



Figure S7: Age induced-change of (A) bispectral index (BIS), (B) BetaRatio, and spectral entropy for (C) the 0.8-32 Hz and (D) the 1.1-32 Hz range.

- A) BIS values increased with age ($p < 0.001$, t -statistic 3.84) and age had a “poor” but significant ($p = 0.026$, $AUC = 0.65 [0.52 0.76]$) effect as depicted in Y25 vs. O25 boxplot.
- B) The beta ratio as subparameter of the BIS increased ($p < 0.001$, t -statistic: 5.00) with age. Age had a “fair” and significant ($p < 0.001$, $AUC = 0.73 [0.63 0.82]$) effect on beta ratio as depicted in Y25 vs. O25 boxplot.
- C) Spectral entropy for the 1.1-32 Hz range as proxy for the state entropy index from the Entropy Module increased ($p < 0.001$, t -statistic: 5.81) with age. Age had a “fair” to “good” and significant ($p < 0.001$, $AUC = 0.79 [0.70 0.87]$) effect as depicted in the youngest 25% Y25 vs. the oldest 25% O25 boxplot.
- D) Spectral entropy for the 0.8-32 Hz range as proxy for the state entropy index from the did not show a significant influence of age on spectral entropy ($p = 0.433$, t -statistic: 0.79) with age. Age no effect ($p = 0.201$, $AUC = 0.58 [0.47 0.68]$) effect as depicted in Y25 vs. O25 boxplot.

In the regression plots, the yellow dots present the single patients and the blue line the linear fit.

Y25: youngest 25% O25: oldest 25%; yr: year