



Drugs for Hypertensive Emergencies

Sept 2014

MI:	1. GTN	2. metoprolol or labetalol	
APO:	1. GTN	2. nicardipine	3. nitroprusside
Intracranial:	1. nicardipine	2. labetalol	3. esmolol
Dissection:	1. labetalol	2. esmolol	3. nicardipine + beta blocker
Sympathetic crisis:	1. benzos	2. phentolamine	
Pre-eclampsia :	1. labetalol	2. nifedipine po	3. hydralazine

Labetalol

Bolus: 10mg over 2mins

Inf: 1-8mg/hr

Pros: alpha and beta blockade (less reflex tachy)

Cls: bradycardia, heart block, decompensated CCF, active bronchospasm, concurrent CCB

Onset 2-5min, peak 15min, duration 2-4hrs

Esmolol

Bolus: 500mcg/kg over 2mins; repeat q5min

Inf: 50mcg/kg/min, titrate to max 200

Pros: ultrashort acting, cardio selective beta 1 blockade, easily stopped - test dose in asthmatics

Onset 1min, duration 30mins

Nicardipine

Inf: 5mg/hr; incr q15min by 2.5mg/hr to max 15

Cl: beta blockers, decompensated CCF

2nd gen dihydropyridine CCB, vascular selectivity for cerebral and coronary arteries

Onset 5-10mins, duration 1-4h

GTN

Inf: 5-20mcg/min, incr by 5mcg/min q5min to max 200

Cl: phosphodiesterase inhibitors, incr ICP

Venodilator, may cause hypotension with reflex tachy

Onset 2 mins, duration 1 hr

Nitroprusside

Inf: 0.5mcg/kg/min, incr by 0.5

Cl: incr ICP, renal/hepatic failure

Always use with beta blocker - risk reflex tachy

Decr preload and afterload, onset secs, duration 1-2mins.

Risk cyanide poisoning >4hrs

Phentolamine

Bolus: 5-15mg iv

Inf: 0.5mg/min

Alpha blocker

**Hydralazine**

Bolus: 5-10mg iv over 5-10mins, q20min, max 20mg

Inf: 5mg.hr

Arteriole vasodilation, decr DBP>SBP

SEs: lupus-like syndrome, nausea, headache, reflex tachy

Nifedipine (po)

10mg po, repeat Q1h

CCB

Nimodipine (po)

60mg po q4h

Preventing vasospasm in SAH