

RX

Drug Name: Vecuronium

Trade Name: Norcuron

Class:

- Non-depolarizing neuromuscular blocking agent.

Mechanism of Action:

- Nondepolarizing agents produce skeletal muscle paralysis by blockade at the myoneural junction, competing with acetylcholine for cholinergic receptor sites and binding with the nicotinic cholinergic receptor at the postjunctional membrane
- Unlike depolarizing agents, vecuronium has little agonist activity, with no depolarizing effect at the motor endplate
- Muscle relaxation begins in the eyelids & jaw, progresses to the limbs, the abdomen, & finally the diaphragm & intercostals. Vecuronium has absolutely no effect on consciousness
- Causes little histamine or cardiovascular response

Indications:

- Facilitation of intubation
- Maintenance of paralysis following RSI (***Does not include sedation!***)

Contraindications:

- Hypersensitivity

Precautions:

- Pregnancy (C)
- History of malignant hyperthermia
- Cardiac or hepatic disease
- Respiratory disease
- Narrow-angle glaucoma
- Elderly or debilitated patients
- Must be ready to intubate as soon as given, use cricoid pressure to secure airway from gastric regurgitation. Dehydration, electrolyte or acid/base imbalance (*potentiates the actions*)
- Neuromuscular disease (*prolonged effects, i.e. myasthenia gravis*)

Dosage:

Adults: (Medical Control Order)

- IV: 0.1 mg/kg, repeat PRN

Pediatrics: (Medical Control Order)

- IV: 0.1 mg/kg, repeat PRN
- NOTE: The dose required for induction or maintenance may be higher, but it also may last 1 ½ times as long

Onset:

- IV—1 minute (*good intubation conditions within 2.5-3.0 minutes*)

Duration:

- IV—30-60 minutes

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Side Effects:

- Side effects are rare, but with neuromuscular blockers, histamine release can cause
- Bronchospasm
- Dysrhythmias
- Hyper- or Hypotension

Interactions:

Opiates or anti-arrhythmics can potentiate the effects of vecuronium.

PEARLS:

- **Generally speaking, vecuronium is used to maintain paralysis, not to initiate paralysis (some rare exceptions apply). Vecuronium should only be given after the tube is secured and confirmed**
- **As with Succinylcholine: Vecuronium has no effect on consciousness or pain. Sedate your patients**
- **To maintain sedation on these patients, titrate your administration to the patient's vital signs (heart rate, blood pressure)**
- **Vecuronium is used locally in the prehospital setting for maintenance of paralysis following intubation because of its long paralytic effects in comparison to the rapid onset and short duration of succinylcholine**
- **Vecuronium should be considered in increased tube times (15 minutes or more), on order from medical control**