Vecuronium is an intermediate duration, non-depolarizing skeletal muscle relaxant. It has minimal effects on the cardiovascular system. The drug inhibits neuromuscular transmission by competing with acetylcholine for motor endplate receptors. Onset of paralysis is 3-5 minutes and duration is 20-30 minutes.

Indications and Administration

1. To maintain paralysis following rapid sequence intubation.
   a. **Adult -** Mix vecuronium powder with 10ml sterile water or normal saline. Give 0.1 mg/kg IV push.
   b. **Pediatric -** Mix vecuronium powder with 10ml sterile water or normal saline. Give 0.1 mg/kg IV push. Contraindicated in neonates.
2. To reduce or prevent muscle fasciculations from succinylcholine during rapid sequence intubation. (Give vecuronium 60 seconds before succinylcholine)
   a. **Adult –** Mix vecuronium powder with 10ml sterile water or normal saline. Give 0.01 mg/kg IV push.
   b. **Pediatric -** Mix vecuronium powder with 10ml sterile water or normal saline. Give 0.01 mg/kg IV push. Contraindicated in neonates.
3. As an alternative paralytic when succinylcholine is strongly contraindicated.
   a. Give by direct order only.
   b. **Adult** – mix as above and give 0.1 mg/kg IV push.
   c. **Pediatric** – mix as above and give 0.1 mg/kg IV push. Contraindicated in neonates.
   d. Remember that the onset of action will be substantially later than with succinylcholine.

Notes

1. Not to be used as a primary paralytic in RSI unless succinylcholine is highly contraindicated. Contact medical control to use vecuronium as the primary paralytic in RSI.
2. Sedatives such as versed, etomidate, ativan, or diazepam must be used with paralytic agents.

Vecuronium

3. Vecuronium is a much longer acting paralytic than succinylcholine. For relatively short transport times use repetitive doses of sedatives for patient compliance with endotracheal intubation and reserve Vecuronium for long transport times.

La Plata County EMS Protocols Version 2010.1.0