



eTABLE Linear mixed model

The primary endpoint is expressed as the difference in SRS score per patient between the two neuromuscular relaxation regimes. In addition to the primary analysis, we explored the possible influence of repeated SRS scores during surgery for each patient by comparing the simple linear regression model for the two regimes and the SRS outcome (Basic Model) with a linear mixed model (LMM) that includes random effects for each patient (repeated measures).

Basic model: $\text{SRS-score} \sim \text{regime} + \varepsilon$

LMM: $\text{SRS-score} \sim \text{regime} + (1|\text{patient}) + \varepsilon$

Both models were compared using the Akaike Information Criterion (AIC) by the ANOVA test.

The effect (95% CI) of the treatment groups on the SRS outcome is not significant ($p=0.31$) calculated by the basic model: $\beta = -0.06$ (-0.17 to 0.06). Using the random effects model the effect of the treatment groups was also not significant ($\beta = -0.09$ (-0.33 to 0.15); $p=0.47$).

The ANOVA test shows that the AIC from the LMM model was significantly lower than the basic model, 1515 vs. 1690, p value <0.0001 . Although this reveals that the LMM has a better fit, the effects remain the same. We conclude that the LMM does not reveal a hidden effect that might have been obscured by analyzing the primary outcome on a single representative patient SRS level (median SRS or minimal SRS per patient).