

Pharmacist-Physician Team Approach to Medication-Therapy Management of Hypertension

The following is a synopsis of “Primary-Care-Based, Pharmacist-Physician Collaborative Medication-Therapy Management of Hypertension: A Randomized, Pragmatic Trial,” published online in June 2014 in *Clinical Therapeutics*.



What is already known on this topic?

High blood pressure, also known as hypertension, is a major risk factor for cardiovascular disease, the leading cause of death for U.S. adults. Helping patients achieve blood pressure control can be difficult for some primary care providers (PCPs), and this challenge may increase with the predicted shortage of PCPs in the United States by 2015. The potential shortage presents an opportunity to expand the capacity of primary care through pharmacist-physician collaboration for medication-therapy management (MTM). MTM performed through a collaborative practice agreement allows pharmacists to initiate and change medications. Researchers have found positive outcomes associated with having a pharmacist on the care team; however, the evidence is limited to only a few randomized controlled trials (RCTs).

What is added by this article?

The authors of the article reviewed 10 RCTs using a collaborative pharmacist-physician team approach in medication-therapy management (PharmD-PCP MTM). Each of the studies reviewed reported greater reductions in systolic and diastolic blood pressure using the team care approach when compared to usual care. Researchers

found that the role of the pharmacist differed within each study; whereas some pharmacists independently initiated and changed medication therapy, others recommended changes to physicians. Pharmacists were already involved in care in all but one study.

After reviewing the RCTs, the authors conducted a randomized pragmatic trial to investigate the processes and outcomes that result from integrating a pharmacist-physician team model. Participants were randomly selected to receive PharmD-PCP MTM or usual care from their PCPs. The authors conducted the trial within a university-based internal medicine medical group where the collaborative PharmD-PCP MTM team included an internal medicine physician and two clinical pharmacists, both with a Doctor of Pharmacy degree, at least 1 year of pharmacy practice residency training, and more than 7 years of ambulatory care experience.

The authors found that the PharmD-PCP MTM approach was associated with significantly greater average reductions in systolic blood pressure at 6 months, but the difference was no longer statistically significant at 9 months. A higher percentage of patients met their blood pressure goal when they continued to see the MTM pharmacist for the full 9-month duration of study versus those who returned to their PCP before the intervention concluded (see table below). Among

the PharmD-PCP MTM group, clinical pharmacists identified two common patient concerns at initial visits: (1) the need for additional therapy (42.4%) and (2) the need for a dosage increase (33.0%). Although 34.2% of patients had a medication change at the initial visit, the percentage of patients requiring a medication adjustment at 9 months was only 3.9%. Overall, the PharmD-PCP MTM group had significantly fewer PCP visits compared with the usual-care group (1.8 vs. 4.2).

Table. PharmD-PCP MTM versus Usual Care Patient Outcomes at 6 and 9 Months

	6 Months		9 Months	
	PharmD-PCP MTM	Usual Care	PharmD-PCP MTM	Usual Care
Average change in systolic blood pressure (mmHg)	-7.1*	+1.6	-5.2	-1.7
Patients at blood pressure goal†	81%	44%	70%	52%

*Statistically significant

† $\leq 140/\leq 90$ mmHg or $\leq 130/\leq 80$ mmHg if a patient also had diabetes

What are the implications of these findings?

A pharmacist providing MTM services through a collaborative practice agreement may not only alleviate the busy schedule of a PCP but also deliver improved patient outcomes. For example, when a pharmacist is limited to providing only medication therapy recommendations, PCPs must be significantly more involved in assessing the recommendation and making the necessary medication change. An initial pharmacist visit also provides an opportunity to assess a patient's knowledge of hypertension and his or her current treatment goals, self-monitoring behavior, medical and medication history, and current medications. Ensuring pharmacists and PCPs have access to a patient's electronic medical record is critical for the success of this collaborative-care model. Overall, a PharmD-PCP MTM team could be a strong strategy for improving patients' blood pressure control and potentially expanding the capacity of primary care.

Resources

Centers for Disease Control and Prevention

Effective Public Health Strategies to Prevent and Control Diabetes: Maryland Patients, Pharmacists and Partnerships Program™ (pp. 73–6)

www.cdc.gov/diabetes/pubs/pdfs/PublicHealthCompendium.pdf

State Law Fact Sheet: Select Features of State Pharmacist Collaborative Practice Laws

www.cdc.gov/dhds/pubs/docs/Pharmacist_State_Law.pdf

American Pharmacists Association and National Association of Chain Drug Stores Foundation

Core Elements of an MTM Service Model

www.pharmacist.com/sites/default/files/files/core_elements_of_an_mtm_practice.pdf

Citation

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The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

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