

***Anesthesiology Rounds***  
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**Reversal of neuromuscular blockade: current practice and future directions**

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**Objectives:**

After reading this issue of *Anesthesiology Rounds*, the reader will be able to:

- Understand the evolving definition of residual paralysis;
- Recognize the physiological effects of residual paralysis;
- Describe the clinical consequences of residual paralysis;
- Adopt a strategy to prevent residual paralysis;
- Summarize the main pharmacological properties of sugammadex.

**Questions:**

1. Residual paralysis is considered unlikely when the ratio between the fourth and the first twitch following train-of-four (TOF) stimulation is
  - a)  $\geq 0.5$
  - b)  $\geq 0.6$
  - c)  $\geq 0.7$
  - d)  $\geq 0.8$
  - e)  $\geq 0.9$
  
2. Residual paralysis is often associated with all the following complications EXCEPT
  - a) Hypoxia
  - b) Atelectasis
  - c) Diaphragmatic paralysis
  - d) Upper airway obstruction
  - e) Need for an intervention to maintain upper airway patency
  
3. The optimal time to administer neostigmine is when the number of visible twitches to TOF stimulation is
  - a) 0
  - b) 1
  - c) 2
  - d) 3
  - e) 4

4. When the twitch responses to TOF stimulation at the end of the procedure appear visually equal
- a) Neostigmine should be administered
  - b) The possibility of residual paralysis can be eliminated
  - c) Residual paralysis is certain
  - d) Neuromuscular blockade should be verified by another means or neostigmine should be administered
  - e) Ventilation of the patient should continue for a while
5. Sugammadex has all the following properties EXCEPT
- a) Effectiveness against deep blockade
  - b) Effectiveness to reverse a cisatracurium-induced blockade
  - c) Binding with vecuronium
  - d) Effectiveness for moderate blockades
  - e) Fast reversal of neuromuscular blockade

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