

Pancuronium

Class: Neuromuscular Blocker Agent, Nondepolarizing

Indications: Facilitation of endotracheal intubation and relaxation of skeletal muscles during surgery; facilitation of mechanical ventilation in ICU patients; does not relieve pain or produce sedation

Available dosage form in the hospital: Solution, Intravenous, as bromide: 4 mg/mL.

Trade Names:

Dosage: Administer I.V.; dose to effect; doses will vary due to interpatient variability

-Surgery: Initial: 0.06-0.1 mg/kg or 0.05 mg/kg after initial dose of succinylcholine for intubation; maintenance dose: 0.01 mg/kg administered 60-100 minutes after initial dose and then 0.01 mg/kg every 25-60 minutes

-Pretreatment/priming: 10% of intubating dose given 3-5 minutes before intubating dose

-ICU paralysis (eg, facilitate mechanical ventilation) in select adequately sedated patients: 0.06-0.1 mg/kg bolus followed by either:

Continuous infusion: 1-2 **mcg/kg/minute** (0.06-0.12 **mg/kg/hour**) (Murray, 2002) **or**
0.8-1.7 **mcg/kg/minute** (0.048-0.102 **mg/kg/hour**) (Greenberg, 2013)

or

Intermittent bolus: 0.1-0.2 mg/kg every 1-3 hours

Renal Impairment:

Elimination half-life is doubled, plasma clearance is reduced, and rate of recovery is sometimes much slower.

-Cl_{cr} 10-50 mL/minute: Administer 50% of normal dose.

-Cl_{cr} <10 mL/minute: Do not use.

Hepatic Impairment:

Elimination half-life is doubled, plasma clearance is doubled, recovery time is prolonged, volume of distribution is increased (50%) and results in a slower onset, higher total dosage, and prolongation of neuromuscular blockade. Patients with liver disease may develop slow resistance to nondepolarizing muscle relaxant. Large doses may be required and problems may arise in antagonism.

Common side effects: Cardiovascular: Elevation in pulse rate, elevated blood pressure and cardiac output, tachycardia, edema, skin flushing, circulatory collapse

Dermatologic: Rash, itching, erythema, burning sensation along the vein

Gastrointestinal: Excessive salivation

Neuromuscular & skeletal: Profound muscle weakness

Respiratory: Wheezing, bronchospasm

Miscellaneous: Hypersensitivity reaction

Postmarketing and/or case reports: Acute quadriplegic myopathy syndrome (prolonged use), anaphylactoid reactions, anaphylaxis, myositis ossificans (prolonged use)

Pregnancy Risk Factor: C