Drug Therapy Protocols: Rocuronium

<table>
<thead>
<tr>
<th>Policy code</th>
<th>DTP_ROC_0519</th>
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<tbody>
<tr>
<td>Date</td>
<td>May, 2019</td>
</tr>
<tr>
<td>Purpose</td>
<td>To ensure a consistent procedural approach to rocuronium administration.</td>
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<tr>
<td>Scope</td>
<td>Applies to all Queensland Ambulance Service (QAS) clinical staff.</td>
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<tr>
<td>Health care setting</td>
<td>Pre-hospital assessment and treatment.</td>
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<tr>
<td>Population</td>
<td>Applies to all ages unless specifically mentioned.</td>
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<tr>
<td>Source of funding</td>
<td>Internal – 100%</td>
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<tr>
<td>Author</td>
<td>Clinical Quality &amp; Patient Safety Unit, QAS</td>
</tr>
<tr>
<td>Review date</td>
<td>May, 2022</td>
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All feedback and suggestions are welcome. Please forward to: Clinical.Guidelines@ambulance.qld.gov.au

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Drug class
Non depolarizing skeletal muscle relaxant.

Pharmacology
Acts by competing with the natural transmitter acetylcholine and blocks the receptors at the motor neuron endplate in striated muscle.\(^{[1-3]}\)

Metabolism
Hepatic with hepato-biliary excretion.\(^{[1]}\)

Indications
- To facilitate paralysis (for endotracheal intubation)
- To maintain paralysis (following endotracheal intubation)

Contraindications
- Allergy and/or Adverse Drug Reaction
- Muscular dystrophies and myotonias

Precautions
- CNS or neuromuscular dysfunction where residual curarisation is likely, effect is often unpredictable.
- Cardiac and respiratory dysfunction may be potentiated.
- Renal and hepatic dysfunction may lead to prolonged neuromuscular blockade.
- Older people will have a slower onset and prolonged duration of action.
- Burn victims may develop resistance and require more frequent dosing.

Side effects
- Pain at injection site
- Rash
- Hypotension

Presentation
- Vial, 100 mg/10 mL rocuronium bromide

Onset | Duration | Half-life
--- | --- | ---
60–90 seconds | ~ 45 minutes | 14–18 minutes
Rocuronium

**Special notes**

- Ambulance officers must only administer medications for the listed indications and dosing range. Any consideration for treatment outside the listed scope of practice requires mandatory approval via the QAS Clinical Consult and Advice Line.

- The actions of rocuronium can be antagonised by acetylcholinesterase inhibitors (neostigmine) or nonselective relaxant binding agents (sugammadex).

- Rocuronium is not expected to modulate the cardiovascular effects of other anaesthetic agents.

- Store at 2–8°C. Once out of refrigeration it should not be returned but rather kept at 8–30°C for a maximum of 12 weeks.

- All canulae and IV lines must be flushed thoroughly with sodium chloride 0.9% following each medication administration.

- A dose of 1.2mg/kg should provide paralysis for approximately 45 minutes.

- All parenteral medications must be prepared in an aseptic manner. The rubber stopper of all vials must be disinfected with a 2% Chlorhexidine/70% Isopropyl Alcohol swab and allowed to dry prior to piercing.

**Schedule**

- S4 (Restricted drugs).

**Routes of administration**

Intravenous injection (IV)

**Adult dosages**

**To facilitate paralysis** (for endotracheal intubation)

<table>
<thead>
<tr>
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<th>Dose</th>
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<tr>
<td>IV</td>
<td>1.2 mg/kg</td>
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Single dose only.

**To maintain paralysis** (following endotracheal intubation)

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</thead>
<tbody>
<tr>
<td>IV</td>
<td>0.5 mg/kg</td>
</tr>
</tbody>
</table>

PRN.

**Paediatric dosages**

**To facilitate paralysis** (for endotracheal intubation)

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