

## **STATISTICAL ANALYSIS**

Demographic and clinical characteristics were summarized with descriptive statistics. Time to ASM administration was described using time-to-event analysis. Time was censored at hospital arrival and at 60 minutes from seizure onset (only a few outliers after this timeframe). We used the Gehan-Breslow-Wilcoxon test to compare Kaplan-Meier (KM) curves since this test is more sensitive to early differences. There were no major departures from the proportional hazards assumption. We used a multivariable Cox proportional hazards regression model to analyze multiple variables for time to treatment. Variables were selected following clinical rationale. Collinearity checks ensured a lack of collinearity or multicollinearity among the variables clinically selected. Times were calculated from clinical seizure onset. Continuous variables were presented as median (25th–75th percentile [ $p_{25}$ – $p_{75}$ ]). By convention, a two-tailed  $\alpha$  level was set at 0.05 to denote statistical significance. All statistical analyses were performed with R (version 3.4.1), R Studio, and the packages gmodels, gdata, survival, alluvial, survminer, dplyr, and performance. The e-File1\_R\_code contains all statistical analyses and results ([https://github.com/MartaAmengualGual/Prehospitalmanagement\\_EMS](https://github.com/MartaAmengualGual/Prehospitalmanagement_EMS)).