

Assessing Adherence to Guideline Recommendations on Initial Selection of Pharmacological Treatment for Hypertension at a General Medicine Clinic in Metropolitan Central Illinois

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Introduction

- ❖ Just under 50% of Americans have hypertension⁴
- ❖ Hypertension is one of the leading causes of end stage renal disease, especially if the patient has other comorbidities such as diabetes²⁻³
- ❖ The 2017 ACC/AHA Hypertension Guidelines have advanced treatment of hypertension but have not been adopted by the American College of Physicians (ACP) and the American Academy of Family Physicians (AAFP) for use in primary care.

STUDY OBJECTIVES

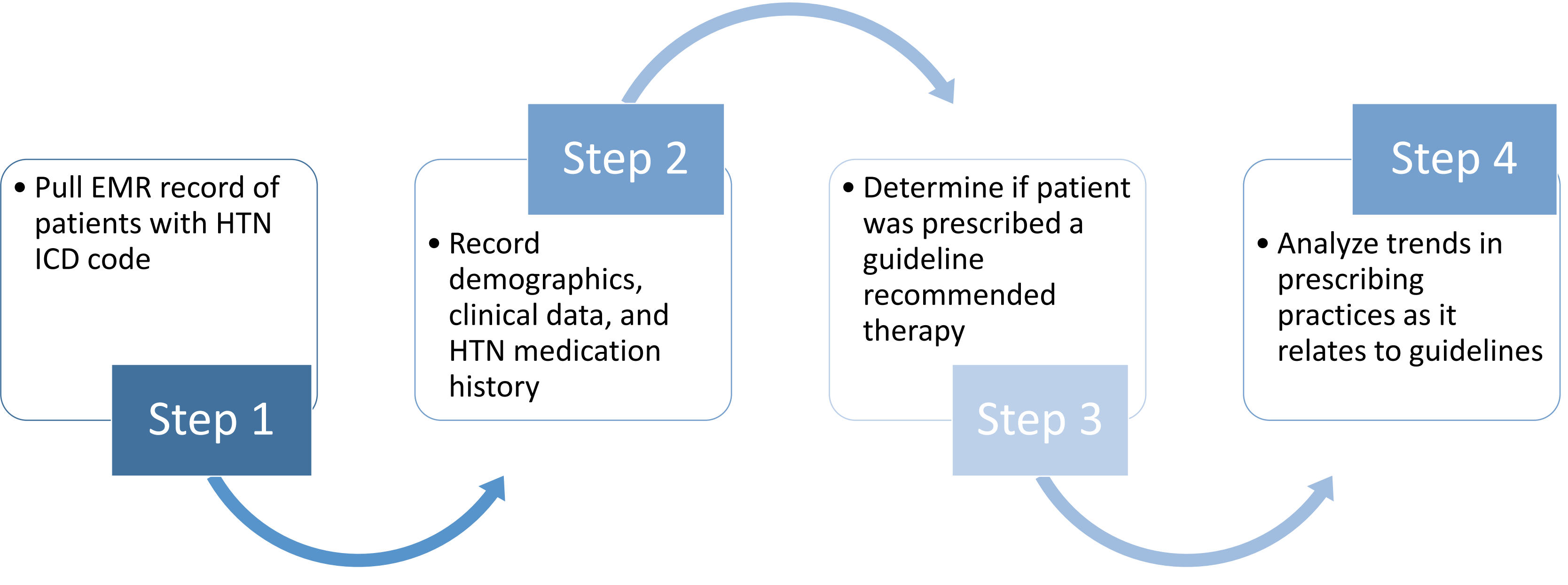
1. Evaluate frequency of guideline recommended therapies being used as first-line treatment in patients with HTN being treated solely by their primary care provider.
2. Identify patient baseline characteristics (i.e., age, sex, weight, BMI) that predict adherence to guidelines.
3. Determine the frequency distribution of uncontrolled HTN

Methods

- Study Design:**
- ❖ Retrospective cohort study reviewing electronic medical records of visits associated with HTN management
 - ❖ Timeframe: December 21, 2017- December 31, 2021

Inclusion criteria: Data was collected on adult patients (age 18 years and older) who are hypertensive and have at least 2 follow-up visits after the initial diagnosis of hypertension within the timeframe specified and have a HTN ICD code listed in their profile.

Exclusion criteria: Patients with a diagnosis of end stage renal disease occurring at any time during the study period and anyone seeing a hypertension specialist were excluded.



Results



81.8% of patients received guideline recommended therapies upon HTN diagnosis.

Control Rates

64.8% (adherent group)
 Vs.
 41.7% (non-adherent group)

Median Time to Control

110 days (adherent group)
 Vs.
 162 days (non-adherent group)

Characteristic	Adherent (N = 54)	Not adherent (N = 12)	p-value
SBP at baseline, mean (SD)	141.7 (17.0)	142.1 (11.0)	0.93
DBP at baseline, mean (SD)	89.3 (15.9)	84.6 (14.0)	0.32
Meds prescribed at baseline, n (%)			0.12
0	25 (46.3)	7 (58.3)	
1	26 (48.1)	3 (25.0)	
2	3 (5.6)	1 (8.3)	
3	0 (0)	0 (0)	
4	0 (0)	1 (8.3)	
Classes prescribed			
ACE inhibitors, n (%)	12 (22.2)	2 (16.7)	1
ARB, n (%)	3 (5.6)	1 (8.3)	0.56
Aldosterone antagonists, n (%)	0 (0)	0 (0)	-
Alpha blocker, n (%)	0 (0)	2 (16.7)	0.03
Beta blocker, n (%)	1 (1.9)	1 (8.3)	0.33
Calcium channel blocker, n (%)	8 (14.8)	2 (16.7)	0.63
Diuretic, n (%)	9 (16.7)	1 (8.3)	0.67
Vasodilator, n (%)	1 (1.9)	0 (0)	1
Combination pill prescribed, n (%)	2 (3.7)	0 (0)	1
Hypertension control during follow-up, n (%)	35 (64.8)	5 (41.7)	0.19
Time to control, median (IQR)	110.0 (65.0, 334.5)	132.0 (27.0, 197.0)	0.87

Table 1. BP treatment and control across individuals who were prescribed antihypertensives according to versus not according to guideline recommendations on initial choice of medication for treatment of hypertension at the time hypertension is first noted in the patient's chart (i.e., baseline visit).

Discussion

- ❖ Most prescribers' decision-making on the appropriate time to initiating pharmacological treatment and initial choice of medication is consistent with the 2017 ACC/AHA Hypertension Guidelines.
- ❖ There was a significant percentage of patients who were either not initiated on pharmacological treatment when warranted or the initial choice of medication upon HTN diagnosis was suboptimal based on guideline recommendations.
- ❖ Limitations included lack of documentation in cases where treatment did not comply with guideline recommendations leading to the inability to parse treatment decisions
- ❖ There could be several possible reasons for nonadherence, including disagreement with guidelines, lack of awareness of guideline recommendations, patient preferences, and misinterpretation of guidelines.
- ❖ Improving prescriber adherence can be accomplished by quality improvement initiatives such as imposing treatment protocols, clinical governance, and additional training.
- ❖ Further study may determine the relationship between higher adherence rates to guideline recommendations and improved patient outcomes.

References

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