**Additional file 2.** Sensitivity analyses with heart diseases  
Sensitivity analyses were performed by adding heart disease into the association model building. process.

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| **Appendix B1**. Association model for 0-1 L | | |
| Variables included in the model | **OR (95% CI)** | **p-value** |
| **SBP ≤ 120 mmHg** |  |  |
| Age category | 1.01 (0.41 – 2.49) | 0.977 |
| PI-SCORE | 1.10 (0.93 – 1.31) | 0.268 |
| DNR-status | 2.61 (1.07 – 6.36) | 0.034 |
| MICU admission | 3.36 (1.20 – 9.46) | 0.022 |
| RO-score | 1.16 (1.03 – 1.30) | 0.014 |
| **SBP > 120 mmHg** |  |  |
| Age category | 2.13 (1.06 – 4.25) | 0.033 |
| PI-SCORE | 1.04 (0.91 – 1.19) | 0.562 |
| DNR-status | 4.16 (2.18 – 7.96) | 0.000 |
| MICU admission | 3.97 (1.63 – 9.64) | 0.002 |
| RO-score | 1.11 (1.01 – 1.22) | 0.027 |
| For a sensitivity analysis, an association model was built taking heart diseases into the consideration. In the group of patients who received 0-1L, heart diseases had too little effect on the regression coefficient to be included into the model and so did not affect the association of concern. Abbreviations OR= odds ratios, CI= confidence interval, SBP= initial systolic blood pressure, L = liter, PI = Predisposition, Infection, RO = Response, Organ failure, DNR= Do Not Resuscitate, MICU= medium care or intensive care | | |

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| **Appendix B2**. Association model for 1-2 L | | |
| Variables included in the model | **OR (95% CI)** | **p-value** |
| **SBP ≤ 120 mmHg** |  |  |
| Age category | 0.80 (0.30 – 2.12) | 0.797 |
| PI-SCORE | 1.12 (0.92 – 1.35) | 0.256 |
| DNR-status | 8.63 (3.16 – 23.57) | 0.000 |
| MICU admission | 3.21 (1.04 – 9.91) | 0.042 |
| Heart diseases | 0.94 (0.32 – 2.83) | 0.918 |
| **SBP > 120 mmHg** |  |  |
| Age category | 0.42 (0.11 – 1.61) | 0.205 |
| PI-SCORE | 1.38 (1.05 – 1.81) | 0.022 |
| DNR-status | 3.92 (1.12 – 13.70) | 0.033 |
| MICU admission | 15.39 (4.67 – 50.75) | 0.000 |
| Heart diseases | 0.33 (0.39 – 2.84) | 0.331 |
| For a sensitivity analysis, an association model was built taking heart diseases into the consideration. In the group of patients who received 1-2L, heart diseases had enough effect on the regression coefficient to be included into the model, but had no changing effect on association of our concern.  Abbreviations OR= odds ratios, CI= confidence interval, SBP= initial systolic blood pressure, L = liter, PI = Predisposition, Infection, MICU= medium care or intensive care | | |

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| **Appendix B3.** Association model for >2 L | | |
| Variables included in the model | **OR (95% CI)** | **p-value** |
| **SBP ≤ 120 mmHg** |  |  |
| Age category | 1.71 (0.73 – 3.99) | 0.222 |
| DNR-status | 3.94 (1.54 – 10.07) | 0.004 |
| MICU admission | 5.82 (2.35 – 14.60) | 0.000 |
| **SBP > 120 mmHg** |  |  |
| Age category | 1.99 (0.55 – 7.15) | 0.293 |
| DNR-status | 2.27 (0.62 – 8.32) | 0.215 |
| MICU admission | 2.60 (0.71 – 9.49) | 0.147 |
| For a sensitivity analysis, an association model was built taking heart diseases into the consideration. In the group of patients who received >2L, heart diseases had too little effect on the regression coefficient to be included into the model and so did not affect the association of concern. Abbreviations OR= odds ratios, CI= confidence interval, SBP= initial systolic blood pressure, L = liter, MICU= medium care or intensive care | | |