

BETA-BLOCKERS

Agent	Adrenergic Receptor Blocking Activity	Intrinsic Sympathomimetic Activity (ISA)	Lipid Solubility	Protein Bound (%)	Half-Life (h)	Bioavailability (%)	Primary Site of Metabolism	Primary Route of Elimination	Indications	Usual Dosage
Acebutolol (Sectral®)	beta ₁	Yes	Low	15-25	3-4	40-7-fold ¹	Hepatic	Feces (renal)	Hypertension, angina pectoris, acute MI	P.O.: 400-1200 mg/d
Atenolol (Tenormin®)	beta ₁	No	Low	<5-10	6-9	50-60-4-fold ¹	Hepatic (limited)	Feces (renal)	Hypertension, angina pectoris, acute MI	P.O.: 50-200 mg/d I.V.: 5 mg q 6h I.V. rate MI: 5 mg x 2 doses
Betaxolol (Kerlone®)	beta ₁	No	Low	50-55	14-22	84-94	Hepatic	Renal	Hypertension	P.O.: 5-20 mg/d
Bisoprolol (Zebeta®)	beta ₁	No	Low	26-33	9-12	80	Hepatic	Renal	Hypertension, heart failure	P.O.: HF: 2.5-10 mg/d HTN: 2.5-20 mg/d
Carvedilol (Coreg®, Coreg CR®)	alpha ₁ , beta ₁ , beta ₂	No	ND	98	7-10	25-35	Hepatic	Feces	Hypertension, heart failure (mild to severe)	P.O.: 3.125-25 mg twice daily
Esmolol (Brevibloc)	beta ₁	No	Low	55	0.15	NA 5-fold ¹	Red blood cell esterase	Renal	Supraventricular tachycardia, sinus tachycardia, atrial fibrillation/flutter, hypertension	I.V. infusion: 25-300 mcg/kg/min
Labetalol (Trandate®)	alpha ₁ , beta ₁ , beta ₂	No	Moderate	50	5.5-8	18-30-10-fold ¹	Hepatic	Renal	Hypertension	P.O.: 200-2400 mg/d I.V.: 20-80 mg at 10-min intervals up to a maximum of 300 mg or continuous infusion of 2-8 mg/min
Metoprolol (Lopressor®, Loprol-XL®)	beta ₁	No	Moderate	10-12	3-7	50 7- to 10-fold ¹ (Toprol XL®: 77)	Hepatic	Renal	Hypertension, angina pectoris, acute MI, heart failure (mild to moderate), XLT (moderate to severe), AF (rate control), tachyarrhythmias (rate control)	P.O.: 100-450 mg/d HF: (Toprol-XL®): 12.5-200 mg/d I.V.: Acute MI: 5 mg q 2-3 doses AF (rate control): 2.5-5 mg q 2-5 min (max total dose: 15 mg over 0-15 min)
Nadolol (Corgard®)	beta ₁ , beta ₂	No	Low	25-30	20-24	30 5- to 8-fold ¹	None	Renal	Hypertension, angina pectoris	P.O.: 40-320 mg/d
Nebivolol (Bystolic®)	beta ₁ , beta ₂	No	High	98	10-32	12-96	Hepatic	Renal (feces)	Hypertension	P.O.: 5-40 mg/d
Penbutolol (Levabul®)	beta ₁ , beta ₂	Yes	High	80-98	5	~100	Hepatic	Renal	Hypertension	P.O.: 20-80 mg/d
Pindolol	beta ₁ , beta ₂	Yes	Moderate	57	3-4	90 2- to 2.5-fold ¹	Hepatic	Renal (feces)	Hypertension	P.O.: 20-60 mg/d
Propranolol (Inderal®, various)	beta ₁ , beta ₂	No	High	90	3-5	25 2- to 3-fold ¹	Hepatic	Renal	Hypertension, angina pectoris, arrhythmias, prophylaxis (post-MI)	P.O.: 40-480 mg/d I.V.: 1 mg q 2-3 min Tachyarrhythmias: 1-3 mg q 2-5 min (max: 5 mg)
Propranolol long-acting (Inderal LA®, InnoPran XL™)	beta ₁ , beta ₂	No	High	90	9-18	25 2- to 3-fold ¹	Hepatic	Renal	Hypertrophic cardiomyopathy with outflow tract obstruction, prophylaxis (post-MI)	P.O.: 180-240 mg/d