Managing Hypertension Remotely Using Self-Measured Blood Pressure (SMBP)
AMA Team

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Improving Health Outcomes

1. No new preventable cases of type 2 diabetes

2. Everyone with hypertension has their blood pressure at goal
“Self-monitoring alone is not associated with lower BP or better control…”
Objectives

• Outline steps to use Self-Measured Blood Pressure (SMBP) for remote management of hypertension and available resources to support implementation of SMBP

• Review the 2020 CPT codes to support SMBP and the remote management of hypertension

• Discuss recent changes to quality measurements related to remote management of hypertension
Defining Self-Measured BP (SMBP)

Self-measured blood pressure (SMBP) refers to blood pressure (BP) measurements obtained by the patient outside of a clinical setting.
SMBP for remote management of hypertension

HOW SMBP can be used to:
- Confirm a diagnosis of sustained hypertension, white coat hypertension or masked hypertension
- Assess BP control and effectiveness of changes in treatment
- Engage patients in self-management of BP

WHEN SMBP can be used:
- Before or after a scheduled encounter
- After a medication or treatment change
- At clinician discretion

WHO Physicians, other clinical team members, patients
7-step SMBP quick guide
7 Steps for SMBP

1. Identify patients for SMBP
2. Confirm device validation and cuff size
3. Train patients
4. Have patients perform SMBP
5. Average results
6. Interpret results
7. Document plans and communicate to patients
1. Identify patients for SMBP

- Patients with an existing diagnosis of hypertension

- Patients without a diagnosis of hypertension and
  - recent elevated or high blood pressure measurements in-office
  - suspected high blood pressure measurements out-of-office
  - labile blood pressures or those who need to have BP closely monitored for any reason
2. Confirm device validation and cuff size

• Automated, validated BP measurement devices with upper arm cuffs
  • Wrist devices should only be used if the patient cannot fit into an upper arm cuff or when otherwise medically required

• Appropriately sized cuffs

• Memory storage for 30 or more measurements
Selecting the appropriate cuff size

- Home BP cuffs usually have a standard-sized cuff that will fit upper arms starting at 8” up to 14-18” (XL options available for some devices)
Cuff Demonstration
SMBP loaner program considerations

- Often used to assist with confirmation of diagnosis

- Specific implementation considerations
  - Determine number of devices to purchase
  - Determine where devices will be stored
  - Determine how devices will be tracked
  - Determine how devices will be prepared between patients
3. Train patients

Training patients to properly prepare for and perform SMBP is essential.
4. Have patients perform SMBP

- Patients should take two sets of measurements twice a day
  - One set in the morning and one in the evening
  - Each set consists of two measurements performed one minute apart
  - Optimally done for seven days (minimum of 3 days or 12 readings)

- Determine when and how patients will share measurements

5. Average results and 6. Interpret results

• Average all SMBP measurements received from patients

• Document average systolic and average diastolic blood pressure in medical record
  • Will be used for clinical decision making

• Based on results, providers make diagnosis and/or assess control
  • Initiate, intensify or continue treatment as indicated
7. Document plans and communicate to patients

- Once treatment and follow-up plan is developed and documented by provider, communicate back to patient
- Confirm patient understanding and agreement
7-step SMBP quick guide

www.ama-assn.org/smbp-guide
US Validated Device Listing
Importance of device validation

2019 AHA Scientific Statement on Measurement of BP in Humans

“Healthcare providers should advise their patients to use only upper-arm cuff oscillometric devices that have successfully passed validation protocols.”

Device validation

- US Validated Device Listing launched in April 2020
  - Will be updated as manufacturers submit additional devices for review

- International validated device listings also available
  - Stride BP: https://stridebp.org/bp-monitors
  - Hypertension Canada: https://hypertension.ca/bpdevices
  - British and Irish Hypertension Society: https://bihsoc.org/bp-monitors/
CPT® Codes
CPT® Code Descriptions

• 99473: SMBP using a device validated for clinical accuracy; patient education/training and device calibration

• 99474: SMBP using a device validated for clinical accuracy; separate self-measurements of two readings, one minute apart, twice daily over a 30-day period (minimum of 12 readings), collection of data reported by the patient and/or caregiver to the physician or other qualified health care professional, with report of average systolic and diastolic pressures and subsequent communication of a treatment plan to the patient
2020 CPT® codes for SMBP - 99473

SMBP using a device validated for clinical accuracy; patient education/training and device calibration

- Can be submitted once per device
- Must use device validated for clinical accuracy
- Often used prior to initiating SMBP with patients receiving training for the first time
2020 CPT codes for SMBP- 99474

SMBP using a device validated for clinical accuracy; separate self-measurements of two readings, one minute apart, twice daily over a 30-day period (minimum of 12 readings), collection of data reported by the patient and/or caregiver to the physician or other qualified health care professional, with report of average systolic and diastolic pressures and subsequent communication of a treatment plan to the patient

- Can be submitted once monthly per patient if requirements met
- Must use device validated for clinical accuracy
- Minimum of 12 readings
- Data reporting can be done in any manner and by patient/caregiver
- Document average systolic and average diastolic blood pressure
- Communication of treatment plan to the patient required
The 7-step self-measured blood pressure (SMBP) quick guide

An evidence-based resource to help physicians and care teams start using SMBP, including links to practical implementation tools.

SMBP CPT® coding

Self-measured blood pressure (SMBP) refers to blood pressure (BP) measurements obtained outside of a physician’s practice, usually at home. When combined with clinical support (e.g., one-on-one counseling, web-based or telephonic support tools, education), SMBP can enhance the quality and accessibility of care for people with high blood pressures and improve blood pressure control. SMBP can be used to assess BP control and to make a diagnosis of hypertension. SMBP allows patients to actively participate in the management of their BP and has been shown to improve adherence to antihypertensive medications.

SMBP codes and descriptions


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<tr>
<th>CPT code</th>
<th>Description</th>
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<tr>
<td>99473</td>
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The codes address both initial and ongoing SMBP clinical services:

- CPT code 99473 can be used when a patient receives education and training facilitated by clinical staff on the set-up and use of a SMBP measurement device validated for clinical accuracy, including device calibration.
- 99473 can only be reported once per device. It would most commonly be used prior to initiating SMBP in patients suspected of having hypertension or for those patients with an existing diagnosis of hypertension who have a new BP measurement device or are receiving training for the first time.

CPT code 99474 can be used for SMBP data collection and interpretation when patients use a BP measurement device validated for clinical accuracy to measure their BP twice daily (two measurements, one minute apart in the morning and evening), with a minimum of 12 readings required each billing period.

The SMBP measurements must be communicated back to the patient and can be manually recorded in a chart. For more information, visit: [www.ama-assn.org/smbp-guide](http://www.ama-assn.org/smbp-guide)
Quality Measure Updates
(UDS/CMS, HEDIS)
HRSA Uniform Data System Updates for 2020

II. Approved Changes for CY 2020 UDS Reporting

A. Update Quality of Care Measures to Align with e-CQMs: Tables 6B and 7

10. Controlling High Blood Pressure has been revised to align with CMS165v8.
In reference to the numerator element, only blood pressure readings performed by a clinician or a remote monitoring device are acceptable for numerator compliance with this measure.

Do not include BP readings:
- Taken during an acute inpatient stay or an ED visit
- Taken on the same day as a diagnostic test or diagnostic or therapeutic procedure that requires a change in diet or change in medication on or one day before the day of the test or procedure, with the exception of fasting blood tests.
- Reported by or taken by the member

If no blood pressure is recorded during the measurement period, the patient’s blood pressure is assumed "not controlled."

If there are multiple blood pressure readings on the same day, use the lowest systolic and the lowest diastolic reading as the most recent blood pressure reading.
What do these changes mean?

• BP readings taken using a remote monitoring device may be included

• BP readings from a remote device should be digitally stored and transmitted

Additionally,
• Numerator compliance is defined as the most recent BP being <140/90 mmHg
HEDIS

As of July 1st, 2020, the following HEDIS revisions have been made:

• Telephone visits, e-visits and virtual check-ins have been added as appropriate settings for BP readings
• The requirements for remote monitoring devices have been removed and BP readings taken by any digital device are now allowed
• BP readings reported or taken by the member are no longer excluded
• All readings, regardless of practitioner type or setting, may be considered when identifying the most recent BP reading
What do these changes mean?

• BP readings taken by any clinical team member or the patient may be considered for inclusion in the numerator

• BP readings taken by patients and shared with clinical team members in any way can be considered for inclusion in the numerator
Final thoughts

“Self-monitoring alone is not associated with lower BP or better control, but in conjunction with co-interventions (including systematic medication titration by doctors, pharmacists, or patients; education; or lifestyle counselling) leads to clinically significant BP reduction which persists for at least 12 months. The implementation of self-monitoring in hypertension should be accompanied by such co-interventions”.

Physicians’ powerful ally in patient care