Table 1: Spectrum of hypertensive Crises

1. Malignant Hypertension (hypertensive neuroretinopathy present)
2. Benign Hypertension with acute complications (acute target organ damage but no hypertensive neuroretinopathy)
    a. Acute hypertensive heart failure
    b. Atherosclerotic coronary artery disease
        i. Acute myocardial infarction
        ii. Unstable angina
    c. Acute aortic dissection
    d. Central nervous system catastrophe
        i. Hypertensive encephalopathy
        ii. Intracerebral hemorrhage
        iii. Subarachnoid hemorrhage
        iv. Cerebral infarction
    e. Active bleeding including postoperative bleeding
3. Catecholamine excess states
    a. Pheochromocytoma crisis
    b. Antihypertensive drug withdrawal syndromes
4. Preeclampsia and eclampsia
5. Poorly controlled hypertension in a patient requiring emergency surgery
6. Severe post operative hypertension
7. Scleroderma renal crisis
8. Miscellaneous hypertensive crises
    a. Severe hypertension complicating extensive burn injury
    b. High-dose cyclosporine in children after bone marrow transplantation
    c. Autonomic hyperreflexia in quadriplegic patients
    d. Severe hypertension with acute rejection
    e. Transplant renal artery stenosis

Table 2: Different parenteral drugs for treatment of hypertensive crises.

Parenteral Drug	Mechanism of action	Onset of action	Duration of action	Infusion rate
Sodium Nitroprusside	Direct arterial and venous dilator	Less than 2 minutes	1-10 minutes	Initial dose is 0.5 μg/kg/minute and the flow rate is increased in increments of 1 μg/kg/minute every 2 to 3 minutes
Fenoldopam	Dopamine agonist causing decreased SVR	Within 10 minutes	Up to 1 hour	Initial dose is 0.1 μg/kg/minute, the increments must not exceed 0.1 μg/kg/minute at 20-minute intervals
Labetolol	Non selective β- and α1-adrenergic blocker	5-10 minutes	2.5-6.5 hours	Initial dose of 20 mg bolus over 2 minutes with 20 mg increments every 10 minutes interval to maximum of 300 mg
Esmolol	Cardioselective β-blocker resulting in decreased cardiac output	Within 60 seconds	10-20 minutes	500-1000 μg/kg loading dose over 1 minute, followed by an infusion starting at 50 μg/kg/minute and increasing up to 300 μg/kg/minute
Clevidipine	Calcium channel blocker causing decreased SVR	2-4 minutes	5-15 minutes	Initial dose is 1 to 2 mg/h and then titrated (usually doubled every 90 seconds)
Nicardipine	Calcium channel blocker causing decreased SVR	5-10 minutes	4-6 hours	Initial infusion rate of 5 mg/hour, increasing by 2.5 mg/hour every 5 minutes to a maximum of 15 mg/hour
Nitroglycerine	Venodilator	2-5 minutes	10-15 minutes	5 mcg/minute, increase by 5 mcg/minute every 3-5 minutes upto 200 mcg/minute.
Phentolamine	Nonselective α-adrenergic blocker	2-3 minutes	15-30 minutes	Initial dose is 1 mg bolus with subsequent boluses of 1 to 5 mg up to a total of dose of 20 to 30 mg