

HYPERTENSIONWATCH

Brought to you by a grant from **OMRON**
BLOOD PRESSURE MONITORS

Home BP Monitoring Proves Successful

Blood pressure (BP) home monitoring as part of heart failure disease management programs allows patients to check their BP regularly and encourages them to take steps toward improved BP control, according to findings presented recently at the 22nd Annual Meeting of the American Society of Hypertension.

The study assessed the ability of home monitoring to promote BP control for patients with heart failure (n = 625) and patients with both heart failure and diabetes (n = 787). The

researchers concluded that participation in BP home monitoring as part of heart failure disease management programs resulted in significantly improved BP control for patients with heart failure and patients with heart failure plus diabetes. The findings demonstrated why patients need to be active participants in treating their condition by monitoring their BP at home.

For information on this presentation, visit www.morningbp.com/pt.24

Study Shows Genetic Link Between Body Clock and BP

A study reported in the *Proceedings of the National Academy of Sciences* (September 4, 2007) found the gene BMAL1 to be a key component of the body's molecular clock. If the BMAL1 is inactivated, the body clock stops working, and blood pressure (BP) and blood glucose levels are altered.

The Oxford researchers said the

study provides direct evidence that a genetic change in BMAL1 is linked with high BP. The study also is the first evidence in humans of a direct causal link between changes in the body clock and a greater risk of type 2 diabetes and high BP.

"The regulation of circadian rhythm is central to a wide range of biological

processes, and this type of genetic study should be extended to other disease areas," said study author Professor Dominique Gauguier, PhD.

The findings emphasized the need for patients with high BP and chronic diseases to monitor their BP at home. For information on this study, visit www.morningbp.com/pt.23

Are Patients Controlling Their BP?

A major problem for controlling high blood pressure (BP) is adherence to treatment, according to an editorial in the cardiology special edition of *The Lancet* (August 18, 2007). The rationale for many patients with high BP is that it is a disease that can be cured, and they stop or reduce medication when the BP levels drop.

The editorial stated, "Physicians need to convey the mes-

sage that hypertension is the first, and easily measurable, irreversible sign that many organs in the body are under attack." The editorial stressed that individuals with high BP need to constantly monitor their BP to help them stay compliant with their medication and have a complete picture of their BP on a daily basis. For more information on this editorial, visit www.morningbp.com/pt.25

Morning Hypertension and Metabolic Syndrome Are Connected

A study of 181 patients with hypertension in an outpatient clinic examined the prevalence of morning hypertension and metabolic syndrome. Using home-use sphygmomanometers, the researchers found that 43.6% of the patients demonstrated morning hypertension.

The findings, reported in *Hypertension Research*, October 29, 2006, indicated that only 48.1% of the patients had normal systolic blood pressure (BP) both at the clinic and in the morning at home, whereas 72.9% of the patients demonstrated normal diastolic BP under the same conditions. After 1 year, the researchers found that 43.6% of the patients still showed morning hypertension, and there was significantly higher prevalence of metabolic syndrome among patients with morning hypertension. The researchers suggested the need for more vigorous intervention in controlling BP. For information on this study, visit www.morningbp.com/pt.26

Morning BP Predicts EPO-induced Hypertension

A study of patients with mild-to-moderate renal impairment who had renal anemia requiring erythropoietin (EPO) treatment assessed whether morning home blood pressure (BP) could predict EPO-induced hypertension. BP control was evaluated based on the relationship between office/clinic BP and home BP in the morning, according to findings reported in *Clinical Experimental Nephrology*, March 2007.

The researchers found that, prior to EPO treatment, 38% of the patients had well-controlled BP, 30% had poorly controlled BP, 20% had masked hypertension, and 12% had white-coat hypertension, indicating a predominance of morning hypertension. After EPO treatment, morning hypertension in patients with masked hypertension and poorly controlled BP increased by 5%. There also was an 8% decline in the well-controlled category. For more information on this study, visit www.morningbp.com/pt.27

FAST FACT: High blood pressure precedes 74% of cases of heart failure in the United States.