**SUPPLEMENTARY MATERIALS**

**Title: Early lactate clearance is associated with improved outcomes in patients with post-cardiac arrest syndrome: A prospective, multicenter observational study (SOSKANTO2012 study)**

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**Supplementary Methods for Statistical Analysis**

In order to avoid bias from missing data, we performed multiple imputations (MI) with the assumption that data were missing at random.1 MI is a Monte Carlo technique in which the missing values are imputed by stochastic and multiple simulated data by modeling with assumption of the missing at random. The MI model was based on age, sex, witness status, CPR initiated by bystander, initial shockable rhythm, cardiac etiology, airway management by EMS, AED attempted by EMS, time interval from EMS call to hospital arrival, ROSC achieved prior to hospital arrival, epinephrine usage during ACLS, therapeutic hypothermia, mechanical circulatory support, renal replacement therapy, steroids usage, anticonvulsants usage, and antipyretics usage, lactate concentration at 0 h and 6 h after hospital admission, and endpoints. This model allowed us to draw valid inferences from the imputed data in the analysis with the missing data assumption. Statistical analyses were performed using SAS 9.4 (SAS Institute, Inc., Cary, NC, USA).

Reference

1. Carpenter, J. R. and Kenward, M. G., Multiple Imputation and Its Application, New York: John Wiley & Sons, 2013

**Supplementary Figure legends**

Supplemental Figure 1. Distribution of early lactate clearance among survivors and non-survivors.

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