2025 Pre-Rulemaking Measure Review
Preliminary Assessment

MUC ID	Title
MUC2025-053	Excess Days in Acute Care (EDAC) After Hospitalization for Diabetes
Measure Steward & Developer	**Proposed CMS Programs**
Centers for Medicare & Medicaid Services (CMS)	Hospital Inpatient Quality Reporting (IQR) Program Link: Hospital Inpatient Quality Reporting Program

Measure Overview
Rationale (excerpt from submission): The goal of the Diabetes EDAC measure is to improve patient outcomes by providing patients, physicians, hospitals, and policymakers with information about hospital-level, risk-standardized all-cause excess days in acute care after a hospitalization for diabetes. The Diabetes EDAC measure captures excess days in acute care within 30 days of discharge for hospitalization for diabetes by counting the number of days a hospitals' discharged patients spent as an inpatient (an unplanned readmission), in observation, or in the emergency department (ED). EDAC measures, as compared with other post-discharge utilization measures, such as readmission, capture a more complete picture of post-discharge outcomes that better informs hospitals, providers, patients, and the public about care quality and incentivizes global improvement in transitional care. The Diabetes EDAC measure was developed to identify institutions whose performance is better or worse than would be expected based on their patient case mix and therefore promote hospital quality improvement and better inform consumers about care quality. Measuring and reporting excess days in acute care provides transparency for consumers, and informs health care providers about opportunities to improve care, strengthen incentives for quality improvement, and ultimately improve the quality of care (including better inpatient management of diabetes, as well as better peri-discharge care quality) received by Medicare patients. Testing for this measure included both Medicare Advantage (MA) and fee-for-service (FFS) beneficiaries. Including MA beneficiaries in CMS hospital outcome measures helps ensure that hospital quality is measured across all Medicare beneficiaries and not just the FFS population.
CMS-provided program rationale: Excess days in acute care after a hospitalization is an issue that affects patient outcomes and impacts the quality of care provided to patients. Measuring and reporting excess days in acute care provides transparency for consumers and informs health care providers about opportunities to improve care, strengthen incentives for quality improvement, and ultimately improve the quality of care (including better inpatient management of diabetes, as well as better peri-discharge care quality) received by Medicare patients.
Description: Excess Days in Acute Care (EDAC) After Hospitalization for Diabetes ("Diabetes EDAC measure") measure assesses days spent in acute care within 30 days of discharge from an inpatient hospitalization for diabetes. This measure is intended to improve the quality of care (with a focus on care transitions) provided to discharged patients who had a diabetes hospitalization by collectively measuring a set of adverse acute care outcomes that can occur post-discharge: emergency department (ED) visits, observation stays, and unplanned readmissions at any time during the 30 days post-discharge. In order to aggregate all three events, we measure each in terms of days. The outcome is adjusted to account for age and patient comorbidities and incorporates exposure time to account for survival times shorter than 30 days (for patients who die within 30 days of discharge). The

Measure Overview
measure is calculated for admissions for patients who are 65 years or older, are enrolled in Medicare Fee-For-Service (FFS) or Medicare Advantage (MA) and are hospitalized in non-federal short-term acute care hospitals. The final risk-adjusted measure score is calculated as the difference ("excess") between a hospital's "predicted days" and "expected days," per 100 discharges.
Measure background: New measure never reviewed by the Measure Applications Partnership (MAP) Workgroup or PRMR; never used in a Medicare program.
Numerator: The outcome for the Diabetes EDAC measure is defined as the number of days a patient spends in acute care (ED treat-and-release visits, observation stays, and unplanned readmissions) for any cause, within 30 days after the date of discharge from an index admission. **Exclusions:** N/A
Denominator: This measure includes index admissions for patients who meet all the following criteria: • Principal discharge diagnosis of diabetes • Enrolled in Medicare FFS or MA for the 12 months prior to the date of admission and during the index admission • Aged 65 or over • Discharged alive from a non-federal short-term acute care hospital • Not transferred to another acute care facility **Exclusions:** This measure excludes index admissions for patients who meet any of the following exclusion criteria: • Without at least 30 days of post-discharge enrollment in Medicare FFS or MA • Discharged against medical advice (AMA) • Diabetes admissions within 30 days of discharge from a prior diabetes index admission **Exceptions:** N/A
Substantive changes from prior version (if applicable): N/A

Measure type: Outcome	**Measure is a composite:** No **Measure is digital and/or an eCQM:** No **Measure is a paired or group measure:** No
Level of analysis: Facility	**Data source(s):** Administrative Data (non-claims) Digital-Administrative systems: Claims Data
Care setting(s): Hospital inpatient acute care facility	**Risk adjustment or stratification:** Yes, risk adjustment.
CBE endorsement Status: Not Endorsed	**CBE endorsement history:** Never Submitted
Is measure currently used in CMS programs? No	**Measure addresses statutorily required area?** No

Evaluation

Meaningfulness

Importance	
Type of evidence:	Clinical Guidelines or USPSTF (U.S. Preventive Services Task Force) Guidelines, Empirical data, Peer-Reviewed Systematic Review [MUC Entry/Review Information Tool (MERIT) Submission Form]
Importance: Measure developers provided an extensive review of published clinical literature, clinical guidelines, and review of empirical data supporting the importance of this measure. Diabetes affects approximately 25% of Medicare FFS beneficiaries and is a leading cause of hospital admissions, particularly among older adults. Post-discharge acute care is frequent, costly, and often preventable. Peer-reviewed literature and clinical guidelines highlight that poor transitional care, such as inadequate discharge planning and lack of follow-up, contributes to adverse outcomes. Empirical data from Medicare patients shows wide variation in hospital-level EDAC rates, indicating a significant quality gap. Evidence-based interventions, such as structured discharge plans, multidisciplinary care teams, and timely outpatient follow-up, have been shown to reduce post-discharge utilization, reinforcing the need for a standardized quality measure to monitor and improve care transitions for diabetic patients. Additionally, four patients on the technical expert panel (TEP) during development of this measure found that the measure as specified is meaningful and produces information that is valuable in making care decisions.	
Rating: Met	

Conformance
Measure alignment with conceptual intent: This measure intends to improve patient outcomes by providing patients, physicians, hospitals, and policymakers with information about hospital-level, risk-standardized all-cause excess days in acute care after a hospitalization for diabetes. The numerator includes the number of days a patient spends in acute care (ED treat-and-release visits, observation stays, and unplanned readmissions) for any cause within 30 days after the date of discharge from an index admission. The denominator includes hospital admissions for patients aged 65 and older who are enrolled in Medicare FFS or MA, have a principal discharge diagnosis of diabetes, are discharged alive from a non-federal short-term acute care hospital, and are not transferred to another acute care facility. The denominator exclusions are appropriate to the population and measure intent. This measure aligns with the Hospital IQR Program objective to improve the quality of care that hospitals provide and to distribute clearly defined and objective data about hospital performance.
Rating: Met

Feasibility	
eCQM feasibility testing conducted:	No [MERIT Submission Form]
Feasibility: All data elements exist in defined fields in electronic sources; however, the developer did not assess alignment with United States Core Data for Interoperability (USCDI)/USCDI+ quality guidelines. Aligning with USCDI standards for data elements can promote interoperability and improve feasibility. A measure that uses administrative and claims data is generally feasible, as these data sources are routinely collected and widely available across health care facilities with minimal variation in data availability and reporting.	
Rating: Met	

Validity	
Validity testing method(s):	Face Validity, Empiric Validity [MERIT Submission Form, Validity and Performance Gap Submitted Attachment]
Testing level(s)	Facility
Was this measure tested in the same target population as the CMS program?	Yes
Validity: To establish face validity, the measure developers convened a TEP of 10 professionals with expertise in diabetes care, performance measurement, informatics, and patient experience. Nine of the 10 panelists agreed that the Diabetes EDAC measure can distinguish hospital performance, demonstrating strong support for its validity, while one panelist expressed concern about the limitations of claims-based data for accurately measuring performance. To assess empiric validity, measure developers compared Diabetes EDAC scores with established hospital quality metrics, including the CMS Overall Hospital Star Rating components. Testing for this measure included both MA and FFS beneficiaries. The measure showed statistically significant negative correlations—consistent with expectations—between EDAC scores and the Readmission Group Score (r = -0.254), the Summary Score excluding readmissions (r = -0.232), and the Patient Experience Group Score (r = -0.175), reinforcing the relationship between lower Diabetes EDAC scores and higher Star Ratings as indicators of better quality of care.	
Threats to validity: The measure is risk adjusted for patient functional status (frailty indicator), patient-level demographics (age), and patient-level health status and clinical conditions (case-mix adjustment, comorbidities, and severity of illness). Measure developers used c-statistics and predictive ranges to confirm the model's ability to distinguish risk levels, and risk decile plots showed strong calibration across patient subgroups. These results support an effective risk-adjustment model, though developers noted potential threats to validity such as overfitting and limitations of claims-based data.	
Rating: Met	

Reliability	
Reliability testing method(s):	Random Split-Half Correlation [MERIT Submission Form]
Testing level:	Facility
Reliability discussion: Measure developers assessed split-half reliability by randomly dividing patient data within hospitals and calculating measure scores across 100 bootstrapped samples using data collected from January 1, 2022, through December 31, 2023. The resulting mean Intraclass Correlation Coefficient (ICC) of 0.792 for hospitals with at least 25 admissions meets accepted standards for publicly reported measures. This strong agreement between split samples supports the reliability of this measure. During collaboration on this PA, the developer provided additional context that they calculated reliability results using 2 years of data (2022-2023) from 2,342 facilities with at least 25 admissions. The developer provided the minimum, maximum, median, and 25th and 75th percentiles. Among hospitals with at least 25 admissions, the minimum reliability was .783, the median reliability was 0.791 (IQR: 0.791-0.794), and the maximum reliability was 0.807. All facilities exceeded the recommended minimum reliability threshold of 0.6.	
Additional reliability analyses: No additional analyses were conducted.	
Rating: Met	

Usability	
Usability considered in application:	Yes, the submission materials briefly discuss the measure's usability within relevant program.
Usability discussion: The Diabetes EDAC measure is well-suited for inclusion in the Hospital IQR Program because it provides targeted insight into post-discharge outcomes for patients hospitalized with diabetes, a common and costly condition not captured by existing EDAC measures. By highlighting variation in post-discharge acute care use, the measure supports efforts to improve care coordination, reduce avoidable hospital utilization, and enhance patient quality of life. The developer noted that it imposes no additional burden on providers, as CMS calculates the measure using claims data already submitted for payment. The developer noted in submission materials that while unintended consequences were not identified during testing, they remain committed to monitoring this measure's use and assessing potential unintended consequences over time.	
Rating: Met	

Appropriateness of Scale

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Similar or related measures in program(s):	Similarly constructed measures within the Hospital IQR program include Excess Days in Acute Care (EDAC) after Hospitalization for Heart Failure (HF) and Excess Days in Acute Care (EDAC) After Hospitalization for Pneumonia (PN), and Excess Days in Acute Care (EDAC) After Hospitalization for Acute Myocardial Infarction (AMI) among others.
Measure balance, burden, and value across target populations/measured entities: The Diabetes EDAC measure captures a different population than the existing EDAC measures, specific to patients hospitalized with diabetes—a common and costly condition. Hospitals serving high-risk populations such as those with higher rates of dialysis, amputations, or dual eligibility may find the measure especially valuable for identifying care gaps and targeting improvements in discharge planning and care coordination. By reducing the extent of and variation in post-discharge acute care utilization, this measure could improve the quality of life for patients with diabetes and incentivize care coordination of post-acute care, resulting in better continuity of care and reduced health care costs. There is no burden to providers as this measure is automatically calculated by CMS using claims data submitted by hospitals for payment. **Considerations for the committee:** Based on clinical and professional experience, the committee should consider the distribution of benefit and risks/burdens of the measure within the proposed program population.	

Time-to-Value Realization

Time-to-Value Realization	
Plan for near- and long-term impacts after implementation:	None specified
Measure implementation impacts over time: The developer notes that in the short term, this measure can help CMS, hospitals, and the public better understand how often patients with diabetes return to acute care after discharge, which can guide efforts to improve care. Over time, the measure may lead to better coordination of follow-up care, fewer unnecessary hospital visits, improved patient well-being, and lower health care costs. Further evaluation may be needed to understand how these impacts vary across different hospitals and patient groups once the measure is widely implemented. **Considerations for the committee:** • Will benefits and burdens associated with this measure be realized within an appropriate implementation time frame? • How will this measure mature through revisions in the future if added to the Hospital IQR measure set?	