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## **Visiting Nurse Service of New York Conducts First Study of African American Hypertension Management in Home Health Care Setting**

*Greater Incidence of Uncontrolled Blood Pressure Among Blacks Over Whites May be More Related to Proper Medical Care Access than Biological Differences*

**NEW YORK, July 20, 2009**—The Visiting Nurse Service of New York (VNSNY) Center for Home Health Care Policy & Research, the only research center focused on studying home health care in the US, is conducting the first significant, large scale, randomized controlled trial (RCT) to assess management of hypertension (HTN) in the home health care setting. The trial measures the impact of several key factors on severity of the disease in African Americans presenting with uncontrolled hypertension, and is funded by the National Institutes of Health's National Heart, Lung and Blood Institute (NHLBI). Results from the trial will provide valuable information about the implementation of effective evidence-based strategies for improving blood pressure (BP) control in low-income patients suffering from multiple chronic illnesses.

Methodology for the trial was recently published in the **American Heart Association journal *Circulation: Cardiovascular Quality and Outcomes* (May 20, 2009) under the title "Home-Based Blood Pressure Interventions for Blacks."** The trial was led by Penny H. Feldman, PhD (Principal Investigator) and Margaret V. McDonald, MSW (Investigator). Anticipated publication of results will be December 2009. Results of an initial cross-sectional analysis of 498 hypertensive African American patients newly admitted to home health care were published in ***Ethnicity & Disease* (Spring 2009) under the title "Understanding the Complexity of Hypertensive African American Home Care Patients: Challenges to Intervention."**

Studies have shown that when African Americans, whose death rate from high blood pressure is more than twice as high as for the population at large,<sup>1</sup> are prescribed HTN medication and follow dietary regimens, they achieve healthy blood pressure levels.<sup>2,3</sup> This indicates that biological differences are less a factor in hypertension care than access to proper medical care,<sup>4,5</sup> patient education and self-management.

"Aging African Americans are a traditionally underserved and high risk patient population," said Penny H. Feldman, PhD, principal investigator on the VNSNY study. "Evidence-based medication and behavior regimens for improving hypertension are widely available, yet for a variety of reasons, they are not consistently adapted by health professionals serving this population or by their patients. Our study addresses the lack of uptake of such regimens—getting patients and providers to put this evidence into practice is our ultimate goal."

The VNSNY Center for Home Health Care Policy & Research trial is distinctive in that it examines multiple aspects of the home health nurse-patient relationship, including clinical practice, patient adherence and patient outcome improvements, in the HTN context.

The study uses a design, randomized at the nurse level, to assess both clinical- and cost-effectiveness of two specific management strategies: 1) key evidence-based reminders given to nurses and patients during “basic” routine post acute home health care, and 2) an extended plan that includes post acute care plus a 12-month Hypertension Home Support Program. The extended plan provides an additional “HTN nurse” and a health educator, who helps transition the patient and delivers components of the program such as an interactive workbook, review of medication issues and continued care coordination.

Other support tools used in the study include home blood pressure monitors and logs, just-in-time awareness and other educational support materials mailed to patients. Home health nurses in the study also foster accurate communication with primary care physicians and intervene or provide assistance if patients experience obstacles accessing physician care.

The HTN randomized controlled trial promotes and measures:

- Home health nurses’ adherence to guidelines set by the [Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure \(JNC7\)](#) for hypertension management;
- Self-reported patient adherence to medication, diet and exercise recommendations;
- Increased BP control at three months and 12 months following study enrollment.

The VNSNY Center for Home Health Care Policy & Research is one of five major medical institutions to be awarded an NHLBI grant from the National Institutes of Health, designed to promote JNC7 guidelines and improve compliance among health care providers. Primary goals of the study are to examine the effect of the “basic” and extended strategies mentioned above on HTN practice among home health nurses and patients, and to estimate and compare costs associated with the respective strategies.

Significant findings from the initial cross-sectional study of hypertensive African Americans inform this area of research and include the following:

- There is a need to address HTN in patients with diabetes: 60% of the African American study sample had diabetes; and those with diabetes were significantly more likely to have severe uncontrolled hypertension than those patients without diabetes;
- Management of diabetes-specific treatment may overwhelm both patients and health care workers and distract them from prioritizing other serious medical conditions such as hypertension;
- Treatment adherence plays a critical role in HTN management. According to information derived from [PAM \(Patient Activation Measure\)](#),<sup>6</sup> a tool to measure self-management preparedness, patients who are not prepared to self-manage their treatment are 80% more likely to have severe uncontrolled hypertension.

Health management in the home care setting has been significantly understudied. The methods discussed here represent a “gold standard” in rigorous scientific research and analysis; study

findings will, it is hoped, have a positive influence on patient and provider practice, and result in improved management models and stronger adherence to JCN7 guidelines.

To speak with a VNSNY Center for Home Care Policy & Research investigator or to receive more information about this research effort, please contact Caren Browning, at (212) 561-7464 or [caren.browning@morris-king.com](mailto:caren.browning@morris-king.com).

### **About VNSNY Center for Home Care Policy & Research**

Established in 1993 by the Visiting Nurse Service of New York, the Center for Home Care Policy & Research has become recognized as the pre-eminent research center for home care and is the only one of its kind in the nation. The agency conducts scientifically rigorous research to promote the delivery of high-quality, cost-effective care in the home and community and support informed decision making by policy makers, payers, managers, practitioners, and consumers of home-and community-based services. For more information, please visit [www.vnsny.org/research](http://www.vnsny.org/research).

### **Footnotes:**

<sup>1</sup> Rosamond W, Flegal K, Furie K, et al. Heart disease and stroke statistics 2007 —update: a report from the American Heart Association Statistics Committee and Stroke Statistics Sub-committee. *Circulation*. 2008; 117:e25-e146.

<sup>2</sup> Cushman WC, Ford CE, Cutler JA, et al. Success and predictors of blood pressure control in diverse North American settings: The Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack Trial (ALLHAT). *J Clin Hypertens*. 2002;4:393-404.

<sup>3</sup> Appel LJ, Moore TJ, Obarzanek E, et al. A clinical trial of the effects of dietary patterns on blood pressure: DASH Collaborative Research Group. *N Engl J Med*. 1997; 336:1117-1124.

<sup>4</sup> Gornick ME. *Vulnerable Populations and Medicare Services: Why Do Disparities Exist?* New York, NY: The Century Foundation Press; 2000.

<sup>5</sup> Hargraves JL, Cunningham PJ, Hughes RG. Racial and ethnic differences in access to medical care in managed care plans. *Health Serv Res*. 2001;36:853-868.

6. Hibbard JH, Mahoney ER., Stockard J, Tusler M. Development and Testing of a Short Form of the Patient Activation Measure. *Health Serv Res*. 2005; 40:1918-30.

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