ESMOLOL

SYNONYMS	Esmolol hydrochloride
BRAND NAME	BREVIBLOC
DRUG CLASS	Beta blocker
AVAILABILITY	Vial contains 100 mg/10 mL of esmolol hydrochloride. Also contains sodium acetate trihydrate, acetic acid and hydrochloric acid.[1] The solution is clear and colourless to light yellow.[1] Vial contains 2.5 g of esmolol hydrochloride.[1]
WARNING	After reconstitution the 2.5 g vial is 25 times the concentration of the 100 mg/10 mL vial and must be diluted before use.[1] Do not stop suddenly, gradually reduce the dose when stopping the infusion.[1] Extravasation may cause serious adverse effects including necrosis.[1]
pH	100 mg/10 mL vial: 4.5–5.5[1]
PREPARATION	**For IV injection**: the 100 mg/10 mL vial is ready to use.[1] **For IV infusion**: the 2.5 g must be reconstituted **and diluted** before use.[1] Reconstitute the vial with 50 mL of sodium chloride 0.9%, glucose 5% or Hartmann's. The solution is clear and colourless.[1] Dilute to 250 mL with sodium chloride 0.9%, glucose 5% or Hartmann's to make a concentration of 10 mg/mL.[1]
STABILITY	Vial: store below 25 °C.[1] Infusion solution: stable for 24 hours below 25 °C or at 2 to 8 °C.[1]
ADMINISTRATION	
IM injection	Not recommended
SUBCUT injection	Not recommended
IV injection	**100 mg/10 mL vial only**: inject the loading dose over 1 minute.[1]
IV infusion	Use the 2.5 g vial to prepare a 10 mg/mL infusion solution.[1] See *PREPARATION* Start the infusion at a rate of 50 microgram/kg/minute and adjust the rate according to patient response. The maximum rate is 200 microgram/kg/minute.[1,2]
COMPATIBILITY	
Fluids	Glucose 5%[1,3], Hartmann's[1], Plasma-Lyte 148 via Y-site[4], sodium chloride 0.9%[1,3] **100 mg/10 mL vial only:** glucose in sodium chloride solutions[1,3], sodium chloride 0.45%[1,3]
Y-site	Amikacin[3], aminophylline[3], amiodarone[3], ampicillin[3], argatroban[3], atracurium[3], aztreonam[5], bivalirudin[3], buprenorphine[5], calcium chloride[3], calcium gluconate[5], cefazolin[3], cefotaxime[5], cefoxitin[5], ceftazidime[3], ceftolozane-tazobactam[3], ceftriaxone[5], ciclosporin[5], cisatracurium[3], clindamycin[3], dexmedetomidine[3], dopamine[3], ephedrine sulfate[5], erythromycin[3], ethanol[6], fentanyl[3], fluconazole[5], gentamicin[3], glyceryl trinitrate[3], heparin sodium[3], isavuconazole[3], labetalol[3], linezolid[3], magnesium sulfate[3], metronidazole[3], micafungin[3], midazolam[3], morphine sulfate[3], nicardipine[3], noradrenaline (norepinephrine)[3], potassium chloride[3], ranitidine[3], remifentanil[3], sodium acetate[3], sodium bicarbonate[5], sodium nitroprusside[3], suxamethonium[5], tobramycin[3], trimethoprim-sulfamethoxazole[3], vancomycin[3], vecuronium[3], verapamil[5]

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INCOMPATIBILITY

Fluids Sodium bicarbonate 5%[1]

Drugs Aciclovir[7], azathioprine[7], cefalotin[5], ciprofloxacin[7], dexamethasone[7], esomeprazole[7], furosemide[3], ganciclovir[7] indometacin[7], ketorolac[7], milrinone[7], phenobarbital[7]

SPECIAL NOTES

Continuous cardiac monitoring is recommended.[1]

May cause hypotension, which usually reverses within 30 minutes of stopping the infusion or reducing the dose.[1]

Monitor the infusion site. Stop the infusion if there are signs of extravasation and take immediate and appropriate action.

Infusion solutions of concentrations greater than 20 mg/mL are associated with venous irritation and thrombophlebitis.[1]

REFERENCES

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