**Skeletal muscle composition predicts outcome in critically ill patients**

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**Supplemental Patient and Methods**

## Measurement laboratory parameters

Standard laboratory markers were measured in the laboratory centre for blood analyses at University Hospital RWTH Aachen. Standard haematological and clinical chemistry parameters were measured using the Sysmex XN9000 (Sysmex GmbH, Norderstedt, Germany) and the Cobas 8000 c701 (Hoffmann-La Roche AG, Basel, Switzerland).

**Statistics**

Shapiro-Wilk test was performed to test for normal distribution of data. Mann-Whitney-U-Test and Kruskal-Wallis-Test were used to compare non-parametric data between two and more groups, respectively. ROC curves were generated by plotting sensitivity against 1-specificity. The predictive value of the L3SMI and the MMA with respect to 180-days- and 1-year-survival was further tested in binary logistic regression model. ICU mortality was defined as death on ICU; overall survival (OS) included death on the ICU or during the observation period (after discharge from ICU and hospital). Kaplan-Meier curves were plotted to display the impact on OS. The Log-rank test was performed to test for significance. The optimal cut-off value for the identification of patients with an impaired overall survival was established using a recently published biometric software [1]. The prognostic value of variables was further tested by univariate and multivariate analysis in the Cox regression model. Parameters with p < 0.25 in univariate analysis were included into multivariate testing. The hazard ratio (HR) and the 95% confidence interval are displayed. All statistical analyses were performed with SPSS 23 (SPSS, Chicago, IL, USA) [2].

**References**

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