This is a High Risk Medication 🚨
Only muscle-relax a neonate if confident that the airway can be maintained and hand ventilation can be provided.

Dose and Indications
Rocuronium bromide

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For muscle paralysis in ventilated babies and for intubation

Intravenous
0.5mg/kg as a bolus
The dose may be repeated every 1 to 2 hours or as needed for paralysis

Preparation and Administration

Intravenous
Dilute 0.5mL (5mg) of rocuronium 10mg/1mL with 0.9% sodium chloride to a total volume of 5mL. The resulting solution contain 1mg/mL rocuronium

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<th>Dose</th>
<th>0.25mg</th>
<th>0.5mg</th>
<th>0.75mg</th>
<th>1mg</th>
<th>1.25mg</th>
<th>1.5mg</th>
<th>1.75mg</th>
<th>2mg</th>
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<td>Volume</td>
<td>0.25mL</td>
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<td>0.75mL</td>
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Administer as a push over 5 to 10 seconds
Administration line should be adequately flushed to avoid unintended paralysis during recovery
Compatible Fluids
0.9% sodium chloride, glucose 5%, compound sodium lactate (Hartmann’s solution)

Adverse Effects

Common
Prolonged paralysis
Note: Hypoxaemia may occur because of inadequate mechanical ventilation and deterioration in pulmonary mechanics

Infrequent
Bronchospasm, tachycardia, hypertension, transient hypotension

Rare
Anaphylactic reactions

Monitoring
- Cardiorespiratory and pulse oximetry monitoring are mandatory. Close monitoring of blood pressure (invasive or non-invasive) is recommended.

Practice Points
- Rocuronium has a similar time to onset of action to suxamethonium, but a longer duration of action.
- Time to onset of action usually within 1 minute. Duration of action is dose dependent and may range from approximately 30 to 60 mins.
- Factors that may prolong neuromuscular blockade:
  - increased doses of rocuronium
  - some antibiotics (aminoglycosides, vancomycin), other muscle relaxants, thiopental, diuretics
  - acidosis, hypothermia, electrolyte abnormalities (e.g. severe hypocalcaemia, hypokalaemia, hypermagnesemia), neuromuscular disease and hepatic impairment
- Factors that may reduce neuromuscular blockade:
  - Alkalosis, hyperkalaemia, hypercalcaemia
  - Anti-epileptics (phenytoin, phenobarbitone)
- Phenytoin may diminish neuromuscular blockade
- Do not mix with any other medications
- Provide eye protection and instil lubricating eye drops every 2 hours
- Use cautiously in neonates with hepatic or renal impairment and in neonates with fluid and electrolyte imbalance
References


Document Ownership & History

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| | If so, which policy (title)? |

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<td>Domain Custodian, Executive Director – Commissioning and Performance, Department for Health &amp; Wellbeing, SA</td>
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