

Hypertensive Emergencies Drug Infusions

AGENT	MOA	DOSE	ONSET/DURATION OF ACTION (AFTER DISCONTINUATION)	PRECAUTIONS
Parenteral Vasodilators				
Nitroglycerin	Decreases coronary vasospasm, which increases coronary blood flow. Also, induces vessel dilatation, decreasing cardiac workload.	5-20 µg/min as IV infusion	2-5 min/5-10 min	Headache, tachycardia, vomiting, flushing, methemoglobinemia; requires special delivery system due to drug binding to plastic tubing
Hydralazine	Decreases systemic resistance through direct vasodilation of arterioles.	5-10 mg as IV bolus repeat every 4-6 hr	10 min/> 1 hr	Tachycardia, headache, vomiting, aggravation of angina pectoris
Parenteral Adrenergic Inhibitors				
Labetalol	α, β1, β2 Blocker	20 mg IV bolus over 10 mins then 1-2mg/min IV infusion	5-10 min/15-30 min	Bronchoconstriction, heart block, orthostatic hypotension
Esmolol	Ultra-short-acting β-adrenergic blocker	500 µg/kg bolus injection IV or 25-100 µg/kg/min by infusion. May repeat bolus after 5 min or increase infusion rate to 300 µg/kg/min	1-5 min/15-30 min	First-degree heart block, congestive heart failure, asthma