Consequences of High Blood Pressure: Control Your Patients' Risk
Agenda

- Opening Remarks
- Housekeeping
- Presentations
- Q&A
- Closing Remarks
Introduction to the atom Alliance

Multi-state alliance for powerful change composed of three nonprofit, healthcare QI consulting companies.
Objectives

During this Webinar you will learn:

- The impact of hypertension (HTN) on the overall health of the nation
- The link between HTN and cardiovascular disease
- The role of early and accurate diagnosis of HTN
- The need for better blood pressure outcomes as it relates to HTN
- How to identify local and national agencies involved in increasing awareness about HTN
- Strategies to improve HTN outcomes
Housekeeping Items: Chat

To ensure maximum sound quality, participant lines have been muted; however we welcome ALL questions and comments via the chat board on the right hand side of your screen.

To submit questions or comments:

• Use WebEx chat – send messages to the panelists or all participants using the chat feature drop down menu.
Consequences of High Blood Pressure: Control Your Patients' Risk

Satellite Conference and Live Webcast
Faculty

Deanah D. Maxwell, MD
Physician Consultant
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Objectives

• Discuss the impact of hypertension (HTN) on the overall health of the nation

• Explore the link between HTN and cardiovascular disease

• Discuss the role of early and accurate diagnosis of HTN
Objectives

• Discuss the need for better blood pressure outcomes as it relates to HTN
• Identify local and national agencies involved in increasing awareness about HTN
• Discuss strategies to improve HTN outcomes
Deanah D. Maxwell, MD
Physician Consultant
Family Health Services
Alabama Department of Public Health
Hypertension: An Overview
Hypertension: Reversing the Trend
Treat to Goal

1 in 3 Americans is living with HBP today.
Hypertension: An Overview

Do you know THE FACTS ABOUT HBP?

HBP EFFECTS NEARLY 80 MILLION AMERICANS

AND IS A LEADING FACTOR FOR HEART DISEASE AND STROKE

The Urgency Around High Blood Pressure Control
Hypertension: An Overview

% Adults Reporting High Blood Pressure

Alabama
Nationwide median

2011
2013

40.1
40.4

30.8
31.4

45
40
35
30
25
20
15
10
5
0

2011
2013

Alabama
Nationwide median
Hypertension: An Overview

- About 70 million American adults (29%) have high blood pressure—that’s 1 of every 3 adults.
- Only about half (52%) of people with high blood pressure have achieved control.
- High blood pressure costs the nation $46 billion each year.

Retrieved from http://www.cdc.gov/bloodpressure/
Hypertension: An Overview

HBP is one of the most expensive health conditions for U.S. employers.

Estimated direct & indirect cost of HBP:
- 2011: $46.4 billion
- 2030: $274 billion

2001 to 2011
HBP-related deaths increased 13%

*Includes missed work days, cost of healthcare services and medication expenses.
Hypertension: An Overview

• Most common condition seen in Primary Care

• Deleterious effects on multiple organ systems

• A strong and independent risk factor for cardiovascular disease
Hypertension: An Independent Risk Factor for Cardiovascular Disease

Consequences of High Blood Pressure

High blood pressure (HBP) can injure or kill you. When high blood pressure is uncontrolled, it can lead to:

**STROKE**
HBP damages arteries that burst or clog more easily.
- 77% of people who have a first stroke have HBP.
- HBP increases your stroke risk by four to six times.

**VISION LOSS**
HBP can strain the vessels in the eyes.

**HEART ATTACK**
HBP damages arteries that can become blocked.
- 69% of people who have a first heart attack have HBP.

**HEART FAILURE**
HBP can cause the heart to enlarge and fail to supply blood to the body.
- 75% of people with congestive heart failure have HBP.

**KIDNEY DISEASE/FAILURE**
HBP can cause arteries around the kidneys to narrow, weaken or harden so the kidneys lose their ability to filter blood.
- HBP is the second-leading cause of kidney failure.

**ERECTILE DYSFUNCTION**
HBP leads to erectile dysfunction because of reduced blood flow throughout the body.

Did You Know?
- At 50, total life expectancy is five years longer for people with normal blood pressure.
- The estimated cost of HBP in 2010 (the most-recent statistics available) is $46.4 billion.

For more information
heart.org/bloodpressure

Check. Change. Control. ™
Hypertension: An overview

- **HIGH**
  - Systolic: 140 or above
  - Diastolic: 90 or above

- **PRE-HIGH**
  - Systolic: between 121–139
  - Diastolic: between 81–89

- **NORMAL**
  - Systolic: 120 or less
  - Diastolic: 80 or less
Hypertension: An Overview

- Previously classified as pre hypertension, Stage 1 and Stage 2

- More recently simplified as BP >140/90 with specific treatment goals

- Further categorized as Primary and Secondary
The pathogenesis of primary hypertension (formerly called "essential" hypertension) is poorly understood but is most likely the result of numerous genetic and environmental factors that have multiple compounding effects on cardiovascular and renal structure and function.
Hypertension: An Overview

Gene/Environment Interactions

- Inactivity
- Stress
- Obesity
- Tobacco
- Age
- Salt
- Alcohol

Environments

Hypertension

Genes

Race

Gender
Hypertension: An Overview
Secondary Hypertension

- Medications – both prescription and OTC meds
- Illicit drug use
- Primary renal disease
- Hyperaldosteronism
- Endocrine disorders
- OSA
- Coarctation of the aorta
Hypertension: An Overview

- Blood pressure is the force of blood against your artery walls as it circulates through your body
Hypertension: An Overview
Hypertension: An Overview

- Individuals whose blood pressure is higher than 140/90 mm Hg often become patients treated for serious cardiovascular problems
Hypertension: An Independent Risk Factor for Cardiovascular Disease

- Hypertension increases the risk of atherosclerosis
Hypertension: An Independent Risk Factor for Cardiovascular Disease

High blood pressure is greater than:

140/90

Systole  Diastole

Force on arteries causing damage

Force of heart pumping causing strain

Heart at rest
Hypertension: An Independent Risk Factor for Cardiovascular Disease

• HTN is the single most modifiable risk factor for CVD

• A 20mm HG difference in usual SBP is associated with a fourfold difference in mortality from hypertensive heart disease and a two fold difference in mortality from CHF, aortic aneurysm, atherosclerosis, and sudden death
Hypertension: An Independent Risk Factor for Cardiovascular Disease

<table>
<thead>
<tr>
<th>Blood Pressure Category</th>
<th>Systolic mmHg</th>
<th>Diastolic mmHg</th>
</tr>
</thead>
<tbody>
<tr>
<td>prehypertension</td>
<td>120-139</td>
<td>or 80-90</td>
</tr>
<tr>
<td>normal</td>
<td>less than 120</td>
<td>and less than 80</td>
</tr>
<tr>
<td>hypertension stage 1</td>
<td>140-159</td>
<td>or 90-99</td>
</tr>
<tr>
<td>hypertension stage 2</td>
<td>160 or higher</td>
<td>or 100 or higher</td>
</tr>
<tr>
<td>hypertensive crisis</td>
<td>higher than 180</td>
<td>or higher than 110</td>
</tr>
</tbody>
</table>

1 in 3 Americans is living with HBP today.

Every 10-point drop in systolic BP is equivalent to a 30-50% drop in risk of cardiovascular disease & stroke.
Hypertension: Our Goal for better Control

- Even though we know how to improve patients’ blood pressure, only about half our patients with HBP are treated to goal
Hypertension: Our Goal for better Control

Figure 2. Age-adjusted awareness, treatment and control of hypertension among adults with hypertension: U.S., 2009-2012

Note: Age-adjusted prevalence of awareness, treatment and control of hypertension were calculated using the subpopulation of persons with hypertension in 2011-2012
Hypertension: Our Goal for better Control

- **HIGH**
  - **Systolic**: 140 or above
  - **Diastolic**: 90 or above

- **PRE-HIGH**
  - **Systolic**: between 121–139
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Hypertension: Our Goal for better Control

2014 Evidence-Based Guideline for the Management of High Blood Pressure in Adults
Report From the Panel Members Appointed to the Eighth Joint National Committee (JNC 8) FREE
Hypertension: Our Goal for better Control

- Age less than 60 with no DM or CKD
  - Goal less than 140/90

- Age greater than 60 with no DM or CKD
  - Goal less than 150/90

- Any age with either CKD or DM
  - Goal is less than 140/90
Hypertension: Our Goal for better Control

• Studied people over 50 with HBP + one other risk factor
• Compared medicines to reduce SBP to 120 mmHg vs. reducing SBP to less than 140 mmHg
• Study stopped early when it found that using medicines to reduce SBP to 120 mmHg reduced the combined rate of having an event by nearly one-third
  • Heart attack
  • Acute coronary syndrome
  • Heart failure or
  • Stroke
• Additionally showed reduced death from any cause by nearly one-quarter

SPRINT Study
Hypertension: Our Goal for better Control

- Guidelines are meant to serve as a guide
- Individual treatment goals may be needed
Hypertension: Our Goal for better Control

- Achieving success in high blood pressure control has remained a major challenge at both the individual patient level and, even more importantly, the population level
Hypertension: Our Goal for better Control

Requires the engagement of…

- Communities
- Healthcare Delivery System
- Providers
- Patients
- Families
Hypertension: Our Goal for better Control

• Expanding PT and HCP awareness
• Lifestyle modifications
• Access to care
• Evidence-based algorithm for treatment
• Medication adherence & follow-up strategies
Hypertension: Our Goal for better Control

- Increased awareness
- Early detection / diagnosis
Hypertension: Our Goal for Better Control

Every 6 seconds, someone dies from stroke

GET THE FACTS

CARDIOVASCULAR HEALTH PROGRAM

Quality Improvement Organizations
Sharing Knowledge. Improving Health Care.
CENTERS FOR MEDICARE & MEDICAID SERVICES

atom
Alliance for Powerful Change™
Hypertension: Our Goal for Better Control

5 Simple Steps to Control Your Blood Pressure

High blood pressure can be fatal, so it's important to know your blood pressure reading and what you can do to keep things under control. The good news is, we have an easy new way to help.

JUST FOLLOW THESE 5 SIMPLE STEPS recommended by blood pressure experts from American Heart Association, American College of Cardiology and the U.S. Centers for Disease Control and Prevention.

1. Know Your Numbers.
   Most people diagnosed with high blood pressure want to stay below 140/90, but your healthcare provider can tell you your personal target blood pressure.

2. Make a Plan
   Work with your healthcare provider to make a plan to lower your blood pressure.

3. Make a Few Lifestyle Changes.
   In many cases this will be your doctor's first recommendation, likely in one of these areas:
   - Lose weight. Strive for a body mass index between 18 and 25.
   - Eat healthier. Eat fruit, veggies, low-fat dairy and lean protein, but lower your saturated and total fat.
   - Reduce sodium. Stay under 1,500 mg a day, which is associated with the greatest reduction in blood pressure.
   - Get active. Shoot for 40 minutes, 3-4 times a week.
   - Limit alcohol. Drink no more than 1-2 drinks a day. (1 for most women, 2 for most men)

   Whether you're at home, at a store or anywhere else where you can check your blood pressure, make a habit of checking it regularly, tracking your readings and sharing them with your healthcare provider.

5. Take Medication as Prescribed
   Take medications exactly the way your healthcare provider prescribes them.

For more help lowering your blood pressure, visit Heart.org/hbp
Hypertension: Our Goal for better Control

- Provider visits
- Home monitoring
- Local pharmacies
- Community screening activities
- Health fairs
- Local fire departments
Hypertension: Our Goal for better Control

The ABCD’s of Blood Pressure Measurement

**Achieve a calm state**
- Make sure you are quiet and relaxed
- Sit calmly without talking for about 5 minutes
- Make sure your reading isn’t affected by:
  - caffeine, alcohol, exercise or smoking

**Body posture is important**
- Sit in a chair with feet on the floor
- Legs should not be crossed
- Arm should be bare and should be supported at heart level

**Calibrate & check equipment**
- Use a properly calibrated and validated instrument
- Check the cuff size and fit

**Double check any high readings**
- If blood pressure registers high, take two readings 5 minutes apart
- Confirm any elevated readings in the opposite arm
How to Measure Blood Pressure at Home
Hypertension: Our Goal for better Control

**LIFESTYLE MODIFICATION OPPORTUNITIES**

Learn more about the following recommendations for lowering SBP

1. **REDUCE WEIGHT**
   - Can Lower 5-20 mmHg/10 Kg

2. **PHYSICAL ACTIVITY**
   - Can Lower 4-9 mmHg

3. **ADOPT DASH*5 EATING PLAN**
   - Can Lower 8-14 mmHg

4. **MODERATION OF ALCOHOL CONSUMPTION**
   - Can Lower 2-4 mmHg

5. **LOWER SODIUM INTAKE**
   - Can Lower 2-8 mmHg
Hypertension: Our Goal for better Control

- Expanding PT and HCP awareness
- Lifestyle modifications
- Access to care
- Evidence-based algorithm for treatment
- Medication adherence & follow-up strategies
Hypertension: Our Goal for better Control

- Base algorithm components and processes on the best available science
- Format for ease-of-updating as better information becomes available
- Create feasible, simple implementation strategy
- Include patient version at appropriate scientific and language literacy level
Hypertension: Our Goal for better Control

- Highlight strategies that consider costs of diagnosis, monitoring, and treatment
- Develop algorithm in format easily used within a team approach to health care
- Develop algorithm in a format able to be incorporated into electronic health records for use as clinical decision support
- Include a disclaimer to ensure that the algorithm is not used to counter the treating healthcare provider’s best clinical judgment
Hypertension: Our Goal for better Control

- Clarity and simplicity
- Lifestyle modification
- Treatment by stage of hypertension
- Time interval to titration and reassessment
- Use of low-cost 1st-line treatment
- Exclusions and suggestions for medications based on concurrent medical conditions
Hypertension: Our Goal for Better Control

SYSTOLIC 140-159 or DIASTOLIC 90-99 (STAGE 1 HYPERTENSION)

Treatment options include:
- Lifestyle modifications as a trial
- Consider adding thiazide

RECHECK AND REVIEW READINGS IN 3 MONTHS™

Further options include:
- Thiazide for most patients or ACEI, ARB, CCB, or combo
- If currently on BP med(s), titrate and/or add drug from different class

SYSTOLIC >160 or DIASTOLIC >100 (STAGE 2 HYPERTENSION)

Two drugs preferred:
- Lifestyle modifications AND
- Thiazide and ACEI, ARB, or CCB
- Or consider ACEI and CCB

RECHECK AND REVIEW READINGS IN 2–4 WEEKS™

NO
- BP AT GOAL?

YES
Hypertension: Our Goal for Better Control

Further options include:
- Thiazide for most patients or ACEI, ARB, CCB, or combo
- If currently on BP med(s), titrate and/or add drug from different class

RECHECK AND REVIEW READINGS IN 2–4 WEEKS^2

BP AT GOAL?
- NO
- YES

Follow-up plans include:
- Encourage self-monitoring and adherence to meds
- Advise patient to alert office if he/she notes BP elevation or side effects
- Continue office visits as clinically appropriate

Additional Considerations for Treatment:
- Optimize dosage(s) or add medications
- Address adherence, advise on self-monitoring, and request readings from home and other settings
- Consider secondary causes

CONSIDER REFERRAL TO HTN SPECIALIST
Hypertension: Our Goal for better Control

- Expanding PT and HCP awareness
- Lifestyle modifications
- Access to care
- Evidence-based algorithm for treatment
- Medication adherence & follow-up strategies
It’s Simple, It’s Free, It’s Impactful

Seeking participants across the healthcare provider spectrum – including hospitals, medical practices, practitioners and service organizations – to join Target: BP.

Opt in to Target: BP

www.heart.org/targetbp
Conclusion

• HTN is a strong independent risk factor for CVD
• HTN is a largely modifiable risk factor for CVD
• More focus needs to be given to getting patients with HTN to treatment goals
Conclusion

• Multifaceted approaches to treatment and diagnosis are needed

• Use of BP algorithm promotes standardization of care and enhances patient care and outcomes
Hypertension: Our Goal for better Control

GOAL

MOVE

13.6M
PEOPLE
TO CONTROL

BY 2020
On-Demand Learning (ODL)

Our On-Demand Learning (ODL) area on www.atomAlliance.org allows you to participate in archived events when it is most convenient.

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Requirements to participate?

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- Submit your name and other information for documentation
- Click “Submit” and you’ll have access to the ODL of your choice.
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