# 2025 Pre-Rulemaking Measure Review Preliminary Assessment

| MUC ID | Title |
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| MUC2025-072 | Emergency Care Access & Timeliness (ECAT) |
| **Measure Steward & Developer** | **Proposed CMS Programs** |
| Centers for Medicare & Medicaid Services (CMS) | Hospital Inpatient Quality Reporting Program<br>Link: Hospital Inpatient Quality Reporting Program<br>Medicare Promoting Interoperability Program<br>Link: Promoting Interoperability Program<br>Hospital Value-Based Purchasing Program<br>Link: Hospital Value-Based Purchasing Program |

| Measure Overview |
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| **Rationale:** This measure aims to reduce patient harm and improve outcomes for patients requiring emergency care in an emergency department (ED) by addressing the variation of emergency care and measuring the capacity and quality of emergency care. There are long-standing concerns about parameters that impact the quality and timeliness of care in the ED. Currently, no national metrics assess the proportion of patients impacted by the quality of timely ED care. |
| **CMS-provided program rationale:** CMS is considering including this quality measure in the Hospital Inpatient Quality Reporting Program as the measure supports the agency's quality improvement efforts to prevent harm and improve outcomes for patients by addressing the variation of access and timeliness to receiving care.<br>The measure also aligns with the Meaningful Measures Framework 2.0's prioritization of digital quality measurement as well as the measurement priority areas of safety and patient-centered care. Limitations in access and timeliness of emergency care (including long wait times and ED boarding and crowding) have been shown to be associated with increases in mortality, delays in care, preventable errors, poor patient experience, and staff burnout. Emergency departments' efficiency and patient throughput are closely tied to inpatient capacity, care coordination and hospital-wide operational processes. Quality gaps in ED access and timeliness often reflect inpatient boarding delays, bed management inefficiencies, or discharge bottlenecks—all of which fall under the hospital's control and reflect system-level inpatient operations. Including this measure in the inpatient quality programs promotes accountability for hospital-wide performance rather than viewing ED processes in isolation. |
| **Description:** This measure captures the proportion of Emergency Department (ED) visits where patients (all ages, all payers) experienced any one of four quality gaps in access:<br>1. The patient waited longer than 60 minutes (1 hour) after arrival to the ED to be placed in a treatment room or dedicated treatment area that allows for audiovisual privacy during history-taking and physical examination; or<br>2. The patient left the ED without being evaluated; or<br>3. The patient boarded (time from Decision to Admit order to ED departure for admitted patients) in the ED for longer than 240 minutes (4 hours); or<br>4. The patient had an ED length of stay (LOS) (time from ED arrival to ED departure as defined |

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| by the ED departure timestamp indicating when the patient physically left the ED) of longer than 480 minutes (8 hours). | |
| **Measure background:** Measure currently used in a Medicare program being submitted without substantive changes for a new or different program. | |
| **Numerator:** The numerator is comprised of ED visits meeting the denominator criteria and where the patient experiences any of the following quality gaps in access:<br>1. The patient waited longer than 60 minutes (1 hour) after arrival to the ED to be placed in a treatment room or dedicated treatment area that allows for audiovisual privacy during history-taking and physical examination, or<br>2. The patient left the ED without being evaluated, or<br>3. The patient boarded (time from Decision to Admit order to ED departure for admitted patients) in the ED for longer than 240 minutes (4 hours), or<br>4. The patient had an ED length of stay (LOS) (time from ED arrival to ED departure as defined by the ED departure timestamp indicating when the patient physically left the ED) of longer than 480 minutes (8 hours).<br>ED encounters with ED observation stays are excluded from numerator criteria #3 (boarding) and #4 (ED LOS). To clarify, patients who have a 'decision to admit' after an ED observation stay remain excluded from numerator criteria #3 (boarded) calculations.<br>**Exclusions:** Patients who are placed in ED observation status will be included in the measure's denominator; however, they will be removed from the numerator for the boarding and ED length of stay components. | |
| **Denominator:** All ED visits associated with patients of all ages, for all-payers, during the performance period. Patients can have multiple visits during a performance period; each visit is eligible to contribute to the numerator and denominator.<br>**Exclusions:** N/A<br>**Exceptions:** N/A | |
| **Substantive changes from prior version (if applicable):** N/A | |
| **Measure type:** Intermediate Outcome | **Measure is a composite:** No<br>**Measure is digital and/or an eCQM:** Yes<br>**Measure is a paired or group measure:** No |
| **Level of analysis:** Facility | **Data source(s):** Digital-Electronic Health Record (EHR) Data |
| **Care setting(s):**<br>Emergency department<br>Hospital outpatient | **Risk adjustment or stratification:** Yes, stratified |
| **CBE endorsement status:** Endorsed | **CBE endorsement history:** Measure was Endorsed with Conditions in 2024. When the measure returns for maintenance (3 years), the measure developer should have:<br>• Explored any unintended consequences to patients and providers (burden) by engaging with the patient community and accountable entities (e.g., qualitative |

| Measure Overview | |
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| | assessments, empirical analyses); and<br>• Explored the component measures to identify and address where challenges may persist, including engaging accountable entities. |
| **Is measure currently used in CMS programs?** Yes, in the Calendar Year 2026 Final Rule for adoption into the Hospital Outpatient Quality Reporting (Hospital OQR) Program and the Rural Emergency Hospital Quality Reporting (REHQR) Program. This measure was submitted to the 2024 Measures Under Consideration (MUC) List for those two programs. | **Measure addresses statutorily required area?** No |

## Evaluation

### Meaningfulness

| Importance | |
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| **Type of evidence:** | Clinical Guidelines or USPSTF (U.S. Preventive Services Task Force) Guidelines; Peer-Reviewed Systematic Review; Peer-Reviewed Original Research; Empirical data [MUC Entry/Review Information Tool (MERIT) Submission Form, Supplemental Attachment] |

**Importance:** There are long-standing concerns about parameters that impact the quality and timeliness of care in the ED. This measure addresses the variation of emergency care and assesses the capacity and quality of emergency care to reduce patient harm and improve outcomes for patients requiring emergency care in an ED. The developer supports the importance of this measure with a mix of systematic reviews, benchmarking data, EHR analysis, registry-based studies, and clinical guidelines.

An extensive literature review on the four components of the measure provided by the measure developer supports the evidence base for this measure and provides additional considerations for the measure's use among special population such as older patients and those seen in the ED for mental health concerns.

- Component 1: The patient waited for longer than 1 hour to be placed in a treatment space.

  The developer highlights the increasing trend in wait times from arrival to being placed in a treatment space, with data showing a significant percentage of patients experiencing wait times over 1 hour. This delay is associated with patient harm, including increased risks of adverse events and re-visits.

- Component 2: The patient left the ED without being evaluated by a licensed clinical professional.

  The developer notes an upward trend in the percentage of patients leaving the ED without complete evaluation or treatment, which poses significant risks, as many of these patients require subsequent urgent care.

- Component 3: The patient boarded (time from decision to admit order to patient departure from the ED for admitted patients) in the ED for longer than 4 hours.

  The developer notes a lack of improvement in boarding times despite previous measures, with recent data showing an increase in median boarding times, significantly exceeding the 4-hour threshold in many cases.

- Component 4: The patient had an ED LOS (time from ED arrival to ED departure) of longer than 8 hours.

  The developer notes a steady increase in the median ED LOS, with a significant proportion of visits exceeding 8 hours. Various studies suggest that longer ED LOS is associated with increased mortality and other adverse outcomes.

Based on the submission materials, this measure aligns with The Joint Commission's accreditation requirements (EP 6 within Standard LD.04.03.11): "The hospital should set its goals with attention to patient acuity and best practice; it is recommended that boarding time frames

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| Importance |
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| not exceed 4 hours in the interest of patient safety and quality of care." The developer provided evidence of a performance gap for each component of the ECAT measure among EDs, as well as associated harms.<br>During CBE endorsement review in 2024, the committee found the evidence supporting the importance of this measure to be sufficient. |
| **Rating:** Met; Prior CBE Endorsement |

| Conformance |
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| **Measure alignment with conceptual intent:** This measure aims to reduce patient harm and improve outcomes for patients requiring emergency care in an ED by addressing the variation of emergency care and measuring the access and timeliness of emergency care. The measure's numerator, denominator, and exclusions are clearly defined and directly support the intent of this measure. Specifically, the numerator includes ED visits meeting the denominator criteria and where the patient experiences of any of the four indicated quality gaps in access among the denominator population of all ED visits associated with patients of all ages, for all-payers, during the performance period. This measure aligns with the Hospital Inpatient Quality Reporting (IQR) Program objective to improve the quality of care that hospitals provide and to distribute clearly defined and objective data about hospital performance as well as the Medicare Promoting Interoperability Program's goal commitment of promoting and prioritizing interoperability and exchange of health care data. The measure also aligns with the Hospital Value-Based Purchasing Program's aim to improve the quality of care patients receive during hospital stays and enhance the overall patient experience. |
| **Rating:** Met; Prior CBE Endorsement |

| Feasibility | |
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| **eCQM feasibility testing/analysis conducted:** | Yes, eCQM testing conducted [MERIT Submission Form, eCQM Feasibility Scorecard] |
| **Feasibility:** As this measure is an electronic clinical quality measure (eCQM), the measure developers conducted feasibility testing and submitted a feasibility scorecard. Results on this scorecard address the following domains:<br>• Data availability: Is the data readily available in a structured format (i.e., resides in fixed fields in EHR)?<br>• Data accuracy: What is the accuracy of the data element in EHRs under normal operating conditions? Are the data source and recorder specified?<br>• Data standards: Is the data element coded using a nationally accepted terminology standard?<br>• Workflow: Is the data captured during the course of care? And how does it impact workflow for the user?<br>The feasibility assessment examined EPIC and Cerner EHR systems. Findings indicate that while most data elements pose minimal challenges | |

| Feasibility |
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| to data standardization and workflow integration, concerns remain regarding data availability and accuracy—specifically, two data elements (ethnicity and race) required cross-system review, and one required further validation in a single system. The developer's data feasibility plan outlines steps facilities can take to address these issues by keeping the two data elements identified as supplemental. The committee should evaluate whether the plan presented in the eCQM scorecard offers a practical path forward for implementing the measure within the program.<br>During CBE endorsement review in 2024, the committee found the feasibility of this measure to be sufficiently demonstrated. |
| **Rating:** Met; Prior CBE Endorsement |

| Validity | |
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| **Validity testing method(s):** | Face Validity, Empiric Validity [MERIT Submission 2024] |
| **Testing level(s):** | Facility |
| **Was this measure tested in the same target population as the CMS program?** | N/A |
| **Note for the committee:** The following testing information is from the 2024 MUC List submission of this measure under the former name "Emergency Care Capacity and Quality" (ECCQ) and is applicable to the consideration of this revised-title version for new programs. The developer notes that the emergency departments used in testing are all hospital-based EDs so testing results would be applicable to the suggested programs.<br>**Validity:**<br>**Face validity:** The developer assessed face validity to determine whether the measure effectively differentiates between good and poor quality of care among facilities. This assessment involved soliciting experts' and patients/caregivers' agreement with the following statement: "The Emergency Care Access and Timeliness eCQM for the Hospital OQR Program could differentiate good from poor quality of care among facilities." Out of a total of 16 technical experts, 12 agreed that the measure could effectively differentiate between good and poor quality of care. The remaining four disagreed, citing concerns that factors influencing boarding times and ED LOS might be beyond the control of outpatient facilities, thus questioning the measure's ability to reflect quality of care accurately in that setting (although importantly for the current submission, use for inpatient quality reporting was not being considered by the TEP).<br>**Empiric validity testing:** The developer used construct validity, which is the extent to which the measure accurately assesses what it is intended to assess. This analysis involved 32 hospital-based ED facilities from two datasets. Using the Pearson's correlation coefficient, the developer examined the association between measure score performance and broadly available and validated hospital quality measures (refer to similar and related measures in Appropriateness of Scale section). Correlations of the measure with Overall Hospital Quality Star Rating were -0.56 (dataset A) and -0.55 (dataset B), indicating a moderate correlation. The results supported this hypothesis, indicating that hospitals with higher Star Ratings also tended to score well on the eCQM between the measure scores and the Star Ratings components. | |

| Validity |
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| **Threats to validity:** The developer considered threats to validity and developed the recommendation to stratify this measure by age and principal diagnosis of a mental health condition. Mental health diagnoses are identified using an established code set of International Classification of Diseases (ICD)-10 and Systematized Nomenclature of Medicine (SNOMED) codes that identify "psychiatric and mental health diagnoses" but do not include diagnosis for substance abuse disorder. The measure's outcome may also be stratified (pending additional testing) by race and ethnicity, primary language, and insurance status to best address emergency care quality and efficacy as well as hospital-wide processes to ensure timely care and access for all patients. |
| **Rating:** Met |

| Reliability | |
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| **Reliability testing method(s):** | Signal-to-noise [MERIT 2024 submission] |
| **Testing level:** | Facility |
| **Note:** The following testing information is from the 2024 MUC List submission of this measure under the former name "Emergency Care Capacity and Quality" (ECCQ) and is applicable to the consideration of this revised-title version for new programs. The developer notes that the emergency departments used in testing are all hospital-based ED's so testing results would be applicable to the suggested programs.<br>**Reliability discussion:** The numerator and denominator for this measure are well defined. The developer calculated the reliability results from a combined dataset with dataset A consisting of 20 hospital-based ED facilities and dataset B consisting of 12, for a total of 32 hospital-based ED facilities from 2023 (January 1-December 31). The median reliability is 0.9999, and the minimum reliability is 0.9997. Of the entities in the testing set, 100% have a reliability >0.6, suggesting that this measure is capable of differentiating entities by quality of performance. | |
| **Additional reliability analyses:** For Table 1, Battelle used the performance and reliability data provided and approximated decile averages by interpolation. | |
| **Rating:** Met | |

### *Reliability Table*

Table 1 shows deciles by reliability based on the data provided in the testing submission for the 32 hospital-based ED facilities. Battelle created this table to provide reviewers with a standardized format to assess reliability. Of the entities in the testing set, 100% have a reliability >0.6, suggesting that this measure is capable of differentiating entities by quality of performance.

**Table 1. MUC2025-072 Mean Reliability (by Reliability Decile)**

| Mean | SD | Decile 1 | Decile 2 | Decile 3 | Decile 4 | Decile 5 | Decile 6 | Decile 7 | Decile 8 | Decile 9 | Decile 10 | IQR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.9999 | 0.0001 | 0.9997 | 0.9998 | 0.9999 | 0.9999 | 0.9999 | 0.9999 | 1.000 | 1.000 | 1.000 | 1.000 | 0.0001 |

| **Usability** | |
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| **Usability considered in application:** | No, the submission materials did not discuss measure usability in the selected program and settings. |

**Usability discussion:** The developer has identified potential unintended consequences, such as premature ED discharge, gaming, reduced inpatient admissions, increased staff burnout, and worsened disparities. The submission materials do not discuss program-specific considerations for measure use within the Hospital IQR, Hospital VBP, and Promoting Interoperability (PI) programs.

During collaboration with the measure developer on this PA, the developer noted that their team considered the following in terms of usability of this measure within the identified programs: ED efficiency and patient throughput is closely tied to inpatient capacity, care coordination, and hospital-wide operational processes. Quality gaps in ED access and timeliness often reflect inpatient boarding delays, bed management inefficiencies, or discharge bottlenecks—all of which fall under the hospital's control and reflect system-level inpatient operations. Including this measure in the inpatient quality programs promotes accountability for hospital-wide performance rather than viewing ED processes in isolation.

During CBE endorsement review in 2024, the committee found the use/usability of this measure to be sufficiently demonstrated.

**Considerations for the committee:**

- Based on professional and patient experiences, can the potential unintended consequences identified by the developer be mitigated?
- Based on professional and patient experiences, are there specific barriers or facilitators to use of this measure within the Hospital IQR, Hospital VBP or PI programs?
- How might any barriers identified be mitigated?

**Rating:** Met

## Appropriateness of Scale

| Appropriateness of Scale | |
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| **Similar or related measures in program(s):** | None Specified |
| **Measure balance, burden, and value across target populations/measured entities:** No directly competing measures are currently active in either the Hospital IQR or Promoting Interoperability programs.<br><br>Facilities with robust staffing, efficient workflows, and access to mental health and inpatient services may experience greater immediate measure implementation benefits, such as improved patient outcomes, reduced adverse events, and enhanced operational efficiency. In contrast, facilities with limited capacity, high patient volumes, or fewer community resources may face greater implementation challenges, including workflow disruptions and increased administrative burden. These differences highlight the need for tailored support and flexibility in applying the measure across emergency and outpatient care settings.<br><br>**Considerations for the committee:** Differences in facility capacity and community resources suggest a need for flexibility in how the measure is implemented. The committee should consider whether the measure submission includes sufficient guidance or infrastructure to support varied settings. | |

## Time-to-Value Realization

| Time to Value Realization | |
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| **Plan for near- and long-term impacts after implementation:** | Yes, the developer provided an extensive review of near- and long-term impacts of the measure based on available literature [Supplemental Attachment]. |
| **Measure implementation impacts over time:** The measure is expected to have both near- and long-term impacts on ED care quality and patient outcomes. In the near term, implementation of the measure may drive operational improvements such as reduced wait times, fewer patients leaving without being seen, shorter boarding durations, and decreased overall ED LOS. These changes are anticipated to improve patient flow, enhance access to timely care, and reduce adverse events. Over the longer term, the measure is expected to contribute to improved clinical outcomes—including reduced mortality, morbidity, and complications—as well as better patient experiences and potential cost savings through more efficient care delivery and reduced readmissions. The measure may also encourage broader system-level investments in mental health services, inpatient capacity, and care coordination, particularly for vulnerable populations. | |