

with higher satisfaction scores.⁵ Because different doses of succinylcholine and rocuronium were used in this study, the authors should have clearly described how they determined the start time of the intubation procedure according to the degree of neuromuscular blockade, especially for patients receiving succinylcholine at less than 1.5 mg/kg and rocuronium at less than 1.2 mg/kg. Furthermore, we would like to know whether inadequate muscle relaxation was one reason for failed intubations at the first attempt.

Fourth, besides first-pass intubation success rate, intubation time is another concern for ED patients requiring intubation, especially patients at risks of hypoxia and aspiration.⁶ We argue that this study would have provided more useful information about the choice of 2 neuromuscular blocking drugs for ED intubation if a reasonable cutoff time had been included in the definition of first-pass intubation success rate.

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In reply:



We appreciate the authors' letter in regard to our National Emergency Airway Registry (NEAR) study comparing first-pass intubation success with rocuronium versus succinylcholine.¹ Incorporation of difficult airway characteristics is vital for observational studies such as ours, given the need to attempt to control for confounding when testing for associations. We agree that the look, evaluate, Mallampati, obstruction, neck mobility (LEMON) construct is useful for highlighting to clinicians and researchers alike those patient features likely to portend a difficult airway. In regard to the authors' point that none of these individual characteristics have sufficiently high predictive value to warrant use in isolation, NEAR collects variables on all of the individual components of LEMON, and we incorporated each of these characteristics into our analysis. It is unclear whether an alternative approach using a score strictly based on the 2005 article by Reed et al that is referenced by the authors would have yielded significantly different results. Nevertheless, until LEMON undergoes more robust validation in emergency department (ED) settings, we believe alternative approaches such as ours that still conceptually account for the same difficult airway markers remain reasonable analytic strategies.

Intubator experience also plays a critically important role in intubation success. NEAR captures intubator experience as an ordinal variable related to operator level of training: emergency physician postgraduate years 1, 2, 3, and 4; fellow; attending physician; or other (nonemergency) physician.^{2,3} We believe this variable provides a reasonable surrogate marker of each intubator's level of airway management experience. Although a more nuanced variable such as numbers of previous intubations may provide a better measure of intubation skill, we believed such self-reported numbers would be unreliable for a registry study. It would require capturing individual metrics for each intubator, and although this might be possible in a single-center study, it would be a significant logistic hurdle in a registry of this size.

In regard to medication administration times, we agree that these data would have been a welcome addition to the analysis, given the different times of paralysis onset for rocuronium versus succinylcholine.⁴ Our decision to not collect these data again reflects our concerns that collecting this information would prove overly burdensome for a registry study. Given our desire to include as many centers as possible in NEAR and to maximize the external generalizability of the registry data, many sites lack robust research infrastructure such as dedicated research assistants or video recording. Without such resources, we worry that detailed time data related to the myriad events composing

an intubation would be unreliable. Intubation encounters with earlier or more complete relaxation based on paralytic agent used might translate to differences in adverse events or first-pass success. In response to the particular situation brought up by the authors, an intubation undertaken after challenging or incomplete preoxygenation would possibly result in a higher rate of desaturation and multiple attempts in patients experiencing a slower onset of acceptable intubating conditions. The fact that we observed no such differences leads us to believe that most ED clinicians are facile with these medications or the differences in onset are clinically insignificant.

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Framing and Anchoring—In Journals and in Medicine



To the Editor:

It was a pleasure to read the piece by Callahan et al¹ on how reviewer scores affect editor decisions. We know from their previous work that there is incongruity in how editors rate reviewers and how much they ultimately agree with them on article decisions.² In this new study, the authors attempt to objectify how much of a change in score is needed to change the ultimate decision to accept or reject an article.

As the authors mention, negativity bias seems to play a role, leading to a tighter threshold for rejection compared with acceptance. They mention the importance of how to frame a question; indeed, Tversky and Kahneman³ performed groundbreaking work on the psychology of decisionmaking and showed with multiple elegant experiments that simply how a question is framed can significantly alter responses. With that in mind, it may not be just negativity bias playing a role but also the actual structure of the numbers themselves. For example, consider the inverse rubric in which 1 is a really strong score and 5 a really poor score (ie, going from a 4 to a 3.8 would make an editor more likely to accept and vice versa more likely to reject). It is possible that in this case, there would be a *positivity* bias; namely, it may be that the psychology of seeing the number 3 itself in almost all scenarios (3.2, 3.4, etc) plays a significant role and that the number 4 is another “threshold” just by virtue of being a different character. Indeed, when it comes to the importance of seeing a number, the aforementioned Nobel Prize–winning economists have shown that people assign very different values when they are asked to estimate a median value compared to when they are asked to estimate a 90% interval *around* a value—all due to the framing of the question and anchoring on the first number seen.⁴

We see this with medical decisionmaking as well. In our recent article, we showed that *how* a gestalt estimate of probability of pulmonary embolism is framed to the provider significantly affects the provider's response.⁵ In theory, a patient who is assigned a gestalt pretest probability of greater than 40% for pulmonary embolism should usually be assigned a positive subjective Wells score (pulmonary embolism as or most likely) *and* vice versa. Yet we found that patients assigned a pretest probability of greater than 40% were significantly more likely to also have a positive subjective Wells score than those with a positive