

## High Prevalence of Undetected and Uncontrolled Hypertension in Treated Patients

The following is a synopsis of “High Prevalence of Masked Uncontrolled Hypertension in People with Treated Hypertension,” published ahead of print in *European Heart Journal* in February 2014.



### What is already known on this topic?

High blood pressure, also known as hypertension, is a major risk factor for cardiovascular disease (CVD), the leading cause of death for adults in the United States. The term “masked hypertension” describes people who have a normal seated blood pressure (BP) when measured in the clinic but have an elevated BP outside of the clinic according to ambulatory BP monitoring (ABPM) or home BP monitoring. Although research shows that patients with masked hypertension are at high risk for developing CVD because their condition often remains undetected and untreated, few studies have described the prevalence of masked uncontrolled hypertension (MUCH) in people with treated and seemingly well-controlled BP. The acronym “MUCH” describes patients who are treated for hypertension and have controlled clinic BP (i.e., less than 140/90 mmHg) but who have uncontrolled BP outside of a clinical setting.

### What is added by this document?

Using the Spanish ABPM registry, the authors aimed to determine the prevalence of MUCH in patients with treated hypertension. The proportion of MUCH among treated

hypertensive patients was 31.1%, based on 24-hour ABPM criteria (i.e., greater than or equal to a systolic BP of 130 mmHg and/or a diastolic BP of 80 mmHg).

The prevalence of MUCH was significantly higher in the following groups as compared to their counterparts:

- ▶ Males
- ▶ Patients younger than 65
- ▶ Smokers
- ▶ Patients with diabetes
- ▶ Patients with obesity
- ▶ Patients with target organ damage
- ▶ Patients with borderline high clinic-measured BP (130–139/80–89 mmHg)

Although 60% of MUCH patients had both uncontrolled daytime and nighttime BP, almost twice as many patients had elevated BP only at night compared with elevated BP only during the day (24.3% vs. 12.9%).

---

## What are the applications for these findings?

The results from this study suggest that almost one-third of people who are considered to have adequate BP control based on conventional clinical criteria may not have their BP controlled when assessed regularly outside the clinic. Relying on clinic BP alone is not sufficient to improve BP control because many patients (especially higher

risk individuals) have elevated nighttime BP. Therefore, the authors suggest that primary care physicians should consider more routine use of ABPM in patients with borderline clinic BP and high CVD risk. More studies are needed to assess the impact of ABPM on clinical outcomes and to define the cost-effectiveness of such an approach. Specifically, more research is needed on elevated nighttime BP, which has been strongly linked to CVD morbidity and mortality and can only be detected by ABPM.

---

## Resources

Centers for Disease Control and Prevention  
*High Blood Pressure*  
[www.cdc.gov/bloodpressure](http://www.cdc.gov/bloodpressure)

American Heart Association  
*Blood Pressure*  
[www.heart.org/HEARTORG/Conditions/HighBloodPressure/High-Blood-Pressure-or-Hypertension\\_UCM\\_002020\\_SubHomePage.jsp](http://www.heart.org/HEARTORG/Conditions/HighBloodPressure/High-Blood-Pressure-or-Hypertension_UCM_002020_SubHomePage.jsp)

National Heart, Lung, and Blood Institute  
*The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7)*  
[www.nhlbi.nih.gov/guidelines/hypertension](http://www.nhlbi.nih.gov/guidelines/hypertension)

## Citation

Banegas JR, Ruilope LM, de la Sierra A, de la Cruz JJ, Gorostidi M, Segura J, et al. High prevalence of masked uncontrolled hypertension in people with treated hypertension. *Eur Heart J*. 2014 Feb 3 [ePub ahead of print].

*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.*

National Center for Chronic Disease Prevention and Health Promotion  
Division for Heart Disease and Stroke Prevention



**For more information please contact Centers for Disease Control and Prevention**  
1600 Clifton Road NE, Atlanta, GA 30333  
**Telephone:** 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348  
**E-mail:** [cdcinfo@cdc.gov](mailto:cdcinfo@cdc.gov) **Web:** [www.cdc.gov](http://www.cdc.gov)