

Esmolol (Brevibloc) Considerations for Use*

US/FDA Approved Indication: Heart Rate Control for Atrial Fibrillation

Black Box Warning*	Abrupt cessation may exacerbate angina pectoris and MI.
Mechanism of Action	Blocks binding of catecholamines to beta-1 receptors; mainly beta-1 selective
Dosing†	<p><u>Acute setting</u>: 500 mcg/kg IV over 1 min, then 50 to 200 mcg/kg/min</p> <p><u>Hepatic Impairment</u>: No dosage adjustment needed</p> <p><u>Renal Impairment</u>: No dosage adjustment needed</p>
Contraindications	<ul style="list-style-type: none"> • AV block • Bradycardia • cardiogenic shock • decompensated heart failure • pulmonary edema
Major side effects	hypotension, heart block, bradycardia, bronchospasm, HF
Dosage forms and Strengths	<u>IV</u> : 10 mg/mL , 20 mg/mL solution for injection
Special Notes	<p>Half-life: 9 minutes</p> <p>Esmolol infusions should not be abruptly discontinued; the infusion rate should be tapered</p> <p>Avoid using butterfly needles and very small veins for infusion; infusion via central line is preferred when feasible</p> <p>Avoid extravasation</p>
Counseling	n/a

*Refer to prescribing information for more complete information.

†Dosages given in the table may differ from those recommended by the manufacturers.

Sources:

1. American College of Cardiology (ACC), American Heart Association (AHA), and the European Society of Cardiology (ESC). *ACC/AHA/ESC 2006 Guidelines for the Management of Patients With Atrial Fibrillation*. Washington, DC: American College of Cardiology.
2. Heart Rhythm Society. *AF360 Pocket Guide: Practical Rate and Rhythm Management of Atrial Fibrillation*. 2010, Washington, DC: Heart Rhythm Society.
3. *Tarascon Pocket Pharmacopoeia*®2012.