Drug Therapy Protocols: Rocuronium

Policy code	DTP_ROC_0722
Date	July, 2022
Purpose	To ensure a consistent procedural approach to rocuronium administration.
Scope	Applies to all Queensland Ambulance Service (QAS) clinical staff.
Health care setting	Pre-hospital assessment and treatment.
Population	Applies to all ages unless specifically mentioned.
Source of funding	Internal – 100%
Author	Clinical Quality & Patient Safety Unit, QAS
Review date	July, 2024
Information security	UNCLASSIFIED – Queensland Government Information Security Classification Framework.
URL	https://ambulance.qld.gov.au/clinical.html

While the QAS has attempted to contact all copyright owners, this has not always been possible. The QAS would welcome notification from any copyright holder who has been omitted or incorrectly acknowledged.

All feedback and suggestions are welcome. Please forward to: Clinical.Guidelines@ambulance.qld.gov.au

Disclaimer

The Digital Clinical Practice Manual is expressly intended for use by appropriately qualified QAS clinicians when performing duties and delivering ambulance services for, and on behalf of, the QAS.

The QAS disclaims, to the maximum extent permitted by law, all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages and costs incurred for any reason associated with the use of this manual, including the materials within or referred to throughout this document being in any way inaccurate, out of context, incomplete or unavailable.

Rocuronium

Drug class [1,2]

Non depolarizing skeletal muscle relaxant. [1,2]

Pharmacology

Acts by competing with the natural transmitter acetylcholine and blocks the receptors at the motor neuron endplate in striated muscle.[1,2]

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, 50 mg/5 mL *rocuronium bromide*

Onset	Duration	Half-life
60–90 seconds	≈ 45 minutes	14–18 minutes

Rocuronium

Schedule

- S4 (Restricted drugs).

Routes of administration

Intravenous injection (IV) ECCP

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 Consultation 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 refridgeration 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 1.2 mg/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 an appropriate antimicrobial swab and allowed to dry prior to piercing.

Adult dosages [1–3]

To facilitate paralysis (for endotracheal intubation)		
ECCP	IV	*QAS Clinical Consultation and Advice Line* consultation and approval required in all situations. **1.2 mg/kg** **Single dose only.**
To maintain paralysis (following endotracheal intubation)		
ECCP	IV	**0.5 mg/kg** **PRN.**

Paediatric dosages [1–3]

To facilitate paralysis (for endotracheal intubation)		
ECCP	IV	*QAS Clinical Consultation and Advice Line* consultation and approval required in all situations. **1.2 mg/kg** **Single dose only.**
To maintain paralysis (following endotracheal intubation)		
ECCP	IV	**0.5 mg/kg** **PRN.**