

Table 2: Parenteral drugs for initial 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 $\mu\text{g}/\text{kg}/\text{minute}$ and the flow rate is increased in increments of 1 $\mu\text{g}/\text{kg}/\text{minute}$ every 2 to 3 minutes
Fenoldopam	Dopamine agonist causing decreased SVR	Within 10 minutes	Up to 1 hour	Initial dose is 0.1 $\mu\text{g}/\text{kg}/\text{minute}$, the increments must not exceed 0.1 $\mu\text{g}/\text{kg}/\text{minute}$ at 20-minute intervals
Labetolol	Non selective β - and α 1- 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 $\mu\text{g}/\text{kg}$ loading dose over 1 minute, followed by an infusion starting at 50 $\mu\text{g}/\text{kg}/\text{minute}$ and increasing up to 300 $\mu\text{g}/\text{kg}/\text{minute}$
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