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Postanesthesia Evaluation of Neuromuscular Function

To the Editor:

The American Society of Anesthesiologists' recently published Practice Guidelines for Postanesthetic Care¹ contains a statement that is at best puzzling and at worst I believe sends the wrong message to the anesthesia community. To quote: "Assessment of neuromuscular function primarily includes physical examination and, on occasion, may include neuromuscular blockade monitoring."

There is now overwhelming evidence that traditional bedside or clinical tests of neuromuscular function such as head-lift, tidal volume, tongue protrusion, and others are very insensitive tests for the detection of residual neuromuscular weakness.^{2–5} To cite just one recent study "a reliable clinical test for detection of significant residual block... will probably remain elusive."⁶ Thus one must ask what clinical signs the Task Force is referring to when they recommend a "physical examination"?

The answer to the problem of postoperative residual neuromuscular block lies not with a postanesthesia evaluation, but with intelligent intraoperative monitoring of neuromuscular function ideally with a quantitative monitor.

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In Reply:

We thank Dr. Kopman for his comments regarding the Practice Guidelines for Postanesthetic Care.¹ This guideline document consisted of an update rather than a comprehensive revision of the 2001 version² and examined new evidence from literature, surveys, and other sources as applied to the existing evidence model. Of note, there were no changes to the recommendations. Had we obtained substantive new findings as applied to the original evidence linkages, we would likely have proceeded with a full revision and had the opportunity to reconsider the issue raised by Dr. Kopman.

Regarding traditional bedside or clinical tests of neuromuscular function, we agree with Dr. Kopman that this area does straddle the topics of intraoperative and postoperative care, and our literature search focused primarily on postoperative care. In this case, our findings were observational as opposed to Category A (randomized controlled trial) evidence and believe that more research is needed in this important area. These observational studies did indicate that neuromuscular blockade monitoring is effective in detecting neuromuscular dysfunction. We also agree that intraoperative monitoring of neuromuscular function (ideally with a quantitative monitor) would be valuable, particularly during emergence and recovery.

As with all of the American Society of Anesthesiologists (ASA) evidence-based practice parameters, the ASA endeavors to conduct an exhaustive literature search and invites comments and contributions from Task Force members, expert consultants, and other contributors during the several months the preapproval draft is posted on the internet. Though no queries similar to those raised by Dr. Kopman were received when the draft of this document was available for comment, we plan to again review these Guidelines in the future and will consider the query at that time. Again, we thank Dr. Kopman for his thoughtful and informative letter indicating his concerns.

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