Dear Clinicians,

The subject of hypertensive urgency has come up a lot in our practice champion sessions. Hypertensive urgency is defined (by JNC-7) as a SBP of at least 180 mm Hg and/or DBP of at least 110 mm Hg, without associated end-organ damage. By definition, it is ASYMPTOMATIC (to the patient). However, the sheer elevation of blood pressure levels can cause some downright scary symptoms in healthcare providers! But stop and catch your breath! As a hypertension guru once remarked, "No data currently exist to show immediate benefit from acutely lowering BP in ASYMPTOMATIC patients with severe hypertension ……. BUT data does suggest that an aggressive approach may be "HARMFUL.

Once upon a time, patients with severely elevated diastolic BPs in the 115-130 mmHg range were followed untreated for 3 months before being randomized in a clinical trial. Yes, this experiment was actually done; but it was done in the 1960s. Guess what? No adverse outcomes occurred in these 143 males during those 3 months. I suggest to you that we often over-react to severely elevated asymptomatic blood pressures.

There are no official algorithms endorsed by the hypertension societies. In my practice, we first ensure that the blood pressure measurement is actually accurate. Allow the patient to rest in a quiet area and repeat the blood pressure with an automated device several times, preferably with an automated office blood pressure monitor. Most importantly, if there is even a hint of symptoms, the patient should be referred to the ED. This is a case of hypertensive EMERGENCY. Hypertensive emergency cases absolutely benefit from ER referrals. I also have a lower threshold to send a patient to the ER if I find out that they had suffered a cardiovascular / cerebrovascular / vascular or renal failure event in the past 3-6 months. A focused exam to rule out subtle encephalopathy and heart failure should be performed. EKGs are commonly performed but will often be abnormal because they often show LVH w/ strain pattern. In women of child-bearing age, it is not unreasonable to check a pregnancy test because this may be an occasion for pre-eclampsia to declare itself (in a previously undiagnosed pregnancy).

Given the evidence that acute blood pressure lowering in hypertensive urgency is not going to prevent clinical events, usually the only benefit of administering these rapidly acting anti-hypertensive agents is to make the healthcare provider feel better!!! What matters the most is getting the patient immediately on an effective and tolerable regimen consisting of a combination of 2 separate long acting classes of anti-hypertensive. Remember, poor compliance with already prescribed anti-hypertensives is by far the most common etiology of hypertensive urgency.

When should you treat the patient in the clinic? Typically, if the BP is in the 200-210/120 range, consider the use of one of the more commonly used rapidly-acting anti-hypertensive agents. Options include clonidine (0.1mg), labetalol (200mg), captopril (25mg) and furosemide (20mg). The key to avoiding harm is not to repeat doses of these medications in too short of an interval because full BP lowering effect may not be seen until 2 hours after administration. Do observe these patients in the office for at least 2 hours after administration of the medication.

The real key to successfully treating hypertensive urgency is to follow-up within 24 hours and then every 2 days for one week. Our training session on "the 5As" is of UTMOST importance here. Make sure that patient and provider are both in agreement that close follow-up is needed for the next few days. Assist with obtaining medications promptly and affordably. Arrange for them to return in 24 hours for further evaluation and review of their lab work. Arranging for the procurement of a home blood pressure monitors is invaluable in these cases. This intervention has been shown to promote medication adherence and lifestyle changes and empowers the patient.

In summary, it is our natural instinct to aggressively lower blood pressure in these patients with asymptomatic severely elevated blood pressures, but remember: “Primum Non Nocere”. It is easier to harm these patients in the short-term with medications than to benefit them. The true benefit that we can offer our patients is in lowering the blood pressure over the long-term. Use the ‘5As’. I admit it is a controversial topic and so I look forward to feedback!

If you have specific questions related to hypertension management in your patients, Dr. Williams can be reached by email at Stephen.Williams@nyumc.org or by phone at 646-320-8075 (cell).

Sincerely,
Dr. Williams and the BP Visit Team
http://www.cdnetwork.org/bp-visit