

Major Depressive Disorder Service Assignment and Refinement (SAR) Meeting Summary

MACRA Episode-Based Cost Measures: Clinician Expert Workgroups

SAR Webinar, August 23, 2021

October 2021

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Project Overview

The Centers for Medicare & Medicaid Services (CMS) has contracted with Acumen, LLC to develop episode-based cost measures for potential use in the Merit-based Incentive Payment System (MIPS) to meet the requirements of the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA). Acumen’s measure development approach involves convening clinician expert panels to provide input in cycles of development (“Waves”).¹ In Wave 4, instead of the typical Clinical Subcommittee (CS) process for episode group prioritization and selection, we obtained stakeholder input on candidate clinical areas and episode groups through a public comment period from December 16, 2020, to February 5, 2021.² This approach provided flexibility for a wider range of stakeholders to participate around their schedule. This approach will be revisited for future Waves of development. The prioritization criteria used to identify strong candidate episode groups and concepts were developed based on input from our technical expert panel (TEP), Person and Family Engagement (PFE), CS, and Clinician Expert Workgroups (“workgroups”). The following Wave 4 episode groups were finalized based on the prioritization criteria, public comments received, and discussions with CMS: (i) Emergency Medicine, (ii) Heart Failure, (iii) Low Back Pain, and (iv) Major Depressive Disorder (MDD).

We held a nomination period for workgroup members between April 26, 2021, and May 21, 2021. The workgroups are composed of clinicians with expertise directly relevant to the selected episode groups. Workgroups (of about 15-20 members) were finalized in June 2021, and they provided detailed input on the development of the selected episode groups during their first workgroup webinars from June 21 to June 24, 2021. Then, Acumen convened the workgroups again for a Service Assignment and Refinement (SAR) Webinar to revisit the specifications recommended during the initial meeting and refine the measures prior to national field testing. For Wave 4, all workgroup meetings will be held virtually. The workgroups will convene for a

¹ For information on measure development in Waves 3, refer to the [2020 Episode-Based Cost Measures Field Testing Wave 3 Measure Development Process](https://www.cms.gov/files/document/macra-cmft-ebcm-process-2020.pdf) document [PDF] (<https://www.cms.gov/files/document/macra-cmft-ebcm-process-2020.pdf>).

² For a summary of comments we received during the public comment period, refer to the [MACRA Episode-Based Cost Measures: Wave 4 Measure Development Public Comment Summary Report](https://www.cms.gov/files/document/wave-4-public-comment-summary.pdf) document [PDF] (<https://www.cms.gov/files/document/wave-4-public-comment-summary.pdf>).

third meeting to continue measure specification and refinement discussions after a national field test, currently slated for early 2022.

Major Depressive Disorder SAR Webinar, August 23, 2021

The Major Depressive Disorder (MDD) workgroup met on August 23, 2021, to continue building out the specifications for the measure. The meeting was held online via webinar and 10 of the 14 workgroup members attended.³ The webinar was facilitated by an Acumen moderator, Eugene Lin, and the workgroup chair, Naakesh Dewan. Libby Hoy from PFCCpartners and Vicky Oldfield, a Person and Family Partner (PFP), presented findings from discussions with a broader group of PFPs. Members of the public also attended with a listen-only line for transparency into the measure development process.

This document summarizes the discussions from the 3-hour virtual meeting. Section 1 discusses the findings from PFPs about lived experience with MDD. Section 2 describes refinements to the measure, particularly refining trigger specifications and accounting for patient heterogeneity. Section 3 discusses assigning services to the measure. Section 4 summarizes the next steps in the measure development process. This meeting was convened by Acumen as part of the measure development process to gather expert clinical input; as such, these are preliminary discussions and materials, which don't represent any final decisions about the measure specifications or MIPS.

1. Person and Family Partner (PFP) Findings and Discussion

A representative from PFCCpartners presented findings from focus groups and interviews with 4 PFPs. A PFP representative also attended the meeting to answer any questions about the findings. These discussions built on the earlier discussions prior to the June 2021 workgroup webinars. PFPs provided feedback about how care for MDD involves many different types of clinicians, the importance of care coordination, the barriers to access that exacerbate fragmented care, and the importance of managing comorbidities as part of MDD care.

PFPs indicated that there are different types of clinicians beyond primary care clinicians that are part of the care team for patients with MDD, including psychiatrists, general practitioners, counselors, licensed clinical social workers, registered nurses, and pharmacists. PFPs noted that fragmented care or lack of care coordination presented an opportunity for improvement for MDD care and provided examples of good and poor care coordination. An example of good care coordination included a multi-hour intake procedure that was followed by care coordination among a therapist, psychopharmacologist, and primary care clinicians. An example of poor care coordination included lack of communication between primary care clinicians and pharmacists.

PFPs also highlighted barriers to access for MDD care, including lack of access to a referral network among clinicians who are able to manage chronic conditions and challenges in accessing counseling and psychiatric care in rural communities. PFPs recommended focusing on preventive services to avoid reaching severe depression. PFPs also noted different comorbidities associated with MDD and reported the importance of integrating chronic care for conditions like dementia, anxiety, traumatic brain injury, post-traumatic stress disorder, and

³ CMS, "MACRA Episode-Based Cost Measures: Wave 4 Clinician Expert Workgroup Composition (Membership List)" [PDF] (<https://www.cms.gov/files/document/wave-4-measure-specific-workgroup-composition-list.pdf>).

bipolar disorder. The workgroup revisited some of these comorbidities during their discussion on how to account for sub-populations of interest in the Major Depressive Disorder measure.

PFP responded to some questions asked by the workgroup members related to low-value experiences and preferences for specialists over primary care clinicians. The PFP representative noted that it's difficult for family members to find proper care and appropriate diagnoses that lead to specific treatment plans or medications for a relative with depression. The PFP representative also noted that the primary care clinician is usually the main point of contact during MDD care but suggested the importance of expanding the care team to be more collaborative and include both primary care clinicians and specialists.

2. Refinements to Draft Specifications

This session provided a feedback loop from the previous meeting on refining trigger specifications (Section 2.1), and a detailed discussion of how to account for specific patient cohorts (Section 2.2).

2.1 Refining Trigger Specifications

To trigger an MDD episode of care, a clinician or clinician group must bill at least 2 services (i.e., trigger and confirming claims) for a patient within 180 days for an MDD-related diagnosis. Acumen showed that the current service codes used to trigger an episode of MDD capture around 2.5 million episodes.

Acumen found additional service codes related to neurobehavioral status examination, neuropsychological testing, and physician certification or re-certification for Medicare-covered home health services. These codes could indicate an MDD care relationship. Acumen found that clinicians who billed only one qualifying service (without a confirming code) rarely billed one of these additional service codes (less than 1% of episodes). Workgroup members were largely supportive of including these codes in trigger criteria because they're sometimes used for MDD care.

Key Takeaway from Discussion and/or Polls for Refining Trigger Specifications:

- Members recommended including the additional codes (related to neurobehavioral status examination, neuropsychological testing, and physician certification and re-certification for Medicare-covered home health services) to trigger and confirm an MDD episode, if an MDD-related diagnosis code is present

2.2 Accounting for Patient Heterogeneity

Members also engaged in a detailed discussion about how to account for heterogeneity among various sub-populations within the MDD patient cohort. Sub-populations refer to patient cohorts as defined by the presence of pre-existing conditions or other clinical characteristics. Acumen reviewed the following methods to handle heterogeneity that can be incorporated in the measure specification:

- (i) Stratifying the patient population into mutually exclusive and exhaustive sub-groups to define more homogenous patient cohorts⁴

⁴ Sub-grouping is a method that's intended for when we want to compare episodes only with other similar episodes within the same sub-group. This approach is used when sub-groups are very different from one another, and each sub-group requires its own risk adjustment model. Since each sub-group will have its own risk adjustment model, the size of each sub-group should be sufficiently large.

- (ii) Defining covariates in the risk adjustment model⁵
- (iii) Identifying measure exclusions⁶
- (iv) Monitoring certain sub-populations for further testing⁷

For each sub-population under consideration, Acumen presented frequencies, observed costs, and risk-adjusted costs for the workgroup to consider. The following 8 characteristics that define sub-populations of MDD patients were discussed in-depth:

- Bipolar disorder
- Schizophrenia
- Drug/alcohol psychosis
- Part D coverage
- MDD with psychotic features
- Memory loss
- Treatment-resistant depression
- Depression in remission

For MDD patients with bipolar disorder, schizophrenia, or drug/alcohol psychosis, workgroup members noted that these patients are clinically distinct from the overall MDD population. The presence of these comorbidities usually makes MDD secondary to these conditions. Therefore, workgroup members recommended to exclude episodes with these comorbidities.

The workgroup discussed the implication of including Part D drugs in the measure. Since only about 80% of the patients have Part D coverage, the measure must be sub-grouped into patients with and without Part D coverage to ensure a fair comparison. The members agreed that Part D drugs are important in the treatment of MDD and should be included in the measure. Members further discussed which Part D drugs to include in service assignment.

The presence of psychotic features can drastically change the resource use pattern, especially if they occurred during an episode. Some workgroup members suggested risk adjusting for this patient sub-population. Others suggested to sub-group because MDD with psychotic features typically has different outcomes and treatments than MDD without psychotic features. Ultimately, the workgroup agreed to sub-group by psychotic features.

MDD patients with memory loss (due to dementia or Alzheimer's disease) comprise a sizeable portion of the population (about 19.8% of all episodes) and have marginally higher risk-adjusted costs than the overall MDD patient population. The attending PFP also noted that managing dementia is also very important in the overall management of MDD. Workgroup members agreed to risk adjust for memory loss (dementia and Alzheimer's disease) instead of excluding

⁵ Risk adjustment is a method to account for the case-mix of patients and other non-clinical characteristics that influence complexity. It's meant to be used for sub-populations that make up a large share of patients who have a characteristic that's outside of the attributed clinician's reasonable influence. Risk-adjusted cost measures adjust observed episode spending to an expected episode spending (predicted by a risk adjustment model).

⁶ Excluding is a method in which we exclude certain patients or episodes to address issues with patient heterogeneity. This approach should be used when the sub-population affects a small, unique set of patients in which risk adjustment wouldn't be sufficient to account for their differences in expected cost.

⁷ Monitoring for further testing is an option for flagging certain sub-populations that the workgroup may revisit later during measure development upon review of further data. This approach is best used when the workgroup requests additional data or information on a sub-population to discuss the appropriate method for meaningful clinical comparison.

it, based on input from the PFPs, the size of the population, and the marginal risk-adjusted cost differences.

Previously, the workgroup identified challenges in identifying treatment-resistant depression. Members commented specifically that the definition of “3 or more antidepressants within the prior year” might be pedantic and overly inclusive. Acumen presented data of various proxies to detect treatment-resistant depression, including the use of 3 or more antidepressants within the prior year, 2 or more hospitalizations related to MDD within the prior year, and the use of intensive treatments (i.e., electroconvulsive therapy [ECT], transcranial magnetic stimulation [TMS], and esketamine) within the prior year. Empirical results showed that using 3 or more antidepressants within the prior year had slightly higher risk-adjusted episode costs than all other MDD episodes. However, having 2 or more MDD hospitalizations in the prior year or using ECT, TMS, or esketamine in the prior year had substantially higher risk-adjusted costs.

The workgroup was in favor of risk adjusting for prior hospitalizations due to MDD within the prior year. Some members initially suggested excluding prior ECT and TMS services because they’re correlated with hospitalizations and severe cases of MDD. However, another member noted that risk adjustment may be a better option, especially if these services gain traction in the future. Ultimately, the members favored risk adjusting for prior ECT/TMS/esketamine services within the prior year. A member suggested risk adjusting for ECT, TMS, and esketamine separately, as these services may individually have different usage patterns. Acumen plans to test the feasibility of using these as individual risk adjusters.

Acumen explored whether risk-adjusted costs for MDD in remission were different from other MDD episodes. Episodes were classified as “in remission” if greater than 50% of claims contained International Classification of Diseases, 10th revision (ICD-10) diagnosis codes indicating MDD in full or unspecified remission. Empirically, risk-adjusted costs were only marginally lower for patients in remission versus the entire MDD population. Thus, the workgroup agreed with Acumen’s recommendation to continue monitoring this sub-population instead of risk adjusting for it.

Acumen also presented results for the below sub-populations. The workgroup agreed with the following recommendations by Acumen:

- Risk adjust: prior suicide attempt, prior suicide ideation, eating disorder, and chronic pain
- Monitor for further testing: coronary artery disease, alcohol and substance use disorder, post-traumatic stress disorder, anxiety disorder, and sleeping disorder

Key Takeaways from Discussion and/or Polls for Accounting for Patient Heterogeneity:

- Members made the following recommendations:
 - Exclusion:
 - Bipolar disorder
 - Schizophrenia
 - Drug/alcohol psychosis
 - Sub-group:
 - Part D coverage
 - Psychotic features
 - Risk adjustment:
 - Memory loss
 - Two or more hospitalization related to MDD within the prior year

- Prior ECT/TMS/esketamine services within the prior year (risk-adjusted separately)
- Prior suicide attempt
- Prior suicide ideation
- Eating disorder
- Chronic pain
- Monitor during testing:
 - Three or more antidepressants within the prior year
 - Depression in remission
 - Coronary artery disease
 - Alcohol and substance use disorder
 - Post-traumatic stress disorder
 - Anxiety disorder
 - Sleeping disorder

3. Assigning Services to the Episode Group

Acumen described the purpose of service assignment so that members could continue discussing which services associated with the attributed clinician's role in managing the patient's care should be included in the cost measure. These assigned services should be inclusive enough to identify a measurable performance difference between clinicians but also not introduce excessive noise. The following paragraphs summarize discussions of the categories of assigned services.

In the prior workgroup webinar in June 2021, members recommended including the following services:

- Counseling services
- Psychiatric emergencies
- Psychiatric hospitalizations
- Pre-operative and lab work prior to ECT (i.e., lithium; monitor blood sugars)
- ECT/TMS
- Medication complications
- Medication monitoring
- Medical care after a suicide attempt
- Outpatient occupational evaluation
- Collaborative care services

In addition to these previously identified categories of services as well as trigger services, workgroup members identified additional types of services to include that fall into the following categories of services:

- Occupational therapy evaluation and treatment
- Esketamine and ketamine infusion
- Services for serotonin syndrome
- Services treating tardive dyskinesia

A workgroup member proposed a patient-centered approach by considering non-specific side effects from antidepressants, such as weight gain, dizziness, and sexual dysfunction, which could lead to emergency care visits or hospitalizations. Other workgroup members noted that these side effects are multifactorial and may be a result of other factors unrelated to

antidepressant medications. Overall, members recommended excluding non-specific side effects in all circumstances.

The workgroup agreed on including Part D medications in the Major Depressive Disorder measure given that medications are integral in MDD care and often costly (the full list of drugs included in the poll are listed under the Key Takeaways section below). Members discussed whether tricyclic agents should always be included in the measure or whether inclusion should be dependent on the dosage. Some members pointed out that very low dosages of tricyclics are often used to treat conditions other than MDD (e.g., neuropathic pain). Workgroup members agreed on including tricyclic agents but didn't reach consensus on whether its inclusion should be dependent on the dosage; thus, Acumen will research and specify the dosage thresholds accordingly. Workgroup members recommended to not include seizure drugs related to MDD care since they're mainly used to treat bipolar disorders, which the workgroup agreed to exclude from the measure.

Key Takeaways from Discussion and/or Polls for Assigning Services to the Episode Group:

- Members agreed to include additional types of services that fall into the following categories of services:
 - All services that meet trigger criteria
 - Occupational therapy evaluation and treatment
 - Esketamine and ketamine infusion
 - Services for serotonin syndrome
 - Services treating tardive dyskinesia
- Members recommended including the following Part D medications in the measure:
 - Combination Psychotherapeutics
 - Tricyclic Agents
 - Quinolinone Derivatives
 - Gamma-Aminobutyric Acid (GABA) Receptor Modulator - Neuroactive Steroid
 - Bupropion
 - Antidepressants - Misc. (i.e., Maprotiline)
 - Selective Serotonin Reuptake Inhibitors (SSRIs)
 - Antidepressant Combinations
 - Serotonin-Norepinephrine Reuptake Inhibitors (SNRIs)
 - Hypnotics - Tricyclic Agents (i.e., Trazodone)
 - N-Methyl-D-aspartic acid (NMDA) Receptor Antagonists
 - Premenstrual Dysphoric Disorder (PMDD) Agents
 - Monoamine Oxidase Inhibitors (MAOIs)
 - Duloxetine
 - Alpha-2 Receptor Antagonists (Tetracyclics)
 - Serotonin Modulators
 - Dibenzapines
 - Vasomotor Symptom Agents
 - Atypical Antipsychotic
 - Typical Antipsychotic (i.e., Haldol)
 - Benzodiazepines
- Members recommended to not include smoking deterrents (not including bupropion) in the measure
- Members didn't reach consensus on whether to include fibromyalgia agents in the measure
- Members favored not including non-specific side effects in all circumstances
- Members recommended to not include seizure drugs related to MDD care

4. Next Steps

In the last session, Acumen provided a wrap-up of the discussion and an overview of the next steps. After the meeting, Acumen distributed the SAR Webinar Poll with a recording of the webinar to formally gather input from the meeting. The poll was open for one week and was structured to summarize discussion to reflect where there appeared to be verbal consensus; it included empirical testing results (where relevant) so that members could refer to this information when responding to the survey. The survey included comment boxes to provide additional thoughts. Based on National Quality Forum practices, the threshold for support was greater than 60% consensus among poll responses.

Acumen will operationalize input for the measure specifications based on SAR Webinar Poll results and will prepare specifications and related materials for the upcoming national field testing. The workgroup is slated to convene for a Post-Field Test Refinement (PFTR) Webinar in March 2022.

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