

1. Introduction and who guideline applies to

This guideline aims to provide general guidance on the appropriate use of Sugammadex for the reversal of neuromuscular blockers (NMBs) within UHL in patients 18 years & over.

It applies to use across all theatre and Adult ITU areas within UHL.

Sugammadex is a highly selective drug for reversal of the NMBs, rocuronium & vecuronium. The main advantages of sugammadex when compared with conventional anticholinesterase agents is much faster reversal & the unique ability to reverse rapidly and efficiently, for the first time, deep levels of Neuromuscular Blockade.

Sugammadex is significantly more expensive than conventional treatments used to reverse neuromuscular blockade. In the previous financial year, 10% of our total drug spending in theatres was attributed to sugammadex. It is a high cost medication that will impact the drug expenditure in ITAPS & as such quarterly reports will be provided to ITAPS Q&S on its usage to monitor its use across the CMG & ensure it is in line with the principles of this guideline.

Peripheral nerve stimulation should be used to guide reversal of neuromuscular blockade.

Sugammadex is **a highly expensive drug compared with** neostigmine/glycopyrrolate therefore it does **not** replace this drug & **MUST** only be used for the indications in this guideline.

2. Guideline standards and procedures

Eligibility

Sugammadex is not indicated for routine use when neostigmine/glycopyrrolate will suffice

Sugammadex has been approved for use within UHL for the reversal of rocuronium or vecuronium induced neuromuscular blockade for the following indications:

1. **Immediate reversal** is required in an emergency situation (e.g. when the patient cannot be ventilated). *Current TAS approved indication 2009.*

New TAS approval Dec 2020:

2. There is **residual blockade**, rapid reversal of neuromuscular blockade is desired and a) Neostigmine/Glycopyrrolate reversal has failed or b) residual Neuromuscular blockade is too great for Neostigmine/Glycopyrrolate.

3. The patient has **significant co-morbidities: e.g** morbidly obese, neuromuscular disease, severe respiratory or Cardiac disease and there is concern of prolonged residual neuromuscular blockade.
4. Neostigmine/glycopyrrolate is **contraindicated**, e.g. proven rate-related myocardial ischaemia, unstable atrial fibrillation, brittle asthma.
5. Suspected **anaphylaxis** to rocuronium (or vecuronium).

Dosage

Dose	Level of NMB following rocuronium & vecuronium
2mg/kg	If spontaneous recovery has occurred up to at least the re-appearance of T ₂ on TOF
4mg/kg	If recovery has reached at least 1-2 post-tetanic counts
16mg/kg	For immediate reversal of rocuronium (less reliable for vecuronium)

Administration

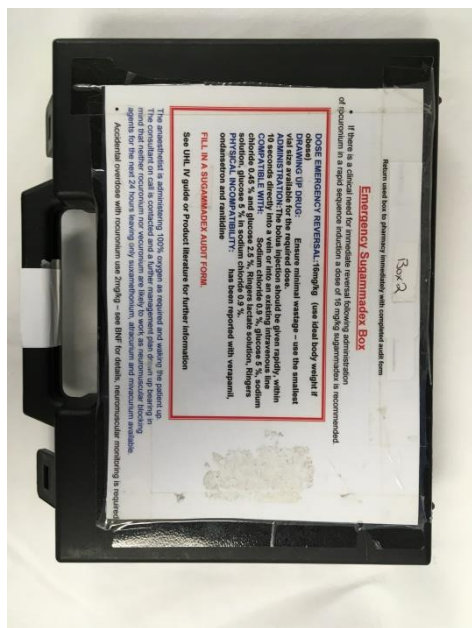
Sugammadex is available in both 200mg/2ml (£5.50-£72 generic-branded) & 500mg/5ml (£11-£179 generic-branded) vials. It is administered as a single intravenous bolus injection and is suitable for peripheral administration. Dose is based on actual body weight of the patient. Ensure the cannula is flushed prior to administration. Please refer to product information for further details & contraindications/interactions.

Availability

Emergency black sugammadex boxes are widely available across ITAPS. They contain 3x200mg & 2x500mg vials for the immediate reversal dosing regimen above (indication 1). These will continue to be re-filled by the pharmacy departments.

In addition to these emergency boxes, 200mg vials (box of 10vials) will be added to stock lists for an identified group of clinical areas to facilitate the routine reversal in high risk patients as outlined in the above indications. Due to its high cost, each dose must be used for the agreed indications only in this guideline.

BLACK SUGAMMADEX EMERGENCY BOXES comprises **2x500mg & 3x200mg vials** for emergency use only (indication 1,5 above)



Manufacturers boxes of **200mg vials** will also be made available in the drug cupboards of an agreed list of locations, as tabled below for indications 2, 3 & 4 above. No additional locations will be added without prior consultation with the guideline leads.

GGH	Sugammadex Emergency Box	200mg vials stock
Main theatre drug store	1 box	
Theatre 9	-	1 box 10
Theatre recovery	-	2 box 10
Cath Lab	1 box	
AICU	1 box (bay A)	1 box 10 (Bay B)
Pharmacy	1 box	Surplus stocks
LRI	Sugammadex Emergency Box	200mg vials stock
COD Theatre 6	1box	1 box 10
COD Theatre 8	-	1 box 10
COD Theatre 11	-	1 box 10
COD recovery	1box	1 box 10
AICU	-	1 box 10
Labour theatre	1box	1 box 10
Gynae theatre 17	1box	-
A&E resus	1box	-
Eye theatre recovery	1box	-
Pharmacy	1box	Surplus stock
Children cardiac theatre		1 box 10
Brachytherapy Suite	1 box	
LGH	Sugammadex Emergency Box	200mg vials stock
Main theatre recovery	1 box	1 box 10
Theatre 7 recovery	1 box	1 box 10
Ortho recovery	1 box	1 box 10
Obstetric theatre recovery	1 box	1 box 10
Theatre 9 recovery	1 box	1 box 10
AICU		1 box 10
EMPCC theatres	1 box	1 box 10
Pharmacy	1 box	Surplus stock
External Hospitals	Sugammadex Emergency Box	200mg vials stock
Loughborough Hospital Theatres		1 Box 10
Melton Mowbray Hospital Theatres		1 Box 10

3. Education and Training

No additional training is required for this guideline.

4 . Monitoring and Audit Criteria

What will be measured to monitor compliance	How will compliance be monitored	Monitoring Lead	Frequency	Reporting Arrangements
Quarterly report on use to ITAPS Q&S	Audit	Dr Martin Murphy – ITAPS Q&S Lead	As per Trustwide policy	ITAPS Q&S

5. Supporting Documents and Key References

www.scottishmedicines.org.uk/medicines-advice/sugammadex-bridion-resubmission-52709/

The *Scottish Medicines Consortium*, has advised (February 2013) that sugammadex (*Bridion*®) is accepted for restricted use within NHS Scotland for the routine reversal of neuromuscular blockade in high-risk patients only, or where prompt reversal of neuromuscular block is required

6. Key Words

Sugammadex, neuromuscular blockade

CONTACT AND REVIEW DETAILS	
Guideline Lead (Name and Title) Julia Trinder-Oxley CMG lead Pharmacist ITAPS / Richard Porter Q&S Lead Consultant ITAPS/ Jayesh Vyas Advanced Specialist Pharmacist ITAPS	Executive Lead Medical Director Chris Allsager
Details of Changes made during review: - Version 3, updated black boxes revert to hold stock of 200 & 500mg. -Version 4, Cath lab GGH location added for emergency box only. -Version 5, remove Consultant only, and updated the locations: LGH EMPCC added and LGH theatre 9 for vials; LRI gynae 17 BOX only as usage of vials sporadic, LRI brachytherapy added, Loughborough and Melton Mowbray theatres added, GH cath lab remove vials as low use BOX only, GH main theatres remove vials as too wide use, and increase recovery stock to 2 boxes, Monitoring lead changed to Dr Murphy as Q&S lead.	