

# ANESTHESIOLOGY



## Chasing Unicorns

### Debunking the Myths Around Reversal of Neuromuscular Blockade

Murphy *et al.*<sup>1</sup> compared neostigmine 40 µg/kg to placebo in 120 patients after spontaneous recovery from rocuronium and debunked several myths.

**Myth 1**

**REALITY:** Neostigmine does not induce weakness

### Neostigmine induces weakness

Effect	Control (%)	Neostigmine (%)
Double vision	~30	~5
Generalized weakness in PACU	~50	~25

**Myth 2**

**REALITY:** Strength tests are unreliable

### Strength tests are reliable

5s head lift

84% with TOF < 0.5 can do it<sup>2</sup>  
14% with TOF > 0.9 cannot

**Myth 3**

**REALITY:** Fade assessment isn't great

### Fade assessment works great

Tactile assessment of fade is only reliable for TOF ≤ 0.4.<sup>3</sup>

**Myth 4**

**REALITY:** Waiting, without monitoring, isn't enough

### Time since last dose is helpful

21% of patients did not recover to TOF > 0.9 even after 163 min (on average).

Administer neostigmine unless TOF > 0.9 as measured by quantitative monitoring

PACU = postanesthesia care unit; TOF = train-of-four.  
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1. Murphy GS, Szokol JW, Avram MJ, Greenberg SB, Shear TD, Deshur MA, Benson J, Newmark RL, Maher CE: Neostigmine administration after spontaneous recovery to a train-of-four ratio of 0.9 to 1.0: A randomized controlled trial of the effect on neuromuscular and clinical recovery. *ANESTHESIOLOGY* 2018; 128:27–37

2. Brull SJ, Naguib M: How to catch unicorns (and other fairytales). *ANESTHESIOLOGY* 2018; 128:1–3

3. Viby-Mogensen J, Jensen NH, Engbaek J, Ording H, Skovgaard LT, Chraemmer-Jørgensen B: Tactile and visual evaluation of the response to train-of-four nerve stimulation. *ANESTHESIOLOGY* 1985; 63:440–3