

### Introduction

- Hypertension drives the global burden of cardiovascular disease.
- Patients who take their medications as prescribed and make lifestyle changes can enhance their quality of life and reduce their blood pressure.
- Despite its identification and prescribed treatment, hypertension is often insufficiently controlled in clinical practice, a prominent reason for this being poor patient adherence to their medication regimen (Svensson et al., 2000).
- 43% to 65% of patients who are prescribed antihypertensive medications are noncompliant with their prescriptions (Abegaz et al., 2017)

### Background and significance

- Hypertension is a recognizable, costly, and dangerous disease that is still vastly under diagnosed and undertreated in the United States. (World Health Organization(WHO), 2013).
- Affects 1 of 3 adults in the United States, or approximately 75 million people

### Methodology

- Design/setting
  - Small private single physician provider primary care/nephrology practice located in East Orange, Essex County, New Jersey.
  - Quality improvement (QI) project using an educational session, and a tool kit was provided to patients
  - Tool kit consists of a log sheet to track medication use and a one-week pill case
  - Pretest/post test survey and educational intervention

### Intervention materials



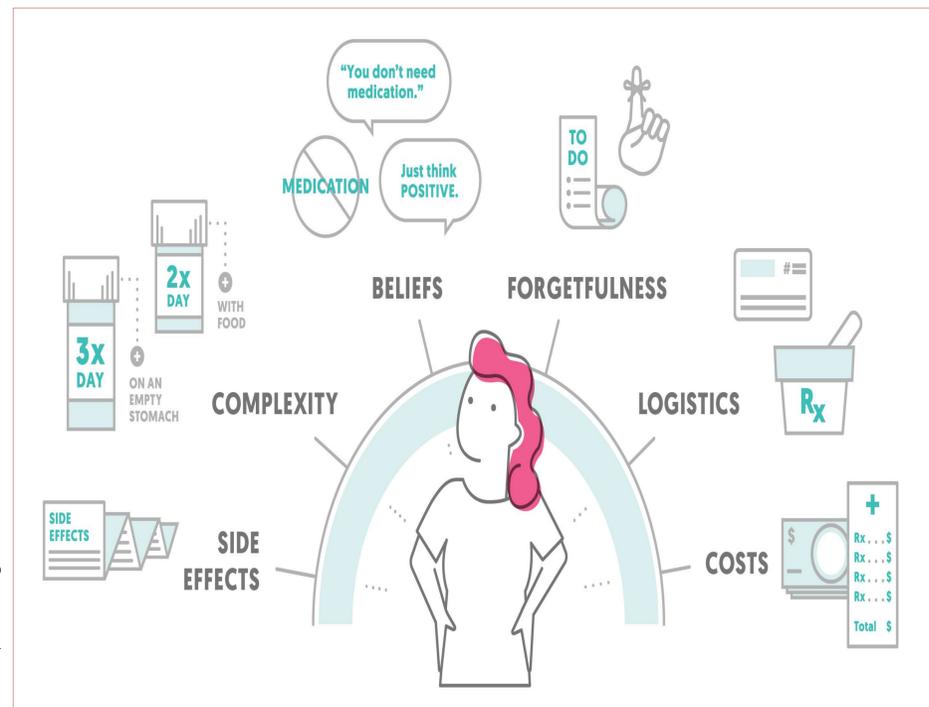
### Aims and objectives

**Aim:** Determine the impact of a medication program on medication adherence and blood pressure in black patients diagnosed with hypertension.

#### Objectives:

- Decrease incidents of hypertension urgencies
- Educating patient on medication adherence,
- Ensure that hypertension treatment guideline are followed when prescribing medication
- Improve medication adherence.

### Reasons for nonadherence



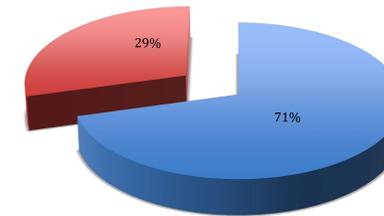
### Pre/ post test- survey Question

Hill-Bone HBP Compliance to High Blood Pressure Therapy Scale (HB-HBP)

- How often do you forget to take your high blood pressure medicine?
- How often do you decide NOT to take your high blood pressure medicine?
- How often do you eat salty food?
- How often do you shake salt on your food before you eat it?
- How often do you eat fast food?
- How often do you make the next appointment before you leave the doctor's
- How often do you miss scheduled appointments?
- How often do you forget to get prescriptions filled?
- How often do you run out of high blood pressure pills?
- How often do you skip your high blood pressure medicine before you go to the doctor?
- How often do you miss taking your high blood pressure pills when you feel better?
- How often do you miss taking your high blood pressure pills when you feel sick?
- How often do you take someone else's high blood pressure pills?
- How often do you miss taking your high blood pressure pills when you are careless

### Results

- likely to use pillbox
- likely not to use pillbox



Question	Pre test	post
How often forget	12% (n=2)	47% (n=8)
Decide not to take meds	35% (n=6)	53% (n=9)
Missed doc appointment	17% (n=3)	41% (n=7)
Forget to refill medication	41% (n=7)	59% (n=10)
Run out of pills	23% (n=4)	53% (n=9)
Skip medication	17% (n=3)	47% (n=8)
Miss taking meds when feel better/carelessness	17% (n=3)	47% (n=8)

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### Results Interpretation

- An increase in adherence was noted from the pre and post test
- The Mann-Whitney U-test was chosen for statistical, the Z-Score will be more than 1.28, to accept the hypothesis that a toolkit will have an impact on patient medication adherence,
- Out of the 14 questions, 8 had a z-score greater than 1.28 to accept the hypothesis that a toolkit that includes education, medication log, and pillbox impacted health outcomes.
- The probability ranged from 99.77% to 91.58 %
- Systolic blood pressure were lower post intervention (M=14.29, SD=13.17) as well as diastolic blood pressure (M=5.88,SD=6.62).

### Discussion/ Implications

- There was an increase in knowledge of medication adherence in African American patients with hypertension between the age of 18 to 65 years of age.
- Hill-Bone survey showed to be a reliable scale that can be utilized to assess patient medication adherence
- The intervention concluded with lower blood pressure readings and increased medication adherence.

### Limitation/Recommendation

- Short recruitment time and intervention time limited the results/outcome, having limited four weeks of data collection, allowing less time for the number of patients who could participate.
- To improve continuity of effectiveness screening, a monthly check on patients adherence should be implemented.
- Policies at the practice would have to be amended in order to include the implementation of the project

### Reference

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