

Improving Refill Adherence and Hypertension Control in Black Patients

The following is a synopsis of “Improving Refill Adherence and Hypertension Control in Black Patients: Wisconsin TEAM Trial,” published in the September/October 2013 issue of the *Journal of the American Pharmacists Association*.



What is already known on this topic?

High blood pressure, also known as hypertension, affects 67 million U.S. adults and is a major risk factor for cardiovascular disease, the leading cause of death in the United States. Blacks suffer disproportionately from high blood pressure and experience poorer cardiovascular outcomes than whites. Compared with whites, blacks also have significantly more barriers to taking their antihypertensive medications as prescribed by their health care team, including difficulty paying for and forgetting to take medications as directed.

Research shows that involving pharmacists in blood pressure management can improve medication adherence and blood pressure control. However, many studies on this topic have been criticized for various reasons, including involving few minority patients. To date, no randomized clinical trials have focused on barriers to medication adherence and blood pressure control among black patients with hypertension in community-based chain pharmacies.

What is added by this document?

The authors assessed the effectiveness and sustainability of a 6-month intervention in community chain pharmacies for black patients with hypertension, called Team Education and Adherence Monitoring (TEAM). Trained pharmacist–technician

teams implemented the intervention using scheduled visits, Brief Medication Questionnaires, and toolkits to improve medication adherence and aid pharmacists in communicating feedback to patients and doctors.

Compared with participants in a control group who only received patient information, TEAM participants achieved greater improvement in refill adherence, systolic blood pressure levels, and blood pressure control (see table).

Refill Adherence and Blood Pressure Outcomes at 6 and 12 Months, by Study Group

	Intervention Patients	Control Patients
Month 6		
Good Refill Adherence*	60%	34%
Systolic Blood Pressure Change from Baseline	−12.62	−5.31
Blood Pressure Control†	50%	36%
Month 12		
Good Refill Adherence*	62%	44%
Systolic Blood Pressure Change from Baseline	−13.64	−8.30
Blood Pressure Control†‡	51%	43%

*Defined as $\geq 80\%$ days covered with blood pressure medication.

†Defined as blood pressure $< 140/90$ mmHg.

‡Not statistically significant at $p < 0.05$.

The authors also found a dose-response relationship: Patients who received the full intervention achieved more prolonged improvement in refill adherence, systolic blood pressure, and blood pressure control than those who did not complete the full intervention—and even partial participants achieved more sustained improvement than those in the control group.

What are the applications for these findings?

These findings suggest that good refill adherence is (1) sustainable, (2) linked to systolic blood pressure reduction and blood pressure control in black patients, and (3) achievable by implementing relatively simple tools and a team-based model of care involving community chain pharmacists and pharmacy technicians. The findings also suggest that pharmacists and technicians may be underused in efforts to improve medication adherence and blood

pressure control given their knowledge and skills, access to refill records, presence in convenient locations, and ability to successfully implement a new model and tools in busy settings.

The approach used in TEAM may contribute to further research and ongoing efforts to improve care for black patients with high blood pressure and possibly other patients. In particular, the dose-response findings highlight the need to keep staff and patients engaged in an intervention and to evaluate data in future studies. Lack of sustained effects in medication adherence and/or blood pressure control do not always mean that the intervention is ineffective or that it must be continued in all patients. The low rates of refill adherence among control group participants are a reminder of substantial gaps in hypertension care and the need to assess barriers to adherence before intensifying therapy (i.e., increasing the number of prescribed blood pressure drugs or dosage) for minority and low-income patients.

Resources

University of Wisconsin–Madison, School of Pharmacy
TEAM Study
www.pharmacy.wisc.edu/team-study

Centers for Disease Control and Prevention
High Blood Pressure
www.cdc.gov/bloodpressure
Medication Adherence
www.cdc.gov/primarycare/materials/medication

Million Hearts®
Blood Pressure Control
http://millionhearts.hhs.gov/about/hsds/blood_pressure.html

Citations

Svarstad BL, Kotchen JM, Shireman TI, Brown RL, Crawford SY, Mount JK, et al. Improving refill adherence and hypertension control in black patients: Wisconsin TEAM trial. *J Am Pharm Assoc.* 2013;53:520–9.

Svarstad BL, Kotchen JM, Shireman TI, Crawford SY, Palmer PA, Vivian EM, Brown R. The Team Education and Adherence Monitoring (TEAM) Trial: Pharmacy interventions to improve hypertension control in blacks. *Circ Cardiovasc Qual Outcomes.* 2009;2(3):264–71.

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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