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2024 ACC/AHA Clinical Performance and Quality Measures for Adults With Valvular and Structural Heart Disease

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Valvular Heart Disease Performance Measures Writing Committee

- In 2021, a 15-member writing committee was convened to develop a measure set addressing valvular heart disease.
- The writing committee was charged with developing new measures to evaluate the care of patients in accordance with the “2020 ACC/AHA Guideline for the Management of Patients With Valvular Heart Disease”.

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Top 10 Take-Home Messages

1. The current document includes a comprehensive list of 11 measures (5 performance measures and 6 quality measures) that can be clinically used in patients with valvular heart disease.
2. All 5 performance measures fulfill the attributes of performance measures (eg, high impact, targeting meaningful gaps in care, actionable, relatively low abstraction burden [in terms of cost, effort, and time], unlikely to have unintended consequences with their implementation), and are based on Class 1 clinical practice guideline recommendations.
3. The 5 performance measures listed are appropriate for public reporting or pay-for-performance programs.

Top 10 Take-Home Messages (Continued)

4. The quality measures are not ready for public reporting or pay for performance but may be useful for clinicians and health care organizations for internal review and quality improvement. Quality measures may be upgraded in the future to a performance measure status after being assessed in real-world clinical practice, or can be completely retired in certain instances. For example, instances in which performance measures could be retired include very high levels of performance ("topping out") or new evidence showing marginal clinical impact or unforeseen adverse consequences, such as risk aversion.
5. All measures pertain to the outpatient setting except 1 quality measure that applies predominantly to the inpatient setting.
6. The measures are well defined and include definite exclusions (eg, hospice, palliative care, comfort care) and relative exceptions, which may be medical- or patient-related (eg, active bleeding, patient refusal).

Top 10 Take-Home Messages (Continued)

7. Of the performance measures, 4 are related to proven therapies (1 is a medical treatment and 3 are surgical or catheter-based interventions), and 1 pertains to a diagnostic modality.
8. The 1 performance measure pertinent to medical treatment pertains to the prescription of a vitamin K antagonist (eg, warfarin) in patients with mechanical prosthetic valves, which has been proven to prevent valve thrombosis and thromboembolic events.
9. Three performance measures pertain to the implementation of an appropriate valve intervention in patients with (1) severe symptomatic aortic valve stenosis, (2) chronic severe aortic regurgitation (symptomatic, or asymptomatic with left ventricular systolic dysfunction), and (3) chronic severe primary mitral regurgitation (symptomatic, or asymptomatic with left ventricular systolic dysfunction).

Top 10 Take-Home Messages (Continued)

10. A notable quality measure is the objective documentation of risk while using a procedural risk score (eg, the web-based Society of Thoracic Surgeons Risk Calculator), and documentation of a multifaceted heart valve team discussion whenever a valvular procedure or surgical intervention is being considered.



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Summary of Performance and Quality Measures

For Valvular Heart Disease

Performance Measures

- Developed from Class 1 class of recommendation (COR) and Level A and B level of evidence (LOE) (i.e., strong recommendations based on the highest quality of evidence).
- Designed to be considered for use in national quality payment and reporting programs by entities such as the Centers for Medicare & Medicaid Services (CMS) and the National Committee for Quality Assurance (NCQA).

Quality Measures

- Based on lower ranges of CORs and LOEs.
- Designed to support quality improvement initiatives and activities at the national or microsystem levels.

Performance Measures

Measure No.	Measure Title/Description	COR/LOE
Performance Measures		
PM-1	VKA for Mechanical Heart Valves (Outpatient Setting)	COR: 1, LOE: A
PM-2	AV Intervention for Severe Symptomatic AS (Outpatient Setting)	COR: 1, LOE: A; COR: 1, LOE: B-NR; COR: 1, LOE: C-EO
PM-3	AV Surgery for Chronic Severe AR (Outpatient Setting)	COR: 1, LOE: B-NR
PM-4	TTE for Asymptomatic Chronic Severe Primary MR (Inpatient and Outpatient Setting)	COR: 1, LOE: B-NR
PM-5	Mitral Valve Intervention for Chronic Severe Primary MR (Outpatient Setting)	COR: 1, LOE: B-NR

AR indicates aortic regurgitation; AS, aortic stenosis; AV, aortic valve; COR, class of recommendation; LOE, level of evidence; MR, mitral regurgitation; PM, performance measure; TTE, transthoracic echocardiogram; and VKA, vitamin K antagonist.

Quality Measures

Measure No.	Measure Title/Description	COR/LOE
Quality Measures		
QM-1	Documentation of Risk and Heart Team Discussion Before SAVR or TAVI (Inpatient Setting)	COR: 1, LOE: C-EO
QM-2	AVR for Asymptomatic AS With LV Systolic Dysfunction (Outpatient Setting)	COR: 1, LOE: B-NR
QM-3	TAVI for Severe Symptomatic AS >80 Years of Age (Outpatient Setting)	COR: 1, LOE: A; COR: 1, LOE: C-EO
QM-4	Post-AVR Echocardiogram (Outpatient Setting)	COR: 1, LOE: B-NR
QM-5	Adequate BP Control in AR Patients (Outpatient Setting)	COR: 1, LOE: B-NR
QM-6	Treatment for Symptomatic Severe Rheumatic MS (Outpatient Setting)	COR: 1, LOE: A; COR: 1, LOE: B-NR

AR indicates aortic regurgitation; AS, aortic stenosis; AVR, aortic valve replacement; BP, blood pressure; COR, class of recommendation; LOE, level of evidence; LV, left ventricle (left ventricular); MS, mitral stenosis; QM, quality measure; SAVR, surgical aortic valve replacement; and TAVI, transcatheter aortic valve implantation.

Summary

- 5 performance measures
- 6 quality measures
- Measures were selected based on their importance for health, the strength of data supporting the recommendations, existing gaps in patient care, ease of implementation, and risk for unintended consequences.
- Implementation of this measure set by clinicians and health care facilities will enhance safe, cost-efficient, patient-centered, and culturally sensitive care for individual patients.

VHD Performance Measures Publication

Citations and Links to VHD Performance Measures Publication

ACC Journal - *Journal of the American College of Cardiology*

Jneid H, Chikwe J, Arnold SV, et al. 2024 ACC/AHA clinical performance and quality measures for adults with valvular and structural heart disease: a report of the American Heart Association/American College of Cardiology Joint Committee on Performance Measures [published online ahead of print March 14, 2024] J Am Coll Cardiol. doi: 10.1016/j.jacc.2023.12.006

Link to publication: <https://www.jacc.org/doi/10.1016/j.jacc.2023.12.006>

AHA Journal - *Circulation: Cardiovascular Quality and Outcomes*

Jneid H, Chikwe J, Arnold SV, Bonow RO, Bradley SM, Chen EP, Diekemper RL, Fugar S, Johnston DR, Kumbhani DJ, Mehran R, Misra A, Patel MR, Sweis RN, Szerlip M. 2024 ACC/AHA clinical performance and quality measures for adults with valvular and structural heart disease: a report of the American Heart Association/American College of Cardiology Joint Committee on Performance Measures. Circ Cardiovasc Qual Outcomes. 2024;17:e000129. doi: 10.1161/HCQ.0000000000000129

Link to publication: <https://www.ahajournals.org/doi/10.1161/HCQ.0000000000000129>