2024 Measure Set Review (MSR): Final Preliminary Assessment

The following information was sourced in June of 2024 from the Centers for Medicare & Medicaid Services (CMS) Measures Inventory Tool (CMIT), discussions with CMS program leads, and publicly available CMS datasets (see links below).

I. Measure Information

CMIT ID	Title
00005-01-C-HOQR	Abdomen Computed Tomography (CT) - Use of Contrast Material
Measure Steward	CMS Program
Centers for Medicare & Medicaid Services (CMS)	Hospital Outpatient Quality Reporting

Measure Overview	
Rationale: The measure aims to promote high-quality, efficient care; reduce unnecessary exposure to contrast materials and/or radiation; ensure adherence to evidence-based medicine and clinical practice guidelines; and provide data to consumers and other stakeholders about imaging use at the facility, state, and national level.	
Description: This measure calculates the percentage of abdomen and abdominopelvic computed tomography (CT) studies that are performed without and with contrast out of all abdomen and abdominopelvic CT studies performed (those without contrast, those with contrast, and those without then with contrast) at each facility. The measure is calculated based on a 1-year window of Medicare claims data.	
Numerator: Of cases in the denominator, the numerator contains those abdomen and abdominopelvic CT studies performed without, then with contrast (also referred to as *combined studies*) documented using the Abdomen CT Without then With Contrast CPT codes. **Exclusions:** None	
Denominator: The number of CT studies of the abdomen or abdominopelvis performed—without contrast, with contrast, or without then with contrast—within a 1-year window of Medicare fee-for-service (FFS) claims data for beneficiaries whose imaging was performed at outpatient hospital facilities reimbursed through the Outpatient Prospective Payment System (OPPS). Medicare FFS beneficiaries can be included in the measure's initial patient population multiple times; each abdomen or abdominopelvis CT (without contrast, with contrast, or both with and without contrast) performed at a facility measured under OPPS is counted once in the measure's denominator. **Exclusions:** Medicare FFS beneficiaries whose abdomen or abdominopelvic CT had one of the following clinical diagnoses recorded on the imaging claim are excluded from the measure's initial patient population: adrenal mass, diseases of the urinary system, hematuria, infections of the kidney, jaundice, liver lesion (mass or neoplasm), malignant neoplasm of the bladder, malignant neoplasm of the pancreas, non-traumatic aortic disease, pancreatic disorders, or unspecified disorder of the kidney or ureter.	
Measure type: Process	**Measure is a composite:** No **Measure is digital and/or an eCQM:** No

Level(s) of analysis: Facility/Hospital/Agency	**Care setting:** Hospital: Inpatient Acute Care Facility Hospital: Outpatient Department (HOD)
Risk adjustment and/or stratification: No. Process measures are frequently not risk adjusted.	**Data source(s):** Medicare FFS claims
Data collection method: Claims data review	**Reporting frequency:** Annual
All required data are collected as part of clinical workflow: Yes	**Reporting overlap with similar/related measures:** No overlap with active measures in program.
Does this measure fill a statutorily required category for the program? No	**Is this measure included in upcoming rulemaking?** No

Measure Status	
Current CBE Endorsement Status: Not Endorsed	**CBE Endorsement History:** None

II. Measure Performance

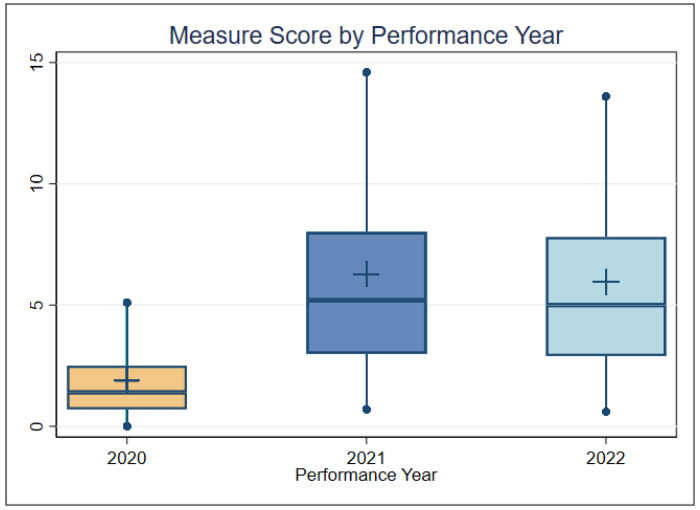
00005-01-C-HOQR Performance in HOQR 2020-2022

For this measure, the MSR evaluation and analysis team reviewed the publicly available dataset Outpatient Imaging Efficiency-Hospital and archived Hospital data.

Figure 1 is a boxplot that shows the distribution of the performance over the past 3 years (where available). For each performance year, the dots indicate the lower 5th and upper 95th percentiles, and the vertical line is the range between these values (90% of the measure scores are between the dots). The box spans the lower 25th to the upper 75th percentile (50% of the measure scores are within the box). The horizontal line in the box indicates the median score, and the "+" indicates the mean score. This plot can be used to assess overall trends in the score over time.

Interpretation: In the plot below, the median score increased from less than 2 in 2020 to over 5 in 2021 and 2022. The range of performance increased from 2020 to 2021 and remained consistent in 2022.

Figure 1. Boxplot of Measure Score by Year



Importance Table

Interpretation of measure scores: This table shows the relative spread of the scores and can also be used to evaluate the impact of improving the score. It is common practice to use the performance of the top 20% of the entities as a benchmark. Here, 20% of the entities perform better than the 3rd Decile, which could be considered the benchmark. In this case the benchmark is 2.96. Examining mean scores at the higher deciles shows the relative change required to achieve the benchmark.

Table 1. Importance (Decile by measure score, 2022)

Data Type	Overall	Min	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10	Max
Mean Score (SD)	5.96 (4.99)	0	0.63	1.98	2.96	3.78	4.58	5.45	6.48	7.75	9.62	16.37	75.40
Entities	3927	94	393	393	393	392	393	393	392	393	393	392	1
Total Patients*													

*The count of patients contributing to calculation of the measure was not available for this measure at the time of this analysis.