**SUPPLEMENTAL DATA**

**Morbidity and Mortality of Crystalloids compared to Colloids in critically ill Surgical Patients: A Subgroup Analysis of a randomized Trial.**

Heming, Nicholas MD, PhD1,2; Lamothe, Laure MD1,2; Jaber, Samir MD, PhD3; Trouillet, Jean Louis MD4; Martin, Claude MD, PhD5; Chevret, Sylvie MD, PhD6; Annane, Djillali MD, PhD1,2

1 General intensive care unit, Raymond Poincaré Hospital, Garches, France

2 U1173 Lab Inflammation& Infection, University of Versailles SQY-Paris Saclay - INSERM, Montigny-le-Bretonneux, France.

3 Department of Anesthesiology and Critical Care Medicine B (DAR B), Saint Eloi Hospital, Montpellier, France

4 Intensive Care Unit, Institute of Cardiology, Pitié Salpêtrière Hospital, Paris, France

5 Anaesthesiology-Emergency-Intensive Care Unit Department, AP-HM Hôpital Nord, Marseille, France

6 Biostatistical unit, Saint Louis Hospital, Paris, France

Supplemental Table 1. Additional baseline characteristics

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | Colloids  N=385 | | Crystalloids  N=356 | |
| Glasgow coma score |  | 371 | 13 [4;15] | 343 | 13 [5;15] |
| Urinary output (ml/hour) |  | 349 | 40 [20;80] | 328 | 40 [20;71] |
| Capillary refilling time (sec) |  | 109 | 3 [2;4] | 110 | 2 [1;4] |
| Dizziness- no./total no. (%) | No | 33 | 29.5 % | 26 | 25% |
|  | Yes | 79 | 70.5 % | 78 | 75% |
|  | NA | 273 |  | 252 |  |
| Headache - no./total no. (%) | No | 102 | 98.1 % | 91 | 89.2 % |
|  | Yes | 2 | 1.9 % | 11 | 10.8 % |
|  | NA | 281 |  | 254 |  |
| Thirst - no./total no. (%) | No | 47 | 44.3 % | 38 | 39.2 % |
|  | Yes | 59 | 55.7 % | 59 | 60.8 % |
|  | NA | 279 |  | 259 |  |
| Delirium - no./total no. (%) | No | 108 | 75% | 74 | 59.2 % |
|  | Yes | 36 | 25% | 51 | 40.8 % |
|  | NA | 241 |  | 231 |  |
| Orthostatic hypotension - no./total no. (%) | No | 25 | 86.2 % | 25 | 100% |
|  | Yes | 4 | 13.8 % | 0 | 0% |
|  | NA | 356 |  | 331 |  |
| Systolic blood pressure (mmHg) |  | 368 | 92 [80;110] | 347 | 95 [81;110] |
| Diastolic blood pressure (mmHg) |  | 365 | 50 [43;61] | 343 | 51 [45;60] |
| Heart rate (beats per minute) |  | 367 | 103 [89;121] | 345 | 108 [89;122] |
| Central venous pressure (mmHg) |  | 91 | 8 [5;11] | 86 | 8 [5;12] |
| Pulmonary systolic blood pressure (mmHg) |  | 15 | 31 [24;39] | 19 | 28 [25;34] |
| Pulmonary diastolic blood pressure (mmHg) |  | 15 | 16 [11;21] | 20 | 17 [13;20] |
| Pulmonary mean blood pressure (mmHg) |  | 24 | 18 [17;26] | 27 | 20 [16;24] |
| Pulmonary capillary blood pressure (mmHg) |  | 12 | 12 [8;14] | 11 | 8 [7;11] |
| Right atrial pressure (mmHg) |  | 23 | 9 [6;12] | 21 | 8 [5;9] |
| Cardiac index (L/min/m2) |  | 19 | 2.3 [1.95;3] | 23 | 2.5 [2.05;3.2] |
| Serum sodium (mmol/L) |  | 370 | 138 [135;141] | 345 | 138 [135;141] |
| Urinary sodium (mmol/L) |  | 185 | 53 [22;90] | 168 | 50 [26;91] |
| Protein levels (g/L) |  | 355 | 45 [37;54] | 327 | 46 [38;53] |
| Albumin levels (g/L) |  | 281 | 21 [17;26.7] | 253 | 21 [16.7;25] |
| Hematocrit (%) |  | 360 | 32 [28;37] | 335 | 32 [27;37] |
| Urinary urea nitrogen (mmol/L) |  | 166 | 7 [3.8;12] | 152 | 7 [4;11.9] |
| Urinary creatinine levels (μmol/L) |  | 170 | 338 [146;541] | 165 | 328 [192;552] |
| Lactate levels (mmol/L) |  | 333 | 2.4 [1.4;3.8] | 315 | 2.6 [1.5;4.5] |
| Arterial pH |  | 342 | 7.35 [7.29;7.41] | 322 | 7.33 [7.26;7.4] |

Continuous data are expressed as median and [interquartile range], and categorical variables as percentage. NA means not assessable

Supplemental Table 2. Daily packed red blood cell transfusion (units)

|  |  |  |
| --- | --- | --- |
|  | Colloid arm  n = 385 | Crystalloid arm  n = 356 |
| Day 1 | 2 [2;3] (n=82) | 2 [2;3] (n=69) |
| Day 2 | 2 [2;3] (n=49) | 2 [2;3] (n=35) |
| Day 3 | 2 [2;2] (n=49) | 2 [2;2] (n=31) |
| Day 4 | 2 [1;2] (n=29) | 2 [2;2] (n=23) |
| Day 5 | 2 [2;2] (n=15) | 2 [2;2] (n=12) |
| Day 6 | 2 [1;2] (n=15) | 2 [2;2] (n=14) |
| Day 7 | 2 [2;3] (n=9) | 2 [2;2] (n=14) |

Data are expressed as median and [interquartile range]

Supplemental Table 3. Daily haematocrit (%)

|  |  |  |
| --- | --- | --- |
|  | Colloid arm  n = 385 | Crystalloid arm  n = 356 |
| Day 1 | 31 [28;36] (n=366) | 32 [28;37] (n=336) |
| Day 2 | 30 [27;34] (n=340) | 31 [28;35] (n=313) |
| Day 3 | 29 [26;32] (n=293) | 29 [26;32] (n=277) |
| Day 4 | 29 [26;32] (n=266) | 29 [25;32] (n=250) |
| Day 5 | 29 [26;31] (n=235) | 29 [26;32] (n=227) |
| Day 6 | 29 [26;32] (n=202) | 29 [26;32] (n=206) |
| Day 7 | 29 [26;32] (n=182) | 29 [26;32] (n=186) |

Data are expressed as median and [interquartile range]

Supplemental Table 4. Daily platelet transfusion (units)

|  |  |  |
| --- | --- | --- |
|  | Colloid arm  n = 385 | Crystalloid arm  n = 356 |
| Day 1 | 1 [1;3.5] (n=15) | 1 [1;3] (n=12) |
| Day 2 | 1 [1;1.25] (n=8) | 1 [1;2] (n=10) |
| Day 3 | 1 [1;1] (n=5) | 2 [1;7] (n=9) |
| Day 4 | 1 [1;1] (n=7) | 1 [1;2] (n=10) |
| Day 5 | 1 [1;1.25] (n=4) | 3 [1;5.25] (n=4) |
| Day 6 | 1 [1;1] (n=5) | 5 [3;7] (n=2) |
| Day 7 | 1 [1;1] (n=1) | 5 [3;7] (n=2) |

Data are expressed as median and [interquartile range]

Supplemental Table 5. Daily haematological SOFA sub-score

|  |  |  |
| --- | --- | --- |
|  | Colloid arm  n = 385 | Crystalloid arm  n = 356 |
| Day 1 | 0.56 [0;4] (n=234) | 0.56 [0;4] (n=234) |
| Day 2 | 0.66 [0;4] (n=234) | 0.69 [0;4] (n=234) |
| Day 3 | 0.69 [0;4] (n=234) | 0.80 [0;4] (n=234) |
| Day 4 | 0.68 [0;4] (n=234) | 0.80 [0;4] (n=234) |
| Day 5 | 0.57 [0;4] (n=234) | 0.70 [0;4] (n=234) |
| Day 6 | 0.58 [0;4] (n=234) | 0.60 [0;4] (n=234) |
| Day 7 | 0.51 [0;4] (n=234) | 0.47 [0;4] (n=234) |

Data are expressed as median and [interquartile range]

Supplemental Table 6. Daily fresh frozen plasma transfusion (ml)

|  |  |  |
| --- | --- | --- |
|  | Colloid arm  n = 385 | Crystalloid arm  n = 356 |
| Day 1 | 450 [300;600] (n=38) | 400 [200;600] (n=48) |
| Day 2 | 675 [450;1030] (n=30) | 350 [175;762] (n=20) |
| Day 3 | 522 [450;700] (n=15) | 400 [287;600] (n=10) |
| Day 4 | 600 [400;600] (n=5) | 513 [400;762] (n=8) |
| Day 5 | 400 [300;425] (n=3) | 450 [226;475] (n=3) |
| Day 6 | 600 [301;850] (n=4) | 500 [500;500] (n=1) |
| Day 7 | 115 [72;157] (n=2) | 500 [500;500] (n=1) |

Data are expressed as median and [interquartile range]

Supplemental Table 7. Daily INR

|  |  |  |
| --- | --- | --- |
|  | Colloid arm  n = 385 | Crystalloid arm  n = 356 |
| Day 1 | 1.4 [1.2;1.8] (n=169) | 1.4 [1.2;1.9] (n=169) |
| Day 2 | 1.4 [1.2;1.8] (n=157) | 1.4 [1.2;1.8] (n=153) |

Data are expressed as median and [interquartile range]