

## Insights and Perspectives: Addressing Disparities in Cardiovascular Health

Satellite Conference and Live Webcast  
Tuesday, February 27, 2018  
10:00 – 12:00 p.m. Central Time

Produced by the Alabama Department of Public Health  
Distance Learning and Telehealth Division

## Faculty

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American Heart Association

## Objectives for Today

- Describe the impact of uncontrolled blood pressure (BP) from a public health perspective and from a patient's perspective
- Review how the Target: BP initiative can help with your practice's blood pressure improvement efforts
- Review the registration and recognition process for Target: BP

## Objectives for Today

- Identify evidence-based best practices that practice sites can use to improve BP control: the M.A.P. checklists
- Review how the Check. Change. Control. initiative can provide your patients with evidence-based self-monitoring strategies

## American Heart Association/ American Stroke Association

### Mission

Building healthier lives, free of cardiovascular diseases and stroke

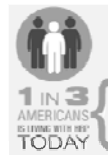
### Impact Goal

Improve the cardiovascular Health of **ALL** Americans by 20% while reducing deaths from cardiovascular diseases and stroke by 20%

80 million adults have HBP

### Blood Pressure Categories

BLOOD PRESSURE CATEGORY	SYSTOLIC mm Hg (upper number)	and	DIASTOLIC mm Hg (lower number)
NORMAL	LESS THAN 120		LESS THAN 80
ELEVATED	120 - 139		LESS THAN 80
HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 1	130 - 139	or	80 - 89
HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 2	140 OR HIGHER	or	90 OR HIGHER
HYPERTENSIVE CRISIS (consult your doctor immediately)	HIGHER THAN 180	and/or	HIGHER THAN 120



Prevalence of HBP varies by race and ethnicity:



AHA 2015 Statistical Update

### Why Controlling BP is Important

- **Morbidity and mortality due to cardiovascular diseases are directly related to BP**
- **In people with hypertension (HTN) and elevated BP, when BP is lowered there, is less vascular damage to organs (i.e. heart, brain, eyes and kidneys)**

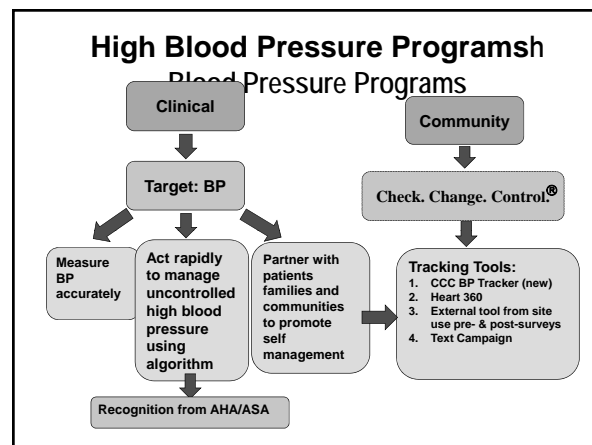
### Why Controlling BP is Important

- **We have known since the 60s and the landmark VA-1 and VA-2 trials that treating high blood pressure with medication reduces risk for heart attacks, strokes and death.**

**Barriers to success in blood pressure (BP) control**

<p><b>Patient factors</b></p> <ul style="list-style-type: none"> <li>Non adherence to treatment</li> <li>Absence of symptoms</li> <li>Cost of treatment</li> <li>Failure to follow up</li> <li>Social determinants</li> </ul> <p><b>Physician factors</b></p> <ul style="list-style-type: none"> <li>Time crunched</li> <li>Competing factors</li> <li>Knowledge of evidence &amp; willingness to use it</li> <li>Disagreement with guidelines</li> <li>Clinical inertia</li> <li>Failure to recommend follow up</li> </ul>	<p><b>System factors</b></p> <ul style="list-style-type: none"> <li>Lack of a hypertension registry</li> <li>Lack of useful data / performance metrics</li> <li>Work flow problems (Team based care- MA BP checks)</li> <li>Lack of evidence-based treatment algorithm</li> </ul>
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**TARGET: BP** | | |



### What is Target: BP?

- **A call to action motivating medical practices, practitioners and health services organizations to prioritize blood pressure control**
- **Recognition for healthcare providers who attain high levels of blood pressure control in their patient populations, particularly those who achieve 70, 80 percent or higher control**

<http://targetbp.org/>

### What is Target: BP?

- **A source for tools and assets for healthcare providers to use in practice, including the AHA / ACC / CDC Hypertension Treatment Algorithm and the AMA's M.A.P. Checklist**

<http://targetbp.org/>

### About Target: BP

- Partnership between AMA and AHA encouraging organizations to prioritize blood pressure control
- Based on M.A.P. Framework
  - Measure Accurately, Act rapidly and Partner with patients, families and communities

### About Target: BP

- Target: BP helps organizations create a plan for improving blood pressure control
- Recognize organizations for their efforts

### Who is Our Target Audience?

- Primary Care System
  - Federally Qualified Health Clinic (FQHC)
  - Federally Designated Rural Health Clinic (RHC)
  - Indian Health Service practice/clinic
  - Practice/Clinic with mission to serve publicly insured, underinsured, or uninsured
  - Private Clinical System (non-FQHC)

### Who is Our Target Audience?

- Government Agency or Organization providing care to patients

### Why Should a Clinic Participate?

- We know what medicines work but systems are not in place to drive control rates
- Algorithm and the systems approach described in AHA's treatment algorithm have been shown to increase control rates within a clinical setting
- Sites will receive recognition from the AHA

<http://targetbp.org/>

### Why Should a Clinic Participate?

- Help meet required performance metrics
- *Improved health and care of their patients!*

<http://targetbp.org/>

### Why Measuring Blood Pressure Accurately is Important

- Uncertainty of patients' true blood pressure is the leading cause for failure of a clinician to act on a high blood pressure in the office
- Significant BP variability exists in all patients

### Why Measuring Blood Pressure Accurately is Important

- Poor measurement technique decreases reliability of a patient's BP, which can lead to poor clinical decisions, adversely affecting the health of the patient
- How does this impact clinicians in practice?

### Measure Accurately to Obtain Accurate, Representative Blood Pressures

- Blood pressure (BP) variability exists in everyone and contributes to uncertainty
- *Uncertainty* about the reliability of BP is one of the leading reason clinicians fail to initiate and escalate therapy (clinical inertia / white coat)

Kerr E et al. The Role of Clinical Uncertainty in the Treatment Decisions for Diabetic Patients with Uncontrolled Blood Pressure. *Annals of Internal Medicine* (148) Number 10 717-727

### Measure Accurately to Obtain Accurate, Representative Blood Pressures

- Routine *conventional* office BP measurements correlate poorly with daytime mean BPs
- Poorly performed BP measurements result in inaccurate BP readings, and may lead to misclassification and treatment inertia

Kerr E et al. The Role of Clinical Uncertainty in the Treatment Decisions for Diabetic Patients with Uncontrolled Blood Pressure. *Annals of Internal Medicine* (148) Number 10 717-727

### Conventional Office BP Measurement

Single office BP measurement - poor correlation with patient's daytime mean BP. *Why do we use them?*

- Most convenient and often the only opportunity to obtain a blood pressure
- What can we do to improve the quality of conventional office BP measurements?

### Conventional Office BP Measurement

Single office BP measurement - poor correlation with patient's daytime mean BP. *Why do we use them?*

- Reduce common measurement errors
- Standardize the process of measuring BP to reduce variation in technique and perform multiple measurements

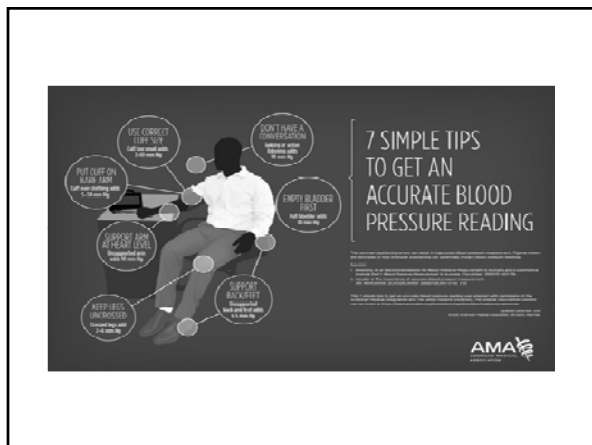
## AHA / ACC / CDC HBP Treatment Algorithm

- In November 2013, AHA partnered with the ACC and the CDC to publish a scientific statement recognizing best practices in clinical care that have significantly increase HBP control rates and put forth a customizable algorithm based on these practices



## AHA / ACC / CDC HBP Treatment Algorithm

- In July 2015, AHA began a focused drive to promote and implement the algorithm among healthcare systems and clinics



## How Many Errors in BP Measurement do you See?



## How Many Errors in BP Measurement Do You See?

- Back is not supported
- Arm is not supported near heart level
- Cuff is over sweatshirt
- Legs are crossed
- Legs are not both flat on the stool
- She is talking
- She is listening
- Others – Full bladder? Cuff size?

## Common Measurement Errors And Their Effect On BP

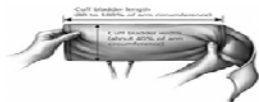
When the patient has...	Blood pressure can change by an estimated*...
Crossed Legs	2-8 mm Hg <sup>1</sup>
Cuff over clothing	5-50 mm Hg <sup>2</sup>
Cuff too small	2-10 mm Hg <sup>2</sup>
Full bladder	10 mm Hg <sup>2</sup>
Talking or active listening	10 mm Hg <sup>2</sup>
Unsupported arm	10 mm Hg <sup>1,2</sup>
Unsupported back / feet	6.5 mm Hg <sup>3</sup>

\*These values are not cumulative  
 1. Pickering, et al. Recommendations for Blood Pressure Measurement in Humans and Experimental Animals Part 1: Blood Pressure Measurement in Humans. *Circulation*. 2005;111:697-716.  
 2. Handler, J. The importance of accurate blood pressure measurement. *The Permanente Journal* Summer 2009; Volume 15 No. 3 51  
 3. Cushman, W, Cooper K, Horne Richard. Effect of back support and stethoscope head on seated blood pressure determinations. *American Journal of Hypertension*. March 1990-VOL 3, NO. 3

## Techniques to Obtain Accurate, Representative BPs

Wrong cuff size used most common error

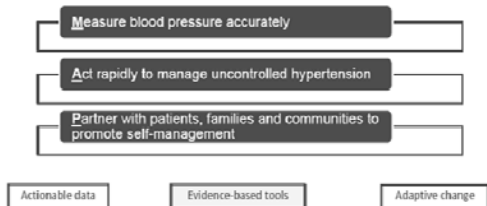
- A properly-fitted cuff should have
- Bladder length that is 80-100 % of the circumference of the arm
- Bladder width that is at least 40% of the circumference of the arm,



## Common Errors Made During Office BP Measurement

Observer factors	Patient factors	System factors
Wrong cuff size	Full bladder	Location of monitor/device
Cuff placed over clothing	Stimulants	Noise
Improper positioning	Recent exercise	Work flows
No rest period	Recent meal	
Terminal digit preference	Talking, texting, reading	
Talking to patient		
Rapid cuff deflation		

## The M.A.P. framework



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## Resources

<http://targetbp.org/>

*Patient and participant resources on Website*

- Podcasts
- Videos
- Fact Sheets
- Supporting Materials
- Patient Education Materials
- Patient Tracking Tools



## How Can You Help?

- Visit [www.TargetBP.org](http://www.TargetBP.org) and register for Target: BP
- Review the resources on our website to learn more about improving BP management
- Share information on Target: BP with your clinic or healthcare system
- Commit to improving blood pressure control in your clinic and community



### Barriers to Success

- **Patient factors**
  - Non-adherence
  - Financial
  - Literacy
- **Physician factors**
  - Time
  - Financial
  - Knowledge of evidence

### Barriers to Success

- **System factors**
  - Quality reporting
  - Work flow
  - Leadership (buy-in)

### What Is Self-Measured Blood Pressure Monitoring (SMBP)?

- SMBP is use of a personal BP monitor for the diagnosis / management of HTN
- Patients are typically trained to use automated blood pressure monitors in familiar settings, usually their homes

### Why use SMBP?

- Measurements occur in the patient's usual environment
- Provides multiple BPs over a longer period of time (more representative of a patients true BP)
- Eliminates white coat effect

### SMBP Can Help Correctly Diagnosis Patients at Risk for Hypertension

- **Confirming elevated office readings**
- **Differentiates between white coat and sustained HTN**
- **Helps to identify patients with masked HTN**

Parati G, Stergiou GS, Asmar R, et al. European society of hypertension practice guidelines for home blood pressure monitoring. *J Hum Hypertens* 2010; 779-785


#### Common Methods of Measuring Blood Pressure Self-Measured Blood Pressure (SMBP) or Home Blood Pressure Monitoring




**Pros**

- Correlates well with 24-hour ABPM for diagnosis (not equal)
- Effective at assessing medication effect throughout the day
- Can make or unmask HTN
- Identifies patients with masked HTN
- Inexpensive
- Convenient
- Lessens BP if used with training and clinical support

**Cons**

- Requires for patient have a home monitor
- Does not give arterial BP
- Requires clinical support for maximum benefit in lowering blood pressure



TARGET: BP |   

### Check. Change. Control.®

- Evidence based high blood pressure management program that utilizes a tracker to empower patients to take ownership of their cardiovascular health
- Incorporates the concepts of remote monitoring, mentoring, tracking as key features to improve HBP management, physical activity and weight reduction
- Four month education sessions are recommended along with incentives for participation

### Check. Change. Control.®

- Encourage participants to take weekly readings or 8 readings at least once/month over 4 months.
- Target Audience: Individuals with high blood pressure
- Focus groups: Corporate and School-site Employees, patients in clinics focusing on HBP control, community sites with opportunity to reach individuals on a continuous basis

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### Check. Change. Control.®

- Check. Change. Control.® was founded on successful evidence-based practices from the American Heart Association pilot program, Check It, Change It. The Check It, Change It program proved to be especially effective among the target population of African Americans (Thomas et al. (2012). Check It, Change It: A Community-Based Intervention to Improve Blood Pressure Control)

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### Check. Change. Control.® Engages Participants

- Developed to support hypertension management among the adult population, Check. Change. Control.® engages participants, emphasizing 3 important aspects of managing hypertension:
  - Checking for high blood pressure and symptoms;
  - Changing lifestyle and seeking treatment;
  - Controlling hypertension by taking preventative measures

### Check. Change. Control.® Lifecycle



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### Why it Works?

- Key Evidence-Based Scientific Principles
- Self Monitoring Makes a Difference
- Proven track record for taking blood pressure readings at home or outside of the healthcare provider office setting.
- Use of digital self-monitoring and communication tool



### **Why it Works?**

- Charting and tracking improves self-management skills related to blood pressure management
- Personal Interaction Makes a Difference
- Coaches can motivate and encourage participants
- Multicultural Program Investments Make a Difference
- Hypertension creates a health disparity for African-Americans

### **How You Can Help**

- Visit [www.heart.org/ccc](http://www.heart.org/ccc) and sign-up for **Check. Change. Control.**
- Review the resources on our [www.heart.org/BP](http://www.heart.org/BP) website and share with your patients
- Share information on **Check. Change. Control.** with your clinic or healthcare system
- Become a **Check. Change. Control.** Champion and lead a program in your community

### **Questions?**

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