Policy Changes to Incentivize Better Hypertension Control

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TARGET:BP™ | American Heart Association. | AMA AMERICAN MEDICAL ASSOCIATION

Disclosures

- None

Objectives

- Define the expanded CMS coverage indications for Ambulatory Blood Pressure Monitoring (ABPM)
- List the new CPT codes to support Self-Measured Blood Pressure Monitoring (SMBP)
- Identify patients for whom ABPM and SMBP would be appropriate
- Use resources to incorporate ABPM and SMBP into clinic routine

Policy Initiatives

- AMA and AHA have robust advocacy efforts, and are collaborating on a shared policy platform to support blood pressure control in the clinic and community
- Target:BP environmental change and policy workgroup focuses on:
  1. Increasing coverage and reimbursement of clinician services and BP devices
  2. Reducing consumption of added sugar and sodium intake
  3. Regulating tobacco and e-cigarette products
  4. Monitoring and implementing physical activity guidelines
  5. Implementing healthy food and beverage institutional and regulatory initiatives
  6. Addressing social determinants of health

Policy Goals

Create Incentives

Impose Limitations

Reduce Disparities

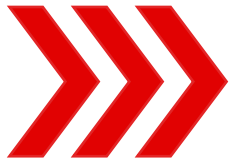
Process to Enact Policy Change

Develop evidence base and research

- Scientific statements
- Clinical guidelines
- Peer reviewed publications

Translation to policy and practice

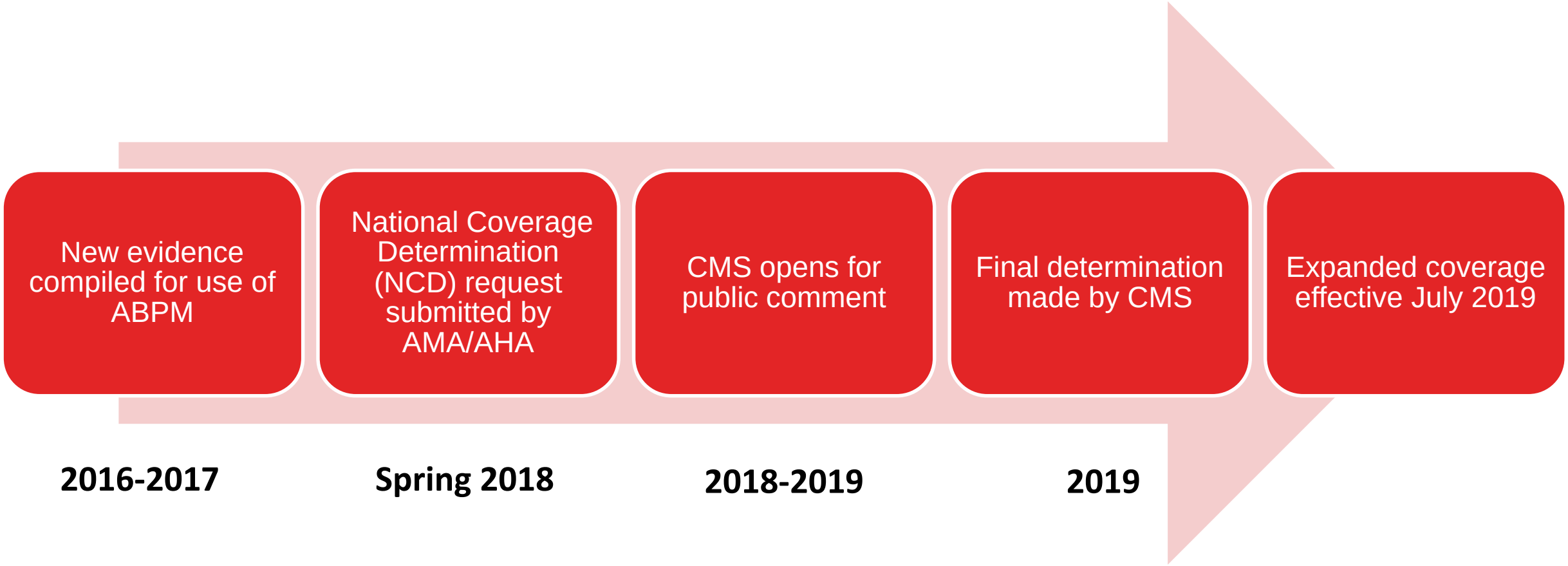
- Health impact
- Economic analysis
- Feasibility assessment
- Commitment and prioritization



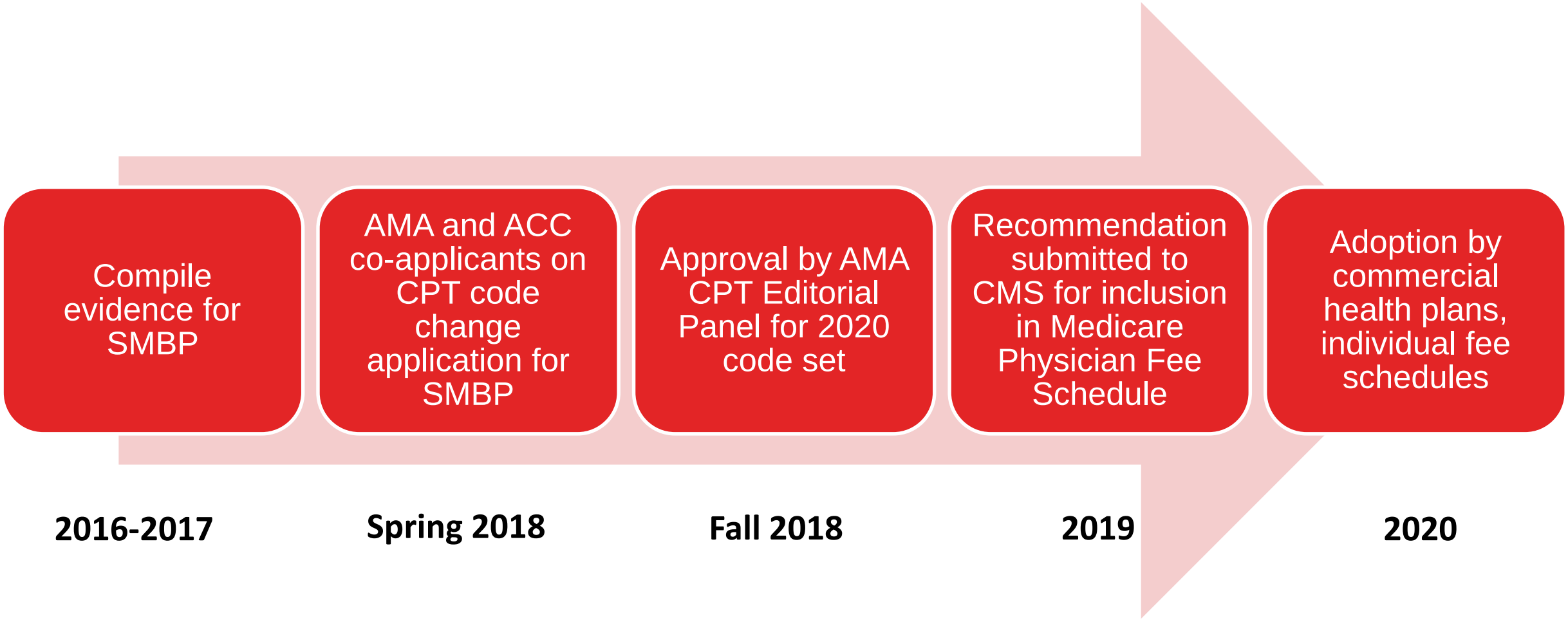
Propose policies at appropriate level

- Federal
- State
- Municipal
- Institutional

Steps for ABPM Expanded Coverage



Steps for SMBP Coverage



Ambulatory Blood Pressure Monitoring (ABPM)

- Fully automated devices worn for 24-48 hours
- Measures BP every 15-20 minutes during daytime/while awake
- Measures BP every 30-60 minutes during nighttime/sleep
- Most reliable method of BP measurement for
    - accurate diagnosis of HTN
    - predicting future CV events

Albert L. Siu, MD, MSPH, on behalf of the U.S. Preventive Services Task Force. Screening for High Blood Pressure in Adults: U.S. Preventive Services Task Force Recommendation Statement. Ann Intern Med. 2015;163:778-786. doi:10.7326/M15-2223

ABPM 2002 through June 2019: Coverage

- CMS coverage for ABPM began in 2002
- ABPM covered by CMS only for the diagnosis "suspected white coat hypertension"
- White coat hypertension defined as clinic BP ≥140/90 at 3 separate visits and out of clinic BP < 140/90 mm Hg on 2 measurements
    - 15 - 30% of patients with office BP ≥ 140/90 mm Hg have BP in the non-hypertensive range on 24-hour ABPM
    - Most studies have shown that white-coat hypertension by itself confers minimal excess cardiovascular risk

ABPM 2002 through June 2019 – Gaps in coverage

- No coverage if existing diagnosis of hypertension
- No coverage for suspected *masked* or *nocturnal* HTN
- Masked hypertension defined as average office BP <140/90 mm Hg and average out of office BP ≥ 140/90 mm Hg
    - 17 million US adults estimated to have masked hypertension (12%)
    - More common among certain subgroups of the population, including those with diabetes, chronic kidney disease, obstructive sleep apnea and in African American adults
    - CVD risk in adults with masked hypertension similar to sustained hypertension

Am J Epidemiol. 2017 Feb 1;185(3):194-202. doi: 10.1093/aje/kww237
Hypertension. 2019;73:e35–e66. DOI: 10.1161/HYP.0000000000000087

2015 - High BP in Adults: Screening (USPSTF) for Diagnosis

Recommendation Summary

Population	Recommendation	Grade (What's This?)
Adults aged 18 years or older	The USPSTF recommends screening for high blood pressure in adults aged 18 years or older. The USPSTF recommends obtaining measurements outside of the clinical setting for diagnostic confirmation before starting treatment (see the Clinical Considerations section).	A

- USPSTF recommends confirmation outside of the clinical setting before a diagnosis of hypertension is made and treatment is started
- Confirmation may be done by using home **or** ambulatory BP monitoring
- Accompanied by a 296-page evidence synthesis, published Dec. 2014

https://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/high-blood-pressure-in-adults-screening

2017 ACC/AHA Guideline for High BP in Adults: Diagnose and Manage

COR	LOE	RECOMMENDATION
I	A^{SR}	1. Out-of-office BP measurements are recommended to confirm the diagnosis of hypertension (Table 11) and for titration of BP-lowering medication, in conjunction with telehealth counseling or clinical interventions (S4.2-1–S4.2-4).
IIa	B-NR	1. In adults with an untreated SBP greater than 130 mm Hg but less than 160 mm Hg or DBP greater than 80 mm Hg but less than 100 mm Hg, it is reasonable to screen for the presence of white coat hypertension by using either daytime ABPM or HBPM before diagnosis of hypertension (S4.4-1–S4.4-8).
IIa	B-NR	4. In adults with untreated office BPs that are consistently between 120 mm Hg and 129 mm Hg for SBP or between 75 mm Hg and 79 mm Hg for DBP, screening for masked hypertension with HBPM (or ABPM) is reasonable (S4.4-3,S4.4-4,S4.4-6,S4.4-8,S4.4-11).

https://doi.org/10.1161/HYP.0000000000000065
Hypertension. 2018;71:e13–e115

CMS coverage expansion for ABPM - July 2019

CMS determined that the evidence is sufficient to cover ABPM for the diagnosis of hypertension:

- **For suspected white coat HTN**, defined as an average office BP of systolic BP 130-159 mm Hg or diastolic BP 80-99 mm Hg on two separate clinic visits with at least two separate measurements made at each visit, and with at least two BP measurements taken outside the office which are <130/80 mm Hg.
- **For suspected masked HTN**, defined as average office SBP 120-129 mm Hg or DBP 75-79 mm Hg on two separate clinic visits with at least two separate measurements made at each visit and with at least two blood pressure measurements taken outside the office which are ≥130/80 mm Hg.

Coverage of other indications for ABPM are at the discretion of the Medicare Administrative Contractors.

CPT codes for SMBP – January 1, 2020

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

* Can be submitted once
* Staff time = $11.19 for patient education

- Device validated for clinical accuracy
  - https://hypertension.ca/hypertension-and-you/managing-hypertension/measuring-blood-pressure/devices/
  - www.stridebp.org/bp-monitors
- Patient education/training and device calibration
  - https://targetbp.org/blood-pressure-improvement-program/patient-measured-bp/implementing/smbp-training-patients/
  - https://targetbp.org/tools_downloads/device-accuracy-test/

CPT codes for SMBP – January 1, 2020

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 monthly
* Provider = $15.16 monthly for data review / communicating Tx plan

- Device validated for clinical accuracy – see previous slide
- Measurement protocol – 2 BPs one-minute apart in am and pm for 3-7 days
- Data collection and reporting average SBP and DBP
- Communication of a treatment plan to patient

Clinical Cases and Review of Resources

Clinical Case #1

- 57-year-old African American man
  Follow-up visit after annual ophthalmology exam showed AV nicking
- **History:** Type 2 diabetes, high LDL cholesterol, tobacco use daily (smoker)
- **Medications**: Metformin 850 mg twice daily, atorvastatin 80 mg daily, aspirin 81 mg daily
- **Exam:** Vitals – P 70, mean of 2 BPs 128/78, BMI 23, no abnormal findings on physical exam, last visit mean BP 127/77
- **Labs:** HgA1C – 6.5, UA no protein/microalbuminuria, serum creatinine 0.3, total cholesterol 200, TG 103, LDL 70, HDL 40,
- ASCVD Risk: 23%

Clinical Case #1

- 57-year-old man at high risk for ASCVD with known T2DM, High LDL-C and daily smoker. T2DM controlled, on high dose statin therapy with good response. Needs to quit smoking.
- Evidence of what may be hypertension mediated target organ damage, but no history of high BP documented on previous or current office visits.
- Mean BP this and prior clinic visits are elevated but not high, and mean of 2 BPs at home were noted to be >130/80 on 2 occasions

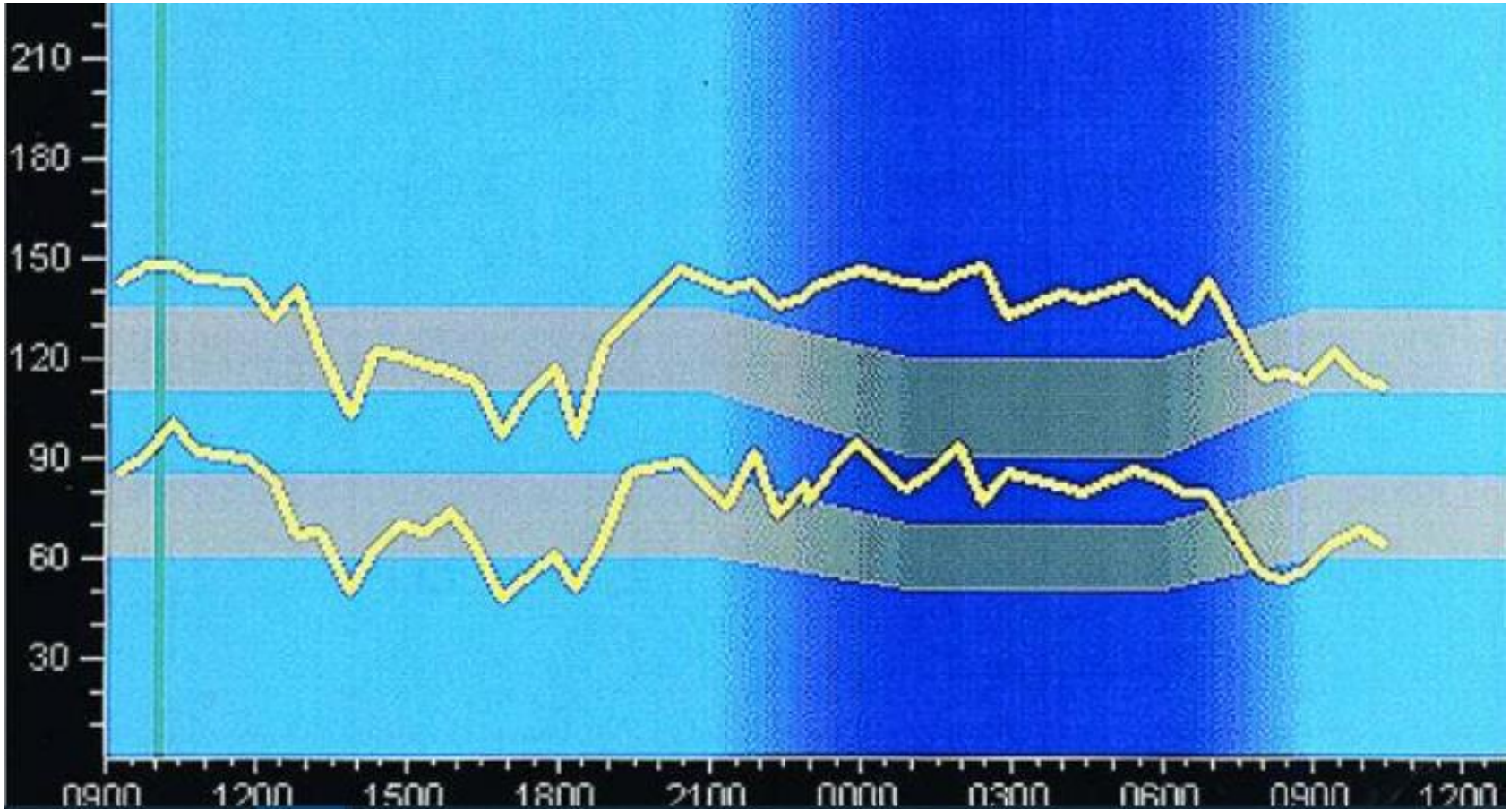
What would you do?

Clinical Case #1

- Order 24-hour ambulatory BP monitoring (ABPM) if available
- Diagnosis: suspected masked hypertension
- See patient in follow up after ABPM

Clinical Case #1

- Daytime mean systolic BP is elevated: 125/72 mm Hg
- Nighttime mean systolic and diastolic BP are consistent with HTN: 140/84 mm
- 24-hour mean BP is high at 132/82
- New organ damage is present
- **What would you do?**



doi: 10.1136/heart.89.5.571 mean BP modified for clinical case

Clinical Case #1

- Continue to recommend non-pharmacological lifestyle changes
- Initiate pharmacologic therapy to treat hypertension
- Follow up with SMBP or ABPM in 1-2 months
- Continue serial eye exams

Clinical Case #2

- 62-year-old non-Hispanic white woman.
  Known HTN. Office BP running high last 2 visits over 12 months. Her mother had a stroke last year. She is worried about her BP control.
- **History:** Osteopenia. Former smoker. Hypertension.
- **Medications**: Lisinopril 20 mg daily
- **Exam:** Vitals – P 74, BP 143/84, BMI 24.No abnormal findings
- **Labs:** UA no macro/microalbuminuria, serum creatinine 0.2
  EKG – NSR. No signs of LVH. Last eye exam with optho. normal

Clinical Case #2

- 62 Y.O. women with HTN who appears to have uncontrolled BP in the office on 2 occasions

What would you do?

Clinical Case #2

- Order SMBP
- Encourage patient to purchase a validated SMBP monitor
- Train patient to use SMBP monitor / calibrate device (99473)
- Have patient record 3-7 days of SMBP measurements and report them back to your clinic
- Communicate a treatment plan back to patient (99474)

What is a Validated SMBP Device?

STRIDE BP
www.stridebp.org

JOINT INITIATIVE WITH

VALIDATED DEVICES FOR HOME BLOOD PRESSURE MONITORING

List generated from www.stridebp.org on the 24 Nov 2019

Preferred devices: for Home use are upper-arm cuff devices with at least one STRIDE BP approved validation study published within the last 10 years and automated storage of multiple readings, or mobile phone, PC or internet link connectivity enabling data transfer.

Validated devices: have passed established validation procedures that have been checked and approved by the STRIDE BP Scientific Advisory Board.

Preferred devices (93)

A&D UA-1020
A&D UA-1200BLE
A&D UA-651
A&D UA-778
Andon iHealth BP3
Andon iHealth Feel BP5
Andon KD-391
Andon KD-5031
Andon KD-5851
Andon KD-5915
Andon KD-5917
Andon KD-595
Andon KD-5965
Artsana Pic Indolor Comfort Check
Artsana Pic Indolor My Check
Artsana Pic Indolor Personal Check
Avita BPM63S
Avita BPM64
BPUMP BF1112
Citizen CH-461C
Citizen CH-463E
Hartmann Tensoval Duo Control II
Health & Life HL868ED
HoMedics WGNBPA-540
HONSUN LD-578
IEM Tel-O-GRAPH
Konsung QD217A
Lloyds Pharmacy BP11
Medisana MTP Plus
Microlife 3AS1-2
Microlife BP A100
Microlife BP A3 PC
Microlife Watch BP O3
Microlife WatchBP Home
Microlife WatchBP Home A
Microlife WatchBP Home A BT
Microlife WatchBP Home S
Microlife WatchBP O3 (BP 3MZ1-1)
Nissei DS-400
Omron BP10
Omron BP760N (HEM-7320-Z)
Omron BP765 (HEM-7311-ZSA)
Omron Elite 7300W
Omron Evolv (HEM-7600T-E)
Omron HEM-1020
Omron HEM-7130
Omron HEM-7201
Omron HEM-7251G
Omron HEM-7252G-HP
Omron HEM-7320-LA
Omron HEM-7320F
Omron HEM-7420
Omron HEM-7500F
Omron HEM-9210T
Omron i-Q132 (HEM-1010-E)
Omron M2 (HEM-7117-E)
Omron M2 (HEM-7121-E)
Omron M2 Basic (HEM-7120-E)
Omron M2 Compact (HEM 7102-E)
Omron M2 Eco (HEM-7120-AF)
Omron M3 (HEM-7131-E)
Omron M3 (HEM-7200-E)
Omron M3 Comfort (HEM-7134-E)
Omron M3 Intellisense (HEM-7051-E)
Omron M3 IT (HEM-7131 U-E)
Omron M6 (HEM-7211-E)
Omron M6 AC (HEM-7322-E)
Omron M6 AC ME (HEM-7322-ME)
Omron M6 Comfort (HEM-7221-E)
Omron M6 Comfort (HEM-7321-E)
Omron M6 Comfort IT (HEM-7322U-E)
Omron M7 Intelli IT (HEM-7322T-E)
Omron M7T Elite
Panasonic EW3106
Panasonic EW3109
Pangao PG-800B11
Pangao PG-800B26
Pangao PG-800B5
Pangao PG-800B68
Polygreen KP-7670
Qardio Inc QardioArm
RisingSun RS-651
Rossmax CF175
SEJOY BP-1307
Thermor BIOS BD215
Transtek LS808-B
Transtek TMB-1491
Transtek TMB-986
Visomat UEBE Comfort Eco
Visomat UEBE Comfort form
Visomat UEBE Double Comfort
Withings BP-800
YuWell YE690A

Blood pressure monitors recommended by Hypertension Canada will have the following on the box and/or in material supplied with the device:

Recommended by
Recommandé par
Hypertension Canada
Gold | Or

Recommended by
Recommandé par
Hypertension Canada
Silver | Argent

Blood pressure measurement devices improve technological advances. Likewise, the standards for validating these devices as accurate are also improving. Various standards exist globally to gauge the accuracy of blood pressure measurement devices. Those with a Gold rating meet the highest and most current international standards, and those with the Silver ratings meet the highest international standards available prior to their most recent updates. Both Gold and Silver levels are accepted as accurate).

Recommended Devices

Brand	Model Name and Number	Photo	Device Type	Recommendation Level	Cuff Sizes available
A&D Medical	Upper Arm Blood Pressure Monitor UA-767 PLUS		Home Blood Pressure Monitor	Silver	Small – 16-24 cm (6.3-9.4 inches) Large – 36- 45 cm (14.2-17.7 inches)
A&D Medical	Deluxe Connected Blood Pressure Monitor UA-651 BLE		Home Blood Pressure Monitor	Silver	23-37 cm (9-14.6 inches)
A&D Medical	Upper Arm Blood Pressure Monitor UA 767 PLac		Home Blood Pressure Monitor	Silver	36-45 cm (14.2-17.7 inches)
A&D Medical	Pro Blood Pressure Monitor with Small Cuff and AC Adapter		Home Blood Pressure Monitor	Silver	16-24 cm (6.3-9.4 inches)

Train Patients/Calibrate Devices

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Self-measured blood pressure
Patient training checklist

Instructions: To ensure all necessary steps and components are covered, use this checklist when training your patient's on how to perform self-measured blood pressure (SMBP).

☐ **Gather supplies**
- ☐ Tape measure
- ☐ What is SMBP? (PDF)
- ☐ SMBP infographic (PDF in English or Spanish)
- ☐ SMBP recording log (PDF)
- ☐ SMBP device accuracy test (PDF)

☐ **Provide background information on SMBP to the patient (if not explained by provider)**
- ☐ Explain how SMBP allows the provider to get a more accurate and complete picture of the patient's blood pressure outside of the office (more readings, over a longer period of time, in the patient's normal environment)

Tip: Hand out the "What is SMBP?" document.

☐ **Determine SMBP cuff size**
- ☐ Use tape measure to measure the circumference of the patient's mid-upper arm in centimeters (see image for more detail)

Tip: Ideally, this is done before the patient purchases a device so you can ensure the device and cuff purchased are appropriate for the patient.

Locate mid-upper arm

Using a measuring tape, place one end on the bony prominence at the shoulder (acromion process) and measure the length of the arm to the bony protuberance at the elbow (olecranon process). Divide this distance in half and that is the mid-upper arm where you should measure the arm circumference for determining cuff size.

Source: https://www.n.cdc.gov/nchs/data/nhanes/2017-2018/manuals/2017_Anthropometry_Procedures_Manual.pdf

☐ **Check patient's SMBP device for accuracy**

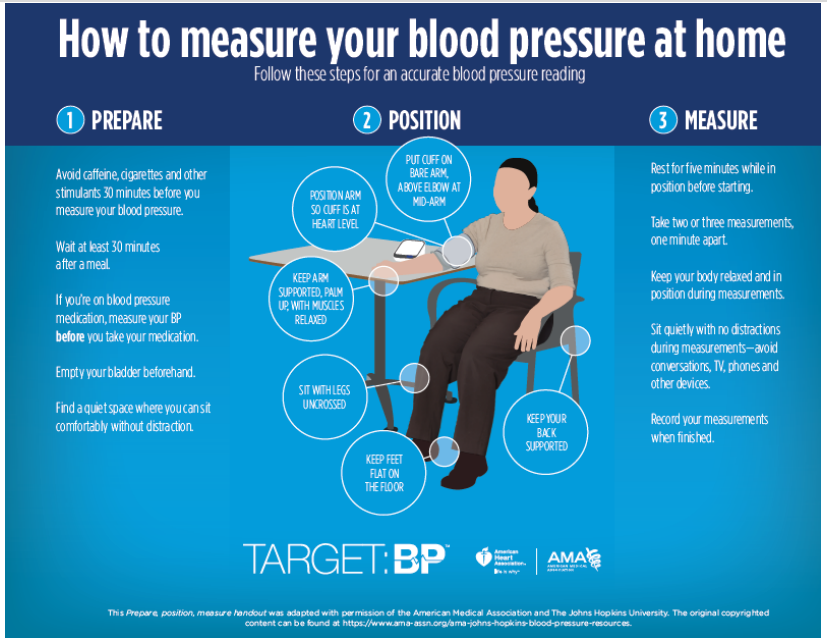
Tip: Use the SMBP device accuracy test.

☐ **Determine the patient's blood pressure arm (if not currently identified)**
- ☐ Measure the patient's blood pressure in each arm and use the arm with the higher reading for all future readings

☐ **Teach patient how to properly prepare for self-measurement**
- ☐ Avoid caffeine, tobacco and exercise for at least 30 minutes before measurement
- ☐ Empty bladder if full
- ☐ Take BP measurements before blood pressure medications

Tip: Show SMBP training video and hand out the SMBP infographic.

☐ **Teach patient the proper positioning for self-measurement**



SMBP TRAINING VIDEO

Last Modified	October 11, 2018
Audience	My Patients
Topics	Patient-Measured BP
Resource Type	Video / Webinar
Languages	English | Spanish
Formats	

Educational video helps train care teams and patients on how to properly self-measure blood pressure.

English ▼

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Self-measured blood pressure
Device accuracy test[1]

A patient's self-measured blood pressure (SMBP) monitoring device should be tested before it is used as part of an SMBP program. Also test the device annually or any time blood pressure readings are questionable.

Step 1

Complete the table below.
Care team should take five blood pressure readings using a combination of the patient's SMBP device and the office's method of blood pressure measurement.

Measurement	Device	Systolic blood pressure (SBP)
A	Patient's	
B	Patient's	
C	Office's	
D	Patient's	
E	Office's	

SBP Example
133
132
141
134
139

Step 2

Part 1: Average measurements B and D ☐
Part 2: Compare average of B and D to measurement C ☐
Part 3: If the *difference* is …
- **Less than 5 mm Hg**, this device can be used for SMBP
- **Between 6 and 10 mm Hg**, proceed to Step 3
- **Greater than 10 mm Hg**, *replace* the device before proceeding with your SMBP program

Example
Part 1: (132 + 134) / 2 = 133
Part 2: 133 - 141 = 8 (note: if the difference is a negative number, ignore the negative sign)
Part 3: Difference is 8, which is between 6 and 10 mm Hg, so proceed to Step 3

Step 3

Part 1: Average measurements C and E ☐
Part 2: Compare average of C and E to measurement D ☐
Part 3: If the *difference* is …
- **Less than or equal to 10 mm Hg**, this device can be used for SMBP
- **Greater than 10 mm Hg**, *replace* the device before proceeding with your SMBP program

Example
Part 1: (141 + 139) / 2 = 140
Part 2: 140 - 134 = 6 (note: if the difference is a negative number, ignore the negative sign)
Part 3: Difference is 6, which is less than or equal to 10 mm Hg, so proceed with SMBP program

1. Eguchi et al. A Novel and Simple Protocol for the Validation of Home Blood Pressure Monitors in Clinical Practice. *Blood Press Monit.* 2012;17(6):210-213.

Clinical Case #2: SMBP Measurement Protocol/Plan

Instruct patients to take self-measurements:

- Two readings, one minute apart, twice daily for 7 days
- Minimum of 12 readings over 3 days
- Have patient report all BP readings

Document SMBP readings and communicate a plan back to patient:

- Average all systolic BPs and all diastolic BPs to be reported as average SBP and DBP over the 7-day period
- Document that patient has been trained, device is validated, and the average SBP and DBP and communicate the treatment plan
- 99474 can be submitted for reimbursement once each month

Clinical Case #2

- Daytime average for 7 days (24 readings) of SMBP measurements from home, after training and device calibration: 128/79 mm Hg

What would you do?

Clinical Case #2

- The patient is at goal BP
- Continue current non-pharmacological and medication for treating her hypertension
- Have her share another 7 days of SMBP readings in 1 month

Questions

Together, we can reduce the number of Americans who have heart attacks and strokes

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