

Vasoactive Dose Titration Protocol

Drug	Typical Dose Range	Typical Starting Dose	Dose Titration Increment	Rate of Titration	First Notification Value (notify provider when dose is reached)	Second Notification Value (notify provider when dose is reached)	Onset	Duration	T _{1/2}	Primary Route of Elimination	Noteworthy Adverse Effects
Diltiazem	1-15 mg/hr	2.5-5 mg/hr	2.5 mg/hr	30-60 min	15 mg/hr	20 mg/hr	3 min	1-3hr	3-6.6 hr	hepatic	AV block, bradycardia, CHF exacerbation
Dobutamine	2-20 mcg/kg/min	2 mcg/kg/min	2.5 mcg/kg/min	5-15 min	15 mcg/kg/min	20 mcg/kg/min	2 min	10 min	2 min	hepatic	Hypotension, dysrhythmias
Dopamine	2-20 mcg/kg/min	2-5 mcg/kg/min	1-5 mcg/kg/min	1-15 min	15 mcg/kg/min	20 mcg/kg/min	5 min	10 min	2 min	renal	Extravasation causes tissue necrosis, dysrhythmias
Epinephrine	0.01mcg/kg/min to effect	0.01-0.05 mcg/kg/min	0.01-0.05 mcg/kg/min	1-15 min	0.4 mcg/kg/min	2 mcg/kg/min	1-2 min	5-10 min	2 min	hepatic	Dysrhythmias, tissue necrosis, ischemia
Esmolol	50-300 mcg/kg/min	25-50 mcg/kg/min	50 mcg/kg/min	5-20 min	250 mcg/kg/min	300 mcg/kg/min	1-2 min	10-30 min	9 min	hydrolyzed by RBC esterases	Infusion site reactions, confusion, bradycardia
Labetalol	10-180 mg/hr	10 mg/hr	10 mg/hr	10-30 min	120 mg/hr	180 mg/hr	5-15 min	2-4 hr	5.5 hr	hepatic	Hypotension, bradycardia
Milrinone	0.375-0.75 mcg/kg/min	0.375 mcg/kg/min	0.125 mcg/kg/min	15-30 min	0.5 mcg/kg/min	0.75 mcg/kg/min	5-15 min	3-5hr	1.5-2 hr	renal	Hypotension, dysrhythmias, nausea, vomiting
Nicardipine	5-15 mg/hr	2.5-5 mg/hr	2.5 mg/hr	15-30 min	10 mg/hr	15 mg/hr	10 min	2 hr	2-4hr	hepatic	Peripheral edema, tachyarrhythmia
Nitroglycerin (mcg/min)	5-200 mcg/min	5-10 mcg/min	5-20 mcg/min	5-15 min	200 mcg/min	300 mcg/min	5-10	10-20 min	1-3 min	hepatic	Hypotension, reflex tachycardia if volume depleted
Nitroglycerin (mcg/kg/min)	0.2-3 mcg/kg/min	0.2 mcg/kg/min	0.2-0.5 mcg/kg/min	5-15 min	2 mcg/kg/min	3 mcg/kg/min					
Nitroprusside	0.2-4 mcg/kg/min	0.2 mcg/kg/min	0.25-0.5 mcg/kg/min	1-15 min	4 mcg/kg/min	10 mcg/kg/min	1 min	1-2 hr	3-5 min	hepatic	Hypotension, cyanide/thiocyanate toxicity
Norepinephrine	0.01mcg/kg/min to effect	0.01-0.05 mcg/kg/min	0.01-0.05 mcg/kg/min	1-15 min	0.4 mcg/kg/min	2 mcg/kg/min	1 min	15-30 min	5 min	hepatic	Dysrhythmias, tissue necrosis, ischemia
Phenylephrine	0.25 mcg/kg/min to effect	0.25-0.5 mcg/kg/min	0.25 mcg/kg/min	1-15 min	3 mcg/kg/min	5 mcg/kg/min	1 min	15-30min	15-30 min	hepatic	Extravasation causes tissue necrosis
Vasopressin (septic shock)	0.01-0.04 units/min	0.04 units/min	Do not increase rate without MD Order. Wean off by 0.01 unit/min	30-60 min	N/A	N/A	5-15 min	30-60 min	10-20 min	hepatic	Dysrhythmias, tissue necrosis, ischemia