

Trends in Blood Pressure Medication Use and Control Among U.S. Adults with High Blood Pressure

The following is a synopsis of “Trends in Antihypertensive Medication Use and Blood Pressure Control Among United States Adults with Hypertension: The National Health and Nutrition Examination Survey, 2001 to 2010,” published in the October 23 issue of *Circulation*.



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 adults in the United States. Nearly one in three American adults has high blood pressure.

Although lifestyle modifications such as healthy eating and regular physical activity can reduce blood pressure, most adults with hypertension must take at least two antihypertensive drugs to keep their blood pressure under control. In 2003, *The Seventh Report of the Joint National Committee on the Prevention, Detection, Evaluation and Treatment of High Blood Pressure (JNC 7)* recommended the use of combination therapy (i.e., use of at least two antihypertensive drugs) using medications from different classes to achieve blood pressure control.

What is added by this document?

Using data from the 2001–2010 National Health and Nutrition Examination Survey (NHANES), the authors assessed recent trends in antihypertensive medication use and its impact on blood pressure control among a nationally representative sample of U.S. adults with hypertension.

During the study period, blood pressure control rates among all participants improved from 29% to 47%; among patients treated for hypertension with medication, control rates improved from 45% to 60%.

The authors identified a significant increase in the percentage of adults with hypertension who were treated with antihypertensive medication (64% in 2001–2002

to 77% in 2009–2010), including a significant increase in the proportion of adults with hypertension who used combination therapy (37% in 2001–2002 to 48% in 2009–2010). Adults on combination therapy had a higher likelihood of blood pressure control than those taking a single drug.

Certain subpopulations in the study were undertreated for hypertension, including younger adults, Mexican Americans, and adults without health insurance. Older adults, non-Hispanic blacks, and individuals with chronic kidney disease or diabetes were more likely to be treated for hypertension, but their blood pressure was less likely to be controlled while on treatment.

What are the applications for these findings?

These findings suggest that the overall improvement that participants experienced in blood pressure control may be due to the increased use of combination therapy. This conclusion supports what several large clinical trials have

found—that most adults with hypertension can reach and maintain blood pressure control only with the use of combination therapy. Thus, an adult whose hypertension is not controlled with a single drug may benefit from a regimen with multiple medications.

What are the implications for public health practice?

Although blood pressure control rates have improved over the past decade, hypertension remains a public health concern; it is still highly prevalent, inadequately treated, and not well controlled. The selection of available medications for initial and long-term therapy continues to have public health implications for patients and providers. In addition, disparities in hypertension treatment and control still persist among patient subgroups. Further efforts are needed to close the gap between treatment and control and to maximize the public health and clinical benefits of antihypertensive therapy.

Resources

Centers for Disease Control and Prevention
High Blood Pressure
www.cdc.gov/bloodpressure

National Institutes of Health
The Seventh Report of the Joint National Committee on the Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7)
www.nhlbi.nih.gov/guidelines/hypertension

American Heart Association
High Blood Pressure
www.heart.org/HEARTORG/Conditions/HighBloodPressure/High-Blood-Pressure-or-Hypertension_UCM_002020_SubHomePage.jsp

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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