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In Response

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We thank Tsai et al[1] for their interest and comments on our recent review outlining the perioperative care of transgender patients.[2] Tsai et al[1] maintain that there is a drug–drug interaction between medications used in transgender hormone therapy and both succinylcholine and sugammadex. Their comments highlight one of the core problems in transgender health, a lack of evidence-based care. While we extrapolate probable effects and side effects from data on cisgender people, institutional research agendas often overlook transgender people. These factors can create the illusion of knowledge that is, in fact, misinformation. The goal of our article, "The Perioperative Care of Transgender Patients," is to raise awareness, educate, and highlight perioperative issues that are specific and unique to this patient population.

While we appreciate the valid point that estrogen compounds can in rare instances decrease pseudocholinesterase activity and lead to prolonged muscle paralysis from succinylcholine, this clinical scenario is not specific to transgender patients. This important pharmacological knowledge should be carefully considered by an anesthesiologist during the perioperative care of all patients. We concede that a more accurate statement would include the important qualifier "clinically significant," that is, "there are no clinically significant drug-drug interactions among estrogens…" The 50-year-old reference cited by the authors highlights the well-known impact of estrogen on pseudocholinesterase activity. Nevertheless, it is not routine to alter succinylcholine doses in patients simply because they are receiving oral contraceptives. If we accept that succinylcholine dosing should be driven by pseudocholinesterase activity changes alone, then we must alter our succinylcholine dose for exhaustive subsets of patients, such as women when they enter menopause given the equally important impact of menopause on pseudocholinesterase levels.[3]

Similarly, we acknowledge that sugammadex may have drug interactions with hormonal contraceptives that potentially affect the efficacy of these drugs.[4] It is important to note that patients receiving several forms of antihistamines, antibiotics, anticonvulsants, and antiemetics are at similar risk, and management recommendations are tendentious.[5,6] Because of the short half-life of sugammadex and the continuous use of estrogens to

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promote feminization over the course of years in transgender women, this interaction will not significantly alter the course of feminizing hormone therapy for a transgender woman.

The authors would like to emphasize that the optimal care of transgender patients necessitates a multidisciplinary approach with open channels of communication between patient and all providers. As stated in our article, the decision to withhold hormone therapy —or its corollary—assumes the risk of a missed dose of estrogen in the perioperative period is made by the endocrinologist and surgeon. It is imperative that information on hormone regimens of transgender patients is effectively conveyed to the anesthesiologist to ensure that the appropriate clinical decisions are made during the perioperative period.

In conclusion, we commend Tsai et al[1] for the thought-provoking dialogue. To avoid doing harm to an already vulnerable population, Tsai et al[1] are absolutely correct: we must all remain vigilant.

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