

6.2. Hypertensive Emergencies and Severe Hypertension in Nonpregnant and Nonstroke Patients

Recommendations for Hypertensive Emergencies and Severe Hypertension in Nonpregnant and Nonstroke Patients*
References that support recommendations are summarized in the [Evidence Table](#).

COR	LOE	RECOMMENDATIONS
1	B-NR	1. In adults with a hypertensive emergency (BP >180 and/or >120 mm Hg and evidence of acute target organ damage), admission to an intensive care unit is recommended for continuous monitoring of BP and target organ damage and for consideration of parenteral administration of appropriate therapy (Tables 26 and 27, Figure 9). ¹⁻³
1	C-LD	2. For adults with a hypertensive emergency related to a compelling condition (eg, acute aortic syndrome or acute aortic dissection), SBP should be reduced to <140 mm Hg for most conditions and to <120 mm Hg in aortic dissection during the first hour, while monitoring for other target organ dysfunction. ⁴⁻⁷
1	C-LD	3. For adults with a hypertensive emergency but without a compelling condition, SBP should be reduced with oral or parenteral therapy by no more than 25% within the first hour; then, if stable, to <160/100 mm Hg within the next 2 to 6 hours; and then cautiously to 130 to 140 mm Hg during the next 24 to 48 hours to limit target organ injury. ^{2,8,9}
3: Harm	B-NR	4. For adults with severe hypertension (>180/120 mm Hg) who are hospitalized for noncardiac conditions without evidence of acute target organ damage, intermittent use of additional IV or oral antihypertensive medications are not recommended to acutely reduce BP. ^{8,10,11}

*Hypertensive emergencies in patients with acute ICH and acute ischemic stroke are discussed in [Section 5.3.9](#) ("Cerebrovascular Disease") and in pregnant adults in [Section 11.5](#) ("Hypertension and Pregnancy").

Synopsis

Hypertensive emergencies are defined as severe elevations in BP (>180/120 mm Hg) associated with evidence

of acute target organ damage. Patients with hypertensive emergencies experience a high in-hospital mortality rate of 10% with a 1-year cardiovascular morbidity and mortality rate of 20% to 30%.^{12,13} Common forms of acute hypertension-related target organ damage include acute HF/pulmonary edema, neurologic disorders (encephalopathy, ICH, acute ischemic stroke), and AKI, with aortic dissection the least common presentation.¹² Hypertensive emergencies demand immediate reduction of BP to prevent or limit further target organ damage. However, the rapid correction of BP in patients with longstanding hypertension to normal range may result in vital organ hypoperfusion due to loss of autoregulation.^{6,7} In contrast, patients with severe hypertension without evidence of acute target organ damage (previously called hypertensive urgency) should not have aggressive BP lowering in the short-term or be given parenteral antihypertensive drug therapy. Reinstitution or intensification of oral antihypertensive medications, preferably in the outpatient setting, is recommended for these patients.

Recommendation-Specific Supportive Text

1. There is no RCT evidence that antihypertensive drugs reduce morbidity or mortality in patients with hypertensive emergencies.³ There is also no high-quality RCT evidence to inform clinicians as to which first-line antihypertensive drug class provides more benefit than harm in hypertensive emergencies. This lack of high-quality RCT evidence is related to the small size of trials, lack of double-blinding design, lack of long-term follow-up, and failure to report outcomes. The therapeutic goal is to minimize target organ damage safely by rapid recognition of the problem and early initiation of appropriate antihypertensive treatment. To achieve rapid BP control and avoid large swings in BP, continuous infusion of short-acting titratable antihypertensive agents is often preferable in the intensive care setting. Antihypertensive agents available for the treatment of hypertensive emergencies are shown in [Tables 26 and 27](#). Clinical trials suggested that IV nicardipine is more effective than labetalol in reaching short-term BP target, while clevidipine was shown to induce faster reduction in BP than nicardipine.^{1,2} However, selection of an antihypertensive agent should be based on the drug's pharmacology, underlying mechanisms of hypertension, degree of progression of target organ damage, the desirable rate of BP decline, and the presence of comorbidities.