Background and Aims Calculating local anesthetic (LA) dosing is essential to decrease the risk of Local Anesthetic Systemic Toxicity (LAST). Determining the maximum allowable dose in individual patients is challenging, particularly when nerve blocks are used in combination with intraoperative local infiltration anesthesia (LIA) by surgeons. We polled anesthesia practitioners on their methods to estimate the maximum allowable LA dose and how they factor-in the administration of LA by the surgeon in addition to regional anesthesia.

Methods A survey on the methods to determine the maximum allowable LA dose was sent to 82,820 NYSORA newsletter subscribers. The survey comprised questions on the methods of LA dose calculation, questions on LA mixtures, and questions on ultrasound guidance (Appendix 1).

Results Of the 82,820 survey recipients, 461 (0.6%) replied. Over half of the responders (52%) witnessed LAST at least once in their practice. Nevertheless, 26.5% indicated that they do not routinely factor-in additional doses of LIA by surgeons. Forty percent reported that there is insufficient communication with surgeons to estimate the maximum allowable dose of LA, with 71% of responders expressing concern that this may increase the risk of LAST.

Conclusions Over half of the respondents observed LAST at least once, suggesting that the risk of LAST continues to threaten patient safety. Not routinely calculating the maximum dose, including the additional intraoperative LIA by surgeons, may increase the risk for LAST. Developing a tool to determine the maximum allowable dose for multiple LA administrations (i.e., regeneration rate) in individual patients may be beneficial to patient safety.