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## APSF Launching Quantitative Neuromuscular Monitoring Course During ASA 2023 Meeting

([APSF.ORG/tei/qnm](https://apsf.org/tei/qnm))

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At the 2023 annual meeting of the ASA, the APSF, in collaboration with the ASA, is launching an online course on Quantitative Neuromuscular Monitoring (QNM) as the second offering of its Technology Education Initiative. The course is intended to provide and/or reinforce the knowledge and techniques required to safely and most effectively implement quantitative monitoring into practice. The course is largely aligned with the 2023 ASA Practice Guidelines for Monitoring and Antagonism of Neuromuscular Blockade;<sup>1</sup> the authors thank the ASA for permission to use the ASA 2023 practice guidelines and the ASA Task Force on Neuromuscular Blockade (NMB) for their effort and hard work in developing the practice guidelines.

The course utilizes guided simulation to help the learner understand: 1) the advantages of QNM compared with the traditional qualitative approach, 2) the difference between acceleromyography (AMG) and electromyography (EMG), the two quantitative monitoring technologies in current clinical use, and 3) how to use QNM to manage antagonism of NMB using either neostigmine/glycopyrrolate or sugammadex. The course is delivered online only and optimized for use with the Google Chrome web browser (Figure 1).

This course emphasizes patient safety and the central role of quantitative neuromuscular monitoring to ensure adequate recovery of the train-of-four ratio (TOFR) to  $\geq 0.9$  of the baseline TOFR. Seven different topics, each requiring about 15 minutes, cover the essentials of quantitative neuromuscular monitoring and strategies during each phase of the anesthetic. While the topics are recommended to be done in sequence, they do not need to be done all at the same time.

The course is available online through the ASA Education Center. Any anesthesia professional or interested party can take the course free of charge by creating a guest account if they are not already an ASA member. While the actual course is hosted by the ASA, there is a landing page on the APSF website that acts as a web portal for using the QNM course. Inter-

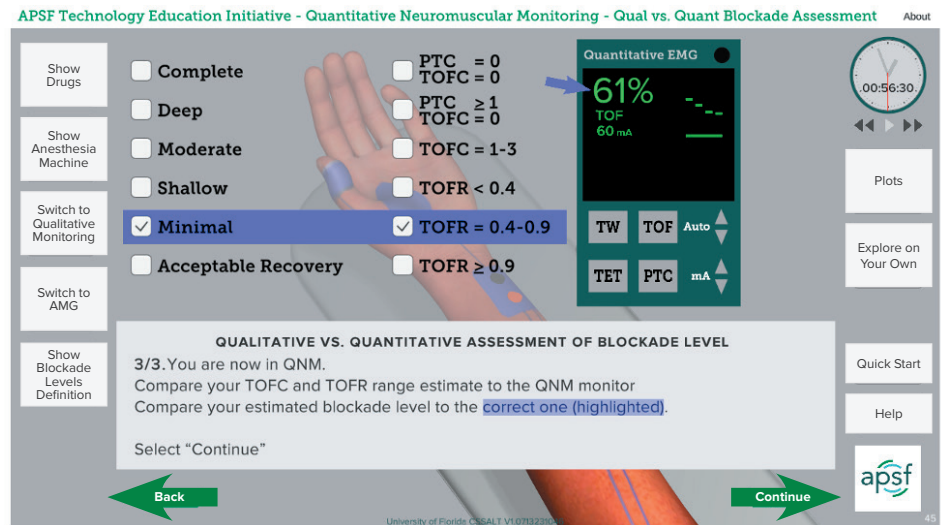


Figure 1: Snapshot of guided simulation from the APSF/ASA course on Quantitative Neuromuscular Monitoring (QNM). The user is guided on adjusting different settings on the QNM monitor and administering antagonists while visualizing their impact on neuromuscular function. ([APSF.ORG/tei/qnm](https://apsf.org/tei/qnm)).

ested professionals are encouraged to begin by accessing the APSF website at [APSF.ORG/tei/qnm](https://apsf.org/tei/qnm).

The simulation approach is interactive and replaces traditional didactic teaching with a learning environment where the principles and functions of quantitative neuromuscular monitoring can be readily visualized and interactively explored. Get trained on the latest technology for neuromuscular monitoring and the most current practice guidelines. Don't wait! Sign up and take the course today!

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Nikolaus Gravenstein, MD, is a consultant for Teleflex Medical. Jeffrey M. Feldman, MD, MSE, is a consultant for Micropore Inc., Becton-Dickinson, and GE Healthcare. The other authors have no conflicts of interest.

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1. Thilen SR et al. 2023 American Society of Anesthesiologists practice guidelines for monitoring and antagonism of neuromuscular blockade: a report by the American Society of Anesthesiologists Task Force on Neuromuscular Blockade. *Anesthesiology* 2023; 138:13–41 PMID: [36520073](https://pubmed.ncbi.nlm.nih.gov/36520073/)