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Hypertension Control: Self-Measured Blood Pressure Monitoring

High blood pressure, or hypertension (HTN), is a major risk factor for heart disease, stroke and kidney disease. It affects nearly one-third of American adults aged 18 years or older (72 million people).¹ Treatment of HTN is the most effective clinical intervention available in terms of lives saved.²

Self-Measured Blood Pressure Monitoring

Self-Measured Blood Pressure (SMBP) monitoring provides critical clinical information to the healthcare providers without asking patients to visit the clinic, which may lead to reduced patients' visits to the clinic for only blood pressure checks. Furthermore, with increased awareness of their blood pressure readings, patients may also improve other lifestyle behaviors related to nutrition, activity level and smoking.³

The Million Hearts Initiative of the Centers of Disease Control and Prevention defines SMBP monitoring as "regular measurement of blood pressure by a patient outside the clinic setting".¹ Through this method, patients are prepared for their next visit with a healthcare provider by having their blood pressure readings available. If patients do not have a personal device to check their blood pressure, they can utilize resources within the community such as pharmacies, local libraries, emergency medical services, and fire departments that have resources to check blood pressures.

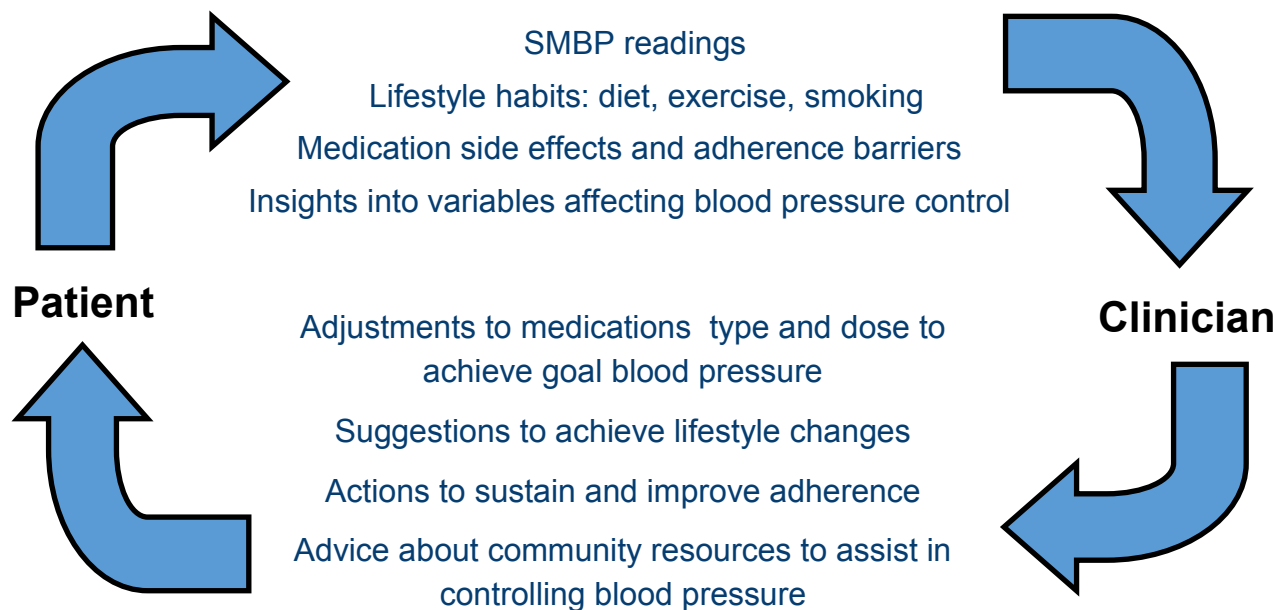
Team-based care for Implementing Self-Measured Blood Pressure Monitoring

Physician-led team-based care initiatives engage staff in patient care and provide physicians time to develop rapport with patients and formulate detailed care management plans with them. Through the implementation of this approach, team members are better aware of the patient's care management plans and are thus equipped to answer patients' between-visit questions, calls, and messages.⁴ Furthermore, SMBP monitoring can be utilized by a health care team to include all staff in educating patients. Team-based care approaches can guide the success of the patient in reaching blood pressure goals. This approach helps in optimizing the patient visit by allowing team members to provide counseling, education and a written visit summary including care management plan and guidance for follow-up visit. The written visit summary helps to ensure follow-up and outreach from a team member after the patient's visit and encourages adherence to the care management plan.⁵

Strategies to Adopt Self-Measured Blood Pressure (SMBP) Monitoring: Comprehensive Action Steps for Clinicians¹

- Prepare Care Teams to Support SMBP Monitoring:
 - Provide standardized trainings for the care team members.
 - Adopt and use standardized treatment guidelines and protocols.
- Select and Incorporate Clinical Support Systems:
 - Identify most suitable existing evidence-based SMBP monitoring model for your practice.
 - Establish strategies to ensure regular communication between care team and patients to receive SMBP monitoring readings from the patients and provide timely treatment advice.
- Empower Patients to Use SMBP Monitoring:
 - Discuss with patient: importance of blood pressure (BP) control; connection between SMBP monitoring and improved BP values; and adoption of strategies to improve BP control through healthy diet, increased physical activity and adherence to medication.
 - Train patients on proper procedures to measure BP correctly, record BP values and communicate with the care team to obtain treatment advice in a timely manner.
- Encourage Payer Coverage of SMBP Monitoring:
 - Understand whether health plans you work with support patient reimbursement for SMBP monitoring devices and provider reimbursement for remote counseling services.
 - Work with the payors and partners to promote coverage of SMBP monitoring.

Feedback Loop between Patients and Clinicians Supporting SMBP Monitoring: *Presented by Million Hearts Action Guide¹*



Adapted from *The Million Hearts Action Guide: Self-Measured Blood Pressure Monitoring. Action Steps for Clinicians¹*

How to Empower Patients to Use SMBP Monitoring? Comprehensive Action Steps for Clinicians¹

- Discuss following points with patients:
 - Why it is important to effectively control high blood pressure (BP)?
 - How measuring BP can assist in controlling high blood pressure?
 - Why it is important to adhere to the action steps for hypertension management? Talk about lifestyle and eating habits and importance of taking medication as prescribed.
 - Explain how SMBP monitoring assists in appropriate and timely management of high blood pressure without changing medications based on blood pressure readings from a single visit.
- Assist patients with the selection of a SMBP monitoring device that is appropriate for them.
- Once home device is selected, check it for its accuracy against a reliable office device.
- Provide training to the patients for:
 - Proper operation of the device;
 - Preparation for the measurement of blood pressure;
 - Proper positioning and accurate procedure to take the reading.
- Explain how they can integrate SMBP monitoring in their daily/weekly routine (frequency and time).
- Discuss with patients how they can track blood pressure values (paper/electronic) and communicate them to their health care team.
- Provide written material and/or electronic resources (video links) to assist patients for SMBP monitoring in a proper manner.
- Provide contact information for the health care team member whom patient can call if they have any question.
- Discuss with the patients if they have any barriers to purchase the blood pressure measurement device. Explore the strategies to assist the patients to overcome this barrier.



Source: Everyday Health



Source: Dukes Memorial Hospital

Example of An Evidence-Based Program for the SMBP Monitoring: American Heart Association Check. Change. *Control*.[®] Program⁶⁻⁸

The American Heart Association's (AHA) evidence-based **Check. Change. *Control*.[®] (CCC) Program** has been shown to improve participants' blood pressure values through self-monitoring. In this approach, community partners and health care providers engage and support adults with high blood pressure in SMBP monitoring using an online blood pressure tracker/communication tool.

The tracker dashboard/tool facilitates remote monitoring by trained volunteers. This tool allows trained volunteers or health care team to provide reminders/encouragement to the participants. Educational opportunities and resource materials, including a broad range of topics such as blood pressure information, nutritious eating, use of medication, exercise and stress management tips, are also offered to the participants. Group wellness activities encourage lifestyle skills development which may further improve blood pressure management.⁶⁻⁸

Non-physician team members may be trained to assist in the implementation of the AHA Check. Change. *Control*.[®] Program. These trained personnel can help patients with the program and serve as the primary contact person for the patients.



Source: KDHE/BHP-CC

How to implement the Check. Change. *Control*.[®] Program?

Presented by American Heart Association⁶⁻⁸

Collaborate with AHA and/or community partners interested in supporting high blood pressure control efforts among patients with high blood pressure.

Recruit patients to the program who are willing to check their blood pressure weekly, for four months. Assist participants to use the online tracker/communication tool.

Provide resources/opportunities to the participants that assist them in learning more about hypertension, its management, and developing lifestyle skills to improve their efforts in controlling high blood pressure.

At the end of four months:

- Celebrate participants' progress toward high blood pressure management and control.
- Encourage participants to continue SMBP monitoring, adherence to the medications and integration of healthy lifestyle skills learned (nutritious eating, exercise and stress management).

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