

What Constitutes Adequate Control of High Blood Pressure? Current Considerations

Supplemental Appendix 3

Page 2

Structural Quality Measure 5 (SM-5): Use of a Standard Process to Engage Patients in Shared Decision-Making, Tailored to Their Personal Benefits, Goals, and Values for Evidence-Based Interventions to Improve Control of HBP

Page 3

Structural Quality Measure 6 (SM-6): Demonstration of Infrastructure and Personnel That Assess and Address Social Determinants of Health of Patients With HBP

Page 4

Structural Quality Measure 7 (SM-7): Use of Team-Based Care to Better Manage HBP

Excerpted from Casey DE Jr, Thomas RJ, Bhalla V, et al. 2019 AHA/ACC Clinical Performance and Quality Measures for Adults With High Blood Pressure: A Report of the American College of Cardiology/American Heart Association Task Force on Performance Measures. *Circ Cardiovasc Qual Outcomes*. 2019 Nov;12(11):e000057. doi: 10.1161/HCQ.0000000000000057. Epub 2019 Nov 12. PMID: 31714813; PMCID: PMC7717926.

Permission to republish granted by the Lead Author, Donald E Casey Jr.

APPENDIX A. CONTINUED**A Patient-Centered Approach for Controlling HBP****SM-5: Use of a Standard Process to Engage Patients in Shared Decision-Making, Tailored to Their Personal Benefits, Goals, and Values for Evidence-Based Interventions to Improve Control of HBP**

Measure Components	<p>The CDU uses a standard process/protocol for implementing SDM in clinical settings for patients with HBP, including:</p> <p>One of the following:</p> <ul style="list-style-type: none"> ■ Structured decision aids <ul style="list-style-type: none"> ■ A formal SDM tool is available, with evidence that it is being routinely used in clinical encounters. ■ The choice of a decision aid should be informed by a formal quality assessment, as recommended by IPDAS (165). The tool should be published, free of bias, and ideally endorsed by professional organizations. ■ A process exists whereby patients with hypertension are identified and exposed to the SDM tool. ■ A formal SDM encounter occurs between the patient and provider using an evidence-based decision tool before initiation or adjustment of GDMT. ■ Communication skills training for providers <ul style="list-style-type: none"> ■ A program exists to provide skills in SDM to practitioners, with periodic assessments of providers' skills. ■ Built-in triggers in EHRs to remind clinicians to provide a decision aid to patients with hypertension. ■ The use of an SDM tool is documented within the EHR. ■ A process exists for identifying patients with hypertension who have not participated in SDM so that such a process can be offered.
---------------------------	---

Rationale

Decisions about primary prevention should be collaborative between a clinician and a patient. SDM occurs when practitioners engage patients in discussions about personalized ASCVD risk estimates and their implications on the perceived benefits of preventive strategies, including lifestyle habits, goals, and medical therapies. Collaborative decisions are more likely to address potential barriers to treatment options (166-169).

SDM is defined as "an approach where clinician and patients share the best available evidence when faced with the task of making decisions, and where patients are supported to consider options, to achieve informed preferences." (79,170); It draws on the principles of patient-centered care to increase patient commitment to treatment plans, including long-term adherence to drug therapy and lifestyle modification (168,171,172).

Adherence to GDMT of hypertension can be enhanced by SDM between clinicians and patients. Patients should be engaged in the selection of antihypertensive drug therapy and lifestyle modification strategies, with consideration of individual values, preferences, and associated conditions and comorbidities (2019 ACC/AHA Guideline on the Primary Prevention of Cardiovascular Disease [14]).

Measuring SDM in clinical settings

One of the following, supplemented with a process for systematic analysis and feedback to practitioners:

- Patient-reported measures of SDM
 - The 3-item CollaborATE Scale (173)
 - The 9-item Shared Decision-Making Questionnaire (SDM-Q-9 Patient Version) (174)
 - The 4-item SURE Scale (175)
- Provider-reported measures of SDM
 - The 9-item Shared Decision-Making Questionnaire (SDM-Q-Doc) (176)

Clinical Recommendations**2019 ACC/AHA Guideline on the Primary Prevention of Cardiovascular Disease (14)****Recommendations for Shared Decision Making (Section 2.1, 2019 Prevention Guideline)**

1. Shared decision making should guide discussions regarding the best strategies to reduce ASCVD risk (166-169). (Class 1, Level of Evidence: B-R)

ACC indicates American College of Cardiology; AHA, American Heart Association; ASCVD, atherosclerotic cardiovascular disease; BP, blood pressure; CDU, care delivery unit; EHR, electronic health record; GDMT, guideline-directed medical therapy/treatment; HBP, high blood pressure; IPDAS, International Patient Decision Aid Standards; and SDM, shared decision making.

APPENDIX A. CONTINUED

SM-6: Demonstration of Infrastructure and Personnel That Assess and Address Social Determinants of Health of Patients With HBP

Measure Components	<p>The CDU uses a standard process/protocol for addressing SDoH in clinical settings for patients with HBP, including:</p> <ul style="list-style-type: none"> ■ Utilization of a standardized tool, such as the Accountable Health Communities Screening Tool (177), to screen health-related social needs in clinical settings. ■ Integration of social and behavioral domains (Table A) into EHRs to monitor efforts to address SDoH. ■ Documentation of patient assessments of SDoH and referrals to social services in medical records. ■ Integration of clinical staff members (e.g., social workers, case managers, registered dietitians) to link patients with appropriate community resources. ■ Training of volunteers within the CDU to access a database of resources to address SDoH and provide follow-up until a resolution of unmet social needs is achieved. ■ Identification of community health workers to conduct home social assessments to connect socially deprived patients with community resources. ■ Creation of partnerships with community organizations that provide healthy food and assist with enrollment in federal nutrition assistance programs. ■ Creation of partnerships with pharmacies to provide access to home delivery options for obtaining medication to manage HBP.
---------------------------	---

Rationale

Socioeconomic inequalities are strong determinants of ASCVD risk internationally (178,179). Therefore, it is important to tailor advice to a patient's socioeconomic and educational status, as well as cultural, work, and home environments (180). The CMS has developed a tool to assess 5 domains of non-health-related measures that impact health outcomes: housing instability, food insecurity, transportation difficulties, utility assistance needs, and interpersonal safety (177). ASCVD prevention could benefit from such screening. ASCVD risk begins early in life, with heightened susceptibility tied to low socioeconomic status (181). Examples of upstream SDoH that affect adherence and ASCVD health outcomes include comorbid mental illness, low health literacy, exposure to adversity (e.g., home/community violence, trauma exposures, safety concerns), financial strain, inadequate housing conditions, food insecurity (e.g., access to affordable and nutritious food), and inadequate social support (182). Systems of care should evaluate SDoH that affect care delivery for the primary prevention of ASCVD (e.g., transportation barriers, the availability of health services).

Important considerations related to socioeconomic disadvantage are not captured by existing ASCVD risk equations (183). Addressing unmet social needs improves management of BP and lipids (184), highlighting the importance of dietary counseling and encouraging physical activity (185). More time may be required to address ASCVD prevention when working with adults of low health literacy or disadvantaged educational backgrounds. Differential cardiovascular outcomes persist by important sociodemographic characteristics, including but not limited to age, gender, and race/ethnicity (186-189). Failure to address the impact of SDoH impedes efficacy of proven prevention recommendations. Standardized use of EHRs that include social and behavioral domains could improve care for patients with HBP. Table A outlines social and behavioral domains that may be integrated into EHRs to address SDoH (190).

Clinical Recommendations

2019 ACC/AHA Guideline on the Primary Prevention of Cardiovascular Disease (14)

Recommendations for Addressing Social Determinants of Health (SDoH) (Section 2.1, 2019 Prevention Guideline)

1. Social determinants of health should inform optimal implementation of treatment recommendations for the prevention of ASCVD. (178-181,185,189,191) (Class I, Level of Evidence: B-NR)

ACC indicates American College of Cardiology; AHA, American Heart Association; ASCVD, atherosclerotic cardiovascular disease; CDU, care delivery unit; EHR, electronic health record; HBP, high blood pressure; and SDoH, social determinants of health.

TABLE A Core Domain and Measures

Domain	Measure
Social	
Race/ethnicity	US Census (2 questions)
Education	Educational attainment (2 questions)
Financial resource strain	Overall financial resource strain (1 question)
Stress	Stress symptoms (192) (1 question)
Depression	PHQ-2 (2 questions)
Social connections and social isolation	NHANES III (4 questions)
Exposure to violence: intimate partner violence	HARK (4 questions)
Neighborhood and community compositional characteristics	Residential address Census tract-median income
Behavioral	
Physical activity	Exercise Vital Sign (2 questions)
Tobacco use and exposure	NHIS (2 questions)
Alcohol use	AUDIT-C (3 questions)

Republished with permission of the Institute of Medicine, from "Capturing social and behavioral domains and measures in electronic health records: phase 2." Washington, DC: The National Academies Press, 2014; permission conveyed through Copyright Clearance Center, Inc (190).

AUDIT-C indicates Alcohol Use Disorders Identification Test-C; HARK, Humiliation, Afraid, Rape, Kick; NHANES III, National Health and Nutrition Examination Survey III; NHIS, National Health Interview Survey; and PHQ-2, Patient Health Questionnaire-2.

APPENDIX A. CONTINUED**Implementation of a System of Care for Patients With HBP****SM-7: Use of Team-Based Care to Better Manage HBP**

Measure Components	The CDU relies on various available components of team-based care in clinical settings for patients with HBP, which may include:
	<ul style="list-style-type: none"> ■ Pharmacists ■ RNs/APRNs ■ Physician assistants ■ Medical assistants ■ Community health workers ■ Integrated care managers ■ Social workers ■ Behavioral interventionists ■ Trainees ■ Algorithms to support clinicians ■ EHR support (BP recording, actionable prompts for clinicians, population health management) ■ Remote HBPM (EHR integration) ■ Monitoring performance metrics ■ Population health management ■ Telephone-based follow-up ■ Regular team meetings (best practice updates, workflow evaluation) ■ Assigned roles and responsibilities (patient and clinicians, clarity about team member roles) ■ *Optional: SM-4: EHR to diagnose and assess, SM-8: use of telehealth, SM-10: performance measurement <p>Goals of team-based care:</p> <ul style="list-style-type: none"> ■ Improve clinical workflow ■ Patient education ■ Closer follow-up of BP after initiation ■ Medication titration ■ Laboratory follow-up ■ Improved adherence ■ Lower clinician burn-out (193) <p>Checklist</p> <p>Goal: To optimize outpatient hypertension management (to be specifically stated as team's purpose/responsibility).</p> <p>Team Members:</p> <ul style="list-style-type: none"> ■ Lead clinician (at least 1): APRN or physician ■ Clinical support (at least 1): pharmacist, nurse, physician assistant, medical assistant, community health worker, care manager, or EHR support modules specific to hypertension ■ Administrative support (at least 1): scheduler, receptionist ■ Expert referral (onsite or external): designated referral system for refractory patients: cardiologist, nephrologist, endocrinologist <p>Team meetings: regular meetings on at least a quarterly basis to evaluate delivery of care for patients with hypertension.</p> <p>Performance monitoring: Use of PM 1-5 and QM 1-6 for feedback on performance and quality of care.</p> <p>Program elements (at least 2):</p> <ol style="list-style-type: none"> 1. Patient educational materials or sessions on hypertension. 2. Availability of BP-specific follow-up in 1 mo (telephone based, with HBPM, telehealth, or clinical support or clinician follow-up). 3. Ability of patients to contact team-based care team in a timely fashion about hypertension concerns (telephone, secure EHR messaging, email, urgent appointments). 4. Algorithm for medication titration led by clinical support team member and lead clinician supervision. 5. Timely follow-up and monitoring of laboratory results, with titration of relevant drug classes. 6. Monitoring adherence by using pharmacy fill data. 7. Provider-specific performance reports with hypertension metrics.

Rationale

RCTs and meta-analyses of RCTs of team-based hypertension care involving nurse or pharmacist intervention demonstrated reductions in SBP and DBP and/or greater achievement of BP goals when compared with usual care (194-197).

Similarly, systematic reviews of team-based care for patients with primary hypertension, including a review of studies that included community health workers, showed reductions in SBP and DBP and improvements in BP control, appointment keeping, and hypertension medication adherence as compared with usual care (198,199).

Team-based care can be defined by numerous structures that are functional and improve care in various settings and patient populations. Inherently, they try to provide a division of labor and improved workflows so that the delivery of quality care is maximized/optimized. Disease-management-specific programs and protocols help identify areas to improve workflow and patient-centered care.

AHRQ summary statement of team-based care: "the primary goal of medical teamwork is to optimize the timely and effective use of information, skills, and resources by teams of health care professionals for the purpose of enhancing the quality and safety of patient care." (200);

Clinical Recommendations**2017 Hypertension Clinical Practice Guidelines (4)****Recommendation for Structured, Team-Based Care Interventions for Hypertension Control (Guideline Sections 8.3.2 and 12.2)**

1. A team-based care approach is recommended for adults with hypertension. (194-197,199,201,202) (Class 1, Level of Evidence: A)
2. For older adults (≥ 65 y of age) with hypertension and a high burden of comorbidity and limited life expectancy, clinical judgment, patient preference, and a team-based approach to assess risk/benefit are reasonable for decisions regarding intensity of BP lowering and choice of antihypertensive drugs. (Class 2a, Level of Evidence: C-EO)
3. Follow-up and monitoring after initiation of drug therapy for hypertension control should include systematic strategies to help improve BP, including use of HBPM, team-based care, and telehealth strategies (47,203-207). (Class 1, Level of Evidence: A)