Health Equity and Increasing Medication Adherence for High Blood Pressure Control

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*Stocks*-None
*Patents*-None
Webinar goals

• At the end of the session, listeners will learn how health equity impacts high blood pressure (HBP) control and the ability of healthcare providers and patients to maintain medication adherence including:
Webinar goals

• Review the impact of health disparities and working towards health equity on HBP control.
• Note challenges that both the healthcare provider and patient face in controlling HBP through medication adherence, especially in minority populations.
Webinar goals

• Identify strategies for the healthcare provider and the patient to reduce disparities in achieving BP control through medication adherence.
Health Equity

• Absence of avoidable or remediable differences among groups of people (defined socially, economically, demographically, or geographically).

• Health inequities therefore involve more than inequality with respect to health determinants, access to the resources needed to improve and maintain health or health outcomes.

• Also entail a failure to avoid or overcome inequalities that infringe on fairness and human rights norms

http://www.who.int/healthsystems/topics/equity/en/
Prevalence of HTN in adults aged ≥18, sex, race and Hispanic origin: US, 2011–2014

NCHS Data Brief; No. 220; CDC/NCHS, NHANES, 2011–2014

NCHS Data Brief; No. 220; CDC/NCHS, NHANES, 2011–2014
Prevalence of controlled HTN in adults with HTN aged ≥18, by sex and race and Hispanic origin: US, 2011–2014

NCHS Data Brief; No. 220 ;CDC/NCHS, NHANES, 2011–2014
U.S. HTN-related Death Rates: Race and Hispanic Origin

Medication Adherence by the Numbers

For every 100 prescriptions written...  
50-70 go to a pharmacy  
48-66 come out of the pharmacy  
25-30 are taken properly  
15-20 are refilled as prescribed  

Antihypertensive Medication Adherence Matters

• Critical to successful HTN control for many patients.

• However, only 51% treated for HTN follow health care professional’s advice for long-term medication therapy.

• High adherence associated with higher odds of BP control,

• But non-adherence to cardio-protective meds increases risk of death from 50% to 80%.

Initial Medications For The Management of Hypertension

Lifestyle Modification—Especially Diet and Exercise

\[ \text{β-blockers should be included in the regimen if there is a compelling indication for a β-blocker} \]

Diuretics

Black population

ACE inhibitors or ARBs

Calcium antagonists

An Effective Approach to High Blood Pressure Control: A Science Advisory From the American Heart Association, the American College of Cardiology, and the Centers for Disease Control and Prevention

Alan S. Go, MaryAnn Bauman, Sallyann M. Coleman King, Gregg C. Fonarow, Willie Lawrence, Kim A. Williams and Eduardo Sanchez

Hypertension. published online November 15, 2013.

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Algorithm AHA, ACC, and CDC

Adult Hypertension

**BLOOD PRESSURE (BP) GOAL**

≤ 139 / 89 mm Hg – All Adult Hypertension

**ACE-INHIBITOR** / **THIAZIDE DIURETIC**

- Lisinopril / HCTZ
- (Advance as needed)
- 20 / 25 mg X ½ daily
- 20 / 25 mg X 1 daily
- 20 / 25 mg X 2 daily

**Pregnancy Potential: Avoid ACE-Inhibitors**

If pregnancy potential

**THIAZIDE DIURETIC**

- HCTZ 25 mg → 50 mg
- OR
- Chlorthalidone 12.5 mg → 25 mg

If not in control

**CALCIUM CHANNEL BLOCKER**

- Add amlodipine 5 mg X ½ daily → 5 mg X 1 daily → 10 mg daily

If not in control

**SPIRONOLACTONE OR BETA-BLOCKER**

**IF** on thiazide **AND** eGFR ≥ 60 mL/min/1.73m² **AND** K < 4.5

- Add spironolactone 12.5 mg daily → 25 mg daily
- OR
- Add atenolol 25 mg daily → 50 mg daily (Keep heart rate > 55)

Go, AS et al J Am Coll Cardiol. 2013;

NNT CVA² = 63
NNT MI² = 86
NNT CVA or MI² = 36
A Randomized Trial of Intensive versus Standard Blood-Pressure Control

The SPRINT Research Group

ABSTRACT

BACKGROUND
The most appropriate targets for systolic blood pressure to reduce cardiovascular morbidity and mortality among persons without diabetes remain uncertain.

METHODS
We randomly assigned 9361 persons with a systolic blood pressure of 130 mm Hg or higher and an increased cardiovascular risk, but without diabetes, to a systolic blood-pressure target of less than 120 mm Hg (intensive treatment) or a target of less than 140 mm Hg (standard treatment). The primary composite outcome was myocardial infarction, other acute coronary syndromes, stroke, heart failure, or death from cardiovascular causes.

BP in SPRINT

![BP in SPRINT graph]

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SPRINT Major Inclusion Criteria

• ≥50 years old
• SBP : 130 – 180 mm Hg (treated or untreated)

• Additional CVD risk:
  – Clinical or subclinical CVD (excluding stroke)
  – (CKD), defined as eGFR 20 – <60 ml/min/1.73m²
  – Framingham Risk Score for 10-year CVD risk ≥ 15%
  – Age ≥ 75 years

SPRINT Major Exclusion Criteria

- Stroke
- DM
- Polycystic kidney disease
- Congestive heart failure (symptoms or EF <35%)
- Proteinuria >1g/d
- CKD with eGFR < 20 mL/min/1.73m2
- Adherence concerns

SYSTOLIC BP INTERVENTION TRIAL (SPRINT)
SBP 120 vs 140 mmHg

• Recruited 9,361 pts, 38% Blacks and minorities
• ~30% > age 75, Mean age is 68
• 20% with CVD
• Scheduled to end patient follow-up in 2016
• Stopped 9/11/15 due to total mortality/CV benefit

www.sprinttrial.org
What Is Being Done: Health Literacy

• Particularly challenging in racial-ethnic healthcare disparity

• Almost half (48%) of patients with hypertension or diabetes had inadequate health literacy
  – Less knowledge of their disease, important lifestyle modifications, and essential self-management skills

• Multicultural & multilingual patients tools can be valuable in this area
Self-Measured BP Monitoring (SMBP)

SMBP: the regular measurement of a patient’s own BP with a personal monitor outside a clinical setting, usually at home.

- One strategy to improve BP control - *when supported by clinical staff*
- Also known as home monitoring
- Call to Action issued by AHA, ASH, and PCNA in 2008 and recent GLs

millionhearts.hhs.gov
TEAM-BASED CARE CAN IMPROVE BLOOD PRESSURE CONTROL

A review of 77 studies of team-based care by the Community Preventive Services Task Force showed that patients’ control of blood pressure improved when their care was provided by a team of health professionals, rather than by a single physician.

Key findings include:

- An increase in the proportion of patients with controlled blood pressure
- A decrease in systolic and diastolic blood pressure
- An improvement in patient outcomes for diabetes and blood lipids
Team members: activities

• Providing support and sharing responsibility for HTN care, such as:
  • Medication management  Patient follow-up
  • Helping patients adhere to their BP control plan
  • Monitoring BP routinely
  • Taking medications as prescribed
  • Reducing sodium in the diet
  • Increasing physical activity

millionhearts.hhs.gov
What You Can Do?

• As a health care professional, you can empower patients to take their medications as prescribed.

• Effective two-way communication is critical.

• In fact, it doubles the odds of your patients taking their medications properly.

6 steps to improving patient understanding

1. Limit the amount of information provided at each visit
2. Slow down
3. Avoid medical jargon
4. Use pictures or models to explain important concepts
5. Assure understanding with the “show-me” technique
6. Encourage patients to ask questions

Use the **SIMPLE** method to help improve medication adherence among your patients

- **S**implify the regimen
- **I**mpart knowledge
- **M**odify patients’ beliefs and behavior
- **P**rovide communication and trust
- **L**eave the bias
- **E**valuate adherence

Take Home Messages
Take Home Messages

• Disparities in HTN are significant, especially affecting African Americans

• Current recommendation of <140/90 mmHg associated with dramatic reductions in HTN complications with BP↓ often with combination therapy

• Focus should be on patient adherence and team-based care
Thank You!