SCIENCE-IN-BRIEF
April 2022

TURNING SCIENCE INTO ACTION

Implementation of Outpatient Pharmacist-led Hypertension Management for Under-Resourced Patients: A Pilot Study

The following is a synopsis of "Implementation of Outpatient Pharmacist-led Hypertension Management for Under-Resourced Patients: A Pilot Study" published in April 2021 in INNOVATIONS in pharmacy.

What is already known on this topic?

Nearly half of all adults in the United States (47% or 116 million) have hypertension (HTN), with only 24% of those adults having their condition under control.[1] The prevalence of HTN is highest among non-Hispanic black adults and is shown to be more severe and more frequently associated with premature morbidity and mortality from long-term complications such as stroke, heart failure, and coronary heart disease.[2] Furthermore, uncontrolled HTN is costly to the affected individuals and the nation. By 2035, it is estimated that the total medical costs associated with uncontrolled HTN will exceed $220 billion per year.[3]

The burden of HTN complications continue to disproportionately impact urban non-Hispanic black adults with limited access to preventative health care services.[4] Patients in under-resourced communities with limited access to preventative health care may have less consistent utilization of primary care. This may result in emergency care settings acting as a primary source of health care. There is a public health need for innovative practice models that can provide a link to primary care for HTN management, especially in under-resourced communities. Pharmacist-led HTN management has been shown to improve patient outcomes in primary care settings. Many of these programs utilize collaborative practice agreements (CPAs) between physicians and pharmacists to enable collaborative drug therapy management in which the pharmacist can initiate or modify medications as needed within the context of the protocol defined in the CPA. Limited evidence exists for pharmacist-led HTN management clinics with referral from the Emergency Department (ED).

What is added by this article?

The authors studied an innovative pharmacist-led transitional care clinic (TCC) model providing outpatient HTN management through a collaborative practice agreement with an ED physician and patient referral from the ED.

This study included patients referred from the ED who were 18 to 60 years old, had a blood pressure reading >140/90 mm/Hg, previously diagnosed with HTN, and lacked a consistent relationship with a primary care provider. Patients were referred to HTN management at the TCC with a pharmacist for a series of five visits in a 6-month period. During each visit, average blood pressure values were obtained, antihypertensive medications were initiated and/or modified, medication adherence was

assessed, and lifestyle interventions were also discussed if needed. Additionally, pharmacists expressed the importance of continuous follow-up with a primary care provider for long-term HTN management at each visit and a point-of-care lipid panel was completed at the first and last visit of the intervention.

The study included 116 patients enrolled from May 2017 to August 2018. Most of the patients were African American adults (97.8%). About half (52.3%) of the patients were not taking any antihypertensive medications at enrollment. Findings demonstrated a significant reduction in systolic blood pressure (-22 mmHg) between TCC pharmacist visits one and two, with reductions maintained through five visits for patients who remained in the study. Additionally, patients who completed five visits achieved blood pressure goal with an average systolic blood pressure of 139 mmHg and diastolic blood pressure of 90 mmHg.

What are the implications of these findings?

Patients with uncontrolled HTN require on-going, long-term management services that EDs are not equipped to provide. However, using EDs as an opportunity to connect patients to primary care could improve HTN management. Effective transitional care is needed to help manage HTN in patients who are currently not receiving active primary care. Considering pharmacist's various roles in health care, a promising approach to decrease the prevalence of uncontrolled hypertension, is to utilize pharmacists as a transition point for referral to primary care after patients are discharged from the ED. This unique model provides evidence that collaborative drug therapy management can be effective at managing HTN in under-resourced communities. More opportunities exist to test innovative referral pathways outside of traditional medical settings to engage patients with uncontrolled HTN that are not receiving regular care.

Resources

Centers for Disease Control and Prevention
Pharmacists' Patient Care Process Approach Guide

Centers for Disease Control and Prevention
Using the Pharmacists' Patient Care Process to Manage High Blood Pressure: A Resource Guide for Pharmacists

Centers for Disease Control and Prevention
Advancing Team-Based Care Through Collaborative Practice Agreements

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Citation

Stewart, B., Brody, A., Garwood, C. L., Zhang, L., & Levy, P. D. (2021). Implementation of outpatient pharmacist-led hypertension management for under-resourced patients: A pilot study. INNOVATIONS in Pharmacy, 12(2), 12. https://doi.org/10.24926/iip.v12i2.3895

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention