, the ACSC Chronic Conditions Composite measure is calculated and displayed in the Annual QRUR for informational purposes only. The measure is not used in the calculation of the TIN's Value Modifier.

For more information on the ACSC measures, please refer to the Measure Information Form, entitled "2016 Measure Information About the Hospital Admissions for Acute and Chronic Ambulatory Care-Sensitive Condition (ACSC) Composite Measures, Calculated for the 2018 Value-Based Payment Modifier Program," available at the following URL: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/Downloads/2016-ACSC-MIF.pdf.

30-Day All-Cause Hospital Readmission Measure. This is the risk-adjusted rate of unplanned hospital readmissions for any cause within 30 days after discharge from an acute care or critical access hospital. For TINs that did not participate in a Shared Savings Program ACO in 2016 and for TINs that participated in a Shared Savings Program ACO but reported data to the PQRS outside the ACO in 2016, this measure is computed at the TIN level.[10] This measure is not included in the domain score for any TINs with fewer than 10 eligible professionals. For TINs that participated in a Shared Savings Program ACO in 2016 that avoided the PQRS payment adjustment on behalf of the TIN, this measure is computed at the ACO level and is based on the ACO's performance. See Section II.E for more information on the impact of the new ICD-10 diagnosis and procedure codes on the 30-day All-Cause Hospital Readmission measure.

For more information on the 30-day All-Cause Hospital Readmission measure, please refer to the Measure Information Form, entitled "2016 Measure Information about the 30-day All-Cause Hospital Readmission Measure, Calculated for the 2018 Value-Based Payment Modifier Program," available at the following URL: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/Downloads/2016-ACR-MIF.pdf.

For additional information about the two-step process used to attribute beneficiaries to TINs for the claims-based quality outcome measures, please refer to the document entitled, "Two-Step Attribution for Claims-Based Quality Outcome Measures and Per Capita Cost Measures Included in the Value Modifier," available at the following URL: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/Downloads/2016-Attribution-Fact-Sheet.pdf.

3. CAHPS for PQRS and ACOs

The CAHPS for PQRS and CAHPS for ACOs surveys assess beneficiaries' experience of care in a group practice. For the 2018 Value Modifier, the Quality Composite Score includes CAHPS for PQRS or CAHPS for ACOs survey measures for certain types of TINs.

TINs with 100 or more eligible professionals that registered for the GPRO were required to participate in the CAHPS for PQRS survey, while it was optional for TINs with 2 to 99 eligible

[10] For TINs that participated in a Shared Savings Program ACO that did not avoid the 2018 PQRS payment adjustment, but the TIN avoided the 2018 PQRS payment adjustment outside the ACO, the 30-day All-Cause Hospital Readmission measure is calculated and displayed in the Annual QRUR for informational purposes only. The measure is not used in the calculation of the TIN's Value Modifier.

professionals that registered for the GPRO. CAHPS for PQRS survey measures are only included in the Quality Composite Score if the TIN elected to include these survey results in the calculation of the TIN's 2018 Value Modifier. See Exhibit B.2 in Appendix B for a list of CAHPS measures that are included in the 2018 Value Modifier.[11]

In 2016, all ACOs were required to participate in the CAHPS for ACOs survey. For the 2018 Value Modifier, CMS includes the CAHPS for ACOs survey measures in the Quality Composite Score for TINs that participated in a Shared Savings Program ACO in 2016 that avoided the 2018 PQRS payment adjustment on behalf of the TIN. No CAHPS measures are included in the Quality Composite Score for TINs that participated in a Shared Savings Program ACO in 2016 that did not avoid the PQRS payment adjustment on behalf of the TIN, even if the TIN avoided the PQRS payment adjustment outside the ACO.

Additional information about participating in the CAHPS for PQRS survey is provided in the document entitled "2016 Physician Quality Reporting System (PQRS): CMS-Certified Survey Vendor Reporting Consumer Assessment of Healthcare Providers and Systems (CAHPS) for PQRS Made Simple," available at the following URL: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/downloads/2016PQRS_CAHPS_MadeSimple.pdf.

Additional information about quality reporting for Shared Savings Program ACOs is available at the following URL: https://www.cms.gov/medicare/medicare-fee-for-service-payment/sharedsavingsprogram/quality-measures-standards.html.

D. Cost Measures Included in the Cost Composite Score

In calculating the Cost Composite Score for the 2018 Value Modifier, CMS calculates six cost measures based on Medicare FFS claims submitted for Medicare beneficiaries (or episodes, for the Medicare Spending per Beneficiary [MSPB] measure) attributed to the TIN. These measures are categorized into one of two cost domains. The Costs for All Attributed Beneficiaries Domain includes two distinct measures—Per Capita Costs for All Attributed Beneficiaries and MSPB. The Costs for Beneficiaries with Specific Conditions Domain includes four condition-specific per capita cost measures for beneficiaries with the following conditions: diabetes, coronary artery disease (CAD), COPD, and heart failure.

Per Capita Costs for All Attributed Beneficiaries. This measure represents the mean of all Medicare Part A and Part B allowed charges for a TIN's attributed beneficiaries during 2016. Medicare Part D outpatient drug costs are not included.

Per Capita Costs for Beneficiaries with Specific Conditions. These four measures are computed analogously to the Per Capita Cost for All Attributed Beneficiaries measure, but are only computed for attributed beneficiaries with diabetes, CAD, COPD, or heart failure. See

[11] Data on the "Health Status/Functional Status" CAHPS measure, a descriptive measure of beneficiary characteristics, are provided to TINs for their information only. This measure is not used in the calculation of the 2018 Value Modifier.

Section II.E for more information on the impact of the new ICD-10 diagnosis and procedure codes on the Per Capita Costs for Beneficiaries with Diabetes measure.

Medicare Spending per Beneficiary (MSPB). This measure captures Medicare Part A and Part B payments for services for episodes spanning from three days before an inpatient hospital admission through 30 days after discharge.

Although the methodologies for calculating the per capita cost and MSPB measures differ in key respects, all cost measures are adjusted to account for variations in Medicare payment rates unrelated to resource use (such as differences due to geographic location or add-on payments for special programs), a process known as payment standardization. They are also adjusted to account for differences in beneficiary characteristics, including prior health conditions that can affect their medical costs or utilization (risk adjustment) and differences in the mix of specialties across TINs (specialty adjustment).[12]

More detailed information about the cost measures, including detailed descriptions of beneficiary and episode attribution, risk adjustment, and specialty adjustment, is available in the Measure Information Forms at the following URL: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/2016-QRUR.html.

Additional details relating to the payment-standardization algorithm are available at the following URL: http://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier4&cid=1228772057350.[13]

E. TINs Reporting Quality Measures Impacted by ICD-10

New ICD-10 diagnosis and procedure codes came into effect on October 1, 2016. The new codes relevant to the Value Modifier program primarily include new diabetes diagnosis codes and cardiac procedure codes. Diabetes diagnosis codes are used when flagging chronic conditions for both the Per Capita Costs for Beneficiaries with Diabetes measure and for the denominator of the diabetes component measure included in the Hospital Admissions for ACSCs Chronic Conditions Composite. Cardiac procedure codes are an exclusion for the numerator of the heart failure component measure included in the Hospital Admissions for ACSCs Chronic Conditions Composite. For the 30-day All-Cause Hospital Readmission measure, diabetes diagnosis codes are used for identifying condition categories and cardiac procedure codes are used in identifying planned procedures. Finally, eighteen new pancreatitis codes are relevant when flagging planned readmissions in the 30-day All-Cause Hospital Readmission measure.

---

[12] Additional information on risk adjustment can be found in the document entitled, "Risk Adjustment," available at the following URL: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/Downloads/2016-RiskAdj-FactSheet.pdf. Additional information on specialty adjustment can be found in the document entitled, "Specialty Adjustment," available at the following URL: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/Downloads/2016-SpecAdj-FactSheet.pdf.

[13] The CMS document available on QualityNet refers to this process as "price standardization" rather than "payment standardization"; however, the two terms are equivalent.

CMS does not include the new ICD-10 codes in algorithms used to compute the quality and cost measures for the 2018 Value Modifier or the 2016 Annual QRURs. Consistent with the Measure Information Forms publicly posted at: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/2016-QRUR.html, CMS uses the algorithms that accommodate all ICD-10 codes available prior to October 1, 2016 and are the same ones used to calculate the benchmarks (see Section II.G for computing measure benchmarks). Depending on the mechanism TINs and eligible professionals used to report quality measures impacted by the new ICD-10 codes, CMS may not have access to the PQRS quality data for certain TINs. To calculate the Quality Composite Score for such TINs, CMS uses the data reported to the PQRS through another reporting mechanism (if the TIN reported through multiple mechanisms), or only the claims-based quality outcome measures (if the TIN reported only through the impacted mechanism).

F. Determining Which Measures Have the Required Number of Eligible Cases to be included in the 2018 Value Modifier Calculations

All quality and cost measures must have a minimum number of eligible cases to be included in the calculation of the 2018 Value Modifier. The minimum number of eligible cases is 20, with two exceptions. The MSPB measure requires at least 125 eligible episodes to be included in the Cost Composite Score. The 30-day All-Cause Hospital Readmission measure requires at least 200 eligible cases to be included in the Quality Composite Score for non-Shared Savings Program ACO TINs and for Shared Savings Program ACO TINs whose ACO did not avoid the 2018 PQRS payment adjustment on their behalf. The 30-day All-Cause Hospital Readmission measure is included in the Quality Composite Score only for TINs with 10 or more eligible professionals. However, the ACO-level 30-day All-Cause Hospital Readmission measure calculated for Shared Savings Program ACO TINs whose ACO avoided the 2018 PQRS payment adjustment on their behalf is included in the Quality Composite Score regardless of case size. All measures that do not have the minimum number of cases or episodes are calculated and reported in the Annual QRUR for informational purposes only, and they are not included in the composite scores for the Value Modifier.

For PQRS measures and non-PQRS QCDR measures reported by individual eligible professionals, the total number of eligible cases across all eligible professionals submitting the measure under the TIN and avoiding the 2018 PQRS payment adjustment is used to determine if the minimum case threshold was reached. For measures with multiple performance rates rolled up to a single performance rate based on an equally-weighted mean, the number of eligible cases is the number of eligible cases for any one of the component rates. For measures with multiple performance rates that are rolled up to a single performance rate based on a *non*-equally-weighted mean of the component rates, the number of eligible cases for the rolled-up measure is the sum of the number of eligible cases for each component rate. For more information about calculating the performance rates for these measures, please refer to Appendix C.

G. Computing Measure Benchmarks and Standard Deviations

With the exception of the 30-day All-Cause Hospital Readmission measure, the benchmark for each quality measure in the 2018 Value Modifier calculations is the case-weighted national mean performance rate during 2015 (the year prior to the 2016 performance period) among all

TINs in the measure's peer group. For each quality measure, the peer group is defined as all TINs nationwide that had at least 20 eligible cases for the measure.

Benchmarks are calculated for quality measures where at least 20 TINs have at least the minimum number of required eligible cases during 2015. For the calculation of the 2018 Value Modifier, PQRS measures that can be reported as electronic Clinical Quality Measures (eCQMs) via EHR and QCDR have separate benchmarks from the non-eCQM versions of the measures.[14] Quality measures that do not have a 2015 benchmark (for example, measures new to PQRS in 2016) are not included in the calculation of the Quality Composite Score, but performance on these measures is reported in the 2016 Annual QRUR for informational purposes only.

The benchmark for the 30-day All-Cause Hospital Readmission measure is the case-weighted national mean performance rate during 2015 among all TINs that did not participate in the Shared Savings Program ACO as well as Shared Savings Program ACOs in the measure's peer group. The peer group for the 30-day All-Cause Hospital Readmission measure is defined as all TINs nationwide with 10 or more eligible professionals that had at least 200 eligible cases, and all ACOs in the Shared Savings Program with at least one eligible case.[15]

Benchmarks for the CAHPS survey measures are calculated from the 2015 CAHPS for PQRS and 2015 CAHPS for ACOs reporting. The benchmarks include data from ACOs that reported CAHPS measures, even if the ACO did not complete all ACO quality reporting. The peer group for the CAHPS measures is defined as all TINs that reported the CAHPS for PQRS survey and all ACOs that reported the CAHPS for ACOs survey in 2015. Data from ACOs that withdrew from the model are not included in the peer group.

Additional information on the quality benchmarks used in the calculation of the 2018 Value Modifier can be found in the document entitled "Benchmarks for Measures Included in the Performance Year 2016 Quality and Resource Use Reports," available at the following URL: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/Downloads/PY2016-Prior-Year-Benchmarks.pdf.

The benchmark for each cost measure is the case-weighted national mean cost during 2016 among all TINs in the measure's peer group. For each of the five total per capita cost measures, the peer group is defined as all TINs nationwide that had at least 20 eligible cases for the measure. For the MSPB measure, the peer group is defined as all TINs nationwide that had at least 125 eligible episodes. Benchmarks are calculated for each cost measure where at least 20 TINs have at least the minimum number of required eligible cases (or episodes in the case of the MSPB measure) during 2016.

---

[14] EHR submissions use eCQM versions of PQRS measures. TINs can also submit eCQM versions of measures via QCDR based on eCQM measure specifications. All other reporting mechanisms use non-eCQM versions of PQRS measures, including QCDR submissions based on non-eCQM specifications.

[15] For all TINs that participated in a Shared Savings Program ACO in 2015, only their ACO-level performance rates, not their TIN-level performance rates, are included in the benchmark for the 30-day All-Cause Hospital Readmission measure.

In addition to computing benchmarks, CMS also computes each quality and cost measure's standard deviation. Peer group standard deviations for quality and cost measures are case weighted, with the measure performance rate for each TIN in the peer group receiving a weight equal to the number of eligible cases that the TIN had for the specific measure. As with the benchmarks, the standard deviations for quality measures are based on data from 2015 (the year prior to the 2016 performance period) and the standard deviations for cost measures are based on data from 2016.

H. Standardizing Scores and Computing Domain Scores

Standardizing measure performance transforms measures with disparate scales to a common scale, which enables different measures to be compared and combined with one another into a composite. Measure-level performance is standardized by subtracting the benchmark for the measure from the TIN's per capita or per episode cost or quality performance rate and dividing by the case-weighted peer group standard deviation of the measure. A standardized score for a measure reflects the number of standard deviations that a TIN's overall performance differs from the benchmark.

Quality and cost domain scores are calculated as the simple (equally-weighted) mean of the TIN's standardized measure scores within the domain, if the TIN has a score for at least one measure included in the quality or cost domain. Only measures with at least the minimum number of required eligible cases and where benchmarks are available are included in quality and cost domain scores for the 2018 Value Modifier. A domain score is not computed for any domain in which the TIN does not have at least one measure with at least the minimum number of required eligible cases and for which a benchmark is available.

I. Computing Mean Domain Scores and Standardized Composite Scores

For each TIN with at least the minimum number of eligible cases required to compute at least one quality measure with a benchmark for at least one quality domain score, CMS computes the simple (equally-weighted) mean of the TIN's quality domain scores. CMS standardizes this score to generate a distribution of mean quality domain scores centered at a mean of zero with a standard deviation of one. This involves subtracting the peer group mean from each TIN's average domain score and dividing the difference by the peer group standard deviation. For all other TINs, the peer group for the Quality Composite includes all TINs for which a Quality Composite Score could be calculated, with the exception of TINs that participated in the Pioneer ACO Model, Next Generation ACO Model, Oncology Care Model, Comprehensive ESRD Model, or the Comprehensive Primary Care (CPC) initiative in 2016, as well as TINs that participated in a Shared Savings Program ACO that did not avoid the PQRS payment adjustment on their behalf. The standardized score created through this process is the Quality Composite Score. If a TIN's Quality Composite Score cannot be calculated because the TIN does not have at least the minimum number of required eligible cases for at least one quality measure with a benchmark, then the TIN's quality performance is designated as Average Quality for the 2018 Value Modifier.

The Cost Composite Score is computed analogously to the Quality Composite Score. For each TIN with at least the required minimum number of eligible cases for at least one cost measure with a benchmark for at least one cost domain score, CMS computes the simple

(equally-weighted) mean of the TIN's cost domain scores. CMS standardizes this score to generate a distribution of mean cost domain scores centered at a mean of zero with a standard deviation of one. This involves subtracting the peer group mean from each TIN's average domain score and dividing the difference by the peer group standard deviation. For TINs subject to the 2018 Value Modifier, the peer group for the Cost Composite includes all TINs subject to the 2018 Value Modifier for which a Cost Composite Score could be calculated, with the exception of TINs that participated in the Shared Savings Program in 2016. For all other TINs, the peer group for the Cost Composite includes all TINs for which a Cost Composite Score could be calculated, with the exception of TINs that participated in the Shared Savings Program, the Pioneer ACO Model, Next Generation ACO Model, Oncology Care Model, Comprehensive ESRD Care Model, or the Comprehensive Primary Care (CPC) initiative in 2016. The standardized score created through this process is the Cost Composite Score. A Cost Composite Score is not calculated for TINs that do not have at least the minimum number of required eligible cases for at least one cost measure with a benchmark. If a TIN's Cost Composite Score cannot be calculated because the TIN does not have at least the minimum number of required eligible cases for at least one cost measure with a benchmark, then the TIN's cost performance is designated as Average Cost for the 2018 Value Modifier.

J. Categorizing TINs on Quality and Cost Performance Based on Composite Scores and Statistical Significance (Quality-Tiering)

For Category 1 TINs subject to the 2018 Value Modifier that avoided the 2018 PQRS payment adjustment, CMS calculates their Value Modifier using a quality-tiering approach based on the TIN's 2016 quality and cost performance.

To be considered either a high or low performer relative to its peers on the Quality Composite Score, a TIN's score must be at least one standard deviation above or below the peer group mean Quality Composite Score and statistically significantly different from the peer group mean. The peer groups are defined above in Section II.I. This ensures that payment adjustments under the Value Modifier are only made to those TINs whose performance reflects a meaningful difference from the mean. A TIN is classified as Average Quality for purposes of calculating the Value Modifier if (1) the TIN's score is within one standard deviation of the peer group mean, regardless of its statistical significance, (2) the TIN's score is at least one standard deviation above or below the peer group mean Quality Composite Score, but the difference between the TIN's score and the mean is not statistically significant, or (3) the TIN does not have at least the minimum number of required eligible cases for at least one quality measure with a benchmark. Statistical significance is assessed using a two-tailed test.

High, average, and low performance is determined similarly for the Cost Composite Score as for the Quality Composite Score; however, lower Cost Composite Scores indicate better performance. To be considered either a high or low performer relative to its peers on the Cost Composite Score, a TIN's score must be at least one standard deviation above or below the peer group mean Cost Composite Score and statistically significantly different from the peer group mean. A TIN is classified as Average Cost for purposes of calculating the Value Modifier if (1) the TIN's score is within one standard deviation of the peer group mean, regardless of its statistical significance, (2) the TIN's score is at least one standard deviation above or below the peer group mean Cost Composite Score, but the difference between the TIN's score and the

mean is not statistically significant, or (3) the TIN does not have at least the minimum number of required eligible cases for at least one cost measure with a benchmark.

For TINs that participated in a Shared Savings Program ACO in 2016 that reported quality data through the GPRO Web Interface and avoided the 2018 PQRS payment adjustment, the Quality Composite Score is calculated based on the quality data submitted by the ACO through the GPRO Web Interface and the ACO's performance on the claims-based 30-day All-Cause Hospital Readmission measure calculated by Medicare for 2016. The Cost Composite Score for these TINs is classified as Average Cost.

For TINs that participated in a Shared Savings Program ACO in 2016 that did not avoid the 2018 PQRS payment adjustment, but are Category 1 as a result of reporting quality data to the PQRS outside of the ACO, their Quality and Cost Composite Scores are calculated and reported in the Annual QRUR for informational purposes only. These TINs are classified as Average Quality and Average Cost under the 2018 Value Modifier.

Exhibit II.2 below displays the basic structure of the 2018 Value Modifier under the quality-tiering approach. For the 2018 Value Modifier, CMS proposed to hold all Category 1 TINs harmless from any downward payment adjustment.[16] Because the Value Modifier must be budget-neutral, the size of the upward payment adjustments will be based on an Adjustment Factor (AF) calculated to redistribute downward adjustments from Category 2 TINs to the high-performing TINs. The AF is derived from actuarial estimates of projected billings and is calculated after the conclusion of the 2016 performance period. It is reflected in the exhibit as the variable AF. Because it is based on the number and relative performance of TINs subject to quality-tiering, it varies from year to year with differences in actuarial estimates.

Exhibit II.2. 2018 Value Modifier Payment Adjustments Based on Quality-Tiering

	Low Quality	Average Quality	High Quality
Physicians, PAs, NPs, CNSs, and CRNAs in TINs that are subject to the Value Modifier			
Low Cost	0.0%	+1.0 x AF*	+2.0 x AF*
Average Cost	0.0%	0.0%	+1.0 x AF*
High Cost	0.0%	0.0%	0.0%

*High-performing TINs treating high-risk beneficiaries (based on mean CMS-HCC risk scores) are eligible for an additional adjustment of +1.0 x AF.

The 2018 Value Modifier will be applied on a claim-by-claim basis to claims for services paid under the Medicare PFS and for which the Medicare provider has accepted assignment. A claim adjustment reason code (CARC) and a remittance advice remark code (RARC) are code sets used to report payment adjustments on an eligible professional's or group practice's Remittance Advice. The Value Modifier program currently uses CARC 237 –

[16] This policy is proposed in the 2018 Medicare Physician Fee Schedule Proposed Rule (82 FR 34125).

Legislated/Regulatory Penalty, to designate the application of a negative or downward payment adjustment. At least one remark code must be provided (may be comprised of either the National Council for Prescription Drug Programs Reject Reason Code, or RARC that is not an alert) in combination with the Value Modifier RARC "VBM – N701 – Payment adjusted based on the Value-based Payment Modifier."[17]

K. Assessing Whether the TIN Treats a Disproportionate Share of Beneficiaries with High-Risk Scores

TINs receiving an upward payment adjustment are eligible for an additional +1.0 x AF upward adjustment if the mean CMS-HCC risk score of the TIN's attributed beneficiaries is at or above the 75th percentile of all beneficiary risk scores nationwide. The 2015 CMS-HCC risk scores are calculated by CMS and are used to measure the mean risk of each TIN's attributed beneficiaries. For TINs that did not participate in a Shared Savings Program ACO in 2016, this includes the beneficiaries attributed to the TIN for the claims-based quality outcome and cost measures. TINs participating in a Shared Savings Program ACO in 2016 that are receiving an upward adjustment are eligible for an additional +1.0 x AF upward adjustment if the beneficiary population assigned to the ACO under the Shared Savings Program has a mean beneficiary CMS-HCC risk score at or above the 75th percentile of all beneficiary CMS-HCC risk scores nationwide.

The risk score assigned to each Medicare beneficiary predicts the beneficiary's medical costs in 2016 relative to mean costs among all Medicare FFS beneficiaries nationwide based on the presence of factors known to affect costs and utilization. A score of 1.0 represents average risk, with higher scores corresponding to higher risk. The 2015 CMS-HCC risk score distribution, spanning the lowest beneficiary risk score to the highest beneficiary risk score, and percentile thresholds were determined for all Medicare FFS beneficiaries nationally. Mean risk scores for beneficiaries attributed to TINs subject to the Value Modifier were compared with these national thresholds to determine whether the beneficiaries attributed to a TIN had a mean risk score that was at or above the 75th percentile.

L. Computation of Budget-Neutral Adjustment Factor (AF)

For the CMS Office of the Actuary (OACT) to compute the budget-neutral AF for the 2018 Value Modifier, OACT must estimate the total value of both upward and downward payment adjustments under the Value Modifier in 2018. OACT's calculations are based on a file of claim line amounts paid to physicians in 2016 under the Medicare PFS, aggregated to the TIN level. Prior to performing these calculations, CMS removes any payment adjustments resulting from incentive payment programs such as the Value Modifier, Medicare EHR Incentive Program, and PQRS adjustments. This file includes information about which TINs are subject to an upward,

[17] Further information can be found in the document entitled "Understanding 2018 Medicare Quality Program Payment Adjustments," available at the following URL: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/Downloads/Understand2018MedicarePayAdjs.pdf.

neutral, or downward payment adjustment under the 2018 Value Modifier. Line items are considered to have been paid under the Medicare PFS if the Healthcare Common Procedure Coding System (HCPCS) code and modifiers on the claim line are associated with any of the following status codes: Active (A), Carriers Price the Code (C), Anesthesia Services (J), Restricted Coverage (R), or Injections (T). Certain pathology codes[18] are paid under the Medicare PFS only if the line item includes a modifier value of 26 (professional component); otherwise, they are paid under the Clinical Laboratory Fee Schedule and thus are not included in the billings sum. The status codes associated with HCPCS and HCPCS/modifier combinations are found in the Medicare Physician Fee Schedule Relative Value File.[19]

M. Value Modifier Informal Review Policies

For TINs that are subject to the 2018 Value Modifier, CMS has established an Informal Review period for TINs to request a correction of a perceived error in their Value Modifier calculation after the release of the QRURs. CMS has established policies under four scenarios to determine how the Quality and Cost Composites under the Value Modifier would be affected as a result of Informal Review decisions or if unanticipated issues were to arise (for example, errors made by a third-party such as a vendor or errors in CMS' calculation of the Quality and/or Cost Composites are identified). Exhibit II.3 below summarizes the four scenarios.

Exhibit II.3. Quality and Cost Composite Status for TINs due to Informal Review Decisions and Widespread Quality and Cost Data Issues

	Scenario 1: TINs Moving from Category 2 to Category 1 as a Result of PQRS or Value Modifier Informal Review Process		Scenario 2: Non-GPRO Category 1 TINs with Additional Eligible Professionals Avoiding PQRS Payment Adjustment as a Result of PQRS Informal Review Process		Scenario 3: Category 1 TINs with Widespread Quality Data Issues		Scenario 4: Category 1 TINs with Widespread Claims Data Issues	
	Initial Composite	**Revised Composite**	**Initial Composite**	**Revised Composite**	**Initial Composite**	**Revised Composite**	**Recalculated Composite**	**Revised Composite**
Quality	N/A	Average	Low	Average	N/A	Average	Low	Average
	N/A	Average	Average	Average	N/A	Average	Average	Average
	N/A	Average	High	High	N/A	Average	High	High
Cost	Low	Low	Low	Low	Low	Low	Low	Low
	Average	Average	Average	Average	Average	Average	Average	Average
	High	Average	High	High	High	Average	High	Average

[18] These include services with any of the following HCPCS codes: 83020, 84165, 84166, 84181, 84182, 85390, 85576, 86153, 86255, 86256, 86320, 86325, 86327, 86334, 86335, 87164, 87207, 88371, 88372, and 89060.

[19] CMS typically publishes PFS Relative Value Files on a quarterly basis. To identify claims paid under the PFS, CMS uses the latest Relative Value File published in the fourth quarter of the relevant performance period. For 2016, PFS claims were identified using the Relative Value File "D" (RVU16D). Status code versions (by year and updates during the year) are found at the following URL: http://cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeeSched/PFS-Relative-Value-Files.html.

Scenario 1: TINs Moving from Category 2 to Category 1 as a result of PQRS or Value Modifier Informal Review Process

For the 2018 Value Modifier, if a TIN is initially classified as Category 2 and subsequently, through the PQRS or Value Modifier Informal Review process, it is reclassified as Category 1, then the TIN's Quality Composite will be classified as Average Quality. The TIN's Cost Composite will be calculated using the quality-tiering methodology. If the TIN is classified as High Cost based on its performance on the cost measures, then the TIN's Cost Composite will be reclassified as Average Cost. If the TIN is classified as Average Cost or Low Cost, then the TIN will retain the calculated cost tier designation.

Scenario 2: Non-GPRO Category 1 TINs with Additional Eligible Professionals Avoiding PQRS Payment Adjustment as a result of PQRS Informal Review Process

If a TIN is classified as Category 1 for the 2018 Value Modifier by having at least 50 percent of the TIN's eligible professionals avoid the 2018 PQRS payment adjustment as individuals, and subsequently, through the PQRS Informal Review process, it is determined that additional eligible professionals that are in the TIN also avoided the 2018 PQRS payment adjustment as individuals, then the following policies will be used to determine the TIN's Quality and Cost Composites:

- If the TIN's Quality Composite is initially classified as Low Quality, then the TIN's Quality Composite will be reclassified as Average Quality.
- If the TIN's Quality Composite is initially classified as Average Quality or High Quality, then the TIN will retain that quality tier designation.
- The TIN's Cost Composite that was initially calculated will be maintained.

Scenario 3: Category 1 TINs with Widespread Quality Data Issues

In cases where there is a systematic issue with any of a Category 1 TIN's quality data that renders it unusable for calculating a TIN's Quality Composite, the TIN's Quality Composite will be classified as Average Quality. CMS considers widespread quality data issues as issues that impact multiple TINs and for which CMS is unable to determine the accuracy of the data submitted via these TINs. The TIN's Cost Composite will be calculated using the quality-tiering methodology. If the TIN is classified as High Cost based on its performance on the cost measures, then the TIN's Cost Composite will be reclassified as Average Cost. If the TIN is classified as Average Cost or Low Cost, then the TIN will retain the calculated cost tier designation.

Scenario 4: Category 1 TINs with Widespread Claims Data Issues

If CMS determines after the release of the QRURs that there is a widespread claims data issue that impacts the calculation of the Quality and/or Cost Composites for Category 1 TINs, then the Quality and Cost Composites for affected TINs will be recalculated. CMS considers widespread claims data issues as issues that impact multiple TINs and require the recalculation of the Quality and/or Cost Composites.

After recalculating the composites, if the TIN's Quality Composite is classified as Low Quality, then the Quality Composite will be reclassified as Average Quality. If the TIN's Cost Composite is classified as High Cost, then the Cost Composite will be reclassified as Average Cost. If the TIN is classified as Average Quality, High Quality, Average Cost, or Low Cost, then the TIN will retain the calculated quality or cost tier designation.

Additional Upward Adjustment for the Treatment of Complex Beneficiaries

Under Scenarios 1 and 3, for TINs classified as Average Quality/Low Cost as a result of Informal Review, an additional +1.0 x AF upward payment adjustment will be applied to TINs if the mean CMS-HCC risk score of the TIN's attributed beneficiaries is at or above the 75th percentile of all beneficiary risk scores nationwide. Under Scenarios 2 and 4, for TINs classified as High Quality/Low Cost, High Quality/Average Cost, or Average Quality/Low Cost as a result of Informal Review, an additional +1.0 x AF upward payment adjustment will be applied if the mean CMS-HCC risk score of the TIN's attributed beneficiaries is at or above the 75th percentile of all beneficiary risk scores nationwide.

III. COMPUTATION OF ADDITIONAL STATISTICS

The 2016 Annual QRURs include tables to help report recipients better understand their TINs' quality and cost performance. These include data on hospital admissions for any cause, costs disaggregated by type of service, and medical professionals' specialties. This section describes the computational details behind these statistics.

A. Hospital Admissions for Any Cause

Because hospital costs are a large portion of per capita costs, Table 2B accompanying the 2016 Annual QRUR identifies hospitals that accounted for at least five percent of a TIN's attributed beneficiary hospital stays during 2016 to help TINs understand their per capita costs. CMS identifies beneficiary hospital stays by looking at admissions for beneficiaries attributed to each TIN via the two-step attribution process for per capita cost measures and claims-based quality outcome measures.[20] CMS identifies the names, CMS Certification Numbers (CCNs), and locations (city and state) of these hospitals by combining information from the Provider of Service files and PECOS.

Table 2C accompanying the 2016 Annual QRUR identifies each beneficiary-level hospital admission for beneficiaries attributed to each TIN via the two-step attribution process. Individual attributed beneficiaries are identified by an index variable, based on health insurance claim (HIC) number, sex, and date of birth, which allows users to link beneficiary-level information across tables without using personally identifiable information. Each hospital stay listed also indicates the date of discharge and discharge disposition based on the two-digit patient discharge status code on the last claim in a hospital stay (Exhibit III.1).

CMS provides similar information to help TINs understand hospital admissions reflected in the MSPB measure based on beneficiary MSPB episodes attributed to a TIN. However, admissions are reported for beneficiary MSPB episodes attributed to a TIN via the MSPB attribution rule instead of the two-step attribution process. Table 5A accompanying the 2016 Annual QRUR identifies hospitals that accounted for at least five percent of beneficiary MSPB episodes attributed to the TIN through the MSPB attribution rule during 2016. Table 5B accompanying the 2016 Annual QRUR provides information on the beneficiaries attributed to the TIN for the MSPB measure.

Hospital admissions with a principal diagnosis for conditions associated with alcohol and substance abuse are excluded from all patient-level data on hospital admissions for purposes of confidentiality but are included in total counts of hospital admissions in the Annual QRUR Table 2B.

[20] For additional information about the two-step attribution process, please refer to the document entitled "Two-Step Attribution for Claims-Based Quality Outcome Measures and Per Capita Cost Measures Included in the Value Modifier," available at the following URL: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/Downloads/2016-Attribution-Fact-Sheet.pdf.

Exhibit III.1. Medicare Hospital Claim Patient Discharge Status Codes

Discharge status code	Discharge status
01	Discharged to home
02	Transferred to another short-term general hospital
03	Discharged to skilled nursing facility (SNF) with Medicare certification
04	Discharged to intermediate care facility
05	Discharged to other hospital
06	Discharged to home health
07	Left against medical advice (AMA)
08	(Discontinued)
09	Admitted to same hospital
20	Expired
21	Discharged to court
30	Still patient
40	Expired at home – hospice
41	Expired at facility – hospice
42	Expired at unknown location – hospice
43	Discharged to federal hospital
50	Discharged to hospice – home
51	Discharged to hospice – facility
61	Transferred to Medicare-approved swing bed
62	Discharged to rehabilitation facility
63	Discharged to long-term care hospital
64	Discharged to SNF with Medicaid certification
65	Discharged to psychiatric hospital
66	Discharged to critical access hospital
69	Discharged to designated disaster alternate care
70	Discharged to other facility
71	(Discontinued)
72	(Discontinued)
81	Discharged to home – planned readmission
82	Transferred to short-term general hospital – planned readmission
83	Discharged to SNF with Medicare certification – planned readmission
84	Discharged to custodial or support care – planned readmission
85	Discharged to other hospital – planned readmission
86	Discharged to home health – planned readmission
87	Discharged to court – planned readmission
88	Discharged to federal hospital – planned readmission
89	Transferred to Medicare-approved swing bed – planned readmission
90	Discharged to rehabilitation facility – planned readmission
91	Discharged to long-term care hospital – planned readmission
92	Discharged to SNF with Medicaid certification – planned readmission
93	Discharged to psychiatric hospital – planned readmission
94	Discharged to critical access hospital – planned readmission
95	Discharged to other facility – planned readmission

Source: Research Data Assistance Center (ResDAC): http://www.resdac.org/cms-data/variables/patient-discharge-status-code.

B. Categorical Breakdown of Costs by Type of Service

Several tables accompanying the 2016 Annual QRUR—one for each of the six cost measures—provide a breakdown of the TIN's per capita or per episode costs in comparison to peers by type of service. Types of service include inpatient services and evaluation and management (E&M), among others. Each category of service includes the costs of *all* services in that category that were furnished to the TIN's attributed beneficiaries and included in the cost measure (not only those services provided by the TIN). Taken together, these category of service amounts add up to the per capita or per episode cost measure value, to allow TINs to identify more readily which categories were particular drivers of their measure-level costs. The specific tables are Table 3A: Per Capita Costs, by Categories of Service, for the Per Capita Costs for All Attributed Beneficiaries Measure; Tables 4A – 4D: Per Capita Costs, by Categories of Service, for Beneficiaries with Specific Conditions; and Table 5C: Costs per Episode, by Category of Service, for the Medicare Spending per Beneficiary (MSPB) Measure. These data are reported for informational purposes to help TINs better understand what is driving their beneficiaries' costs; they are not used individually in calculations of the Cost Composite Score.

In addition to separating costs by service category, services are further broken down based on whether the service was provided by eligible professionals in the TIN or by eligible professionals in another TIN for two categories: E&M services and procedures in non-emergency settings. For each of these two categories, service costs are further divided by the broad specialty category of the eligible professionals rendering them: primary care physicians (PCPs), medical specialists, surgeons, and other professionals (including PAs, NPs, CNSs, CRNAs, clinical social workers, clinical psychologists, dieticians, audiologists, physical and occupational therapists, and speech language therapists). The method for determining an eligible professional's specialty is described in the next section (Section III.C).

To ensure that the costs displayed across all categories of service for a given TIN sum to the actual per capita or per episode cost measure amount for that TIN, costs for each category of service are scaled by a multiplier equal to the ratio of the TIN's standardized, risk-adjusted, and specialty-adjusted cost measure to the TIN's standardized but not risk-adjusted and not specialty-adjusted costs. For example, suppose for Per Capita Costs for Beneficiaries with Diabetes, a TIN's payment-standardized but not risk-adjusted costs for its attributed beneficiaries with diabetes are $10,000, $2,000 of which is due to E&M and $8,000 of which is due to inpatient services. Suppose further that the TIN's risk- and specialty-adjusted costs for this measure are $15,000. These costs are 1.5 times higher than the TIN's corresponding unadjusted costs of $10,000. Rescaling the costs for the E&M and inpatient services categories by that factor of 1.5—to $3,000 and $12,000, respectively—results in a distribution of costs across categories for the TIN that adds up to the measure-level cost while preserving the share of those costs due to E&M and inpatient services, respectively, that is reflected in the unadjusted costs.

Appendix D provides more detail on how Medicare claims are categorized into the mutually exclusive service categories for the per capita cost measures displayed in Exhibit D.1. Exhibit D.2 displays how cost categories are defined for the MSPB measure.

Exhibits III.2 and III.3 list the categories of services displayed in the 2016 QRURs and tables. The disaggregated statistics relate to the measure scores as follows:

Exhibit III.2. Service Categories Displayed for Per Capita Costs Measures in the 2016 QRURs

Major category	Subcategories
Outpatient E&M services, procedures, and therapy (excluding emergency department)	E&M services billed by eligible professionals – Your TIN E&M services billed by eligible professionals – Other TINs Major procedures billed by eligible professionals – Your TIN Major procedures billed by eligible professionals – Other TINs Ambulatory/minor procedures billed by eligible professionals – Your TIN Ambulatory/minor procedures billed by eligible professionals – Other TINs Outpatient physical, occupational, or speech and language pathology therapy
Ancillary services	Laboratory, pathology, and other tests Imaging services Durable medical equipment and supplies
Hospital inpatient services	Inpatient hospital facility services Eligible professional services during hospitalization – Your TIN Eligible professional services during hospitalization – Other TINs
Emergency services not included in a hospital admission	Emergency E&M services Procedures Laboratory, Pathology, and Other Tests Imaging Services
Post-acute services	Home health SNF Inpatient rehabilitation or long-term care hospital
Hospice	No subcategories
All other services	Ambulance services Anesthesia services Chemotherapy and other Part B-covered drugs Dialysis Other facility-billed E&M expenses Other facility-billed expenses for major procedures Other facility-billed expenses for ambulatory/minor procedures All other services not otherwise classified

Exhibit III.3. Service Categories Displayed for the MSPB Measure in the 2016 QRURs

Major category	Subcategories
Acute inpatient services	Acute inpatient hospital: index admission Acute inpatient hospital: readmission Eligible professional services billed by your TIN during index hospitalization Eligible professional services billed by other TINs during index hospitalization Other physician or supplier Part B services billed during any hospitalization
Post-acute care	Home health SNF Inpatient rehabilitation or long-term care hospital
Emergency services not included in a hospital admission	Emergency E&M services Procedures Laboratory, pathology, and other tests Imaging services
Outpatient E&M services, procedures, and therapy (excluding emergency department)	Physical, occupational, or speech and language pathology therapy Dialysis E&M services Major procedures and anesthesia Ambulatory/minor procedures
Ancillary services	Laboratory, pathology, and other tests Imaging services Durable medical equipment and supplies
Hospice	No subcategories
All other services	Ambulance services Chemotherapy and other Part B-covered drugs All other services not otherwise classified

C. Physicians and Nonphysician Eligible Professionals Billing Under the TIN

In order to attribute beneficiaries to TINs for the per capita cost measures and for the three claims-based quality outcome measures, CMS takes into account the level of primary care services received (as measured by Medicare-allowed charges during 2016) and the provider specialties that performed these services (PCPs, specialists, NPs, PAs, and CNSs). Information on eligible professionals' medical specialties is also used in category-of-service breakdowns, as described above. CMS uses the following broad specialty categories for the category-of-service breakdowns: PCP, medical specialist, surgeon, and other eligible professional. CMS uses the two-digit CMS specialty codes that appear on Medicare carrier claims files to define specialties. The Medicare Claims Processing Manual delineates which specialties are physician specialties and which are not. Assignment of medical professionals to broad specialty categories, referred to here as professional stratification categories, comprises two steps. First, each provider is assigned a medical specialty. Second, each specialty is assigned a professional stratification category.

The CMS specialty codes that appear on Medicare carrier claims files reflect self-reported specialties recorded in PECOS. To account for changes in specialties or multiple PECOS enrollments during a performance year, CMS determines the specialty from CMS carrier claims files based on the CMS specialty code associated with the plurality of total allowed charges on line items for services rendered by the professional during 2016. In the case of a tie, the specialty listed on the most recent claim is selected. Appendix E provides a mapping from CMS specialty codes to physician, eligible professional, and professional stratification categories.

APPENDIX A

DESCRIPTION OF DATA SOURCES

CMS uses multiple data sources, described briefly below, to calculate the quality and cost measures included in the 2018 Value Modifier. A more detailed discussion of how these sources are used in specific quality and cost measures is available in the Measure Information Forms available at the following URL: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/2016-QRUR.html.

A. Quality Measure Data Reported by Groups and Individual Eligible Professionals

PQRS reporting and performance data included in the 2018 Value Modifier and displayed in the 2016 Annual QRURs are obtained from PQRS in a Universal Data Set (UDS). PQRS data from calendar year 2016 are used for the 2016 Annual QRUR and 2018 Value Modifier. The data include information on measures submitted by TINs as groups (through the GPRO) and individual eligible professionals, by TIN, including which measures were submitted, number of cases submitted, number of exclusions, number of cases that met the relevant measure criteria, and performance rates. The UDS contains similar data for non-PQRS QCDR measures. The UDS data also include information on which TINs and individual eligible professionals avoided the 2018 PQRS payment adjustment and the reporting mechanism(s) by which the measures were submitted: Medicare Part B claims, qualified PQRS registry, direct CEHRT, CEHRT via data submission vendor, QCDR, or GPRO Web Interface.

For TINs that reported CAHPS for PQRS survey measures and elected to have them included in the calculation of their Value Modifier, and for Shared Savings Program ACO participant TINs whose ACOs reported CAHPS for ACOs measures and avoided the 2018 PQRS payment adjustment, CMS uses CAHPS survey data collected by CMS-certified CAHPS survey vendors in the performance year. Like the other PQRS data, the CAHPS data include information on number of responses and performance rate. They also include additional information needed to incorporate CAHPS measures into the 2018 Value Modifier for TINs electing that option, such as CAHPS-specific standard errors.

B. Medicare Enrollment Data

CMS uses Medicare Part A and Part B enrollment data to attribute beneficiaries to TINs for the three claims-based quality outcome measures and six cost measures included in the 2018 Value Modifier. Medicare enrollment data from calendar year 2016 are used for the 2016 Annual QRUR and 2018 Value Modifier. These data contain demographic and enrollment information about each beneficiary enrolled in Medicare during a calendar year. The data include the beneficiary's unique Medicare identifier, state and county residence codes, zip code, date of birth, date of death, sex, race/ethnicity, age, monthly Medicare entitlement indicators, reasons for entitlement, whether the beneficiary's state of residence paid for the beneficiary's Medicare Part A or Part B monthly premiums ("state buy-in"), and monthly Medicare managed care enrollment indicators. These variables help determine whether a given beneficiary should be attributed to a TIN. For example, beneficiaries enrolled in Medicare managed care or living outside the U.S., its territories, and its possessions are excluded from the claims-based measures included in the Value Modifier. The enrollment data are accessed via CMS' Integrated Data Repository (IDR). The denominator table, updated quarterly, is accessed via the Medicare Enrollment Database. The beneficiary table, updated daily, is accessed via the Common Medicare Environment.

C. Medicare Claims Data

For the 2018 Value Modifier and the 2016 Annual QRURs, computations for the three claims-based quality outcome measures and six cost measures use all final action Medicare claims for services provided during the performance period. Specifically, CMS analyzes inpatient hospital; outpatient hospital; SNF; home health; hospice; carrier (physician/supplier); and durable medical equipment (DME), prosthetics, orthotics, and supplies (DMEPOS) claims, as appropriate for the relevant measure. These claims are identified from CMS' IDR based on at least a 90-day runout period. The date on which the claims are identified is the Wednesday following the first Saturday that occurs more than 90 days after the end of the performance period. This ensures that there is enough time for claims from the last few days of the run-out period to have been uploaded to the IDR during the weekly updates.[21]

Under Medicare procedures, when an error is discovered on a claim, a duplicate claim is submitted indicating that the prior claim was in error; a subsequent claim containing the corrected information can then be submitted. The National Claims History database is the source of Medicare FFS claims in the IDR. The IDR contains only the final action claims developed from the Medicare National Claims History database—that is, non-rejected claims for which a payment has been made after all disputes and adjustments have been resolved and details clarified—and these are the claims used to populate the Annual QRUR and calculate the Value Modifier. The scope of claims in the IDR is national. Medicare Administrative Contractors (MACs) submit data continually to CMS, which updates the IDR weekly as noted above. TINs submit claims to their MAC for processing and payment. For the purpose of computing the Value Modifier, the end date of the claim determines the performance period with which the claim is associated.

D. Other Data

CMS-HCC risk scores. Derived from Medicare enrollment and claims data, CMS-HCC risk scores are used to (1) risk adjust the Per Capita Costs for All Attributed Beneficiaries and Per Capita Costs for Beneficiaries with Specific Conditions measures[22] and (2) determine which high-performing TINs are eligible for an additional upward payment adjustment if their mean beneficiary CMS-HCC risk score is at or above the 75th percentile of all beneficiary risk scores nationwide. Final risk scores for the 2018 Value Modifier are obtained directly from the contractor that produces these scores for CMS. CMS-HCC risk scores from calendar year 2015

[21] Specifically, CMS calculates the date that is 90 days after the close of the performance period. If the dates falls on a weekday, all claims through at least that date are captured the following Tuesday and claims are locked the following Wednesday. If the date falls on a weekend, the data are captured a week later (two Wednesdays after the 90-day runout).

[22] For additional details about the risk adjustment methodology for the per capita cost measures, see the per capita cost Measure Information Forms available at the following URL: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/2016-QRUR.html.

(2016 Final Model scores using Version 22) are used for the 2016 Annual QRUR and 2018 Value Modifier.

Standardized payments. Standardized Medicare allowed charges are used for the cost measures included in the 2018 Value Modifier. These data associate a standardized amount with each actual allowed amount for each service billed by Medicare providers. These data are obtained directly from the contractor responsible for producing CMS' agency-wide standardized payments. Standardized payments data from calendar year 2016 are used for the 2016 Annual QRUR and 2018 Value Modifier.[23]

PECOS. PECOS data are used to develop an initial list of TINs that could be subject to the 2018 Value Modifier, based on the number of eligible professionals associated with the TIN in PECOS as of July 16, 2016. The PECOS database includes information on enrolled eligible professionals, including their NPIs, any TINs to which they have reassigned their billing rights, and their primary and secondary specialties (if applicable). PECOS data were obtained by querying the PECOS reporting database 10 calendar days after the 2016 PQRS GPRO registration period ended.

Pioneer ACO Model, Next Generation ACO Model, Oncology Care Model, Comprehensive ESRD Care Model, and Comprehensive Primary Care (CPC) initiative participation lists. To assess which TINs will be exempt from the 2018 Value Modifier because eligible professionals billing under the TIN participated in the Pioneer ACO Model, Next Generation ACO Model, Oncology Care Model, Comprehensive ESRD Care Model, or the Comprehensive Primary Care (CPC) initiative during 2016, TIN-level and TIN-NPI-level participation lists are obtained directly from the contractors supporting these programs and initiatives.

[23] Additional details relating to the payment-standardization algorithm are available at the following URL: http://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier4&cid=1228772057350.

APPENDIX B

QUALITY MEASURES, BY DOMAIN

The exhibits in this appendix display, by quality domain, the PQRS measures and non-PQRS QCDR measures considered for inclusion in the 2018 Value Modifier, and included in the 2016 Annual QRURs. The six domains are Effective Clinical Care, Person and Caregiver-Centered Experience and Outcomes, Community/Population Health, Patient Safety, Communication and Care Coordination, and Efficiency and Cost Reduction. Measures for which lower performance is better are indicated by an asterisk following the measure number. For the 2018 Value Modifier calculation, PQRS measures that can be reported as eCQMs have separate benchmarks from the non-eCQM versions of measures.[24] The three CMS-calculated claims-based quality outcome measures, as shown in Exhibit B.6, are also included in the 2016 Annual QRURs.

Exhibit B.1. Effective Clinical Care Domain Quality Indicators

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
-	Diabetes Mellitus (DM): Composite (All or Nothing Scoring) (includes GPRO DM-2 and GPRO DM-7)	Effective Clinical Care
1* **(GPRO DM-2)**	Diabetes: Hemoglobin A1c Poor Control	Effective Clinical Care
1* **(CMS122v4)**	Diabetes: Hemoglobin A1c Poor Control (eCQM)	Effective Clinical Care
117 **(GPRO DM-7)**	Diabetes: Eye Exam	Effective Clinical Care
117 **(CMS131v4)**	Diabetes: Eye Exam (eCQM)	Effective Clinical Care
2 **(CMS163v4)**	Diabetes: Low Density Lipoprotein (LDL-C) Control (< 100 mg/dL) (eCQM)	Effective Clinical Care
5	Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction (LVSD)	Effective Clinical Care
5 **(CMS135v4)**	Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction (LVSD) (eCQM)	Effective Clinical Care
6	Coronary Artery Disease (CAD): Antiplatelet Therapy	Effective Clinical Care
7	Coronary Artery Disease (CAD): Beta-Blocker Therapy – Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF < 40%)	Effective Clinical Care
7 **(CMS145v3)**	Coronary Artery Disease (CAD): Beta-Blocker Therapy – Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF < 40%) (eCQM)	Effective Clinical Care
8 **(GPRO HF-6)**	Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)	Effective Clinical Care

[24] EHR submissions use eCQM versions of PQRS measures. TINs can also submit eCQM versions of measures via QCDR based on eCQM measure specifications. All other reporting mechanisms use non-eCQM versions of PQRS measures, including QCDR submissions based on non-eCQM specifications.

Exhibit B.1 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
8 (CMS144v4)	Heart Failure (HF): Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD) (eCQM)	Effective Clinical Care
9 (CMS128v4)	Anti-Depressant Medication Management (eCQM)	Effective Clinical Care
12	Primary Open-Angle Glaucoma (POAG): Optic Nerve Evaluation	Effective Clinical Care
12 (CMS143v4)	Primary Open-Angle Glaucoma (POAG): Optic Nerve Evaluation (eCQM)	Effective Clinical Care
14	Age-Related Macular Degeneration (AMD): Dilated Macular Examination	Effective Clinical Care
18	Diabetic Retinopathy: Documentation of Presence or Absence of Macular Edema and Level of Severity of Retinopathy	Effective Clinical Care
18 (CMS167v4)	Diabetic Retinopathy: Documentation of Presence or Absence of Macular Edema and Level of Severity of Retinopathy (eCQM)	Effective Clinical Care
32	Stroke and Stroke Rehabilitation: Discharged on Antithrombotic Therapy	Effective Clinical Care
39	Screening for Osteoporosis for Women Aged 65-85 Years of Age	Effective Clinical Care
41	Osteoporosis: Pharmacologic Therapy for Men and Women Aged 50 Years and Older	Effective Clinical Care
43	Coronary Artery Bypass Graft (CABG): Use of Internal Mammary Artery (IMA) in Patients with Isolated CABG Surgery	Effective Clinical Care
44	Coronary Artery Bypass Graft (CABG): Preoperative Beta-Blocker in Patients with Isolated CABG Surgery	Effective Clinical Care
48	Urinary Incontinence: Assessment of Presence or Absence of Urinary Incontinence in Women Aged 65 Years and Older	Effective Clinical Care
51	Chronic Obstructive Pulmonary Disease (COPD): Spirometry Evaluation	Effective Clinical Care
52	Chronic Obstructive Pulmonary Disease (COPD): Inhaled Bronchodilator Therapy	Effective Clinical Care
53	Asthma: Pharmacologic Therapy for Persistent Asthma – Ambulatory Care Setting	Effective Clinical Care
54	Emergency Medicine: 12-Lead Electrocardiogram (ECG) Performed for Non-Traumatic Chest Pain	Effective Clinical Care
67	Hematology: Myelodysplastic Syndrome (MDS) and Acute Leukemia: Baseline Cytogenetic Testing Performed on Bone Marrow	Effective Clinical Care
68	Hematology: Myelodysplastic Syndrome (MDS): Documentation of Iron Stores in Patients Receiving Erythropoietin Therapy	Effective Clinical Care
69	Hematology: Multiple Myeloma: Treatment with Bisphosphonates	Effective Clinical Care
70	Hematology: Chronic Lymphocytic Leukemia (CLL): Baseline Flow Cytometry	Effective Clinical Care

Exhibit B.1 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
71	Breast Cancer: Hormonal Therapy for Stage IC-IIIC Estrogen Receptor/Progesterone Receptor (ER/PR) Positive Breast Cancer	Effective Clinical Care
71 (CMS140v4)	Breast Cancer: Hormonal Therapy for Stage IC-IIIC Estrogen Receptor/Progesterone Receptor (ER/PR) Positive Breast Cancer (eCQM)	Effective Clinical Care
72	Colon Cancer: Chemotherapy for AJCC Stage III Colon Cancer Patients	Effective Clinical Care
72 (CMS141v5)	Colon Cancer: Chemotherapy for AJCC Stage III Colon Cancer Patients (eCQM)	Effective Clinical Care
84	Hepatitis C: Ribonucleic Acid (RNA) Testing Before Initiating Treatment	Effective Clinical Care
85	Hepatitis C: Hepatitis C Virus (HCV) Genotype Testing Prior to Treatment	Effective Clinical Care
87	Hepatitis C: Hepatitis C Virus (HCV) Ribonucleic Acid (RNA) Testing Between 4-12 Weeks After Initiation of Treatment	Effective Clinical Care
91	Acute Otitis Externa (AOE): Topical Therapy	Effective Clinical Care
99	Breast Cancer Resection Pathology Reporting: pT Category (Primary Tumor) and pN Category (Regional Lymph Nodes) with Histologic Grade	Effective Clinical Care
100	Colorectal Cancer Resection Pathology Reporting: pT Category (Primary Tumor) and pN Category (Regional Lymph Nodes) with Histologic Grade	Effective Clinical Care
104	Prostate Cancer: Adjuvant Hormonal Therapy for High Risk or Very High Risk Prostate Cancer	Effective Clinical Care
107 (CMS161v4)	Adult Major Depressive Disorder (MDD): Suicide Risk Assessment (eCQM)	Effective Clinical Care
108	Rheumatoid Arthritis (RA): Disease Modifying Anti-Rheumatic Drug (DMARD) Therapy	Effective Clinical Care
112 (GPRO PREV-5)	Breast Cancer Screening	Effective Clinical Care
112 (CMS125v4)	Breast Cancer Screening (eCQM)	Effective Clinical Care
113 (GPRO PREV-6)	Colorectal Cancer Screening	Effective Clinical Care
113 (CMS130v4)	Colorectal Cancer Screening (eCQM)	Effective Clinical Care
118 (GPRO CAD-7)	Coronary Artery Disease (CAD): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy -- Diabetes or Left Ventricular Systolic Dysfunction (LVEF < 40%)	Effective Clinical Care
119	Diabetes: Medical Attention for Nephropathy	Effective Clinical Care
119 (CMS134v4)	Diabetes: Medical Attention for Nephropathy (eCQM)	Effective Clinical Care

Exhibit B.1 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
121	Adult Kidney Disease: Laboratory Testing (Lipid Profile)	Effective Clinical Care
122	Adult Kidney Disease: Blood Pressure Management	Effective Clinical Care
126	Diabetes Mellitus: Diabetic Foot and Ankle Care, Peripheral Neuropathy – Neurological Evaluation	Effective Clinical Care
127	Diabetes Mellitus: Diabetic Foot and Ankle Care, Ulcer Prevention – Evaluation of Footwear	Effective Clinical Care
140	Age-Related Macular Degeneration (AMD): Counseling on Antioxidant Supplement	Effective Clinical Care
160	HIV/AIDS: Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis	Effective Clinical Care
160 (CMS52v4)	HIV/AIDS: Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis (eCQM)	Effective Clinical Care
163 (CMS123v4)	Diabetes: Foot Exam (eCQM)	Effective Clinical Care
164*	Coronary Artery Bypass Graft (CABG): Prolonged Intubation	Effective Clinical Care
165*	Coronary Artery Bypass Graft (CABG): Deep Sternal Wound Infection Rate	Effective Clinical Care
166*	Coronary Artery Bypass Graft (CABG): Stroke	Effective Clinical Care
167*	Coronary Artery Bypass Graft (CABG): Postoperative Renal Failure	Effective Clinical Care
168*	Coronary Artery Bypass Graft (CABG): Surgical Re-Exploration	Effective Clinical Care
176	Rheumatoid Arthritis (RA): Tuberculosis Screening	Effective Clinical Care
177	Rheumatoid Arthritis (RA): Periodic Assessment of Disease Activity	Effective Clinical Care
178	Rheumatoid Arthritis (RA): Functional Status Assessment	Effective Clinical Care
179	Rheumatoid Arthritis (RA): Assessment and Classification of Disease Prognosis	Effective Clinical Care
180	Rheumatoid Arthritis (RA): Glucocorticoid Management	Effective Clinical Care
187	Stroke and Stroke Rehabilitation: Thrombolytic Therapy	Effective Clinical Care
191	Cataracts: 20/40 or Better Visual Acuity Within 90 Days Following Cataract Surgery	Effective Clinical Care
191 (CMS133v4)	Cataracts: 20/40 or Better Visual Acuity Within 90 Days Following Cataract Surgery (eCQM)	Effective Clinical Care
195	Radiology: Stenosis Measurement in Carotid Imaging Reports	Effective Clinical Care
204 (GPRO IVD-2)	Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic	Effective Clinical Care
204 (CMS164v4)	Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic (eCQM)	Effective Clinical Care

Exhibit B.1 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
205	HIV/AIDS: Sexually Transmitted Disease Screening for Chlamydia, Gonorrhea, and Syphilis	Effective Clinical Care
236 (GPRO HTN-2)	Controlling High Blood Pressure	Effective Clinical Care
236 (CMS165v4)	Controlling High Blood Pressure (eCQM)	Effective Clinical Care
241 (CMS182v5)	Ischemic Vascular Disease (IVD): Complete Lipid Profile and LDL-C Control (< 100 mg/dL) (eCQM)	Effective Clinical Care
242	Coronary Artery Disease (CAD): Symptom Management	Effective Clinical Care
249	Barrett's Esophagus	Effective Clinical Care
250	Radical Prostatectomy Pathology Reporting	Effective Clinical Care
251	Quantitative Immunohistochemical (IHC) Evaluation of Human Epidermal Growth Factor Receptor 2 Testing (HER2) for Breast Cancer Patients	Effective Clinical Care
254	Ultrasound Determination of Pregnancy Location for Pregnant Patients with Abdominal Pain	Effective Clinical Care
255	Rh Immunoglobulin (Rhogam) for Rh-Negative Pregnant Women at Risk of Fetal Blood Exposure	Effective Clinical Care
257	Statin Therapy at Discharge After Lower Extremity Bypass (LEB)	Effective Clinical Care
263	Preoperative Diagnosis of Breast Cancer	Effective Clinical Care
264	Sentinel Lymph Node Biopsy for Invasive Breast Cancer	Effective Clinical Care
268	Epilepsy: Counseling for Women of Childbearing Potential with Epilepsy	Effective Clinical Care
270	Inflammatory Bowel Disease (IBD): Preventive Care: Corticosteroid Sparing Therapy	Effective Clinical Care
271	Inflammatory Bowel Disease (IBD): Preventive Care: Corticosteroid Related Iatrogenic Injury – Bone Loss Assessment	Effective Clinical Care
274	Inflammatory Bowel Disease (IBD): Testing for Latent Tuberculosis (TB) Before Initiating Anti-TNF (Tumor Necrosis Factor) Therapy	Effective Clinical Care
275	Inflammatory Bowel Disease (IBD): Assessment of Hepatitis B Virus (HBV) Status Before Initiating Anti-TNF (Tumor Necrosis Factor) Therapy	Effective Clinical Care
276	Sleep Apnea: Assessment of Sleep Symptoms	Effective Clinical Care
277	Sleep Apnea: Severity Assessment at Initial Diagnosis	Effective Clinical Care
278	Sleep Apnea: Positive Airway Pressure Therapy Prescribed	Effective Clinical Care
279	Sleep Apnea: Assessment of Adherence to Positive Airway Pressure Therapy	Effective Clinical Care

Exhibit B.1 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
280	Dementia: Staging of Dementia	Effective Clinical Care
281	Dementia: Cognitive Assessment	Effective Clinical Care
281 (CMS149v4)	Dementia: Cognitive Assessment (eCQM)	Effective Clinical Care
282	Dementia: Functional Status Assessment	Effective Clinical Care
283	Dementia: Neuropsychiatric Symptom Assessment	Effective Clinical Care
284	Dementia: Management of Neuropsychiatric Symptoms	Effective Clinical Care
287	Dementia: Counseling Regarding Risks of Driving	Effective Clinical Care
289	Parkinson's Disease: Annual Parkinson's Disease Diagnosis Review	Effective Clinical Care
290	Parkinson's Disease: Psychiatric Disorders or Disturbances Assessment	Effective Clinical Care
291	Parkinson's Disease: Cognitive Impairment or Dysfunction Assessment	Effective Clinical Care
292	Parkinson's Disease: Querying About Sleep Disturbances	Effective Clinical Care
305 (CMS137v4)	Initiation and Engagement of Alcohol and Other Drug Dependence Treatment (eCQM)	Effective Clinical Care
309 (CMS124v3)	Cervical Cancer Screening (eCQM)	Effective Clinical Care
311 (CMS126v4)	Use of Appropriate Medications for Asthma (eCQM)	Effective Clinical Care
316a (CMS61v5)	Preventive Care and Screening: Cholesterol - Fasting Low Density Lipoprotein (LDL-C) Test Performed (eCQM)	Effective Clinical Care
316b (CMS64v5)	Preventive Care and Screening: Risk-Stratified Cholesterol – Fasting Low Density Lipoprotein (LDL-C) (eCQM)	Effective Clinical Care
326	Atrial Fibrillation and Atrial Flutter: Chronic Anticoagulation Therapy	Effective Clinical Care
327	Pediatric Kidney Disease: Adequacy of Volume Management	Effective Clinical Care
328*	Pediatric Kidney Disease: ESRD Patients Receiving Dialysis: Hemoglobin Level < 10 g/Dl	Effective Clinical Care
329*	Adult Kidney Disease: Catheter Use at Initiation of Hemodialysis	Effective Clinical Care
337	Tuberculosis Prevention for Psoriasis, Psoriatic Arthritis and Rheumatoid Arthritis Patients on a Biological Immune Response Modifier	Effective Clinical Care
338	HIV Viral Load Suppression	Effective Clinical Care
339	Prescription of HIV Antiretroviral Therapy	Effective Clinical Care

Exhibit B.1 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
343	Screening Colonoscopy Adenoma Detection Rate Measure	Effective Clinical Care
344	Rate of Carotid Artery Stenting (CAS) for Asymptomatic Patients, Without Major Complications (Discharged to Home by Postoperative Day #2)	Effective Clinical Care
345*	Rate of Postoperative Stroke or Death in Asymptomatic Patients Undergoing Carotid Artery Stenting (CAS)	Effective Clinical Care
346*	Rate of Postoperative Stroke or Death in Asymptomatic Patients Undergoing Carotid Endarterectomy (CEA)	Effective Clinical Care
356*	Unplanned Hospital Readmission Within 30 Days of Principal Procedure	Effective Clinical Care
357*	Surgical Site Infection (SSI)	Effective Clinical Care
365 (CMS148v4)	Hemoglobin A1c Test for Pediatric Patients (eCQM)	Effective Clinical Care
366 (CMS136v5)	ADHD: Follow-Up Care for Children Prescribed Attention-Deficit/Hyperactivity Disorder (ADHD) Medication (eCQM)	Effective Clinical Care
367 (CMS169v4)	Bipolar Disorder and Major Depression: Appraisal for Alcohol or Chemical Substance Use (eCQM)	Effective Clinical Care
368 (CMS62v4)	HIV/AIDS: Medical Visit (eCQM)	Effective Clinical Care
369 (CMS158v4)	Pregnant Women that Had HBsAg Testing (eCQM)	Effective Clinical Care
370 (GPRO MH-1)	Depression Remission at Twelve Months	Effective Clinical Care
370 (CMS159v4)	Depression Remission at Twelve Months (eCQM)	Effective Clinical Care
371 (CMS160v4)	Depression Utilization of the PHQ-9 Tool (eCQM)	Effective Clinical Care
373 (CMS65v5)	Hypertension: Improvement in Blood Pressure (eCQM)	Effective Clinical Care
379 (CMS74v5)	Primary Caries Prevention Intervention as Offered by Primary Care Providers, Including Dentists (eCQM)	Effective Clinical Care
381 (CMS77v4)	HIV/AIDS: RNA Control for Patients with HIV (eCQM)	Effective Clinical Care
384	Adult Primary Rhegmatogenous Retinal Detachment Surgery: No Return to the Operating Room within 90 Days of Surgery	Effective Clinical Care
385	Adult Primary Rhegmatogenous Retinal Detachment Surgery: Visual Acuity Improvement within 90 Days of Surgery	Effective Clinical Care
387	Annual Hepatitis C Virus (HCV) Screening for Patients Who are Active Injection Drug Users	Effective Clinical Care
389	Cataract Surgery: Difference Between Planned and Final Refraction	Effective Clinical Care
398	Optimal Asthma Control	Effective Clinical Care

Exhibit B.1 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
399	Post-Procedural Optimal Medical Therapy Composite (Percutaneous Coronary Intervention)	Effective Clinical Care
400	One-Time Screening for Hepatitis C Virus (HCV) for Patients at Risk	Effective Clinical Care
401	Hepatitis C: Screening for Hepatocellular Carcinoma (HCC) in Patients with Cirrhosis	Effective Clinical Care
404	Anesthesiology Smoking Abstinence	Effective Clinical Care
405*	Appropriate Follow-Up Imaging for Incidental Abdominal Lesions	Effective Clinical Care
406*	Appropriate Follow-Up Imaging for Incidental Thyroid Nodules in Patients	Effective Clinical Care
407	Appropriate Treatment of Meticillin-Sensitive Staphylococcus Aureus (MSSA) Bacteremia	Effective Clinical Care
408	Opioid Therapy Follow-Up Evaluation	Effective Clinical Care
409	Clinical Outcome Post-Endovascular Stroke Treatment	Effective Clinical Care
412	Documentation of Signed Opioid Treatment Agreement	Effective Clinical Care
413	Door to Puncture Time for Endovascular Stroke Treatment	Effective Clinical Care
414	Evaluation or Interview for Risk of Opioid Misuse	Effective Clinical Care
418	Osteoporosis Management in Women Who Had a Fracture	Effective Clinical Care
420	Varicose Vein Treatment with Saphenous Ablation: Outcome Survey	Effective Clinical Care
421	Appropriate Assessment of Retrievable Inferior Vena Cava Filters for Removal	Effective Clinical Care
423	Perioperative Anti-platelet Therapy for Patients Undergoing Carotid Endarterectomy	Effective Clinical Care
425	Photodocumentation of Cecal Intubation	Effective Clinical Care
428	Pelvic Organ Prolapse: Preoperative Assessment of Occult Stress Urinary Incontinence	Effective Clinical Care
435	Quality of Life Assessment for Patients with Primary Headache Disorders	Effective Clinical Care
436	Radiation Consideration for Adult CT: Utilization of Dose Lowering Techniques	Effective Clinical Care
438 (GPRO PREV-13)	Statin Therapy for the Prevention and Treatment of Cardiovascular Disease	Effective Clinical Care
AAAAI 2	Asthma: Assessment of Asthma Control – Ambulatory Care Setting	Effective Clinical Care
AAAAI 8	Achievement of Projected Effective Dose of Standardized Allergens for Patient Treated with Allergen Immunotherapy for at Least One Year	Effective Clinical Care
AAAAI 11	Asthma Assessment and Classification	Effective Clinical Care

Exhibit B.1 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
AAAAI 12	Lung Function/Spirometry Evaluation	Effective Clinical Care
AAN 1	Distal Symmetric Polyneuropathy: Prediabetes screening	Effective Clinical Care
AAN 3	Epilepsy: Seizure Frequency and Seizure Intervention	Effective Clinical Care
AAN 4	Epilepsy: Screening for Psychiatric or Behavioral Health Disorders	Effective Clinical Care
AAN 5	Headache: Medication prescribed for acute migraine attack	Effective Clinical Care
AAO 1	Otitis Media with Effusion: Diagnostic Evaluation - Assessment of Tympanic Membrane Mobility	Effective Clinical Care
ABG 1	Intraoperative anesthesia safety	Effective Clinical Care
ABG 6*	Rate of Unplanned Use of Difficult Airway Equipment and/or Failed Airway	Effective Clinical Care
ABG 16	Planned use of difficult airway equipment	Effective Clinical Care
ABG 21	Preoperative OSA assessment	Effective Clinical Care
ACCCath 5	STEMI Patients Receiving Immediate PCI Within 90 Minutes	Effective Clinical Care
ACCCath 6	ACE-I or ARB Prescribed at Discharge for Patients with an Ejection Fraction < 40% Who Had a PCI During the Episode of Care	Effective Clinical Care
ACCCath 7	Beta-Blockers Prescribed at Discharge for AMI Patients Who Had a PCI During Admission	Effective Clinical Care
ACCCath 8	Percutaneous Coronary Intervention (PCI): Post-Procedural Optimal Medical Therapy	Effective Clinical Care
ACCPin 1	Hypertension (HTN): Blood Pressure (BP) Management	Effective Clinical Care
ACCPin 2	Coronary Artery Disease (CAD): Blood Pressure Control	Effective Clinical Care
ACCPin 5	CAD: Beta-blocker Therapy: Prior MI or LVSD	Effective Clinical Care
ACR 1	Disease Activity Measurement for Patients with Rheumatoid Arthritis (RA)	Effective Clinical Care
ACR 2	Functional Status Assessment for Patients with Rheumatoid Arthritis (RA)	Effective Clinical Care
ACR 3	Disease-Modifying Anti-Rheumatic Drug (DMARD) Therapy for Active Rheumatoid Arthritis (RA)	Effective Clinical Care
ACR 5	Glucocorticosteroids and Other Secondary Causes	Effective Clinical Care
ACR 6	Serum Urate Monitoring	Effective Clinical Care
ACR 7	Gout: Serum Urate Target	Effective Clinical Care
ACR 8	Gout: ULT Therapy	Effective Clinical Care

Exhibit B.1 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
ACRad 1	CT Colonography True Positive Rate	Effective Clinical Care
ACRad 3	Screening Mammography Cancer Detection Rate (CDR)	Effective Clinical Care
ACRad 4	Screening Mammography Invasive Cancer Detection Rate (ICDR)	Effective Clinical Care
ACRad 6	Screening Mammography Positive Predictive Value 2 (PPV2 – Biopsy Recommended)	Effective Clinical Care
ACRad 7	Screening Mammography Node Negativity Rate	Effective Clinical Care
ACRad 8	Screening Mammography Minimal Cancer Rate	Effective Clinical Care
ACRad 21	Lung Cancer Screening Cancer Detection Rate (CDR)	Effective Clinical Care
ACRad 22	Lung Cancer Screening Positive Predictive Value (PPV)	Effective Clinical Care
ACS 7*	Risk Standardized Mortality Rate Within 30 Days Following Trauma Operation	Effective Clinical Care
ACS 9*	Risk Standardized Urinary Tract Infection Rate Within 30 Days Following Operation	Effective Clinical Care
ACS 10*	Risk Standardized Decubitus Ulcer Rate Within 30 Days Following Operation	Effective Clinical Care
ACS 12*	Risk Standardized Superficial Surgical Site Infection Rate in Abdominal Trauma	Effective Clinical Care
ACS 13*	Risk Standardized Unplanned ICU Transfer Rate in Trauma	Effective Clinical Care
ACS 14*	Risk Standardized Unplanned Abdominal Reoperation Rate in Abdominal Trauma	Effective Clinical Care
AGA 1	Hepatitis C Virus (HCV) - Sustained Virological Response	Effective Clinical Care
AHSQC 7	Ventral Hernia Repair: Myofascial Release Preoperative Diabetes Assessment	Effective Clinical Care
AQI 18	Coronary Artery Bypass Graft (CABG): Prolonged Intubation	Effective Clinical Care
AQI 30	Composite Anesthesia Safety	Effective Clinical Care
AQI 41*	Coronary Artery Bypass Graft (CABG): Stroke	Effective Clinical Care
AQI 42*	Coronary Artery Bypass Graft (CABG): Postoperative Renal Failure	Effective Clinical Care
AQI 43*	Rate of Postoperative stroke or death in asymptomatic patients undergoing Carotid Artery Stenting (CAS)	Effective Clinical Care
AQI 44*	Rate of Postoperative stroke or death in asymptomatic patients undergoing Carotid Endarterectomy (CEA)	Effective Clinical Care
AQI 45*	Rate of Endovascular aneurysm repair (EVAR) of small or moderate non-ruptured abdominal aortic aneurysms (AAA) who die while in the hospital	Effective Clinical Care
AQUA 1	Prostate Cancer: Documentation of PSA, Gleason score and clinical stage for risk stratification	Effective Clinical Care

Exhibit B.1 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
AQUA 2	Prostate Cancer: Documentation of extent of biopsy involvement in the MD note	Effective Clinical Care
AQUA 4	Hypogonadism: Testosterone lab ordered / reported within 6 months of starting testosterone replacement	Effective Clinical Care
AQUA 7	Benign Prostate Hyperplasia: IPSS change 6 months after diagnosis	Effective Clinical Care
AQUA 9	Prostate Cancer: Use of active surveillance / watchful waiting for low-risk prostate cancer	Effective Clinical Care
ARCO 10	Trauma- Risk Standardized Mortality Rate within 30 days following Trauma Operation	Effective Clinical Care
ASBS 1	Surgeon Assessment for Hereditary Cause of Breast Cancer	Effective Clinical Care
ASNC 15	SPECT-MPI study quality excellent or good	Effective Clinical Care
ASNC 16	PET-MPI study quality excellent or good	Effective Clinical Care
ASPIRE 2	Train of Four Monitor Documented After Last Dose of Non-depolarizing Neuromuscular Blocker	Effective Clinical Care
ASPIRE 3	Administration of Neostigmine Before Extubation for Cases with Nondepolarizing Neuromuscular Blockade	Effective Clinical Care
ASPIRE 4	Administration of Insulin or Glucose Recheck for Patients with Hyperglycemia	Effective Clinical Care
ASPIRE 7	Active Warming for All Patients at Risk of Intraoperative Hypothermia	Effective Clinical Care
ASPIRE 8	Core Temperature Measurement for All General Anesthetics	Effective Clinical Care
ASPIRE 12	Hemoglobin or Hematrocrit Measurement for Patients Receiving Discretionary Intraoperative Red Blood Cell Transfusions	Effective Clinical Care
ASPIRE 17	Avoiding Gaps in Systolic or Mean Arterial Pressure Measurement	Effective Clinical Care
ASPIRE 18*	Avoiding Myocardial Injury	Effective Clinical Care
ASPIRE 19*	Avoiding Acute Kidney Injury	Effective Clinical Care
ASPIRE 21*	All Cause 30-Day Mortality	Effective Clinical Care
ASPS 1	Use of wound surface culture technique in patients with chronic skin ulcers (overuse measure)	Effective Clinical Care
ASPS 2	Use of wet to dry dressings in patients with chronic skin ulcers (overuse measure)	Effective Clinical Care
ASPS 3	Use of compression system in patients with venous ulcers	Effective Clinical Care
ASPS 4	Off-loading (pressure relief) of diabetic foot ulcer	Effective Clinical Care
CDR 1	Adequate Off-loading of Diabetic Foot Ulcers at each visit	Effective Clinical Care
CDR 3	Plan of Care Creation for Diabetic Foot Ulcer (DFU) Patients not Achieving 30% Closure at 4 Weeks	Effective Clinical Care

Exhibit B.1 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
CDR 4	Diabetic Foot & Ankle Care: Comprehensive Diabetic Foot Examination	Effective Clinical Care
CDR 5	Adequate Compression at each visit for Patients with Venous Leg Ulcers (VLU)	Effective Clinical Care
CDR 7	Plan of Care for Venous Leg Ulcer Patients not Achieving 30% Closure at 4 Weeks	Effective Clinical Care
CDR 9	Appropriate use of Cellular or Tissue Based Products (CTP) for patients aged 18 years or older with a diabetic foot ulcer (DFU) or venous leg ulcer (VLU)	Effective Clinical Care
CDR 10	Vascular Assessment of patients with chronic leg ulcers	Effective Clinical Care
CDR 11	Wound Bed Preparation Through Debridement of Necrotic or Non-viable Tissue	Effective Clinical Care
ECPR 24	Initiation of the Initial Sepsis Bundle	Effective Clinical Care
EPREOP 1	Overall Anesthesia Safety	Effective Clinical Care
EPREOP 18	Procedural Site Infection	Effective Clinical Care
EPREOP 22	Preoperative Fluid Intake for Elective Intra-Abdominal Procedures	Effective Clinical Care
EPREOP 23*	Unplanned Readmission within 30 Days of Principal Procedure	Effective Clinical Care
FORCE 4	Improvement in Function After Knee Replacement	Effective Clinical Care
FORCE 5	Improvement in Pain After Knee Replacement	Effective Clinical Care
FORCE 9	Improvement in Function After Hip Replacement	Effective Clinical Care
FORCE 10	Improvement in Pain After Hip Replacement Measure	Effective Clinical Care
GIQIC 2	Adequacy of Bowel Preparation	Effective Clinical Care
GIQIC 3	Photodocumentation of the Cecum (also known as Cecal Intubation Rate) – All Colonoscopies	Effective Clinical Care
GIQIC 4	Photodocumentation of the Cecum (also known as Cecal Intubation Rate) – Screening Colonoscopies	Effective Clinical Care
GIQIC 9	Documentation of History and Physical Rate - Colonoscopy	Effective Clinical Care
GIQIC 12	Appropriate Indication for Colonoscopy	Effective Clinical Care
GIQIC 16	Adenoma detection rate	Effective Clinical Care
HCPR 14	Stroke Patients Discharged on Statin Medication	Effective Clinical Care
ICLOPS 14*	Postoperative Sepsis Rate	Effective Clinical Care
IRIS 1	Corneal Graft Surgery: Postoperative Improvement in Visual Acuity of 20/40 or greater	Effective Clinical Care

Exhibit B.1 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
IRIS 2	Glaucoma: Intraocular Pressure (IOP) Reduction	Effective Clinical Care
IRIS 3*	Glaucoma: Visual Field Progression	Effective Clinical Care
IRIS 4	Glaucoma: Intraocular Pressure Reduction Following Laser Trabeculoplasty	Effective Clinical Care
IRIS 5	Surgery for Acquired Involutional Ptosis: Patients with an Improvement of Marginal Reflex Distance	Effective Clinical Care
IRIS 6	Acquired Involutional Entropion: Normalized Lid Position after Surgical Repair	Effective Clinical Care
IRIS 7	Amblyopia: Interocular Visual Acuity	Effective Clinical Care
IRIS 8	Surgical Esotropia: Postoperative Alignment	Effective Clinical Care
IRIS 9	Diabetic Retinopathy: Documentation of the Presence or Absence of Macular Edema and the Level of Severity of Retinopathy	Effective Clinical Care
IRIS 10	Exudative Age-Related Macular Degeneration: Loss of Visual Acuity	Effective Clinical Care
IRIS 11	Nonexudative Age-Related Macular Degeneration: Loss of Visual Acuity	Effective Clinical Care
IRIS 12*	Age-Related Macular Degeneration: Disease Progression	Effective Clinical Care
IRIS 13	Diabetic Macular Edema: Loss of Visual Acuity	Effective Clinical Care
IRIS 16	Acute Anterior Uveitis: Post-Treatment Visual Acuity	Effective Clinical Care
IRIS 17	Acute Anterior Uveitis: Post-Treatment Grade 0 Anterior Chamber Cells	Effective Clinical Care
IRIS 18	Chronic Anterior Uveitis: Post-Treatment Visual Acuity	Effective Clinical Care
IRIS 19	Chronic Anterior Uveitis: Post-Treatment Grade 0 Anterior Chamber Cells	Effective Clinical Care
IRIS 20	Idiopathic Intracranial Hypertension: No worsening or improvement of mean deviation	Effective Clinical Care
IRIS 21	Ocular Myasthenia Gravis: Improvement of ocular deviation or absence of diplopia or functional improvement	Effective Clinical Care
IRIS 22	Giant Cell Arteritis: Absence of fellow eye involvement after corticosteroid treatment	Effective Clinical Care
M2S 1	Procedures with Statin and Antiplatelet Agents Prescribed at Discharge	Effective Clinical Care
M2S 7	Ipsilateral stroke-free survival assessed at least 9 months following Carotid Artery Stenting for asymptomatic procedures	Effective Clinical Care
M2S 8	Ipsilateral stroke-free survival assessed at least 9 months following isolated CEA for asymptomatic procedures	Effective Clinical Care
M2S 10	Survival at least 9 months after elective repair of small thoracic aortic aneurysms	Effective Clinical Care
M2S 12	Survival at least 9 months after elective repair of small abdominal aortic aneurysms	Effective Clinical Care

Exhibit B.1 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
M2S 13	Survival at least 9 months after elective open repair of small abdominal aortic aneurysms	Effective Clinical Care
M2S 15	Appropriate Management of Retrievable IVC Filters	Effective Clinical Care
MBS 4	MBSC Venous Thromboembolism Prophylaxis Adherence Rates for Perioperative Care	Effective Clinical Care
MBS 5	MBSC Venous Thromboembolism Prophylaxis Adherence Rates for Postoperative Care	Effective Clinical Care
MBS 6	MBSC Venous Thromboembolism Prophylaxis Adherence Rates for Post-discharge Care	Effective Clinical Care
MBSAQIP 1*	Risk standardized rate of patients who experienced a postoperative complication within 30 days following a primary Laparoscopic Roux-en-Y Gastric Bypass (LRTGB) or Laparoscopic Sleeve Gastrectomy (LSG) operation	Effective Clinical Care
MBSAQIP 4*	Risk standardized rate of patients who experienced an anastomotic/staple line leak within 30 days following primary LRYGB or LSG operation	Effective Clinical Care
MBSAQIP 5*	Risk standardized rate of patients who experienced a bleeding/hemorrhage event requiring transfusion, intervention/operation, or readmission within 30 days following primary LRYGB or LGS operation	Effective Clinical Care
MBSAQIP 6*	Risk standardized rate of patients who experienced a postoperative surgical site infection (SSI) (superficial incisional, deep incisional, or organ/space SSI) within 30 days following primary LRYGB or LSG operation	Effective Clinical Care
MBSAQIP 7*	Risk standardized rate of patients who experienced postoperative nausea, vomiting or fluid/electrolyte/nutritional depletion within 30 days following primary LRYGB or LSG operation	Effective Clinical Care
MIRAMED 10	Unplanned Use of Difficult Airway Equipment and/or Failed Airway	Effective Clinical Care
MMA 1	Utilization of Objective Scale to Measure Pain & Functionality	Effective Clinical Care
MMA 10	Risk Assessment in Opiate Naive Patients	Effective Clinical Care
MMA 12	Efficacy of Manipulative Medicine with Treatment Adjustment	Effective Clinical Care
MOA 1	Utilization of Objective Scale to Measure Pain & Functionality	Effective Clinical Care
MOA 10	Risk Assessment in Opiate Naive Patients	Effective Clinical Care
MOA 12	Efficacy of Manipulative Medicine with Treatment Adjustment	Effective Clinical Care
MUSIC 2*	Unplanned Hospital Admission Within 30 Days of TRUS Biopsy	Effective Clinical Care
MUSIC 4	Prostate Cancer: Proportion of Patients with Low-Risk Prostate Cancer Receiving Active Surveillance	Effective Clinical Care
MUSIC 5*	Prostate Cancer: Percentage of Prostate Cancer Cases with a Length of Stay > 2 Days	Effective Clinical Care

Exhibit B.1 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
MUSIC 7	Prostate Biopsy: Proportion of Patients Undergoing Initial Prostate Biopsy in the Registry Found to Have Prostate Cancer	Effective Clinical Care
MUSIC 9	Prostate Biopsy: Proportion of Patients Undergoing a Repeat Prostate Biopsy Within 12 Months of Their Initial Biopsy in the Registry as a Result of a Finding of Atypical Small Acinar Proliferation (ASAP) as per the NCCN Guidelines	Effective Clinical Care
NHBPC 5	Depression Treatment Plan for Home-Based Primary Care and Palliative Care Patients Who Screen Positive for Depression	Effective Clinical Care
NHBPC 7	New Cognitive Decline in Home-Based Primary Care and Palliative Care Patients: Medication List Reviewed and Offending Medications Discontinued	Effective Clinical Care
NHBPC 14	Cognitive Assessment for Home-Based Primary Care and Palliative Care Patients	Effective Clinical Care
NHBPC 15	Functional Assessment (Basic Activities of Daily Living [BADL] and Instrumental Activities of Daily Living [IADL]) for Home-Based Primary Care and Palliative Care Patients	Effective Clinical Care
NHCR 1	Adequacy of Bowel Preparation	Effective Clinical Care
NHCR 2	Successful Cecal Intubation	Effective Clinical Care
NHCR 5	Repeat Colonoscopy Recommended Due to Piecemeal Resection	Effective Clinical Care
NHCR 7	Documentation of Family History	Effective Clinical Care
NHCR 8	Documentation of Indication for Exam	Effective Clinical Care
NJII 6	Composite Cardiology testing measure: Rate of ECG, Stress Testing and Radionuclide Study	Effective Clinical Care
NJIISMD 17	Result Requiring Follow-Up Protocol	Effective Clinical Care
NJIISMD 18	Follow-Up Exam Obtained	Effective Clinical Care
NOF 1	Laboratory Investigation for Secondary Causes of Fracture	Effective Clinical Care
NOF 4	Osteoporosis Management in Women Who Had a Fracture	Effective Clinical Care
NOF 5	Osteoporosis Testing in Older Women	Effective Clinical Care
NOF 6*	Hip Fracture Mortality Rate (IQI 19)	Effective Clinical Care
NOF 7	Osteoporosis: Percentage of Patients, Any Age, with a Diagnosis of Osteoporosis Who Are Either Receiving Both Calcium & Vitamin D Intake, & Exercise at Least Once Within 12 Months	Effective Clinical Care
NOF 8	Osteoporosis: Percentage of Patients Aged 50 Years and Older with a Diagnosis of Osteoporosis Who Were Prescribed Pharmacologic Therapy Within 12 Months	Effective Clinical Care

Exhibit B.1 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
NOF 9	Communication with the Physician or Other Clinician Managing On-Going Care Post Fracture for Men and Women Aged 50 Years and Older	Effective Clinical Care
NOF 11	Care for Older Adults (COA) – Medication Review	Effective Clinical Care
NOF 12*	Median Time to Pain Management for Long Bone Fracture	Effective Clinical Care
NOF 13	Osteoporosis: Management Following Fracture of Hip, Spine or Distal Radius for Men and Women Aged 50 Years and Older	Effective Clinical Care
NOF 15	Screening for Osteoporosis for Women 65-85 Years of Age	Effective Clinical Care
NPA 6*	Spine-Related Procedure Site Infection	Effective Clinical Care
NPA 7*	Complication Following Spine-Related Procedure	Effective Clinical Care
NPA 8*	Hospital Mortality Following Spine Procedure	Effective Clinical Care
NPA 9	Referral for Post-Acute Care Rehabilitation Following Spine Procedure	Effective Clinical Care
NPAGSC 8*	Complication Following Percutaneous Spine-Related Procedure	Effective Clinical Care
OBERD 10	Quality of Life (VR-12 or Promis Global 10) Monitoring	Effective Clinical Care
OBERD 11	Quality of Life (VR-12 or Promis Global 10) Outcomes	Effective Clinical Care
OBERD 13*	Orthopedic Functional and Pain Level Outcomes	Effective Clinical Care
OBERD 14	Orthopedic 3-Month Surgery Follow-Up	Effective Clinical Care
OBERD 15	Orthopedic 3-Month Surgery Outcome	Effective Clinical Care
OBERD 16	Orthopedic 3-Month Surgery Success Rate	Effective Clinical Care
OBERD 18	Orthopedic 3-Month Surgery Outcome with PROMIS	Effective Clinical Care
ONSQIR 1	Symptom Assessment	Effective Clinical Care
ONSQIR 2	Intervention for Psychosocial Distress	Effective Clinical Care
ONSQIR 3	Intervention for Fatigue	Effective Clinical Care
ONSQIR 4	Intervention for Sleep-Wake Disturbance	Effective Clinical Care
ONSQIR 5	Assessment for Chemotherapy Induced Nausea and Vomiting	Effective Clinical Care
ONSQIR 6	Education on Neutropenia Precautions	Effective Clinical Care
ONSQIR 7	Post-Treatment Symptom Assessment	Effective Clinical Care

Exhibit B.1 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
ONSQIR 8	Post-Treatment Symptom Intervention	Effective Clinical Care
PInc 48*	Composite Anesthesia Safety	Effective Clinical Care
PInc 51*	Surgical Site Infection	Effective Clinical Care
PPRNET 1	Diabetes Mellitus (DM): Hemoglobin A1c Control (< 8%)	Effective Clinical Care
PPRNET 2	Diabetes Mellitus (DM): Nephropathy Assessment	Effective Clinical Care
PPRNET 4	Hypertension (HTN): Appropriate Diagnosis	Effective Clinical Care
PPRNET 5	Hypertension (HTN): Controlling Blood Pressure	Effective Clinical Care
PPRNET 6	Concordance with ACC/AHA Cholesterol Guidelines for ASCVD Risk Reduction	Effective Clinical Care
PPRNET 8	Antiplatelet Medication for High Risk Patients	Effective Clinical Care
PPRNET 9	Antithrombotic Medication for Patients with Atrial Fibrillation	Effective Clinical Care
PPRNET 10	Heart Failure (HF): ACEI or ARB Therapy	Effective Clinical Care
PPRNET 11	Heart Failure (HF): Beta-Blocker Therapy	Effective Clinical Care
PPRNET 13	Chronic Kidney Disease (CKD): eGFR Monitoring	Effective Clinical Care
PPRNET 14	Chronic Kidney Disease (CKD): Hemoglobin Monitoring	Effective Clinical Care
PPRNET 27	Use of Benzodiazepines in the Elderly	Effective Clinical Care
QOPI 1	Staging Documented Within One Month of First Office Visit	Effective Clinical Care
QOPI 7	Antiemetic Therapy Prescribed for Highly Emetogenic Chemotherapy	Effective Clinical Care
QOPI 8	Antiemetic Therapy Prescribed for Moderately Emetogenic Chemotherapy	Effective Clinical Care
QOPI 11	Combination Chemotherapy Received Within 4 Months of Diagnosis by Women Under 70 with AJCC Stage I (T1c) to III ER/PR Negative Breast Cancer	Effective Clinical Care
QOPI 12	Test for Her2/neu Overexpression or Gene Amplification	Effective Clinical Care
QOPI 13	Trastuzumab Received by Patients with AJCC Stage I (T1c) to III Her2/neu Positive Breast Cancer	Effective Clinical Care
QOPI 14	Tamoxifen or AI Received Within 1 Year of Diagnosis by Patients with AJCC Stage I (T1c) to III ER or PR Positive Breast Cancer	Effective Clinical Care
QOPI 16	Adjuvant Chemotherapy Received Within 4 Months of Diagnosis by Patients with AJCC Stage III Colon Cancer	Effective Clinical Care
QOPI 17	Location of Death Documented (*Paired Measure)	Effective Clinical Care

Exhibit B.1 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
QUANTUM 42*	Unplanned Hospital Admission	Effective Clinical Care
QUANTUM 51*	Unplanned ICU Admission	Effective Clinical Care
RPAQIR 1	Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy (PCPI Measure #: AKID-2)	Effective Clinical Care
RPAQIR 2	Adequacy of Volume Management (PCPI Measure #: AKID-4)	Effective Clinical Care
RPAQIR 3*	ESRD Patients Receiving Dialysis: Hemoglobin Level < 19g/dL (PCPI Measure #: AKID-6)	Effective Clinical Care
RPAQIR 4	Arteriovenous Fistula Rate (PCPI Measure #: AKID-8)	Effective Clinical Care
RPAQIR 11*	Hospitalization Rate Following Procedures Performed under Procedure Sedation Analgesia	Effective Clinical Care
RPAQIR 14	Arteriovenious Graft Thrombectomy Success Rate	Effective Clinical Care
RPAQIR 15	Arteriovenous Fistulae Thrombectomy Success Rate	Effective Clinical Care
RPAQIR 16	Peritoneal Dialysis Catheter Success Rate	Effective Clinical Care
RPAQIR 17*	Peritoneal Dialysis Catheter Exit Site Infection Rate	Effective Clinical Care
SPH 1	Chronic Kidney Disease - Optimal Care	Effective Clinical Care
SPH 2	Ischemic Vascular Disease - Optimal Vascular Care	Effective Clinical Care
SPH 3	Diabetes - Optimal Care	Effective Clinical Care
SPINEIQ 1	Change in Functional Outcome	Effective Clinical Care
SPINEIQ 2	Change in Pain Intensity	Effective Clinical Care
SPINEIQ 4	Patient Satisfaction Assessment	Effective Clinical Care
THPSO 2*	Post-Dural Puncture Headache Rate	Effective Clinical Care
THPSO 3*	Perioperative Peripheral Nerve Injury Rate	Effective Clinical Care
THPSO 5	Ultrasound Guidance for Central Line Placement	Effective Clinical Care
USWR 15	Healing or Closure of Wagner Grade 3, 4, or 5 Diabetic Foot Ulcers (DFUs) Treated with HBOT	Effective Clinical Care
USWR 16	Major Amputation in Wagner Grade 3, 4, or 5 Diabetic Foot Ulcers (DFUs) Treated with HBOT	Effective Clinical Care
USWR 17	Preservation of Function with a Minor Amputation Among Patients with Wagner Grade 3, 4, or 5 Diabetic Foot Ulcers (DFUs) Treated with HBOT	Effective Clinical Care
WCHQ 1	Diabetes Care: A1C Blood Sugar Testing (Chronic Care)	Effective Clinical Care

Exhibit B.1 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
WCHQ 2	Diabetes Care: A1C Blood Sugar Control (Chronic Care)	Effective Clinical Care
WCHQ 5	Diabetes Care: Kidney Function Monitored (Chronic Care)	Effective Clinical Care
WCHQ 6	Diabetes Care: Blood Pressure Control (Chronic Care)	Effective Clinical Care
WCHQ 7	Diabetes Care: Tobacco Free (Chronic Care)	Effective Clinical Care
WCHQ 8	Diabetes Care: Daily Aspirin or Other Antiplatelet unless Contraindicated (Chronic Care)	Effective Clinical Care
WCHQ 9	Diabetes Care: All or None Process Measure: Optimal Testing (Chronic Care)	Effective Clinical Care
WCHQ 10	Diabetes Care: All or None Outcome Measure: Optimal Control (Chronic Care)	Effective Clinical Care
WCHQ 11	Controlling High Blood Pressure: Blood Pressure Control (Chronic Care)	Effective Clinical Care
WCHQ 12	Ischemic Vascular Disease Care: Daily Aspirin or Antiplatelet Medication Usage unless Contraindicated (Chronic Care)	Effective Clinical Care
WCHQ 13	Ischemic Vascular Disease Care: Blood Pressure Control (Chronic Care)	Effective Clinical Care
WCHQ 14	Adults with Pneumococcal Vaccinations (Preventive Care)	Effective Clinical Care
WCHQ 15	Screening for Osteoporosis (Preventive Care)	Effective Clinical Care
WCHQ 16	Adult Tobacco Use Screening for Tobacco Use (Preventive Care)	Effective Clinical Care
WCHQ 17	Adult Tobacco Use Tobacco User Receiving Cessation Advice (Preventive Care)	Effective Clinical Care
WCHQ 18	Breast Cancer Screening (Preventive Care)	Effective Clinical Care
WCHQ 19	Cervical Cancer Screening (Preventive Care)	Effective Clinical Care
WCHQ 20	Colorectal Cancer Screening (Preventive Care)	Effective Clinical Care
WCHQ 21	Diabetes Care: Statin Use for Patients Ages 40 Through 75 or Patients with IVD of Any Age (Chronic Care)	Effective Clinical Care
WCHQ 22	Ischemic Vascular Disease Care: Statin Use (Chronic Care)	Effective Clinical Care
WCHQ 23	Ischemic Vascular Disease Care: Tobacco Free (Chronic Care)	Effective Clinical Care
WCHQ 24	Ischemic Vascular Disease Care: All or None Outcome Measure: Optimal Control (Chronic Care)	Effective Clinical Care
WCHQ 25	Screening for CKD (Preventive Care)	Effective Clinical Care
WCHQ 26	CKD Care in Stages I, II, and III. Annual eGFR (Estimated Glomerular Filtration Rate) Test (Chronic Care)	Effective Clinical Care
WCHQ 29	CKD Care in Stages I, II, and III. Blood Pressure Control (Chronic Care)	Effective Clinical Care

Exhibit B.1 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
WCQIC 15	Chronic Wound Care: The Gold Standard of Offloading of plantar Diabetic Foot Ulcers	Effective Clinical Care
WCQIC 16	Process Measure: Nutritional Screening and Intervention Plan in Patients with Chronic Wounds and Ulcers	Effective Clinical Care
WCQIC 17	Efficacy of Human Amnion/Chorion Membrane Allograft	Effective Clinical Care
WELL 14	Chlamydia Screening for Women	Effective Clinical Care
WELL 21	Disease-Modifying Anti-Rheumatic Drug Therapy for Rheumatoid Arthritis	Effective Clinical Care
WELL 25	Osteoporosis Management in Women Who Had a Fracture	Effective Clinical Care

Source: CMS, "2016 PQRS Measures List," available at: https://www.cms.gov/apps/ama/license.asp?file=/PQRS/downloads/PQRS_2016_Measure_List_01072016.xlsx.

*Lower performance rates on these measures indicate better performance. However, when standardizing measures for inclusion in the domain score, CMS transforms these measures to ensure that for all standardized scores entering the domain score, positive (+) scores indicate better performance and negative (-) scores indicate worse performance.

Exhibit B.2. Person and Caregiver-Centered Experience and Outcomes Domain Quality Indicators

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
50	Urinary Incontinence: Plan of Care for Urinary Incontinence in Women Aged 65 Years and Older	Person and Caregiver-Centered Experience and Outcomes
109	Osteoarthritis (OA): Function and Pain Assessment	Person and Caregiver-Centered Experience and Outcomes
143	Oncology: Medical and Radiation – Pain Intensity Quantified	Person and Caregiver-Centered Experience and Outcomes
143 (CMS157v4)	Oncology: Medical and Radiation – Pain Intensity Quantified (eCQM)	Person and Caregiver-Centered Experience and Outcomes
144	Oncology: Medical and Radiation – Plan of Care for Pain	Person and Caregiver-Centered Experience and Outcomes
303	Cataracts: Improvement in Patient's Visual Function Within 90 Days Following Cataract Surgery	Person and Caregiver-Centered Experience and Outcomes
304	Cataracts: Patient Satisfaction Within 90 Days Following Cataract Surgery	Person and Caregiver-Centered Experience and Outcomes
342	Pain Brought Under Control Within 48 Hours	Person and Caregiver-Centered Experience and Outcomes
358	Patient-Centered Surgical Risk Assessment and Communication	Person and Caregiver-Centered Experience and Outcomes
375 (CMS66v4)	Functional Status Assessment for Knee Replacement (eCQM)	Person and Caregiver-Centered Experience and Outcomes
376 (CMS56v4)	Functional Status Assessment for Hip Replacement (eCQM)	Person and Caregiver-Centered Experience and Outcomes
377 (CMS90v5)	Functional Status Assessment for Complex Chronic Conditions (eCQM)	Person and Caregiver-Centered Experience and Outcomes
386	Amyotrophic Lateral Sclerosis (ALS) Patient Care Preferences	Person and Caregiver-Centered Experience and Outcomes
390	Discussion and Shared Decision Making Surrounding Treatment Options	Person and Caregiver-Centered Experience and Outcomes
403	Adult Kidney Disease: Referral to Hospice	Person and Caregiver-Centered Experience and Outcomes
410	Psoriasis: Clinical Response to Oral Systemic or Biologic Medications	Person and Caregiver-Centered Experience and Outcomes
AAAAI 10	Documentation of the Consent Process for Subcutaneous Allergen Immunotherapy in the Medical Record	Person and Caregiver-Centered Experience and Outcomes
AAAAI 14	Patient Self-Management and Action Plan	Person and Caregiver-Centered Experience and Outcomes
AAAAI 17	Asthma Control: Minimal Important Difference Improvement	Person and Caregiver-Centered Experience and Outcomes
AAO 2	Otitis Media with Effusion: Resolution of Otitis Media with Effusion in Children	Person and Caregiver-Centered Experience and Outcomes
AAO 3	Otitis Media with Effusion: Resolution of Otitis Media with Effusion in Adults	Person and Caregiver-Centered Experience and Outcomes
ABG 7	Immediate Adult Postoperative Pain Management	Person and Caregiver-Centered Experience and Outcomes
ABG 12	Anesthesia: Patient Experience Survey	Person and Caregiver-Centered Experience and Outcomes

Exhibit B.2 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
ACEP 32*	ED Length of Stay (LOS) for Adult Patients Discharged from All EDs	Person and Caregiver-Centered Experience and Outcomes
ACEP 33*	ED Length of Stay (LOS) for Adult Patients Discharged from Supercenter EDs	Person and Caregiver-Centered Experience and Outcomes
ACEP 34*	ED Length of Stay (LOS) for Adult Patients Discharged from Very High Volume EDs	Person and Caregiver-Centered Experience and Outcomes
ACEP 35*	ED Length of Stay (LOS) for Adult Patients Discharged from High Volume EDs	Person and Caregiver-Centered Experience and Outcomes
ACEP 36*	ED Length of Stay (LOS) for Adult Patients Discharged from Average Volume EDs	Person and Caregiver-Centered Experience and Outcomes
ACEP 37*	ED Length of Stay (LOS) for Adult Patients Discharged from Moderate Volume EDs	Person and Caregiver-Centered Experience and Outcomes
ACEP 38*	ED Length of Stay (LOS) for Adult Patients Discharged from Low Volume EDs	Person and Caregiver-Centered Experience and Outcomes
ACEP 39*	ED Length of Stay (LOS) for Adult Patients Discharged from Freestanding EDs	Person and Caregiver-Centered Experience and Outcomes
ACEP 40*	ED Length of Stay for Pediatric Patients Discharged from All EDs	Person and Caregiver-Centered Experience and Outcomes
ACEP 41*	ED Length of Stay for Pediatric Patients Discharged from Supercenter EDs	Person and Caregiver-Centered Experience and Outcomes
ACEP 42*	ED Length of Stay (LOS) for Pediatric Patients Discharged from Very High Volume EDs	Person and Caregiver-Centered Experience and Outcomes
ACEP 43*	ED Length of Stay for Pediatric Patients Discharged from High Volume EDs	Person and Caregiver-Centered Experience and Outcomes
ACEP 44*	ED Length of Stay (LOS) for Pediatric Patients Discharged from Average Volume EDs	Person and Caregiver-Centered Experience and Outcomes
ACEP 45*	ED Length of Stay (LOS) for Pediatric Patients Discharged from Moderate Volume EDs	Person and Caregiver-Centered Experience and Outcomes
ACEP 46*	ED Length of Stay (LOS) for Pediatric Patients Discharged from Low Volume EDs	Person and Caregiver-Centered Experience and Outcomes
ACEP 47*	ED Length of Stay (LOS) for Pediatric Patients Discharged from Freestanding EDs	Person and Caregiver-Centered Experience and Outcomes
AHSQC 4	Ventral Hernia Repair: Pain Status Assessment	Person and Caregiver-Centered Experience and Outcomes
AHSQC 5*	Ventral Hernia Repair: Functional Status Assessment	Person and Caregiver-Centered Experience and Outcomes
AJRR 2	Health and Functional Improvement	Person and Caregiver-Centered Experience and Outcomes
AQI 28	New Corneal Injury Not Diagnosed in the Postanesthesia Care Unit/Recovery Area after Anesthesia Care	Person and Caregiver-Centered Experience and Outcomes
AQI 29	Prevention of Post-operative Vomiting (POV) – Combination Therapy (Pediatrics)	Person and Caregiver-Centered Experience and Outcomes
AQI 33	Composite Patient Experience	Person and Caregiver-Centered Experience and Outcomes
AQI 36	Assessment of Acute Postoperative Pain	Person and Caregiver-Centered Experience and Outcomes
AQUA 10	Prostate Cancer: Patient report of Urinary function after treatment	Person and Caregiver-Centered Experience and Outcomes

Exhibit B.2 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
AQUA 11	Prostate Cancer: Patient report of Sexual function after treatment	Person and Caregiver-Centered Experience and Outcomes
ASBS 2*	Surgical Site Infection and Cellulitis After Breast and/or Axillary Surgery	Person and Caregiver-Centered Experience and Outcomes
ASPIRE 9	At-Risk Adults Undergoing General Anesthesia Given 2 or More Classes of Anti-emetics	Person and Caregiver-Centered Experience and Outcomes
ASPIRE 10	At-Risk Pediatric Patients Undergoing General Anesthesia Given 2 or More Classes of Anti-emetics	Person and Caregiver-Centered Experience and Outcomes
ASPIRE 20	Preventing Uncontrolled Post-operative Pain	Person and Caregiver-Centered Experience and Outcomes
BIVARUS 11	The Doctor Provided Follow-Up Care Instructions in a Way I Could Understand	Person and Caregiver-Centered Experience and Outcomes
BIVARUS 12	I Was Involved in Developing My Care or Follow-Up Plan	Person and Caregiver-Centered Experience and Outcomes
BIVARUS 13	My Pain Was Treated Effectively	Person and Caregiver-Centered Experience and Outcomes
BIVARUS 16	My Doctor Listened to Me	Person and Caregiver-Centered Experience and Outcomes
BIVARUS 17	My Doctor Made Me Feel Comfortable About Asking Questions	Person and Caregiver-Centered Experience and Outcomes
CDR 2	Diabetic Foot Ulcer (DFU) Healing or Closure	Person and Caregiver-Centered Experience and Outcomes
CDR 6	Venous Leg Ulcer outcome measure: Healing or Closure	Person and Caregiver-Centered Experience and Outcomes
CDR 12	Wound Related Quality of Life	Person and Caregiver-Centered Experience and Outcomes
CODE 1	Improved Functional Outcome Assessment for Shoulder Replacement	Person and Caregiver-Centered Experience and Outcomes
CODE 2	Improved Functional Outcome Assessment for Anterior Cruciate Ligament Repair	Person and Caregiver-Centered Experience and Outcomes
CODE 3	Improved Functional Outcome Assessment for Foot and Ankle Surgery	Person and Caregiver-Centered Experience and Outcomes
CODE 4	Improved Functional Outcome Assessment for Hand Surgery	Person and Caregiver-Centered Experience and Outcomes
CODE 5	Improved Functional Outcome Assessment for Spine Surgery	Person and Caregiver-Centered Experience and Outcomes
CUHSM 3	CAHPS Clinician/Group Surveys – (Adult Primary Care, Pediatric Care, and Specialist Care Surveys)	Person and Caregiver-Centered Experience and Outcomes
CUHSM 4	CAHPS Health Plan Survey v 4.0 – Adult Questionnaire	Person and Caregiver-Centered Experience and Outcomes
CUHSM 5	Care for Older Adults (COA) – Medication Review	Person and Caregiver-Centered Experience and Outcomes
ECPR 4*	Mean Time from Emergency Department (ED) Arrival to ED Departure for All Discharged ED Patients	Person and Caregiver-Centered Experience and Outcomes
ECPR 5*	Mean Time from Emergency Department (ED) Arrival to ED Departure for Discharged Lower Acuity ED Patients	Person and Caregiver-Centered Experience and Outcomes

Exhibit B.2 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
ECPR 6*	Mean Time from Emergency Department (ED) Arrival to ED Departure for Discharged Higher Acuity ED Patients	Person and Caregiver-Centered Experience and Outcomes
ECPR 32*	Mean Time from Urgent Care Clinic (UCC) Arrival to UCC Departure for All Discharged UCC Patients	Person and Caregiver-Centered Experience and Outcomes
ECPR 33*	Mean Time from Urgent Care Clinic (UCC) Arrival to UCC Departure for Adult Discharged UCC Patients	Person and Caregiver-Centered Experience and Outcomes
ECPR 34*	Mean Time from Urgent Care Clinic (UCC) Arrival to UCC Departure for Pediatric Discharged UCC Patients	Person and Caregiver-Centered Experience and Outcomes
ECPR 35*	Mean Time from Emergency Department (ED) Arrival to ED Departure for All Admitted ED Patients	Person and Caregiver-Centered Experience and Outcomes
ECPR 36*	Mean Time from Emergency Department (ED) Arrival to ED Departure for Admitted Adult ED Patients	Person and Caregiver-Centered Experience and Outcomes
ECPR 37*	Mean Time from Emergency Department (ED) Arrival to ED Departure for Admitted Pediatric ED Patients	Person and Caregiver-Centered Experience and Outcomes
ECPR 40	Pain Management for Long Bone Fracture	Person and Caregiver-Centered Experience and Outcomes
EPREOP 4	Short-term Pain Management/Maximum Pain Score	Person and Caregiver-Centered Experience and Outcomes
EPREOP 17	PONV Pediatric	Person and Caregiver-Centered Experience and Outcomes
EPREOP 25	Patient Experience	Person and Caregiver-Centered Experience and Outcomes
FORCE 1	Functional Status Assessment for Knee Replacement	Person and Caregiver-Centered Experience and Outcomes
FORCE 2	Pain Status Assessment for Knee Replacement	Person and Caregiver-Centered Experience and Outcomes
FORCE 6	Functional Status Assessment for Hip Replacement	Person and Caregiver-Centered Experience and Outcomes
FORCE 7	Pain Status Assessment for Hip Replacement	Person and Caregiver-Centered Experience and Outcomes
FORCE 11	Functional Status Assessment for Patients with Knee OA	Person and Caregiver-Centered Experience and Outcomes
FORCE 12	Pain Status Assessment for Patients with Knee OA	Person and Caregiver-Centered Experience and Outcomes
FORCE 14	Functional Status Assessment for Patients with Hip OA	Person and Caregiver-Centered Experience and Outcomes
FORCE 15	Pain Status Assessment for Patients with Hip OA	Person and Caregiver-Centered Experience and Outcomes
HCPR 10*	In-Hospital Mortality Rate for Inpatients with Pneumonia	Person and Caregiver-Centered Experience and Outcomes
HCPR 11*	In-Hospital Mortality Rate for Inpatients with CHF	Person and Caregiver-Centered Experience and Outcomes
HCPR 12*	In-Hospital Mortality Rate for Inpatients with COPD	Person and Caregiver-Centered Experience and Outcomes

Exhibit B.2 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
ICLOPS 39	Proactive treatment for patients with diabetes	Person and Caregiver-Centered Experience and Outcomes
ICLOPS 40	Proactive treatment for patients with Heart Failure	Person and Caregiver-Centered Experience and Outcomes
ICLOPS 41	Proactive treatment for patients with Chronic Obstructive Pulmonary Disease (COPD)	Person and Caregiver-Centered Experience and Outcomes
ICLOPS 42	Proactive treatment for patients with Coronary Artery Disease (CAD)	Person and Caregiver-Centered Experience and Outcomes
ICLOPS 43	Pain Brought Under Control within 2 Encounters	Person and Caregiver-Centered Experience and Outcomes
ICLOPS 46	Patients Admitted to the ICU Who Have Care Preferences Documented	Person and Caregiver-Centered Experience and Outcomes
ICLOPS 52	Palliative Care: Treatment Preferences	Person and Caregiver-Centered Experience and Outcomes
ICLOPS 53	Percentage of Palliative Care Patients with Documentation in the Clinical Record of a Discussion of Spiritual/Religious Concerns or Documentation that the Patient/Caregiver Did Not want to Discuss	Person and Caregiver-Centered Experience and Outcomes
M2S 14	Disease Specific Patient-Reported Outcome Surveys for Varicose Vein Procedures	Person and Caregiver-Centered Experience and Outcomes
MIRAMED 5	Adult PACU Pain Management	Person and Caregiver-Centered Experience and Outcomes
NHBPC 8	Documented Discussion of Preferences for Health Care Decision Making / Life Sustaining Treatment with Home-Based Primary Care and Palliative Care Patients	Person and Caregiver-Centered Experience and Outcomes
NHBPC 9	Referral to Hospice for Appropriate Home-Based Primary Care and Palliative Care Patients	Person and Caregiver-Centered Experience and Outcomes
NHQI 25	Prevention of Postoperative Vomiting (POV) - Combination Therapy (Pediatrics)	Person and Caregiver-Centered Experience and Outcomes
NHQI 29	Assessment of Acute Postoperative Pain	Person and Caregiver-Centered Experience and Outcomes
NOF 10	Advance Care Plan	Person and Caregiver-Centered Experience and Outcomes
NPA 1	Spine Pain Assessment	Person and Caregiver-Centered Experience and Outcomes
NPA 2	Extremity (Radicular) Pain Assessment	Person and Caregiver-Centered Experience and Outcomes
NPA 3	Functional Outcome Assessment for Spine Intervention	Person and Caregiver-Centered Experience and Outcomes
NPA 4	Quality-of-Life Assessment for Spine Intervention	Person and Caregiver-Centered Experience and Outcomes
NPA 5	Patient Satisfaction with Spine Care	Person and Caregiver-Centered Experience and Outcomes
NPAGSC 1	Spine Pain Assessment	Person and Caregiver-Centered Experience and Outcomes
NPAGSC 2	Extremity (Radicular) Pain Assessment	Person and Caregiver-Centered Experience and Outcomes
NPAGSC 3	Functional Outcome Assessment for Spine Intervention	Person and Caregiver-Centered Experience and Outcomes

Exhibit B.2 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
NPAGSC 4	Quality-of-Life Assessment for Spine Intervention	Person and Caregiver-Centered Experience and Outcomes
NPAGSC 5	Patient Satisfaction with Spine Care	Person and Caregiver-Centered Experience and Outcomes
OBERD 3	Back Pain: Shared Decision Making	Person and Caregiver-Centered Experience and Outcomes
OBERD 8	Orthopedic Pain: Shared Decision Making	Person and Caregiver-Centered Experience and Outcomes
OBERD 12	CG-CAHPS Adult Visit Composite Tracking	Person and Caregiver-Centered Experience and Outcomes
OBERD 17	CG-CAHPS Patient Rating	Person and Caregiver-Centered Experience and Outcomes
ONSQIR 10	Post-Treatment Goal Setting	Person and Caregiver-Centered Experience and Outcomes
ONSQIR 11	Post-Treatment Goal Attainment	Person and Caregiver-Centered Experience and Outcomes
ONSQIR 13*	Fatigue Improvement	Person and Caregiver-Centered Experience and Outcomes
ONSQIR 14	Psychosocial Distress Improvement	Person and Caregiver-Centered Experience and Outcomes
PInc 27	VTE Warfarin Therapy Discharge Instructions	Person and Caregiver-Centered Experience and Outcomes
PInc 29*	Median Time from ED Arrival to ED Departure for Admitted ED Patients	Person and Caregiver-Centered Experience and Outcomes
PInc 30*	Admit Decision Time to ED Departure Time for Admitted Patients	Person and Caregiver-Centered Experience and Outcomes
PInc 44	Prevention of Post-operative Nausea and Vomiting (PONV) – Combination Therapy (Pediatrics)	Person and Caregiver-Centered Experience and Outcomes
PInc 49	Short-term Pain Management	Person and Caregiver-Centered Experience and Outcomes
QOPI 2	Pain Intensity Quantified by Second Office Visit	Person and Caregiver-Centered Experience and Outcomes
QOPI 3	Chemotherapy Intent Documented Before or Within Two Weeks After Administration	Person and Caregiver-Centered Experience and Outcomes
QOPI 9	Pain Intensity Quantified on Either of the Last Two Visits Before Death	Person and Caregiver-Centered Experience and Outcomes
QOPI 10	Hospice Enrollment and Enrolled More than 3 Days Before Death	Person and Caregiver-Centered Experience and Outcomes
QOPI 18	Death from Cancer in Intensive Care Unit (*Paired Measure)	Person and Caregiver-Centered Experience and Outcomes
QOPI 19*	Chemotherapy Administered Within Last 2 Weeks of Life (Lower Score Is Better)	Person and Caregiver-Centered Experience and Outcomes
QOPI 20	Documentation of Patients Advance Directives by the Third Office Visit	Person and Caregiver-Centered Experience and Outcomes
QUANTUM 39	Prevention of Postoperative Vomiting with an appropriate medical regimen guided by risk assessment in patients aged 3 to 18 years	Person and Caregiver-Centered Experience and Outcomes
RPAQIR 9	Advance Care Planning (Pediatric Kidney Disease) (PCPI Measure #: PKID-4)	Person and Caregiver-Centered Experience and Outcomes

Exhibit B.2 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
STS 7	Patient Centered Surgical Risk Assessment and Communication Using the STS Risk Calculator	Person and Caregiver-Centered Experience and Outcomes
THPSO 9*	Postoperative Nausea and Vomiting Rate – Adults	Person and Caregiver-Centered Experience and Outcomes
THPSO 10*	Postoperative Nausea and Vomiting Rate – Pediatrics	Person and Caregiver-Centered Experience and Outcomes
THPSO 14	Patient Experience: Post Anesthesia Follow-Up	Person and Caregiver-Centered Experience and Outcomes
USWR 20	Nutritional Screening and Intervention Plan in Patients with Chronic Wounds and Ulcers	Person and Caregiver-Centered Experience and Outcomes
USWR 21	Patient Reported Experience of Care: Wound Outcome	Person and Caregiver-Centered Experience and Outcomes
CAHPS	Getting Timely Care	Person and Caregiver-Centered Experience and Outcomes
CAHPS	Provider Communication	Person and Caregiver-Centered Experience and Outcomes
CAHPS	Rating of Provider	Person and Caregiver-Centered Experience and Outcomes
CAHPS	Access to Specialists	Person and Caregiver-Centered Experience and Outcomes
CAHPS	Health Promotion and Education	Person and Caregiver-Centered Experience and Outcomes
CAHPS	Shared Decision-Making	Person and Caregiver-Centered Experience and Outcomes
CAHPS	Health Status/Functional Status	Person and Caregiver-Centered Experience and Outcomes
CAHPS	Courteous/Helpful Office Staff	Person and Caregiver-Centered Experience and Outcomes
CAHPS	Care Coordination	Person and Caregiver-Centered Experience and Outcomes
CAHPS	Between Visit Communication	Person and Caregiver-Centered Experience and Outcomes
CAHPS	Education About Medication Adherence	Person and Caregiver-Centered Experience and Outcomes
CAHPS	Stewardship of Patient Resources	Person and Caregiver-Centered Experience and Outcomes

Source: CMS, "2016 PQRS Measures List," available at: https://www.cms.gov/apps/ama/license.asp?file=/PQRS/downloads/PQRS_2016_Measure_List_01072016.xlsx.

Note: CAHPS survey measures are scored on a 0 to 100 point scale. Data on the "Health Status/Functional Status" measure, a descriptive measure of beneficiary characteristics, is being provided to TINs for their information only. This measure is not used in the calculation of the 2018 Value Modifier.

*Lower performance rates on these measures indicate better performance. However, when standardizing measures for inclusion in the domain score, CMS transforms these measures to ensure that for all standardized scores entering the domain score, positive (+) scores indicate better performance and negative (-) scores indicate worse performance.

Exhibit B.3. Community/Population Health Domain Quality Indicators

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
110 (GPRO PREV-7)	Preventive Care and Screening: Influenza Immunization	Community/Population Health
110 (CMS147v5)	Preventive Care and Screening: Influenza Immunization (eCQM)	Community/Population Health
111 (GPRO PREV-8)	Pneumonia Vaccination Status for Older Adults	Community/Population Health
111 (CMS127v4)	Pneumonia Vaccination Status for Older Adults (eCQM)	Community/Population Health
128 (GPRO PREV-9)	Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan	Community/Population Health
128 (CMS69v4)	Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan (eCQM)	Community/Population Health
134 (GPRO PREV-12)	Preventive Care and Screening: Screening for Clinical Depression and Follow-Up Plan	Community/Population Health
134 (CMS2v5)	Preventive Care and Screening: Screening for Clinical Depression and Follow-Up Plan (eCQM)	Community/Population Health
183	Hepatitis C: Hepatitis A Vaccination	Community/Population Health
226 (GPRO PREV-10)	Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention	Community/Population Health
226 (CMS138v4)	Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention (eCQM)	Community/Population Health
239 (CMS155v4)	Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents (eCQM)	Community/Population Health
240 (CMS117v4)	Childhood Immunization Status (eCQM)	Community/Population Health
310 (CMS153v4)	Chlamydia Screening for Women (eCQM)	Community/Population Health
317 (GPRO PREV-11)	Preventive Care and Screening: Screening for High Blood Pressure and Follow-Up Documented	Community/Population Health
317 (CMS22v4)	Preventive Care and Screening: Screening for High Blood Pressure and Follow-Up Documented (eCQM)	Community/Population Health
372 (CMS82v3)	Maternal Depression Screening (eCQM)	Community/Population Health
378* (CMS75v4)	Children Who Have Dental Decay or Cavities (eCQM)	Community/Population Health
394	Immunizations for Adolescents	Community/Population Health
402	Tobacco Use and Help with Quitting Among Adolescents	Community/Population Health
431	Preventive Care and Screening: Unhealthy Alcohol Use: Screening & Brief Counseling	Community/Population Health
AAN 2	Distal Symmetric Polyneuropathy: Screening for Unhealthy Alcohol Use	Community/Population Health

Exhibit B.3 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
AAN 8	Multiple Sclerosis: Exercise and Appropriate Physical Activity Counseling for Patients with MS	Community/Population Health
ACEP 25	Tobacco Screening and Cessation Intervention for ED Patients with Cardiovascular and/or Pulmonary Conditions	Community/Population Health
ARCO 7	Endocrine, Gastrointestinal (GI): Screening, Musculoskeletal: Osteoporosis: Laboratory Investigation for Secondary Causes of Fracture	Community/Population Health
ARCO 8	Endocrine, Musculoskeletal: Osteoporosis: Risk Assessment/Treatment after Fracture	Community/Population Health
EPREOP 21	Tobacco Use: Screening and Cessation Intervention	Community/Population Health
FORCE 3	Mental Health Assessment for Knee Replacement	Community/Population Health
FORCE 8	Mental Health Assessment for Hip Replacement	Community/Population Health
FORCE 13	Mental Health Assessment for Patients with Knee OA	Community/Population Health
FORCE 16	Mental Health Assessment for Patients with Hip OA	Community/Population Health
MMA 7	Adherence to Controlled Substance Agreement/Opiate Agreement with Corrective Actions for Violations	Community/Population Health
MMA 8	Urine Drug Screen Utilization in Pain Management	Community/Population Health
MMA 9	Urine Drug Screen Utilization in Substance Use Disorder Management	Community/Population Health
MOA 7	Adherence to Controlled Substance Agreement/Opiate Agreement with Corrective Actions for Violations	Community/Population Health
MOA 8	Urine Drug Screen Utilization in Pain Management	Community/Population Health
MOA 9	Urine Drug Screen Utilization in Substance Use Disorder Management	Community/Population Health
MUSIC 8*	Prostate Biopsy: Proportion of Patients Undergoing a Prostate Biopsy with a PSA < 4	Community/Population Health
NHBPC 2	Alcohol Problem Use Assessment for Home-Based Primary Care and Palliative Care Patients	Community/Population Health
NHBPC 3	Depression Symptom Assessment for Home-Based Primary Care and Palliative Care Patients	Community/Population Health
NHBPC 4	Pain Screen for Home-Based Primary Care and Palliative Care Patients	Community/Population Health
NJII 4	Increase in billing for wellness visits	Community/Population Health
NPA 18	Smoking Assessment and Cessation Coincident with Spine Related Therapies	Community/Population Health
NPA 19	Body Mass Assessment and Follow-up Coincident with Spine Related Therapies	Community/Population Health
NPA 20	Unhealthy Alcohol Use Assessment Coincident with Spine Care	Community/Population Health
NPA 21	Participation in a Systematic National Database for Spine Care Interventions	Community/Population Health

Exhibit B.3 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
OBERD 19	Orthopedic Surgery 3-Month QoL Changes (VR-6D)	Community/Population Health
OBERD 20	Orthopedic Surgery 3-Month QoL Changes (EQ-5D)	Community/Population Health
PInc 28	Tobacco Use Treatment Provided or Offered	Community/Population Health
PPRNET 12	Screening for Abdominal Aortic Aneurysm	Community/Population Health
PPRNET 15	Osteoporosis Screening for Women	Community/Population Health
PPRNET 16	Cervical Cancer Screening	Community/Population Health
PPRNET 17	Breast Cancer Screening	Community/Population Health
PPRNET 18	Colorectal Cancer Screening	Community/Population Health
PPRNET 19	Pneumococcal Vaccination in Elderly	Community/Population Health
PPRNET 20	Zoster (Shingles) Vaccination	Community/Population Health
PPRNET 21	Depression Screening	Community/Population Health
PPRNET 22	Alcohol Misuse Screening	Community/Population Health
PPRNET 23	Tobacco Use: Screening and Cessation Intervention	Community/Population Health
PPRNET 31	Screening for Type 2 Diabetes	Community/Population Health
QOPI 6	Smoking Status/Tobacco Use Documented in Past Year	Community/Population Health
SPH 4	COPD – Pneumococcal Vaccine	Community/Population Health
SPH 5	Tobacco Free Status	Community/Population Health
WCHQ 30	Adolescent Immunization (Preventive Care)	Community/Population Health
WCHQ 31	Childhood Immunization (Preventive Care)	Community/Population Health
WELL 15	Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents	Community/Population Health
WELL 22	Children and Adolescents Access to Primary Care Practitioners	Community/Population Health

Source: CMS, "2016 PQRS Measures List," available at: https://www.cms.gov/apps/ama/license.asp?file=/PQRS/downloads/PQRS_2016_Measure_List_01072016.xlsx.

*Lower performance rates on these measures indicate better performance. However, when standardizing measures for inclusion in the domain score, CMS transforms these measures to ensure that for all standardized scores entering the domain score, positive (+) scores indicate better performance and negative (-) scores indicate worse performance.

Exhibit B.4. Patient Safety Domain Quality Indicators

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
21	Perioperative Care: Selection of Prophylactic Antibiotic – First OR Second Generation Cephalosporin	Patient Safety
22	Perioperative Care: Discontinuation of Prophylactic Parenteral Antibiotics (Non-Cardiac Procedures)	Patient Safety
23	Perioperative Care: Venous Thromboembolism (VTE) Prophylaxis (When Indicated in ALL Patients)	Patient Safety
76	Prevention of Central Venous Catheter (CVC)-Related Bloodstream Infections	Patient Safety
130 (GPRO CARE-3)	Documentation of Current Medications in the Medical Record	Patient Safety
130 (CMS68v5)	Documentation of Current Medications in the Medical Record (eCQM)	Patient Safety
145	Radiology: Exposure Time Reported for Procedures Using Fluoroscopy	Patient Safety
154	Falls: Risk Assessment	Patient Safety
156	Oncology: Radiation Dose Limits to Normal Tissues	Patient Safety
181	Elder Maltreatment Screen and Follow-Up Plan	Patient Safety
192*	Cataracts: Complications Within 30 Days Following Cataract Surgery Requiring Additional Surgical Procedures	Patient Safety
192* (CMS132v4)	Cataracts: Complications Within 30 Days Following Cataract Surgery Requiring Additional Surgical Procedures (eCQM)	Patient Safety
238*	Use of High-Risk Medications in the Elderly	Patient Safety
238* (CMS156v4)	Use of High-Risk Medications in the Elderly (eCQM)	Patient Safety
258	Rate of Open Repair of Small or Moderate Non-Ruptured Abdominal Aortic Aneurysms (AAA) Without Major Complications (Discharged to Home by Post-operative Day #7)	Patient Safety
259	Rate of Endovascular Aneurysm Repair (EVAR) of Small or Moderate Non-Ruptured Abdominal Aortic Aneurysms (AAA) Without Major Complications (Discharged to Home by Post-operative Day #2)	Patient Safety
260	Rate of Carotid Endarterectomy (CEA) for Asymptomatic Patients, Without Major Complications (Discharged to Home by Post-operative Day #2)	Patient Safety
262	Image Confirmation of Successful Excision of Image-Localized Breast Lesion	Patient Safety
286	Dementia: Counseling Regarding Safety Concerns	Patient Safety
318 (GPRO CARE-2)	Falls: Screening for Fall Risk	Patient Safety
318 (CMS139v4)	Falls: Screening for Fall Risk (eCQM)	Patient Safety

Exhibit B.4 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
330*	Adult Kidney Disease: Catheter Use for Greater Than or Equal to 90 Days	Patient Safety
335	Maternity Care: Elective Delivery or Early Induction Without Medical Indication at ≥ 37 and < 39 Weeks	Patient Safety
347*	Rate of Endovascular Aneurysm Repair (EVAR) of Small or Moderate Non-Ruptured Abdominal Aortic Aneurysms (AAA) Who Die While in Hospital	Patient Safety
348*	HRS-3: Implantable Cardioverter-Defibrillator (ICD) Complications Rate	Patient Safety
351	Total Knee Replacement: Venous Thromboembolic and Cardiovascular Risk Evaluation	Patient Safety
352	Total Knee Replacement: Preoperative Antibiotic Infusion with Proximal Tourniquet	Patient Safety
353	Total Knee Replacement: Identification of Implanted Prosthesis in Operative Report	Patient Safety
354*	Anastomotic Leak Intervention	Patient Safety
355*	Unplanned Reoperation Within the 30 Day Postoperative Period	Patient Safety
360	Optimizing Patient Exposure to Ionizing Radiation: Count of Potential High Dose Radiation Imaging Studies: Computed Tomography (CT) and Cardiac Nuclear Medicine Studies	Patient Safety
361	Optimizing Patient Exposure to Ionizing Radiation: Reporting to a Radiation Dose Index Registry	Patient Safety
380 (CMS179v4)	ADE Prevention and Monitoring: Warfarin Time in Therapeutic Range (eCQM)	Patient Safety
382 (CMS177v4)	Child and Adolescent Major Depressive Disorder (MDD): Suicide Risk Assessment (eCQM)	Patient Safety
383	Adherence to Antipsychotic Medications for Individuals with Schizophrenia	Patient Safety
388*	Cataract Surgery with Intraoperative Complications (Unplanned Rupture of Posterior Capsule Requiring Unplanned Vitrectomy)	Patient Safety
392*	HRS-12: Cardiac Tamponade and/or Pericardiocentesis Following Atrial Fibrillation Ablation	Patient Safety
393*	HRS-9: Infection Within 180 Days of Cardiac Implantable Electronic Device (CIED) Implantation, Replacement, or Revision	Patient Safety
417	Rate of Open Repair of Ascending Abdominal Aortic Aneurysms (AAA) Where Patients Are Discharged Alive	Patient Safety
422	Performing Cystoscopy at the Time of Hysterectomy for Pelvic Organ Prolapse to Detect Lower Urinary Tract Injury	Patient Safety
424	Perioperative Temperature Management	Patient Safety
429	Pelvic Organ Prolapse: Preoperative Screening for Uterine Malignancy	Patient Safety
430	Prevention of Postoperative Nausea and Vomiting (PONV) – Combination Therapy	Patient Safety
432*	Proportion of Patients Sustaining a Bladder Injury at the Time of any Pelvic Organ Prolapse Repair	Patient Safety

Exhibit B.4 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
433*	Proportion of Patients Sustaining a Major Viscus Injury at the Time of Any Pelvic Organ Prolapse Repair	Patient Safety
434*	Proportion of Patients Sustaining A Ureter Injury at the Time of any Pelvic Organ Prolapse Repair	Patient Safety
437*	Rate of Surgical Conversion from Lower Extremity Endovascular Revasculatization Procedure	Patient Safety
AAAAI 5	Allergen Immunotherapy Treatment: Allergen Specific Immunoglobulin E (IgE) Sensitivity Assessed and Documented Prior to Treatment	Patient Safety
AAAAI 9	Assessment of Asthma Symptoms Prior to Administration of Allergen Immunotherapy Injection(s)	Patient Safety
AAO 4*	Tonsillectomy: Primary Post-Tonsillectomy Hemorrhage in Children	Patient Safety
AAO 5*	Tonsillectomy: Primary Post-Tonsillectomy Hemorrhage in Adults	Patient Safety
AAO 6*	Tonsillectomy: Secondary Post-Tonsillectomy Hemorrhage in Children	Patient Safety
AAO 7*	Tonsillectomy: Secondary Post-Tonsillectomy Hemorrhage in Adults	Patient Safety
ABG 2*	Total Perioperative Cardiac Arrest Rate	Patient Safety
ABG 3*	Total Perioperative Mortality Rate	Patient Safety
ABG 4*	PACU Intubation Rate	Patient Safety
ABG 5*	Composite Procedural Safety for All Vascular Access Procedures	Patient Safety
ABG 9*	OR Fire	Patient Safety
ABG 11*	Anaphylaxis During Anesthesia Care in the Operating Room	Patient Safety
ABG 13*	Malignant Hyperthermia	Patient Safety
ABG 14*	Corneal Abrasion	Patient Safety
ABG 15*	Dental Injury	Patient Safety
ABG 17*	Medication errors during surgery	Patient Safety
ABG 22*	Intraoperative Airway Fire	Patient Safety
ABG 23*	Intraoperative patient fall	Patient Safety
ABG 24*	Time out error – surgical	Patient Safety
ABG 25*	Time out error – regional block	Patient Safety
ABG 26*	Myocardial Ischemia requiring intervention during the operative period	Patient Safety
ABG 27*	Dysrhythmia requiring intervention during the operative period	Patient Safety

Exhibit B.4 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
ACCCath 1*	Stroke Intra or Post-PCI Procedure in Patients Without CABG or Other Major Surgeries During Admission	Patient Safety
ACCCath 2*	New Requirement for Dialysis Post-PCI in Patients Without CABG or Other Major Surgeries During Admission	Patient Safety
ACCCath 3*	Vascular Access Site Injury Requiring Treatment or Major Bleeding Post-PCI in Patients Without CABG or Other Major Surgeries During Admission	Patient Safety
ACCCath 4*	Cardiac Tamponade Post-PCI in Patients Without CABG or Other Major Surgery During Admission	Patient Safety
ACCCath 14	Contrast Dose Monitored and Recorded During the Procedure	Patient Safety
ACCPin 4	AFIB: CHA2DS2–VASc Score Risk Score Documented	Patient Safety
ACEP 23	Anti-coagulation for Acute Pulmonary Embolism Patients	Patient Safety
ACEP 24	Pregnancy Test for Female Abdominal Pain Patients	Patient Safety
ACEP 26	Sepsis Management: Septic Shock: Lactate Level Measurement	Patient Safety
ACEP 27	Sepsis Management: Septic Shock: Antibiotics Ordered	Patient Safety
ACEP 28	Sepsis Management: Septic Shock: Fluid Resuscitation	Patient Safety
ACEP 29	Sepsis Management: Septic Shock: Repeat Lactate Level Measurement	Patient Safety
ACEP 30	Sepsis Management: Septic Shock: Lactate Clearance Rate of ≥ 10%	Patient Safety
ACEP 31	Appropriate Foley Catheter Use in the Emergency Department	Patient Safety
ACR 4	Tuberculosis Test Prior to First Course Biologic Therapy	Patient Safety
ACRad 9*	Median Dose Length Product for CT Head/Brain Without Contrast (Single Phase Scan)	Patient Safety
ACRad 10*	Median Size Specific Dose Estimate for CT Chest Without Contrast (Single Phase Scan)	Patient Safety
ACRad 11*	Median Dose Length Product for CT Chest Without Contrast (Single Phase Scan)	Patient Safety
ACRad 12*	Median Size Specific Dose Estimate for CT Abdomen-Pelvis with Contrast (Single Phase Scan)	Patient Safety
ACRad 13*	Median Dose Length Product for CT Abdomen-Pelvis with Contrast (Single Phase Scan)	Patient Safety
ACRad 14	Participation in a National Dose Index Registry	Patient Safety
ACRad 20*	CT IV Contrast Extravasation Rate (Low Osmolar Contrast Media)	Patient Safety
ACRad 24	Timing of Antibiotics-Ordering Physician	Patient Safety
ACS 1	Prophylactic Antibiotics in Abdominal Trauma	Patient Safety
ACS 2	Discontinuation of Prophylactic Antibiotics in Abdominal Trauma	Patient Safety

Exhibit B.4 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
ACS 3	Venous Thromboembolism (VTE) Prophylaxis in Trauma Patients	Patient Safety
ACS 5	Documentation of Anticoagulation Use in the Medical Record	Patient Safety
ACS 11	Trauma Surgeon Response within 30 Minutes of Hospital Arrival	Patient Safety
AHSQC 1*	Ventral Hernia Repair: Surgical Site Occurrence Requiring Procedural Intervention within the 30 Day Postoperative Period	Patient Safety
AHSQC 6*	Ventral Hernia Repair with Myofascial Release Surgical Site Occurrence Requiring Procedural Intervention within the 30 Day Postoperative Period	Patient Safety
AJRR 1	Postoperative Complications within 90 Days Following the Procedure	Patient Safety
AJRR 4	Venous Thromboembolic and Cardiovascular Risk Evaluation	Patient Safety
AQI 31*	Postanesthesia Care Unit (PACU) Re-intubation Rate	Patient Safety
AQI 32	Composite Procedural Safety for Central Line Placement	Patient Safety
AQI 34*	Perioperative Cardiac Arrest	Patient Safety
AQI 35*	Perioperative Mortality Rate	Patient Safety
AQI 37	Surgical Safety Checklist – Applicable Safety Checks Completed Before Induction of Anesthesia	Patient Safety
AQI 46	Total Knee Replacement: Venous Thromboembolic and Cardiovascular Risk Evaluation	Patient Safety
AQI 47	Total Knee Replacement: Preoperative Antibiotic Infusion with Proximal Tourniquet	Patient Safety
AQUA 8	Hospital readmissions / complications within 30 days of TRUS Biopsy	Patient Safety
ASBS 7	Unplanned 30 Day Reoperation After Mastectomy	Patient Safety
ASNC 19	Imaging Protocols for SPECT and PET MPI studies - Use of stress only protocol	Patient Safety
ASNC 20	SPECT-MPI studies performed without the use of thallium	Patient Safety
ASPIRE 5	Administration of Dextrose Containing Solution or Glucose Recheck for Patients with Perioperative Glucose < 60	Patient Safety
ASPIRE 6	Avoiding Excessively High Tidal Volumes During Positive Pressure Ventilation	Patient Safety
ASPIRE 16	Avoiding Intraoperative Hypotension	Patient Safety
ASPIRE 22	Avoiding Medication Overdose	Patient Safety
ASPS 5	Breast Reconstruction: Return to OR	Patient Safety
ASPS 6	Breast Reconstruction: Flap Loss	Patient Safety
BIVARUS 1	Hand Sanitation Performed by My Provider	Patient Safety

Exhibit B.4 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
BIVARUS 2	Medication Reconciliation Performed at My Visit	Patient Safety
BIVARUS 3	Practice Asked Me About Allergies	Patient Safety
BIVARUS 5	Practice Explained Medications Before Giving Them	Patient Safety
BIVARUS 7	Coordination of Care Among Physicians and Nurses	Patient Safety
BIVARUS 9	I Was Told How to Arrange an Appointment for Follow-Up Care	Patient Safety
BIVARUS 10	Overall Assessment of Safety	Patient Safety
CUHSM 6	Adherence to Mood Stabilizers for Individuals with Bipolar I Disorder	Patient Safety
CUHSM 7	Diabetes Monitoring for People with Diabetes and Schizophrenia (SMD)	Patient Safety
CUHSM 8	Cardiovascular Health Screening for People with Schizophrenia or Bipolar Disorder Who Are Prescribed Antipsychotic Medications	Patient Safety
ECPR 1*	Door to Diagnostic Evaluation by a Provider – All Emergency Department (ED) Patients	Patient Safety
ECPR 2*	Door to Diagnostic Evaluation by a Provider – Adult Emergency Department (ED) Patients	Patient Safety
ECPR 3*	Door to Diagnostic Evaluation by a Provider – Pediatric Emergency Department (ED) Patients	Patient Safety
ECPR 29*	Door to Diagnostic Evaluation by a Provider – All Urgent Care Patients	Patient Safety
ECPR 30*	Door to Diagnostic Evaluation by a Provider – Adult Urgent Care Patients	Patient Safety
ECPR 31*	Door to Diagnostic Evaluation by a Provider – Pediatric Urgent Care Patients	Patient Safety
EPREOP 2*	Overall Mortality	Patient Safety
EPREOP 3*	PACU Intubation Rate	Patient Safety
EPREOP 5	Procedural Safety for Central Venous or Arterial Catheterization	Patient Safety
EPREOP 6	Surgical Safety Checklist/Timeout	Patient Safety
EPREOP 7*	Corneal Injury	Patient Safety
EPREOP 8*	Failed Airway	Patient Safety
EPREOP 9	Prophylactic Antibiotic Administration	Patient Safety
EPREOP 10*	Intraoperative Fire	Patient Safety
EPREOP 12*	Anaphylaxis	Patient Safety
EPREOP 13*	Malignant Hyperthermia	Patient Safety
EPREOP 14*	Dental Injury	Patient Safety

Exhibit B.4 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
EPREOP 15*	Unplanned admission to ICU	Patient Safety
EPREOP 16*	Unplanned admission to Hospital	Patient Safety
EPREOP 19	Documentation of Current Medications in the Medical Record	Patient Safety
EPREOP 24*	Overall Cardiac Arrest	Patient Safety
GIQIC 5*	Incidence of Perforation	Patient Safety
HCPR 13	Stroke Venous Thromboembolism (VTE) Prophylaxis	Patient Safety
HCPR 15	Venous Thromboembolism (VTE) Prophylaxis	Patient Safety
HCPR 16	Venous Thromboembolism (VTE) Patients with Anticoagulation Overlap Therapy	Patient Safety
ICLOPS 45	Patients Who Die an Expected Death with an ICD that Has Been Deactivated	Patient Safety
M2S 2	Amputation-free survival assessed at least 9 months following Infra-Inguinal Bypass for intermittent claudication	Patient Safety
M2S 4	Amputation-free survival assessed at least 9 months following Supra-Inguinal Bypass for claudication	Patient Safety
M2S 5	Amputation-free survival assessed at least 9 months following Peripheral Vascular Intervention for intermittent claudication	Patient Safety
MBS 1*	Medical Complications	Patient Safety
MBS 2*	Surgical Site Complications	Patient Safety
MBS 3*	Serious Complications	Patient Safety
MBSAQIP 8*	Risk standardized rate of patients who experienced extended length of stay (> 7 days) following primary LRYGB or LSG operation	Patient Safety
MIRAMED 1	Perioperative Cardiac Arrest Rate	Patient Safety
MIRAMED 2	PACU Intubation Rate	Patient Safety
MIRAMED 3	Dental Injury	Patient Safety
MIRAMED 4	Perioperative Mortality Rate	Patient Safety
MIRAMED 6*	Anaphylaxis During Anesthesia Care	Patient Safety
MIRAMED 7*	Corneal Abrasion	Patient Safety
MMA 6	Definitive Diagnosis for Chronic Pain Controlled Substance Utilization	Patient Safety
MMA 11	Risk Assessment Patients Tolerant to Controlled Substances Due to Chronic Utilization in a Therapeutic Setting	Patient Safety
MOA 6	Definitive Diagnosis for Chronic Pain Controlled Substance Utilization	Patient Safety

Exhibit B.4 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
MOA 11	Risk Assessment Patients Tolerant to Controlled Substances Due to Chronic Utilization in a Therapeutic Setting	Patient Safety
MUSIC 1	Prostate Biopsy: Compliance with AUA Best Practices for Antibiotic Prophylaxis for Transrectal Ultrasound-Guided (TRUS) Biopsy	Patient Safety
NHBPC 1	Abuse or Neglect Assessment for Home-Based Primary Care and Palliative Care Patients	Patient Safety
NHBPC 6	Screen for Risk of Future Fall for Home-Based Primary Care and Palliative Care Patients	Patient Safety
NHBPC 12	Management of Suspected Abuse or Neglect	Patient Safety
NHCR 3*	Incidence of Perforation	Patient Safety
NHQI 26	Postanesthesia Care Unit (PACU) Re-intubation Rate	Patient Safety
NHQI 27*	Perioperative Cardiac Arrest	Patient Safety
NHQI 28*	Perioperative Mortality Rate	Patient Safety
NJII 3*	30-day Rehospitalizations per 1,000 Medicare Fee-for-Service (FFS) Beneficiaries	Patient Safety
NJIISMD 1	Critical Result: Pulmonary Embolism	Patient Safety
NJIISMD 2	Critical Result: ICH	Patient Safety
NJIISMD 3	Critical Result: Aortic Dissection	Patient Safety
NJIISMD 8	Critical Result: Occlusive intracranial stroke	Patient Safety
NJIISMD 9	Critical Result: Placental abruption	Patient Safety
NJIISMD 10	Critical Result: Ruptured ectopic pregnancy	Patient Safety
NJIISMD 11	Critical Result: New DVT	Patient Safety
NJIISMD 12	Critical Result: Eptopic Pregnancy	Patient Safety
NJIISMD 14	Critical Result Protocol	Patient Safety
NJIISMD 15	Urgent Result Protocol	Patient Safety
NJIISMD 16	Unexpected Result Protocol	Patient Safety
NPA 10*	Unplanned Reoperation Following Spine Procedure Within the 30 Day Postoperative Period	Patient Safety
NPA 11*	Unplanned Readmission Following Spine Procedure Within the 30 Day Postoperative Period	Patient Safety
NPA 12	Selection of Prophylactic Antibiotic-First or Second Generation Cephalosporin Prior to Spine Procedure	Patient Safety
NPA 13	Discontinuation of Prophylactic Parenteral Antibiotics Following Spine Procedure	Patient Safety

Exhibit B.4 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
NPSGSC 9*	Unplanned Admission to Hospital Following Percutaneous Spine Procedure within the 30-Day Post-procedure Period	Patient Safety
ONSQIR 9	Post-Treatment Education	Patient Safety
PInc 4*	30 Day Mortality for Acute Myocardial Infarction	Patient Safety
PInc 5*	30 Day Mortality for Heart Failure	Patient Safety
PInc 6*	30 Day Mortality for Pneumonia	Patient Safety
PInc 7	Venous Thromboembolism (VTE) Prophylaxis	Patient Safety
PPRNET 26	Use of High-Risk Medications in the Elderly	Patient Safety
PPRNET 28	NSAID or Cox 2 Inhibitor Use in Patients with Heart Failure (HF) or Chronic Kidney Disease (CKD)	Patient Safety
PPRNET 29	Monitoring Serum Potassium	Patient Safety
PPRNET 30	Treatment of Hypokalemia	Patient Safety
QUANTUM 31	Central Venous Line: ultrasound used for placement	Patient Safety
QUANTUM 32*	Procedural Safety for Central Line Placement	Patient Safety
QUANTUM 33*	PACU Intubation Rate	Patient Safety
QUANTUM 34*	Dental Damage/Loss	Patient Safety
QUANTUM 35*	Inadvertent Dural Puncture during Epidural	Patient Safety
QUANTUM 36*	High Spinal requiring intubation and/or assisted ventilation	Patient Safety
QUANTUM 37*	Aspiration of Gastric Contents	Patient Safety
QUANTUM 40*	Surgical Fire	Patient Safety
QUANTUM 43*	Difficult Intubation due to unrecognized difficult airway	Patient Safety
QUANTUM 44*	Laryngospasm	Patient Safety
QUANTUM 45*	Major Systemic Local Anesthetic Toxicity	Patient Safety
QUANTUM 46*	Failed Regional Requiring General Anesthesia	Patient Safety
QUANTUM 47*	Medication Error by Anesthesia Care Team	Patient Safety
QUANTUM 48*	Anaphylaxis	Patient Safety
QUANTUM 49*	Immediate Perioperative Cardiac Arrest	Patient Safety
QUANTUM 50*	Immediate Perioperative Mortality	Patient Safety

Exhibit B.4 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
RPAQIR 12*	Arterial Complication Rate Following Arteriovenous Access Intervention	Patient Safety
SCG 1	Evaluation of high risk pain medications patient prescribed in last 6 months (polypharmacy)	Patient Safety
SPINEIQ 3*	Repeated X-Ray Imaging	Patient Safety
THPSO 1*	Perioperative Aspiration Pneumonia Rate	Patient Safety
THPSO 4*	Pneumothorax Rate as a Complication of Central Line Placement	Patient Safety
THPSO 6*	Perioperative Myocardial Infarction Rate in Low Risk Patients	Patient Safety
THPSO 7*	Perioperative Myocardial Infarction Rate in High Risk Patients	Patient Safety
THPSO 8*	New Perioperative Central Neurologic Deficit	Patient Safety
THPSO 11*	Post-obstructive Pulmonary Edema Rate Following Endo-Tracheal Intubation	Patient Safety
THPSO 12*	Respiratory Arrest in PACU Rate	Patient Safety
THPSO 13*	Dental Injury Rate Following Airway Management	Patient Safety
USWR 13	Patient Vital Sign Assessment Prior to HBOT	Patient Safety
USWR 14	Blood Glucose Check Prior to Hyperbaric Oxygen Therapy (HBOT) Treatment	Patient Safety
USWR 18	Complications or Side Effects Among Patients Undergoing Treatment with HBOT	Patient Safety
USWR 19	Completion of a Risk Assessment at the Time of HBOT Consultation	Patient Safety
WCQIC 10	Chronic Wound Care: Arterial Testing in Venous Leg Ulcer Prior to Compression Therapy	Patient Safety

Source: CMS, "2016 PQRS Measures List," available at: https://www.cms.gov/apps/ama/license.asp?file=/PQRS/downloads/PQRS_2016_Measure_List_01072016.xlsx.

*Lower performance rates on these measures indicate better performance. However, when standardizing measures for inclusion in the domain score, CMS transforms these measures to ensure that for all standardized scores entering the domain score, positive (+) scores indicate better performance and negative (-) scores indicate worse performance.

Exhibit B.5. Communication and Care Coordination Domain Quality Indicators

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
19	Diabetic Retinopathy: Communication with the Physician Managing Ongoing Diabetes Care	Communication and Care Coordination
19 (CMS142v4)	Diabetic Retinopathy: Communication with the Physician Managing Ongoing Diabetes Care (eCQM)	Communication and Care Coordination
24	Osteoporosis: Communication with the Physician Managing On-Going Care Post-Fracture of Hip, Spine, or Distal Radius for Men and Women Aged 50 Years and Older	Communication and Care Coordination
46	Medication Reconciliation Post-discharge	Communication and Care Coordination
47	Care Plan	Communication and Care Coordination
131	Pain Assessment and Follow-Up	Communication and Care Coordination
137	Melanoma: Continuity of Care – Recall System	Communication and Care Coordination
138	Melanoma: Coordination of Care	Communication and Care Coordination
141	Primary Open-Angle Glaucoma (POAG): Reduction of Intraocular Pressure (IOP) by 15% OR Documentation of a Plan of Care	Communication and Care Coordination
147	Nuclear Medicine: Correlation with Existing Imaging Studies for All Patients Undergoing Bone Scintigraphy	Communication and Care Coordination
155	Falls: Plan of Care	Communication and Care Coordination
182	Functional Outcome Assessment	Communication and Care Coordination
185	Colonoscopy Interval for Patients with a History of Adenomatous Polyps – Avoidance of Inappropriate Use	Communication and Care Coordination
217	Functional Deficit: Change in Risk-Adjusted Functional Status for Patients with Knee Impairments	Communication and Care Coordination
218	Functional Deficit: Change in Risk-Adjusted Functional Status for Patients with Hip Impairments	Communication and Care Coordination
219	Functional Deficit: Change in Risk-Adjusted Functional Status for Patients with Lower Leg, Foot, or Ankle Impairments	Communication and Care Coordination
220	Functional Deficit: Change in Risk-Adjusted Functional Status for Patients with Lumbar Spine Impairments	Communication and Care Coordination
221	Functional Deficit: Change in Risk-Adjusted Functional Status for Patients with Shoulder Impairments	Communication and Care Coordination
222	Functional Deficit: Change in Risk-Adjusted Functional Status for Patients with Elbow, Wrist, or Hand Impairments	Communication and Care Coordination
223	Functional Deficit: Change in Risk-Adjusted Functional Status for Patients with Neck, Cranium, Mandible, Thoracic Spine, Ribs, or Other General Orthopedic Impairments	Communication and Care Coordination
225	Radiology: Reminder System for Screening Mammograms	Communication and Care Coordination
243	Cardiac Rehabilitation Patient Referral from an Outpatient Setting	Communication and Care Coordination

Exhibit B.5 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
261	Referral for Otologic Evaluation for Patients with Acute or Chronic Dizziness	Communication and Care Coordination
265	Biopsy Follow-Up	Communication and Care Coordination
288	Dementia: Caregiver Education and Support	Communication and Care Coordination
293	Parkinson's Disease: Rehabilitative Therapy Options	Communication and Care Coordination
294	Parkinson's Disease: Parkinson's Disease Medical and Surgical Treatment Options Reviewed	Communication and Care Coordination
320	Appropriate Follow-Up Interval for Normal Colonoscopy in Average Risk Patients	Communication and Care Coordination
325	Adult Major Depressive Disorder (MDD): Coordination of Care of Patients with Specific Comorbid Conditions	Communication and Care Coordination
336	Maternity Care: Post-Partum Follow-Up and Care Coordination	Communication and Care Coordination
350	Total Knee Replacement: Shared Decision-Making: Trial of Conservative (Non-surgical) Therapy	Communication and Care Coordination
359	Optimizing Patient Exposure to Ionizing Radiation: Utilization of a Standardized Nomenclature for Computed Tomography (CT) Imaging Description	Communication and Care Coordination
362	Optimizing Patient Exposure to Ionizing Radiation: Computed Tomography (CT) Images Available for Patient Follow-Up and Comparison Purposes	Communication and Care Coordination
363	Optimizing Patient Exposure to Ionizing Radiation: Search for Prior Computed Tomography (CT) Studies Through a Secure, Authorized, Media-Free, Shared Archive	Communication and Care Coordination
364	Optimizing Patient Exposure to Ionizing Radiation: Appropriateness: Follow-Up CT Imaging for Incidentally Detected Pulmonary Nodules According to Recommended Guidelines	Communication and Care Coordination
374 (CMS50v4)	Closing the Referral Loop: Receipt of Specialist Report (eCQM)	Communication and Care Coordination
391	Follow-Up After Hospitalization for Mental Illness (FUH)	Communication and Care Coordination
395	Lung Cancer Reporting (Biopsy/Cytology Specimens)	Communication and Care Coordination
396	Lung Cancer Reporting (Resection Specimens)	Communication and Care Coordination
397	Melanoma Reporting	Communication and Care Coordination
411	Depression Remission at Six Months	Communication and Care Coordination
426	Post-Anesthetic Transfer of Care Measure: Procedure Room to a Post Anesthesia Care Unit (PACU)	Communication and Care Coordination
427	Post-Anesthetic Transfer of Care: Use of Checklist or Protocol for Direct Transfer of Care from Procedure Room to Intensive Care Unit (ICU)	Communication and Care Coordination
AAAAI 6	Documentation of Clinical Response to Allergen Immunotherapy Within One Year	Communication and Care Coordination

Exhibit B.5 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
AAAAI 18	Penicillin Allergy: Appropriate Removal or Confirmation	Communication and Care Coordination
ABG 8	Use of Checklist or Protocol for Transfer of Care in Phase I Recovery from Anesthesia Provider to PACU or ICU	Communication and Care Coordination
ABG 18	Preoperative Attestation of documentation of current medications in the medical record	Communication and Care Coordination
ACCCath 12*	Stress Testing with Spect MPI Performed and the Results Were Not Available in the Medical Record	Communication and Care Coordination
ACCCath 13	Cardiac Rehabilitation Patient Referral from an Inpatient Setting	Communication and Care Coordination
ACCPin 3	HF: Patient Self Care Education	Communication and Care Coordination
ACCPin 6	CAD: Cardiac Rehabilitation Patient Referral from an Outpatient Setting	Communication and Care Coordination
ACRad 15*	Report Turnaround Time: Radiography	Communication and Care Coordination
ACRad 16*	Report Turnaround Time: Ultrasound (Excluding Breast US)	Communication and Care Coordination
ACRad 17*	Report Turnaround Time: MRI	Communication and Care Coordination
ACRad 18*	Report Turnaround Time: CT	Communication and Care Coordination
ACRad 19*	Report Turnaround Time: PET	Communication and Care Coordination
ACS 6	Documentation of Glasgow Coma Score at Time of Initial Evaluation	Communication and Care Coordination
AJRR 3	Shared Decision-Making: Trial of Conservative (Non-surgical) Therapy	Communication and Care Coordination
ARCO 1	Neurology: Stroke/Transient Ischemic Attack (TIA): STK-06: Discharged on Statin Medication	Communication and Care Coordination
ARCO 2	Behavioral Health: Screening, Neurology: Delirium: Persistent Indicators of Dementia without a Diagnosis—Short Stay	Communication and Care Coordination
ARCO 4	Musculoskeletal: Median Time to Pain Management for Long Bone Fracture	Communication and Care Coordination
ARCO 6	Musculoskeletal: Improvement in Ambulation/locomotion	Communication and Care Coordination
ARCO 9	Musculoskeletal: Gout: Serum Urate Target	Communication and Care Coordination
ASBS 3	Specimen Orientation for Partial Mastectomy or Excisional Breast Biopsy	Communication and Care Coordination
ASBS 11	Surgeon documentation of clinical stage of breast cancer	Communication and Care Coordination
ASNC 4	Utilization of Standardized Nomenclature and Reporting for Nuclear Cardiology Imaging Studies	Communication and Care Coordination
ASNC 12	SPECT and PET MPI studies signed within two business days	Communication and Care Coordination
ASPIRE 14	Appropriate Intraoperative Handoff Performed	Communication and Care Coordination

Exhibit B.5 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
ASPIRE 15	Appropriate Postoperative Transition of Care Handoff Performed	Communication and Care Coordination
BIVARUS 19	My Doctor Explained My Final Diagnosis	Communication and Care Coordination
BIVARUS 20	I Understood what the Physician Told Me	Communication and Care Coordination
BIVARUS 22	My Doctor Informed Me of My Treatment Options	Communication and Care Coordination
BIVARUS 23	My Doctor Told Me how Long Things Would Take	Communication and Care Coordination
BIVARUS 24	My Doctor Did Not Seem Rushed While with Me	Communication and Care Coordination
BIVARUS 25	While In My Room, My Doctor Was Focused on Me/My Issues	Communication and Care Coordination
BIVARUS 26	How Likely Are You to Recommend this Physician to Your Family and Friends	Communication and Care Coordination
CERORTHO 1	Modified Functional Outcome Assessment with Additional Sports Medicine and Related Specialty Encounter Codes	Communication and Care Coordination
CUHSM 1	Adherence to Statins	Communication and Care Coordination
CUHSM 2	Proportion of Days Covered (PDC): 5 Rates by Therapeutic Category	Communication and Care Coordination
ECPR 11*	Three Day All Cause Return ED Visit Rate – All Patients	Communication and Care Coordination
ECPR 12*	Three Day All Cause Return ED Visit Rate – Adults	Communication and Care Coordination
ECPR 13*	Three Day All Cause Return ED Visit Rate – Pediatrics	Communication and Care Coordination
GIQIC 6	Appropriate Follow-Up Interval for Normal Colonoscopy in Average Risk Patients	Communication and Care Coordination
GIQIC 10	Appropriate Management of Anticoagulation in the Peri-Procedural Period Rate – EGD	Communication and Care Coordination
GIQIC 11	Helicobacter Pylori (H. pylori) Status Rate	Communication and Care Coordination
GIQIC 15	Appropriate Follow-Up Interval of 3 Years Recommended Based on Pathology Findings from Screening Colonoscopy in Average-Risk Patients	Communication and Care Coordination
HCPR 6*	30 Day All Cause Readmission Rate for All Discharged Inpatients	Communication and Care Coordination
HCPR 7*	30 Day All Cause Readmission Rate Following Pneumonia Hospitalization	Communication and Care Coordination
HCPR 8*	30 Day All Cause Readmission Rate Following CHF Hospitalization	Communication and Care Coordination
HCPR 9*	30 Day All Cause Readmission Rate Following COPD Hospitalization	Communication and Care Coordination
ICLOPS 17	Rate of Follow Up Visits Within 7 Days of Discharge (Including Physician Response)	Communication and Care Coordination
ICLOPS 34	Screening for Clinical Depression	Communication and Care Coordination

Exhibit B.5 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
ICLOPS 44	Patients Treated with an Opioid Who Are Given a Bowel Regimen	Communication and Care Coordination
ICLOPS 47	Patients with Advanced Cancer Screened for Pain at Outpatient Visits	Communication and Care Coordination
ICLOPS 48	Palliative Care: Pain Screening	Communication and Care Coordination
ICLOPS 49	Palliative Care: Pain Assessment	Communication and Care Coordination
ICLOPS 50	Palliative Care: Dyspnea Treatment	Communication and Care Coordination
ICLOPS 51	Palliative Care: Dyspnea Screening	Communication and Care Coordination
M2S 3	Infra-inguinal Bypass for Claudication Patency Assessed at Least 9 Months Following Surgery	Communication and Care Coordination
M2S 6	Peripheral Vascular Intervention patency assessed at least 9 months following infra-inguinal PVI for claudication	Communication and Care Coordination
M2S 9	Imaging-based maximum aortic diameter assessed at least 9 months following Thoracic and Complex EVAR procedures	Communication and Care Coordination
M2S 11	Imaging-based maximum aortic diameter assessed at least 9 months following Endovascular AAA Repair procedures	Communication and Care Coordination
MBSAQIP 9	Percentage of Patients Who Dad Complete 30 Day Follow-Up Following Any Metabolic and Bariatric Procedure	Communication and Care Coordination
MSN 3*	Report Turnaround Time: Radiography	Communication and Care Coordination
MSN 4*	Report Turnaround Time: Ultrasound (Excluding Breast US)	Communication and Care Coordination
MSN 5*	Report Turnaround Time: MRI	Communication and Care Coordination
MSN 6*	Report Turnaround Time: CT	Communication and Care Coordination
MSN 7*	Report Turnaround Time: PET	Communication and Care Coordination
MUSIC 6*	Unplanned Hospital Readmission Within 30 Days of Radical Prostatectomy	Communication and Care Coordination
NHBPC 10	Telephone Contact, Virtual, or In-person Visit within 48 Hours of Hospital Discharge of Home-Based Primary Care and Palliative Care Patients	Communication and Care Coordination
NHBPC 13	Interdisciplinary Team Assessment for Home-Based Primary Care and Palliative Care Patients	Communication and Care Coordination
NHBPC 16	Patient Reported Outcome for Home-Based Primary Care and Palliative Care Practices: After Hours Contact Process and Provider Trust (Multiperformance Measure)	Communication and Care Coordination
NHQI 24	Patient Experience: Did the Patient Receive Adequate Instructions	Communication and Care Coordination
NJII 2	Increase Transitional Care Management	Communication and Care Coordination
NJII 5	Increase in billings for chronic care management (CCM) services	Communication and Care Coordination

Exhibit B.5 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
NJII 7	Increase in patients seen w/in 7 days post hospital discharge	Communication and Care Coordination
NJIISMD 4	Critical test: OR Foreign Body	Communication and Care Coordination
NJIISMD 5	Critical test: Stroke	Communication and Care Coordination
NJIISMD 6	Critical test: Intracranial Hemorrhage	Communication and Care Coordination
NJIISMD 7	Critical test: Aortic Dissection	Communication and Care Coordination
NJIISMD 13	Critical Test Protocol	Communication and Care Coordination
NOF 2	Risk Assessment/Treatment After Fracture	Communication and Care Coordination
NOF 3	Discharge Instructions: Emergency Department	Communication and Care Coordination
NPA 14	Medicine Reconciliation Following Spine Related Procedure	Communication and Care Coordination
NPA 15	Risk-Assessment for Elective Spine Procedure	Communication and Care Coordination
NPA 16	Depression and Anxiety Assessment Prior to Spine-Related Therapies	Communication and Care Coordination
NPA 17	Narcotic Pain Medicine Management Following Elective Spine Procedure	Communication and Care Coordination
NPAGSC 6	Depression and Anxiety Assessment Prior to Spine-Related Therapies	Communication and Care Coordination
NPAGSC 7	Narcotic Pain Medicine Management Prior to and Following Spine Therapy	Communication and Care Coordination
OBERD 1	Back Pain: Mental Health Assessment	Communication and Care Coordination
OBERD 2	Back Pain: Patient Reassessment	Communication and Care Coordination
OBERD 4	Pain Assessment and Follow-Up	Communication and Care Coordination
OBERD 6	Orthopedic Pain: Mental Health Assessment	Communication and Care Coordination
OBERD 7	Orthopedic Pain: Patient Reassessment	Communication and Care Coordination
OBERD 9	Orthopedic Pain: Assessment and Follow-Up	Communication and Care Coordination
OBERD 21	Provider Follow-Up of Patient Post-Acute Self-care	Communication and Care Coordination
ONSQIR 12	Post-Treatment Follow-Up Care	Communication and Care Coordination
PInc 1*	30 Day Readmission for Acute Myocardial Infarction	Communication and Care Coordination
PInc 2*	30 Day Readmission for Heart Failure	Communication and Care Coordination

Exhibit B.5 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
PInc 3*	30 Day Readmission for Pneumonia	Communication and Care Coordination
PInc 21	Thrombolytic Therapy	Communication and Care Coordination
PInc 22	Discharged on Statin Medication	Communication and Care Coordination
PInc 23	Stroke Education	Communication and Care Coordination
PInc 31*	Median Time from ED Arrival to ED Departure for Discharged ED Patients	Communication and Care Coordination
PInc 32*	Door to Diagnostic Evaluation by a Qualified Medical Professional	Communication and Care Coordination
QUANTUM 38	Functional Outcome Assessment; Overall Pain control during Episode of care: General, Regional Anesthesia	Communication and Care Coordination
QUANTUM 41*	Surgical Case Cancellation	Communication and Care Coordination
RPAQIR 5	Transplant Referral (PCPI Measure #: AKID-13)	Communication and Care Coordination
RPAQIR 13	Rate of Timely Documentation Transmission to Dialysis Unit/Referring Physician	Communication and Care Coordination
RPAQIR 18	Advance Directives Completed	Communication and Care Coordination
WCQIC 8*	Hyperbaric Oxygen Therapy: Timeliness of Starting HBOT	Communication and Care Coordination
WCQIC 14	Chronic Wound Care: Timeliness of Referral of Pressure Ulcer Patients to Plastic/Reconstructive Surgeon	Communication and Care Coordination
WELL 19	Adults Access to Preventive/Ambulatory Health Services	Communication and Care Coordination
WELL 23	Follow-Up After Hospitalization for Mental Illness	Communication and Care Coordination

Source: CMS, "2016 PQRS Measures List," available at: https://www.cms.gov/apps/ama/license.asp?file=/PQRS/downloads/PQRS_2016_Measure_List_01072016.xlsx.

*Lower performance rates on these measures indicate better performance. However, when standardizing measures for inclusion in the domain score, CMS transforms these measures to ensure that for all standardized scores entering the domain score, positive (+) scores indicate better performance and negative (-) scores indicate worse performance.

Exhibit B.6. Communication and Care Coordination Domain Quality Indicators (CMS-Calculated Quality Outcome Measures)

PQRS Number (GPRO/eCQM Number)	Measure Name	Quality Domain
CMS-1*	**Acute Conditions Composite**	Communication and Care Coordination
-	Bacterial Pneumonia	Communication and Care Coordination
-	Urinary Tract Infection	Communication and Care Coordination
-	Dehydration	Communication and Care Coordination
CMS-2*	**Chronic Conditions Composite**	Communication and Care Coordination
-	Diabetes (Composite of 4 Indicators)	Communication and Care Coordination
-	Chronic Obstructive Pulmonary Disease (COPD) or Asthma	Communication and Care Coordination
-	Heart Failure	Communication and Care Coordination
CMS-3*	**All-Cause Hospital Readmission**	Communication and Care Coordination

* Lower performance rates on these measures indicates better performance. However, when standardizing measures for inclusion in the domain score, CMS transforms these measures to ensure that for all standardized scores entering the domain score, positive (+) scores indicate better performance and negative (-) scores indicate worse performance. CMS-1, CMS-2, and CMS-3 are calculated by CMS using claims data.

Exhibit B.7. Efficiency and Cost Reduction Domain Quality Indicators

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
65	Appropriate Treatment for Children with Upper Respiratory Infection (URI)	Efficiency and Cost Reduction
65 (CMS154v4)	Appropriate Treatment for Children with Upper Respiratory Infection (URI) (eCQM)	Efficiency and Cost Reduction
66	Appropriate Testing for Children with Pharyngitis	Efficiency and Cost Reduction
66 (CMS146v4)	Appropriate Testing for Children with Pharyngitis (eCQM)	Efficiency and Cost Reduction
93	Acute Otitis Externa (AOE): Systemic Antimicrobial Therapy – Avoidance of Inappropriate Use	Efficiency and Cost Reduction
102	Prostate Cancer: Avoidance of Overuse of Bone Scan for Staging Low Risk Prostate Cancer Patients	Efficiency and Cost Reduction
102 (CMS129v5)	Prostate Cancer: Avoidance of Overuse of Bone Scan for Staging Low Risk Prostate Cancer Patients (eCQM)	Efficiency and Cost Reduction
116	Antibiotic Treatment for Adults with Acute Bronchitis: Avoidance of Inappropriate Use	Efficiency and Cost Reduction
146*	Radiology: Inappropriate Use of "Probably Benign" Assessment Category in Mammography Screening	Efficiency and Cost Reduction
224	Melanoma: Overutilization of Imaging Studies in Melanoma	Efficiency and Cost Reduction
312 (CMS166v5)	Use of Imaging Studies for Low Back Pain (eCQM)	Efficiency and Cost Reduction
322*	Cardiac Stress Imaging Not Meeting Appropriate Use Criteria: Preoperative Evaluation in Low-Risk Surgery Patients	Efficiency and Cost Reduction
323*	Cardiac Stress Imaging Not Meeting Appropriate Use Criteria: Routine Testing After Percutaneous Coronary Intervention (PCI)	Efficiency and Cost Reduction
324*	Cardiac Stress Imaging Not Meeting Appropriate Use Criteria: Testing in Asymptomatic, Low-Risk Patients	Efficiency and Cost Reduction
331*	Adult Sinusitis: Antibiotic Prescribed for Acute Sinusitis (Overuse)	Efficiency and Cost Reduction
332	Adult Sinusitis: Appropriate Choice of Antibiotic: Amoxicillin with or without Clavulanate Prescribed for Patients with Acute Bacterial Sinusitis (Appropriate Use)	Efficiency and Cost Reduction
333*	Adult Sinusitis: Computerized Tomography (CT) for Acute Sinusitis (Overuse)	Efficiency and Cost Reduction
334*	Adult Sinusitis: More than One Computerized Tomography (CT) Scan Within 90 Days for Chronic Sinusitis (Overuse)	Efficiency and Cost Reduction
340	HIV Medical Visit Frequency	Efficiency and Cost Reduction
415	Emergency Medicine: Emergency Department Utilization of CT for Minor Blunt Head Trauma for Patients Ages 18 Years and Older	Efficiency and Cost Reduction
416*	Emergency Medicine: Emergency Department Utilization of CT for Minor Blunt Head Trauma for Patients Ages 2 through 17 Years	Efficiency and Cost Reduction
419	Overuse of Neuroimaging for Patients with Primary Headache and a Normal Neurological Examination	Efficiency and Cost Reduction

Exhibit B.7 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
439*	Age Appropriate Screening Colonoscopy	Efficiency and Cost Reduction
AAAAI 7	Documented Rationale to Support Long-Term Aeroallergen Immunotherapy Beyond Five Years, as Indicated	Efficiency and Cost Reduction
AAN 6	Headache: Overuse of Barbiturate Containing Medications for Primary Headache Disorders	Efficiency and Cost Reduction
AAN 7	Headache: Overuse of Opioid Containing Medications for Primary Headache Disorders	Efficiency and Cost Reduction
ABG 10*	Day of Surgery Case Cancellation Rate	Efficiency and Cost Reduction
ABG 19*	Unplanned hospital admission post-op, including 23 hour stay	Efficiency and Cost Reduction
ABG 20*	Unplanned transfer ASC to hospital	Efficiency and Cost Reduction
ACCCath 9	PCI Procedures that were Inappropriate for Patients with Acute Coronary Syndrome (ACS)	Efficiency and Cost Reduction
ACCCath 10*	Median Length of Stay Post-PCI Procedure for Patients with STEMI and Without CABG or Without Other Major Surgery During Admission	Efficiency and Cost Reduction
ACCCath 11*	Median Length of Stay Post-PCI Procedure for Patients with a PCI Indication that Is Not STEMI and Without CABG or Without Other Major Surgery During Admission	Efficiency and Cost Reduction
ACEP 19	Emergency Department Utilization of CT for Minor Blunt Head Trauma for Patients Ages 18 Years and Older	Efficiency and Cost Reduction
ACEP 20*	Emergency Department Utilization of CT for Minor Blunt Head Trauma for Patients Ages 2 through 17 Years	Efficiency and Cost Reduction
ACEP 21*	Coagulation Studies in Patients Presenting with Chest Pain with No Coagulopathy or Bleeding	Efficiency and Cost Reduction
ACEP 22	Appropriate Emergency Department Utilization of CT for Pulmonary Embolism	Efficiency and Cost Reduction
ACRad 2	CT Colonography Clinically Significant Extracolonic Findings	Efficiency and Cost Reduction
ACRad 5*	Screening Mammography Abnormal Interpretation Rate (Recall Rate)	Efficiency and Cost Reduction
ACRad 23*	Lung Cancer Screening Abnormal Interpretation Rate	Efficiency and Cost Reduction
AHSQC 2*	Unplanned Hospital Readmission or Observation Visit within the 30 Day Postoperative Period	Efficiency and Cost Reduction
AHSQC 3*	Emergency Room Visit within the 30 Day Postoperative Period	Efficiency and Cost Reduction
AHSQC 8*	Ventral Hernia Repair: Biologic Mesh Prosthesis Use in Low Risk Patients	Efficiency and Cost Reduction
AQI 38*	Day of Surgery Case Cancellation Rate - Adult	Efficiency and Cost Reduction
AQI 39*	Day of Surgery Case Cancellation Rate - Pediatric	Efficiency and Cost Reduction
AQI 40*	Unplanned Transfer or Admission to Hospital	Efficiency and Cost Reduction

Exhibit B.7 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
AQUA 3	Cryptorchidism: Inappropriate use of scrotal/groin ultrasound on boys	Efficiency and Cost Reduction
AQUA 5*	Benign Prostate Hyperplasia: Do not order creatinine lab for patients	Efficiency and Cost Reduction
AQUA 6*	Benign Prostate Hyperplasia: Do not order upper-tract imaging	Efficiency and Cost Reduction
ARCO 3*	Behavioral Health, Neurology: Antipsychotic Use in Persons with Dementia	Efficiency and Cost Reduction
ARCO 5*	Musculoskeletal, Musculoskeletal: Low Back Pain: MRI Lumbar Spine for Low Back Pain	Efficiency and Cost Reduction
ASBS 10*	Management of the axilla in breast cancer patients undergoing breast conserving surgery with a positive sentinel node biopsy	Efficiency and Cost Reduction
ASNC 1*	Cardiac Stress Nuclear Imaging Not Meeting Appropriate Use Criteria: Preoperative Evaluation in Low Risk Surgery Patients	Efficiency and Cost Reduction
ASNC 2*	Cardiac Stress Nuclear Imaging Not Meeting Appropriate Use Criteria: Routine Testing After Percutaneous Coronary Intervention (PCI)	Efficiency and Cost Reduction
ASNC 3*	Cardiac Stress Nuclear Imaging Not Meeting Appropriate Use Criteria: Testing in Asymptomatic, Low-Risk Patients	Efficiency and Cost Reduction
ASNC 13	SPECT-MPI studies meeting appropriate use criteria	Efficiency and Cost Reduction
ASNC 14	PET-MPI studies meeting appropriate use criteria	Efficiency and Cost Reduction
ASNC 17	SPECT-MPI studies not Equivocal	Efficiency and Cost Reduction
ASNC 18	PET-MPI studies not Equivocal	Efficiency and Cost Reduction
ASPIRE 11	Colloid Use Limited in Cases with No Indication	Efficiency and Cost Reduction
ASPIRE 13	Transfusion Goal of Hematocrit Less than 30	Efficiency and Cost Reduction
CDR 8	Appropriate Use of Hyperbaric Oxygen Therapy for Patients with Diabetic Foot Ulcers	Efficiency and Cost Reduction
ECPR 39	Avoid Head CT for Patients with Uncomplicated Syncope	Efficiency and Cost Reduction
ECPR 41	Coagulation Studies in Patients Presenting with Chest Pain with No Coagulopathy or Bleeding	Efficiency and Cost Reduction
EPREOP 11*	Case Delay	Efficiency and Cost Reduction
GIQIC 8*	Age Appropriate Screening Colonoscopy	Efficiency and Cost Reduction
GIQIC 14	Repeat Screening Colonoscopy Recommended Within One Year Due to Inadequate Bowel Preparation	Efficiency and Cost Reduction
HCPR 2*	Mean Length of Stay for Inpatients – All Patients	Efficiency and Cost Reduction
HCPR 3*	Mean Length of Stay for Inpatients – Pneumonia	Efficiency and Cost Reduction
HCPR 4*	Mean Length of Stay for Inpatients – CHF	Efficiency and Cost Reduction

Exhibit B.7 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
HCPR 5*	Mean Length of Stay for Inpatients – COPD	Efficiency and Cost Reduction
ICLOPS 15	Excess Days Rate and Degree of Excess (Including Physician Response)	Efficiency and Cost Reduction
ICLOPS 16	Re-Admission Rate Within 30 Days (Including Physician Response)	Efficiency and Cost Reduction
ICLOPS 23	Physician Response to ACSC Admissions: Diabetes Composite	Efficiency and Cost Reduction
ICLOPS 24	Physician Response to ACSC Admissions: Cardiopulmonary Composite	Efficiency and Cost Reduction
ICLOPS 25	Physician Response to ACSC Admissions: Acute Conditions Composite	Efficiency and Cost Reduction
ICLOPS 30	Physician Response for Reoperation or Complication Following a Procedure	Efficiency and Cost Reduction
ICLOPS 32*	Patient seen in Emergency Department within 7 days after discharge from a hospital	Efficiency and Cost Reduction
ICLOPS 33*	Patient seen in Emergency Department within 90 days after discharge from a hospital	Efficiency and Cost Reduction
ICLOPS 35	Medical Visit/ Telemedicine Contact Frequency: Diabetes	Efficiency and Cost Reduction
ICLOPS 36	Medical Visit/ Telemedicine Contact Frequency: Heart Failure	Efficiency and Cost Reduction
ICLOPS 37	Medical Visit/ Telemedicine Contact Frequency: Chronic Obstructive Pulmonary Disease (COPD)	Efficiency and Cost Reduction
ICLOPS 38	Medical Visit/ Telemedicine Contact Frequency: Coronary Artery Disease (CAD)	Efficiency and Cost Reduction
MBS 7*	Extended Length of Stay (LOS)	Efficiency and Cost Reduction
MBS 8*	Unplanned Emergency Room (ER) Visits	Efficiency and Cost Reduction
MBS 9*	Unplanned Hospital Readmission Within 30 Days of Principal Procedure	Efficiency and Cost Reduction
MBSAQIP 2*	Risk standardized rate of patients who experienced an unplanned readmission within 30 days following primary LRYGB or LSG operation	Efficiency and Cost Reduction
MBSAQIP 3*	Risk standardized rate of patients who experienced a reoperation within 30 days following a primary LRYGB or LSG operation	Efficiency and Cost Reduction
MIRAMED 8	Case Cancellation Rate	Efficiency and Cost Reduction
MIRAMED 9	Case Delay Rate	Efficiency and Cost Reduction
MMA 2	Appropriate Use of Advanced Imaging by Ordering Provider	Efficiency and Cost Reduction
MMA 3	Glucocorticoid Use for Symptom Management and Motor Neuron Sparing while Awaiting Advanced Imaging	Efficiency and Cost Reduction
MMA 4	Manipulative Medicine Treatment Adjustment Due to Clinical Improvement	Efficiency and Cost Reduction

Exhibit B.7 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
MMA 5	Inappropriate Use of Urgent/Emergent Care in Chronic Pain	Efficiency and Cost Reduction
MOA 2	Appropriate Use of Advanced Imaging by Ordering Provider	Efficiency and Cost Reduction
MOA 3	Glucocorticoid Use for Symptom Management and Motor Neuron Sparing while Awaiting Advanced Imaging	Efficiency and Cost Reduction
MOA 4	Manipulative Medicine Treatment Adjustment Due to Clinical Improvement	Efficiency and Cost Reduction
MOA 5	Inappropriate Use of Urgent/Emergent Care in Chronic Pain	Efficiency and Cost Reduction
MSN 1	CT Colonography Clinically Significant Extracolonic Findings	Efficiency and Cost Reduction
MSN 2	Screening Mammography Abnormal Interpretation Rate (Recall Rate)	Efficiency and Cost Reduction
MUSIC 3	Prostate Cancer: Avoidance of Overuse of CT Scan for Staging Low Risk Prostate Cancer Patients	Efficiency and Cost Reduction
NHBPC 11	Medication Reconciliation within 2 Weeks of Hospital Discharge of Home-Based Primary Care and Palliative Care Patients	Efficiency and Cost Reduction
NHCR 4	Repeat Colonoscopy Recommended Due to Poor Bowel Preparation	Efficiency and Cost Reduction
NHCR 6*	Age Inappropriate Screening Colonoscopy	Efficiency and Cost Reduction
NHQI 30*	Day of Surgery Case Cancellation Rate - Adult	Efficiency and Cost Reduction
NHQI 31*	Day of Surgery Case Cancellation Rate - Pediatric	Efficiency and Cost Reduction
NHQI 32*	Unplanned Transfer or Admission to Hospital	Efficiency and Cost Reduction
NJII 1*	Potentially Preventable ER Visits	Efficiency and Cost Reduction
OBERD 5*	Back Pain: Surgical Timing	Efficiency and Cost Reduction
PInc 33*	Risk-Adjusted Average Length of Inpatient Hospital Stay for Acute Myocardial Infarction (AMI)	Efficiency and Cost Reduction
PInc 34*	Risk-Adjusted Average Length of Inpatient Hospital Stay for Heart Failure (HF)	Efficiency and Cost Reduction
PInc 35*	Risk-Adjusted Average Length of Inpatient Hospital Stay for Pneumonia (PN)	Efficiency and Cost Reduction
PPRNET 24	Appropriate Treatment for Adults with Upper Respiratory Infection	Efficiency and Cost Reduction
PPRNET 25	Appropriate Antibiotic Use	Efficiency and Cost Reduction
QOPI 4	Performance Status Documented Prior to Initiating Chemotherapy	Efficiency and Cost Reduction
QOPI 5*	Chemotherapy Administered to Patients with Metastatic Solid Tumors and Performance Status of 3, 4, or Undocumented (Lower Score – Better)	Efficiency and Cost Reduction

Exhibit B.7 *(continued)*

PQRS or QCDR Number (GPRO/eCQM Number)	Measure Name	Quality Domain
QOPI 15*	GCSF Administered to Patients Who Received Chemotherapy for Metastatic Cancer (Lower Score – Better)	Efficiency and Cost Reduction
STS 1*	Prolonged Length of Stay Following CABG	Efficiency and Cost Reduction
STS 2	Short Length of Stay Following CABG	Efficiency and Cost Reduction
STS 3*	Prolonged Length of Stay Following CABG and Valve Surgery	Efficiency and Cost Reduction
STS 4	Short Length of Stay Following CABG and Valve Surgery	Efficiency and Cost Reduction
STS 5*	Prolonged Length of Stay Following Valve Surgery	Efficiency and Cost Reduction
STS 6	Short Length of Stay Following Valve Surgery	Efficiency and Cost Reduction
WELL 17	Use of Imaging Studies for Low Back Pain	Efficiency and Cost Reduction

Source: CMS, "2016 PQRS Measures List," available at: https://www.cms.gov/apps/ama/license.asp?file=/PQRS/downloads/PQRS_2016_Measure_List_01072016.xlsx.

*Lower performance rates on these measures indicate better performance. However, the domain score for this domain has been calculated such that positive (+) scores indicate better performance and negative (-) scores indicate worse performance.

APPENDIX C

APPROACH TO PQRS MEASURES AND NON-PQRS QCDR MEASURES WITH MULTIPLE PERFORMANCE RATES OR TECHNICAL ISSUES

In 2016, several PQRS measures and non-PQRS QCDR measures included in the Annual QRUR have multiple sub-measures, where one sub-measure may or may not represent a single overall performance rate. Exhibit C.1 displays measures for which a single sub-measure represents the overall rate. Exhibit C.2 displays measures for which no sub-measure represents the overall performance rate and describes CMS' approach to measures with technical issues.

Exhibit C.1. Approach to PQRS Measures and non-PQRS QCDR Measures with Multiple Performance Rates

PQRS Number (GPRO/eCQM Number) or Non-PQRS QCDR Measure Number	Measure Name	Reporting Method(s) Affected	Approach
7 (CMS145v4)	Coronary Artery Disease (CAD): Beta-Blocker Therapy—Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVSD) (LVEF < 40%)	EHR, Registry, QCDR (using EHR or Registry measure specifications)	Overall rate is computed as the case-weighted mean of each sub-measure if reported through EHR or Registry, or through QCDR using EHR or Registry specifications.
9 (CMS128v4)	Anti-Depressant Medication Management	EHR, QCDR (using EHR measure specifications)	Overall rate is computed as the simple mean of each sub-measure if reported through EHR or through QCDR using EHR specifications.
46	Medication Reconciliation Post-Discharge	Claims, Registry, QCDR (using Claims and Registry measure specifications)	The third sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through Claims or Registry, or through QCDR using Claims or Registry specifications.
53	Asthma: Pharmacologic Therapy for Persistent Asthma – Ambulatory Care Setting	Registry, QCDR (using Registry measure specifications)	The third sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through Registry or through QCDR using Registry specifications.
122	Adult Kidney Disease: Blood Pressure Management	Registry, QCDR (using Registry measure specifications)	The third sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through Registry or through QCDR using Registry specifications.
128 (CMS69v4)	Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan	EHR, QCDR (using EHR measure specifications)	Overall rate is computed as the case-weighted mean of each sub-measure if reported through EHR or through QCDR using EHR specifications.
160 (CMS52v4)	HIV/AIDS: Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis	EHR, QCDR (using EHR measure specifications)	Overall rate is computed as the case-weighted mean of each sub-measure if reported through EHR or through QCDR using EHR specifications.
238 (CMS156v4)	Use of High-Risk Medications in the Elderly	EHR, Registry, QCDR (using EHR or Registry measure specifications)	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through EHR or Registry, or through QCDR using EHR or Registry specifications.

Exhibit C.1 *(continued)*

PQRS Number (GPRO/eCQM Number) or Non-PQRS QCDR Measure Number	Measure Name	Reporting Method(s) Affected	Approach
239 (CMS155v4)	Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents	EHR, QCDR (using EHR measure specifications)	Overall rate is computed as the simple mean of each sub-measure if reported through EHR or through QCDR using EHR specifications.
241 (CMS182v5)	Ischemic Vascular Disease (IVD): Complete Lipid Profile and LDL-C Control (< 100 mg/dL)	EHR, QCDR (using EHR measure specifications)	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through EHR, or through QCDR using EHR specifications.
305 (CMS137v4)	Initiation and Engagement of Alcohol and Other Drug Dependence Treatment	EHR, QCDR (using EHR measure specifications)	Overall rate is computed as the simple mean of each sub-measure if reported through EHR or through QCDR using EHR specifications.
316a (CMS61v5)	Preventive Care and Screening: Cholesterol – Fasting Low Density Lipoprotein (LDL-C) Test Performed	EHR, QCDR (using EHR measure specifications)	Overall rate is computed as the case-weighted mean of each sub-measure if reported through EHR or through QCDR using EHR specifications.
316b (CMS64v5)	Preventive Care and Screening: Risk-Stratified Cholesterol – Fasting Low Density Lipoprotein (LDL-C)	EHR, QCDR (using EHR measure specifications)	Overall rate is computed as the case-weighted mean of each sub-measure if reported through EHR or through QCDR using EHR specifications.
348	HRS-3: Implantable Cardioverter-Defibrillator (ICD) Complications Rate	Registry, QCDR (using Registry measure specifications)	Overall rate is computed as the case-weighted mean of each sub-measure if reported through Registry or through QCDR using Registry specifications.
366 (CMS136v5)	ADHD: Follow-Up Care for Children Prescribed Attention-Deficit/Hyperactivity Disorder (ADHD) Medication	EHR, QCDR (using EHR measure specifications)	Overall rate is computed as the simple mean of each sub-measure if reported through EHR or through QCDR using EHR specifications.
371 (CMS160v4)	Depression Utilization of the PHQ-9 Tool	EHR, QCDR (using EHR measure specifications)	Overall rate is computed as the case-weighted mean of each sub-measure if reported through EHR or through QCDR using EHR specifications.
391	Follow-up After Hospitalization for Mental Illness (FUH)	Registry, QCDR (using Registry measure specifications)	The second sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through Registry or through QCDR using Registry specifications.
392	HRS-12: Cardiac Tamponade and/or Pericardiocentesis Following Atrial Fibrillation Ablation	Registry, QCDR (using Registry measure specifications)	The fifth sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through Registry or through QCDR using Registry specifications.

Exhibit C.1 *(continued)*

PQRS Number (GPRO/eCQM Number) or Non-PQRS QCDR Measure Number	Measure Name	Reporting Method(s) Affected	Approach
394	Immunizations for Adolescents	Registry, QCDR (using Registry measure specifications)	The third sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported via Registry or via QCDR using Registry specifications.
398	Optimal Asthma Control	Registry, QCDR (using Registry measure specifications)	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through Registry or through QCDR using Registry specifications.
399	Post-Procedural Optimal Medical Therapy Composite (Percutaneous Coronary Intervention)	Registry, QCDR (using Registry measure specifications)	The first sub-measure, which measure specifications define as the overall rate is used as the overall rate if reported through Registry or through QCDR using Registry specifications.
ACCCath 3	Vascular access site injury requiring treatment or major bleeding post PCI in patients without CABG or other major surgeries during admission	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
ACCCath 6	ACE-I or ARB prescribed at discharge for patients with an ejection fraction < 40% who had a PCI during the episode of care	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
ACCCath 8	Percutaneous Coronary Intervention (PCI): Post-procedural Optimal Medical Therapy	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
ACEP 32	ED Length of Stay (LOS) for Adult Patients Discharged from All EDs	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
ACEP 33	ED Length of Stay (LOS) for Adult Patients Discharged from Supercenter EDs	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
ACEP 34	ED Length of Stay (LOS) for Adult Patients Discharged from Very High Volume EDs	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
ACEP 35	ED Length of Stay (LOS) for Adult Patients Discharged from High Volume EDs	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
ACEP 36	ED Length of Stay (LOS) for Adult Patients Discharged from Average Volume EDs	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.

Exhibit C.1 *(continued)*

PQRS Number (GPRO/eCQM Number) or Non-PQRS QCDR Measure Number	Measure Name	Reporting Method(s) Affected	Approach
ACEP 37	ED Length of Stay (LOS) for Adult Patients Discharged from Moderate Volume EDs	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
ACEP 38	ED Length of Stay (LOS) for Adult Patients Discharged from Low Volume EDs	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported via QCDR.
ACEP 39	ED Length of Stay (LOS) for Adult Patients Discharged from Freestanding EDs	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
ACEP 40	ED Length of Stay for Pediatric Patients Discharged from All EDs	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
ACEP 41	ED Length of Stay for Pediatric Patients Discharged from Supercenter EDs	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
ACEP 42	ED Length of Stay (LOS) for Pediatric Patients Discharged from Very High Volume EDs	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
ACEP 43	ED Length of Stay for Pediatric Patients Discharged from High Volume EDs	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
ACEP 44	ED Length of Stay (LOS) for Pediatric Patients Discharged from Average Volume EDs	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
ACEP 45	ED Length of Stay (LOS) for Pediatric Patients Discharged from Moderate Volume EDs	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
ACEP 46	ED Length of Stay (LOS) for Pediatric Patients Discharged from Low Volume EDs	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
ACEP 47	ED Length of Stay (LOS) for Pediatric Patients Discharged from Freestanding EDs	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.

Exhibit C.1 *(continued)*

PQRS Number (GPRO/eCQM Number) or Non-PQRS QCDR Measure Number	Measure Name	Reporting Method(s) Affected	Approach
AHSQC 6	Ventral Hernia Repair with Myofascial Release Surgical Site Occurrence Requiring Procedural Intervention within the 30 Day Postoperative Period	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
AQUA 1	Prostate Cancer: Documentation of PSA, Gleason score and clinical stage for risk stratification	QCDR	The fourth sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
CUHSM 2	Proportion of Days Covered (PDC): 5 Rates by Therapeutic Category	QCDR	The sixth sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
ICLOPS 15	Excess Days Rate and Degree of Excess (Including Physician Response)	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
ICLOPS 16	Re-admission Rate Within 30 Days (Including Physician Response)	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
ICLOPS 17	Rate of Follow Up Visits Within 7 Days of Discharge (Including Physician Response)	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
MBS 1	Medical Complications	QCDR	The fifth sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
MBS 2	Surgical Site Complications	QCDR	The fifth sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
MBS 3	Serious Complications	QCDR	The twenty-third sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
NHBPC 7	New Cognitive Decline in Home-Based Primary Care and Palliative Care Patients: Medication List Reviewed and Offending Medications Discontinued	QCDR	The second sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.

Exhibit C.1 *(continued)*

PQRS Number (GPRO/eCQM Number) or Non-PQRS QCDR Measure Number	Measure Name	Reporting Method(s) Affected	Approach
NHBPC 15	Functional Assessment (Basic Activities of Daily Living [BADL] and Instrumental Activities of Daily Living [IADL]) for Home-Based Primary Care and Palliative Care Patients	QCDR	The third sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
NHBPC 16	Patient Reported Outcome for Home-Based Primary Care and Palliative Care Practices: After Hours Contact Process and Provider Trust (Multiperformance Measure)	QCDR	The third sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
NPA 1	Spine Pain Assessment	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
NPA 2	Extremity (Radicular) Pain Assessment	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
NPA 3	Functional Outcome Assessment for Spine Intervention	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
NPA 4	Quality-of-Life Assessment for Spine Intervention	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
NPA 5	Patient Satisfaction with Spine Care	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
NPA 6	Spine-related procedure site infection	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
NPA 7	Complication Following Spine-Related Procedure	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
NPA 8	Hospital Mortality Following Spine Procedure	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.

Exhibit C.1 *(continued)*

PQRS Number (GPRO/eCQM Number) or Non-PQRS QCDR Measure Number	Measure Name	Reporting Method(s) Affected	Approach
NPA 9	Referral for Post-Acute Care Rehabilitation	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
NPA 10	Unplanned Reoperation Following Spine Procedure Within the 30 Day Post-Operative Period	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
NPA 11	Unplanned Readmission Following Spine Procedure Within the 30 Day Post-Operative Period	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
NPA 12	Selection of Prophylactic Antibiotic Prior to Spine Procedure	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
NPA 13	Discontinuation of Prophylactic Parenteral Antibiotics Following Spine Procedure	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
NPA 14	Medicine Reconciliation Following Spine Related Procedure	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
NPA 15	Risk Assessment for Elective Spine Procedure	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
NPA 16	Depression and Anxiety Assessment Prior to Spine-Related Therapies	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
NPA 17	Narcotic Pain Medicine Management Following Elective Spine Procedure	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
NPA 18	Smoking Assessment and Cessation Coincident with Spine Related Therapies	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
NPA 19	Body Mass Assessment and Follow-Up Coincident with Spine Related Therapies	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
NPA 20	Unhealthy Alcohol Use Assessment Coincident With Spine Care	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.

Exhibit C.1 *(continued)*

PQRS Number (GPRO/eCQM Number) or Non-PQRS QCDR Measure Number	Measure Name	Reporting Method(s) Affected	Approach
NPA 21	Participation in a Systematic National Database for Spine Care Interventions	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
OBERD 2	Back Pain: Patient Reassessment	QCDR	The third sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
OBERD 7	Orthopedic Pain: Patient Reassessment	QCDR	The third sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
OBERD 13	Orthopedic Functional and Pain Level Outcomes	QCDR	The sixth sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
OBERD 16	Orthopedic 3-Month Surgery Success Rate	QCDR	The second sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
OBERD 17	CG-CAHPS Patient Rating	QCDR	The eighth sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
QUANTUM 40	Surgical Fire	QCDR	The third sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
STS 2	Short Length of Stay Following CABG	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
STS 4	Short Length of Stay Following CABG and Valve Surgery	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
STS 6	Short Length of Stay Following Valve Surgery	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
STS 7	Patient Centered Surgical Risk Assessment and Communication using the STS Risk Calculator	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
WELL 15	Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.

Exhibit C.1 *(continued)*

PQRS Number (GPRO/eCQM Number) or Non-PQRS QCDR Measure Number	Measure Name	Reporting Method(s) Affected	Approach
WELL 19	Adults' Access to Preventive/Ambulatory Health Services	QCDR	The fourth sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
WELL 22	Children and Adolescents' Access to Primary Care Practitioners	QCDR	The fifth sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.
WELL 23	Follow-Up After Hospitalization for Mental Illness	QCDR	The first sub-measure, which measure specifications define as the overall rate, is used as the overall rate if reported through QCDR.

Exhibit C.2. Approach to PQRS Measures and non-PQRS QCDR Measures with Technical Issues

PQRS Number (GPRO/eCQM Number) or Non-PQRS QCDR Measure Number	Measure Name	Reporting Method(s) Affected	Approach
112 (CMS125v4) (GPRO PREV-5)	Breast Cancer Screening	All reporting methods	Submissions made through all reporting mechanisms are excluded from the QRUR and Value Modifier because of discrepancies in performance rates due to the use of 3D mammography.
370 (GPRO MH-1) (CMS159v4)	Depression Remission at Twelve Months	GPRO Web Interface	Submissions made through the GPRO Web Interface are excluded from the QRUR and Value Modifier because many TINs do not use the PHQ-9 screening tool required for this measure.
AQUA 10	Prostate Cancer: Patient report of Urinary function after treatment	QCDR	Submissions made through QCDR are excluded from the QRUR and Value Modifier because the measure was incorrectly submitted as a continuous measure, instead of a proportional measure.
AQUA 11	Prostate Cancer: Patient report of Sexual function after treatment	QCDR	Submissions made through QCDR are excluded from the QRUR and Value Modifier because the measure was incorrectly submitted as a continuous measure, instead of a proportional measure.
ASPS 5	Breast Reconstruction: Return to OR	QCDR	Submissions made through QCDR are excluded from the QRUR and Value Modifier because the measure was incorrectly submitted as a continuous measure, instead of a proportional measure.
ASPS 6	QRUR Display: Submissions made via QCDR will not be displayed in the QRUR.		Submissions made through QCDR are excluded from the QRUR and Value Modifier because the measure was incorrectly submitted as a continuous measure, instead of a proportional measure.
CDR 2	Diabetic Foot Ulcer (DFU) Healing or Closure	QCDR	Submissions made through QCDR are excluded from the QRUR and Value Modifier because the measure was incorrectly submitted as a continuous measure, instead of a proportional measure.
CDR 6	Venous Leg Ulcer outcome measure: Healing or Closure	QCDR	Submissions made through QCDR are excluded from the QRUR and Value Modifier because the measure was incorrectly submitted as a continuous measure, instead of a proportional measure.
USWR 15	Healing or Closure of Wagner Grade 3, 4, or 5 Diabetic Foot Ulcers (DFUs) Treated with HBOT	QCDR	Submissions made through QCDR are excluded from the QRUR and Value Modifier because the measure was incorrectly submitted as a continuous measure, instead of a proportional measure.

APPENDIX D

METHOD FOR DEFINING SERVICE CATEGORIES

For the purposes of reporting cost breakdowns by category of service for the per capita cost measures (shown in Tables 3A, 3B, 4A, 4B, 4C, and 4D of the Annual QRUR), each Medicare claim for an attributed beneficiary is categorized into one of the service categories displayed in Exhibit D.1. Claim costs are included in a given service category based on the claim type, Berenson-Eggers Type of Service (BETOS) code, place of service, type of bill, type of service, HCPCS modifier, and/or provider type.

For the purposes of reporting cost breakdowns by category of service for the MSPB measure (shown in Tables 5C and 5D of the Annual QRUR), each claim associated with an MSPB episode is categorized into one of the service categories displayed in Exhibit D.2. Episode costs are included in a given service category based on the claim type, BETOS code, claim criteria, and provider type.

CMS assigns a BETOS code to each HCPCS code that might appear on a carrier or outpatient hospital claim. CMS developed the BETOS coding system primarily for analyzing the growth in Medicare expenditures. The coding system covers all HCPCS codes, assigns a HCPCS code to one, and only one, BETOS code, consists of readily understood clinical categories (as opposed to statistical or financial categories), consists of categories that permit objective assignment, is stable over time, and is relatively immune to minor changes in technology or practice patterns. Exhibit D.3 lists BETOS code descriptions.

Exhibit D.1. Categorization Codes for Type of Service Categories for Per Capita Cost Measures

		Criteria for Including Claim (Line Item) in Category		
Category	**Claim Type(s)**	**Claim Criterion**	**Place of Service Criterion**	**Specialty Criterion**
Outpatient E&M Services, Procedures, and Therapy (Excluding Emergency Department)	Sum of 1a, 1b, 2a, 2b, 2c, 2d, 2e			
1a. E&M Services Billed by Eligible Professionals – Your TIN	Carrier claim line items	All Carrier line items with BETOS in {M1-M6}, HCPCS modifier* not equal to GN, GO, or GP (outpatient therapy), and Type of Service not equal to F (Ambulatory Surgical Center)	Place of Service not equal to 23 (emergency department), 21 (inpatient hospital), or 51 (inpatient psychiatric facility)	CMS specialty code NOT in {31, 45, 47, 49, 51–61, 63, 69, 73–75, 87–88, 95–96, A0–A8, B1–B5, C1, C2, or C4} AND limited to Carrier line items provided by a rendering NPI associated with the TIN (“Your TIN”)

Exhibit D.1 *(continued)*

Category	Claim Type(s)	Criteria for Including Claim (Line Item) in Category		
		Claim Criterion	Place of Service Criterion	Specialty Criterion
1b. E&M Services Billed by Eligible Professionals – Other TINs	Carrier claim line items	All Carrier line items with BETOS in {M1-M6}, HCPCS modifier* not equal to GN, GO, or GP (outpatient therapy), and Type of Service not equal to F (Ambulatory Surgical Center)	Place of Service not equal to 23 (emergency room), 21 (inpatient hospital), or 51 (inpatient psychiatric facility)	CMS specialty code NOT in {31, 45, 47, 49, 51–61, 63, 69, 73–75, 87–88, 95–96, A0–A8, B1–B5, C1, C2, or C4} AND limited to Carrier line items provided by a rendering NPI NOT associated with the TIN ("Other TINs")
2a. Major Procedures Billed by Eligible Professionals – Your TIN	Carrier claim line items	All Carrier line items with BETOS in {P1-P3, P7}, HCPCS modifier* not in GN, GO, or GP (outpatient therapy), and Type of Service not equal to F (Ambulatory Surgical Center)	Place of Service not equal to 23 (emergency department), 21 (inpatient hospital), or 51 (inpatient psychiatric facility)	CMS specialty code NOT in {31, 45, 47, 49, 51–61, 63, 69, 73–75, 87–88, 95–96, A0–A8, B1–B5, C1, C2, or C4} AND limited to Carrier line items provided by a rendering NPI associated with the TIN ("Your TIN")
2b. Major Procedures Billed by Eligible Professionals – Other TINs	Carrier claim line items	All Carrier line items with BETOS in {P1-P3, P7}, HCPCS modifier* not in GN, GO, or GP (outpatient therapy), and Type of Service not equal to F (Ambulatory Surgical Center)	Place of Service not equal to 23 (emergency department), 21 (inpatient hospital), or 51 (inpatient psychiatric facility)	CMS specialty code NOT in {31, 45, 47, 49, 51–61, 63, 69, 73–75, 87–88, 95–96, A0–A8, B1–B5, C1, C2, or C4} AND limited to carrier line items provided by a rendering NPI NOT associated with the TIN ("Other TINs")
2c. Ambulatory/ Minor Procedures Billed by Eligible Professionals – Your TIN	Carrier claim line items	All carrier line items with BETOS in {P4-P6, P8}, HCPCS modifier* not equal to GN, GO, or GP (outpatient therapy), and Type of Service not equal to F (Ambulatory Surgical Center)	Place of Service not equal to 23 (emergency department), 21 (inpatient hospital), or 51 (inpatient psychiatric facility)	CMS specialty code NOT in {31, 45, 47, 49, 51–61, 63, 69, 73–75, 87–88, 95–96, A0–A8, B1–B5, C1, C2, or C4} AND limited to carrier line items provided by a rendering NPI associated with the TIN ("Your TIN")

Exhibit D.1 *(continued)*

Category	Claim Type(s)	Criteria for Including Claim (Line Item) in Category		
		Claim Criterion	Place of Service Criterion	Specialty Criterion
2d. Ambulatory/ Minor Procedures Billed by Eligible Professionals –Other TINs	Carrier claim line items	All carrier line items with BETOS in {P4-P6, P8}, HCPCS modifier* not equal to GN, GO, or GP (outpatient therapy), and Type of Service not equal to F (Ambulatory Surgical Center)	Place of Service not equal to 23 (emergency department), 21 (inpatient hospital), or 51 (inpatient psychiatric facility)	CMS specialty code NOT in {31, 45, 47, 49, 51–61, 63, 69, 73–75, 87–88, 95–96, A0–A8, B1–B5, C1, C2, or C4} AND limited to carrier line items provided by a rendering NPI NOT associated with the TIN ("Other TINs")
2e. Outpatient Physical, Occupational, or Speech and Language Pathology Therapy	Outpatient claim line items plus carrier claim line items	All claims/line items with HCPCS modifier* equal to GN, GO, or GP, BETOS code not in {P0, P9, O1A, O1D, O1E, or D1G}, and, for outpatient claims, Type of Bill not equal to 22x or 23x (SNF), 33x or 34x (Home Health), or 72x (dialysis)	For carrier claim line items, Place of Service not equal to 23 (emergency department), 21 (inpatient hospital), or 51 (inpatient psychiatric facility); For outpatient claims, Revenue Center line code is NOT in {0450-0459, 0981} (emergency department)	Not applicable
3. Ancillary Services	Sum of 3a, 3b, 3c			
3a. Ancillary services: Laboratory, Pathology, and Other Tests	Outpatient claim line items plus carrier claim line items	All BETOS codes in {T1, T2}; HCPCS modifier* not equal to GN, GO, or GP; and for outpatient Claims, Type of Bill not equal to 22x or 23x (SNF), 33x or 34x (Home Health), or 72x (dialysis)	For carrier claim line items, Place of Service not equal to 23 (emergency department), 21 (inpatient hospital), or 51 (inpatient psychiatric facility); For outpatient claims, Revenue Center line code is NOT in {0450-0459, 0981}	Not applicable
3b. Ancillary services: Imaging Services	Outpatient claim line items plus carrier claim line items	All BETOS codes in {I1-I4}; HCPCS modifier* not equal to GN, GO, or GP; and for outpatient Claims, Type of Bill not equal to 22x or 23x (SNF), 33x or 34x (Home Health), or 72x (dialysis)	For carrier claim line items, Place of Service not equal to 23 (emergency department), 21 (inpatient hospital), or 51 (inpatient psychiatric facility); For outpatient claims, Revenue Center line code is NOT in {0450-0459, 0981}	Not applicable

Exhibit D.1 *(continued)*

Category	Claim Type(s)	Criteria for Including Claim (Line Item) in Category		
		Claim Criterion	Place of Service Criterion	Specialty Criterion
3c. Ancillary services: Durable Medical Equipment and Supplies	Durable medical equipment claims	All DME claims with BETOS code not in {O1D, O1E, D1G}	Not applicable	Not applicable
4. Hospital Inpatient Services	Sum of 4a, 4b, 4c			
4a. Hospital Inpatient Services: Inpatient Hospital Facility Services	Inpatient claims	Inpatient short-stay and psychiatric inpatient claims	Provider (CCN) number ends in {0001-0899}, {1300-1399}, {4000–4499} or its third position is in {M, S}	Not applicable
4b. Hospital Inpatient Services: Eligible Professional Services during Hospitalization—Your TIN	Carrier claim line items	All carrier line items with BETOS not in {P0, P9, O1A, O1D, O1E, or D1G}	Place of Service equal to 21 (inpatient hospital) or 51 (inpatient psychiatric facility)	CMS specialty code NOT in {31, 45, 47, 49, 51–61, 63, 69, 73–75, 87–88, 95–96, A0–A8, B1–B5, C1, C2, or C4} AND limited to carrier line items provided by a rendering NPI associated with the TIN ("Your TIN")
4c. Hospital Inpatient Services: Eligible Professional Services during Hospitalization—Other TINs	Carrier claim line items	All carrier line items with BETOS not in {P0, P9, O1A, O1D, O1E, or D1G}	Place of Service equal to 21 (inpatient hospital) or 51 (inpatient psychiatric facility)	CMS specialty code NOT in {31, 45, 47, 49, 51–61, 63, 69, 73–75, 87–88, 95–96, A0–A8, B1–B5, C1, C2, or C4} AND limited to carrier line items provided by a rendering NPI NOT associated with the TIN ("Other TINs")
5. Emergency Services That Did Not Result in a Hospital Admission	Sum of 5a, 5b, 5c, 5d			
5a. Emergency Services: Emergency E&M Services	Outpatient claim line items plus carrier claim line items	All BETOS codes in {M1-M6} and, for outpatient claims, Type of Bill not equal to 72x (dialysis)	For carrier claim line items, Place of Service equal to 23; For outpatient claims, Revenue Center line code in {0450-0459, 0981}	None for outpatient claims;** for carrier claims: CMS specialty code NOT in {31, 45, 47, 49, 51–61, 63, 69, 73–75, 87–88, 95–96, A0–A8, B1–B5, C1, C2, or C4}

Exhibit D.1 *(continued)*

Category	Claim Type(s)	Criteria for Including Claim (Line Item) in Category		
		Claim Criterion	Place of Service Criterion	Specialty Criterion
5b. Emergency Services: Procedures	Outpatient claim line items plus carrier claim line items	All BETOS codes in {P1-P8} and, for outpatient claims, Type of Bill not equal to 72x (dialysis)	For carrier claim line items, Place of Service equal to 23; For outpatient claims, Revenue Center line code in {0450-0459, 0981}	None for outpatient claims;** for carrier claims: CMS specialty code NOT in {31, 45, 47, 49, 51–61, 63, 69, 73–75, 87–88, 95–96, A0–A8, B1–B5, C1, C2, or C4}
5c. Emergency Services: Laboratory, Pathology, and Other Tests	Outpatient claim line items plus carrier claim line items	All BETOS codes in {T1, T2} and, for outpatient claims, Type of Bill not equal to 72x (dialysis)	For carrier claim line items, Place of Service equal to 23; For outpatient claims, Revenue Center line code in {0450-0459, 0981}	Not applicable
5d. Emergency Services: Imaging Services	Outpatient claim line items plus carrier claim line items	All BETOS codes in {I1-I4} and, for outpatient claims, type of bill not equal to 72x (dialysis)	For carrier claim line items, Place of Service equal to 23; For outpatient claims, Revenue Center line code in {0450-0459, 0981}	Not applicable
6. Post-Acute Services	Sum of 6a, 6b, 6c			
6a. Post-Acute Services: Home Health	Home health claims and outpatient claim line items	All home health claims and all outpatient claims with Type of Bill equal to 33x or 34x and BETOS code not in {P0, P9, O1A, O1D, O1E, D1G}	None for Home Health claims; For outpatient claims, Revenue Center line code is NOT in {0450-0459, 0981} (emergency department)	Not applicable
6b. Post-Acute Services: Skilled Nursing Facilities	SNF claims and outpatient claim line items	All SNF claims and all outpatient claims with Type of Bill equal to 22x or 23x and BETOS code not in {P0, P9, O1A, O1D, O1E, D1G}	None for SNF claims; For outpatient claims, Revenue Center line code is NOT in {0450-0459, 0981} (emergency department)	Not applicable
6c. Post-Acute services: Inpatient Rehabilitation or Long-Term Care Hospital	Inpatient claims	Not applicable	Provider (CCN) number ends in {2000-2299, 3025–3099} or its third position is in {R, T}	Not applicable
7. Hospice	Hospice	All hospice claims	Not applicable	Not applicable

Exhibit D.1 *(continued)*

Category	Claim Type(s)	Criteria for Including Claim (Line Item) in Category		
		Claim Criterion	Place of Service Criterion	Specialty Criterion
8. All Other Services	Sum of 8a, 8b, 8c, 8d, 8e, 8f, 8g, 8h			
8a. Ambulance Services	Outpatient hospital claims plus carrier claim line items	All claims with BETOS code equal to O1A, and, for outpatient claims, Type of Bill not equal to 72x (dialysis)	Not applicable	Not applicable
8b. Chemotherapy and Other Part B–Covered Drugs	Outpatient hospital claims plus carrier claim line items plus durable medical equipment claims	All claims with BETOS code in {O1D, O1E, D1G}, and, for outpatient claims, Type of Bill not equal to 72x (dialysis)	Not applicable	Not applicable
8c. Dialysis	Outpatient claim line items plus carrier claim line items	All Carrier claim line items or outpatient claims with BETOS code equal to P9 or outpatient claims with Type of Bill equal to 72x	Not applicable	Not applicable
8d. Anesthesia Services	Outpatient claim line items plus carrier claim line items	All claims with BETOS code equal to P0, and, for outpatient claims, Type of Bill not equal to 72x (dialysis)	Not applicable	Not applicable
8e. Other Facility-Billed E&M Expenses	Outpatient claim line items plus carrier claim line items	All claims/line items with BETOS in {M1-M6}; HCPCS modifier* not equal to GN, GO, or GP; for outpatient claims, Type of Bill not equal to 22x or 23x (SNF), 33x or 34x (Home Health), or 72x (dialysis); and, for carrier claims, CMS specialty code equal to 49 or Type of Service equal to F (Ambulatory Surgical Center)	For outpatient claims, Revenue Center line code is NOT in {0450-0459, 0981} (emergency department); For carrier claims, Place of Service not equal to 23 (emergency room), 21 (inpatient hospital), or 51 (inpatient psychiatric facility)	

Exhibit D.1 *(continued)*

Category	Claim Type(s)	Criteria for Including Claim (Line Item) in Category		
		Claim Criterion	Place of Service Criterion	Specialty Criterion
8f. Other Facility-Billed Expenses for Major Procedures	Outpatient claim line items plus carrier claim line items	All claims/line items with BETOS in {P1-P3, P7}; HCPCS modifier* not equal to GN, GO, or GP; for outpatient claims, Type of Bill not equal to 22x or 23x (SNF), 33x or 34x (Home Health), or 72x (dialysis); and, for carrier claims, CMS specialty code equal to 49 or Type of Service equal to F (Ambulatory Surgical Center)	For outpatient claims, Revenue Center line code is NOT in {0450-0459, 0981} (emergency department); For carrier claims, Place of Service not equal to 23 (emergency room), 21 (inpatient hospital), or 51 (inpatient psychiatric facility)	Not applicable
8g. Other Facility-Billed Expenses for Ambulatory/Minor Procedures	Outpatient claim line items plus carrier claim line items	All claims/line items with BETOS in {P4-P6, P8}; HCPCS modifier* not equal to GN, GO, or GP (outpatient therapy); for outpatient claims, Type of Bill not equal to 22x or 23x (SNF), 33x or 34x (Home Health), or 72x (dialysis); and, for carrier claims, CMS specialty code equal to 49 or Type of Service equal to F (Ambulatory Surgical Center)	For outpatient claims, Revenue Center line code is NOT in {0450-0459, 0981} (emergency department); For carrier claims, Place of Service not equal to 23 (emergency room), 21 (inpatient hospital), or 51 (inpatient psychiatric facility)	Not applicable
8h. All Other Services Not Otherwise Classified	Remainder of total costs from claims files (excluding Part D)	Total costs associated with all claims and/or line items not identified in rows above	Not applicable	Not applicable

* Only the first four HCPCS modifiers are considered due to data constraints.

** Under the “Emergency Services” category, in the “Lab Tests,” and “Imaging” subcategories, CMS includes services from non-eligible professionals, which is consistent with the definition of the “Ancillary Services” subcategories “Laboratory, Pathology, and Other Tests” and “Imaging Services” (3a, 3b). In the “E&M Services” and “Procedures” subcategories, CMS limits carrier claims to those provided by an eligible professional, which is consistent with the definition of the “E&M Services,” and “Procedures” type-of-service categories (1a, 1b, 2a, 2b, 2c, 2d).

Exhibit D.2. Definitions for Service Categories for the MSPB Measure

Category	Claim Type(s)	Criteria for Including Claim (Line Item) in Category			
		BETOS	Claim Criterion	Provider Number Criterion	Additional Criterion
Acute Inpatient Services					
Inpatient Hospital: Index Admission	Inpatient			MSPB-eligible hospitals	Acute inpatient hospitalization that triggered the MSPB episode
Inpatient Hospital: Readmission	Inpatient			Provider number with '0' in third digit (Acute Hospital) or with third and fourth digit = '13' (Critical Access Hospital [CAH]) or a Psychiatric hospital as identified by provider number ending in {4000-4499} or its third position is in {M, S}.	Any acute inpatient hospitalization other than the one that triggered the episode
Physician Services During Hospitalization	Carrier		Carrier claims line items between from_dt and thru_dt (exclusive) of trigger or readmission inpatient claim with no place of service restriction. For Acute and CAH inpatient stays, carrier claims line items on the from_dt must have Place of Service 21, 22, or 23 while carrier claims on the thru_dt must have Place of Service 21. For Psychiatric inpatient stays, carrier claims line items on the from_dt or thru_dt must have Place of Service 51.		
Post-Acute Care Services					
Home Health	Home Health, Outpatient		All Home Health claims. Outpatient claims with Type of Bill 34x		
Skilled Nursing Facility	SNF, Outpatient		All SNF claims. Outpatient claims with Type of Bill 22x or 23x		
Inpatient Rehabilitation or Long-Term Care Hospital	Inpatient			Provider number ending in {2000-2299, 3025-3099} or with third position in {R, T}	

Exhibit D.2 *(continued)*

Category	Claim Type(s)	Criteria for Including Claim (Line Item) in Category			
		BETOS	Claim Criterion	Provider Number Criterion	Additional Criterion
Emergency Room Outpatient Hospital Services					
Emergency Room E&M Services	Outpatient, Carrier	All M Codes	Outpatient revenue center line code in {0450-0459, 0981}, or carrier claim line items occurring during such an Outpatient claim and Place of Service 23.		Must not be counted in any categories above
Emergency Room Procedures	Outpatient, Carrier	P0, P1, P2, P3, P4, P5, P6, P7, P8	Outpatient revenue center line code in {0450-0459, 0981}, or carrier claim occurring during such an Outpatient claim and Place of Service 23		Must not be counted in any categories above
Emergency Room Laboratory, Pathology and Other Tests	Outpatient, Carrier	All T codes	Outpatient revenue center line code in {0450-0459, 0981}, or carrier claim occurring during such an Outpatient claim and Place of Service 23		Must not be counted in any categories above
Emergency Room Imaging Services	Outpatient, Carrier	All I codes	Outpatient revenue center line code in {0450-0459, 0981}, or carrier claim occurring during such an Outpatient claim and Place of Service 23		Must not be counted in any categories above
Outpatient (Non-Emergency Room) Hospital and Physician Office Services					
Outpatient Physical, Occupational, or Speech and Language Pathology Therapy	Outpatient, Carrier				Any modifier GN, GO, or GP
Dialysis	Outpatient, Carrier		Outpatient claims Type of Bill 72x. Carrier claim line items with BETOS code P9		Must not be counted in any categories above
Outpatient Non-Emergency Room E&M Services	Outpatient, Carrier	All M Codes			Must not be counted in any categories above
Major Procedures and Anesthesia	Outpatient, Carrier	P0, P1, P2, P3, P7			Must not be counted in any categories above
Ambulatory/ Minor procedures	Outpatient, Carrier	P4, P5, P6,P8			Must not be counted in any categories above

Exhibit D.2 *(continued)*

Category	Claim Type(s)	Criteria for Including Claim (Line Item) in Category			
		BETOS	Claim Criterion	Provider Number Criterion	Additional Criterion
Ancillary Services in All Non-Inpatient Settings					
Ancillary Laboratory, Pathology, and Other Tests	Outpatient, Carrier	All T codes			Must not be counted in any categories above
Ancillary Imaging Services	Outpatient, Carrier	All I codes			Must not be counted in any categories above
DME and Supplies	DME	All codes except O1D (chemotherapy), O1E and D1G (drugs)			Must not be counted in any categories above
Hospice					
Hospice	Hospice				
Other Services					
Ambulance Services	Outpatient, Carrier	O1A			
Chemotherapy And Other Part B-Covered Drugs	Outpatient, Carrier, Durable Medical Equipment	O1D, O1E, D1G			
All Other Services Not Otherwise Classified	All remaining costs from all Medicare Part A and Part B claim types				

Exhibit D.3. 2016 BETOS Codes and Descriptions

Code	Description
	Evaluation and management
M1A	Office visits—new
M1B	Office visits—established
M2A	Hospital visit—initial
M2B	Hospital visit—subsequent
M2C	Hospital visit—critical care
M3	Emergency room visit
M4A	Home visit
M4B	Nursing home visit
M5A	Specialist—pathology
M5B	Specialist—psychiatry
M5C	Specialist—ophthalmology
M5D	Specialist—other
M6	Consultations
	Procedures
P0	Anesthesia
P1A	Major procedure—breast
P1B	Major procedure—colectomy
P1C	Major procedure—cholecystectomy
P1D	Major procedure—transurethral resection of the prostate
P1E	Major procedure—hysterectomy
P1F	Major procedure—explor/decompr/excisdisc
P1G	Major procedure—other
P2A	Major procedure, cardiovascular—coronary artery bypass grafting
P2B	Major procedure, cardiovascular—aneurysm repair
P2C	Major procedure, cardiovascular—thromboendarterectomy
P2D	Major procedure, cardiovascular— percutaneous transluminal coronary angioplasty (PTCA)
P2E	Major procedure, cardiovascular—pacemaker insertion
P2F	Major procedure, cardiovascular—other
P3A	Major procedure, orthopedic—hip fracture repair
P3B	Major procedure, orthopedic—hip replacement
P3C	Major procedure, orthopedic—knee replacement
P3D	Major procedure, orthopedic—other
P4A	Eye procedure—corneal transplant
P4B	Eye procedure—cataract removal/lens insertion
P4C	Eye procedure—retinal detachment
P4D	Eye procedure—treatment of retinal lesions
P4E	Eye procedure—other
P5A	Ambulatory procedures—skin
P5B	Ambulatory procedures—musculoskeletal
P5C	Ambulatory procedures—inguinal hernia repair
P5D	Ambulatory procedures—lithotripsy

Exhibit D.3 *(continued)*

Code	Description
P5E	Ambulatory procedures—other
P6A	Minor procedures—skin
P6B	Minor procedures—musculoskeletal
P6C	Minor procedures—other (Medicare fee schedule)
P6D	Minor procedures—other (non-Medicare fee schedule)
P7A	Oncology—radiation therapy
P7B	Oncology—other
P8A	Endoscopy—arthroscopy
P8B	Endoscopy—upper gastrointestinal
P8C	Endoscopy—sigmoidoscopy
P8D	Endoscopy—colonoscopy
P8E	Endoscopy—cystoscopy
P8F	Endoscopy—bronchoscopy
P8G	Endoscopy—laparoscopic cholecystectomy
P8H	Endoscopy—laryngoscopy
P8I	Endoscopy—other
P9A	Dialysis services (Medicare fee schedule)
P9B	Dialysis services (non-Medicare fee schedule)
	Imaging
I1A	Standard imaging—chest
I1B	Standard imaging—musculoskeletal
I1C	Standard imaging—breast
I1D	Standard imaging—contrast gastrointestinal
I1E	Standard imaging—nuclear medicine
I1F	Standard imaging—other
I2A	Advanced imaging—CAT: head
I2B	Advanced imaging—CAT: other
I2C	Advanced imaging—MRI: brain
I2D	Advanced imaging—MRI: other
I3A	Echography—eye
I3B	Echography—abdomen/pelvis
I3C	Echography—heart
I3D	Echography—carotid arteries
I3E	Echography—prostate, transrectal
I3F	Echography—other
I4A	Imaging/procedure—heart including cardiac catheterization
I4B	Imaging/procedure—other
	Tests
T1A	Lab tests—routine venipuncture (non-Medicare fee schedule)
T1B	Lab tests—automated general profiles
T1C	Lab tests—urinalysis
T1D	Lab tests—blood counts
T1E	Lab tests—glucose

Exhibit D.3 *(continued)*

Code	Description
T1F	Lab tests—bacterial cultures
T1G	Lab tests—other (Medicare fee schedule)
T1H	Lab tests—other (non-Medicare fee schedule)
T2A	Other tests—electrocardiograms
T2B	Other tests—cardiovascular stress tests
T2C	Other tests—electrocardiogram monitoring
T2D	Other tests—other
	Durable medical equipment
D1A	Medical/surgical supplies
D1B	Hospital beds
D1C	Oxygen and supplies
D1D	Wheelchairs
D1E	Other DME
D1F	Orthotic devices
D1G	Drugs administered through DME
	Other
O1A	Ambulance
O1B	Chiropractic
O1C	Enteral and parenteral
O1D	Chemotherapy
O1E	Other drugs
O1F	Vision, hearing, and speech services
O1G	Influenza immunization
	Exceptions/unclassified
Y1	Other—Medicare fee schedule
Y2	Other—non-Medicare fee schedule
Z1	Local codes
Z2	Undefined codes

Source: Centers for Medicare & Medicaid Services Health Care Common Procedure Coding System, BETOS Codes available at: https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/MedicareFeeforSvcPartsAB/downloads/betosdesccodes.pdf.

Note: CAT = computerized axial tomography; MRI = magnetic resonance imaging.

APPENDIX E

PROVIDER SPECIALTIES AND PROFESSIONAL STRATIFICATION CATEGORIES

Exhibit E.1 identifies which specialties are physician specialties, and the broad professional stratification categories to which each specialty is assigned. Specialty codes for which the provider stratification category is not applicable generally indicate nonmedical professionals, such as facilities or medical supply companies.

Exhibit E.1. Provider Specialties and Professional Stratification Categories

Provider or supplier specialty description	CMS specialty code	Eligible professional	Physician	Provider stratification category
Primary care specialties				
Family practice	08	Yes	Yes	PCPs
General practice	01	Yes	Yes	PCPs
Geriatric medicine	38	Yes	Yes	PCPs
Internal medicine	11	Yes	Yes	PCPs
All other specialties				
Addiction medicine	79	Yes	Yes	Medical specialists
All other suppliers (for example, drug stores)	87	No	No	Not applicable
Allergy/immunology	03	Yes	Yes	Medical specialists
Ambulance service supplier (for example, private ambulance companies, funeral homes)	59	No	No	Not applicable
Ambulatory surgical center	49	No	No	Not applicable
Anesthesiologist assistant	32	Yes	No	Other eligible professionals
Anesthesiology	05	Yes	Yes	Other eligible professionals
Audiologist (billing independently)	64	Yes	No	Other eligible professionals
Cardiac electrophysiology	21	Yes	Yes	Medical specialists
Cardiac surgery	78	Yes	Yes	Surgeons
Cardiology	06	Yes	Yes	Medical specialists
Centralized flu	C1	No	No	Not applicable
Certified clinical nurse specialist (CNS)	89	Yes	No	Other eligible professionals
Certified nurse midwife	42	Yes	No	Other eligible professionals
Certified registered nurse anesthetist (CRNA)	43	Yes	No	Other eligible professionals
Chiropractic	35	Yes	Yes	Other eligible professionals
Clinical laboratory (billing independently)	69	No	No	Not applicable

Exhibit E.1 *(continued)*

Provider or supplier specialty description	CMS specialty code	Eligible professional	Physician	Provider stratification category
Clinical psychologist	68	Yes	No	Other eligible professionals
Psychologist (billing independently)	62	Yes	No	Other eligible professionals
Colorectal surgery (formerly proctology)	28	Yes	Yes	Surgeons
Critical care (intensivists)	81	Yes	Yes	Medical specialists
Dentist	C5	Yes	Yes	Medical specialists
Department store	A7	No	No	Not applicable
Dermatology	07	Yes	Yes	Medical specialists
Diagnostic radiology	30	Yes	Yes	Other eligible professionals
Emergency medicine	93	Yes	Yes	Other eligible professionals
Endocrinology	46	Yes	Yes	Medical specialists
Gastroenterology	10	Yes	Yes	Medical specialists
General surgery	02	Yes	Yes	Surgeons
Geriatric psychiatry	27	Yes	Yes	Medical specialists
Grocery store	A8	No	No	Not applicable
Gynecological/oncology	98	Yes	Yes	Surgeons
Hand surgery	40	Yes	Yes	Surgeons
Hematology	82	Yes	Yes	Medical specialists
Hematology/oncology	83	Yes	Yes	Medical specialists
Home health agency	A4	No	No	Not applicable
Hospice and palliative care	17	Yes	Yes	Medical specialists
Hospital	A0	No	No	Not applicable
Independent diagnostic testing facility (IDTF)	47	No	No	Not applicable
Indirect payment procedure	C2	No	No	Not applicable
Individual orthotic personnel certified by an accrediting organization	55	No	No	Not applicable
Individual prosthetic personnel certified by an accrediting organization	56	No	No	Not applicable
Individual prosthetic/orthotic personnel certified by an accrediting organization	57	No	No	Not applicable

Exhibit E.1 *(continued)*

Provider or supplier specialty description	CMS specialty code	Eligible professional	Physician	Provider stratification category
Infectious disease	44	Yes	Yes	Medical specialists
Intensive cardiac rehabilitation	31	No	No	Not applicable
Intermediate care nursing facility	A2	No	No	Not applicable
Interventional Cardiology	C3	Yes	Yes	Medical specialists
Interventional pain management	09	Yes	Yes	Medical specialists
Interventional radiology	94	Yes	Yes	Other eligible professionals
Licensed clinical social worker	80	Yes	No	Other eligible professionals
Mammography screening center	45	No	No	Not applicable
Mass immunization roster biller	73	No	No	Not applicable
Maxillofacial surgery	85	Yes	Yes	Surgeons
Medical oncology	90	Yes	Yes	Medical specialists
Medical supply company not included in 51, 52, or 53	54	No	No	Not applicable
Medical supply company with orthotic personnel certified by an accrediting organization	51	No	No	Not applicable
Medical supply company with prosthetic personnel certified by an accrediting organization	52	No	No	Not applicable
Medical supply company with prosthetic/orthotic personnel certified by an accrediting organization	53	No	No	Not applicable
Medical supply company with pedorthic personnel	B3	No	No	Not applicable
Medical supply company with registered pharmacist	58	No	No	Not applicable
Medical supply company with respiratory therapist	A6	No	No	Not applicable
Nephrology	39	Yes	Yes	Medical specialists
Neurology	13	Yes	Yes	Medical specialists
Neuropsychiatry	86	Yes	Yes	Medical specialists
Neurosurgery	14	Yes	Yes	Surgeons
Nuclear medicine	36	Yes	Yes	Other eligible professionals
Nurse practitioner (NP)	50	Yes	No	Other eligible professionals

Exhibit E.1 *(continued)*

Provider or supplier specialty description	CMS specialty code	Eligible professional	Physician	Provider stratification category
Nursing facility, other	A3	No	No	Not applicable
Obstetrics/gynecology	16	Yes	Yes	Surgeons
Occupational therapist in private practice	67	Yes	No	Other eligible professionals
Ocularist	B5	No	No	Not applicable
Ophthalmology	18	Yes	Yes	Surgeons
Optician	96	No	No	Not applicable
Optometry	41	Yes	Yes	Other eligible professionals
Oral surgery (dentists only)	19	Yes	Yes	Surgeons
Orthopedic surgery	20	Yes	Yes	Surgeons
Osteopathic manipulative medicine	12	Yes	Yes	Medical specialists
Otolaryngology	04	Yes	Yes	Surgeons
Oxygen/Oxygen Related Equipment	B1	No	No	Not applicable
Pain management	72	Yes	Yes	Other eligible professionals
Pathology	22	Yes	Yes	Other eligible professionals
Pediatric medicine	37	Yes	Yes	Other eligible professionals
Pedorthic personnel	B2	No	No	Not applicable
Peripheral vascular disease	76	Yes	Yes	Surgeons
Pharmacy	A5	No	No	Not applicable
Physical medicine and rehabilitation	25	Yes	Yes	Medical specialists
Physical therapist in private practice	65	Yes	No	Other eligible professionals
Physician assistant (PA)	97	Yes	No	Other eligible professionals
Plastic and reconstructive surgery	24	Yes	Yes	Surgeons
Podiatry	48	Yes	Yes	Other eligible professionals
Portable x-ray supplier (billing independently)	63	No	No	Not applicable
Preventive medicine	84	Yes	Yes	Medical specialists
Psychiatry	26	Yes	Yes	Medical specialists
Public health or welfare agencies (federal, state, and local)	60	No	No	Not applicable
Pulmonary disease	29	Yes	Yes	Medical specialists

Exhibit E.1 *(continued)*

Provider or supplier specialty description	CMS specialty code	Eligible professional	Physician	Provider stratification category
Radiation oncology	92	Yes	Yes	Other eligible professionals
Radiation therapy centers	74	No	No	Not applicable
Registered dietician/nutrition professional	71	Yes	No	Other eligible professionals
Rehabilitation agency	B4	No	No	Not applicable
Restricted use	C4	No	No	Not applicable
Rheumatology	66	Yes	Yes	Medical specialists
Single or multispecialty clinic or group practice	70	Yes	Yes	Other eligible professionals
Skilled Nursing Facility	A1	No	No	Not applicable
Sleep medicine	C0	Yes	Yes	Medical specialists
Slide preparation facilities	75	No	No	Not applicable
Speech language pathologists	15	Yes	No	Other eligible professionals
Sports medicine	23	Yes	Yes	Other eligible professionals
Surgical oncology	91	Yes	Yes	Surgeons
Thoracic surgery	33	Yes	Yes	Surgeons
Unknown supplier	95	No	No	Not applicable
Unknown physician specialty	99	Yes	Yes	Other eligible professionals
Unknown provider	88	No	No	Not applicable
Urology	34	Yes	Yes	Surgeons
Vascular surgery	77	Yes	Yes	Surgeons
Voluntary health or charitable agencies (for example, National Cancer Society, National Heart Association, Catholic Charities)	61	No	No	Not applicable

Note: Physician specialties are those identified as such in the Medicare Claims Processing Manual, Chapter 26—Completing and Processing Form CMS-1500 Data Set, available at the following URL: http://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/clm104c26.pdf. Nonphysician eligible professional specialties are those identified in the PQRS List of Eligible Professionals, available at the following URL: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/Downloads/2016_PQRS_List_of_EPs.pdf.

APPENDIX F

HIERARCHY OF PQRS DATA USED IN THE 2018 VALUE MODIFIER

Exhibit F.1 PQRS Data Used in the 2018 Value Modifier

Did TIN register for GPRO?	Did TIN report under elected GPRO mechanism and avoid the 2018 PQRS payment adjustment?	Did TIN report through another GPRO mechanism and avoid the 2018 PQRS payment adjustment?	Did TIN report Individual Eligible Professional (IEP) PQRS data?	Data used in the Value Modifier
Yes	Yes	No	No	GPRO data of the elected mechanism
Yes	Yes	Yes	No	GPRO data of the elected mechanism
Yes	Yes	No	Yes	GPRO data of the elected mechanism
Yes	Yes	Yes	Yes	GPRO data of the elected mechanism
Yes	No	Yes	No	GPRO data through which the TIN avoided the 2018 PQRS payment adjustment (not GPRO mechanism elected by TIN)
Yes	No	No	Yes	IEP data (if Category 1)
Yes	No	No	No	N/A
Yes	No	Yes	Yes	GPRO data through which the TIN avoided the 2018 PQRS payment adjustment (not GPRO mechanism elected by TIN)
No	N/A	Yes	Yes	GPRO data through which the TIN avoided the 2018 PQRS payment adjustment
No	N/A	Yes	No	GPRO data through which the TIN avoided the 2018 PQRS payment adjustment
No	N/A	No	Yes	IEP data (if Category 1)
No	N/A	No	No	N/A

APPENDIX G

LIST OF ACRONYMS

Exhibit G.1 List of Acronyms in the Detailed Methodology

Acronym	Description
ACA	Affordable Care Act
ACO	Accountable Care Organization
ACSC	Ambulatory Care-Sensitive Condition
AF	Adjustment Factor
AMA	Against Medical Advice
BETOS	Berenson-Eggers Type of Service
CAD	Coronary Artery Disease
CAH	Critical Access Hospital
CAHPS	Consumer Assessment of Healthcare Providers and Systems
CARC	Claim Adjustment Reason Code
CCN	CMS Certification Number
CEHRT	Certified Electronic Health Record Technology
CMS	Centers for Medicare & Medicaid Services
CMS-HCC	Centers for Medicare & Medicaid Services Hierarchical Condition Category
CNS	Clinical Nurse Specialist
COPD	Chronic Obstructive Pulmonary Disease
CPC	Comprehensive Primary Care (initiative)
CRNA	Certified Registered Nurse Anesthetist
DME	Durable Medical Equipment
DMEPOS	Durable Medical Equipment, Prosthetics, Orthotics, and Supplies
eCQM	Electronic Clinical Quality Measure
E&M	Evaluation and Management
EHR	Electronic Health Record
ESRD	End Stage Renal Disease
FFS	Fee-for-Service
GPRO	Group Practice Reporting Option
HCPCS	Healthcare Common Procedure Coding System
HIC	Health Insurance Claim (Number)
ICD-10	International Classification of Diseases, 10th Revision, Clinical Modification
IDR	Integrated Data Repository
IEP	Individual Eligible Professional
MAC	Medicare Administrative Contractor
MSPB	Medicare Spending per Beneficiary
NP	Nurse Practitioner

Exhibit G.1 *(continued)*

Acronym	Description
NPI	National Provider Identifier
OACT	CMS Office of the Actuary
PA	Physician Assistant
PCP	Primary Care Physician
PECOS	Provider Enrollment, Chain, and Ownership System
PFS	Physician Fee Schedule
PQRS	Physician Quality Reporting System
QCDR	Qualified Clinical Data Registry
QRUR	Quality and Resource Use Report
QRDA	Quality Reporting Document Architecture (I or III)
ResDAC	Research Data Assistance Center
RARC	Remittance Advice Remark Code
SNF	Skilled Nursing Facility
TIN	Taxpayer Identification Number
UDS	Universal Data Set