Supplementary material

Appendix A: List of included studies 2
Appendix B: Additional regression results 7


75. Tokarik, M., Sjöberg, F., Balik, M., Pacfuga, I. & Broz, L. Fluid therapy LiDCO controlled trial-optimization of volume resuscitation of extensively burned patients through noninvasive continuous real-time hemodynamic monitoring LiDCO. J. Burn Care Res. 34, 537–42

Appendix B: Additional regression results

**Figure B-1.** Meta-regression analyses of the relation between RCT treatment effects on SOFA vs. mortality. RCTs in the green quadrants show agreement between SOFA and mortality effects (e.g. lower SOFA and lower mortality), while RCTs in the red quadrants show conflicting effects (lower SOFA but higher mortality or vice versa).

SOFA, Sequential Organ Failure Assessment; RCT, Randomized Controlled trial; OR, odds ratio.
Table B-1. Results of subgroup analyses

<table>
<thead>
<tr>
<th>SOFA derivative</th>
<th>No. of RCTs</th>
<th>Slope coefficient (95% CI)</th>
<th>Slope p-value</th>
<th>I² (heterogeneity)</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All RCTs (as reported in results section):</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed-day SOFA</td>
<td>58</td>
<td>0.35 (-0.04; 0.75)</td>
<td>0.081</td>
<td>12%</td>
<td>3%</td>
</tr>
<tr>
<td>Early fixed-day SOFA</td>
<td>55</td>
<td>0.38 (-0.02; 0.79)</td>
<td>0.261</td>
<td>14%</td>
<td>4%</td>
</tr>
<tr>
<td>Late fixed-day SOFA</td>
<td>32</td>
<td>0.18 (-0.30; 0.67)</td>
<td>0.458</td>
<td>13%</td>
<td>1%</td>
</tr>
<tr>
<td>Delta SOFA</td>
<td>25</td>
<td>0.70 (0.26; 1.14)</td>
<td>0.004</td>
<td>0%</td>
<td>32%</td>
</tr>
<tr>
<td>Delta fixed-day SOFA</td>
<td>18</td>
<td>0.74 (0.25; 1.23)</td>
<td>0.015</td>
<td>0%</td>
<td>35%</td>
</tr>
<tr>
<td>Delta maximum SOFA</td>
<td>7</td>
<td>0.54 (-0.43; 1.51)</td>
<td>0.458</td>
<td>0%</td>
<td>9%</td>
</tr>
<tr>
<td>Maximum SOFA</td>
<td>9</td>
<td>1.03 (-0.32; 2.39)</td>
<td>0.406</td>
<td>0%</td>
<td>36%</td>
</tr>
<tr>
<td><strong>Only RCTs with sepsis population:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed-day SOFA</td>
<td>22</td>
<td>0.45 (-0.21; 1.12)</td>
<td>0.512</td>
<td>22%</td>
<td>2%</td>
</tr>
<tr>
<td>Early fixed-day SOFA</td>
<td>21</td>
<td>0.44 (-0.22; 1.11)</td>
<td>0.512</td>
<td>23%</td>
<td>1%</td>
</tr>
<tr>
<td>Late fixed-day SOFA</td>
<td>11</td>
<td>0.82 (-0.72; 2.35)</td>
<td>0.594</td>
<td>24%</td>
<td>1%</td>
</tr>
<tr>
<td>Delta SOFA</td>
<td>14</td>
<td>0.77 (0.15; 1.40)</td>
<td>0.091</td>
<td>2%</td>
<td>28%</td>
</tr>
<tr>
<td>Delta fixed-day SOFA</td>
<td>11</td>
<td>1.01 (0.23; 1.78)</td>
<td>0.064</td>
<td>5%</td>
<td>36%</td>
</tr>
<tr>
<td>Delta maximum SOFA</td>
<td>3</td>
<td>0.29 (-0.78; 1.35)</td>
<td>0.597</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Maximum SOFA</td>
<td>2</td>
<td>1.47 (-1.56; 4.52)</td>
<td>0.597</td>
<td>0%</td>
<td>90%</td>
</tr>
<tr>
<td><strong>Only the 50% of RCTs with the largest sample sizes:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed-day SOFA</td>
<td>28</td>
<td>0.15 (-0.36; 0.66)</td>
<td>0.564</td>
<td>23%</td>
<td>1%</td>
</tr>
<tr>
<td>Early fixed-day SOFA</td>
<td>26</td>
<td>0.19 (-0.34; 0.73)</td>
<td>0.564</td>
<td>26%</td>
<td>1%</td>
</tr>
<tr>
<td>Late fixed-day SOFA</td>
<td>17</td>
<td>-0.34 (-1.05; 0.37)</td>
<td>0.564</td>
<td>20%</td>
<td>0%</td>
</tr>
<tr>
<td>Delta SOFA</td>
<td>13</td>
<td>0.71 (0.16; 1.25)</td>
<td>0.076</td>
<td>0%</td>
<td>34%</td>
</tr>
<tr>
<td>Delta fixed-day SOFA</td>
<td>10</td>
<td>0.66 (0.09; 1.23)</td>
<td>0.131</td>
<td>0%</td>
<td>33%</td>
</tr>
<tr>
<td>Delta maximum SOFA</td>
<td>3</td>
<td>1.26 (-0.76; 3.29)</td>
<td>0.564</td>
<td>0%</td>
<td>23%</td>
</tr>
<tr>
<td>Maximum SOFA</td>
<td>6</td>
<td>0.77 (-0.71; 2.25)</td>
<td>0.564</td>
<td>0%</td>
<td>43%</td>
</tr>
<tr>
<td><strong>Only RCTs with a Jadad scale of 3 or more (out of 5):</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed-day SOFA</td>
<td>34</td>
<td>0.22 (-0.36; 0.84)</td>
<td>0.668</td>
<td>21%</td>
<td>0%</td>
</tr>
<tr>
<td>Early fixed-day SOFA</td>
<td>33</td>
<td>0.23 (-0.41; 0.87)</td>
<td>0.668</td>
<td>24%</td>
<td>0%</td>
</tr>
<tr>
<td>Late fixed-day SOFA</td>
<td>18</td>
<td>-0.16 (-0.91; 0.58)</td>
<td>0.668</td>
<td>21%</td>
<td>1%</td>
</tr>
<tr>
<td>Delta SOFA</td>
<td>17</td>
<td>0.78 (0.26; 1.29)</td>
<td>0.023</td>
<td>0%</td>
<td>36%</td>
</tr>
<tr>
<td>Delta fixed-day SOFA</td>
<td>11</td>
<td>0.74 (0.19; 1.29)</td>
<td>0.049</td>
<td>0%</td>
<td>37%</td>
</tr>
<tr>
<td>Delta maximum SOFA</td>
<td>6</td>
<td>1.02 (-0.49; 2.55)</td>
<td>0.644</td>
<td>0%</td>
<td>19%</td>
</tr>
<tr>
<td>Maximum SOFA</td>
<td>9</td>
<td>1.03 (-0.32; 2.39)</td>
<td>0.542</td>
<td>0%</td>
<td>36%</td>
</tr>
</tbody>
</table>

SOFA, Sequential Organ Failure Assessment; RCT, Randomized Controlled Trial.