



**MARYLAND**  
**Health Care**  
**Commission**

# Certificate of Ongoing Performance for Primary and Elective PCI Services

JOHNS HOPKINS BAYVIEW MEDICAL CENTER  
(JHBMC)

OCTOBER 17, 2024



# Summary of Standards for PCI Certificates of Ongoing Performance (COMAR 10.24.17)

- ▶ Data Collection
- ▶ Institutional Resources
- ▶ Quality
- ▶ Patient Outcome Measures
- ▶ Physician Resources
- ▶ Volume
- ▶ Patient Selection



# Staff Analysis and Conclusions

Summary of Standard	Applicant Information and Staff Analysis	Recommend Finding Hospital Meets Standard
Primary PCI services available 24 hours per day, 7 days per week	From 2020 through 2023, the cardiac catheterization laboratory (CCL) was almost always available. However, unlike other hospitals there is not backup CCL space, and care of four STEMI patients was affected.	Yes*
Door-to-balloon (DTB) times of 90 minutes or less for 75 percent of primary PCI cases	JHBMC did not meet the DTB standard in several quarters between January 2019 and December 2023. However, in the majority of cases where the standard was missed, the reason was a non-system reason for delay.	Yes
Hospital shall maintain a risk-adjusted mortality rate consistent with high quality patient care	The hospital performed similarly to the national benchmark for STEMI and non-STEMI cases for the 12-month periods from January 2019 through December 2023.	Yes

\*With a condition

# JHBMC AMR by Rolling 12-Month Periods - STEMI



Reporting Period	Hospital Adjusted Mortality Rate (AMR)	95% CI	National Benchmark	Meets MHCC Standard?
2023q1-2023q4	2.51	[0.06, 13.18]	1.88	Yes
2022q4-2023q3	2.94	[0.07, 15.38]	1.91	Yes
2022q3-2023q2	2.49	[0.06, 13.20]	1.89	Yes
2022q2-2023q1	1.94	[0.05, 10.31]	1.89	Yes
2022q1-2022q4	3.43	[0.42, 11.73]	2.00	Yes
2021q4-2022q3	5.59	[1.17, 15.35]	2.11	Yes
2021q3-2022q2	4.40	[1.23, 10.44]	2.18	Yes
2021q2-2022q1	3.59	[0.75, 9.72]	2.82	Yes
2021q1-2021q4	2.82	[0.35, 9.43]	2.74	Yes
2020q4-2021q3	3.00	[0.37, 10.01]	2.18	Yes
2020q3-2021q2	9.40	[3.92, 17.87]	7.51	Yes
2020q2-2021q1	8.87	[4.46, 14.83]	7.55	Yes
2020q1-2020q4	8.48	[4.04, 14.78]	6.89	Yes
2019q4-2020q3	5.98	[2.25, 12.18]	6.37	Yes
2019q3-2020q2	6.37	[2.40, 12.93]	6.06	Yes
2019q2-2020q1	7.57	[2.51, 16.64]	5.99	Yes
2019q1-2019q4	8.60	[4.06, 15.30]	6.01	Yes

Source: MHCC staff compilation of results from the hospital's quarterly reports on the ACC-NCDR CathPCI data for PCI cases performed between January 2019 and December 2023.

# JHBMC AMR by Rolling 12-Month Periods – Non-STEMI



Reporting Period	Hospital Adjusted Mortality Rate (AMR)	95% CI	National Benchmark	Meets MHCC Standard?
2023q1-2023q4	0.60	[0.02, 3.22]	1.99	Yes
2022q4-2023q3	0.48	[0.01, 2.58]	2.02	Yes
2022q3-2023q2	0.48	[0.01, 2.60]	2.02	Yes
2022q2-2023q1	0.61	[0.02, 3.29]	2.05	Yes
2022q1-2022q4	0.00	[0.00, 4.41]	2.14	Yes
2021q4-2022q3	0.68	[0.02, 3.68]	2.20	Yes
2021q3-2022q2	1.32	[0.16, 4.62]	2.26	Yes
2021q2-2022q1	0.96	[0.12, 3.45]	2.25	Yes
2021q1-2021q4	1.15	[0.24, 3.28]	1.16	Yes
2020q4-2021q3	1.26	[0.28, 3.86]	2.23	Yes
2020q3-2021q2	1.29	[0.16, 4.56]	1.18	Yes
2020q2-2021q1	1.57	[0.19, 5.53]	1.21	Yes
2020q1-2020q4	2.38	[0.29, 8.41]	1.13	Yes
2019q4-2020q3	2.52	[0.52, 7.18]	1.06	Yes
2019q3-2020q2	2.94	[0.61, 8.37]	1.00	Yes
2019q2-2020q1	2.55	[0.53, 7.29]	0.95	Yes
2019q1-2019q4	0.98	[0.18, 5.27]	0.95	Yes

Source: MHCC Staff compilation of results from the hospital's quarterly reports from the ACC NCDR CathPCI for PCI cases performed between January 2019 and December 2023



# Staff Analysis and Conclusions

Summary of Standard	Applicant Information and Staff Analysis	Recommend Finding Hospital Meets Standard
<p>Demonstrate that the hospital is taking appropriate action in response to concerns identified through quality assurance activities, including internal and external review of cases</p>	<p>JHBMC provided descriptions of its quality assurance processes, detailed meeting minutes, and other information demonstrating that the hospital identifies areas for improvement and takes action to address concerns.</p>	<p>Yes</p>
<p>Total program PCI volume of 200 cases or greater, annually</p>	<p>Based on MHCC staff’s analysis of the CathPCI data, the total PCI cases ranged from 197 in CY 2019 to 131 in CY 2023.</p>	<p>Yes</p>
<p>Total primary PCI volume of 49 cases or greater, annually</p>	<p>The number of primary PCI cases ranged from 44 to 67 annually between CY 2019 and CY 2023. The hospital fell below the standard only in CY 2021, when MHCC waived various volume standards due to the COVID-19 pandemic.</p>	<p>Yes</p>

# Staff Analysis and Conclusions



Summary of Standard	Applicant Information and Staff Analysis	Recommend Finding Hospital Meets Standard
Semi-annual external review of at least 5% of randomly selected elective PCI cases and at least three cases per physician or all cases if fewer than three cases performed	Semi-annual reviews were completed from January 2019 through June 2022; for each external review period, between 29% and 49% of cases were reviewed.	Yes
Semi-annual review of at least three PCI cases or 10% of cases, whichever is greater, or all cases if fewer than three were performed during the review period for each interventionalist	The hospital met the standard through a combination of internal and external reviews.	Yes
Develop a formal process for interventional case review that includes regularly scheduled meetings held at least every other month	The hospital provided documentation for interventional case review meetings from 2019 through 2023. These meetings included physicians, technicians and nurses caring for primary PCI patients. At least 12 meetings were held each year for the review period.	Yes

# Staff Analysis and Conclusions



Summary of Standard	Applicant Information and Staff Analysis	Recommend Finding Hospital Meets Standard
Create a multiple care area group that includes leadership of each care area and meets monthly	The hospital provided documentation of meetings held between January 2019 and December 2023. Except in 2019, when only nine meetings were held, at least 11 meetings were held each year.	Yes
Perform external review of elective PCI cases	From January 2019 through June 2022, only one elective PCI case was determined to be rarely appropriate by two or more of the three criteria used to evaluate appropriateness.	Yes
Primary PCI only provided to suitable patients	There were only two STEMI patients who received thrombolytic therapy that subsequently failed, well below the threshold for the standard.	Yes



# Recommendation

Staff recommends that the Commission issue a Certificate of Ongoing Performance that permits Johns Hopkins Bayview Medical Center to continue providing primary and elective percutaneous coronary intervention services for four years with the following condition:

JHBMC must adhere to its backup plan when the CCL has planned downtime or is unexpectedly down, which includes having an ambulance and team stationed on-site specifically for transport of STEMI patients. The hospital shall report, at least quarterly, on the amount of downtime for the CCL, including the date of downtimes with start and end times, any instances in which STEMI patients were transported to another hospital due to downtime of the CCL, the amount of time taken for patient transport to another hospital, and the time taken for ambulance arrival, if an ambulance was not stationed at the hospital for STEMI patients, due to unexpected downtime. This information shall be reported within 30 days of the end of each quarter of the calendar year, beginning with the fourth quarter of 2024 and continuing for at least eight quarters, until staff releases JHBMC from the condition.