2025 Measure Set Review (MSR): 00062-04-E-HIQR Preliminary Assessment

I. Measure Overview[1]

CMIT ID	Title
Link to CMIT measure record: 00062-04-E-HIQR	Anticoagulation Therapy for Atrial Fibrillation/Flutter
Measure Steward	**CMS Program**
The Joint Commission	Hospital Inpatient Quality Reporting Link: Hospital Inpatient Quality Reporting Program | CMS

CBE Endorsement Status	CBE Endorsement History
Not Endorsed	While this eCQM has not received endorsement, the non-digital version of this measure has the following endorsement history: • Endorsed with Reserve Status Neurology Project, 2015-2016[2] • Initial Endorsement, 2008 Link to endorsement measure record: STK-03: Anticoagulation Therapy for Atrial Fibrillation/Flutter

Measure Overview
Rationale for Use: Atrial fibrillation (AF) is a common arrhythmia and is one of several conditions and lifestyle factors that have been identified as risk factors for stroke. It has been estimated that 6.6 million individuals in the United States have AF, and the prevalence is expected to increase to 12.1 million by 2030. While the median age of patients with atrial fibrillation is 75 years, the incidence increases with advancing age (14.2 per 1,000 PY at 65-69 years of age to 50.8 per 1,000 PY at ≥ 85 years of age). Furthermore, a prior stroke or transient ischemic attack (TIA) are among a limited number of predictors of high stroke risk within the population of patients with atrial fibrillation. Nonparoxysmal AF compared to paroxysmal AF has been associated with a higher risk of stroke in this patient population. Therefore, much emphasis has been placed on identifying methods for preventing recurrent ischemic stroke as well as preventing first stroke. Prevention strategies focus on the modifiable risk factors such as

[1] The information in this PA is sourced from the CMS Measures Inventory Tool (CMIT) and the PQM Submission Tool and Repository (STAR) Measure Database for endorsement history. This document reflects the content available as of September 2025.

[2] Historically, the National Quality Forum (NQF) assigned "reserve" status to measures that consistently demonstrated high performance with little variation, indicating minimal room for improvement. This status allowed these measures to be retained for monitoring to ensure performance did not decline, while signaling to committee members that they no longer addressed significant gaps in care. Although not actively endorsed, these measures remained in the NQF portfolio for periodic review and potential future use, ensuring they were available for monitoring and harmonization with other measures. PQM plans to follow up with the stewards of measures in "reserve" status to plan for appropriate endorsement/maintenance review in coming cycles.

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Measure Overview	
hypertension, smoking, and atrial fibrillation. Anticoagulation therapy is recommended for secondary stroke prevention for ischemic stroke patients with AF, unless contraindicated. Globally, the use of direct oral anticoagulant medications has continued to increase since 2018 and the prevalence of vitamin K antagonist use decreased. However, about 10% of patients are still treated with antiplatelet medications only.	
CMS-Provided Rationale for Use in Program: Several recent studies have reported less-than-favorable trends in oral anticoagulant use among patients with atrial fibrillation. While ischemic stroke rates have decreased (i.e., 18% 2016-2021) due in part to increased use of newer direct oral anticoagulant medications (DOACs) relative to warfarin,[3] rates of oral anticoagulant use remain suboptimal, especially in older adults with new onset atrial fibrillation. According to Navar and colleagues, one in three patients with non-valvular atrial fibrillation and elevated stroke risk are not on a DOAC or warfarin, and use varies by health system.[4] These studies support a wider performance gap for STK-3 compared to the antithrombotic therapy measures STK-2 and STK-5.	
Description: Ischemic stroke patients with atrial fibrillation/flutter who are prescribed or continuing to take anticoagulation therapy at hospital discharge.	
Numerator: Inpatient hospitalizations for patients prescribed or continuing to take anticoagulation therapy at hospital discharge. **Exclusions:** None	
Denominator: Inpatient hospitalizations for patients with a principal diagnosis of ischemic stroke, and a history of atrial ablation, or current or history of atrial fibrillation/flutter. **Included:** Inpatient hospitalizations with a diagnosis code for atrial fibrillation/flutter. **Exclusions:** • Inpatient hospitalizations for patients admitted for elective carotid intervention. This exclusion is implicitly modeled by only including non-elective hospitalizations. • Inpatient hospitalizations for patients discharged to another hospital. • Inpatient hospitalizations for patients who left against medical advice. • Inpatient hospitalizations for patients who expired. • Inpatient hospitalizations for patients discharged to home for hospice care. • Inpatient hospitalizations for patients discharged to a health care facility for hospice care. • Inpatient hospitalizations for patients with comfort measures documented. **Exceptions:** • Inpatient hospitalizations for patients with a documented reason for not prescribing anticoagulation therapy at discharge	
CMS Program History: • In Hospital Inpatient Quality reporting since 2014. • Also currently active in Hospital Value-Based Purchasing and Medicare Promoting Interoperability Program.	**Cascade of Meaningful Measures Priority:** Chronic Conditions
Measure Type: Process	**Is the Measure Digital or an Electronic Clinical Quality Measure (eCQM)?** Yes
Level(s) of Analysis/Measured Entity:	**Care Setting(s):**

[3] William, A., et al, J Stroke Cerebrovasc Dis, 2024 Dec;33(12)108081
[4] Navar, A.M., et al, J Am Heart Assoc, 2022 Nov 15;11(22):e026723

Measure Overview	
Facility, Hospital, or Agency Level	**Hospital:** Inpatient Acute Care Facility
Does the Measure Fill a Statutorily Required Category for the Program? No	**Is the Measure Included in Upcoming Rulemaking?** No

II. Measure Performance in Program

For this measure, the MSR evaluation and analysis team reviewed the publicly available datasets:

- hospitals_04_2025.zip (which contains data from January 2023-December 2023 and is referred to as PY2023 in this assessment)
- hospitals_07_2024.zip (which contains data from January 2022-December 2022 and is referred to as PY2022 in this assessment)
- hospitals_10_2023.zip (which contains data from January 2021-December 2021 and is referred to as PY2021 in this assessment)

All available values for the score for *MeasureID* "STK_03" from the corresponding Timely_and_effective_Care-Hospital.csv file were analyzed.

About Figure 1: Figure 1 is a boxplot that shows how scores have changed based on the most recent 3 years available. For each year, the boxplot displays a box with lines and dots to help visualize the range and distribution of scores. The dots represent the points where the lowest 5% and highest 5% of scores fall, and the line connecting them shows where 90% of the scores are located. The box itself covers the middle half of the scores, from the 25th to the 75th percentile. Inside the box, a horizontal line marks the median score, which is the middle value, while a "+" sign shows the average score. This type of graph makes overall trends in scores over time as well as the consistency and spread of the results easier to understand.

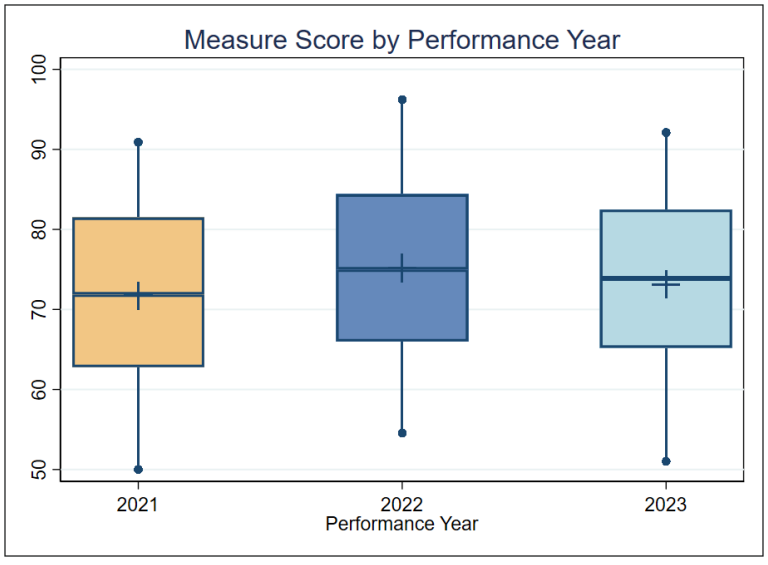

Figure 1. Boxplot of Measure Score by Year

Figure 1 Interpretation: In the boxplot above, the median score increased from 71.9% in 2021 to about 75% in 2022 and then decreased to about 73.9% in 2023. For this measure, a higher

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score indicates better quality of care. This relatively stable but widespread performance across entities in the lookback period indicates that entities performing near the median have relatively little change or improvement over these 3 years, but that there are outlier low performers at lower scores that may find greater utility in implementing improvement initiatives.

About Table 1: Table 1 illustrates the distribution of scores and the number of patients represented within each group. It is important to note that the groups (referred to as deciles, each comprising 10% of the organizations) with the lowest or highest scores may contain more or fewer patients than other groups. For example, if the lowest-scoring decile includes only 5% of the total patient population, this smaller group size may be associated with lower performance scores.

For this measure, Decile 1 represents a grouping of organizations who have the lowest measure scores and Decile 10 shows those with the highest measure scores. The arrow below denotes improving performance on the measure.

Table 1. Importance (Decile by Measure Score, FY2023)

Lowest Performers → **Highest Performers**

	Overall	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10
Average Score (Standard Deviation)	73.1 (13.40)	47.4	61.0	65.5	69.8	72.9	75.7	78.8	81.9	86.7	92.9
Organizations	179	18	18	18	18	18	18	18	18	18	17
Patients	12,641	899	1,394	1,027	1,009	1,586	1,231	1,451	1,540	1,309	1,195

Table 1 Interpretation: To estimate the number of positive outcomes (appropriate administration of anticoagulation therapy for eligible patients), the number of patients is multiplied by the average score for each decile. Right now, the total estimated number of positive outcomes across all deciles is about 9,400. For example, if the average performance of Decile 8 (81.9%) is considered a plausible, achievable score, and the organizations in Deciles 1 through 7 improved to reach that score, the estimated number of eligible patients receiving anticoagulation therapy for atrial fibrillation/flutter at qualifying visits would go up by about 9%, which translates to a potential of about 1,100 additional positive outcomes. This means that improving performance on this measure could help ensure that hundreds more patients receive the appropriate anticoagulation therapy they need, potentially leading to better health outcomes.

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About Figure 2: Figure 2 is a bar graph displaying average change in performance by performance decile on this measure. Battelle developed this graph by first assigning each entity's year 1 (2021) performance score to a decile (1-10). For each organization the change in performance score from year 1 was then calculated for both year 2 (2022) and year 3 (2023). The resulting changes in performance for year 2 and year 3 were plotted against the year 1 decile assignments, allowing for visualization of performance trends over time by initial performance level.

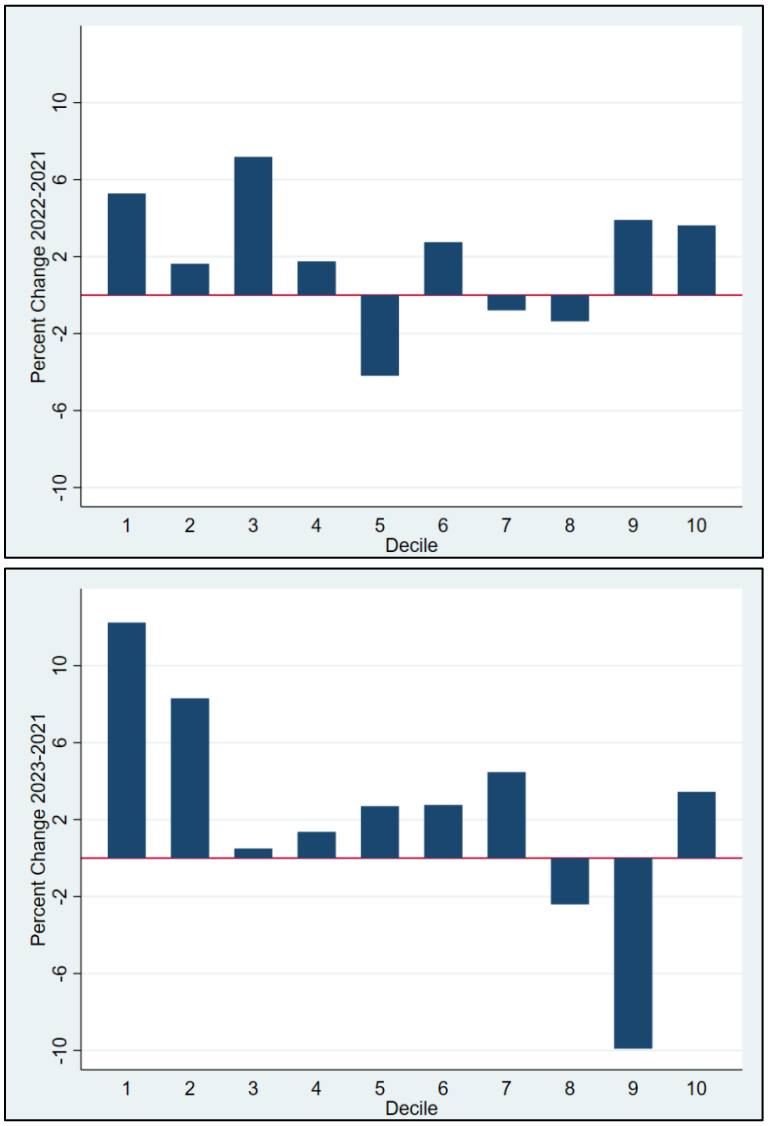

Figure 2. Mean Change in Performance by Decile

Figure 2 Interpretation: The upper graph shows that the average performance for entities in the three lowest scoring deciles in PY2021 showed some improvement in PY2022. Entities in the higher scoring deciles in PY2021 generally showed little change in average performance in PY2022. The lower graph shows that the average performance for entities in the first two deciles, the 20% lowest scores in PY2021, improved even more in PY2023.

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III. Evaluation Criteria

Meaningfulness

Importance
Guiding Questions: Does the evidence show that the focus of the measure is linked to meaningful outcomes for patients and health care organizations? Do the data demonstrate that using this measure within the quality program results in benefits that outweigh any associated burdens or costs?
Evidence in published literature indicates that the measure focus is associated with the positive outcome of preventing recurrent stroke in high-stroke-risk-atrial fibrillation patients with TIA or prior stroke in hospital settings. Figure 1 shows the relatively stable performance across 2021-2023 by organizations reporting on this measure within the program. There is still room for improvement on this measure focus within the program. As shown in Table 1, improving performance on this measure could help ensure that hundreds more patients receive the appropriate anticoagulation therapy they need, potentially leading to better health outcomes. **Committee Member Considerations:** Based on reviewing measure performance and professional and personal experiences, consider the balance of implementation costs or burdens with the benefit of measure use within the program. Committee members will have a chance to share these thoughts with the broader committee via Pre-meeting Initial Evaluation (PIE) Forms and group discussion.
Staff Rating: Met

Conformance
Guiding Question: Do measure components and specifications align with the measure intent and target population?
The intent of this measure is to improve secondary prevention for patients hospitalized with ischemic stroke and atrial fibrillation/flutter by assessing the percentage who are prescribed or continue anticoagulation therapy at hospital discharge. The specifications align with this intent: the numerator includes inpatient hospitalizations for patients who are prescribed or are continuing anticoagulation therapy at discharge. The denominator includes all inpatient hospitalizations for patients with a principal diagnosis of ischemic stroke and a history of atrial ablation, or current or history of atrial fibrillation/flutter. Exclusions for this denominator include those admitted for elective carotid intervention (modeled by including only non-elective admissions), those discharged to another hospital, those who left against medical advice, those who expired, those discharged to home or a health care facility for hospice care, those with comfort measures documented, and those with a documented reason for not being prescribed anticoagulation therapy at discharge. The measure specifications and components align with the broader objectives of the Hospital Inpatient Quality Reporting Program and are appropriate for the program population. **Committee Member Considerations**: Committee members should review the list of active measures within this CMS program and consider this measure's alignment with the group. The appendix lists all active measures reported in this program.
Staff Rating: Met

Feasibility
Guiding Question: Are the tools, processes, and people necessary to implement and report on the measure reasonably available for measured entities in the CMS program?
This measure is a digital measure/eCQM, and all data are collected electronically from the patient's health record. Data elements required for this measure are collected routinely as part of acute care. This measure is reported annually as part of the Hospital IQR Program. **Committee Member Considerations:** Committee members with experience implementing this or similar measures in acute care hospital settings should reflect on potential challenges to feasibility of data collection and reporting.
Staff Rating: Met

Validity
Guiding Question: Do the data and/or logic support the idea that the measured entity can improve their performance on the measure?
Prescribing guidelines and continuous process improvement in the hospital inpatient setting for ischemic stroke patients with atrial fibrillation/flutter at discharge can improve entity-level performance on this measure. Performance data show that some entities have high performance on this measure, indicating that there are methods for improving performance on measure targets. **Committee Member Considerations:** Committee members with experience implementing this or similar measures in acute care hospital settings should reflect on potential methods to improve adherence to prescribing anticoagulation therapy at discharge for the target population.
Staff Rating: Met

Reliability

The two tables below summarize reliability. Table 2 sorts organizations by the number of patients and reports average reliability along with the number of entities and average number and total patients for each decile. These tables can be used to assess the impact of population size on the reliability of an entity's measure score. Population size can impact reliability estimates because larger populations generally provide more stable and consistent measure scores, while smaller populations can lead to greater variation. In cases where reliability has a strong relationship to population size, reliability will be the lowest at Decile 1 and progressively increase up to Decile 10.

Table 3 sorts entities by reliability and reports the average reliability by decile. The table also includes the mean, standard deviation,[5] and interquartile range (IQR).[6] This table can be used to see the distribution of the reliability of the entities. A measure is generally considered reliable when the reliability for at least 70% of the individual entities is above 60%.

[5] Standard deviation is a number that shows how spread out the values in a group of numbers are. If the standard deviation is small, most values are close to the average; if it's large, the values are more spread out and indicate greater variation in performance.
[6] IQR, or interquartile range, is a number that shows how spread out the middle half of a group of numbers is. It measures the range between the value at the 25th percentile and the value at the 75th percentile, indicating how tightly or loosely the middle values are grouped.

Table 2. Reliability (Decile by Denominator – Target Population Size)

	Overall	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10
Mean Target Population Size	71	27	32	37	43	51	63	77	92	110	180
Mean Reliability	80.2	66.8	70.5	73.6	76.3	79.0	82.6	85.1	87.3	89.1	92.7
Entities	179	18	18	18	18	18	18	18	18	18	17
Total Patients	12,641	485	576	674	777	913	1,142	1,381	1,654	1,975	3,064

Table 3. 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
80.2	8.11	66.8	70.5	73.6	76.3	79.0	82.6	85.1	87.3	89.1	92.7	13.3

Tables 2 and 3 Interpretation: Reliability was estimated using a modification of the Adams[7] signal-to-noise method where the reliability for each entity *i* is estimated by[8] $100 * \frac{n_i}{\hat{\alpha}+\hat{\beta}+n_i}$ where n_i is the total number of patients for entity *i*, and $\hat{\alpha}$ and $\hat{\beta}$ are estimates of the beta binomial parameters. This method helps show how much of the difference in scores between groups is due to real differences in quality, rather than just random chance. In this case, 100% of all groups had a reliability score higher than 60%. This means that the measure can reliably tell the difference between those who are performing better or worse, making it a useful tool for comparing quality of care.

[7] Adams, John L., *The Reliability of Provider Profiling: A Tutorial.* Santa Monica, CA: RAND Corporation, 2009.
[8] Nieser, K.J. and Harris, H.S. *Comparing methods for assessing the reliability of health care quality measures.* Statistics in Medicine: 43(23), 2024.

Reliability
Guiding Question: Is there evidence that changes in measure performance are due to improvements in care quality? In other words, do data demonstrate that variation in measure performance is linked to changes made to processes or behaviors to improve care?
In the data above, 100% of all groups had a reliability score higher than 60%. This means that the measure can reliably tell the difference between those who are performing better or worse, making it a useful tool for comparing quality of care. **Committee Member Considerations:** Committee members should reflect on implications of the measure's reliability on program use and what the reliability may mean for individual measured entities.
Staff Rating: Met

Usability
Guiding Question: Are there any known barriers or facilitators that determine whether the person or entity could improve based on the measure focus? Are these barriers addressable?
This measure is reported annually to the Hospital IQR Program and is a pay-for-reporting measure. Potential barriers to usability include delayed recognition and tracking of improvement due to annual reporting and the potential for variation in barriers such as resource availability and staffing across measured entities. A review of information provided in CMIT and discussions with CMS program leads did not identify additional barriers or facilitators to measure use within the program. **Committee Member Considerations:** Based on professional/personal experiences, committee members should members should consider any barriers to using this measure for certain measured entities as well as any potential facilitators that might promote usability within the program.
Staff Rating: Met

Data Stream Parsimony

Data Stream Parsimony
Guiding Question: Does the clinical data flow required for the measure promote non-burdensome data collection and reporting?
Because the measure uses digital sources of data and relies on information that is already routinely collected in the electronic health record (EHR), extra manual data entry or special data collection processes are not needed. The data are reported electronically on an annual basis, which further reduces the workload for staff and helps ensure that reporting is efficient and streamlined. This measure is also in two other CMS programs that hospitals may participate in, which provides alignment to reduce burden. There is minimal reporting overlap with other active measures within the Hospital IQR Program. **Committee Member Considerations:** Based on professional/personal experiences, committee members should reflect on any additional barriers to the clinical data flow that collection may add as well as potential mitigation strategies.

Patient Journey

Patient Health Journey
Guiding Question: Does the measure address the appropriate aspects of care to align with the patient health care journey?
By focusing on the prescription or continuing use of anticoagulation therapy at discharge, the measure ensures that patients receive an important treatment at a critical transition point in their care. This step helps reduce the risk of complications after leaving the hospital and supports better long-term health outcomes. Making sure that patients are prescribed the right therapy at discharge is an important part of providing high-quality, continuous care that meets patients' needs throughout their health care journey. **Committee Member Considerations:** Based on professional/personal experiences, committee members should consider if the measure identifies an appropriate and critical time to engage patients in EOL planning. Reflect on whether this timepoint is meaningful to patients and any potential barriers or burdens associated with this timepoint in the care journey.

Appendix: Active Measures in the Hospital Inpatient Quality Reporting (IQR) Program

Measures Included in Hospital Inpatient Quality Reporting Program	
CMIT ID	**Measure Title**
01800-01-C-HIQR	Patient Safety Structural Measure
01802-01-C-HIQR	Age Friendly Hospital Measure
00678-01-C-HIQR	Severe Sepsis and Septic Shock: Management Bundle (Composite Measure)
00418-01-C-HIQR	Maternal Morbidity Structural Measure
00062-04-E-HIQR	*Anticoagulation Therapy for Atrial Fibrillation/Flutter*
00064-03-E-HIQR	Antithrombotic Therapy by the End of Hospital Day Two
00134-02-C-HIQR	Death Rate among Surgical Inpatients with Serious Treatable Complications
00211-02-E-HIQR	Discharged on Antithrombotic Therapy
00343-02-E-HIQR	Hospital Harm -Severe Hyperglycemia
00399-03-E-HIQR	Intensive Care Unit Venous Thromboembolism Prophylaxis
00247-01-C-HIQR	Excess Days in Acute Care (EDAC) after Hospitalization for Acute Myocardial Infarction (AMI)
00248-01-C-HIQR	Excess Days in Acute Care after Hospitalization for Heart Failure
00249-01-C-HIQR	Excess Days in Acute Care after Hospitalization for Pneumonia
00339-01-E-HIQR	Hospital Harm - Acute Kidney Injury
00341-01-E-HIQR	Hospital Harm - Pressure Injury
00338-01-C-HIQR	Hospital Consumer Assessment of Healthcare Providers and Systems Survey (HCAHPS)
00669-01-E-HIQR	Safe Use of Opioids - Concurrent Prescribing
00696-04-E-HIQR	Hybrid Hospital-Wide All-Cause Risk Standardized Mortality Measure (HWM)
00758-06-E-HIQR	Venous Thromboembolism Prophylaxis
01660-01-C-HIQR	Hospital Commitment to Health Equity
00342-02-E-HIQR	Hospital Harm - Severe Hypoglycemia
01633-01-E-HIQR	Severe Obstetric Complications (eCQM)
01611-01-E-HIQR	Global Malnutrition Composite Score (eCQM)
01662-01-C-HIQR	Screen Positive Rate for Social Drivers of Health
00180-02-C-HIQR	COVID-19 Vaccination Coverage among Healthcare Personnel (HCP) (2022 revision)
00350-02-C-HIQR	Hospital-Level Risk-Standardized Complication Rate (RSCR) Following Elective Primary Total Hip Arthroplasty (THA) and/or Total Knee Arthroplasty (TKA)
00250-01-E-HIQR	Excessive Radiation Dose or Inadequate Image Quality for Diagnostic Computed

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Measures Included in Hospital Inpatient Quality Reporting Program	
CMIT ID	**Measure Title**
	Tomography (CT) in Adults for use in Hospital Quality Programs
00333-01-C-HIQR	Hospital 30-Day, All-Cause, Risk-Standardized Mortality - Rate Following Acute Ischemic Stroke
00390-01-C-HIQR	Influenza Vaccination Coverage among Healthcare Personnel
00356-11-E-HIQR	Hybrid Hospital-Wide All-Cause Readmission Measure (HWR)
00434-12-C-HIQR	Medicare Spending Per Beneficiary (MSPB) - Hospital
00508-03-E-HIQR	Cesarean Birth (eCQM)
01308-01-E-HIQR	Hospital Harm - Opioid-Related Adverse Events (eCQM)
01664-01-C-HIQR	Screening for Social Drivers of Health