Section: Adult Medical
Subject: HYPERTENSION (ASYMPTOMATIC)
Section #: 340.23
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1. Definitions and clinical intent:
    a. A hypertensive emergency is an acute, severe elevation in blood pressure accompanied by end-organ compromise.
    b. The presence of end organ damage is the critical factor to look for in assessing these patients, and not simply an elevation in a number. The goal of this protocol is to identify and treat those patients in whom an acute life-threatening emergency is occurring rather than a non-life threatening elevation of systemic blood pressure.

2. Evaluation
    a. Thorough and ongoing neurologic exams are crucial to perform and document.
    b. Pre-hospital treatment of hypertension may be considered when:
        i. Systolic BP is ≥200 mmHg or diastolic BP is ≥120 mmHg, AND
        ii. Symptoms of end organ damage such as chest pain, dyspnea, confusion, or altered level of consciousness are present.
            1. Presence of a headache alone does not signify end-organ damage.

3. Treatment
    a. Basic ALS Treatment.
    b. Position of comfort.
    c. The initial goal for BP reduction is not to obtain a normal blood pressure, but to achieve a progressive controlled reduction to minimize the risk of hypoperfusion to vital organs.
        i. In all cases DO NOT lower the systolic BP by more than 10% from the initial reading.
    d. Medic-1 consult is required before ANY medications are administered for the treatment of hypertension that is not already addressed by another HCFR protocol (e.g. chest pain, stroke, eclampsia, anxiety, etc).

4. QA Points:
    a. The most common cause of asymptomatic hypertension is not taking prescribed anti-hypertension medication or high dietary salt intake.[1]
    b. Thirty (30) minutes of supine rest in a quiet part of an ED was associated with a 10 to 20 mmHg drop in BP without the administration of medication.[2]
    c. One study of 59,535 patients showed no difference in ambulatory patients with asymptomatic hypertension treated in an ED versus managed as an outpatient.[3]
    d. Aggressive treatment of asymptomatic hypertension may be associated with harm to the patient in some cases.[4]

[1] Boudville, Neil, et al. "Increased Sodium Intake Correlates with Greater Use of Antihypertensive Agents by Subjects with Chronic Kidney Disease." American Journal of Hypertension, no. 10, 2005, p. 1300.

[2] Grassi, Daniel, et al. "Hypertensive Urgencies in the Emergency Department: Evaluating Blood Pressure Response to Rest and to Antihypertensive Drugs with Different Profiles." Journal of Clinical Hypertension, vol. 10, no. 9, Sept. 2008, p. 662.

[3] Patel, Krishna K., et al. "Characteristics and Outcomes of Patients Presenting with Hypertensive Urgency in the Office Setting." JAMA Internal Medicine, no. 7, 2016, p. 981.

[4] Grant, Jed and Karimeh Borghei. "Asymptomatic Hypertension in the Emergency Department." Physician Assistant Clinics, vol. 2, no. Emergency Medicine, 01 July 2017, pp. 465-472.