



New treatment of hypertension individual to each patient

Main photo: This is hypertension specialist Via Cintron demonstrating use of the NICaS system, used to perform a non-invasive test to diagnose hypertension. Top right: This is an ambulatory blood pressure monitor patients can wear while at home or work. The control unit shown here clips onto the patient's belt or waistband. Bottom right: Co-Directors of the RTANE Hypertension Center are Dr. Balaji Padmanaban Athreya and Dr. Barbara Greco. (DON TREEGER / THE REPUBLICAN)

BY DR. BARBARA GRECO
It is estimated that nearly half of the U.S. adults have what is some-

times known as "the silent killer"- high blood pressure, or hypertension, and often have no symptoms.

Yet, complications from hypertension can lead to cardiovascular disease,

chronic kidney disease, stroke, and even vascular dementia, a type of cognitive impairment linked to reduced blood flow to the brain.

The American Heart Association and the

American College of Cardiology, along with nine other partners, introduced new and lower guidelines in 2017 for what is to be considered high blood pressure to enable earlier intervention against the development of chronic health problems from this serious condition.

A normal blood pressure for the force of blood flowing through the vessels is less than 120/80 millimeters of mercury as the heart contracts and then relaxes between beats.

Elevated blood pressure under the 2017 guidelines is when systolic is between 120 and 129 while the diastolic remains less than 80. Stage I hypertension is now defined as systolic between 130 and 139 or diastolic between 80 and 89.

The first or top number referred to as "systolic" measures the pressure the heart generates for blood to circulate. The lower or bottom number referred to as "diastolic" measures the pressure when the heart is relaxed between beats.

The 2017 guidelines generally recommend lifestyle changes such as weight loss, exercise, and lowering intake of salt to address Stage I and early hypertension. These guidelines help health care providers to estimate a patient's 10-year and lifetime risk for cardiovascular disease and thus better evaluate the need for earlier medical interventions in some patients.

For many patients with hypertension, the initial treatment may be unsuccessful or medications may cause unacceptable side effects. It is not unusual for patients with Stage II hypertension - blood pressure greater than 140/90 - to require more than two medications.

In 2015, Renal and Transplant Associates of New England (RTANE) was certified by the

American Society of Hypertension as the first hypertension practice center in the state. This certification is given when a practice demonstrates the ability to provide comprehensive diagnostic and treatment approaches by certified hypertension specialists.

All physicians and mid-level providers have some training in the diagnosis and treatment of high blood pressure but certification indicates providers with more advanced training.

information. This device measures heart and blood vessel parameters such as the degree of resistance to blood flow, the work load the heart is experiencing and the amount of total body water an individual has-all of which may be contributing to raising blood pressure. Patients with hypertension have very different patterns of measurements. Medications to lower blood pressure each have different effects on these parameters. We can then select

treatments with the desired effects while following treatment guidelines.

Finally, at RTANE, we use technology that allows us to measure pressures in the blood vessels close to the heart, called "central blood pressure" which has been shown to better predict cardiovascular risk. This, along with measures of

"pulse wave velocity," can provide important information about the overall cardiovascular health as measured in the blood vessels.

This state-of-the-art and patient-centered approach to diagnosing and treating high blood pressure allows for tailoring the treatment for each patient. The ultimate goal is to hit the target of normal blood pressure with treatment that makes sense and is well tolerated.

The Co-Directors of the RTANE Hypertension Center are Dr. Balaji Padmanaban Athreya and Dr. Barbara Greco. Under the leadership of Dr. Michael Germain, RTANE physicians are active in clinical trials related to the treatment of hypertension. Many of our physicians are certified hypertension specialists.

For more information on RTANE, please call 413-733-9666 or visit www.rtane.org.



Barbara Greco, M.D.

is a Board Certified Nephrologist and a Certified Hypertension Specialist. Having received her undergraduate degree from Yale University, she went on to earn her medical degree from Harvard Medical School and Nephrology training at Vanderbilt University Medical Center. As President of RTANE and Nephrology Director of the Baystate Renal Transplant Program, Dr. Greco treats patients with all types of kidney disorders.



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