

Eligibility:

Sugammadex can be used for:

- Immediate reversal of rocuronium in rapid sequence induction.
- Residual neuromuscular blockade following neostigmine and glycopyrrolate use.
- Morbidly obese patients or those with respiratory disease where there is concern about the impact of residual neuromuscular blockade following reversal.
- Situations where it may be preferable to avoid neostigmine and glycopyrrolate on clinical grounds including (but not limited to):
 - avoidance of tachycardia / tachyarrhythmias
 - avoidance of bronchospasm in asthmatic patients
- Reversal of deep neuromuscular blockade.
- Patients with neurological conditions such as Multiple Sclerosis, Myasthenia Gravis, Myotonic Dystrophy or Dementia where residual blockade or standard reversal would be detrimental.

Dosing regimen:

- Routine reversal:
 - 4 mg/kg sugammadex once recovery has reached at least 1 - 2 post-tetanic count (PTC) following rocuronium or vecuronium.
 - 2 mg/kg sugammadex if spontaneous recovery has occurred up to at least the reappearance of T2 following rocuronium or vecuronium.
- Re-administration of sugammadex
If there is post-operative recurrence of blockade after 2 mg/kg or 4 mg/kg sugammadex, a repeat dose of 4 mg/kg is recommended.
- Immediate reversal of rocuronium-induced blockade for post-RSI
 - 16 mg/kg sugammadex for immediate reversal following administration of rocuronium. There is no data to recommend the use of sugammadex for immediate reversal following vecuronium induced blockade.

Administration:

Sugammadex is administered as a rapid IV bolus within 10 seconds.

Availability:

Sugammadex 200mg/2mL and 500mg/5mL

Locations:

Sugammadex is to be stored in every clinical area where General Anaesthesia is administered:

Royal Sussex County Hospital:

- L5 Theatres 1 – 8
- Neurosurgery Theatres 1 & 2
- Cardiac Theatres 1 & 2
- Level 13 Labour Ward Theatre
- A&E Resus
- Emergency Intubation “grab bag”
- Level 5 and 7 Critical Care Units
- CICU on Level 7a

Royal Alexandra Children's Hospital

- Theatre 2

Princess Royal Hospital:

- Main theatres 1 – 5
- Labour Ward Theatre
- A&E Resus
- Critical Care Unit

Princess Royal Day Surgery Unit

- Operating Theatres

Hurstwood Park

- Theatres 1 & 2

Sussex Orthopaedic Treatment Centre

- Theatres 1 – 4

Sussex Eye Hospital

- Operating Theatres

Lewes Victoria Hospital

- Operating theatres

Sugammadex is a drug utilized during routine anaesthetic practice. It no longer needs to be stored in a Controlled Drugs cupboard.

Stock levels in each location should be maintained as with all other anaesthetic drugs.

Cautions:

- Monitoring respiratory function during recovery. Ventilatory support is mandatory until adequate spontaneous respiration is restored.
- The recommended dose should be used to prevent re-occurrence of neuromuscular blockade.
- If neuromuscular blockade is reversed while anaesthesia is continued (caution when SAD in situ as laryngospasm has been reported), additional doses of anaesthetic and/or opioid should be given as clinically indicated.
- Delayed recovery may occur in conditions associated with prolonged circulation time.
- QTc-interval prolongation - a few cases of QTc prolongation were reported in clinical trials in which patients received sugammadex in combination with sevoflurane or propofol.

Contraindications:

Hypersensitivity to the sugammadex or any of the excipients.

Adverse reactions:

- Dysgeusia (metallic or bitter taste)
 - Very common ($\geq 1/10$) - after high doses ($>32\text{mg/kg}$) in dose finding studies.
- Allergic-like reactions
 - Uncommon ($\geq 1/1000$ to $< 1/100$) Flushing/erythematous rash.
- Anaesthetic complications
 - Common ($\geq 1/100$ to $< 1/10$) Indicative of the restoration of neuromuscular function.
- Awareness
 - Uncommon ($\geq 1/1000$ to $< 1/100$) A few cases of awareness were reported but the relation to sugammadex is uncertain.
- Re-occurrence of blockade
 - Virtually all of these cases were from dose-finding studies in which a sub-optimal dose (less than 2 mg/kg) was administered.
- Pulmonary patients
 - Bronchospasm was reported as a possibly related adverse event in two asthmatic patients and a causal relationship could not be fully excluded.

Interactions:

- **Effect on laboratory tests**

16mg/kg sugammadex may affect serum progesterone assays, INR and APTT.

- **Capturing interactions**

Hormonal contraceptives can be subject to capture by sugammadex.

The administration of a dose of sugammadex is equivalent to one missed daily dose of oral contraceptive.

Appropriate advice should be given to patients using any form of hormonal contraception. Patients taking oral hormonal contraception should be advised to follow the missed dose advice for their product (see product leaflet). Patients using other forms of hormonal contraception should use an additional non hormonal method for 7 days.

Written information should be given to these patients;

<https://www.bsuh.nhs.uk/wp-content/uploads/sites/5/2016/09/Contraception-advice-for-patients-following-the-administration-of-Sugammadex.pdf>

- **Displacement interactions**

Toremifene, fusidic acid and high dose flucloxacillin may displace rocuronium or vecuronium from the sugammadex leading to recurrence of neuromuscular blockade.