

be that practitioners must expect to encounter such cases in low-risk patients and cannot be expected to predict the difficult cases with any accuracy.

What practitioners *should* be expected to do is to manage combined DMV and DL when it arises, so I am glad to see that this study tends to support the view that successful oxygenation, ventilation, and intubation are facilitated when the laryngeal “sphincter” is relaxed by neuromuscular blockade. Richardson and Litman<sup>2</sup> have mentioned a “*traditional anesthetic induction sequence taught on day 1 of residency*,” which advises anesthesiologists to check that face-mask ventilation is possible before giving a relaxant drug. I believe that Kheterpal *et al.*'s report adds to the evidence pointing to the illogicality of this advice, which is actually of fairly recent and obscure origin.<sup>3</sup>

## Competing Interests

The author declares no competing interests.

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## In Reply:

We thank Drs. Nielsen and Calder for their interest in our study<sup>1</sup> and their thoughtful correspondence.

Regarding Dr. Nielsen's commentary, we agree that the incidence of difficult mask ventilation combined with difficult laryngoscopy may seem high at 4 in 1,000 patients. However, the absence of any existing data in this area reveals exactly why studies such as this must be performed: to separate intuition from reality. This is the first time this combined outcome has been examined in a large general surgical population across multiple centers. The reproducibility of the finding is demonstrated in the article itself by a range of incidence across the four centers: 0.28 to 0.65%. As a result, the stated overall incidence of 0.40% is likely a true finding as little work has preceded this current study and none exists to contradict it.

Second, despite Dr. Nielsen's assertions, we believe that the definitions of difficulty encountered during bag-mask ventilation are clinically significant and do indicate a real clinical challenge. The grade 3 “unstable, inadequate, requiring two operators” is a significant variation from normal airway experience and likely indicates more than simple inconvenience. Many care settings lack a second skilled airway operator, and the need for a second operator represents a concerning situation, not an inconvenience. We concur that the Han scale may suffer from observer variation and have no data to counter this assertion. However, compared with many mask ventilation scales that include only “easy,” “difficult,” or “impossible,” we are reassured as its features are less prone to difficulty in interpretation due to the use of objective endpoints—use of an airway adjunct or use of two providers to ventilate. In addition, it offers discrimination between the wide range of conditions that could be considered “not easy” yet “possible.” Once again, the data presented in the article do reveal some level of reliability as only a two-fold variation in difficult mask ventilation incidence across centers, from 1.5 to 3.2%, was observed. This variation in clinical phenomenon is certainly within the range of reliable observation and consistent with other clinical outcomes. We do agree with Dr. Nielsen that when encountered in isolation, grade 3 mask ventilation poses limited clinical challenge. However, the essence and lesson of our article is to draw attention to the combination of this airway finding with difficulty encountered during direct laryngoscopy. Again, the use of generally acceptable criteria for difficulty encountered during direct laryngoscopy consistent with American Society of Anesthesiologists guidelines is reasonable. When encountered in the presence of easy or adequate bag-mask ventilation, the clinical impact may be limited, but the occurrence of unstable bag-mask ventilation in combination with the lack of a glottic view at direct laryngoscopy should be of interest to airway management practitioners. Although many of the patients meeting the primary outcome were rescued using a bougie introducer, it behooves us to not dismiss the use of an epiglottis-only view with bougie as “easy.” In all likelihood, Dr. Nielsen's skills as a laryngoscopist make this an easy situation for him, but if the bougie landed in the esophagus and mask ventilation was inadequate, many providers would be appropriately concerned.

The use of previous difficult mask ventilation or laryngoscopy as a candidate predictor is an insightful recommendation. We agree that the skilled provider uses previous airway experience to guide future decision making. However, the absence of these data for most patients in this dataset precluded usage of it. More importantly, many care settings lack access to previous anesthetic records from other facilities, reducing the value of a model dependent on historical data. Many patients with a known difficult intubation were diverted to awake fiberoptic intubation, and these patients were excluded from

the study for ethical reasons. We discussed this in the article and expressed this as a limitation. Nonetheless, many patients were anesthetized in the presence of significant risk factors for difficulty, representing the real-life variation in practice and decision making.

We concur with Dr. Nielsen's final point regarding the need to measure and record difficulty in bag-mask ventilation in every anesthetic record. We believe that this ability is greatly enhanced by a good perioperative electronic health record, and we agree that this provides important diagnostic information to guide subsequent airway management decision making. We believe that any grading used to assess bag-mask ventilation should be straight forward and reproducible. The Han scale conveys relevant information and was developed by an iterative process to record clinically important information. Future studies could examine the reproducibility of this scale and variation between providers.

We thank Dr. Calder for his kind comments and thoughtful review of data. Given the low incidence of the primary outcome, the positive predictive value will certainly be very limited. In addition, we agree that the provider must be ready to encounter difficult mask ventilation combined with difficult laryngoscopy even in patients identified as "low risk" by our prediction model. However, the level of preparation should be sensitive to the patients' difficult airway features and reflect the data that are available.

Once again, we are reticent to use our data to guide the management of neuromuscular blockade. As mentioned in the article, there now exist several prospective controlled trials demonstrating that neuromuscular blockade either maintains or improves mask ventilation. Our observational data lacking detailed timing of administration of agents preclude definitive conclusions. However, as detailed in the Results section, several practitioners did note improvement of mask ventilation after administration of neuromuscular blockade.

### Competing Interests

The authors declare no competing interests.

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## Gabapentinoids and Postsurgical Pain: Safe and Effective?

### To the Editor:

The recent review on perioperative gabapentinoids by Schmidt *et al.*<sup>1</sup> shows several inconsistencies with the findings of the literature they review. The authors claim that "gabapentinoids are generally very well tolerated," an assertion contradicted by even the most enthusiastic of the three old meta-analyses they cite, where there was a threefold increase in sedation or drowsiness<sup>2</sup>; they also fail to report accurately the findings of a more recent analysis in saying "gabapentin is effective in already established acute postoperative pain even when dosed solely postoperatively."<sup>3</sup> This Cochrane analysis actually says "... but the NNT of 11 for at least 50% pain relief over 6 hours with gabapentin 250 mg is of limited clinical value and inferior to commonly used analgesics." The overall tenor of the review is that gabapentin is substantially effective, both in the management of acute postoperative pain and in the prevention of chronic postsurgical pain. Neither contention is supported by independent analyses.<sup>4\*</sup>

Given the early history of inappropriate promotion of gabapentin for off-label use for pain, it seems wise to be particularly vigilant for inconsistencies when assessing the drug's apparent benefits.

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The author declares no competing interests.

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