



CONCEPTS IN HYPERTENSION

A Journal Article-Based Approach to Understanding Hypertension

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Hypertensive Urgency in the Office—Safe to send home?

Article of Interest

Patel K et al. Characteristics and outcomes of patients presenting with hypertensive urgency in the office setting. JAMA Internal Medicine. 2016. ([Click to Access](#))

Context and Study Objective

While our training reassures us that ambulatory patients with hypertensive urgency need only close outpatient follow-up, residual uncertainty can prompt a referral to the emergency department (ED). This study sought to determine if sending these individuals to the hospital was associated with improved cardiovascular (CV) outcomes.

Design, Setting, Participants

In a retrospective fashion, outpatients diagnosed with an episode of hypertensive urgency within the Cleveland Clinic Healthcare system between 2008-13 were identified. Upon completion of their office visit, disposition (ED or home) along with CV event rates (acute coronary syndrome, stroke, transient ischemic attack) over the ensuing months were recorded. Hypertensive urgency was defined as a blood pressure (BP) \geq 180 systolic or 110 mm Hg diastolic in the absence of end-organ damage. The results below are not adjusted for confounders.

Results

- 1.3 million clinic visits analyzed. 5% characterized by hypertensive urgency. Mean office BP 183/96 mm Hg. Age 63. 60% women. 75% white.

- Less than 1% of those with hypertensive urgency referred to the ED. Mean BP 198/107 mm Hg.

Atherosclerotic risk was comparable between those referred to the hospital or home.

- Within 7 days of the clinic visit, CV event occurred in 0.5% referred to the hospital and 0.1% of those sent home.

- 22% of patients sent to the hospital were admitted. Duration of admission was 3.5 days.

99% of office patients with hypertensive urgency did not have a CV event after 1 month of follow-up

Clinical Perspective

- The lack of a literature and "office policy" can predispose us to direct those with hypertensive urgency to the hospital.

- The study reassures us that clinical events are extremely rare and that harm, as a result of fruitless testing and hospital admission, is real. I see these individuals in the office within 1 week.

- The researchers postulate that hospital evaluations are not linked to improved outcomes and therefore that office patients sent to the ED would not have fewer CV events than those sent home. The study results show hospital referrals to be (non-significantly) associated with more CV events. It is likely that only the highest risk patients were directed to the ED and hence the greater event rate.

- Criticism: 15% of the cohort was lost to follow-up. Because the number of events was small, capturing even a few additional outcomes could challenge the study's conclusions.

- Disclosures: I have no conflicts to declare.

All CTs, MRIs, stress tests, and echocardiograms performed in the emergency department were normal