Performance Measure for Optimal Blood Pressure Control

Data Definitions

Optimal Blood Pressure Control
The definition of Optimal Blood Pressure Control is linked to AHA/ACC/ASH Scientific Statements or Guidelines, which are referenced in the measure specifications. Based on the 2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults, optimal blood pressure control is defined as systolic blood pressure of less than 130 mmHg AND diastolic blood pressure of less than 80 mmHg.

Program Completion
A patient is defined as having completed CR when he/she has undergone a final, formal discharge assessment session and updated treatment plan.

Denominator Exclusions
Blood pressure measurement in patients with a left ventricular assist device (LVAD) does not produce a systolic and diastolic blood pressure, only a mean pressure. Therefore patients who have an LVAD should not be included in the measure denominator or numerator results. Medical or surgical contraindications to blood pressure measurement could include bilateral lymphedema, bilateral mastectomy, upper extremity amputation, bilateral upper extremity thromboembolism, or other contraindications as determined by the patient’s healthcare provider.

Frequently Asked Questions

Which blood pressure during the final cardiac rehabilitation session should I use to determine whether the patient met the criteria for the performance measure?
You should use the patient’s resting blood pressure at arrival for the final cardiac rehabilitation session, ideally after sitting for 5 minutes. If the blood pressure is elevated, it is appropriate to check it again to confirm that the elevated blood pressure is not just a transient event, and then use the average of at least 2 BP’s, separated by 1 to 2 minutes as the resting BP for the measure. If the initial resting blood pressure or (if needed) the subsequent average blood pressure remains greater than 140/90, then the patient does not have optimal BP control and does not meet the criteria for the measure. If the blood pressure is less than 140/90, the patient does meet the criteria.

The intent of this measure is to drive improvement in systems and processes that help patients, cardiac rehab staff and treating physicians work together to achieve optimal blood pressure control. This is not a research project requiring absolute accuracy with blood pressure measurement. Rather, this measure is intended to reflect the ability of a cardiac rehabilitation program to impact optimal blood pressure control.

Does both the systolic and diastolic blood pressure need to be on target in order to meet the measure?
Yes, the systolic blood pressure must be less than 130 and the diastolic blood pressure must be less than 80.
What will happen now that the ACC/AHA guidelines recommend a different target blood pressure for patients with heart disease?

The Quality of Care Committee of AACVPR is currently updating the performance measure, based on the 2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults. The committee will also work with the Registry and Program Certification committees to decide when to implement the updated performance measure, most likely when data collection begins for a new program certification cycle.

What if the patient drops out of the program without notifying a staff member that this is the last exercise session?

The Quality of Care Committee decided to use the Registry definition of Completion of Program to avoid penalizing programs for incomplete treatment plans that result from a patient’s non-adherence to recommendations, such as the prescribed number of cardiac rehabilitation sessions. For example, if a patient’s treatment plan is to attend 24 sessions, then the resting blood pressure on arrival for the 24th session should be used. However, if the plan was for the patient to complete 36 sessions and the patient drops out of the program before the 36th session without notifying staff, then the staff will not have completed the end of program assessments. That patient should be excluded from the measure, which means that they should not be included in either the numerator or the denominator.

Why is this measure applied to all patients in the CR program, regardless of diagnosis?

Optimal blood pressure control is important for patients with all forms of heart disease, not just those with coronary artery disease, including patients with heart failure or valvular heart disease (other than those with severe aortic stenosis who are generally not referred to CR).