

Brevibloc (esmolol)

Indication: Supraventricular Tachyarrhythmia

Standard concentration: 10mg/ml (premixed bag)

Dosing:

Bolus: 500mcg/kg over 1 minute (Use with caution)

Maintenance: 50mcg/kg/min, increase by 50mcg/kg/min every 4-5 minutes up to 200mcg/kg/min.

Maximum dose is 300mcg/kg/min, but doses greater than 200mcg/kg/min are associated with increased adverse effects.

Calculation: 50mcg/kg/min = 0.3ml/kg/hour at 10mg/ml concentration

Dosing Chart:

Patient Weight (kg)	500 mcg/kg bolus (ml)	50mcg /kg/min (ml/hr)	100mcg /kg/min (ml/hr)	150mcg /kg/min (ml/hr)	200mcg /kg/min (ml/hr)	250mcg /kg/min (ml/hr)	300mcg/ kg/min (ml/hr)
45	2.3	13.5	27.0	40.5	54.0	67.5	81.0
50	2.5	15.0	30.0	45.0	60.0	75.0	90.0
55	2.8	16.5	33.0	49.5	66.0	82.5	99.0
60	3.0	18.0	36.0	54.0	72.0	90.0	108.0
65	3.3	19.5	39.0	58.5	78.0	97.5	117.0
70	3.5	21.0	42.0	63.0	84.0	105.0	126.0
75	3.8	22.5	45.0	67.5	90.0	112.5	135.0
80	4.0	24.0	48.0	72.0	96.0	120.0	144.0
85	4.3	25.5	51.0	76.5	102.0	127.5	153.0
90	4.5	27.0	54.0	81.0	108.0	135.0	162.0
95	4.8	28.5	57.0	85.5	114.0	142.5	171.0
100	5.0	30.0	60.0	90.0	120.0	150.0	180.0
105	5.3	31.5	63.0	94.5	126.0	157.5	189.0
110	5.5	33.0	66.0	99.0	132.0	165.0	198.0
115	5.8	34.5	69.0	103.5	138.0	172.5	207.0
120	6.0	36.0	72.0	108.0	144.0	180.0	216.0
125	6.3	37.5	75.0	112.5	150.0	187.5	225.0
130	6.5	39.0	78.0	117.0	156.0	195.0	234.0

Adverse reactions: hypotension, diaphoresis, injection site reactions, nausea

Contraindications: acute bronchospasm, AV block, bradycardia, cardiogenic shock, pulmonary edema, and sick sinus syndrome

Drug Interactions: diltiazem, furosemide, sodium bicarbonate, and thiopental are all incompatible

Nursing considerations:

1. Use with caution in impaired renal function, diabetes, Bronchospasms
2. For infusion only; DO NOT GIVE IV PUSH
3. Monitor: ECG and BP continuously
4. Recommended for short term use (up to 48 hours)