Defining the Standards for Hypertension Centers of Excellence

Exploring the role of hypertension centers of excellence, referral pathways, strategies to optimize care for resistant hypertension, and the integration of emerging therapies.

With Cara East, MD, FACP

Why is there a growing need to establish hypertension centers of excellence?

Hypertension remains the most common, modifiable cardiovascular risk factor. Although we have many medications to treat blood pressure (BP), BP control has gradually decreased over the past 20 years, and there are many reasons for this. Patients often need to take two to four medicines to treat their high BP. For many patients, this feels overwhelming, and medications often need to be taken several times a day, so that they often forget to take them. Thus, patient adherence is not optimal. Although many of these medications are now generic, taking two to four medicines several times a day is still expensive. In addition, based on good scientific evidence, the guidelines have changed such that the optimal BP is now considered to be < 130/80 mm Hg. For physicians, when they have reduced the patient's BP but it is still not optimal, there's a tendency to be complacent, thinking that this is the best that can be done. Along with patient care, a hypertension center of excellence should also play a leading role in educating and training medical staff and physicians in the current diagnosis and management of hypertension.

What should be the core purpose of a hypertension center of excellence—better BP control, cardiovascular risk reduction, access to advanced therapies like renal denervation (RDN), or all of the above?

The core purpose of a hypertension center of excellence is to improve BP control for patients. This may include additional clinical testing, such as ambulatory 24-hour BP monitoring or imaging (eg, renal ultrasound, angiography, echocardiography, CT scans), if needed. Polysomnography for patients with possible obstructive sleep apnea may also be needed. Access to new therapies such as RDN or investigational medications is more likely to occur in a hypertension center of excellence. It is helpful if this center is also participating in clinical research trials, so that patients have access to cutting-edge medications and treatments.

Which patients should be referred to a hypertension center of excellence, and what should trigger that referral?

The ideal patient to send to a hypertension center of excellence would be one with resistant hypertension or one for whom it is surprising that they have hypertension. This is especially true for very young patients who have hypertension in their 20s or 30s. Resistant hypertension is defined as high BP despite maximum doses of three antihypertensive medications, including a diuretic or water pill, or controlled BP on four antihypertensive medications. Patients with resistant hypertension are particularly at risk for the complications of high BP, such as myocardial infarction, stroke, peripheral artery disease, and kidney disease, and are the ideal patient to be referred to a hypertension center of excellence. Patients should also be referred if the physician/health care provider does not feel they can get adequate control of the patient's BP or if more diagnostic evaluation is needed.

For patients with resistant hypertension, what value does a center-based approach bring

compared with escalating medications in a community setting?

In a specialized hypertension center of excellence, patients with resistant hypertension are more likely to be placed on multiple drugs at once, knowing that adding medications one at a time and increasing the doses gradually is less likely to work. Some ethnic groups respond better to specific medications. Patients with kidney disease may respond better to specific medications. Patients with cardiovascular disease may need specific medications. Some patients have very rare tumors that require specialized invasive testing to evaluate and treat the etiology of high BP. At a specialized hypertension center of excellence, these nuances may be better understood.

What standardized protocols should every hypertension center of excellence have in place, such as medication optimization pathways, ambulatory BP monitoring, or adherence evaluation?

A hypertension center of excellence should have protocols in place to optimize the patient's care more quickly. There should be recommendations about how to manage the patient's BP, including pathways to manage patients based upon their own unique characteristics, such as ethnicity, age, medical comorbidities, family history, and other variables. Ambulatory 24-hour BP monitoring should be available, and it is also useful to have adherence evaluations through urine tests to help patients understand the importance of taking their BP medications.

How should RDN and other emerging therapies be integrated into the structure of a modern hypertension center without overshadowing foundational medical therapy?

A hypertension center of excellence should include physicians such as cardiologists, nephrologists, and endocrinologists, who will oversee the patient's BP care. They can then refer the patient to an interventionalist to perform the RDN procedure when appropriate. Finally, the hypertension center can arrange follow-up schedules. As we know, RDN may lower the patient's BP gradually over 3 years. Having clinical research trials available to the patients allows them access to cutting-edge medications and therapies. ■

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